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HEALTH POLICY RESEARCH AND DEVELOPMENT IN THE PHILIPPINES

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I. INTRODUCTION

This paper provides an overview of health policy research and development in the Philippines. Part II assesses the current health situation in the country, describes the health care delivery system, and explains how health care is financed. Part III discusses the state of health policy in the Philippines. It identifies the problems and constraints in the health sector; presents government goals, objectives and strategies in the sector; and notes the recent initiatives of the Department of Health to ensure and facilitate the achievement of health objectives.

The rest of the paper zeroes in on the role of health research in the context of a developing economy like the Philippines. Part IV cites the rationale for policy analysis in health and proposes a conceptual framework for pursuing such analysis. Part V deals with the Philippine experience in health policy research. It notes the rising interest in health policy in the country in recent years; describes the process involved in the formulation of a research agenda, the conduct of research and the dissemination of research results; and highlights a number of lessons from the Philippine experience. Part VI outlines the key areas of concern in the conduct of health policy research in the Philippines. Part VII concludes the paper.

II. OVERVIEW OF THE HEALTH SITUATION

A. *Trends in Health Status*

Over the past 20 years, the Philippines has achieved significant improvements in overall health status. The crude death rate per 1,000 population declined from 11.8 in 1970 to 7.8 in 1986. Within the same period, life expectancy at birth rose from 58.1 to 63.4

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years. The infant mortality rate was also trimmed down from 75.0 per 1,000 population in 1975 to 55.3 in 1986 (Table 1).

Table 1
SELECTED ESTIMATES OF MORTALITY: 1970, 1975, 1980, 1985-86

	Crude death rate (per 1,000 pop.)	Life expectancy at birth (in years)	Infant mortality rate (per 1,000 pop.)
1970	11.8	58.1	–
1975	9.2	59.9	75.0
1980	8.7	61.6	63.2
1985	7.9	63.1	56.6
1986	7.8	63.4	55.3

Source of basic data: NSO, Population Studies Division.

These indicators, however, hide significant variations across regions, population subgroups, and income strata. In general, the poor, the rural residents, and those living in regions farther from the National Capital Region have inferior nutritional and health status. For instance, all regions in Mindanao exhibit higher crude death rates, lower life expectancies and higher infant mortality rates (Table 2).

Trends also show that some improvements in health and nutritional status achieved until the 1970s were stalled, if not wiped out, by the Philippine economic crisis that occurred in the mid-1980s. The most recent nutritional survey indicates that while food consumption and nutrition intake increased between 1978 and 1982, by 1987 it had declined substantially. As a result, the number of underweight preschoolers and schoolchildren had increased and the number of households with inadequate energy intake had likewise risen (Table 3).

The morbidity pattern still indicates the prevalence of easily preventable diseases like respiratory infections including TB, measles and diarrhea (Table 4). These diseases occur nationwide. However, some regional variations in morbidity are noted. Malaria is endemic in many provinces in the Philippines, placing 15 million Filipinos at risk. Also endemic to the Philippines is schistosomiasis, which affects about 620,000 people out of an exposed population of

Table 2
SELECTED ESTIMATES OF MORTALITY BY REGION: 1986

	Crude death rate (per 1,000 pop.)	Life expectancy at birth (in years)	Infant mortality rate (per 1,000 pop.)
Philippines	7.8	63.4	55.3
Luzon			
Metro Manila	5.3	67.4	38.0
Ilocos Region	8.6	64.8	49.4
Cagayan Valley	9.4	60.1	69.9
Central Luzon	6.3	66.8	40.9
Southern Tagalog	6.7	65.9	44.4
Bicol Region	8.2	62.9	57.3
Visayas			
Western Visayas	8.1	66.1	53.4
Central Visayas	7.8	67.6	45.7
Eastern Visayas	9.9	61.8	69.9
Mindanao			
Western Mindanao	12.8	54.8	103.4
Northern Mindanao	10.9	58.4	82.8
Southern Mindanao	11.4	57.8	88.5
Central Mindanao	12.9	54.8	103.4

Source of basic data: NSO, Population Studies Division.

four million in 22 provinces. Filariasis and leprosy occur in some areas but are not widespread.

The Philippines appears to be undergoing the so-called "health transition" in its mortality and morbidity pattern. This transition is generally characterized by the increasing importance of degenerative diseases in the country even as it grapples with pervasive infectious and communicable diseases. While easily preventable diseases continue to account for more than a third of all reported deaths, the incidence of degenerative diseases, especially of the cardiovascular system, has been increasing (Table 5). The number of malignant neoplasms also appears to be increasing as a result of the changing age structure.

Table 3
NUMBER OF NUTRITIONALLY-AT-RISK PRE-SCHOOLERS, SCHOOL CHILDREN AND HOUSEHOLDS: 1978, 1982 AND 1987
(In Million)

	1978	1982	1987
Preschoolers			
Underweight (< or = 75% of standard weight-for-age)	2.1	1.8	2.0
Wasting (< 85% of standard weight-for-height)	1.3	1.0	1.4
Both wasting and stunting	n.a.	0.2	0.2
Schoolchildren			
Underweight (< 70% of standard weight-for-age)	n.a.	2.0	1.3
Stunted (< 90% of standard height-for-age)	n.a.	2.7	1.6
Households			
With inadequate energy intake	4.9	5.3	6.5

Source: Table 21, "Trends in Philippine Nutrition Situation in Relation with Some Development Indicators," Food and Nutrition Research Institute.

As economic, social and environmental conditions improve over the decade, morbidity and mortality rates are expected to decline. The wider availability of safe water and sanitary waste systems (Table 6) also should result in a further decrease in the incidence of water- and food-borne diseases. However, due to the changing age structure of the population, diseases of aging, trauma and other noncommunicable diseases will assume greater importance. New health problems associated with urban life — hypertension, accidents, cardiovascular conditions — are already becoming serious.

B. *Health Care Delivery System*

Both the public and the private sectors provide health care services. The government, through the Department of Health (DOH),

Table 4
TEN LEADING CAUSES OF MORBIDITY: 1980-85

	1980-84 Average		1985	
	No.	Rate*	No.	Rate*
1. Bronchitis	339,405	608.8	586,427	1,072.7
2. Diarrhea	324,374	639.0	522,762	956.2
3. Influenza	278,156	548.0	44,750	818.7
4. Pneumonia	132,800	261.6	205,387	375.7
5. TB, all forms	118,833	234.1	153,406	280.6
6. Malaria	57,359	113.0	121,975	223.1
7. Accidents	84,637	159.1	96,684	176.9
8. Measles	41,752	82.3	62,959	115.2
9. Malignant neoplasms	26,116	51.4	24,270	44.4
10. Diseases of the heart	70,596	132.7	70,320	128.5

Note: *Crude death rate per 100,000 population.
Source of basic data: DOH, Health Information Service.

provides a range of preventive and curative services while the private sector, in general, confines itself to curative services. Where access to modern health care is difficult or expensive, people resort to traditional birth attendants, bone setters and other indigenous health practitioners.

The public health delivery system is organized as a pyramid. At the lowest level are the primary health care facilities consisting of barangay (village) health stations (BHS) manned by a midwife or a trained health worker-volunteer, and rural health units (RHU) manned by a team consisting of a physician, a nurse, a sanitary inspector and a midwife. As of latest count, there are 1,991 RHUs and 8,152 BHS all over the country (Table 7).

The village health stations and rural health units provide promotive, preventive and simple curative care services and refer more complicated cases to the district hospital, which has general inpatient care facilities. The second level of referral is through the provincial hospital, which has more specialized services. The third level of referral is through the regional hospitals and medical centers, which provide even more specialized care.

Table 5
TEN LEADING CAUSES OF MORTALITY: 1980-84, 1985

	1980-84 Average			1985		
	No.	Rate*	Percent of Total deaths	No.	Rate*	Percent of total deaths
1. Pneumonia	45,673	90.0	14.7	52,888	96.7	15.8
2. Diseases of the heart	32,799	64.6	10.6	36,242	66.3	10.8
3. TB, all forms	28,200	55.6	9.1	31,650	57.9	9.5
4. Diseases of the vascular system	23,577	46.4	7.6	27,184	49.7	8.1
5. Malignant neoplasms	16,924	33.3	5.5	18,143	33.2	5.4
6. Diarrhea	13,813	27.2	4.5	11,516	21.1	3.4
7. Accidents	8,119	16.0	2.6	10,070	18.4	3.0
8. Avitaminosis & other nutritional def.	6,846	13.5	2.2	7,114	13.0	2.1
9. Measles	7,310	14.4	2.4	8,043	14.7	2.4
10. Nephritis, nephrotic synd. and nephrosis	4,625	9.1	1.5	5,470	10.0	1.6

Note: *Crude death rate per 100,000 population.
Source of basic data: DOH, Health Information Service.

Table 6
PERCENT OF HOUSEHOLDS WITH SANITARY TOILET FACILITIES AND SAFE WATER SUPPLY: 1975, 1980, 1985-86

	Percent of households with sanitary toilet facilities*	Percent of households with safe water supply**
1975	32.1	43.0
1980	48.8	58.0
1985	67.9	71.4
1986	70.7	74.7

Notes: *Sanitary toilet facilities refer to the water carriage system of excreta disposal which include septic tank and flush/water-sealed types. **Safe water supply includes tap (inside the house), public faucet, improved spring, improved dug well, and private deep well.
Source: Economic and Social Indicators, National Statistical Coordination Board.

Table 7
NUMBER OF RURAL HEALTH UNITS AND BARANGAY (VILLAGE) HEALTH STATIONS AND THEIR RATIO TO POPULATION: 1975, 1980, 1985-86

	Number		Ratio to population	
	Rural health unit	Barangay health station	Rural health unit	Barangay health station
1975	1,705	3,023	24,785	13,743
1980	1,991	7,353	24,267	6,571
1985	1,991	7,991	27,458	6,841
1986	1,991	8,152	28,129	6,870

Source: Economic and Social Indicators, National Statistical Coordination Board.

Each of the 13 regions in the Philippines has at least one regional hospital or medical center, usually located in a city. A typical regional hospital has 200 beds while a medical center has 250 beds or more. Each province in the region has a provincial hospital, with 100 to 150 beds, usually located in the capital town. Each district in the province has a district hospital with 25 to 50 beds that is responsible for a set of municipalities. Each municipality has a rural health unit responsible for a set of village health stations. Usually, there is one health station for every five villages.

The private health care delivery system consists of clinics, hospitals, laboratories and pharmacies, which in rural areas also function as a convenient source of medical information. Like government hospitals, private hospitals are classified into primary, secondary and tertiary levels depending on their capability.

In 1986, hospitals under the DOH and other government agencies numbered 617 while private hospitals numbered 1,229 (Table 8). However, government hospitals were generally larger. In terms of authorized bed capacity, the government provided 55 percent of the total while the private sector supplied the balance of 45 percent.

Compared to other developing countries, the Philippines produces a substantial number of medical and allied health manpower. However, the country is also a major exporter of physicians and nurses so that shortages of these professionals are felt in many areas of the country. In 1986, the per population ratios of government

physicians, nurses, midwives and dentists were 6,200; 5,277; 5,721; and 50,004 respectively (Table 9). The situation, however, could be worse than what these ratios reveal owing to the considerable maldistribution of manpower resources.

As a result of poverty and the absence of health professionals in many rural and blighted urban areas, the National Health Survey conducted in 1981 revealed that about 40 percent of deaths in the country during the year had no medical (physician) attendance, about 53 percent of births had no professional (physician, nurse or midwife) attendance, and 18.4 percent of those who got sick did not seek medical consultation either because they considered the illness minor or they were out of reach of a health service provider (Table 10).

C. *Health Care Financing*

Health Care financing is provided in varying degrees of magnitude by the government, employers and households. A recent study on health care financing indicates that the government finances only about a third of total health care expenditures in the country (Table 11). These resources are drawn largely from tax revenues and donor assistance. Data also indicate that until very recently, more than half of all government resources were spent on curative care (Table 12), a serious anomaly considering the pervasiveness of preventable diseases in the country.

In 1972, the government established Medicare, the compulsory insurance program which covers all government and private sector employees and their dependents. Under Medicare, employers and employees contribute 2.5 percent of their respective monthly payroll and earnings to the health insurance fund. At present, Medicare covers more than half of the total population (Table 13). It should be noted, however, that prior to 1988 when government increased the support value of Medicare benefits to 90 percent, the proportion of in-patient costs covered by Medicare had fallen to 30 percent.

By and large, health insurance remains unattractive to private investors because of low household incomes. Traditionally, health care insurance is sold as an add-on to life insurance. However, in recent years health maintenance organizations (HMOs) have become increasingly important in health care financing and provision. Some 19 HMOs already offer services on an individual, family, or group/corporate basis. Premiums are low by Western standards and the maximum benefits are correspondingly low. In 1989, enrollees were estimated to total 400,000. While this represents less than 1 percent of the population, industry experts say the potential market is as large as 10 percent of the population.

Table 8
NUMBER OF BED CAPACITY OF GOVERNMENT AND PRIVATE HOSPITALS: 1975, 1980, 1985-86

	Number			Bed capacity			Bed Capacity per 10,000 population
	Total	Gov't	Private	Total	Gov't	Private	
1975	969	363	606	69,774	41,692	28,082	16.5
1980	1,600	488	1,112	87,987	49,708	38,279	18.2
1985	1,814	624	1,190	85,008	43,395	41,613	15.5
1986	1,846	617	1,229	89,171	48,906	40,265	15.9

Source: Economic and Social Indicators, National Statistical Coordination Board.

Table 9
NUMBER OF GOVERNMENT MEDICAL AND PARAMEDICAL WORKERS AND THEIR RATIO TO POPULATION: 1978, 1980, 1985-86

	1978	1980	1985	1986
Number				
Physician	6,157	7,259	8,524	8,817
Nurse	7,467	9,606	10,424	10,612
Midwife	6,157	9,329	9,792	9,789
Dentist	790	1,029	1,146	1,120
Nutritionist	305	618	634	626
Sanitary inspector	1,502	1,565	1,918	1,929
Ratio to Population (1 worker per ———)				
Physician	7,437	6,656	6,413	6,200
Nurse	6,132	5,029	5,244	5,277
Midwife	7,437	5,179	5,583	5,721
Dentist	57,967	46,954	47,704	50,004
Nutritionist	150,146	78,182	86,228	89,463
Sanitary inspector	30,489	30,873	28,503	29,033

Source: Economic and Social Indicators, National Statistical Coordination Board.

Table 10
BIRTHS, MORBID CASES AND DEATHS BY ATTENDANCE: 1981

	Urban	Rural	Total
Percent of births attended by —			
Physician	35.7	8.0	17.6
Nurse	3.0	1.8	2.2
Midwife	32.0	24.3	27.0
"Hilot" or trad'l birth attendant	23.0	57.6	45.5
Relatives	0.3	2.0	1.4
Others	6.0	6.3	6.3
Total	100.0	100.0	100.0
Percent of morbid cases attended by —			
Gov't physician	16.7	9.5	11.8
Private physician	24.9	15.9	18.7
Nurse	1.2	3.6	2.8
Midwife	5.8	17.5	13.8
Sanitary inspector	0.2	0.8	0.6
Barangay health worker	0.8	1.9	1.6
Indigenous health worker	0.9	2.9	2.3
Self-medication	37.4	32.8	34.2
No consultation	2.5	9.3	7.2
Not stated	9.6	5.8	7.0
Total	100.0	100.0	100.0
Percent of deaths attended by —			
Gov't physician	37.1	22.9	27.3
Private physician	38.5	30.3	32.8
Nurse	0.2	0.5	0.4
Midwife	0.5	5.2	3.7
Barangay health worker	0.0	1.1	0.8
Indigenous health worker	9.4	23.1	18.8
Others	5.1	7.0	6.4
Not stated	9.2	9.9	9.8
Total	100.0	100.0	100.0

Source of basic data: 1981 National Health Survey.

Table 11
HEALTH CARE EXPENDITURES BY GOVERNMENT AND PRIVATE SECTORS: 1981-85
(Current Prices)

	Amount (Mn Pesos)			Percent share			Per capita HCE* (pesos)
	Gov't	Private	Total	Gov't	Private	Total	
1981	2,736	5,143	7,879	34.7	65.3	100.0	159.0
1982	3,309	6,014	9,323	35.5	64.5	100.0	183.0
1983	3,921	7,025	10,946	35.8	64.2	100.0	210.0
1984	3,596	8,760	12,356	29.1	70.9	100.0	231.0
1985	3,779	10,717	14,496	26.1	73.9	100.0	265.0
Average	3,468	7,532	11,000	32.2	67.8	100.0	209.6

Source: Intercare Research Foundation, "Health Care Financing in the Philippines: A Country Study," May 1987.

Table 12
USES OF DEPARTMENT OF HEALTH AND TOTAL GOVERNMENT HEALTH FUNDS: 1981-85

	Department of Health				
	Preventive care	Curative services	Training	Adm. services	Total
1981	437.4	1,179.6	16.2	168.6	1,801.8
1982	553.4	1,401.8	14.6	180.0	2,149.8
1983	616.2	1,829.4	14.0	201.3	2,660.9
1984	559.0	1,492.1	14.1	206.4	2,271.6
1985	337.4	1,901.7	14.4	171.8	2,425.3
Total	2,503.4	7,804.6	73.3	928.1	11,309.4
% Share	22.1	69.0	0.6	8.2	100.0

Table 12 (Continued)

	Total Government				
	Preventive care	Curative services	Training	Adm. services	Total
1981	954.0	1,503.2	16.2	262.9	2,736.3
1982	1,212.7	1,786.4	14.6	295.7	3,309.4
1983	1,263.0	2,315.8	14.0	328.0	3,920.8
1984	1,234.0	2,017.0	14.1	330.4	3,595.5
1985	1,071.0	2,389.3	14.4	304.3	3,779.0
Total	5,734.7	10,011.7	73.3	1,521.3	17,341.0
% Share	33.1	57.7	0.4	8.8	100.0

Source: Intercare Research Foundation, "Health Care Financing in the Philippines: A Country Study," May 1987.

Table 13
COVERAGE OF MEDICARE PROGRAM: 1975, 1980, 1985-86

	SSS*	GSIS**	Total
No. of persons covered (in thousands)			
1975	8,037	3,003	11,040
1980	13,334	4,234	17,568
1985	20,885	9,179	30,064
1986	21,658	7,179	28,837
Percent of population covered			
1975	19.1	7.1	26.2
1980	27.6	8.8	36.4
1985	38.2	16.8	55.0
1986	38.7	12.8	51.8

Notes: *Social Security System, for private employees and their dependents.
**Government Service Insurance System, for government employees and their dependents.
Source: Economic and Social Indicators, National Statistical Coordination Board.

III. OVERVIEW OF HEALTH POLICY

A. *Problems and Constraints in the Health Sector*

The health sector in the Philippines has been beset by institutional, financial and manpower constraints. The lack of a strong integration among health, nutrition and family planning activities results in the overlapping of functions and services at the community level, leading to undue wastage of scarce resources. Moreover, the delivery of services needs to be focused on priority targets such as the poor, underserved/unserved, and high-risk groups.

For many years, management and planning in the government health sector had been highly centralized. Thus, the management structure was unable to respond adequately and promptly to the requirements of the public health system.

There is also a lack of coordination in the provision of service by both public and private health care providers. A breakdown in the referral system often causes the overutilization of expensive tertiary care for cases that could have been better served by primary (and therefore lower-cost) facilities.

Moreover, health services continue to suffer from inadequate government budgetary support. Throughout most of the 1970s and 1980s, financial allocation to the health, nutrition and family planning sector was less than 5 percent of total public expenditures. Resource inadequacies create problems of high personnel turnover and shortages, severely restrict the availability of medical supplies, and prevent the expansion of outreach efforts.

The undue emphasis on curative rather than preventive care has also spawned a number of problems including cost ineffectiveness of health services (many patients are hospitalized when they could have been handled in less expensive rural health units) and urban bias (hospitals are usually located in provincial capitals and cities).

The anomalies in resource allocation are also evident in the maldistribution of public expenditures across regions. In general, poorer regions are those with insufficient supply of health facilities. In addition, available facilities in these regions tend to suffer from greater problems of poor maintenance and inadequate supplies.

The sector is also beset by the inadequacy of a statistical and research base for the monitoring and evaluation of policies, programs and projects. The problem involves timeliness, availability, accuracy, consistency and ready access to health information and other data required for management.

Health care financing has not been given the attention it deserves. And although Medicare has been mandated to cover non-wage-based earners, such a program has yet to be implemented.

B. *Government Goals, Objectives and Strategies in the Health Sector*

Health has been enshrined as a right in the 1986 Philippine Constitution. The Medium-Term Philippine Development Plan, 1987-1992, also affirms that adequate nutrition and well-spaced children are important prerequisites to good health. In this light, the policy thrusts of the government in the health sector as spelled out in the 1989 update of the Plan are (1) the improvement of disease control and service delivery; (2) the provision of support for the development of the health system; and (3) the enhancement of multisectoral action in health. Major government health program targets are shown in Table 14.

Table 14
MAJOR GOVERNMENT HEALTH PROGRAM TARGETS: 1987, 1990, 1992

	1987	1990	1992
Health Infrastructure Program			
Hospital bed requirement			
– number in 000	101.0	117.5	128.5
– ratio to population (1:——)	570.0	527.0	504.0
RHU requirement			
– number	2,226.0	2,721.0	3,001.0
– ratio to population (1:——)	25,852.0	22,747.0	21,618.0
BHS requirement			
– number	8,065.0	8,257.0	8,360.0
– ratio to population (1:——)	7,135.0	7,496.0	7,761.0
DOH Manpower Development Program			
Physicians			
– number	9,430.0	10,971.0	12,137.0
– ratio to population (1:——)	5,939.0	5,604.0	5,294.0
Nurses			
– number	10,994.0	11,907.0	12,558.0
– ratio to population (1:——)	5,094.0	5,163.0	5,117.0
Midwives			
– number	10,015.0	10,360.0	10,596.0
– ratio to population (1:——)	5,592.0	5,934.0	6,064.0

Table 14 (Continued)

	1987	1990	1992
Malaria Control Program (in '000)			
Case finding	1,120.0	1,206.0	1,261.0
Treatment			
— presumptive	1,120.0	1,206.0	1,261.0
— radical	112.0	69.0	50.0
Schistosomiasis Control Program (in '000)			
Case finding	2,280.0	2,446.0	2,562.0
Treatment	203.0	69.0	38.0
TB Control Program			
Starting prevalence (per 1,000 pop.)	6.6	3.9	3.5
Maternal and Child Health Program (in '000)			
% of infants fully immunized	50.0	90.0	90.0
% of school entrants immunized with BCG	100.0	100.0	100.0
% of pregnant women fully immunized	70.0	90.0	90.0
Medicare			
Coverage (million persons)	32.8	36.6	39.4
Medicare support value	39.7	35.6	37.7

Source: Medium-Term Philippine Development Plan, 1987 - 1992.

Disease control and service delivery shall be improved, among others, through (1) the decentralization of the implementation of the impact programs on maternal and child health, malaria, TB and schistosomiasis; (2) the implementation of major program interventions in acute respiratory illness, cardiovascular disease, cancer and mental health; (3) the improvement of hospital care services; (4) the systematic involvement of private facilities, practitioners and NGOs; and (5) the integration of programs in a community-based approach.

The health system shall be further strengthened through (1) the systematization of health information processes; (2) the expansion of health insurance coverage through Medicare, HMOs and other funding mechanisms; (3) the rational development of the hospital network involving government and private facilities; (4)

the improvement of the compensation and work conditions of health workers; (5) focused planning, implementation and evaluation of health programs in geographic as well as functional terms; and (6) the wider role of the allied medical and nonmedical professions in decision making.

Multisectoral action for health shall be enhanced through the implementation of the national drug policy, the mobilization of all sectors along the path of primary health care, and emphasis on environmental and occupational health.

The family planning program shall be expanded. Greater priority shall be given to unserved and underserved areas. Unified protocol and guidelines for NGOs in the delivery of services shall be established.

C. *Recent Initiatives at the Department of Health*

Recent initiatives at the DOH involve improvements in the delivery, management and financing of health services and the implementation of the national drug policy.

To improve service delivery even under severe resource constraints, the DOH has in the past few years implemented a nationwide reorganization designed to reduce institutional obstacles. A three-pronged approach consisting of service integration, decentralization and client-targeting has been adopted. The vertical program under which different health services are managed separately at the provincial level has been abandoned in favor of an integrated approach, i.e., the Provincial Health Office is now an integrated office involved in the delivery of curative and preventive health services. Decentralization has been made more real by the delegation of more authority and budget responsibility from the central office to the regional, provincial and district health offices. The Community Health Service has developed criteria and a framework for defining high-risk municipalities and barangays, a first step in client-targeting.

While DOH has been historically hampered by the inadequacy of the statistical, information and research base for the monitoring and evaluation of policies, programs and projects, it has taken a closer look at the problem and placed it high on its agenda. Donor agencies have given support to the development of the Health Information System. Critical operating procedures and systems such as procurement and budgeting are being streamlined and appraised for efficiency and responsiveness to program needs. The World Bank-financed Philippine Health Development Project has a component that seeks to establish mechanisms that will strengthen the Depart-

ment's management information system at key central and field offices; systematize financial management, procurement and logistics functions, and strengthen the capability for integrated information-education-communication (IEC), training and evaluation activities within DOH.

Since the Aquino government took over, drastic reforms have also been undertaken to correct the anomalies in the structure of government health care financing. Thus, an increasing share of the budget is being devoted to health. Since 1988, budget increases have been allocated, with 65 percent of the increment going to public health and 35 percent to hospitals. At the hospital level, allocation is being made based on occupancy rates. These resource allocation strategies are in response to the need to shift resources to the poor, as well as to make the health system more cost-effective.

Perhaps the most important initiative that the government has taken in the area of health is the implementation of a national drug policy. Among others, the policy requires the use of generic names in the prescription, sale and dispensation of drugs. The policy's objective of widening information is expected to reduce the prices of these commodites. The policy met initial strong resistance from entrenched parties, but the strong grounds upon which it is based appears to have gotten the upper hand.

IV. THE ROLE OF RESEARCH IN HEALTH POLICY

A. *Rationale for Policy Analysis in Health*

Although the Philippines has achieved significant reductions in mortality and morbidity, further improvements in health status especially among vulnerable groups hinge on the capacity of the health system to deliver services efficiently. The national objective of providing health for all by the year 2000 appears simple but its actual realization is quite complicated owing to the increasing demands on the health system and the increasing complexity of the system itself.

Financial constraints continually hamper the expansion of health programs and the initiation of new ones. Limited health budgets in turn are exacerbated by severe social inequalities that limit the access of poor households to health services. In the midst of these resource problems, the demographic and disease patterns of the country are changing, posing new challenges to health care providers, financiers, regulators, manpower producers and input suppliers.

The increasing size, complexity and importance of the health care sector require detailed analyses of its mechanics and operations. Such analyses are necessary in order to provide decision-makers with strategic information useful in determining the future direction of the health care sector, drawing up appropriate sectoral policies and guidelines, shaping required health care initiatives and reform efforts, and designing specific health care programs.

Policy studies can also be made as evaluations of existing health programs with the end in view of assessing performance, identifying constraints proposing solutions, and determining social impact.

An important component of any policy analysis exercise is the opportunity to build consensus on the critical issues in health care and the required solutions to address them. The conduct of the policy studies itself can be the venue for ideas from various principals and agents in health care, both in the government and private sectors.

B. *Proposed Conceptual Framework*[2] *for Policy Analysis in Health*

The major policy issues and concerns in health can be identified with the help of a simple input-output framework of the health care and other sectors as shown in Chart 1. The overall output is health status improvement which is proximately determined by the utilization of health care services on the one hand, and individual/household behavior, on the other. The latter is in turn affected by non-health services such as education, nutrition, housing and sanitation.

Health care services may either be preventive or curative. Underlying an individual or household's access to these services is the financing of such services, i.e., whether the patient should foot the bill or avail himself of insurance, or if he is medically indigent, whether the government should pay for his treatment. These health services, in turn, are determined by inputs made up of staff time (medical and allied personnel), building and medical equipment, drugs and medical supplies. The inputs are combined by a management process which transforms them into health care services.

The health care sector itself is linked to the other sectors because (1) it competes for the total resources available to the society, (2) it is affected by overall macroeconomic policies, and (3) other sectors have an impact on health status. Hence, changes in macroeconomic policies are ultimately felt in the health sector.

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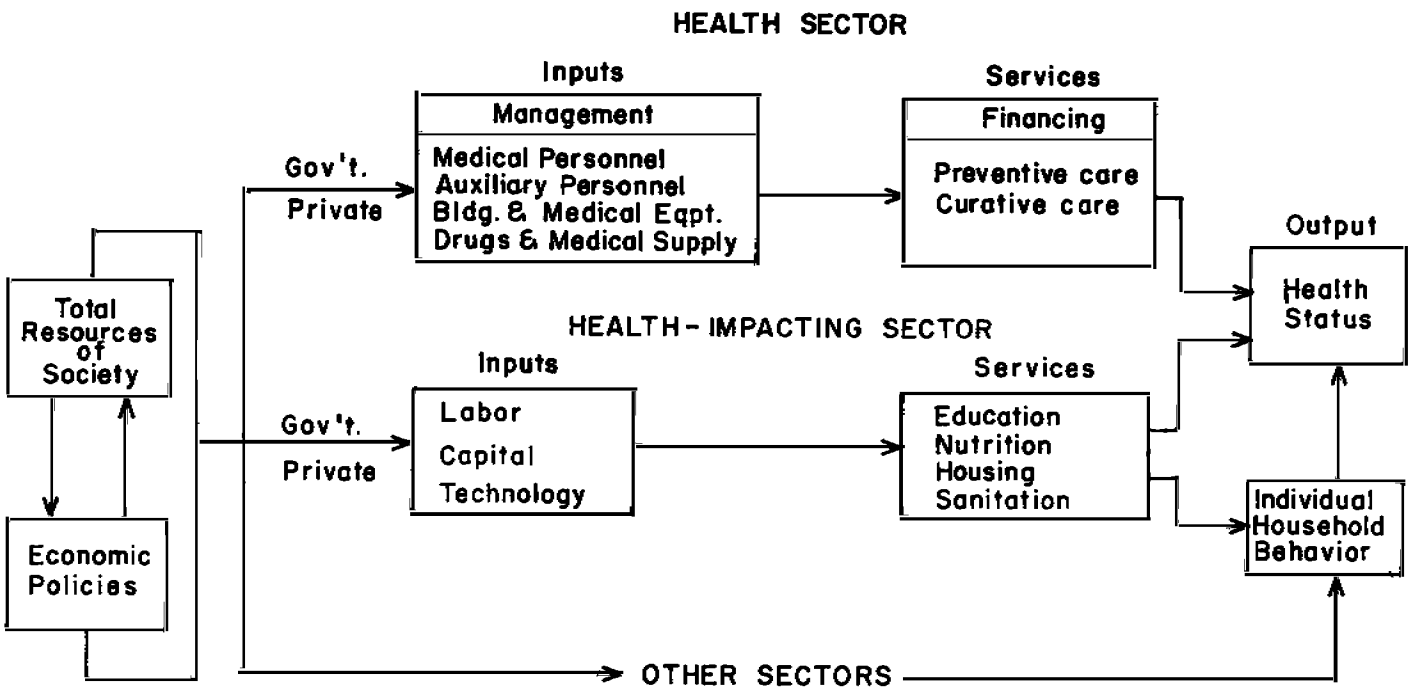
2. The framework draws heavily from Andreano and Helminiak (1987) and is modified to suit Philippine conditions.

Chart 1
CONCEPTUAL FRAMEWORK FOR POLICY ANALYSIS
IN THE HEALTH SECTOR



The framework locates and identifies the major issues confronting policymakers and health administrators. It also indicates the degree of interrelation among issues within the health sector, as well as among those outside it.

C. *Major Policy Issues in Health*

Using the proposed framework, the major policy issues that have an impact on health can be organized as follows:

1. *Health status* – What are the trends in health status? What are the evolving disease patterns in terms of age, geographic area and income status? What has been the impact of health activities and services on the health status of the general population as well as on specific population groups? Answers to these questions are important as they shed light on the impact of various health-promoting activities. They also indicate what health programs need to be expanded or initiated in the future.

2. *Socio-cultural factors in health* – Overall health status is determined not only by the level and quality of health services availed of but also by the individual patient's behavior and effort toward health. In turn, this is affected by prevailing sociocultural factors in health. Hence, it is important to ask: what are the community's knowledge, attitudes and practices with respect to health? What are the individual or community motivations for such attitudes and practices? What are the predisposing factors for diseases? How is health knowledge communicated and diffused? What social engineering or social marketing strategies are necessary to improve health status? These questions are within the purview of the emerging discipline of medical anthropology.

3. *Structure and focus of health care services* – What health care services should be provided – preventive or curative? and what should the level of care be – primary, secondary or tertiary? What population groups and health problems should get priority in the provision of health care services? What should be the nature of these services – hospital-based, ambulatory, domiciliary, maternity clinics or trauma centers? Where should these services be located and at what scale of operation? How should these services be utilized by the population?

These questions require studies into the pattern of demand and utilization of health care services by various population groups. They also require a prospective analysis into the types of diseases that are likely to prevail in the future, the medical care and tech-

nology that will be available by then, and the relative costs of providing alternative services.

4. *Financing of health care* — How should health care services be financed? Who should bear the burden of hospitalization and other health costs? How much can individuals and households afford to pay? What is the profile of the beneficiary population and health service providers? What are the possible financing sources? What is the appropriate structure of health care insurance? What is the probable impact of a national health insurance program in terms of medical costs, quality of health service, and availability of health providers?

Health care financing is one area that has not been adequately studied in developing countries. In the Philippines, Medicare already covers the wage-based population but it still has to extend the same coverage to nonwage based earners and their dependents. Can Medicare cross-subsidize from the wage-based to the nonwage based population? Is it possible to expand coverage to preventive and promotive care services? What alternative health care financing schemes can be tried and what are their operational requirements?

5. *Resource mix of health care inputs* — What resources and in what combination should they be employed to produce the needed health care services? What should be the policy on health manpower production, licensure, management, utilization, distribution, substitution and export? What is the appropriate level of medical technology and what should be the policy on capital imports and distribution? Is is appropriate to impose a "certificate of need" on highly expensive medical equipment? What should be the program on drugs and health product development?

6. *Management structure* — What are the factors that determine the effort that should be put in by the various health inputs? What are the appropriate incentive, regulatory and licensing practices? What ought to be the task of each health worker and how should the health team be organized? What specific tasks and responsiblities should be decentralized or integrated?

Achieving management efficiency in the delivery of health care services requires a whole range of information regarding management structure as well as unit-level procedures. For this reason, studies on how to improve budgeting procedures, logistics and reporting systems also need to be conducted.

7. *Organization* — How should the health care sector be organized in terms of input production, service delivery and financing? What is the appropriate public-private sector mix and what

should be their corresponding roles? How can networking and other resource-sharing activities be institutionalized?

It has been suggested that public intervention in the delivery or financing of health care services should be undertaken only (a) where market imperfections yield inefficiency and where the cost of public intervention is less than the benefit of correcting such imperfections; and (b) where the equity result of the market operating freely is undesirable and can be improved by public intervention at socially acceptable costs.

It would, however, be difficult to operationalize these general principles because of the lack of information about how the various markets in the health care system operate (e.g., how monopolized is the medical profession? or the drug industry?), the inefficiencies and inequities in the system, and the impact of possible options on efficiency and equity. Also, there are various institutional and political forces that come into play in the feasibility assessment of various options.

8. *Nonhealth sectors* — What is the impact of other sectors on health status? Which activities in these sectors complement or go against health improvement programs? What should be the national policy on pollution, environmental sanitation, occupational health and safety, nutrition and food pricing, population growth, the use of pesticides and other toxic substances and environmental degradation?

9. *Impact of macroeconomic policies on health* — How much financial resources should be allocated to the health care sector relative to other sectors? Economic theory suggests that resources should be allocated between sectors according to their marginal contribution to health status improvement. Putting this concept into practice, however, is estremely difficult. A common approach is to undertake intercountry comparisons of health budgets and of the health status of populations, or to study the health budget (its trend, relative share to total budget, and composition).

Other macro policies also affect the health sector aside from the national budget. These include policies on taxation, import duties, wage legislation, manpower exports, and investment incentives.

The overall macroeconomic strategy of the government ultimately determines the level of social services In the wake of the worldwide debt crisis, the strategies prescribed by lending agencies have invariably involved budget cuts and monetary restraints that have an adverse impact on social service delivery.

V. HEALTH POLICY RESEARCH IN THE PHILIPPINES

A. *The Rise in Interest in Health Policy Research*

Research on health policy in the Philippines has until recently been scanty and fragmented.[3] While some individual studies have been carried out focusing on various aspects of health policy, these have been limited in number. In addition, there is clearly a lack of a systematic and comprehensive approach to research on the policy issues. Moreover, health research has been dominated by clinical, biomedical, and laboratory activities that are by themselves important elements in the health research spectrum.

At least two factors contribute to this situation. First, past efforts in the area of health have been dominated by program concerns with rather low priority assigned to policy issues. Second, there had been little interest in the research community in studies involving policy aspects of health. Health studies done in the past largely dealt with the biomedical and administrative aspects of public health, basically using case studies. The low level of interest in health policy in turn reflected the lack of resources to finance policy studies, as well as the lack of competent manpower to carry out the studies.

Recently, however, there has been an upsurge in health policy research. Over the past three years a number of studies on health policy have been initiated and completed. Also, there is now more discussion of health policy issues not only within government but also in a number of privately organized fora and in academe.

The main reason for the increased interest in health policy studies is the growing appreciation by senior health officials of the importance of health policy and, consequently, of policy research. The incumbent leadership at the DOH has assigned priority to health policy in addition to carrying out the usual health programs. The awareness and understanding that significant impacts in health status could similarly be achieved by policy reforms have led to the new emphasis on health policy. For instance, a major initiative of the Department has been the promotion of generic drugs. In the process of formulating the national drug policy, the Department has drawn upon the results of past research and the service of researchers.

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3. These studies basically concentrate on four areas: the determinants and consequences of health, the health service delivery system, demand for health care, and health care delivery system, demand for health care, and health care financing. The reviews of these studies are provided in PIDS (1989), Survey of Philippine Development Research III.

Along with this emphasis on policy, the incumbent DOH leadership has shown openness and candor in relating with the research community. Access of researchers to information and data from the Department has greatly improved. At the same time, the willingness of the senior health officials to listen to researchers represents an integral part of the new policy environment.

A key element of this awareness is the recognition of the important contribution that social science research — along with biomedical research — can make toward the formulation of health policy. There is also the realization that solutions to health problems and issues may lie in sectors outside of the health sector itself.

Thus, in the pursuit of its recent policy initiatives, the DOH has increasingly availed itself of the services of social scientists together with medical doctors. The design of the Philippine Health Development Project, for instance, drew inputs from sociologists, economists and demographers, among others. Within the Department itself, the appointment of personnel who are nondoctors to key positions reflects this shift.

In a parallel manner, interest in health policy research in the academe has also grown in recent years. This interest partly reflects the worldwide trend in the increasing application of social science in health. In the universities, new fields such as health economics are being introduced. The increase in the supply of researchers and policy analysts generated by these new educational programs has contributed toward the critical mass for policy research. In part, the interest represents a response to the growing need for this kind of studies. Finally, the impetus provided by external donors through the provision of funds has, to some extent, led to the redirection of local research resources toward health studies.

B. *Recent Experience in Health Policy Research*

A major feature of recent policy research in health has been the adoption of a comprehensive yet more systematic approach to addressing issues in health policy and development. The joint research project of the Philippine Institute for Development Studies (PIDS) and the DOH represents this innovative approach.

PIDS is a government research agency created primarily to provide a research base for planning and policy formulation. In the mid-1980s, the Institute included in its agenda a program of research on health policy and development.

The preparation of the program of research was both a technical and consultative process. To put the research in perspective, a conceptual framework was developed which identified the key

components of the health and related sectors and outlined their interrelationships (see Part IV.B above). The framework paper provided a systematic basis for identifying the issues and problems and for assigning the research priorities. At the same time, eight state-of-the-art reviews were commissioned focusing on the various elements of the health sector. These reviews helped to identify the research gaps and also brought to the fore the findings and recommendations of past research which might be of contemporary relevance.

Upon completion of the framework paper and the review, a seminar-workshop was conducted to arrive at a consensus on the research program. Government health administrators, researchers, and private sector representatives participated in the workshop.

The approved research program consisted of six studies dealing with (1) the demand for health care; (2) health maintenance organizations as an alternative financing scheme; (3) health manpower; (4) hospital costs; (5) drug consumption and prescription behavior; and (6) the impact of housing policies on health.

An important feature of the resultant research program is that it was nationally determined. The identification of the research issues and topics was made by local policymakers, researchers, and participants from the private sector with Philippine health priorities in mind. Moreover, the development of the research program was funded from local sources.

The initial research program was implemented with financial support from external sources, notably the International Health Policy Program (IHPP) of the Pew Charitable Trusts, the Carnegie Corporation, the WHO, and the World Bank. It should be pointed out that the IHPP exercised great flexibility in supporting the national research program.

The studies were carried out by the PIDS staff and its network of collaborating research institutes and researchers. The participating researchers came from the School of Economics, College of Public Health, and College of Public Administration of the University of the Philippines, and the Economics Department of the Ateneo de Manila University. PIDS was the program coordinator.

To provide technical and policy direction to the research, two committees were created. The first committee, composed of senior researchers in the country in the fields of social science and medicine, rendered technical assistance to the researchers. The second committee, composed of the Department of Health Undersecretary and the President of the PIDS, gave guidance to the researchers particularly on policy aspects.

In the course of program implementation, several meetings were held among the researchers and the technical and policy advisers. These meetings served as fora to discuss the status of their individual researches, to resolve operational and technical problems, and to exchange information that would enhance the quality of the research being undertaken.

At a later stage, the policy advisers agreed to expand the project to address emerging policy issues. A new research agenda was formulated which expanded the scope of the initial research program. This was consequently approved for implementation. Currently, research proposals are being prepared under the new program for support by external donors. At the same time, a joint DOH-PIDS project has been established to provide the umbrella arrangement for these activities. A Memorandum of Agreement between the Institute and the Department executed in August 1988 provides that they jointly develop and implement a research program on health policy and carry out other research-related activities.

The studies conducted under the initial program have largely been completed. A number of seminars, participated in by representatives from government (including DOH), the research community, and the private sector have been held to present the findings and recommendations and to elicit comments on the studies. The research reports are now being reviewed by the research advisers before they are circulated widely.

C. *Lessons From Experience in Policy Research*

The experience in the implementation of PIDS' research program on health brings to the fore important lessons in the conduct of policy research in general and of health policy research in particular:

1. The program approach to research is more effective than the ad hoc or topic-by-topic approach for several reasons. First the program approach allows a more systematic identification of the problems and issues, thus leading to a more balanced treatment of research issues. Second, improved coordination in research work is achieved since the links among the specific studies within the program are clearly defined. Third, research activities are able to proceed on a cumulative basis, i.e., current and future research projects are more readily able to build on past research.

2. The involvement of health officials in government in various stages of the research process helps ensure the greater use of research results, strengthens the technical capabilities in the government

health agency, and results in more efficient project implementation. Consultations with potential users of research outputs on the identification and design of a research program make the research more responsive to their needs. Their participation in the conduct of the studies not only helps to keep the research on the right track but also provides a mechanism for the transfer of knowledge and skills from academe-based researchers. It also facilitates access to data and information for the researchers.

3. The involvement of researchers in the design of the research program serves to fuel their own interest in the conduct of the specific studies. The devolution of the burden of program development to the researchers increases their stake in the research, and the consultative approach provides them with the venue to assert their views independently. Thus, in the case of the IHPP Project, no great difficulties were encountered in securing research proponents.

4. The need for a multifaceted institute to coordinate the development and implementation of research programs cannot be gainsaid. The brokerage role of a research institute between the users and producers of research requires, on the one hand, an understanding of the workings and processes of policy and governance. On the other hand, it must have the integrity of an independent research institute to be able to deal with researchers.

VI. AREAS OF CONCERN IN NATIONAL HEALTH POLICY RESEARCH

There are a number of notable areas of concern in the conduct of health policy research at the country level based on Philippine experience in the last few years. The key ones involve (1) the setting of research priorities; (2) the management and coordination of research activities; (3) research dissemination and utilization; (4) research capacity building, (5) the data base; and (6) the funding of research and the role of donor agencies.

A. *Setting Research Priorities*

As pointed out above, a program approach is better than an ad hoc topic-by-topic approach. The questions that arise in taking the program approach are: who will formulate the research program and set priorities? how will the program be formulated and how will priorities be set?

Needless to say, the research program and its priorities should be formulated and determined internally and not simply adopted

to accommodate the viewpoints of external funding agencies. But internally, who and how should research priorities be set? The matter of which institution should be responsible for setting research priorities, although important, is probably less critical than the process followed and the criteria used in determining priorities. Ideally, the priorities, and for that matter, the criteria for establishing priorities, should be identified in a participatory manner, involving policymakers, private practitioners, academics, community representatives, etc. In this manner, a broad consensus on what research issues should receive priority attention could be developed. Moreover, because health issues could vary by region, it may be necessary to set regional research priorities in addition to those that apply nationally.

B. *Management and Coordination of Research*

There is a need for some coordination of health research activities being conducted by different national institutions. Among other things, this will facilitate information sharing and exchange among researchers, minimize unnecessary duplication of efforts and enrich research methods and results. One can indeed find bits and pieces of health and health-related research going on in many places, but the question is, how does one link all of these activities together to achieve a synergistic effect? How can this be best achieved, considering the particular institutional setup for research in the country?

C. *Research Dissemination and Utilization*

Completing a research project is one thing. Deciding on what to do with the research results is a different matter. Since health research is not an end in itself but rather a means to help improve the health status of the population, an active, systematic and sustained effort has to be made to promote the use of research results. Moreover, it makes sense to maximize the returns from investments in research activities. It seems, however, that this is easier said than done. It would not be surprising if one found many studies gathering dust in the shelves of some bureaucrats who may not even have bothered to look at the recommendations of the research reports. It is very likely that many research results have not been noticed at all.

It is, therefore, not enough that a program for communicating research results in an operationally meaningful way be continuously pursued. It is also necessary to convince policymakers about the value and usefulness of research. To be sure, there are many policy-

makers who appreciate research and go out of their way to encourage it. But there are also many who are suspicious of research and who consider research as a useless academic exercise.

Aside from the question of how to effectively disseminate research results, there is the issue of the role of researchers in such activity. A number of researchers consider their work completed once they have submitted final reports on their research projects. Actually, the services of researchers are also needed in the communication of research results, so that there may be a need to promote more active advocacy among researchers.

D. *Research Capacity Building*

The health research manpower in the Philippines is severely limited, particularly in the area of health policy research. Accordingly, there is a need for more sustained efforts to expand the pool of competent and experienced health researchers through a continuing program of training and the provision of incentives and better career opportunities to scientists engaged in health research. Training can take the form of degree and nondegree programs, short- and long-term courses, and research "apprenticeship," among other modalities. There are also latent capacities in some research institutions outside of Metro Manila; hence, capacity-building should be addressed as well to strengthen regional research institutions which have the potential to contribute more substantially to health research in the country. The task of capacity building is, however, hindered by serious domestic budget constraints.

E. *Data Base*

One of the problems in the conduct of health research in the country is the inadequacy of the data base needed for analytical work. As pointed out above, the main constraints involve the timeliness, availability, accuracy, and consistency of health data, and, sometimes, also the ready access to them. While data are available in many instances, they are not sufficiently disaggregated, say, by region or province, to allow a regional or subregional analysis. The problem, however, is well recognized, and the Department of Health on its own and together with the National Statistical Coordination Board (NSCB), is making an effort to fill the data gaps in the health sector. For example, the NSCB has decided to conduct a national health survey every three years. Moreover, as mentioned earlier DOH is in the process of setting up a Health Information System in the country.

F. *Research Funding and the Role of Donor Agencies*

A major constraint in the implementation of health research is the lack of funding support. Funds from the national budget usually give the highest priority to service delivery and the infrastructure requirements of the national health program. Thus, very little funds are left for the conduct of research. It is in this light that donor agencies can provide assistance to the country s research efforts. They can help by providing financial assistance to the conduct of research, the collection of data, and to capacity- and institution-building. Donor agencies can also help in bringing to bear their international experience and knowhow on local problems and issues in health. However, it is important to ensure that the mandate and task of developing a research program and determining research priorities remain with the host government and research institutions. Moreover, in order to maximize external assistance for health research, there is a need to establish an in-country mechanism for coordinating such assistance.

Finally, since capacity- and institution-building take time, serious consideration should be given to providing support on a program basis rather than on a project basis over a longer period of time. What usually happens is that many supported capacity- and institution-building programs take place on a stop-and-go basis because of the short time horizon of funding support. Part of the problem is, of course, the fact that many donor agencies are constrained by their own internal rules and regulations from making longer-term commitments.

VII. CONCLUDING REMARKS

This paper has provided an overview of health policy research and development in the Philippines. After presenting the current health and health care situation and describing the policy environment in the health sector, it discussed the role of research in health policy in a developing country like the Philippines and related the Philippine experience in health policy research. It ended with a note that any program for health policy research must address the questions involving research priority setting, the management and coordination of research, the dissemination and utilization of research results, research, capacity building, the data base for research, the funding for research, and the role of donor agencies The points raised are in respect of health policy research, but they are to a large

extent also applicable to epidemiological, biomedical and clinical research.

It is hoped that this paper has contributed to the exchange of ideas and experience on health research and the promotion of international cooperation on such a critical input to development.

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