INDONESIAN CASE STUDY IN

ENHR : An Essential Link to Equity in Development

(DRAFT)

Collaboration

Center for Health Services Research

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And

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I. BACKGROUND

The term 'essential national health research' or ENHR has been instrumental in helping countries developed mechanism to implement research in priority area and use research results for decision making leading to equity in development. The ENHR approaches have been used in Indonesia since 1994, especially in the use of research results for guiding the health development program in achieving the equity for the Indonesian. Therefore, it is important to see how far Indonesia has achieved the equity in development, equity in health status, equity of access to health care, and change in lifestyle several years after ENHR approaches have been carried out. Further, it is important to know whether the degree of achievement in equity differs between countries which approximately have similar level of development and to those which less advanced or more advanced in their level of development. It is also important to look at the countries' achievement in equity based on the length and the degree of seriousness in implementing ENHR strategies.

In terms of population, Indonesia is currently the world's 4th largest country. Its population is spread over five major islands and 30 small groups of islands, covering more than 17,000 individual islands. However, 64% of the population is concentrated in the island of Java, where density is nearly 700 persons per sq.km. Population growth rates have declined, due both to the country's rapid economic development and to government's family planning programs which encouraged higher rates of contraceptive use. As a result, total fertility rate declined from 6.6 children in 1991 to 2.9 in 1994. High economic growth has also led to rapid urbanization

The Indonesian population increases from 147.49 million in 1980 to 179.38 million in 1990 and to 210.43 million (projected figure) in the year 2,000. The annual population growth rate were 1.97% between 1980-1990, decreased to 1.66% between 1990-1995 and becomes 1.51% between 1995-2000. The current Total Fertility Rate (TFR) is 2,647 per women with the Crude Birth Rate (CBR) of 25 and Crude Death Rate (CDR) of 7.4 per 1,000 population

The urban rural ratio in 1980 was 22.4 to 77.6 and in 1990 was 30.9 to 69.1. The population pyramid grows toward older population, due to elderly. The life expectancy at birth based on the Indonesian Life Table (1996) are 64.46 years for males and 67.38 years for females.

The IMF's 1998 annual statistical yearbook indicates that Indonesia's health expenditure is relatively low as a percentage of public spending. The figure for Indonesia is 2.5% (1996) in comparison with Malaysia (6.3%), Thailand (8.6%) and SriLanka (6.7%), see Table 1. One can question the accuracy of some of these calculations, for example the IMF figure for health expenditure for Indonesia may excluded grants to provinces and districts for salaries. Yet the various sources over several years give a consistent picture of low health spending in Indonesia by Asian and international standards.

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Table 1. Central Government Health Expenditure as a proportion of total public spending.

Country	Year	Central Government Health Expenditure as % of Public Expenditure
Indonesia	1996	2.5
Malaysia	1997	6.3
Myanmar	1996	3.8
Nepal	1998	6.6
Philippines	1997	3.2
Sri Lanka	1997	6.7
Thailand	1997	8.6

Source: Government Finance Statistics Yearbook, IMF 1998

The proportion of the population living below the official poverty line dropped from 60% in 1970 (70 million people) to an estimated 11-13% in 1996 (25-30 million). Most of the poor live in rural areas, in some of the remote islands or upland areas, and poverty is concentrated among people who depend upon low productivity agriculture for their livelihoods. However, a large number of the poor population are still in Java. There are also many people who fall into the near poor category, who has limited access to basic health and social services. The labor force grew at 2.5% annually between 1990 and 1995.

The literacy rate for people aged 10 years or more were 42.9% in 1961; 62.77% in 1980; 78.69% in 1990 and 87.25% in 1994. The figure for females aged 10 years and above were 78.7% in 1990 (88.6% in urban and 74.1% in rural areas) and 82.9% in 1995 (91.0% in urban and 78.1% in rural areas). The school enrollment of children aged 7-12 years for elementary school also increased from 83.5% in 1980 to 91.5% in 1990 and 93.9% in 1995. The enrollment of children aged 13-15 years for secondary school is currently 72.4%. The economic crisis situation will increase the drop out rate of school children that could affect the future manpower.

Indonesia is one of the most ethnically diverse population in the world. More than 300 ethnic groups are recognized with the largest being the Javanese, who constitute 40-50 percent of the total. The largest non-indigenous group is the Chinese, who make up about 3% of the total population and live mainly in urban areas. Moslem is the dominant religion, practiced by 85% of the population. Compulsory education begins at age 6 or 7 and last for 9 years, followed by 3 years of secondary education. The diversity of the Indonesian population and geography also affects the health status and ways in providing services to the people.

II. METHODOLOGY

1. **Reviews of Documents:** The indicator of the various aspect of equity will be searched by important population subgroups as defined by geographical locations (urban, sub-urban, rural); Social Class; Income Groups; Ethnic groups and gender. Two data points, one in roughly 1990 and another around 1997, will be ascertained to document changes. The year around 1990 was selected based on the year of the release of the Commission Report. The year around 1997 has been chosen because of the expectation that a more complete data set will be available. Due to the difficulties to obtain the same community based data in 1990 and 1997. The Bangkok Meeting has agreed that there should be some flexibility in selecting the years as long as they closed to 1990 and 1997.

2. **Special Studies:** to fill important gaps, if the document are not readily available, special efforts might be taken to contact specific agencies for possible internal documents. Some specific survey for the sources of data will also be conducted, e.g. the perception of technical competencies of various types of health care facilities by different population groups. In the case of comparative study between the Philippines, Malaysia, Thailand and Indonesia, there will be some special studies related to the Gini Ratio, urban vs rural areas and between private and public health sectors.

3. **Data Bases:** The following data bases will be systematically explored:

    a International Organization: UNDP, HDR (Human Development Report), WHO, WB, USAID through contacts with country representatives

    b National: Ministry of Health, Ministry of Education, Central Bureau of Statistics, National Planning and Development Board, Local Government Data Base.

    c Compilation of national and provincial information, both published and unpublished reports.

    d National Research Data Base: National Research Council, ENHR Focal Point Data Base, Research Institution Report, National Household Health Survey (NHHS), National Social Economic Survey (NSES), Demographic Health Survey (DHS), International Family Life Survey (IFLS), and so on.

    e Special studies on equity by some independent experts

III. FINDINGS

A. General

1. Indicators for Monitoring Equity

1.1. Health Indicators by population groups

In general, the data shown that there are significant improvement of Life Expectancy at birth both for males and females. The total Life Expectancy (males and females) in 1990 was 61.49, became 63.9 in 1996. Furthermore, mortality rates as another health indicator can be categorized by population group; seem to be better-off in 1997 compared to that of 1990. Community-based data of Indonesian Demographic and Health Survey (IDHS) 1991 and 1997 showed that Infant Mortality Rate was reduced by 12 per thousand live births. Similarly to Maternal Mortality Rate, finding of National Household and Health Survey (NHHS) 1992 and 1995, it has been reduced from 425 to 373 per hundred-thousand live births. Perinatal Mortality Rate, unfortunately, has only data of 1990 (a case study of Ujung Berung, West Java) which revealed 181.1. In addition, a program-based of Under-five Mortality Rate has shown a declination from 81 in 1993 to 59 in 1997. There is a limited information about mortality rate of population over 55, however, NHHS 1992 shown that it was 39% of total death.

1.2. Disease specific Morbidity

The prevalence of communicable diseases such as ARI, Pneumonia, and Tuberculoses seem to be stable, except diarrhea which has been reduced from 37 (HHS'92) to 23 (HHS'95). In addition, the prevalence of STD's and HIV/AIDS have been reduced, although the cumulative number of cases of HIV/AIDS is greatly increasing.

Children under 5 years old are the very susceptible to nutrition and health condition among other age groups. Many surveys on children nutritional status have been conducted in Indonesia, i.e. Xerophthalmia Survey in 1977-78 and Anthropometric surveys as apart from National Socio-economic Survey in 1986,1989, 1992, and 1995. The surveys revealed that the prevalence of underweight seems to be reduced from 1978 to 1989, but there climbed up again towards the year 1995. This condition is consistently happened in both sexes, among provinces and urban-rural sites. Unfortunately, since Indonesia has facing problem of monetary crisis, starting in the middle of 1997, this prevalence has increased and even worse than before. Below are trends of nutritional status of both moderate-severe underweight and stunting of children under five years old.

Table 2 . Prevalence of Moderate-severe underweight (<70% median WHO-NCHS, W/A)

YEAR	MALE	FEMALE	M+F
1978	19.4	18.5	
1986	16.2	10.8	13.9
1989	13.6	9.0	11.5
1992	14.1	9.5	
1995	16.0	13.2	14.6

1998[*]			

Furthermore, micro-nutrient malnutrition such as Iodine and Vitamin A deficiency occurred in rural and urban areas. Data on accident that presented here was based on information of road accident which explained that the improvement was related to the helmet policy and the operation of alcohol drunk driver regulation. As a result, the accident rate in 1990 which was 11.6 was reduced to 10 in 1997.

2.   Health sector indicators

2.1.   Access, coverage and facilities

Data regarding to access to health care is quite limited. However, two sets of data have been extracted to show percentage of population with access to health care. In one hand, NHHS 1992 shown that about 72.3% of the community have access to health care or health facilities; on the other hand, NSES 1998 revealed a smaller number of 62.99.

Coverage of immunization shows explicitly the output of health services. Of that, it has been increased almost twice between 1990-1997 (IDHS). More specific data showed that coverage of BCG, DPT-1, OPV-3, Measles, Tuberculoses as well as antenatal care has been highly achieved (more than 90%).

At the input side, health facilities, human resources as well as health financing could be assessed and compared between 1990 and 1997. The number of either hospital or primary health care facilities was increasing as well as the number of beds. However, the ratio (number of bed over 100,000 population) seems to be a little bit declining. Other facilities such as drugstores and community health center has a remarkably increase due to a better economic condition.
(See annexes)

2.2.   Equity in financial and human resources

a.   Finance by group

As can be seen in attachment on equity in financial and human resources; in financial resources which are breakdown into 5 items shows that there is no data available in 1990 for per capita health care expenditure and capita subsidy for low income population. In fact, the amount in 1997 was about Rp.10.000.- or USD 1.5. – per capita.

Based on INPRES (Presidential Instruction) budget per capita subsidy for special facilities was increased from Rp. 455 in 1990 to Rp. 813 in 1996. In 1990 per capita subsidy for services such as immunization, ante natal care, mother and child health, family planning, and emergency care was Rp. 1,438 unfortunately, there are no data available for 1997. In 1990 per capita expenditure by social insurance was Rp.18, 308 (labor insurance version) and Rp. 9,088 (health insurance version) and in 1998 was Rp. 20,366 (labor insurance) and Rp. 16,465 (health insurance). There is no data available for per capita expenditure by voluntary insurance groups.

Statistics of human resources for health per 100,000. For physicians in 1990 was 8.59 and in 1996 was 10.73. A percentage of physician in private sector in 1990 was 4 and in 1997 was 18. For percentage in dual sector 96 and in 1997 was down to 82.

For nurses in 1990 was 25.9 per 100.000 and in **1999** was 39. In 1990 a percentage nurses in private sector was 11 and 14 in 1996. A percentage of nurses in private sector **was 89** and in 1997 was 86. There is no data available for percentage of nurses in dual sector.

For pharmacist in **1990** was 1.05 and in **1990** was 3.59. Percentage of pharmacist in private sector in 1990 was 49 and in 1997 50. Percentage of pharmacist in dual sector 90 and in 1997 was 91.2 per 100.000.

For nurse practitioners in 1990 was 25.9 and in 1997 was 39. In 1990 percentage for nurses' practitioners in private sectors was 11 and in 1997 was 14 per 100.000. Percentage nurse in public sector was 89 in 1990 and in 1997 was 86 per 100.000. There is no data available for percentage in dual sector.

3. Non-Health Sector Indicators

3.1. Population

Population growth rate by groups in 1990 was 1.98 per 100,000 and in 1997 was 1,69 per 100,000. In 1990 a percentage urban population was 30.89 and in 1997 increased to 38.2 per 100,000. Literacy rate by groups in 1990 was 81.5 and increased to 85.3 in 1997. A percentage of people who finish compulsory education by groups in 1990 was 12.9 and in 1997 decreased to 12.7. In 1990 percentage of people over poverty line was 84.92 increased to 88.68 in 1996. Percentage of people under poverty line was 15.08 and decreased in 1997 to 11.32.

3.2. Household

In 1990 the household size by population group was 4.5 and decreased to 4.3 in 1995. There is no data available for percentage of household with housing. Percentage of household with sanitation in 1990 was 18 and increased to 32.81. Percentage of household with electricity in 1990 was 47.0 and increased in 1997 to 73.59. In 1990 the percentage of household with clean water supply was 67.0 and increased to 72.24 in 1997.

4. Life Style Indicators

In 1990 the prevalence of regular smokers by relevant groups was 36.5% decreased to 31.26%. There is no data available for the prevalence of regular alcohol use by relevant groups, the prevalence of regular use of either heroine, stimulants and other narotics/drugs by relevant groups, and the prevalence of men with multiple sex partner by groups. In 1990 the prevalence of CSW in reproductive age was 230.000.

## 5.	Human Development Index

In 1990 the Human Development Index was 59.7 and increased to 67 in 1996.

## B.	Trade-Off Between Equity, Efficiency, Quality and Sustainability

## 1.	Efficiency Indicators

Comparison of the expenditures in 1990 and 1997 reflects that most of the funding was used for secondary and tertiary care

Table 3. Health Expenditure in Indonesia, 1990 and 1997

Health Expenditure	FY 1989 / 90	FY 1997 / 98
1. Expenditure on health, expressed as the percentage of GDP spent on health	1.85	1.71
* Percentage of GDP spent by Government on health on various type of services	0.58	0.5
* For PHC, Secondary care, Tertiary care	0.39	0.40
* For Preventive, Promotive, Curative, Rehabilitation.	0.10	0.13
* Percentage of GDP spent by the people either through insurance or out of pocket payment	1.26	1.13
2. Expenditure per IMR of populations group (million Rp)	Rp.51.137.5	Rp.260.756.4
3. Expenditure per life expectancy by population group (million Rp)	Rp.51.137.5	Rp.167.308.5

Table 4. Health Expenditures by Sources, 1990 and 1997

Source	FY 1989/90			FY 1997/98		
	Rupiah (Billion)	Percentage	% to GDP	Rupiah (billion)	Percentage	% to GDP
Public	1020.0	31.7	0.59	36024	33.4	0.58
Private	2201.7	68.3	1.26	7088.6	66.6	1.13
Total	3221.7	100.0	1.85	10691.0	100.0	1.71

Health expenditures in Indonesia has increased from 322.1 billion rupiah in 1990 to 10,690 billion rupiah. The figures also reflect expenditures per capita in 1990 were 18.346 rupiah, increased to

53.083 rupiah in 1997. In both years the proportion of the budget spent for curative care is the biggest part (table 5).

Tabel 5. Expenditures by Activities, 1990 and 1997

Activities	Percentage to GDP	
	1989/90	1997/98
For PHC, secondary care tertary care	0.39	0.40
For preventive, promotive, curative, rehabilita tion	0.10	0.13

The figures indicated that total health sector expenditure in Indonesia for fiscal year's (1 April – 31 March) 1989/90 is estimated at Rp. 3 221.7 billion, with Rp.1, 020.0 billions (31.7%) coming from the government sources (include foreign aids), and Rp.2, 201.7 billions (68.3%) from the private sources (individuals and other elements of the private sector, including private employers, and funds provided by parastatals either directly or through insurance programs). In the fiscal years 1997/1998, total health expenditures are estimated to be Rp.1, 069.0 billions, with Rp.3, 602.0 billions (33.4%) coming from the Government and Rp.7, 088.6 billions (66.63%) coming from the community and other private sources, all measured in terms of current (nominal) prices. During that period the government health expenditure has increased 3.5 times, community and private sector has increased 3.2 times, total has increased 3.3 times. When expenditures are converted into constant prices with a base year of 1983, however, budget outlays are seen to have slightly increased 1.1times during that period.

2.   Quality Indicators

2.1.   Perception of technical quality of public versus private service by population groups
No sufficient data on quality (especially in consumer satisfaction) in the private sectors for year 1990 and 1997. Most of the studies for policy makers in the area of service provision usually based on the data from public hospitals and health centers. Indonesia initiated a program of hospital autonomy (Unit swadana) in 1991 to encourage public hospitals to recover some of their costs. The hospitals still government-owned with a high level supervision and control by MOH and by local authorities. Under this policy, the hospitals could provide in patient private ward / VIP class and public ward (25% to 50% class III beds) Table 6 reflects the differences between satisfactory level (percentage of those who satisfy with the services) in 3 public hospitals, based on the data in public ward and private ward.

Table 6. Consumer satisfaction in 3 public hospitals

Variabel	Public Ward (% satisfy))	Private Ward (% satisfy)

Dr. Sutomo Hospital		
a. Environment & nutrition	24,11	25,86
b. Medical & non medical supplies & drugs	46	42,88
c. Nursing services	24,41	27,59
d. Doctor Services	15,00	17,45
Jombang Hospital		
a. Environment & nutrition	25,54	24,94
b. Medical & non medical supplies & drugs	30,84	39,94
c. Nursing services	27,46	27,53
d. Doctor Services	16,32	17,29
e. Services Fee	10,76	10,89
Syaiful Anwar Hospital		
a. Environment & nutrition	21,7	25,88
b. Medical & non medical supplies & drugs	27,33	42,89
c. Nursing services	24,13	27,12
d. Doctor Services	15,52	16,7
e. Services Fee	10,07	11

A study in 3 provinces (East Java, East Kalimantan, and NTB) in 1997 revealed that 64% of the patients who visited health centers to seek treatment, felt satisfy with the provision and were treated properly. But, for the cleanliness, only 35% of them satisfied.

2.2. Average waiting time of public versus private facilities by population groups

Indonesian Family Life Survey 1993 revealed that according to the users, average waiting time was 25 minutes , and vary among the provinces. In urban area, average waiting time is 32 minutes, while in rural area is 21 minutes. One might argue that quality of care in rural area is better , but this findings should be taken with caution, because demand for health services in urban and rural area is different. The urban people tend to use the private and modern facilities, while the rural people are demanding the public facilities.

2.3. Ability to choose practitioners in public and private facilities by population groups

The use of health services in urban and rural areas were as follows:

Table 7. Health services use in urban and rural areas, 1990 and 1997

Type of facility	NSES 1990 (%)		NSES 1997 (%)	
	Urban	Rural	Urban	Rural

Government Hospital	4,45	2,00	4,0	1,5
Private Hospital	3,65	0,90	3,0	0,8
Clinic	1,51	1,15	2,0	1,4
Health Center	21,94	21,67	17,5	17,7
Sub Health Center	2,92	11,87,	2,2	9,6
Integrated Health Post	0,41	0,87	0,4	1,1
Physician Practice	21,22	6,99	20,3	8,4
Midwife / paramedics	8,34	17,74	6,3	15,5
Traditional care	2,02	4,16	1,2	3,4

Indonesian Family Life Survey 1993 suggested that there was a variation on facilities chosen by the people with different socioeconomic status (table 8)

Table 8. Health Service Use by Socioeconomic Status, IFLS 1993

Type of Facility	Area			Socioeconomic Status		
	Urban	Rural	Total	Poor	Non Poor	Total
Government Facility						
Use	33,0	67,0	100%	39,4	60,6	100%
No Use	43,5	56,5	100%	29,9	70,1	100%
Private Facility						
Use	46,6	53,4	100%	24,7	75,3	100%
No Use	30,9	69,1	100%	43,1	56,9	100%
Traditional Facility						
Use	24,0	76,0	100%	47,0	53,0	100%
No Use	40,0	60,0	100%	33,3	66,7	100%

3. Affordability Indicators

3.1. Subsidy

A study in 3 provinces (West Sumatera, East Java, and West Kalimantan) revealed that the unit cost for outpatient in public hospitals is ranging from 2000 to 5000 rupiah, while the tariff is 400 to 2000 rupiah. This means that subsidy per patient is 1600 to 4600 rupiah. The Public hospitals also provide subsidy for the (card carrying) poor, who are entitled to free services including hospital beds in the lowest grade of accommodation. The poor can use the services by using 'surat miskin' (poor certificate) or 'kartu sehat' (health card), particularly under current Social Safety Net Program (SSN) for health.
For in patient unit, the unit cost per day is 50.000 rupiah, while tariff is 2000 to 7500 rupiah per day. The subsidy per patient is 45.000 rupiah on average. For health center, subsidy varies based on the type of services provided (table 9).

Table 9. Unit cost, Tariff, and subsidy per patient in the health center

Type of service	Unit Cost (Rp)	Tariff (Rp)	Subsidy per patient (Rp)

Curative	2500	300-600	2000
MCH	2138	500-600	1500
In patient	9073	800-3000	6000-8000
Maternity	50543	7500	42.500

3.2. Social Insurance, Voluntary Insurance, and Fees-for-services

Table 10 reflects the source of fund for outpatient and inpatient . More than 80% were out of pocket.

Table 10. Source of Fund, and type of care, NSES 19

Source of Fund	Outpatient		Inpatient	
	Urban (%)	Rural (%)	Urban (%)	Rural (%)
Out-of-pocket	88,8	94,3	86,1	90,6
Askes (Civil servant Insurance)	7,5	3,2	16,8	6,3
Astek (Private)	2,0	0,6	3,6	2,8
Other Insurance	0,1	0,0	0,6	0,3
Employer	3,8	1,1	7,4	3,5
Jasa Raharja (Private Insurance)	0,0	0,0	0,5	0,3
Dana Sehat (Health funds)	0,3	0,6	0,2	0,4
Health Card	0,6	0,5	0,1	0,2
Poor Certificate	0,0	0,1	0,5	1,1
Other Sources	1,2	1,5	6,8	6,5

3. 3. Percentage of expenditures on health vs. Household expenditures

Table 11. Description of Household per capita expenditure, 1993 and 1996

Type of Expenditure	Per Capita Expenditure Per Month					
	Nominal				Riil *	
	1993		1996		1993	1996
	Rp	%	Rp	%	Rp	%

Food	24.772	56,9	38.723	55,3	18.178	20.828
Non Food:	18.793	43,1	31.339	44,7	-	-
Housing	7.973	44,4	13.230	44,7	5.148	6.791
Education	1.343	7,5	2.130	7,5	926	1.115
Health	703	3,9	1.287	4,5	511	656
Clothing	2.256	12,6	3.210	11,3	1.662	1.957
Others	5.682	31,6	8.210	30,2	-	-
Total	43.565		70.062		30.030	37.684

Source: Central Bureau of Statistic, 1997

4.   Sustainability Indicators

4.1. Number of Health Facilities

In general, total number of Government facilities has increased. A health center as the primary care services provider serves about 30,000 people living in a subdistrict and is managed by a doctor. It is supported by a network of sub-health centers and village health posts throughout the estimated 64,000 villages.

Table 12. Public Hospital by type and ownership, 1997

Ownership	General	Type Hospital			Total
		Mental	Special	#	%
Ministry of Health	15	31	14	60	5
Province Government	42	3	19	64	6
District Government	285		8	193	27
Military	111		2	113	10
State-owned-company	69			69	6
Total Public Hospitals	522	34	43	599	54
Private Sector	351	15	125	491	46
Total Hospitals	873	49	168	1090	

Source : Depkes, DG Medical Care.

About 45% of the 1,090 hospitals in Indonesia are private and about a third of that growth has been in the last 10 years. Table 13 shows the profile of private (and public) hospital development over the period 1998-97. This expansion of private sector capacity resulted from a DEPKES policy to allow investors to establish hospitals as for profit organizations. Foreign investment is restricted to facilities with over 200 beds and these are not allowed to use foreign medical doctors as resident practitioners but only as visiting consultants.

Table 13. Hospital Development 1988-97 - Public and Private :

Ownership	1998	1989	1990	1991	1992	1993	1994	1995	1996	1997
Ministry of Health	57	57	57	58	59	60	60	60	60	60
Province Government	71	72	71	70	70	63	63	64	64	64

District Government	277	275	276	276	278	287	287	289	291	193
Military	113	114	112	112	111	112	112	112	113	113
State-owned company	81	81	82	82	84	84	78	73	72	69
Total Public Hospital	599	599	598	602	602	606	600	598	600	599
Total Private Hospital	287	325	352	392	392	420	439	464	474	491
Total	886	924	959	994	994	1026	1039	1062	1074	1090
% Public	67	64	62	60	60	59	57	56	55	54
% Private	33	36	38	40	40	41	43	44	45	46

Source : DEPKES, DG Medical Care

The rapid growth has tended to be in wealthy and urban areas, and private hospitals are perceived as modern, highly specialized and equipped with the latest sophisticated technology (74% of all 'special' hospitals are private and 25% of all private hospital are listed as special whilst only 7% of all public hospitals are designated special).

4.2. Use of Health Facilities by Population Groups

The use of health facilities for out patient care

The National Socio-economic Survey 1995-1998 shows that the utilization of government health facilities is decreased. From those who has health complaint in the urban area who visited the health center decreased from 25,5% (1995) to 23,4% (1997) and even lower in 1998 which only 15.2% visited the health center to get a service. Similar trend also shown …..the rural area and other health facilities. However, those who have self treatment increased significantly from 55.1% to 62.6% in urban area and fluctuated increase in rural area from 60,4% to 63,9% then decreased 61.8%, as shown on the table 14 bellow.

Table 14. Use health facilities by population groups for out patient care :

Health Facilities	URBAN			RURAL		
	1995	1997	1998	1995	1997	1998
Health center	25.2%	23.4%	15.2%	28.5%	24.7%	15.4%
Sub Health Center	2.6%	2.9%	1.3%	14.1%	13.4%	7.1%
Private doctor/practitioner	28.6%	28.2%	19.5%	12.4%	12.5%	9.7%
Other medical practitioner	10.1%	8.7%	8.0%	20.6%	21.7%	17.1%
Government hospital	7.3%	6.7%	4.8%	3.3%	2.9%	2.1%
Private hospital	4.9%	5.0%	3.4%	1.5%	1.4%	1.0%
Clinics	3.1%	2.7%	2.5%	2.0%	1.9%	1.0%
Traditional	3.0%	2.6%	1.5%	7.8%	6.4%	3.3%
Integrated health post	0.4%	0.5%	0.3%	1.2%	1.4%	0.7%

Self medication	55.1%	58.6%	62.6%	60.4%	63.9%	61.8%

Health seeking behavior of the population are quite different between those who lived in urban and rural area. As show on the above table. Urban communities seek health service to physicaint/ medical practice, government hospital, private hospital center, while those who lived in rural area within to seek the health services to non modern services such as self treatment or traditional service and for modern services most of them prepare to visit health center, sub health centers or health or health Personal practice. These Pigure shows us marginal utilization by the population who live in Urban and rural area and high percentages of population still use their self treatment while they have health complaints.

The SUSENAS study revealed that in urban areas the people tend to use more private facilities, while in rural areas they tend to use public and traditional facilities.
In 1998, 40% of the poorest use Puskesmas/ health center when they feel sick, while 20% of the highest income level choose the private practice . The overall hospitalization rate for government hospital is 0.51%, while for private hospital is 0.38%, for puskesmas/ health center 0.11%, Maternity Hospital 0.12%, and Village Health Post 0.01%.

Table 15. Hospitalization Rate (proportion of Population), SUSENAS 1998

Type of Hospital	Sumatera	Jawa-Bali	Kalimantan	Sulawesi	Other Islands	Indonesia
Gov't Hospital	0.36%	0.55%	0.71%	0.53%	0.50%	0.51%
Privatehospital	0.34%	0.43%	0.30%	0.29%	0.20%	0.38%
Health Centers	0.09%	0.13%	0.06%	0.07%	0.20%	0.11%
Maternity H.	0.15%	0.12%	0.06%	0.05%	0.03%	0.12%
Village Post.	0.02%	0.01%	0.02%	0	0.02%	0.01%

C. SPECIFIC DESCRIPTION

1. Trends In Economic and Social Welfare:

In 1990, with total population of 179,4 million persons, Indonesia is the fourth populous country after China, India and USA. During the period of 1971-1997, the population size almost doubled, from 119.2 millions in 1971 to 201.1 millions in 1997 (Central Bureau of Statistics, 1998). About 58% of the total population of Indonesia inhabiting Java, an island with its area covers only 7% of the total land area of the country.

Economic development in Indonesia during the first phase of the long term development, the period of 1969-1993, as measured by GDP, increased on the average by 6.8 percent annually (Central Bureau of Statistics, 1996). Welfare indicators showing the improvement as follows:
- During the period 1967-1995, total fertility rates declined from 5.7 to 2.8 per woman.

- In the last 30 years (1967-1997), life expectancy increased from 45 to 66 years, while Infant Mortality Rate reduced from 145 to 43 per 1,000 live-births.
- During the period 1993-1997, percentage of births assisted by medical doctors or midwives increased from 38% to 52%.
- During the period of 1990-1997, the proportion of population attained Junior High School or higher educational level increased from 21.9% to 30.1%, while literacy rate (population aged 15 or over) increased from 60.9% to 85.3%.
- During the period of 1971-1997 the percentage of household covered by electricity increased from 6 to 19.2%
- During the period of 1970-1996 (before the crisis), the number of population under poverty line reduced from 70 million (60%) to 22 million (11.3%).

If we look at the variation across the country, the indicators show significant gaps in the state of social welfare between urban and rural areas, among provinces, between genders, or other socio-economic strata.

- In 1997, life expectancy varied among provinces, ranged from 59 years for West Nusa Tenggara to 74 years for Yogyakarta.
- In 1997, the proportion of population attained Junior High School or higher educational level was 18.8% in rural areas and 48.9% in urban areas.
- In 1997, labor force participation rate was 52.5% in urban and 61.5% in rural areas.
- In the last six years the share of household expenditure for the lowest 40% income level decreased, while Gini coefficient increased, indicating a tendency of widening income gap between the rich and the poor.

2. Situation Regarding Equity/ Inequities In Health In Indonesia:

The following discussion based on the concept of continuum process to study the equity issues:

Flow on Mapping and Monitoring Inequities

Back Ground Variables	Proximate Determinants	Health
-----------------------	-----------------------------	-------------------------------------
*Social Status	*Food	*Mortality
*Class/ Ethnic	*Sanitation and Water	*Morbidity
*Income/expenditure	*Behaviour	*Quality of Life
*Region:	*Health Seeking pattern/	* *Well Being*
KBI/KTI	Utilization	
Urban/Rural	*Living Condition	
Province	*Health Resources	
District		-------
Inequities based on	*Equity of Determinants	Equity of outcome
-Education	eg. Equity of access	
-Socioeconomic status	Equity of utilization	
-Ethnic		
-Region		

2. 1. Equity In Health Status:

During the first and second five year plan, a significant development in health care had been achieved in Indonesia. In the past years, there has been a substantial increased in health status, such as reduction of Infant Mortality Rate (IMR) from 108 (1976) to 71 (1986) per thousand live birth, although it was not representative for all provinces. In 1997, IMR was 43/1000 live birth. The lowest IMR was found in Jakarta capital city (1994: 32/1000 live birth) and the highest was in West Nusa Tenggara (1994: 110/1000 live birth).

Table 15 shows the variation of the IMR among the 27 provinces in Indonesia. Overall figure shows that the IMR tend to decrease constantly.

Table 16. Trends of IMR in 27 provinces in Indonesia

No	Province	1990	1992	1993	1995	1997[*)]
1	D.I. Aceh	58	50	49	46	34.7
2	North Sumatera	61	54	53	50	34.37
3	West Sumatera	74	59	57	53	47.35
4	Riau	65	53	51	47	31.27

5	Jambi	74	59	57	53	35.81
6	South Sumatera	71	62	61	58	31.54
7	Bengkulu	69	57	55	52	33.24
8	Lampung	69	60	59	56	31.88
9	DKI Jakarta	40	33	32	30	16.03
10	West Java	90	74	72	66	42.73
11	Central Java	63	56	55	52	27.08
12	Jogyakarta	42	38	37	36	15.53
13	East Java	64	54	52	50	49.07
14	Bali	51	42	41	38	27.76
15	West Nusa Tenggara	145	114	110	101	68.65
16	East Nusa Tenggara	77	61	59	54	47.71
17	West Kalimantan	81	68	66	62	46.75
18	Central Kalimantan	58	47	45	43	28.4
19	South Kalimantan	91	78	76	72	51
20	East Kalimantan	58	48	47	43	26.25
21	North Sulawesi	63	55	54	51	29.51
22	Central Sulawesi	92	77	75	71	59.62
23	South Sulawesi	70	58	56	53	32.25
24	South-east Sulawesi	77	64	62	59	31.48
25	Maluku	76	61	59	55	44.54
26	Irian Jaya	80	72	71	68	47.81
27	East Timor	85	67	67	60	70.02
	INDONESIA	71	60	60	55	41.44

*) *Central Bureau of Statistics, Population Projection, 1995-2005*

The reduction of morbidity and mortality rate as well as the improvement of health status as a result of a better economic condition can also be pointed out by the inclination of life expectancy at birth. As can be seen at the tables below, the figures show that the disparities for life expectancy not only occur for gender issue, but also, among provinces.

Table 17. Estimated Life Expectancy (Eo) in 1990-1997

Year	Male	Female	Male + Female
1990	59.59	63.28	61.49
1992	60.42	64.15	62.34
1993	60.79	64.54	62.72
1995	61.5	65.3	63.5
1996	61.9	65.7	63.9

1997	-	-	64.25

Table 18. Disparity for Estimated Life Expectancy among provinces, 1997

Life Expectancy (Male & Female)	Number of Provinces	Province
< 60 years	1	West Nusa Tenggara (55.07)
60 - 61 years	4	South Kalimantan, Central Sulawesi, Irian Jaya, West Java
62 – 63 years	5	West Kalimantan, South-East Sulawesi, South Sumatera, East Timor, Lampung
64 – 65 years	10	North & West Sumatera, Jambi, Bengkulu, East & Central Java, East Nusa Tenggara, North & South Sulawesi, Maluku
66 – 67 years	4	Aceh, Riau, Central & East Kalimantan
67 – 68 years	2	Yogyakarta, Bali
69 – 70 years	1	Jakarta (70.23 years)

Table 18 mentioned that the Median of Life Expectancy (64-65 years) can be seen in the most provinces. Seven provinces were categorized having better life expectancy, and ten provinces which stand under the median line of which its known belongs to the Eastern part of the nation. In summary, the later provinces has to be taken into account in emphasizing programs with regard to equity.

With regard to morbidity, it seems that there has been shifting on disease specific cause of death during the year 1986 to 1995.

Table 19. Proportion of disease specific cause of death, Household Health Survey (%)

No	NHHS 1986	%	HHS 1992	%	NHHS 1995	%
1	Tetanus Neonatorum	19.3	ARI	36	Respiratory diseases	29.5
2	Perinatal Disturbance	18.4	Diarrhea	211	PerinatalDisturbance	29.3
3	Diarrhea	15.5	Tetanus Neonatorum	9.8	Diarrhea	13.9
4	ARI	12.4	Neural diseases	5.4	Neural diseases	5.5
5	Diptheria, Pertusis And Measles	9.4	Diptheria, Pertusis And Measles	3.3	Tetanus	3.68
6	-		-		Infection & Parasite Investation	3.5

Table 20 Pattern of Diseases as Causes of IMR among regions, NHHS 1995

No	Java – Bali Region	%	Outer Java-Bali Region	%
1	Perinatal disturbance	33.5	Respiratory diseases	28.0
2	Respiratory diseases	32.1	Perinatal disturbance	26.9
3	Diarrhea	9.6	Diarrhea	16.4
4	Neural diseases	6.0	Neural disease	5.3
5	Infection and parasite Investation	4.1	Tetanus	4.5
6	Tetanus	2.3	Infection and parasite Investation	3.2
7	-	-	Diphteria, Pertusis, Measles	2.1

Table 21. Morbidity Rate (%) and Average Day of sickness, 1995 and 1997.

Health indicator	Urban		Rural		Urban and Rural	
	1995	1997	1995	1997	1995	1997
Morbidity Rate	25.3	24.9	25.4	24.1	25.4	24.4
Average duration of sickness (days)	5.5	5.2	6.2	5.8	6.0	5.6

Source: Central Bureau of Statistics, Welfare indicators, 1997

Table 20 shows that overall, no significant difference of morbidity rate and average duration of sickness between urban and rural. But, if we look at the health seeking pattern among the people, we might find out that the health service facilities chosen are varied among the provinces. Some people tend to use modern and private facilities, and some tend to use the traditional or government's facilities

Improvement of quality of life of Indonesian people as measured by Human Development Index (HDI) is shown in the table as follows:

Table 22 Human Development Index in 27 provinces …..

Province	1990	1996

Aceh	61.9	70.1
North Sumatera	67.3	71.7
West Sumatera	65.5	69.6
Riau	66.9	71.6
Jambi	65.9	70.3
South Sumatera	65.2	70.4
Bengkulu	65.7	70.7
Lampung	62.0	69.8
DKI Jakarta	73.6	77.5
West Java	63.5	69.6
Central Java	64.9	69.8
DI Yogyakarta	68.5	74.0
East Java	61.2	65.8
Bali	64.2	71.0
West Nusa Tenggara	52.4	58.9
East Nusa Tenggara	49.1	62.1
East Timor	37.4	50.3
West Kalimantan	54.2	64.7
Central Kalimantan	63.5	72.0
South Kalimantan	62.9	68.0
East Kalimantan	66.3	71.0
North Sulawesi	70.3	73.3
Central Sulawesi	62.2	67.7
South Sulawesi	62.7	67.8
Southeast Sulawesi	57.0	68.9
Maluku	64.1	69.4
Irian Jaya	49.9	61.2

Source: Central Bureau of Statistics, 1997

2.2. Equity In Accessibility

Since 1960s Indonesia has expanded public health care delivery system through government subsidies. Currently there are 7,000 health centers, 20,000 sub health centers, 251,815 integrated health posts and 6,000 mobile health centers. Through expansive health care provisions, it is expected that the people will obtain adequate access and followed by improvement of health status of the population. The health centers (PUSKESMAS) and its network are conceptualized as the front-line of health care provision for the population and serve the population in a certain catchment area (subdistrict, or kecamatan) by providing some structural services for ambulatory care. The main services (so called as

'program') are: curative care, maternal and child health, family planning, immunization, and several other activities for achieving the targets. In a catchment area, ambulatory care services are also provided by hospital outpatient department, private clinics, physician private practice/ clinics, paramedics, and traditional healers.

Tabel 23 Trends in availability of Health service facilities in Indonesia, 1990 -1995

Facilities	Year					
	1990	1991	1992	1993	1994	1995
# health center (puskesmas)	5656	5976	6224	5954	6984	7105
# sub health center (pustu)	15437	15944	18264	199977	20466	20672
# mobile clinic (pusling)	4023	4618	5285	6024	6382	6514
# integrated post (pos yandu)	244382	251815	245255	251459	257893	241839
# village drug post (POD)				8870	10611	12149
# delivery post (Polindes)				4761	8865	8865
# DanaSehat						11661
# Pos UKK						5473
# hospital:						
-Government	523	524	528	531	524	521
-Private	251	272	282	299	311	329
# hospital bed						
-Government	66259	66379	66655	66655	66908	67090
-Private	26747	28283	29370	30542	32044	33298
Ratio per 100.000 population						
-health center	3.5	3.27	3.35	3.68	3.63	3.62
-sub health center	8.6	8.72	9.82	10.56	10.63	10.42
-hospital bed	61	59.4	60.8	60.2	60.8	60.6

Source : Indonesian Health profile, 1996

2. 3. Equity in Resource Allocation

Health resource allocation /provision pattern is mainly based on total population ratio (for example, ratio of health center per 30,000 population in a subdistrict).

Table 24. Socioeconomic, health status and resource allocation Among provinces in Indonesia, 1994

PROVINCE	PDRB	Number	IMR	Drug Exp(Rp)	Ratio per 100.000 population : (000 Rp.)			
					MD	Health	Sub	Hospital

	Percapita (%)	of IDT		Inpres percapita		Center	Center	Bed
D.I. ACEH	1765.9	55.6	49	1018	7.72	5.9	19.1	47.4
SUMUT	647.8	36.1	53	737	10.05	3.3	15.9	107.3
SUMBAR	503	33.9	57	779	12.07	4.9	20.9	80
RIAU	3060.4	50.9	51	760	7.40	4	18.2	49
JAMBI	447.2	40.7	57	762	7.36	5	21.2	38.7
SUMSEL	870.9	32.3	61	771	8.43	3.8	13.4	56.9
BENGKULU	423.8	42.4	55	835	14.69	8	43.3	42
LAMPUNG	359.1	38.2	59	765	4.54	2	7.1	26.2
JAKARTA	1868	4.2	32	659	29.10	3	0	163.6
JABAR	560.9	22.7	72	704	5.91	2.6	4.6	35.5
JATENG	483.3	29.6	55	737	7.63	2.8	5.5	55.6
DI JOGYA	417.7	29.0	37	700	25.20	3.8	10.6	120.6
JATIM	579.6	24.4	52	712	8.19	2.7	6.2	51.1
BALI	670.6	17.4	41	682	19.66	3.8	16.4	96.4
NTB	274.9	55.7	110	706	5.45	3	10.6	27.1
NTT	245.5	100	59	772	5.62	6.2	20.5	44.9
KALBAR	535.1	56.4	66	796	7.82	5.2	18.4	54
KALTENG	621.4	80.7	45	1042	9.57	8.4	44	34.7
KALSEL	612.6	40.6	76	871	9.01	7.8	20.7	64.8
KALTIM	3186.1	82.9	47	816	14.71	6.6	19.5	100.2
SULUT	450.2	43.8	54	754	14.83	5.2	25.8	100
SULTENG	379.4	65.1	75	884	10.00	6.2	29.9	60
SULSEL	461.7	35.4	56	738	10.68	4.5	13.6	69.1
SULTRA	430.4	55	62	850	7.68	8.2	30.8	44.9
MALUKU	508.4	100	59	930	8.25	7.6	27.4	77.4
IRJA	772.3	100	71	1258	10.02	10.1	36	86.9
TIMTIM	220.1	100	67	990	14.19	9.6	32.6	70.1
All Prov.	711	43.1	60	747	9.38	3.3	104	60.8

Source:Indonesia Health Profile 1995 (MOH) and Number of IDT 1994 (Bappenas).

There has been a great effort in order to improve the potential access by building more facilities for Primary Health Care activities, and there might have been a great improvement on real access, or, use of health services (utilization). But, in fact, there is still inequity of access among the people across the country in Indonesia.   Jakarta, a province which represent the highest level of socioeconomic status and the highest health status across the country, has the most facilities and human resource allocation. In contrast, West Nusa Tenggara, a province in East Indonesia represents the lowest health status among the provinces and poor as well, received lower ratio per 1,000 population for health manpower and facilities (table 3). But, this figure might be biased due to the different health need of the people that is too simple to be proxies by IMR only, since we realized that factors that affect the IMR is not only health service delivery.

Table 25. Health seeking pattern among the provinces
Indonesia, 1993

Province	Government facility (%)	Private Facility (%)	Traditional Facility (%)
North Sumatera	41	55,1	10,4
West Sumatera	44	40	30
South Sumatera	59,1	34,1	13,6
Lampung	78,1	20,3	25
DKI Jakarta	32,7	69,2	2,8
West Java	52,1	51,3	1,6
Central Java	60	38,2	6,7
DI Yogyakarta	56,8	48,6	5,4
East Java	44,2	47,9	18,7
Bali	54,5	50,9	3,6
West Nusa Tenggara	60,1	18	34,4
South Kalimantan	48	40	45,8
South Sulawesi	75	23,3	3,3

Analysis based on Indonesia Family Survey data, 1993.

Furthermore, demand for modern and private health service in urban area or big city such as Jakarta tend to be higher. In some provinces, health seeking behavior of the people shows that they prefer to go to the traditional healer. Table 4 shows the variation of health seeking pattern in 10 provinces in Indonesia (Indonesian Family Life Survey/ IFLS1, a cross sectional study in 10 provinces in Indonesia, 1993). The study also revealed that socioeconomic status, geography, and insurance status, are related with equity or inequities. The demand for health services is vary among provinces. Although the study revealed the facts that generated concerns about horizontal inequity, the availability of government facilities seems has a significant correlation with increasing equity in Indonesia. However, although performance is likely to vary both geographically and over time, the general pattern is of low and falling utilization rates by the poor for most services, with subsidies tend to favor the middle classes rather than the poor (WB, 1993, Harvey 1998, IHSD 1999). The IFLS1 data revealed that of those who reported using government facilities, 67% are those who reside in rural areas. Of those who reported as never use private facilities during the period, 69% are those who reside in rural areas. Of those who reported utilized traditional care during the last four weeks, 76% are those who reside in rural areas (Nadjib, M., 1999).

People of the provinces of South Kalimantan, West Nusa Tenggara, and West Sumatera are those who are using traditional facilities more than other provinces. On the other hand, Jakarta and other provinces in Java and Bali are provinces where the people are more likely to use the private facilities. The government facilities are utilized by quite high percentage number of people in the ten provinces above, especially in Lampung and South Sulawesi. In Jakarta, the demand to government health service facilities is very low.

. A RAND study in two provinces (East Kalimantan and West Nusa Tenggara) in 1991 and 1993 also revealed that the lower income populations captured less than their proportional share of the subsidy, while the higher income groups captured a higher percentage of the subsidy.

Health sector is shown to have relatively low allocation of resources, especially when compared with other Asian countries. Comparisons indicate a low share of GDP expended overall, particularly through public expenditure. .Figures from the 1990 World Development Report indicates the public and private shares of GDP allocated for health in Indonesia and other countries. This is shown in table below

Table 26 Comparative Expenditures in the Health Sector, 1990

I. Country	Health Expenditure Per Capita US$	Health Expenditure as % of GDP		
		Total	Public	Private
Indonesia (1990)	12	2.0	0.7	1.3
India	21	6.0	1.3	4.7
Bangladesh	7	3,2	1.4	1.8
Sri Lanka	18	3.7	1.8	1.9
China	11	3.5	2.1	1.4
Philippines	14	2.0	1.0	1.0
Thailand	73	5.0	1.1	3.9
Malaysia	67	3.0	1.3	1.7
Korea	377	6.6	2.7	3.9
ASIA (excl. India and China)	61	4.5	1.8	2.7
Sub-Saharan Africa	24	4.5	2.5	2.0
Latin America	105	4.0	2.4	1.6
Middle East	77	4.1	2.4	1.7
Development Countries	1,860	9.2	5.6	3.5
World	323	8.1	4.9	3.2

Source: World Development Report, World Bank, 1993

The characteristics of health sector financing in Indonesia are complex. Funds flow into the sector from a variety of sources. The major elements include government revenue allocations by both central and local government, household payments, employers' contribution, and foreign loans and grants. The proportion of public to private expenditure is estimated to be around 65% private and 35% public. During the past five years almost no changes and no improvement of distribution of health expenditures per capita from the government and foreign assistance source to provinces are noted. Studies have indicated that there is no meaningful correlation between government expenditure at provincial level and community ability to pay..

In 1989/90 fiscal year health expenditure per capita was Rp.17, 915.00 or
 US$ 10.20. There were 12 provinces lower than national average, 4 provinces in average, and 11 provinces higher than national average. In 1994/95 it increased twofold to be Rp.35, 992.00 or

US$ 17.1. Based on health cost per capita there were 13 provinces below national level, 5 provinces almost in average, and 9 provinces above national level.

In eastern part of Indonesia the government allocated more money above national average in line with the government policy that priority of community development was in eastern part of Indonesia. However, the study showed that capacity to pay or non-government health expenditure in western part of Indonesia (several provinces) was not higher than national average, which create social equity on health expenditures. Province of Riau and South Sumatra , two rich provinces (oil and plantation), however the health expenditure per capita were the lowest due to the capacity to pay of the community was low compare with other provinces in western part of Indonesia

IV. DISCUSSIONS

A.   Equity In Health in Indonesia

Equity is a system of justice based on conscience and fairness, while equality is the state of being equal. Thus, equality basically is a part of equity. Aday noted that 'equity is present when health services are distributed on the basis of people's need for them'. Other experts stated that we might consider equal expenditure for equal need, equal utilization for equal need, equal access for equal need, equal expenditure per capita, equal health status, etc.

Trends of health status in Indonesia showed that the improvement is quite remarkable, although if we look at the expected National figure what the country meant by 'ideal standard' (gold standard) as compare to other countries still not satisfactory. Some regions could refer to a better standard, such

such DKI Jakarta, Yogyakarta, would be better to be compared with Malaysia or Singapore.
The disparity among the provinces still occurred. To encourage the region to reduce the inequities, one might argue that all factors beyond the outcome of the health sector should be considered. The best thing to plan is simply enhance them to be aware of what the people need, what are the health problems they have. This issue may be linked with the national policy on autonomy for the provinces/ districts all over Indonesia. The health planner should have a capability on developing a good plan which is local specific, as well as capability to negotiate/ advocacy skill to obtain the sufficient funding from the local government. Mapping inequities not only responsibility of the central government (monitoring and evaluation on equity among the regions), but also responsibility of the local government and local health planners to monitor and evaluate equity among the districts, subdistricts).

Equity has two aspects: horizontal equity, meaning the equal treatment of equals; and vertical equity, meaning the unequal treatment of unequals (Mc Clelland, 1991).
Aday and Andersen (1981) noted that two main themes regarding the access concept appear in the literature. Some researchers tend to equate access with characteristics of the population (family income, insurance coverage, attitudes toward medical care) or of the delivery system (the distribution and organization of manpower and facilities). 'Access' means that services are available whenever the patient needs them, and 'equitable access' occurs when services are distributed according to geography and need. Wagstaff et.al. (1993) described that health care ought to be distributed according to need and financed according to ability to pay. Gesler (1984) explained that as a measurement of 'need', illness level of the individuals or families can be pointed out and may seen as characteristics of type, severity and duration of illness.

One of the empirical analysis of equity in delivery of health care in Indonesia is based on data from 10 provinces sample size, the Indonesia Family Life Survey (IFLS) 1993. The findings based on the multivariate regression analysis in adult population with the Dependent Variable in the model is the use of health services according to need (proxied by fever symptom) during the last 4 weeks. The Explanatory Variables included are: sociodemographic factors (ability and willingness to pay, education, age, sex, marital status), insurance variable, urban-rural area, health service delivery, travel time, and waiting time. Willingness to pay, travel time, health service delivery are significantly affecting the use of health care according to need.

The study revealed that there is a significant and positive relationship between user and per capita monthly household expenditures. The rate of use health care increases as income level increases. It suggests that rich individuals (the highest quartile) use more than two times than the lowest quartile. The effect of insurance coverage is substantial to the rate of use of health services. Individuals who have health insurance coverage are likely to use more by one and half times than the no-insured group. A positive and significant correlation is evident between location of residence and use of health services. Urban has a higher rate of using formal care , and female are likely to have higher utilization rate. This trend is consistent with the findings from other data (SUSENAS, 27 provinces).

Table 27. Socioeconomic and accessibility variables, IFLS 1993

Province	ATP (Rp)	WTP (Rp)	Number of visit	Travel time (minute)	Waiting time (minute)
North Sumatera	117.589	15.098	1.68	23.75	**20.85**
West Sumatera	67.471	8.061	1.59	14.29	**28.11**
South Sumatera	38.795	1.153	1.51	10.15	**14.65**
Lampung	80.671	10.650	1.72	20.08	**29.05**
DKI Jakarta	161.427	21.837	1.32	22.80	**44.61**
West Java	116.103	13.297	1.66	22.90	**31.44**
Central Java	65.428	6.245	1.82	29.22	**34.34**
Jogyakarta	38.745	2.835	1.32	11.57	**23.33**
East Java	63.675	5.689	1.75	17.37	**17.20**
Bali	74.660	8.292	1.68	15.75	**19.00**
West Nusa Tenggara	82.621	6.240	1.53	24.46	**25.71**
South Kalimantan	71.279	8.314	2.55	7.93	**13.04**
South Sulawesi	210.895	4.223	1.53	23.36	**37.15**

Table 27 shows that waiting time and travel time to the health care are varied. Jakarta has the highest waiting time, while the health seeking pattern (table 4) in Jakarta particularly was to the modern and private facilities. Jakarta also represent the district with the most prominent infra structure and relatively high socio-economic level (ATP and WTP). Using the use of services according to need (fever symptom, or Acute Respiratory Infection) as the Dependent Variable, it seems that South Kalimantan has the highest utilization rate among the provinces, with lowest travel time and waiting time, meaning that this province has the best access. Unfortunately, it is not necessarily means that equal access for equal need has already achieved. It is mentioned above that people in South Kalimantan tend to use more traditional facilities than other provinces, even the highest among the provinces in Indonesia. So, equal access for equal need to modern facilities remain questionable.

Information on 'equal quality of care for all' is very limited. As impact of some policies that have implemented in many health providers, including policy implemented in government hospitals, it is expected that no significant differences on quality of care among the institutions, between the rich and the poor, among regions. In fact, as discussed earlier, in some areas demand for health services in rural and urban areas is different. Some would prefer to go to the private facilities, others choose to go to the public or traditional health care. Assumed that the quality of care in private facilities is better, than we would come to the conclusion that the rich would obtain more expensive and better quality of care .

Poverty is a one major factor that affect the equity of access. The criteria used by Central Bureau of Statistics (CBS) for the calculation of poor people is the fulfillment of basic minimum need i.e. 2100 calorie intake per day as well as consumption of other non-food basic necessities. In monetary term, the poverty line for urban area is Rp. 55,470/capita/month and for rural area is Rp. 41,588/capita/month. The CBS estimated that there are 22.6 millions poor people in urban area (28.8% of the total urban population) and 56.8 millions poor people in rural area (45.5% of the total rural

population). The CBS also estimated that by June 1998, one year since the crisis began in July 1997, the number of poor population has been increasing up to 79.9 millions people or 40% of the total population in Indonesia. This situation affects the health sector severely, especially the health of the poor and vulnerable (mother and child). Poverty had reduced the ability of the household to maintain their health, reduce consumption of adequate nutrition, and reduce their ability to obtain necessary medical care. On the other hand, the crisis also rising up the cost of medical services. In respond to this, the Government has intervene the crisis with emphasizing to the poor, through what so called 'health safety net program'.

B. Strategies To Reduce Inequities

A number of policies and strategies have been implemented to reduce inequities in health in Indonesia, such as:

1. The establishment of large PHC infra structures across the country, where Puskesmas and its network provide basic health services. The referral system has also been implemented. Although some studies revealed that the increasing number of the infra structures do not related with the health need and socioeconomic status, the availability of public facilities could increase the equity in most of the provinces. Targeting services to the poor have included:
   - waiving of charges for the poor for health services at government facilities (hospitals, health centers, subcenters). Charges are heavily subsidized (very cheap, but not free) for the non-poor;

   - encouragement of and support to monthly community health days (Posyandu). These are usually attended by one or more Puskesmas staff.
   - trained midwives and based them in every village to offer service to the poor
   - other outreach activities including Puskesmas Keliling (mobile health center)
   - guidelines to non-government and private sector e.g. minimum 20% of hospital beds must be allocated to the poor (class III)

2. The distribution of free health cards (Kartu Sehat) for the poor
   Started in 1994, the key positive results from the Kartu Sehat Program is that poor people's access to modern health facilities increases by decreasing the cost of health care. By having higher access at lower cost, the health status of the poor should increase. However, there have been problems in the implementation of the program. Leakage and under-coverage have occurred. There is also resistance to implementing the program in some areas because of decreased revenues for the health care providers (Gibbons, 1995). During the crisis period, the misuse of the card have been found.

3. Cross subsidy from the rich to the poor in the swadana (autonomous) hospital
   Own source revenues of autonomous hospitals increased significantly after implementation of autonomy, due to the increase of the tariff, especially the in-patient charges. Despite of significant increase of revenue, government subsidies still an important component of hospital income. However, the ratio of subsidy to total income is decreasing after implementation of the

policy. The new system of the incentives motivates the hospital staffs to perform better. Unfortunately, VIP beds in certain autonomous hospitals are still subsidized. Some studies concludes that the cross subsidy from the 'have' to the 'have not' does not happen at autonomous hospital; (Kosen, 1999). Subsidies to hospitals represent a high portion of overall subsidies, explaining why the better off, who make greater use of hospitals benefit more from subsidies than do the poor (World Bank, 1993).

Implementation of autonomous hospitals resulted in improvements in patient satisfactions. Most of the hospitals that had been converted to autonomous hospitals conducted regular surveys on patient satisfactions. A surveys in 3 hospitals revealed improvements in patients' perceptions of and satisfaction with cleanliness, medical and inpatient services, and administrative services Other study in 3 hospitals revealed that no significant patient satisfaction differences in public ward and private ward in each related autonomous hospital This findings generated the improvement of overall quality of care as well. Again, we have to read it carefully, since we realize that we have to deal with the different unit of analysis in the studies

.
4. Proposed strategy to provide more flexibility to the district level to meet their own need and targeting the poor, and using the resources to do so. Although the MOH has already introduced the concept of Integrated Health Planning and Budgeting, where it is expected that the District Health Office could formulate a comprehensive health plan based on local specific need, priority and demand, integrating top-down and bottom-up planning mechanism, the main issue remain the lack of planning knowledge, data, and commitment from inter sector approach.

5. JPKM (managed health care) system is introduced to ensure the sustainability of the resource and financial ability for the people and to ensure access to the health care, although its implementation is still very limited (mostly for civil servants). It is intended that JPKM will be cross subsidizing, both across districts (from richer to poorer) and across members. But the means by which this will take place are still under discussion.

6. Social Safety Net Program in Health (SSN) funding has been provided for this recent two years for crisis rescue. The poor (pra-sejahtera and sejahtera1 households) are eligible to receive health cards which can be used to obtain free health services. Services are offered under the following programs:
   - Basic Health Services
   - JPKM/ Health Card
   - Health Services for Pregnant Women
   - Food and Nutrition Interventions
   - Hospital Operational Costs.

   However, more information is needed on how funds are being used in practice and whether the service provision for the poor is cost-effective.

7. There are some related policies to reduce inequities, such as:
   - Health services for the poor by Non Government Organizations (NGOs)
   - Household targeting for Family Planning (BKKBN)
   - Bappenas: village and kecamatan targeting for rural development (IDT, or Inpres Desa

29

Tertinggal)
- Self-targeting through emergency food programs in some provinces

V.CONCLUSIONS AND RECOMENDATIONS

A. Conclusions.

- Referring to the trend of the health status in Indonesia, the health outcome tends to increase. However, the crisis was predicted would affect the health sector severely.
- Concerning the horizontal equity, the health status in Indonesia is varied among the provinces, which had proved that the inequities still occurred. One big problem is the lack of the data and capability of the local staff to do the research/ survey. It is very important to consider not only the met need (the user of the health facilities) in comparing the access among the provinces, but also the unmet need (those who can not afford or even never reach the modern facilities due to many factors such as education or infra structures)
- The availability of resources tends to increase, but still do not relates to the need. Provinces which are poorer and with higher need (lower health status) as well, do not received more resources/ subsidies.
- The resource allocation do not correspond with the capability of the region. The richer area still received the subsidy as much as the poor areas. Further more, the demand for the health services in the richer area tend to be the private and modern facilities, and we may conclude that the subsidies which goes to the public facilities would be better to be reallocated to other poorer areas. The public-private mix policy would be very relevant in this situation.
- Equity could be viewed as a continuum process, where the goal is equity of outcome (health status, quality of life). Proximate determinants are behavior of the population, sanitation and water, living condition, health seeking behavior, and availability of resources. And, to deal with efforts of

reducing inequities, some back ground variables should be examined, such as socioeconomic status. In Indonesia, we realize that the socio-culture varies among the areas, and to reduce the inequities this should be strongly considered in planning for the interventions.

B. Recommendations:

- To achieve the objective of improving equity across the country, mapping the inequities become a prominent and urgent step to be established, and ensure continuous periodic monitoring of country efforts on equity mapping and monitoring. It is proposed to use not only the 'facility based data' but also the 'population based data', not only comparing the met need among the provinces (disparity) but also the unmet need.
- Since the equity is concerning with the issue of a 'fair' resource allocation mechanism which would be obtained by including three variables to assess the equity: need, geography, and socio-economy, the capability in analyzing the local (health) need is very important for the planners at the provincial and the district level. Source of the data could be the primary or secondary data.
- To ensure access of the poor and needy people, geographic targeting and individual targeting are also proposed. Since the autonomy will be coming soon, it is important to consider that the district needs a health planning team, consists of public health specialists, health economists and epidemiologist/ researchers, in order to strengthen the capability of the region to negotiate with the local decision makers. The old fragmented and too centralized budget system will be substitute by the more 'local specific' (according to need) resource allocation for health sector. But, to obtain the sufficient funding from the local government, the health sector should be able to make a good and reasonable proposal.
- To make the resource allocation more optimum, the policy makers should maintain the public-private mix in health care provision, encourage the private sectors contribution, and reallocate the subsidies to pro poor and vulnerable groups.
- Since health outcome is not limited to the health sector, it is recommended that the infra structure development should be linked with the health development. It is also recommended to strengthen the community involvement and good governance
- Due to the crisis, the incidence of poverty rises rapidly. In respond to this situation, the Government has been implementing the social safety net program by distributing health cards for the poor and vulnerable groups. Targeting public subsidies through the supply side as being implemented so far has not been successfully captured by the poor as expected. Targeting subsidies through the demand side is suggested, with improvement in the distribution mechanism of the card, and identifying the eligible / entitled beneficiaries very carefully to prevent the abuse.
- To make the financing scheme more sustainable, it is very important to consider the role of the 'pre-paid' mechanism and the government to subsidize the public goods program and the poor.
- Emphasizing the role of WHO to monitor the inequities (inter countries) and propose the assistance

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APENDIX

		1990	1997	Catatan
I	**Health Indicators :**			
1	**Life Expectancy**			
	- Life expectancy at birth, Total	61.49	63.9 (96)	1998,IHP [1]
	- Life expectancy at birth, Male	59.59	61.9 (96)	
	- Life expectancy at birth, Female	63.28	65.7 (96)	
2	**Mortality rates ;**			
	- Infant mortality rate	68	46	1991 & IDHS 1997, IDHS [2]
	- Maternal mortality rate	425	373	1992 & 1995, NHS [3]
	- Under 5 mortality rate	81 (1993)	59	1994 & 1998, 1994 & 1998 IHP,
	- Perinatal mortality rate/1000 kelahiran hidup	181.1 ('89)		Case of Study [4]
3	**Death under 55 as % of total**	60.0	57.3	1992 & 1995, NHHS
4	**Disease specific morbidity rate**			
	- Ishcemic (Coronary) heart disease/1000	-	3	1995, NHHS
	-Cardiovascular disease	2.1	3.8 (1995)	1986 & 1995, IHP
	-Hypertension/1000		Java - Bali=72	
			Outer Java- Bali= 96	(SKRT '95)
	- Acute respiratory infection	21,30	23,4	1992 & 1995, NHHS
	-Pneumonia - Programe based report	46.61 (' 91)	ir = 75.81	<5 th)[5]
	- Surveillance	12.2 (' 91)	ir = 142.4	all age per 10.000 POP
	-Tuberculosis	10 surveillance	11	1995, NHS
	-COPD			
	-Diarrhoea (Including dysentry)	37	23	1992 & 1995, NIHS
	-Hepatitis B (16 prop)/10.000 pddk	13,9	3,8	H.C = Health Center Hospital
		9,1	4,2	

1 Indonesia Halth Profile

2. Indonesia Demographic and Health Survey

3. National Houshold and Health Survey

4. Case study of Maternal and Perinatal Mortalitiy by Anna Alisyahbana,1989

5. Incidence rate of undervife children over 10.000 population

		1990	1997	Catatan
-HIV/AIDS, STDs		- / 7,5	0,16 / 4,4	Ditjend PPM/PLP (a.prevalensi)-CDC MOH [6]
	sifilis / 100.000 population	7.5	1.1	1991 & 1998, IHP
	gonokok / 100.000 population	23.43	6.5	1991 & 1998, IHP
Cummulative cases of AIDS		5	152	1991 & 1998, IHP
Cummlative casess of HIV		4	447	1991 & 1998, IHP
-Malaria (parasite rate)		pr (ljb) = 4,84	pr (ljb)=4,78	1991 & 1998, IHP
-Dengue hemoohogic fever (incidence rate)		12,70	15,28	Annual Report, CDC - MOH
-Cancer		3.8	3.8	1991 & 1995, IHP
-Immunizable disease (incidence rate)				
1. Dipteri				
	difteri<1 th/10.000 population < 1 year	15,8 ('93)	1,6	1994 & 1998, IHP
	difteri1-4 th/10.000 population 1-4 year	12,6 ('93)	0,6	1994 & 1998, IHP
2. Pertusis (data RS)				
	Pertutis < 1 year / 10.000 population < 1 year	3,1 (' 93)	2,1	1994 & 1998, IHP
	Pertutis 1-4 year / 10.000 population 1-4 year	2,5 (' 93)	1.8	1994 & 1998, IHP
3. Tetanus (data RS)				
	Tetanus 5-14 year/10.000 population < 1 year	3,1 (' 93)	1,5	1994 & 1998, IHP
	Tetanus 1-4 year/10.000 population 1-4 year	0,3 (' 93)	0,1	1994 & 1998, IHP
4. Tetanus Neonatorum		0,41 (' 92)	0,28	CDC-MOH
5. Poliomyelitis		0,06 (' 91)	0,07	CDC-MOH
6. Measles				
	measles< 1 th/10.000 population< 1 year	26,7 (' 92)	5,87	Annual Report, CDC MOH
	measles1-4 year/10.000 population 1-4 year	16,5 (' 91)	3, 36	1992 & 1998, IHP
-Accident and Occupational injuries				
	Accident	11.6	10 ('95)	

6. Directorate General of Communicable Disease, Ministry of Health

		1990	1997	Catatan
5	**Nutrition (under 5 Children)**			
	-Obesity	8.6		1989 & 1998, NSES [7]
	-Protein malnutrition	51.1 (1989)	39.6 (1995)	Biro Perencanaan 1998
	Iodine deficiency	27,7	18.0	Biro Perencanaan 1998
	Vitamin A deficiency	1.3 (1987)	0.33 (1992)	Biro Perencanaan 1998
II	**Health Sector Indicators**			
1	**Access, coverage and facilities**			
	1.1 % with access to health care	14.7(urban), 58.3(rural)	62.99	Facilty rate, contact rate
		SKRT 1992	Susenas 1998	
	1.2. Coverage rate of some care			if population ase ---> tetanus
	- Imunization (all)	27.9	57	IDHS 1997 = IDHS ' 97
	BCG	94	98.01	
	DPT 1	96.7	99.31	
	DPT 3	38.4	64.9	
	OPV 3	88.9	89.5	Profil 1992 & 1998
	Measles	85.8	92.51	
	Tetanus toxiod 2 (bumil)	52.7	72.1	
	Tetanus toxiod 2 anak	46.9	69	
	Tuberculosis		99.6	
	- Antenatal Care	76.40%	92.5	IDS ' 1991 dan 1997
	- Family Planning	69.30%	76.1	IDS ' 1991 dan 1997
	- Safe delivery of MCH Program	46,14%	43.2	IDHS 1991 dan 1997
	- Ishaemic (coronary) heart disease	?	?	
	- Cardiovascular disease	2.1	3.8 ('95)	Prop.Pendeita thd seluruh pas ri - RS
	- Hypertension	?	?	

7. National Socio-economic Survey, Center Beaureu for Statistic

8. Directorate General of Medical Care, Ministry of Health

			1990	1997	Catatan
		- Acute respiratory infection	?	?	= ispa --->pneumonia
		- Tuberculosis	9 (1993)	3.65	Profil Kesehatan
					(ir yang dilaporkan ke fas kesehatan/10.000
					penduduk > 14 th)
		- Pneumonia	46.61 (91)	ir = 75.81	ir pada balita / 10.000 penduduk usia < 5 th
			12.2. ('91)	ir = 142.4	semua umur / 10.000 pddk
		- COPD			
		- Diarhoea (including dysentry)	?	?	
		- Hepatitis B	64.9 (' 92)	85.3	Biro Perencanaan 1998
		- HIV/AIDS, STDs	?	?	
		ir sifilis yang dilaporkan ke RS + Pusk.	2.22 (' 91)	1.1	ir=jml ks ri + rj +pusk/100.000 pddk
		Ir gonokok yg dilaporkan ke RS + Pusk	20 (' 91)	6.5	ir=jml ks ri + rj +pusk/100.000 pddk
		- Malaria	44.42	32.53	slide positive rate / ljb
		- Dengue hemorrhagic fever	12.73	15.28	ir
		- Prematurity	?	3.8	Profil kesehatan 1998
		- Cancer	3.8		prop.penderita thd seluruh pas ri-rs
1.3 Facilities (public & Private)/100.000					
		- Hospital or health facilities	4.8	5.4	⎫
		- No. of bed	109367	121996	⎬ Profil Kesehatan 1998
		- Ratio no of bed / 100.000 pddk	61	60.6	⎭
		- Primary health care			
		a. Puskesmas/100.000 pddk	3.2	3.35	⎫ Profil Kesehatan 1998
		b. Pustu/100.000 pddk	8.6	9.75	⎭

			1990	1997	Catatan
		- Drugstore	1.5		
		apotik	2741	5440	
		toko obat berizin	3931 (' 92)	516	
		ratio apotik/100.000 pddk	14.73 (' 92)	27	Profil 1998
		ratio t.obat b'izin/100.000 pddk	21.13 (' 92)	25.7	
		- 1 st medical care (RS kls C + D)	C = 121 ; D = 184		
		- 2nd medical care (RS kls B)	23	54	
		- 3rd medical care (Kls A)	3	4	
		- Community of village health center			
		Posyandu	3430	247273	
		Polindes	4761 (' 93)	26943	
		POD	8870 (' 93)	12633	
		Klp.Dana Sehat	1161 (' 94)	31256 (' 96) 28732 (' 98)	
		Pos ukk	5473 (' 94)	5284 (' 96) 3669 (' 98)	
II		**Health Sector Indicators**			
	2	**Equity in finance and human resources**			
		2.1. Finance by group			
		- Per capita health care expenditure		10000 (JPSBK)	Dalam Rupiah
		capita subsidy for low income			
		- Per capita Subsidy for special facilities	455	813 (1996) Inpres	
		- Per capita Subsidy to service	1,438		Ascobat Gani
		e.g. immunixation, ANC, MCH,			
		FP, and emergency care			
		- Per capita expenditure by	18308 (1990)	20.366 (1994) Astek	Ascoba Gani
		social inusrance	9.088	16.465 (1994) Askes	
		- Per capita Expenditure by Voluntary			
		Insurance groups	1099	10.000 (1998)	

		1990	1997	Catatan
	2.2. Human Resource for Health / 100000			
	population by geographical locations			
	- Physicians	8.59	10.73 (1996)	Profil Kesehatan
	% physicians in private sector,	4	18	dlm rupiah
	% in public sector,	96	82	
	% in dual sector			
	- Nurses	25.9	39 (1996)	Profil Kesehatan
	% nurses in private sector	11	14	dlm rupiah
	% in public sector,	89	86	
	% in dual sector			
	- Pharmacist	1.05	3.59 (1996)	
	% pharmacist in private sector	49	50	
	% in public sector,	51	51	Profil kesehatan
	% in dual sector	90	91.2	
	- Nurse practitioners	25.9	39	
	% nurse practitioners in private sectors,	11	14	
	% in public sector,	89	86	
	% in dual sector			
III	**Non-Health Sector Indicators**			
1	**Population**			
	- Growth Rate by groups	1.98	1.69	
	- % Urban population	30.89	38.2	
	- Literacy rate by groups	81.5	85.3	
	- % people who finish compulsory			
	education by groups	12.9	12.7	
	- % people over poverty line	84.92	88.68 (1996)	
	- % people under poverty line	15.08	11.32	
2	**Household**			
	- Household size by population group	4.5	4.3 (1995)	
	- % of household with housing			
	- % of household with sanitation	18	32.81	
	- % of household with electricity	47.0	73.59	IDHS
	- % of household with clean water	67.0	72.24	

		1990	1997	Catatan
IV	**Life Style Indicators**			
	1. The prevalence regular smokers by relevant			
	groups	36.5%	31.26%	Sumber
	2. The prevalence of regular alcoholic use by			
	relevant groups			
	3. The prevalence of regular use of either			
	either heroine, stimulants and other hard			
	drugs by relevant groups			
	4. The prevalence CSW in reproductive by groups	230000	-	
	5. The prevalence of men with multiple sex			
	sex partners by groups			
V	**Human Development**			
	1. HDI by groups	59.7	67 (1996)	BPS
	2. Other Indicators			
VI	**Efficiency Indicators**			
	1. Expenditure on health expressed as the	1.85	1.71	Public + private, Fiscal Year 1990/1991
	the percentange of GDP spent on health			and Fiscal Year 1997/1998, Source MOH.
	in 1990 and around 1997			Source : Bureau Planing,MOH (1997)
	- percentage of GDP spent by the	0.59	0.58	Ridwan Malik (1990)
	Government of Health on various type of			Bureau of Planning MOH
	service;			
	- For PHC, Secondary Care, Tertiary Care	0.39	0.40	Source : Bureau Planing,MOH
	- For preventive, promotive, treatment,	0.10	0.13	Source : Bureau Planing,MOH
	rehabilitation			
	- Percentage of GDP spent by the	1.26	1.13	Source : BPS analysis by MOH
	people either through insurance or out of			
	pocket payment			
	2. Expenditure per IMR of population groups	Rp. 51.137,5 mill	Rp. 260.756,4 mill	Source : IMR 88 in 1990 and in 1997
				Source ; P4-K Jakarta, Ridwan Malik
	3. Expenditure per life exepentancy by popula	Rp. 52.393,3 mill	Rp. 167.308,5 million	Le 61.49 in 1990 and 63.900 in 1997
	tion groups			Source ; P4-K Jakarta, Ridwan Malik

		1990		1997		Catatan
VII.	**Quality Indicators**					
	- Perception of technical quality of public					
	versus private service by population groups					
	* Environment nutrition	23.8%		25.56%		
	* Medical & Non Medical supplies	34.7%		41.90%		Case study at three hospitals,
	* Nursing services	25.3%		27.40%		East Java 1998
	* Doctor services	15.6%		17.15%		
	* Services fee	10.4%		10.95%		
	- Average waiting time of public versus					
	private facilities by population groups					
	- Ability to choose practitioners in public and	**1990**		**1997**		
	private facilities by population groups	**Urban**	**Rural**	**Urban**	**Rural**	
	RS Pemerintah	4.45	2	4	1.5	
	RS Swasta	3.65	0.9	3	0.8	
	Klinik/BP Swasta	1.51	1.15	2	1.4	
	Puskesmas	21.94	21.67	17.5	17.7	Susenas 1990 dan 1997
	Puskesmas Pembantu	2.92	11.87	2.2	9.6	
	Posyandu/Kader	0.41	0.87	0.4	1.1	
	Dokter Praktek	21.22	6.99	20.3	8.4	
	Bidan/Mantri Praktek	8.34	17.74	6.3	15.5	
	Dukun/Tabib/Sinshe	2.02	4.16	1.2	3.4	
VIII	**Affordability Indicators**					
	1. Subsidy					
	Clinics			2,000		
	Maternal & Child health			1,500		Studi HP4 di 3 provinsi
	In patient			7,000		
	Maternity			42,500		
	2. Social Insurance					
	3. Voluntary Insurance					

		1990		1997		Catatan
	4. Fees for services	Biaya sat.	Tarif	Subsidi per pasien		
	BP Umum	2500	300-600	2000		Studi HP4 di 3 provinsi
	KIA	2138	500-600	1500		Dalam Rupiah
	Rawat Inap	9173	800-3000	6000-8000		
	Persalinan	50543	7500	42500		
	5. % of expenditure on health vs household	1993		1996		
		Nominal	Riil	Nominal	Riil	
	Makanan	24.772	18.178	38.723	20.828	
	Bukan Makanan	18.793		31.339		
	Perumahan	7.973	5.148	13.23	6.791	Studi HP4 di 3 provinsi
	Pendidikan	1.343	926	2.13	1.115	
	Kesehatan	703	511	1.287	656	
	Pakaian	2.256	1662	3.21	1.957	
	lain-lain	5.682		8.572		
IX.	Sustainability Indicators					
	1. Number of health facilities hospital belong to :					
	- Central government	251		242		
	- Local government	257		357		Profil Kesehatan 1998
	- Private Sector	352		491		
	2.Use of health facilities by population groups					
	for out - patient care					
	- Central Government					
	- Local Government					
	- Community facilities (e.g cooperative, drugstores)					
	- Private Facilities					
	- Local Drugsotres					
	- Private Clinics					
	- Private Hospitals					
	3. Use of health facilities by population groups for					
	in patient care					
	- Central Government					
	- Local Government					
	- Community facilities					
	- Private Hospitals					