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Suwandono, Agus

**A STUDY OF SELECTED FACTORS INFLUENCING THE DEVELOPMENT OF
PRIMARY HEALTH CARE IN RURAL INDONESIA: THE BANJARNEGARA
EXPERIENCE**

University of Hawaii

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A STUDY OF SELECTED FACTORS INFLUENCING THE DEVELOPMENT
OF PRIMARY HEALTH CARE IN RURAL INDONESIA:
THE BANJARNEGARA EXPERIENCE

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE
UNIVERSITY OF HAWAII IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PUBLIC HEALTH
DECEMBER 1986

By

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ABSTRACT

Primary Health Care (PHC) was formally adopted as a National Health Strategy for Indonesia after the Alma Ata conference in 1978. Prior to that time, small scale efforts utilizing variations of classical PHC approaches were launched spontaneously in various sections of the country. One of these efforts began in Banjarnegara Regency in Central Java Province in early 1970. A group of dedicated physicians and public servants, responding to the local conditions and community needs, established a unique approach to PHC and community development. This approach combined the resources and political commitment of local government with the flexibility and innovation of the private sector into a quasi non-Government organization (NGO) called "Yayasan Pembangunan Pengembangan Sosial Ekonomi" (YPPSE). The result was a relatively successful and socially acceptable health and development program. It has served as a model for the Government of Indonesia's national strategy for replicating its PHC program throughout the country.

Particular attention in the YPPSE approach is focused upon two components, training and "POLITICALIZATION." The latter is a term used in this research study to epitomize the process of developing political commitment and its inculcation in the providers of PHC and community members.

The research reported here was designed to examine the Banjarnegara experience in an effort to determine if the approach used resulted in an identifiable impact upon selected health and socio-economic indicators.

The findings indicated that these two processes, training and "POLITICALIZATION," working through a series of intervening and inter-related variables, are related to significant increases in nutritional and environmental indicators in the Banjarnegara communities. "POLITICALIZATION" was found to be a process which, in turn, was related to leadership provided by key policy makers and health managers.

Also substantiated as a crucial mechanism for eliciting community involvement was the innovation introduced by YPPSE and known as the "KRING" system. The "KRING" was a planned, systematic process through which community groups participated in planning, implementation and budgeting of the PHC and community development program.

The research supports a recommendation that culturally adapted variations of the YPPSE approach should be tested in different Indonesian settings to determine its suitability for replication.

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LIST OF ABBREVIATIONS

AR	Action Research
BKKBN	"Badan Koordinasi Keluarga Berencana Nasional" (National Family Planning Coordinating Board)
BMDP	Biomedical Computer Program
CDC	Communicable Disease Control
CDR	Crude Death Rate
CBR	Crude Birth Rate
Dr.	Dokter = Medical Doctor
"Drs."	Doctorandus, a degree for a person who graduated from the university
DV	Dependent Variable
GBHN	"Garis Besar Halauan Negara" (The Guidelines of State Policy)
GDP	Gross Domestic Product
GNP	Gross National Product
GO	Government Only Without Assistance of the YPPSE
GOY25	Government with the YPPSE Assistance 2-5 years
GOY 5	Government with the YPPSE Assistance More Than 5 Years
GBHN	"Garis Besar Halauan Negara" (The Guideline of State Policy)
HC	Health Center
HEDERA	Health and Development in Rural Area
IMR	Infant Mortality Rate
IV	Independent Variable
KRING	Circle
LKMD	"Lembaga Ketahanan Masyarakat Desa" (Village Development Council)
LP3ES	"Lembaga Penelitian, Pendidikan dan Penerangan Ekonomi dan Social" (Institute for Economic and Social Research, Education and Information)
MANOVA	Multivariate Analysis of Variance
MCH	Maternal and Child Health
MOH	Ministry of Health
N	Number of Cases

n ²	eta square
NGO	N.G.O. = Non Governmental Organization
no.	Number
PANCASILA	Five Principles
PD	Provider at the District Level
PR	Provider at the Regency Level
PHC	Primary Health Care
PKBI	"Perkumpulan Keluarga Berencana Indonesia" (Indonesian Family Planning Association)
PKK	"Pembinaan Kesejahteraan Keluarga" Family Welfare Movement
PKMD	VCHD = Village Community Health Development "Pembangunan Kesehatan Masyarakat Desa"
POSYANDU	"Pos Pelayanan Kesehatan Terpadu" (Village Integrated Health Post)
PPSE	"Panitia Pembangunan Sosial Ekonomi" (Committee for Socio Economic Development)
Puskesmas	"Pusat Kesehatan Masyarakat" (Health Center)
REPELITA	"Rencana Pembangunan Lima Tahun" (Five-Year Development Plan)
Rp.	"Rupiah" (Indonesian currency)
RPJPK	"Rencana Pembangunan Jangka Panjang Kesehatan" (Long-term Health Development Plan)
RT	"Rukun Tetangga" (Hamlet)
SE-RH	Socio-economic Related Health Indicators
SKN	"Sistim Kesehatan Nasional" (National Health System)
SPSSX	Statistical Package for Social Sciences X
UKS	"Usaha Kesehatan Sekolah" School Health Services/Programs)
VHW	Voluntary Health Worker
WHO	World Health Organization
YIS	"Yasasan Indonesia Sejahtera" (The Foundation of Indonesian Welfare)
YPPSE	"Yayasan Pembangunan Pengembangan Sosial Ekonomi" (The Foundation of Socio-economic Development)

CHAPTER I
INTRODUCTION

Rationale, Statement of Problem and Research Questions

After two decades of neglect, public health has "reappeared" as a significant concern among development authorities and institutions in developing countries. From the mid-1950s through the early 1970s, efforts to improve human health were often treated, at best, as adding consumption and, more typically, as contributing in a negative way to excessive population growth and consequent economic impoverishment (Golladay & Liese, 1980b).

In the early 1970s, shifts of emphasis in development thinking restored interest in the health sector. Moreover, the decade of the 1970s was also marked by increasing global concern about poverty, unemployment, status of women, nonformal education and other social sectors in the rural areas of developing countries (Carino, et al., 1982; Chalmers, 1982; Chanawongse, 1986; Golladay & Liese, 1980a; Knight, et al., 1980).

Alarmed by the magnitude, persistence and perniciousness of those phenomena, even within the context of reasonable aggregate growth rates, many developing countries launched efforts directly focused on the alleviation of those problems, with integrated rural development and community participation as two of their major strategies (Golladay & Liese, 1980b; Chossudovsky, 1983).

In 1978, at the joint WHO-UNICEF Conference in Alma-Ata, the governments of 134 countries, and many voluntary agencies, endorsed

the concept of primary health care (PHC) as the strategy for "Health for All by the Year 2000" (Ministry of Health, Indonesia, 1978; Soebekti, Haliman & Suwandono, 1980; Suwandono, 1983; The World Bank, 1985; World Health Organization and UNICEF, 1978; World Health Organization, 1981a, 1981b). PHC was defined as essential health care made universally accessible to individuals and the community by means acceptable to them, through their full participation and at a cost that the community and country could afford to maintain at every stage of their development. Self-reliance and self-determination were stressed as major elements of PHC strategy. PHC was intended to form an integral part of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community (Mahler, 1982; World Health Organization & UNICEF, 1978).

Indonesia, the largest nation in Southeast Asia, has carried out PHC programs on a nationwide basis since 1979. During the third Five Year Development Program, the Ministry of Health covered one-third of Indonesia's 60,000 villages with this program (Yahya, Soerono & Papilaya, 1985; Yahya, 1985). The PHC program is called Village Community Health Development Program (VCHD) or "PKMD/Pembangunan Kesehatan Masyarakat Desa" (Johnston, 1983). The remainder of the villages are covered by similar PHC activities which are coordinated by the National Family Planning Coordinating Board ("BKKBN"), called National Nutrition Improvement Program (Rohde & Hendrata, 1983).

The design of these programs owes much to the experience gained in PHC projects pioneered during the late 1960s and early 1970s by

both voluntary and governmental agencies in several areas of Central Java Province: the city of Solo, the rural regency of Banjarnegara and later in the rural regency of Karanganyar (Haliman, Suwandono & Parmadhi, 1979; Haliman & Suwandono, 1984; Hendrata, 1983; Johnston, 1983; Morley, 1983). The results of these field experiments, though limited in scope, were quite encouraging. The approach was to embrace all aspects of rural development under the banner of PHC. As is often the case with such pilot programs, the outcomes were never objectively documented although they did tend to be subjectively assessed as denoting good achievement (Hendrata, 1985).

Inspired by the seeming success of the pilot programs, a policy decision was made to transfer the basic format of the program across the nation to thousands of villages. As stated by Taylor (1982) and Hendrata (1985), it soon became clear in the implementation of this effort that PHC programs were much more complex than was conceptualized from the pilot phase. The dissemination of PHC programs to large numbers of villages which were culturally and regionally diverse obviously required more mature policies and plans than had been developed. Particularly absent was an in-depth study through which the identifiable processes, mechanisms and problems of PHC could be sufficiently understood to provide a basis for large-scale implementation (Twumasi & Freund, 1985; Ugalde, 1985; United Nations, 1982; Walt & Vaughan, 1982; Werner, 1981).

Such problems are not new. Bryant and White (1982) suggested that the ideology of community development was seldom translated into reality in national-wide programs. In spite of the principles which

were delineated, time and again programs were formed and targets set from above in an essentially top-down process. A more serious indictment was the claim that the community development approach had a simplistic view of the development process and ignored conflicting interests and the need for structural changes in the community. By focusing on the local community, it ignored the larger economic and political context that frequently subverted its impact (Bryant & White, 1982).

Korten (1980) reviewed several community development pilot projects and concluded that "learning laboratories" were needed to experiment with a variety of techniques, processes and problems (Korten, 1980, 1981).

Berman, Gwatkin and Burger (1986) concluded that although community-based health programs demonstrate increased utilization, coverage, and equity of curative and preventive services in small-scale projects, such outcomes do not necessarily follow in large scale.

The exploratory projects in Indonesia were, of course, the subject of study and analysis. These studies, however, generally dealt with specific program aspects and not with questions central to the replication of the process in different places and under different conditions. Major issues left unsuitably addressed are illustrated by the following (Chaturvedi & Mitra, 1982; Chen, 1986; Fajans & Sudiman, 1983; Faruquee, 1982a, 1982b; Gellhorn, 1984; Gish, 1984; Golladay & Liese, 1980a; Haliman & Suwandono, 1984; Hendrata, 1985; Jaimez, 1982; Suwandono, 1983a, 1983b):

1. The relationship between more intense community participation and the actual improvement of health and socio-economic related health indicators in the community;
2. The role of political commitment and how it can be achieved among members of the community and integrated health teams;
3. The role of the training process in successful PHC implementation;
4. The dynamics of the relationship of the voluntary organization, public sector and its impact on program development and outcome;
5. The program development factors--interpersonal, organizational, social--which need to be understood for program expansion and replication

These considerations and the questions demanding attention are at the heart of the research which forms this dissertation.

The project of Banjarnegara Regency is the focal area of the inquiry, chosen precisely because it exemplifies an apparently successful collaborative effort of the local government and non-government organization. The unique aspects of this conjoint endeavor require an in-depth analysis to provide guidelines and a broader framework for appropriate replication in other areas of Indonesia.

Objectives

This study addresses factors that influenced the development of the PHC program in Banjarnegara Regency, Indonesia. Particular attention is directed to the relationship between the three basic dimensions of the development effort, namely components relating to

training, political commitment and community participation, and the outcomes and impact which can be measured by health and health-related socio-economic indicators. The inquiry is specifically intended to:

1. Describe and analyze if and how the concepts and actions through which YPPSE and district-integrated PHC teams stimulated and enhanced community participation in the village level of Banjarnegara Regency in 1985.
2. Describe and assess the scope and outcome of the training and "POLITICALIZATION" processes for strengthening political commitment relevant to the implementation and maintenance of PHC in Banjarnegara Regency from 1974 to 1985.
3. Describe and analyze the relationship between
 - a. levels of the community's knowledge, practice, attitude relating to and participation in PHC programs and the impact of such processes on health indicators and health-related socio-economic (SE-RH) indicators among households of the Banjarnegara community which, in March 1985, had one or more children under five years of age, and
 - b. degree of community's knowledge, practice and attitude, and community participation in planning, implementation, budgeting and evaluation of PHC among households of the Banjarnegara community who, in March 1985, had one or more children under five years of age.
4. Test for statistically significant differences related to the community development indicators delineated in objective 3 above between villages which have been developed by the

assistance of the local NGO (YPPSE) and those which had not up to that time been assisted by YPPSE.

5. Identify additional significant factors that restrained or facilitated the development of the Banjarnegara PHC program (1974-1985).
6. Propose recommendations for the further development for effective PHC programs of the Banjarnegara type in Indonesia.

Organization of the Report

To provide a background within which the context of this study can be more clearly understood, a brief general introduction to Indonesia and the country's health problems and health services is presented in Chapter II. This chapter also covers the geographic, cultural, socio-economic, demographic, and health aspects of the study area. The discussion includes a summary of PHC development in the study area and the role of the local NGO (YPPSE) in Banjarnegara's PHC development.

Chapter III presents a literature review relevant to the study and reviews concepts essential to PHC and PHC development including some controversial issues. The conceptual framework of this study is discussed in depth. The concept of participation, "POLITICALIZATION," political commitment, NGO and PHC program training are explained in detail. Some aspects of health and socio-economic status as well as their indicators are discussed in this chapter.

The fourth chapter covers research design, sampling procedures, survey instruments, personnel used, and data analysis methods.

Technical problems experienced in the household survey and in the management of data are reviewed.

The results of the study are presented in Chapter V. Data relating to each of the first five objectives of this study are presented and discussed.

Chapter VI focuses on interpretation of the findings in which each of the first five objectives is discussed.

Chapter VII presents the conclusions of this study and, in light of the research findings, provides recommendations for the further development of PHC in Banjarnegara and Indonesia. A final section presents suggestions for future research.

CHAPTER II
BACKGROUND OF THE STUDY

The Country General Profile

Indonesia extends over part of the world's largest archipelago which forms a crossroad between the Pacific and the Indian Oceans and a bridge between two continents, Asia and Australia. The nation's location astride important trade routes has long influenced its political, cultural, social and economic development.

This largest Republic in the Southeast Asian region has a land area of 735,354 square miles and claims territorial waters nearly four times that size. The country comprises some 13,700 islands, of which about 6,000 are inhabited. It stretches 3,200 miles from east to west (roughly the distance from San Francisco to Boston) and 1,100 miles from north to south (Republic of Indonesia, 1983).

The territory and population of Indonesia are concentrated on six main islands: Sumatra, Java, Bali, a major part of Kalimantan, Sulawesi and Irian Jaya. The present population (1980 census) is estimated to be 165 million (Department of Information, Indonesia, 1986). The distribution of the population is very uneven; 61.9% live in Java, which accounts for only 7% of the island area. This gives a high variation in population density among the main islands. Java is the most densely populated with an average of 750 people per square kilometer and Irian Jaya has only 3 people per square kilometer. The nation's population is predominantly rural, with an excess of 78% living in the rural areas (Republic of Indonesia, 1983).

The age distribution of the population indicates a large proportion of non-productive young people; 3.6% are under one year of age, 13.0% between one and five years, 22.7% between five and 14 years, 42.1% between 15 and 44 years and 18.6% over 45 years (Ministry of Health, 1982). The crude birth rate is estimated to be 35.9 per 1,000, and crude death rate is 12.48. The natural population growth rate is estimated at 2.3% per year. An intensive and extensive family planning program as well as a transmigration program from Java to the outer islands have been carried out as means of controlling and redistributing the population. The goal is to reduce the annual growth rate to 1.9% by the end of 1990. With this assumption, Indonesia's population is projected to increase to 179 million by 1990 and to about 212 million in the year 2000 (Biro Pusat Statistic, 1984, 1985; USAID, 1980, 1981, 1983, 1984).

Indonesia has experienced rapid economic growth in recent years. In the decade prior to 1978 the gross domestic product (GDP) increased, in real terms, at an average rate of approximately 7.3% per year. This is in contrast with an increase of approximately 2.0% per year between 1960-1967. In 1980, real GDP growth of 9.6% was due to the rapid increase in the price of oil at the end of 1979 (Republic of Indonesia, 1983). The World Bank ranked Indonesia for the first time as a middle income country in 1982 with the GNP of \$520.00 per capita (World Bank, 1985). During the third Five-Year Development Plan (1979-1984) the GNP has been increasing at an average rate of 6.54% per annum, a commendable performance in the face of world economic recession (Ministry of Health, 1983). However, it is predicted that, during

the fourth Five-Year Development Plan (1984-1989) this rapid increase of GNP will slow down due to the dramatic decrease of world oil prices (Hendrata, 1985).

More than half of Indonesia's land is forested, and a significant amount is mountainous and volcanic. Java alone has 112 volcanoes, 15 of which are active. Most of Indonesia lies along or just below the equator. The country has a tropical, monsoon-type climate, featuring slight changes of season and temperature, low winds, high humidity and periodically heavy rainfall. Because of its climate and topography, agriculture, forestry and fisheries provide jobs for about two-thirds of Indonesia's work force. Among them, agriculture is the dominant sector, accounting for roughly one-third of the GDP in recent years. The agriculture sector received 21.7%, 19.1% and 14% of government development expenditures during the first to third Five-Year Development Plan periods. The main food crops are rice, cassava, corn, sweet potatoes, soy beans and peanuts. The most important cash crops are copra, sugarcane, rubber, oil palm, coffee and tea. There are several intensive and extensive programs to promote the agricultural sector such as credits for seed, fertilizer and insecticides, cooperative intensification programs and extension of irrigation facilities (Biro Pusat Statistic, 1981, 1982, 1983; Republic of Indonesia, 1983).

Approximately 90% of Indonesia's people are of the Islamic faith. About 5% of the people are Christian. Hindus make up less than 1% and are concentrated in Bali. Buddhism and other religions play a similarly minor role in modern Indonesian society (Department of Information, 1984).

The Indonesian government has emphasized education as an important factor in social and economic development. Expenditures for education have increased respectively from 6.8%, 8.3% and 10.4% of the total government expenditure in the first to third Five-Year Development Plans. The ratio of enrollment for the school-age population in 1980 was 85.4% at the primary level, 31.3% at the junior high school level, 18.4% at the senior high school level and roughly 2% at the academy or university level (Republic of Indonesia, 1983; Suwandono, 1983a).

Indonesians are basically of Malay heritage and are divided into approximately 300 ethnic groups which speak about 350 languages and dialects. Fortunately, a national language ("Bahasa Indonesia") unites the diverse ethnic groups (Department of Information, 1984).

The present form of Indonesia's government is based on the "1945 Constitution." The basic philosophy of the Indonesian people is embodied in a set of fundamental principles known as "PANCASILA" or Five Principles. It encompasses belief in one supreme God, humanity, the unity of Indonesia, democracy led by the wisdom of deliberations among representatives and social justice for all (Department of Information, 1986; Republic of Indonesia, 1983).

Government administration below the national level in Indonesia is divided into 27 provinces. Provinces are composed of regencies ("Kabupaten"), which generally have populations of between 200,000 to 1,200,000. Regencies are made up of districts ("Kecamatan"), with populations of between 15,000 and 75,000. The average district consists of 10-20 villages or "Desa," each with a population of between 1,000 and 6,000. The district is the lowest administrative level where

the vertical technical government services are available. There are also legislative and judicial bodies in each provincial and regency level (Suwandono, 1983a).

The Country Health Profile

In general, along with the general improvement of socio-economic conditions, there has been a significant improvement in the health status indicators of Indonesians. The Infant Mortality Rate (IMR) was estimated to be 107 per 1,000 live births for males and 98 per 1,000 for females in 1984. This represents a significant decrease from the 1971 figures, which were 152 per 1,000 for males and 129 per 1,000 for females (Ministry of Health, 1978).

However, compared with the IMR of neighboring countries with about the same socio-economic and development level, the Indonesian figures are relatively high. In 1981 Malaysia, the Philippines, Singapore, Thailand, Sri Lanka had IMR of 44, 65, 13, 68 and 37 per 1,000 live births respectively (Ascobat, 1981).

About 13 per 1,000 children aged 1-4 years died compared to 23 per 1,000 in 1960. Because of high mortality among the young, average life expectancy at birth is only about 53 years; however this figure is up from 41 years two decades earlier (Biro Pusat Statistic, 1981, 1984; Suwandono, 1983b; Taylor, 1983).

The major causes of death among the young are pneumonia and diarrhea, with malnutrition as the underlying or associated cause. Rohde, Hull and Hendrata (1978) estimated that about 57% of all deaths in Java were of children under five years of age. About two-thirds

of those deaths were caused by a complex set of causes, consisting of malnutrition, diarrhea and upper respiratory tract infections (Ascobat, 1981; Rohde & Hendrata, 1983).

A household survey conducted in 1982 (Ascobat, 1981) found that most neonatal deaths were caused by tetanus. The same survey found that among the general population, the three most important causes of death were lower respiratory infection, diarrhea and tuberculosis, which accounted for 19.9%, 18.8% and 8.4% of the total deaths, respectively.

Significant disparities exist in both mortality and morbidity among Indonesia's widely dispersed regions, within regions and provinces, between the rural and urban areas. The average urban resident in Java is enjoying much better health status and access to health services than the average rural dweller on other islands. For example, life expectancy at birth in Yogyakarta (Central Java) is 61 years compared to 52 years in Sulawesi and 44 years in West Nusa Tenggara (Ministry of Health, 1978, 1983; USAID, 1983, 1984).

Although the supply of calories and protein in the country overall is adequate, protein-calorie malnutrition (PCM) remains a serious problem and is a major cause of Indonesia's still high rate of infant mortality. This is largely due to problems of food distribution, both among and within families. Current estimates indicate that 15% of the population of about 23 million people, principally the urban poor, small landholders and the rural landless, are malnourished. Within families, both women as well as children under 5 years are likely to receive insufficient calories and protein (UNICEF, 1984). Indeed,

the Ministry of Health estimates that 33% of children under five suffer from mild to moderate degrees of protein energy malnutrition; 3% of them in a severe form. About 13.8% of babies born were under 2,500 grams in weight. The prevalence of xerophthalmia was about 1.6% in 1984 and, it was found in about 16.4% of the under-fives, causing more than 50,000 new cases of blindness every year. There are more than 12 million persons suffering from endemic goiter, and about 100,000 of them were cretins. Iron deficiency anemia was found in 28-52% of male workers and in 35-85% of non-pregnant women (Ministry of Health, 1978).

One factor which influences the current health situation is poor environmental sanitation. A 1975-1976 survey in rural areas discovered that only 6% of the population used protected water, and only 20% of the population used latrines for excreta disposal, whereas 80 percent used rivers, ponds, and gardens (Suwandono, 1983b). The data from the World Bank indicate that only 19% of the rural population and 40% of the urban population had access to safe water in 1981. According to the same source, only 23% (24% in rural and 20% in urban areas) obtained adequate sanitary facilities (World Bank, 1985). Another study in 1982 found that about 73% of houses in the rural areas are built with a dirt floor and 87% have walls made from impermanent materials such as bamboo (Haliman, Suwandono & Parmadhi, 1979).

Indonesia's Health Service Development

History

Information for this section was taken from the following sources: Ascobat (1981), Hendrata (1985), Ministry of Health, Indonesia (1983,

1982), Suwandono (1983b), Yahya, Soerono and Papilaya (1985), and Yahya (1985).

During the Dutch colonial rule, health services in Indonesia consisted mainly of hospitals run by missionaries and big estates which were concentrated in the urban centers. Services in the rural areas were provided by paramedics with little institutional support.

In the early years of independence the health service system was still organized according to the patterns inherited from the colonial government. This was characterized by a heavy reliance on curative services and the establishment of hospital services centered in several big cities and other urban areas.

Realizing that such a system has a very small impact on the community, the government launched a program of establishing polyclinics in urban and rural areas. These polyclinics were managed by nurses; however the services provided were still curative in nature.

Hence, MCH centers in urban and rural areas were created by the government in the 1950s due to the fact that the mortality of mothers and children under five was very high. These MCH centers provided midwifery and child health services, nutritional advice and care, immunization and treatment of minor ailments as well as health education. It was expected that each MCH center would be managed by a midwife. Since there were inadequate numbers of midwives and traditional birth attendants were still prominent in the community, the government trained the traditional birth attendants in personal hygiene, sterilization of instruments used in deliveries, deliveries of normal partus, and detection of abnormal pregnancies.

In accordance with international efforts to control and eradicate major infectious and tropical diseases in developing countries, several vertical programs were initiated in the 1950s to control yaws, smallpox, cholera, malaria and plague. Those campaigns were successful in eradicating yaws and smallpox as well as in controlling malaria in Indonesia.

Poor and deteriorating economic conditions during the late 1950s and the early 1960s halted any further development of the health delivery system. Instead, Indonesia needed a massive input of emergency aid. According to the World Bank report (1981), both health status and organization of health services deteriorated during this period.

There was political turmoil in 1965-1966 which was caused by the communist party rebellion. After this upheaval, the New Order Government developed the first Five-Year Plan (1969-1973) which included measures for improving health conditions. Although resources were still limited (the health sector budget was less than 2% of the national development budget), the concept of the health center (HC) or "PUSKEMAS" ("Pusat Kesehatan Masyarakat") was initiated by the government in 1969. It was intended that one HC would be established in each district and managed by a physician.

With the increase in oil prices in the early 1970s government resources for development increased dramatically. At the end of the second Five-Year Plan in 1979, 4,353 HCs had been established (covering about 80% of the districts of Indonesia), and an additional 4,200 doctors and 15,000 nurses started working. At the end of the third

Five-Year Plan (1984), there were 5,353 HCs. It is expected that by the end of the next Five-Year Plan there will be 5,853 HCs.

The numbers above imply a success in the provision of health care facilities. However, as a matter of fact the majority of the HCs are still not fully utilized. The HC covers a radius of five kilometers and treats only 25% sick people who seek treatment.

In overcoming the above problems, Dr. Soebekti (the former Director General of Community Health Development, the Ministry of Health) formulated a new strategy called "Pembangunan Kesehatan Masyarakat Desa (PKMD)" or Village Community Health Development. Essentially, "PKMD" has a similar approach to the Primary Health Care concept introduced by W.H.O. The approach used in "PKMD" is to provide basic services of health to the community by encouraging the full participation of the community in the formulation and implementation of health care activities, the training and utilization of village volunteer health workers, the establishment of a village health insurance scheme as well as in other supporting activities.

Since 1984, "PKMD" activities have focused on immunization, oral rehydration for diarrhea disease control, nutrition, vitamin A distribution for xerophthalmia protection, and MCH/Family Planning programs. The village unit which carries out these activities is called "POS YANDU" or Integrated Village Post. The idea is to create a "one-stop" post at the village level and where those five programs will be made available. These programs are implemented by joint and integrated teams from the Ministry of Health, the National Family Planning Coordinating Board and the Ministry of Interior.

The National Health System
and the Five-Year Development Plan

In 1979, W.H.O. suggested that all governments formulate national health policies, strategies and plans of action in achieving "health for all by the year 2000." In Indonesia, after long and serious meetings, the Ministry of Health announced the national health policy in the document entitled "Sistim Kesehatan Nasional (SKN)" or the National Health System. This SKN contains an analysis of health problems and the socio-economic capacity to deal with them, followed by the specification of goals and priorities. It will serve as the policy guideline for those directly involved in the health effort and for those in other fields related to the strengthening of health programs (World Health Organization, 1981a).

The strategy and the plan of action are stated in the "Rencana Pembangunan Jangka Panjang Kesehatan (RPJPK)" or Long-Term Health Development Plan in achieving "health for all Indonesians by the year 2000." In this section, the objectives of the national health program are expressed in a very specific and measurable way (Ascobat, 1981; Hendrata, 1985; Yahya, Soerono & Papilaya, 1985).

The most important objectives to be achieved by the year 2000 are the reduction of the IMR from the present rate of 100 per 1,000 live births to 45 per 1,000 live births and the reduction of the present mortality rate of 40 per 1,000 to 15 per 1,000 for children under-five. These objectives clearly set the direction of the whole health program toward reaching more infants and children in a more effective way (Ministry of Health, 1982).

The heavy emphasis on rural health services and community participation is another important element of the "SKN" policy guideline. Although it does not deal sufficiently with the structural and operational implications of that policy, it does provide the general direction and legitimacy for the development of community-based rural health programs (Hendrata, 1985; Ministry of Health, 1982).

Various programs have been developed to achieve the national health objectives. There are 13 programs under the health sector sub-system as follows: (1) MCH program, (2) Nutrition program, (3) Environmental health program, (4) Communicable disease control program, (5) Inpatient and outpatient care program, (6) Village Community Health Development program, (7) Health education program, (8) Food and drug control program, (9) Occupational health program, (10) Improvement of management and legal aspect in health sector, (11) Health information system, (12) Research and development program, and (13) Health manpower development program. The non-health sector develops in accordance with the specific areas concerned (Ministry of Health, 1978; World Bank, 1982).

The implementation of the long-term health development program is divided into several Five-Year Health Development Plans in conformity with the global approach of the national Five-Year Development Plan or "Recana Pembangunan Lima Tahun or REPELITA." The latter is included in the Guidelines of State Policy or "Garis Besar Halauan Negara or GBHN." Every five years, the GBHN is revised and adjusted to developments in the life of the Indonesian people and nation. There have been four "REPELITA" since 1969 (Ministry of Health, 1983, 1982).

During the "REPELITA I" (1969-1974), the government assigned a relatively low priority to health and other social sectors. The government emphasized the agricultural and economic sectors. Public health activities focused mainly on health education and the prevention of epidemics; consequently only modest attention was paid to the development of hospital and rural health services (Republic of Indonesia, 1983).

During the "REPELITA III" (1979-1984) there were three fundamental objectives of National Development. They were as follows: (1) Equitable distribution of development gains, (2) Economic growth, and (3) The maintenance of political and economic stability (Department of Information, 1984; World Bank, 1982). The government emphasized equity, as well as agricultural and industrial development. In the health sector, the three government priorities were: (1) to improve access to health services particularly in the outer islands, (2) to strengthen the referral system by improving the efficiency and effectiveness of health facilities, and (3) to promote improved family health behavior and practices in the community itself through village-level primary health care programs. These advances were accompanied by a significant investment in primary and secondary education, in rural water supply and sanitation as part of the government's overall approach to improve the social infrastructure and services in the rural areas (Ministry of Health, 1978).

In "REPELITA IV," "SKN," for the first time, establishes a broad conceptual foundation for the long-term development of Indonesia's health system. The National development priorities are economic

development with emphasis on the agricultural sector in order to continue efforts towards self-sufficiency in food and to promote these industries capable of producing their own industrial machines (Department of Information, 1986).

The health priorities in "REPELITA IV" are (1) Strengthening health service delivery, including measures to support and expand primary health care activities at the community/village level; (2) Strengthening health manpower development; (3) Expanding activities to improve nutrition, potable water supply, and the environmental health system; (4) Establishing programs to strengthen the overall management of the health system; and (5) Improving the equal distribution of drugs, medicines and medical equipment (Ministry of Health, 1983).

The Role of Non-Government Organizations in Health Program Development

The World Bank (1981) estimated that in the fiscal year 1980/81, about 65% of total health sector finance was derived from non-government organizations (NGOs). The private sector concentrated its spending on hospitals, non-hospital treatment and drugs.

In Indonesia, many NGOs have come into being since the establishment of the "REPELITA I." The success of the nation's family planning program is due largely to the pioneer work of the "Perkumpulan Keluarga Berencana Indonesia/PKBI" or Indonesian Family Planning Association long before the "REPELITA I." Development programs in the fields of health services, nutrition, rural credit, non-formal education, community development, small-scale industry development, environmental protection, appropriate technology, and participatory training have,

in general, achieved their present level of success because of the experiments pioneered or at least supported by NGOs. The right and duties of the community organization and NGOs especially in environmental protection and management are guaranteed by Legislative Act no. 4, 1982 on Basics Provisions for Management of the Environment (Hadad, 1983; Hainsworth, 1983; Pinney, 1983; Sasono, 1982).

Although it has not been clearly stated in the Guidelines of the State Policy, the Indonesian government has, in fact, given recognition to, and provided opportunities for, NGOs to take part in development. Compared to such neighboring countries as Malaysia and the Philippines, the relationship between NGOs and the government is far more developed in Indonesia (Hendrata, 1985).

The Study Area Profile

Geographic Description

The regency of Banjarnegara or "Kabupaten Banjarnegara" has a central position between the north and south shores of Java island and is located in Banyumas region which is the most southwestern part of the Central Java province. Banjarnegara is the second poorest regency in Central Java province (Bappeda, 1980/1981).

The population of approximately 708,000 is distributed unevenly over 1,050 square kilometers. Along the Serayu river where the land is fertile, population density is greater than 1,500 per square kilometer. This densely-populated valley area is located 40-300 meters above sea level. Further to the south, the area is dry and the land is fallow and hilly rising to an elevation of 300-700 meters above

sea level. In the north is the mountainous area of the Dieng Plateau and Mount of Rogojembangan, which rises to an elevation of 400 to 2,200 meters. The climate in this area is cool and the once fertile slopes of the hills have now been eroded, in many areas, to bare rocks and sand. There are many active volcanoes in the northern part of this regency (Suwandono, 1983b).

The capital of the regency, which is also called Banjarnegara, is about 50 km. east of Purwokerto (the capital of Banyumas region) and about 155 km. northwest of Semarang, the capital of Central Java Province (Suwandono, 1983a).

Paved roads reach each of the 18 district capitals in Banjarnegara Regency, but some of the roads are poorly developed due to landslides, heavy rains, geographic inaccessibility, and lack of good maintenance. There are many private businesses which provide transportation for the community except in some remote and mountainous district capitals. The transportation and infrastructure among 279 villages are still poorly developed and scanty, most are in the mountain area. More than 50% of the villages are located in remote areas which can only be reached by walking or climbing through the mountainous area (Haliman & Suwandono, 1984). Most of this area is located in the northern part of this regency. However, the present situation is much better as compared to 10 years ago when more than 80% of the villages in this area could not even be reached by motorcycles or four-wheel drive vehicles.

Administration

The top government official in a regency is the "BUPATI" or regent. He coordinates all the development programs which are implemented in his area. Administratively, the Banjarnegara regency is divided into 18 districts or "KECAMATAN" which is headed by "CAMAT." A further division of the subdistrict is the village or "DESA."

In carrying out the development programs, the "BUPATI" is assisted by several local government institutions called "DINAS." For example, "Dinas Kesehatan" is responsible for the health programs, and "Dinas Pertanian" is responsible for the agriculture programs. There are also several offices which carry out the national program for each ministry. This office, the "Kantor Departemen or KANDEP," i.e., "KANDEP KESEHATAN," is a federal office which is located in Banjarnegara and carries out the health program for the Ministry of Health. Fortunately, until now, in most cases, the chairmen of "Dinas" and "KANDEP" is the same person (Slamet, Soesartono, Rienks & Rahardjo, 1979; Soebekti, Haliman & Suwandono, 1980; Suwandono, 1983b).

Each "CAMAT" is also helped by several local government institutions. For example, "PUSKESMAS" or HC is an institution which assists the "CAMAT" in carrying out health programs in a district.

There were 281 villages in this area before 1979. Because of the eruption of Mt. Dieng in 1979 which was declared a national disaster, two villages were evacuated and declared uninhabitable by the government. Thus, there are presently 279 villages in this regency. Each of the villages is administered by a village headman or "KEPALA DESA," who is elected by the village members. The village area is

usually divided into smaller units of nucleated settlement areas called "DUKUH." Each "DUKUH" has a person in charge called a "BAU" who is an assistant to the village headman. In order to facilitate coordination of the development activities, each "DUKUH" is divided into several hamlets or "RT" coordinated by "KETUA RT" (Suwandono, 1983b).

In Banjarnegara, as well as in other regencies in Java, the "DESA" is the basic social, economic, and political unit of organization. Generally, a "DESA" in Banjarnegara has approximately 700-7,000 inhabitants and is composed of one or more nucleated settlements surrounded by agricultural land. Even though "outside" influences have brought some changes to the processes of social interaction and trade in the villages, it remains obvious that the village still retains its position as the source of social status and security for the individual (Bappeda, 1980/1981; 1978).

In the rural area, the role of the informal leader is very important and influential in village life. He is often a key person particularly in the mobilization of community participation. In order to utilize this potential, the government has established a channel by which the community leader can contribute supportive participation to village development. The channel is a community organization called "Lembaga Ketahanan Masyarakat Desa (LKMD)" or Village Development Council. Its duty is to assist the village chief in development planning and mobilizing community participation in order to obtain a coordinated development program, from both the governmental and private sectors. The members of this council are community leaders such as traditional leaders, religious leaders, traditional healers,

teachers, youth and women's group leaders. The head of the village is ex-officio head of LKMD, but the two chairmen and other members of the executive are elected from the local village community (Department of Information, 1986).

Presidential Decree no. 28/1980 provides for these main functions of the "LKMD": (1) To plan village development based on community deliberation, (2) To mobilize and to improve ideas and community participation for integrated development of either government programs or community programs, and (3) To coordinate community dynamics for self-defense. There are 10 sections in LKMD and each is headed by an appointed person. One of the sections is responsible for health, population and family planning (Suwandono, 1983a).

Village Classification

There are several different kinds of village classifications in Indonesia. The two types considered the most useful in this research are: the urban-rural classification, and secondly, a classification based on the level of village development, commonly called "village typology."

A village can be categorized as rural or urban based on such criteria as the distance of the village to the nearest city, the type of transportation, and the availability of such modern facilities as schools, health facilities, permanent marketplaces, etc. Thirty-four villages in Banjarnegara regency are thus classified as urban villages.

The second method of village classification uses several criteria including population factors, physical and environmental factors, human factors, sociocultural factors as well as the location of the village toward the center of facilities.

This method classifies villages into three types: (1) "Desa Swadaya," (2) "Desa Swakarya," and (3) "Desa Swasembada." The classification is done by the Directorate of Rural Development, a division within the Ministry of Internal Affairs (Ascobat, 1981; Bappeda, 1978; Suwandono, 1983b).

"Desa Swadaya" is a village with strong traditions, very close human relationships, and social control by the families. The inhabitants in a "swadaya" village have a common way to obtain their primary needs. Their productivity is low due to the lack of modern technology and facilities. Most of the people are engaged in agriculture or fishing. In this society, community participation is generated more by the authorities than by the people. The Ministry of Home Affairs provides a scoring system for each type of village. The total scoring system based on the above description for a "swadaya" village is in the range between 7 to 11.

"Desa Swakarya" is a village in transition. Outside influences start to change the way of life of the people from a purely agricultural society to a mix between agriculture and such small industries as food processing and handicrafts. Here, community participation is expressed spontaneously by the members of the community. The score range of "Desa Swakarya" is 12-16.

"Desa Swasembada" is at the most advanced level of development of the three village types. In this society, human relationships are more rational and there are various ways to earn a living. There is a higher productivity due to the utilization of new technology as well as to the appropriateness of facilities in the village. This type

of village usually has a good communication system and market facilities. The score of this type village is in the range of 17-21.

In June 1984, of the 214 villages classified as "Desa Swasembada," 180 villages were rural villages. Of the 65 villages classified as "Desa Swakarya," 100% were rural villages. None of the 279 villages is still classified as "Desa Swadaya" (Bappeda, 1983/1984; Regent of Banjarnegara Regency, 1984-1985; 1986-1987; Report of Banjarnegara, 1983-1984).

Since there are also big differences in socio-economic, occupational, literacy and geographic conditions among the villages in the mountainous area and in the plain area, this research also classifies the villages according to geographic differences. There are 149 villages located in the mountain area as compared to 130 villages in the plain area. The criteria for deciding in which geographic area a village is located, is the altitude of the village which is measured as meters above sea level. The mountain villages are those villages which are located equal or more than 500 meters above sea level.

Population and Culture

Information in this section was gathered from the following sources: Bappeda (1978, 1975.1976, 1978/1979, 1980/1981, 1982/1983, 1983/1984); Regent of Banjarnegara Regency Working Plan (1980-1981; 1986-1987) and Suwandono (1983b).

The total population of Banjarnegara Regency as of June 1984 was 708,520 persons (49.6% male and 50.4% female) consisting of 136,259 families. Of this population 47.2% were either under age 15 or above 65 years, and 52.8% were between 16 and 64 years of age. Hence, there

was still a high dependency ratio. The population growth rate from 1971 to 1984 was 1.47% per year. The crude birth rate (CBR) in 1974 was 26.6/1,000 population and the crude death rate (CDR) 11.4/1,000 population. In 1984, the CBR was 22.8 per 1,000 population and the CDR was 6.2 per 1,000 population.

Seasonal migration of the population to the big cities occurs mostly between the times of planting and harvesting. The migrants are young males and females who are employed in urban industries. Some of them are transmigrants to other islands.

Ethnically, the Banjarnegara population is predominantly Javanese, specifically they are "BANYUMAS JAVANESE." Cultural and social conditions are very closely related to the quality of life and to health status. These factors may influence positive support for the health development program, but in certain situations may become an impediment if handled incorrectly. In some instances, the cultural and social conditions or values may have been influenced by false beliefs and behavioral norms that are hazardous to health.

The people of Banjarnegara are predominantly Moslems. Islam itself is a very influential religion, not only mentally but also physically which has powerful implications for health and social welfare. However, some of the Banjarnegara people are culturally influenced by the traditional Javanese beliefs as well as the Moslem religion. The people pay homage to Allah or God, while at the same time they adhere to their local spirits which sometimes direct them to specific spiritual acts.

Another cultural factor is the term "PASRAH" which describes the willingness to accept a disease, for example as being predestined. They think that a disease is part of God's will. The term "NRIMO" means accepting one's fate. A sense of cohesiveness and slowness in decision making and work, result in a reluctance to receive something as charity. Paternalism is another cultural perspective which has important considerations in the implementation of health programs.

On the other hand, there is a common cultural concept of mutual self-help called "GOTONG-ROYONG." This applies particularly to cooperation within each community where one finds all members of a village assisting each other, i.e., in planting, harvesting, and construction of roads, and houses. The second positive cultural concept is called a "RUKUN." This applies, for example, in cases of conflict, where the guiding principle is to find a reasonable solution which will not result in resentment between village members. The third common cultural concept is called "MUSYAWARAH" or deliberation, where every community's decision is the result of joint deliberation.

However, in areas where there is no guidance, what is called "new colonialism" develops, the richest villagers and sometimes the village leaders or other respected villagers tend to be autocratic. This attitude leads to the poor being "left economically behind and static." Thus, the poor villagers have no chance to express their opinions other than to answer everything with "YES."

Cultural aspects are discussed here to provide background information for the discussion on the research findings and their interpretation (Chapters V and VI).

Socio-Economics

The per capita income of this regency was roughly US\$50.00 per annum during the early 1970s. More than 50% of the families made less than US\$30.00 per capita per year and only 5% made in excess of US\$100.00 or more. However, in 1981 the per capita income was US\$105.00. Most of the poor community is concentrated in the North and South of this regency. Most of the people (69.3%) subsist on agriculture or related jobs. Cultivation of corn and cassava has reached the very peak of the mountains in the Northern and Southern part, thereby exacerbating the severe erosion problems. Intensive cultivation of rice, coconut palm, small fish ponds and other agricultural pursuits can only be undertaken in the Serayu River valley (Bappeda, 1978).

The Agricultural Census showed more than 116,711 farmholdings occupying 80,672 hectares in this regency. Thus, the average farm size is 0.7 ha (including home gardens). Most alarming, however, was the increasing number of farms of less than 0.25 ha; 26.3% of all villagers fell into this group (Regent of Banjarnegara, 1982-1983).

Illiteracy exceeded 65% in most areas in the early 1970s. In late 1984 this regency was proclaimed free from illiteracy by the Ministry of Education (Regent of Banjarnegara, 1986-1987).

General Health Conditions

The Regency Health Service in Banjarnegara is headed by a doctor and his staff of 56 persons. There is a 60-bed hospital with 2 physicians (GP), 1 pediatrician, 1 dentist, 5 midwives, 10 nurses,

20 assistant nurses and several aides. There is at least one Health Center (HC) in each district. In 1975, there were only 5 physicians available to cover the 18 main HCs which are now staffed by 18 medical doctors. Five new sub HCs have been added and each has its own physician. There are roughly 15 to 25 employees per HC including 7 to 12 malaria workers and an additional 3 to 7 family planning workers. The latter provide technical guidance to the HC and report organizationally to the district office (Report of Banjarnegara, 1984-1985; Suwandono, 1983b).

Problems regarding the physical and biological environment are closely related to the high prevalence of communicable diseases, especially in the rural areas where the living conditions are far below the minimum standard requirement. The malaria problem in Banjarnegara creates one of the main economical problems (Report of Banjarnegara, 1983-1984). Since 1982, Banjarnegara has made tremendous progress in overcoming malaria. The average number of cases per month dropped from 6,000 to less than 100 by the end of 1982 (Report of Banjarnegara, 1984-1985). However, success will not be fully achieved until the malaria prevalence rate of zero can be maintained.

Tuberculosis is endemic and respiratory illnesses affect virtually all children, especially those living in the mountainous area. Diarrhea is a common cause of death and is aggravated by widespread malnutrition particularly in the under-five age group. Eye problems, skin problems, pertussis, morbilli, worms and other infectious diseases still appear in every village (Haliman, Suwandono & Parmadhi, 1979; Report of Banjarnegara, 1984-1985; Suwandono, 1983a).

During a survey in 1975, it was found that the percentage of people who had access to clean water was less than 9%, while latrines were used only among the wealthy rural groups. More than 80% of the population disposed of their excreta in rivers, ditches, and gardens. In the period of 1977 to 1979, 3-31% of the rectal swab tests for gastroenteritis were positive for cholera (Chanthavanich, 1979; Haliman & Suwandono, 1984; Soebekti, Haliman & Suwandono, 1980; Suwandono, 1983b).

The IMR, which reached 176 per 1,000 in 1972, was reduced to 125 per 1,000 in 1975 and to 80 per 1,000 in 1980. The maternal mortality rate (MMR) was 4.8 per 1,000 births in 1972 and decreased to 2.4 per 1,000 births in 1980 (Report of Banjarnegara, 1983-1984; 1984-1985).

In 1975 the proportion of children under-five whose weight increased since the previous month was 42.6%, this proportion increased to 61.3% in 1979 (Johnston, 1983) and slightly improved to 64.3% in 1984 (Regent of Banjarnegara, 1986-1987).

The "YPSSE" and the PHC in Banjarnegara

History

Information in this section is from the following sources: Haliman, Suwandono and Parmadhi (1979); Haliman and William (1983); Haliman and Suwandono (1984); Hendrata (1985), Johnston (1980); Ministry of Health (1982); Soebekti, Haliman and Suwandono (1980); Suwandono (1983b); and Tambunan (1978).

The Banjarnegara PHC had its beginnings in 1971, when Dr. Yahya Wardoyo, a young doctor from a Christian clinic in the small district town of Klampok began community health work by taking a mobile clinic

once a week to the nearby village Sirkandi. He tried also to interest people in that village in a voluntary health insurance scheme to cover the cost of medical care. The local response was lukewarm, a few people utilized the curative service, but they showed no interest whatever in paying for a health insurance scheme.

Dr. Wardoyo and his team evaluated their efforts, and conducted a community survey. He found, to his surprise, that the people were more interested in increasing their meagre incomes than in paying for health care. This survey also indicated that the people of Sirkandi were more concerned about agricultural problems than health care. So he changed his approach. By providing funds and technical guidance to help villagers build a small dam, they hoped to increase rice production. Village health insurance came later. Other schemes followed: the planting of fruit and clove trees; a revolving loan fund for purchasing goals; and finally, health activities which were initiated by training volunteer health workers to begin a nutrition improvement program for children under-five.

Meanwhile, in a neighboring village, a government HC doctor was reaching similar conclusions. Dr. Elias Winoto, head of the district government HC in Klampok, tried to set up a health post in Karangsalam village and staffed the post with volunteer health workers. He also supported Dr. Wardoyo's activities in Sirkandi village. The people of Karangsalam village complained, however, that they were too busy to help run the health post. Dr. Winoto then decided to take more interest in the people's daily problems and found that they spent considerable time in collecting fuel which was used in the manufacture

of palm sugar. After some experiments, Dr. Elias Winoto devised a method of boiling palm sugar while using less fuel. This won him genuine appreciation from the villagers. From this point onwards the people started to organize their own health care activities with the technical guidance of the government HC personnel.

Thus, PHC began modestly in Banjarnegara with loosely structured programs of multisectoral development activities in several villages. The early programs consisted of income-generating activities, disease-prevention and health-promotion as well as curative health care. The program was implemented largely by voluntary health workers (VHW), known locally as "KADER" or cadre.

These PHC activities stimulated some of the neighboring villages. For example, the community leaders of Klampok village began to take an interest in the latest developments in Sirkandi and Karangsalam. The innovative village headman of Klampok and several other community leaders made visits to Sirkandi and Karangsalam to learn from those who had pioneered community health.

Furthermore, they also visited Solo in which Dr. Gunawan Nugroho during the late 1960s took the first step towards developing a community health strategy called "DANA SAKIT" or "sickness insurance." On returning to Klampok, the village's team drew up plans to develop health care in their own community.

Although Dr. Wardoyo and Dr. Winoto provided some technical guidance, this plan was basically the achievement of the village leaders. Their first priority was not to start an income-generating scheme, but to train volunteers as village community development workers, with special emphasis on health and nutrition. Their strategy

of developing human resources before attempting to implement programs proved to be totally successful in Klampok village. As a result, community health care activities developed much faster in Klampok than in Sirkandi or Karangsalam.

Meanwhile, Dr. Arif Haliman, the Chief of Health Services for Banjarnegara Regency, also supported and was actively involved in these community health programs. He attempted to replicate these activities throughout the regency. However, budgetary limitations, bureaucracy obstacles, insufficient manpower and other problems impeded his progress. He was not discouraged by such problems, rather he approached the regent, the community leaders, the religious leaders and senior government officials in Banjarnegara about implementing his idea. His ingenuity, skills in human interaction, confidence, industriousness and hard efforts resulted in various meaningful achievements. In 1973, by using the government school health service program or "Usaha Kesehatan Sekolah/UKS" as a point of entry, he initiated a PHC program in Gembongan and Karangjambe villages.

Furthermore, in 1974, the newly appointed regent of Banjarnegara, "Drs." Suwadji, accepted the idea that the local health service should consider ways of spreading the Klampok approach to other villages throughout the regency. In order to solve the problems mentioned above, "Drs." Suwadji and Dr. Haliman established a committee called "PPSE (PANITIA PEMBANGUNAN SOSIAL EKONOMI)" or "Committee for Socio Economic Development." The committee's functions were to promote cooperation between government and voluntary agencies into the community development and PHC. The "PPSE" also acted as a clearing house and channel

for NGO's assistance. Drs. Suwadji acted as Chairman of the "PPSE," and Dr. Haliman was the Executive Director who was in charge of day-to-day activities. Other members included the local government heads of Planning Board, Agriculture, Animal Husbandry, Fisheries, Education, Religion, Rural Development Services, as well as several key persons, religious leaders, and representatives from private organizations and donor agencies.

The creation of this organization was based on Dr. Haliman's critical thought about Dr. Gunawan Nugroho's unsuccessful community health work in Boyolayar in the late 1960s. Nugroho's failure was neither due to a technical fault nor a lack of community support. Rather, he was unsuccessful in his attempts to collaborate with the local government administrator in order "to move bureaucratic mountains and eliminate the shortage of funds."

In 1979, the "PPSE" was changed by the regent to "YPPSE" ("YAYASAN PEMBANGUNAN DAN PENGEMBANGAN SOSIAL EKONOMI") or "Foundation of Socio Economic Development" in order to gain greater flexibility for receiving support from the donor agencies. From this point on, the "YPPSE" became strictly a NGO. However, "YPPSE" continued to function in the same fashion as it had previously.

Philosophy

Information in this section is from Suwandono (1983b).

a. The "YPPSE" works with the rural poor community by attempting to understand their needs and their way of thinking, and becoming close to them in order to determine what the "YPPSE" can contribute to their needs.

b. "YPPSE" strives to be an innovator without being "a new model of the oppressor" to the rural poor community. It uses the principle of "Development from Below." In other words, it attempts to understand the way people feel, to learn what the people are suffering from, and to start the activities with what the people have.

c. The "YPPSE" promotes non-formal education to both the community and the providers in order to raise their consciousness regarding their problems; and to develop a simple but creative thinking capacity which will lead to open discussions based on reality.

d. This organization acts as a "bridge" that can articulate the government's will and the community's needs to create an understanding which will benefit the welfare of the community.

e. The "YPPSE" stimulates a program based on community participation, community priorities, a multidisciplinary approach, inter-sectoral contributions, use of local resources and appropriate technology as well as cost effective operation.

Program Strategy

This section is based on Haliman, Suwandono and Parmadhi (1979), Haliman and William (1983) and Halliman and Suwandono (1984).

a. Approaching the people:

Informal: making contact with important people in the village on such occasions as meetings, wedding parties, and doctor's practice; and developing a dialogue to encourage these leaders to help their community. Such contacts are generally followed by a formal meeting.

Formal: through official channels, such as conferences, work visits, school health programs, training sessions, village meetings and teachers' meetings.

b. Human Development and Training Strategy (Johnston, 1983; Suwandono (1983a):

The general operational strategy was to first invest in human resources, as in the Klampok approach, then moving into program planning and implementation.

Thus, the first step was to train government staff, including some Health Service personnel, in basic management principles for community health and development. Most personnel involved in the program participated in the 40 day training which took place during the "fasting period of Ramadhan" in 1976.

The purpose of that training was to sensitize the providers about their own problems such as working within a bureaucracy, their ingrained behaviors and attitudes, and their inappropriate managerial techniques. Also, the trainers illustrated the reality of the community's condition, the importance of intersectoral approach, the process of community outreach.

At the beginning of each year, the "YPPSE" decided how many villages would be covered by the program, and "KADER" training sessions were organized in the village. Training a group of health and nutrition volunteer workers is not simply a matter of imparting certain technical and managerial skills. It also means providing trainees with a theoretical framework within which they and their communities

can establish PHC or community development activities according to local needs and capacities.

Such comprehensive training covers a variety of disciplines: health, agriculture, fisheries, animal husbandry, nutrition, appropriate technology, and simple management. With the improvement of attitude, knowledge and skills of the above subject areas, the people are assisted in determining their priorities. Then, repeated training sessions, refresher courses and workshops are held to expand the attitude, knowledge and skills of the VHW's so that they might be in a better position to develop their potential to handle more extensive activities.

When the desire arises to expand or to increase the scope of the projects, "YPPSE" provides a portion of the funds, and the balance is provided by the people themselves. In this way the community becomes totally involved. "YPPSE" merely participates in and facilitates the activities.

Expansion of the Program Area (Soebekti, et al., 1980)

First, "YPPSE" organizes a study tour for a group of villagers to a more developed area. Progress is pointed out to the visiting group who will later be encouraged to plan improvements in their respective villages. "YPPSE" and the government will then provide any technical assistance that is needed.

A second avenue of expansion is through school health training programs in which the teachers are trained in PHC and community development. When they return to their village environment, they initiate

a community health program which may develop into other integrated activities.

Third, is the "semi-instruction" method. Here the vertical hierarchical line from "CAMAT" to village headman is used. The district head uses "an excuse to ask" (as opposed to order) a village to begin a certain activity. Usually the village headman will comply with the request, although operationally he will first discuss it with the villagers. This activity may finally become incorporated into village life after additional education and motivation from official channels and the "YPPSE."

Fourth, extension within the developing village itself takes place by one hamlet stimulating another, as well as through the expansion of monosectoral projects to become integrated, comprehensive and multi-sectoral activities.

Fifth, is the use of the "KRING" system which will be explained in a later section ("Program Follow-up and Maintenance").

The Organizational Structure (Suwandono, 1983a; 1983b; Tambunan, 1978)

"YPPSE" is closely related to both the government and the community. The composition of this organization's board is as follows: (1) The Chairman is the Regent; (2) The Executive Chairman is the Director of Regency Health Services; (3) The Secretary is the Head of the Planning Board of Banjarnegara Regency; (4) The Full-time Administrator is one of the community leaders; (5) The members are several Directors of Regency Departments, religious leaders and community leaders; (6) The Consultant and Head of Training and Education

is the Head of the Health Education Division of Regency Health Services; and (7) The Treasurer is the Secretary of Regency Health Services.

With this unique board, the "YPPSE" can be called "a quasi non-government organization." It is a board with a double face, private sector and government organization. The advantage of such status is that many bureaucratic barriers may be reduced. This particularly facilitates the ability to obtain and expend funds directly from the donor agencies. However, "YPPSE" retains the rights and privileges of operating under the government's flag which has many advantages. For example, "YPPSE" has the right to make contact with anyone in its search for knowledge and support to the community.

"YPPSE" can thereby communicate directly with the community to learn the community's needs. Furthermore, the government benefits from the existence of this organization. For example, if budget allocations have not been made for specific community projects, the "YPPSE" will assist the government by providing funds to fulfill those needs.

Funding (Haliman & Suwandono, 1984)

"YPPSE" has two major funding components: (1) Donors, there are three types of funding sources--from foreign donors, domestic donors, and joint sources from local government and government departments; and (2) the community, in the implementation of village development programs the community contributes labor, materials, and/or money to accomplish their objectives.

Program Follow-up and Maintenance (Suwandono, 1983b; Yahya, et al., 1985)

One of the most difficult problems is to maintain the enthusiasm of the community in the programs. The freedom to stop participating remains the villagers' right, and they sometimes slacken their activities or drop out altogether. It is up to the community health worker to see that the members remain enthusiastic and willing to dedicate themselves.

Several methods are applied by "YPPSE" and the government to ensure program continuity as follows: (1) Regular supervision, (2) Refresher sessions or upgrading courses are carried out both within and outside the Banjarnegara Regency, (3) "Mini" workshops encourage the VHWs because they are able to confer with VHWs from other villages and describe their respective successes. It is important for VHWs from different villages to share their results with pride, (4) Study tours to areas with positive achievements are organized for the VHWs so that they may compare their village with others, (5) Guests from other areas and from overseas are shown the successes of the development, (6) Official governmental activities are sometimes held in villages with the aim of maintaining community involvement, and (7) Survey research studies in certain areas indicate support of their attempts. Such efforts may be critical of development activities. However, if the criticism is conveyed wisely with a positive tone, the villagers will be grateful.

One particularly innovative form of motivation and maintenance of programs is the "KRING" or "circle" system. A "KRING" is a grouping of about 10 villages, in which two villages are relatively advanced

in their development, three are moderate in their developmental level, and the others are still at an early stage in their developmental process. Village leaders and key VHVs from each village meet every three months on a rotating basis in order to examine and discuss the progress of their villages and to plan village development activities for the next quarter. Government and voluntary agency personnel are on hand to give technical or managerial guidance.

Thus, the "KRING" system brings into play the psychology of peer group pressure and stimulates communities to take new initiatives and "rewards" those communities which have made progress.

CHAPTER III
REVIEW OF LITERATURE AND SUMMARY OF CONCEPTS
BASIC TO THE STUDY

Primary Health Care

Dr. Mahler, W.H.O. Director General (1982), stated that primary health care (PHC) is the basis of "health for all by the year 2000." Health is defined as a personal state of well being, not just the availability of health services, and health is a state of wealth that enables a person to lead a socially and economically productive life. Health for all implies the removal of the obstacles to health, i.e., the elimination of malnutrition, ignorance, contaminated drinking water, and unhygienic housing. Health for all implies that health should be regarded as an objective of economic and overall development. For example, "health for all" is ultimately dependent upon literacy for all. "Health for all" is thus a holistic concept calling for efforts in agriculture, industry, education, housing and communication just as much as in medicine and public health. Medical care alone cannot bring health to hungry people living in hovels. Health for such people requires a whole new way of life, to provide themselves with a higher standard of living.

With the above perspective, an acceptable level of health for all by the year 2000 cannot be achieved by the health sector alone (Chanawongse, 1986; Ferranti, 1984; Golladay & Weser, 1977; Jobert, 1985; Navarro, 1982; Petelos, 1981; Werner, 1982; William & Satoto,

1980; W.H.O., 1981e, 1985). PRC implementation should include an intersectoral approach since setting the health demands and achieving improved levels of health for a community depend on interacting factors which are, for the most part, outside the control of the health sector. Such factors as housing, income, education, and cultural patterns are generally defined as "conditioning factors" which affect the health status of the individual and the society as a whole. The majority of these factors are within the jurisdiction of other development sectors with which the health sector needs to be linked and coordinated, for its own development, as a means and an end to achieve the general well-being of the population (PAHO, 1982).

This intersectoral approach can only be attained through national political will and the coordinated efforts of the health sector and relevant activities of other social and economic sectors (W.H.O., 1981a). Hence, the introduction or strengthening of the development process needed to attain health for all requires "unequivocal" political commitment to bring about the reforms to achieve PHC's goal (Chen, 1986). This will most likely have to be set in motion by political decisions taken by the government which permeate all sectors, at all levels throughout the country. To achieve this wider political commitment, it will no doubt help to actively involve all levels, sectors, and interests in the development and implementation of national policies, strategies and plans of action (Bryant, 1980).

Since health development both contributes to and results from social and economic development, health policies ideally should be part of overall development policies, thus reflecting the social and

economic goals of the government and the people. In this way strategies for the health, social and economic sectors will be mutually supportive, and together contribute to ultimate goals of the society (Chen, 1986; Ferranti, 1984; Garcia, 1978; W.H.O., 1981b).

PHC forms an integral part of the country's health system as the main agent for delivering health care. It is also an integral part of the overall social and economic development of the community, or more progressively, it is an integral part of overall human development. National and community self-reliance and social awareness are among the key factors in human development (W.H.O., 1981d).

As subjects of human development, people have the right and duty to participate in the process for improvement and maintenance of their health. In developing countries, it is impossible for the governments to assume the overall responsibility for the health of their people. Individuals, families and communities assume greater responsibility for their own health and welfare, including self-care. This participation is not only desirable, it is a social, economic and technical necessity (Knight, et al., 1980; PAHO, 1982).

Governments, institutions, members of the health professions, as well as all agencies involved in health and development, will therefore have to devise appropriate ways of promoting such participation, effectively propagating relevant information, increasing literacy, and establishing or strengthening the necessary mechanisms. Then, they have to take measures to enlighten the public in health matters so as to ensure that people can participate individually and collectively in the planning, budgeting, implementation and control of

activities for their health and related social development (Ferranti, 1984; Griffin & Ghose, 1984; Rifkin & Walt, 1986; Round Table Discussion, 1981).

In view of the crucial appropriate ways of promoting community participation, it is important to take vigorous action to ensure the availability of adequate numbers of the appropriate type of health personnel. This will involve the reorientation of existing health workers as necessary, development of new categories of workers in health and related sectors, the use of voluntary health workers, and motivation of all manpower to improve community involvement in PHC. The education of family members or individuals also need to be carried out, particularly with respect to self-care and social awareness as well as the full involvement of community participation as the key components of PHC strategy (Bryant, 1980; UNICEF, 1984). Community participation involves not only a temporary involvement in health actions, but also "a permanent educational process" by which the community's knowledge, efforts, cultural wealth and resources are harnessed in a well-informed manner in the pursuit of total well-being (Werner, 1982; W.H.O., 1981b).

Another important component of PHC is to extend health services coverage utilizing and adapting appropriate technologies. This means that the health technologies used must be efficient, effective, feasible, and in harmony with the sociocultural and ecological setting in which the population lives (W.H.O., 1981a).

In summary, there are five important tenets of PHC that will be discussed in this dissertation, they are as follows:

1. The goals and objectives of the PHC approach do not merely concern the health status of the community but also the improvement of the socio-economic status of the community.
2. Community participation in programming, implementing, budgeting and controlling or evaluating their own PHC programs is one of the most important aspects of the PHC concept.
3. The training of health personnel and village volunteer health workers as providers who facilitate and stimulate the improvement of community participation in PHC is a long-term educational process which will bring about change in communities' knowledge, attitude and skills regarding the objectives of PHC.
4. The integrated PHC system requires strong political commitment as well as the arts and strategies of how to translate the political commitment into action at all levels of the country's administration.
5. The tools for monitoring and evaluating PHC activities so that the appropriate activities will be implemented to root in the community way of life.

The concepts and theories of each component will be discussed in depth later in this chapter.

Conditions for Success and Problems of PHC in Banjarnegara Regency

There are several major conceptual points extracted from the discussion of Chapter II that can be held as the basic concepts for the Banjarnegara PHC successes as follows:

1. The Banjarnegara PHC program is a small, specific and innovative PHC program which was developed based on trial and error in the reality of rural life over a 10-year period.

2. The unique status of "YPPSE," which sets up the various NGO projects in the regency to be more flexible and effective mechanisms without sacrificing government control of the overall program direction, is the most important contribution of the Banjarnegara PHC implementation.

3. The intensive and continued training of providers at all the regency levels which includes management, PHC, community development and so on in sensitizing the providers to the basic community needs and the development process of the community.

4. The intensive efforts to maintain development from below through the "KRING" system, informal meetings and other meetings.

5. The flexibility of the entry point or starting point for community activity and the sensitivity of Banjarnegara officers in listening to the community's needs.

6. The involvement of other NGOs in supporting training, budgeting, planning, implementing and promoting the PHC programs.

7. The creativity, leadership and dedication of providers at each level of government administration in the "YPPSE," and in the community.

The following literature review supports the seven points of success in the implementation of the Banjarnegara approach in developing the PHC programs.

Johnston (1983) explained the conditions of success of the Banjarnegara PHC program as follows: (1) A supportive political climate by the Regent of Banjarnegara, most government officials, and community leaders; (2) Decentralized and multisectoral planning for those communities responsible for designing strategies in training, expansion and consolidation; (3) Material support from the community and flexible supplementary funding from the "YPPSE" for training, transport, equipment, financial incentives for the providers, communications materials as well a capital investment projects involving water supplies, small-scale irrigation, and animal husbandry. The usefulness of this support was not the amount of assistance, but its timeliness and flexibility of usage; (4) Regular follow-up and maintenance which consisted of managerial and technical guidance as well as a portrayal of real interest in development; (5) Willingness by government to make use of the resources, both human and financial, of voluntary agencies; and (6) Readiness of voluntary agencies to cooperate with government.

Rohde and Hendrata (1983) also claimed that the critical elements of the Banjarnegara mobilization of community manpower lie in: (a) selection of village volunteer workers by the community; (b) the highly specific nature of the volunteer workers' responsibility to the small neighborhood they serve; (c) the totally voluntary nature of the work; and (d) regular supervision and continuous in-service guidance from department field workers who provide the initial training.

Morley, Rohde and William (1983) summarized that the basic principles of success in PHC (including the Banjarnegara PHC program) are as follows: (a) Political commitment to social equity; (b) Community participation which helps the people gain greater control over

the factors affecting their health by allowing them to make their own decisions, organize their own activities, and take greater responsibility; (c) Decentralization in decision making within the health system and society, and (d) technical suitability, such as the use of appropriate technology for training and management strategies, as well as for monitoring and evaluation using precise indicators by which a community can gauge its progress in solving health problems.

Williams and Satoto (1980) described that the relative success of the Banjarnegara program is due to the persistent efforts of the local government--especially the regent himself--to create a socio-political climate in which: (1) At the village level, non-village officers and women play an important role in planning, implementing and evaluating PHC activities. (Landless villagers, on the other hand, still have only a very limited role in decision-making processes) and (2) Between the regency and district levels of government on the one hand and village level government on the other, two-way communication is carried out with greater frankness and mutual respect than is frequently the case elsewhere.

On the other hand, the above authors and several other studies have shown some problems with the Banjarnegara approach. The problems can be summarized as follows (Morley, Rohde & William, 1983).

First, the Banjarnegara program suffers from managerial and administrative deficiencies.

Second, the providers in Banjarnegara are now tremendously motivated. The program should be concerned if at some time these people are promoted to higher level positions outside the program area.

Third, the program budget which is still provided by other non-governmental donor agencies has to be considered as one of the major weaknesses of "YPPSE" since it is possible that funding may be discontinued at some future date.

Fourth, achievements of the program regarding the poor community are still insignificant.

Fifth, the lack of adequate evaluation, monitoring and appropriate indicators are the main problems of this program. There have been no in-depth studies towards the achievement of Banjarnegara program goals nor have any reliable base-line data been available.

Sixth, the problems of geographic inaccessibility.

Seventh, there are some controversial studies of the Banjarnegara program particularly in the effectiveness of VHW performances in promoting PHC, and the correlation between community participation and the community's health status as well as the community's socio-economic status.

The following literature reviews show problems of the Banjarnegara program.

Johnston (1983) said that there are three main problems of the Banjarnegara program in the evaluation and monitoring process: (1) What are the most appropriate indicators of a successful PHC program?; (2) Which indicators are the most meaningful to policymakers, program planners and the community?; and (3) In what form should these indicators be presented to all parties so that interest is retained, and critical, creative responses generated?

Rahardjo et al. (1979) concluded that HEDERA (Health and Development in Rural Area) study in Banjarnegara that first, the result of VHSs performance in three Banjarnegara villages is 26% (low), 42% (medium) and 32% (high). This means that only three out of 10 villagers feel some impact from the program, four out of 10 villagers feel some limited influence, while the rest remain completely untouched. Second, the VHWS program is not yet a tangible reality for the rural poor (Iskandar & Rienks, 1979; Slamet, Soesartono, Rienks & Rahardjo, 1979).

Chanthavanich (1979) concluded in his study at Singomerto village (5 km east of Banjarnegara town) that the overall PHC program did not seem to work well. There was a lack of community participation in selection, supervision and joining the program, a lack of regular technical supervision and of ongoing training. As a result, the PHC program has not yet solved the problem of the influence of socio-economic status on both health status and the use of health services

Hendratta (1985), and William and Satoto (1980) also showed that YPPSE suffers from managerial and administrative deficiencies as well as lack of motivated manpower and financial self-sufficiency.

The YIS ("Yayasan Indonesia Sejahtera") and LP3ES ("Lembaga Penelitian, Pendidikan dan Penerangan Ekonomi dan Sosial") from their research in the Northern part of Banjarnegara (1979), found that most of the funds, energy and time of development, due to geographic constraints, are absorbed by the areas near the central village and the outlying areas are unaffected. Because of this, they recommended that it is necessary to search for a method to equally distribute development programs and activities to these villages or units that most need them.

Conceptual Framework and Propositions

Based on the above discussion and literature review, it is clear how important it is to study this "mother area" of PHC in Indonesia especially as a basis for recommending further PHC development in Indonesia in terms of political commitment, training, providers, community participation, as well as health and socio-economic outcomes. There is a big question mark raised by Hendrata (1985) about whether this unique extra-structural mechanism of the Banjarnegara program is a viable and acceptable approach to intersectoral coordination and PHC program in other locations (Hendrata, 1985).

There are two distinct components to the implementation of this study, first, the components at the district and regency level, and second, the components at the village levels. Both of them will be illustrated by using a scheme in order to delineate the six study objectives mentioned in Chapter I. This scheme can be seen in Figure 3.1 which can basically be explained as follows:

1. Components at the District and Regency Level

The first component concerns the following variables:

- (a) "POLITICALIZATION"
- (b) knowledge, attitude and practice of providers
- (c) training

2. Components at the Village Level

At this level, there are several variables as follows:

- (a) knowledge, attitude and practice of the community,
- (b) community participation and "KRING" system

(c) health indicators, and

(d) health related socio-economic (SE-RH) indicators

Figure 3.1 also shows the relationship between the two components through the knowledge, attitude and practice of the providers, and the knowledge, attitude and practice of the community.

Based upon the conceptual framework mentioned above, some research propositions can be drawn as follows:

- a. "POLITICALIZATION" is the most important component in determining the level of knowledge, attitude, and practice of the providers at the district and regency levels;
- b. "POLITICALIZATION" is manifested in one of the training systems in Banjarnegara called the "KRING SYSTEM" which will strengthen both the "POLITICALIZATION" itself and the training by influencing the knowledge, attitude and practice of the providers;
- c. The District administrator and HC doctor are the two most influential providers at the district level with regard to the coordination and integration of the district team of PHC and community development;
- d. The "Kring" system is a very important tool for maintaining PHC and community development activities, stimulating program expansion and improving community participation in planning, implementation, budgeting and evaluation of PHC and community development programs;

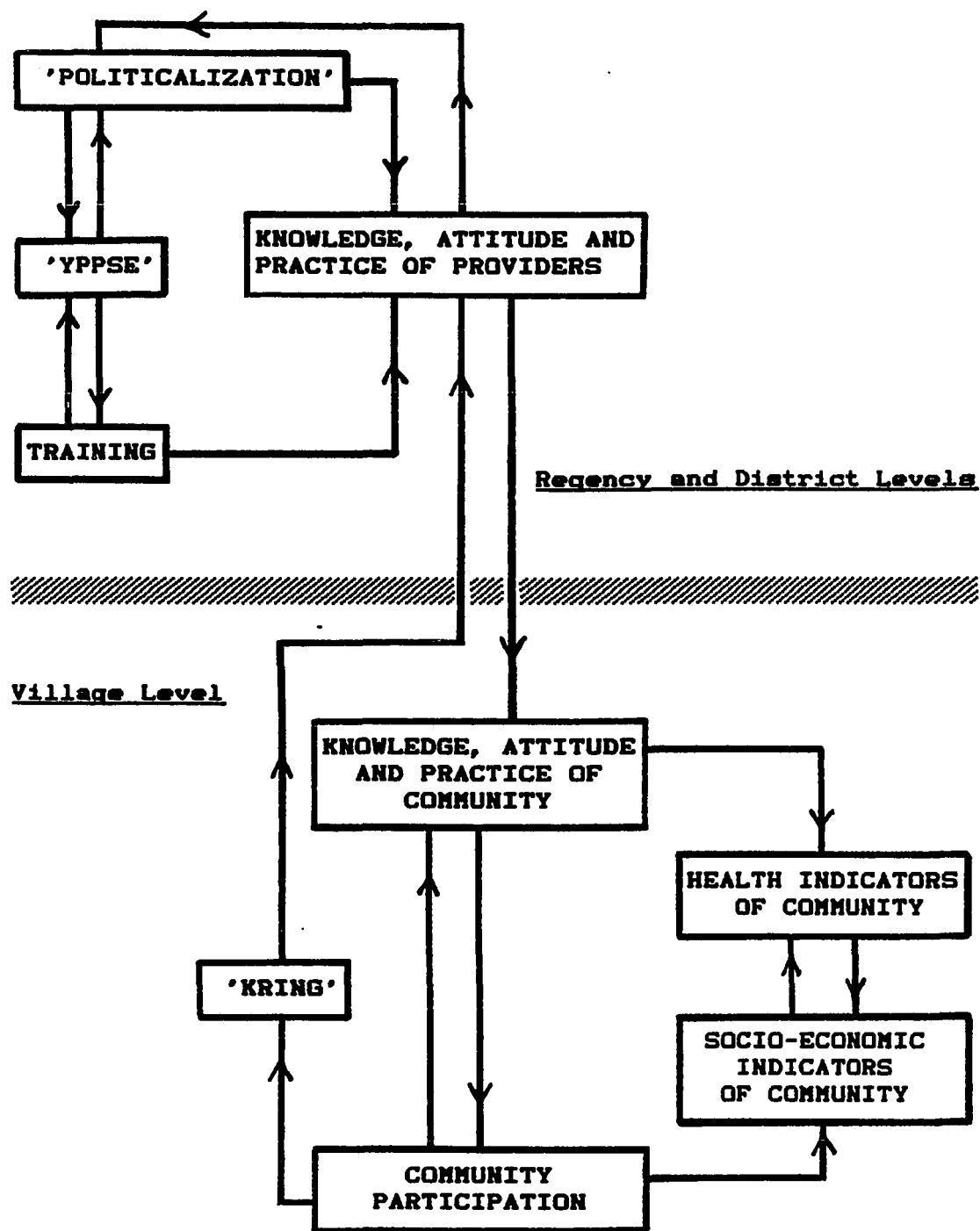


Figure 3.1. The Scheme of Conceptual Framework of the Banjarnegara Research, January-June 1985

- e. there are correlations between knowledge, attitude, practice, community participation, health indicators, and SE-RH indicators of the community at the Banjarnegara Rural area;
- f. the higher the level of knowledge, attitude and practice of the community in PHC, the higher will be the levels of the health indicators and SE-RH indicators of the community through the improvement of community participation;
- g. the improvement of community participation is influenced by the increase of knowledge, attitude and practice scores of the community in PHC;
- h. there will be significant differences among the health indicators and socio-economic related health (SE-RH) indicators between the area developed by Government and others (GO); the area developed by Government and others with the assistance of YPPSE 2-5 years (GOY25); and the area developed by Government and others with the assistance of YPPSE for more than 5 years (GOY>5);
- i. there will be significant differences between mountain and plain areas in terms of the components mentioned in the conceptual framework Figure 3.1;
- j. Some of the SE-RH components will be confounding factors for the other components mentioned in the above conceptual framework, they are not purely affected by YPPSE program outcomes;

- k. community participation in evaluation will not be related to the knowledge, practice and attitude of the communities in this research;
- l. In addition to "POLITICALIZATION" and training provided by YPPSE in Banjarnegara there are other important factors that influence the knowledge, attitude and practice of providers in carrying out the PHC program;
- m. Some typical leadership is needed in the regency level as well as a typical organization which is able to actualize the political commitment.

The following sections will discuss each variable outlined in the conceptual framework (Figure 3.1).

Political Commitment and "POLITICALIZATION"

Morley (1983) summarized the basic principles of success in PHC as follows: (1) Political commitment to social equity, (2) Community participation which has control over the factors affecting health--by making decisions, organizing appropriate activities, and taking greater responsibility, and (3) Technical suitability such as appropriate technology, extends to training and management strategies; and to monitoring and evaluation using precise indicators by which the community can solve its own health problems (Morley et al., 1983).

He also mentioned that political commitment is (1) a supportive political climate, in which health is viewed as part of human development and the right of each individual, and (2) a commitment to ensuring

universal coverage by health services and the integration of health with other sectors of development.

The W.H.O. (1981) pointed out that the identification of suitable indicators of political commitment presents particular difficulties. It is difficult to quantify the political commitment indicators, the indicators will be largely qualitative due to the process of political commitment. The five indicators of political commitment are: (1) Declaration of high-level commitment--this indicator consists of a record of whether or not a relevant declaration exists, or perhaps of whether it is in preparation; (2) Allocation of financial resources--this is the most important indicator of political commitment to strategies for health for all and includes the following factors: (a) proportion of gross national product spent on health services, (b) proportion of gross national product spent on health-related activities, and (c) proportion of total health resources devoted to PHC; (3) Degree of equity distribution of financial resources, i.e., the distribution of per capita expenditure on health between geographical areas or between the capital city and the rest of the country, the ratio of hospital beds, doctors and other health workers to population in different parts of the country, etc.; (4) Community involvement or participation is one indicator of the seriousness of political commitment in decision making and of the existence of effective mechanisms for people to express demands and needs. Another pertinent indicator of community involvement is degree of decentralization of decision making; (5) The establishment of a suitable organizational framework and managerial process for national health development, i.e.,

(a) whether there is effective communication between different organizational levels and departments within the health sector and with other relevant sectors; (b) whether mechanisms exist to facilitate this communication and to implement joint policy and programming--such as national or district health development committees; (c) whether all technical divisions in a ministry of health participate in the joint management of PHC programs to ensure full integration of services; and (d) whether professional groups, medical and nursing schools and other university departments are adequately involved in research and service functions relevant to the development of PHC. The second aspect of this indicator is an appropriate managerial process for national health development which should include monitoring, evaluation and related indicators (W.H.O., 1981c; 1981e).

Both Morley, et al. (1983) and W.H.O. (1981c) stated that political commitment is likely to be of particular importance in the early stages of a successful PHC program. Morley also said that this commitment is rare on a national basis, but it is often found to some extent within a community or at an intermediate level of the government hierarchy. He also stresses that even with strong political commitment to equity and broad-based community participation, a country may still need several years to develop an appropriate PHC program.

In Indonesia, the national political commitment has been well developed especially in the declaration of high level commitment and the degree of community involvement as discussed in Chapter II; however, the problems which arise are: (1) how to channel the political commitment to lower levels of government hierarchy in order to carry

out effectively the integrated and comprehensive PHC program in 40,000 villages; (2) how to manage the intersectoral coordination with budgetary limitations and varying degrees of knowledge, attitudes and practices related to PHC; (3) how to maintain and improve the quality of PHC with both inadequate appropriate technologies and monitoring systems, because PHC activities require time to have an effect; (4) how to translate the high national commitment in simple, understandable terms which can be accepted by all levels of the government hierarchy as well as by the community; and finally, (5) How to involve the community in every stage of the initial assessment, the definition of problems, as well as in the planning, implementation, and evaluation (Golladay & Weser, 1977; Haryono, 1984; Helfenbein, 1978; Johnston, 1983; Lincoln, 1980).

In this study, the researcher will attempt to show and conceptualize the process of political commitment and the arts of carrying out the political commitment in Banjarnegara regency with regard to actualizing the political commitment in the development of PHC. The process of actualizing the political commitment in this research is called "POLITICALIZATION" or the degree of acceptance to which political commitment is manifested and actualized in the development of PHC in Banjarnegara.

The transformation of political commitment to "POLITICALIZATION" implies a degree of acceptance which shall be defined as follows:

First, degree of providers' commitment toward the philosophy of the "YPPSE."

Second, degree of providers' involvement in planning, implementation, budgeting and evaluation process in Banjarnegara's PHC and community development.

Third, flexibility of the YPPSE's managerial process in the delegation of authority, in using money, and in the setting of priorities for program development.

Fourth, degree of providers' involvement in training process.

Fifth, degree of providers' involvement in maintenance and evaluation of PHC and community development through "KRING" system.

Sixth, providers' attitude and perception related to the goal and future of integrated PHC and community development in achieving "health for all in the year 2000."

The measurement of these six critical variables of "POLITICALIZATION" is based on the questionnaire interviews of the providers at the regency and district level. There are several statements where the answers are decided upon by the respondents and surveyers together, by using the "Likert" scale. Some of the yes/no and open-ended questions are also used in this research in order to explain the process of "POLITICALIZATION."

Training

Training is given to providers at three levels of government administration: regency, district and village. The variables are related to training which are measured in this research: (1) Frequency of basic and refresher training; (2) Length of training; (3) Materials and (4) Methodologies.

The frequency of training is undoubtedly an important variable for improvement and maintenance of knowledge, attitudes and practices of the providers. Rohde and Hendrata (1983) stated that continuing education has the greatest emphasis in training the barefoot doctors in China. These activities provide continuous motivation and improve specific skills. Usually refresher courses are carried out every six to 12 months. In Sri Lanka Patrick (1978, 1982) used bimonthly follow-up by each of the Public Health staff. In Banjarnegara, refresher training is given to the regency and district levels once a year. At the village level, training for village providers is provided every three months through the "KRING" system which usually is also a good refresher and practice for the providers from the regency and district levels (Haliman & William, 1983; Yahya, Soerono & Papilaya, 1985).

Length of training is another important variable in this research. Patrick (1978) suggested that the total period of initial training should be 60 hours, spread over two months (15 half days). In Banjarnegara, the provider at the regency level usually has an initial training which varies from 7 to 40 days, and the provider at the district level has an initial training which varies from 2 to 7 days. Usually the provider obtains 6-10 hours of training per day (Haliman & Suwandono, 1984; Suwandono, 1983a). The Ministry of Health, Indonesia, suggests 4-6 hours a day (Yahya, 1985). Since there are some technical, resource and budget problems, the number of days of training in Banjarnegara is reduced while the number of hours of training per day are extended. In this research, length of training is measured by "number of training hours per day multiplied by the number of training days."

Training materials are usually designed based on the needs of the trainees. Some suggestions are usually collected several days before the training, then the suggestions are matched up with the curricula desired and past curricula. In the "KRING" system the curriculum is decided at the last "KRING" meeting and is based on the agreement and felt needs of the trainees. This study measures the degree of acceptance of training materials by the providers at each governmental level. The Likert scale is used for this measurement (very useful, useful, not so useful, useless, and very useless).

Methodology is the final variable in this part. The training method consisted of a composite model derived from several methods of nonformal adult learning from Hilgard (1966), Srinivasan (1977) and Freire (1981). Hilgard (1966) explained that basically there are three theories of learning: (1) Stimulus-response Theory (S-T); (2) The Cognitive Theory; and (3) The Motivational and Personality Theory. Srinivasan (1977) encouraged the Problem-Centered Approach and the Self-Actualizing Approach in the nonformal adult learning process for a community based program. Freire (1981) suggested "problem-posing education" which is based on creativity and stimulates true reflection and action upon reality (Carthy, 1980; Freire, 1970; Gronlund, 1978; Illich, 1977; Maslow, 1977; Rogers, 1980a, 1980b; Seers, 1977).

Based upon the above theories, in the Banjarnegara PHC program, the regency and district level training program has several principles as follows: (1) Active rather than passive listening by trainees; (2) Encouragement of trainees to tell the trainers about their problems; (3) Cultural appropriateness, for example, the trainers

deliver the training materials and conduct discussions based on Moslem beliefs and traditional Javanese ways of thinking; (4) Group dynamics, sharing ideas and problems, discussion, brainstorming, and on-site field observations; (5) positive reinforcement after training; and (6) Timely follow-up of initial training.

At the village level, the training is based upon the following principles: (1) Passive listening by trainees with attempts by trainers to stimulate active participation; (2) Cultural and religious acceptability; (3) Extreme emphasis of actual practice and field training; (4) Frequent repetition; (5) Village is the training site; (6) Individual and group development is carefully considered by the trainers with the goal of stimulating serious involvement and a high degree of responsibility; and (7) The necessity of psychological reward, personal supervision and follow-up training.

In this research the Likert scale is used to measure the providers' opinions of the training (very interesting, interesting, not so interesting, not interesting and very uninteresting).

Knowledge, Attitude and Practice of Providers and Community

Good training and "POLITICALIZATION" will enhance the provider's knowledge, attitude and practice regarding the PHC program and community development. Clark and Gakuru (1982) found that in rural Kenya, training specifically designed to increase feelings of competence, develop adult skills through collaborative activity, and relate appropriate health, nutrition and other development concerns will yield positive results. Johnston (1980) emphasized that in order to obtain success in PHC, training should achieve changes in providers' attitudes

and provide skills in simple management and administration, communication, integration, as well as in simple and practical health services. Fajans and Sudiman (1983) recommended that cadre (village volunteer health workers) performance would improve by improving the process of cadre selection, strengthening cadre training through use of educational modules emphasizing acquisition of skills through participatory methodologies, improving regular cadre supervision by program staff, and providing continuing education for cadres on a regular basis. Berman, Gwatkin and Burger (1986) concluded that two out of three important factors which compromised the quality of community health worker activities were the failures of both training and supervision.

In this study, the concept of knowledge, attitudes and practices for the community basically refers to knowledge, attitudes, and practices related to immunization, vitamin A, nutrition, oral rehydration, and PHC. However, for providers at the regency, district and village levels, the concept of knowledge, attitudes and practices means the providers' knowledge, attitudes and practices in integration, PHC, community development, participation, training, and simple management. Further explanations of these variables can be seen in Chapter V.

Community Participation

Ahmed (1980) suggested that the major dimensions of community participation include: (1) The organization of services on a community basis with wide and easy access to the services; (2) The contribution by the community to the operation and maintenance of the services; (3) The participation of the community in the planning and management of the services within the community; (4) community input into the

overall strategies, policies, and work plans of the program; and (5) Overcoming the factionalism and conflict of interest in the community in order to achieve a broadbase of participation, particularly on the part of disadvantaged groups.

Morley, Rohde and William (1983) discussed community participation as the key to the successful organization of PHC. This is commonly misinterpreted to mean simply the mobilization of the people's resources of money, labor, and materials in order to carry out government planned and controlled programs. Such contributions from the people are usually desirable, but they are only one aspect of participation. A more sensitive approach is to view community participation as a process through which people gain greater control over social, political, economic and environmental factors related to health. By acquiring appropriate knowledge, skills, organizational capacities and a heightened sense of individual and collective responsibility, low-income communities can achieve remarkable improvements in health status. The community must participate, not just in implementation, but in every stage of the health program as follows: (1) initial assessment of the situation; (2) defining the main health problems; (3) setting the priorities for the program; (4) implementing the activities; and (5) monitoring and evaluating the results.

Mishra (1984) divided community participation in rural development as follows: (1) Participation in decision making; (2) Participation in implementation; (3) Participation in sharing the benefits; and (4) Participation in monitoring and evaluation (Munoz, 1982).

Based on the discussion above, the community participation that is used in this research is to define the endeavors of the local

community to become actively involved in a community-based program through the principles of mutual self-help and deliberation. Involvement of the community is measured in this study in terms of five components:

1. involvement in program planning,
2. involvement in program budgeting,
3. involvement in program implementation,
4. involvement in program evaluation, and
5. total activities.

Levels of participation for each component (except total activities) are recorded as either involved or not involved for the purpose of this study. Total activities per capita are divided into three categories:

high (more than or equal to six activities per adult in the family),

medium (three to five activities per adult in the family)

and

low participation (less than three activities per adult per family).

The total of these five components is called the "PARTICIP" composite variable which is categorized into high, medium and low participation based on the mean and standard deviation.

Health Indicators and Socio-Economic Indicators Related to Health

The W.H.O. (1982) defined these indicators as an indication of a given situation, or a reflection of that situation. In the W.H.O.'s guidelines for health program evaluation, indicators are defined as

"variables which help to measure changes." The suggested indicators are grouped under four broad categories: (1) health policy indicators; (2) social and economic indicators related to health; (3) status indicators. There are more difficulties in gathering relevant information for some of these indicators than for others. The list of suggested indicators are defined as follows: (W.H.O., 1981b, 1981c)

1. Health policy indicators: political commitment to health for all; resource allocation; the degree of equity of distribution of health resources; community involvement in attaining health for all; and organizational framework and managerial process.
2. Social and economic indicators related to health: rate of population increase; gross national product or gross domestic product; income distribution; work conditions; adult literacy rate; housing and food availability.
3. Indicators of the provision of health care: Coverage by primary health care and coverage by the referral system.
4. Health status indicators: Nutritional status and psychological development of children; infant mortality rate; child mortality rate; life expectancy at birth or at other specific ages; and maternal mortality rate.

Ascobat (1981) used income, properties and occupation for economic data; disease patterns, decision making for treatment and type of health service sought, health service preference, and price of health service for health data in analyzing demand for health services in rural area of Karanganyar Regency, Central Java, Indonesia.

Satoto et al. (1984) used the following indicators in evaluating nutrition intervention pilot projects in Ngawi and Bojonegoro regencies, East Java, Indonesia: (1) Socio-economic status of family: family occupation, family income, land ownership in the family, income of land, and family possessions; (2) Morbidity; (3) Housing and environmental sanitation and sanitation facilities such as personal hygiene of the children, housing condition, drinking water source and toilet facilities.

The indicators suggested by W.H.O. are usually used at the national level. Since this study was done in a small regency area in Indonesia with a population of only 708,000, as well as with time and budgetary limitations, some of the indicators suggested by W.H.O. were not appropriate (Levinson, 1974). Hence, for the purposes of this study the W.H.O. indicators and the variables suggested by Ascobat and Satoto were modified as follows:

1. Health Indicators:

Weight per age of children under five; increased weight per month of children under five; infant mortality and under-five mortality as well as crude mortality; births; number of sick persons; pattern of disease; degree of severity of illnesses; first aid preference; bedroom space available per square meter per capita; hygiene and sanitary facilities; hygiene and sanitation of each room in the house; food availability in the day observation and monthly food habits; and personal hygiene.

2. Socio-economic Related Health Indicators:

level of education of both head and spouse of the household; literacy level of both head and spouse of the household; total income per capita/month; total monthly living expenditure/capita; value of possessions (cattle, furniture, secondary possessions, agricultural items and food storage); area of land; area of nutritional garden; housing material; occupation; total fruit and lumber trees available in the garden; number of children; and family planning involvement.

Since there were abundant variables collected in this research, the details of the data reduction techniques, the composition of the variables and operational definition of the variables will be discussed in Chapter V, "The Research Findings."

CHAPTER IV
METHODOLOGY

Research Design

The present inquiry utilized three methods of gathering data: an archival review, observation and the interview method. Each of the three approaches contributes complementary aspects of the range of data required and generates what Bouchard (1976) has described as the "triangulation" which occurs when multiple measures converge on a common finding, providing a convergent validity. The research was conducted with regard to the values and limitations of each of the methods with regard to the values and limitations of each of the methods. Relevant issues of validity and reliability are discussed in the following section.

Besides the low cost of acquiring a massive amount of pertinent data, one common advantage of archival material in a study is its "nonreactivity." Webb (1966) stated that one out of four large classes of unobstrusive measures is an archival review. Although there may be substantial error in such material, it is not usual to find masking or sensitivity because the producers of these data know they will later be studied by some scientist. Webb, Campbell, Schwartz, Secrest and Grove (1981) said that the risks of error implicit in archival sources are not trivial, but if they are recognized and accounted for by multiple measurement techniques, the errors need not preclude use of them.

Selective perceptions and the incomplete nature of human observation certainly cast doubt on the validity and reliability of observation as a major method of scientific inquiry. Scientific inquiry using observational methods requires disciplined training and rigorous preparation. The fact that ordinary persons experience particular situations differently does not mean that trained and prepared observers cannot report with accuracy, validity, and reliability the nature of a particular situation (Maxwell, 1975; Spector, 1983).

Patton (1983) has said that there are two pertinent points in field observation. First, the folk wisdom about observation being nothing more than selective perception is true in the ordinary course of participating in day-to-day events. And second, the skilled observer is able to improve the accuracy, validity, and reliability of observations through intensive training and mature preparation.

Direct, personal contact with and observations of a people's activities have several advantages and disadvantages which should be understood and considered before one chooses this method. According to several experts such as Kluckhohn (1940), Vidich (1955), Seltiz (1959), Polansky (1960), Becker and Geer (1960), Babbie (1973), Webb (1981), and Klemmack and Atherton (1982), in order to avoid influencing the subjects being studied, the type of observation used in this study is not a complete participant observation. As Babbie (1983) suggested, "observer-as-participant" is employed in this study. An "observer-as-participant" is one who identifies himself as a researcher and interacts with the participants in the social process but makes no pretense of actually being a participant. Observing "what does not happen"

is a precarious venture, because it can take the observer into the area of speculation about "what might have been" when such speculation may be inappropriate. Thus what is meant by observation in this study is "observer-as-participant."

A set of questions, carefully worded and arranged, was asked of each respondent in the same sequence and essentially in the same words. Any clarifications or elaborations were written into a notebook by the interviewers. This note-taking solved the problem of identifying important topics which were neither anticipated nor covered by the standardized open-ended interview. However, this method still has several other weaknesses such as: (1) constraints are placed on using different lines of questioning with different people based on their unique experiences, and (2) difficulties of analysis.

Based on the three research methodologies described above, the research objectives of this study were achieved according to the following research design:

1. To achieve research objectives nos. 3 and 4, primary data were collected directly from the community by interviews and observations. Community involvement in planning, implementation, budgeting and evaluation of PHC and community development were observed and interviewed based on the questionnaires M-1 and M-2 (see Appendices A and B). Some specific questions on knowledge, practices, and attitudes (KAP) related to PHC and community development were asked in addition to health and SE-RH indicators mentioned in Chapter III. The M-1 questionnaire form served as a guide for observing the community activities, and the M-2 form was used to gather data and to interview

respondents about community activities, family demographic and health and SE-RH indicators. The unit of research in this design was the family. The interviews and observations were conducted from February 1985 through June 1985 and used the framework of the "static group non-experimental study" (Campbell, 1982) which is designed as follows:

X1 01

X2 02

X3 03

in which X1 was an intervention of PHC and community development

program given by the government and other organizations;

X2 was an intervention of PHC and community development program given by the government and YPPSE for 2-5 years; and

X3 was an intervention of PHC and community development program given by government and YPPSE for more than 5 years;

01, 02 and 03 are the village households with at least one under-five child, which have received intervention from government and others; from government and "YPPSE" for 2-5 years; and government and "YPPSE" for more than 5 years respectively.

2. To achieve the other research objectives, a "descriptive and qualitative study" was conducted to obtain primary data by interviewing and observing the providers at the regency, district and village levels.

A search of the archives at the regency level was also performed. At the regency level, in-depth interviews of government officials, political leaders, non-governmental leaders and informal leaders were conducted by specifically addressing those who were involved directly in the PHC and community development developed by the "YPPSE" as well as those who were not involved. The same target groups for in-depth interviews were carried out at the district level with the exception of the non-governmental leaders. The major topics of the interviews included: training, "POLITICALIZATION," perception, knowledge, attitudes, strengths, weaknesses, components as well as requests for constructive criticism of "YPPSE" and PHC activities. The unit of analysis for the providers at district and regency levels was the individual. The interviews' guidelines can be seen in Appendices D (PR or providers at the regency level) and C (PD or providers at the district level).

Secondary data from 1974 to 1984 were also collected at each level of government by the research supervisors from the monthly reports on socio-economic and health development of each level of government, from the "YPPSE's" reports, and from other resources such as the donor agencies' papers and reports, student theses, etc. These data were used for additional information in order to achieve each objective of this research such as the comparison of YPPSE and Government expenditures since 1976 and the "KRING" system development.

Sampling Procedure

To select the sample of households, a multi-stage stratified random sample was employed. As mentioned earlier in Chapter II, the area

of study contains 18 districts which consist of 279 villages, 34 of which are urban villages which were excluded. The 245 remaining villages were divided into two categories: (1) mountain (129 villages) and (2) plain (116 villages) areas. This division provided two population subgroups. Since three different levels of development were examined in this research, each subpopulation was divided according to three levels of development: (1) those which have been developed by the government and other organizations (G0), (2) those which have been developed by government and "YPPSE" for 2-5 years (GOY25), and (3) those that have been developed by government and "YPPSE" for more than 5 years (GOY>5). Since the proportion of villages at each of the three different levels of development was almost identical in both the mountain and plain areas, two villages were chosen randomly for each level of development per each geographic category. Hence, there were six villages selected from the mountain area of which two villages were at level G0 of development, two villages were at level GOY25 of development and two villages were at level GOY>5 of development. Similarly, the six villages in the plain area were comprised of two villages for each level of development. Hence a total of 12 villages were examined for the purposes of this research.

Negotiations with the local government and "YPPSE" officials resulted in agreement about the villages and household sample criteria, sample strategies, sample procedures and total samples. It was decided that in addition to representing two geographic areas, three levels of development and only rural villages, the sample villages should be those classified as "SWAKARYA" villages in 1975 and increased to

be "SWASEMBADA" villages in 1985 with an improvement score of 3 or more over the period of 1975-1985 (for definition of SWASEMBADA and SWADAYA refer to Chapter II, pp. 28-29). One hundred thirty-one villages could be considered as possible sample villages according to this final criteria. Of these 131 villages, 59 villages were in the plain area and 72 villages in the mountain area. Simple random sampling was used to select two villages from each geographic area and from each developmental level. The sample villages are shown as follows (Table 4.1).

Table 4.1

Sample Villages According to Geographic Area and Development Level in Banjarnegara Rural Area, 1985

Level of Development	Geographic Area	
	Mountain Area	Plain Area
1. Government + other org. (GO)	Bakal village Sirongge village	Gumingsir village Sered village
2. Government + YPPSE 2-5 yrs (GOY25)	Darmayasa village Karekan village	Simbang village Badamita village
3. Government + YPPSE >5 yrs (GOY>5)	Majatengah village Kasmaran village	Singomerto village Bondolharjo village

Hence, the village was the first stage sampling unit, the "dukuh" or subvillage was the second stage sampling unit, and the household with child/children under-five years old was the third stage. The unit

analysis then was drawn randomly using the list of households that had children under-five years old as the sampling frame (Figure 4.2).

The criteria for selecting a household with child or children under-five years were: (1) The household should have been living in the village for at least two years, and (2) The head of the household should be a permanent resident of the village.

A total of 480 households were selected according to calculations employing the formula suggested by Fisher et al. (1979).

$$n = \frac{z^2 \cdot p \cdot q}{d^2}$$

in which z (the standard normal deviation) = 1.96; p (the proportion of a target population estimated to have a particular characteristic) = 0.3; and d (degree of accuracy desired) = 0.05. The households were distributed evenly among all the sample villages. There were a total of 12 sample villages in this research; thus 40 households were studied in each sample village.

In deriving individual samples at the regency and district areas, simple random sampling was conducted. The size of the samples was as follows:

1. All 8 providers involved directly with "YPPSE" were interviewed, then 17 government officials and others who were involved directly in "YPPSE" or used to be involved were also chosen randomly and interviewed as samples of providers at the regency level.

2. By employing the same procedures, samples of 48 providers at the district level were selected.

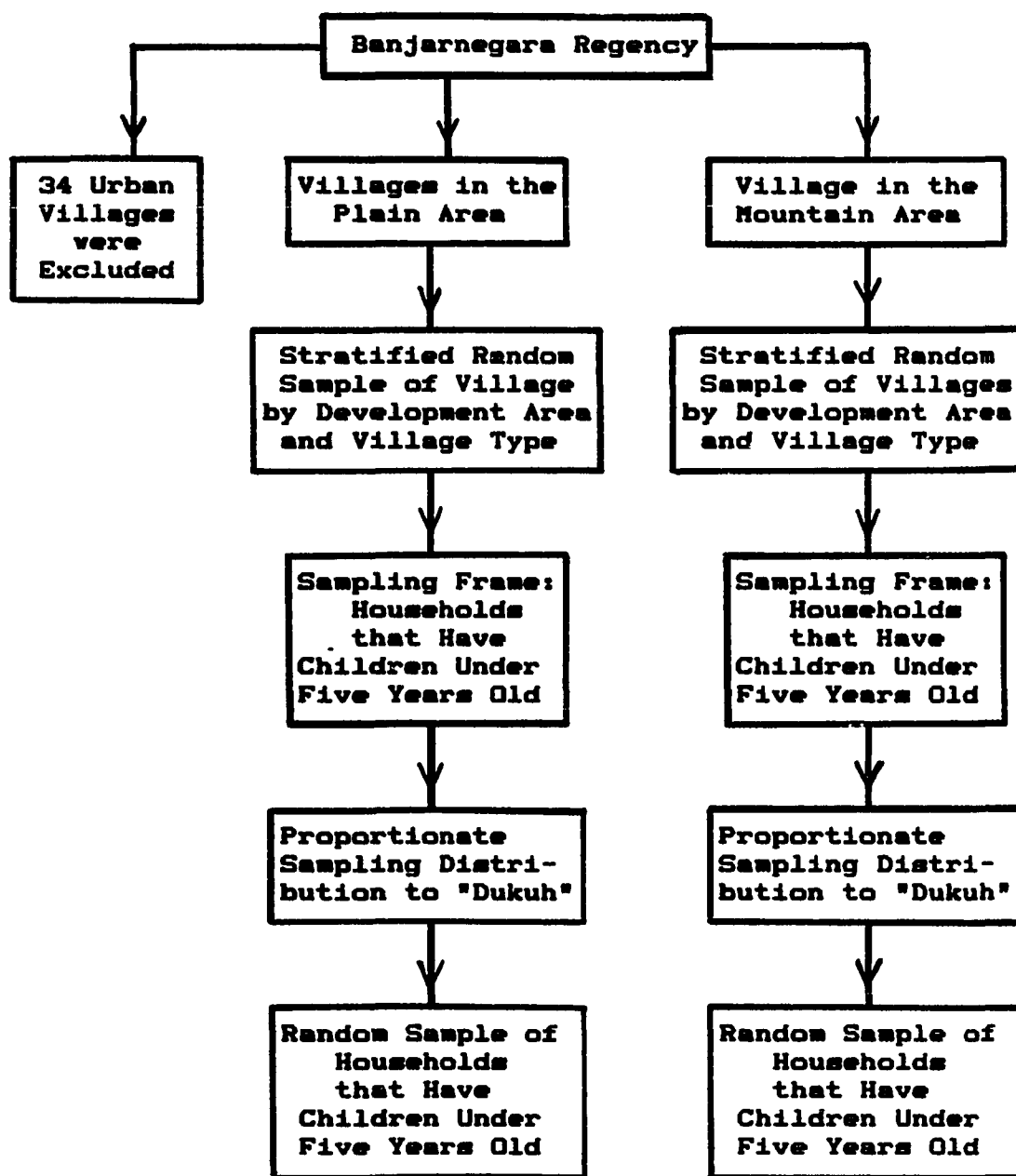


Figure 4.2. Household Sampling Procedure

Data Collection Instruments

As mentioned in the general design of this study, instruments used in this study were the questionnaires and the guidelines for observation. These instruments were designed to obtain information about the component variables of the study, as well as to gather other relevant information. There were an observational guideline and three different questionnaires used in this study. The observational guideline (M-1) deals with general observations such as housing conditions, environmental sanitation, sanitation facilities, daily food patterns, personal hygiene, socio-demographics, daily activities, PHC and community development activities of the family. The first questionnaire (M-2) collects detailed information which includes: attitude, practice, and knowledge of the community concerning PHC and other community development programs, indepth socio-economic data, number of sick persons in a family during the month prior to the interview, symptoms of diseases, disease patterns, degree of severity of illnesses, health service preference, cost of health services, number of crude deaths, nutrition status, involvement in management components of PHC and community development, as well as perceptions and suggestions for improvement of PHC, nutrition, and community development activities.

The two other questionnaires (PD and PR) are used to interview the providers of the district and regency levels respectively. The component variables related to training, political commitment and "POLITICALIZATION" as well as to the providers' attitudes, knowledge, practice, perception and suggestions regarding community development, PHC and "YPPSE" were collected in the PD and PR questionnaires.

All questions and observation guidelines were written in the Indonesian language and were designed to be easily used by non-health professionals. Appendices A, B, C, and D show the translated observational guideline and questionnaires.

The M-1 and M-2 questionnaires were tested and revised four times before the implementation of the research. The first pretest was carried out by two midwives in each of the two geographic areas, mountain and plain. The second pretest was implemented by the researcher and the research supervisors in each of the two geographic areas but in different villages than those selected in the first pretest. The third and fourth pretests were executed by the interviewers during the training sessions before they went to the sample villages. They carried out the questionnaire pretest in each of the two different geographic areas and three different areas of development but in villages which were not sample villages.

The PD and PR questionnaires were pretested two times by the researcher and supervisors. The questionnaire pretests were carried out with the district and regency providers out of the selected individual samples.

Personnel

Due to the complexity of the questionnaires and the importance of interviewing people with low educational levels, highly-skilled professional interviewers were needed. However, interviewers with such qualifications were prohibitively expensive to hire and perhaps not the most appropriate people to conduct interviews in remote rural villages. The interviewers were required to stay in the villages for

roughly four months. They were to follow and accept the local living conditions which were completely different from the conditions in the urban areas.

The local field advisors and local authorities agreed that the criteria for the selection of interviewers should include the following: (1) Interest in the community health development programs in the rural area; (2) Interest in the research; (3) Dedication to rural development research as evidenced by past academic participation in such research; (4) Ability to speak the Javanese language, preferably the Banyumas Javanese dialect; (5) Enrollment in their final grade of university or completion of their bachelor degree program; (6) Knowledge of some principles of research methodology; (7) Recommendation of academic advisors; and (8) Willingness to live in a rural area for an extended period of time.

Interviewers were recruited from among students majoring in Sociology, Political Science and Anthropology, at the University of Gajah Mada, Yogyakarta, Indonesia. Twelve interviewers were selected. Most of them had completed their bachelor's degree and had an excellent command of the Javanese language.

The interviewers were supervised by six research supervisors (one physician, one master in Sociology and Political Science, one master in Anthropology, one master in Public Health, one bachelor in Political Science and one senior nurse). In addition to these supervisors, one senior midwife and one dentist were hired to assist the researcher in conducting the interviews at the regency level and in collecting secondary data. The supervisors also assisted the interviewers in collecting secondary data at the district and village levels.

Data Collection Management

The household observations and interviews were conducted in the months of March to May 1985. The first two weeks were used for making observations as well as gaining familiarity and acceptance with the community in the sample villages. During this two week period, interviewers and supervisors were required to live continuously in the sample village. There was a break for a week to discuss the results and problems of observations, cultures, techniques, sampling conditions and so forth in order to develop the strategy for the next steps of the study and to revise the M-2 questionnaire. After this break, the interviewers returned to the sample villages for 10 weeks.

During this 10 week period, each interviewer received supervision from either the researcher or a supervisor at least three times a week. During supervision, either the researcher or supervisors were required to do a cross-check or control interviews of at least 10% of the total sample households in each village by simple random selection. The supervisors were also given the task of collecting secondary data from the villages. The sources of these data were the village head and his staff as well as those records available in the village office.

The interviewers were required to participate in some PHC and community development activities as well as to attend meetings and other activities in the village. Since only one interviewer was assigned to each village, and each household interview required two days (at roughly 8 hours per day), 80 working days were needed by one interviewer to complete 40 household interviews. This time included participation in and observation of the villagers' meetings and

activities. The remainder of the interviewer's time (roughly two weeks) was used for interviewing the providers at the district levels which took approximately 3 hours per provider.

The interviewers were given the freedom to translate the questionnaires from Indonesian to the Javanese language. They were instructed to paraphrase in translating the questionnaire in order to be more clearly understood by the villagers and providers. However, uniformity in interpretation was maintained through the guidelines and training based in the pretest findings and quality control in the supervision.

At the regency level, the interview of providers, the review of archival studies and the secondary data collection were carried out by the researcher and two assistants. An average of 3-4 hours was required to complete each interview at the regency level. The total sample of 25 regency providers was completed within 30 working days.

Coding and Data Analysis Method

The coding procedure for the M-1 and M-2 questionnaires was done by the same interviewers with the assistance of several officers of the regency health services and of "YPPSE." Coding verification of M-1 and M-2 questionnaires and coding process of questionnaires PD and PR were performed by the researcher in Honolulu. The final editing, data entry, analysis and all computer work were done at the Computing Center of the University of Hawaii at Manoa, Honolulu, Hawaii.

In order to analyze objectives 3 and 4, some statistical analysis techniques were used. All of the data was analyzed by using SPSSX (Statistical Package for Social Sciences-X) and BMDP (Biomedical Computer Program) computer programs. Basically, there were five

statistical techniques used in this research. They were: (1) Factor Analysis; (2) Multivariate Analysis of Variance (MANOVA); (3) Canonical Analysis; (4) Chi-square and contingency table, and (5) Student t-test.

The factor analysis in SPSSX was one of the statistical tools used to reduce the variables found in this research (Kim & Mueller, 1982a; 1982b). This analysis was also used in variable groupings in order to create most of the composite variables used in this research.

The canonical analysis in BMDP provided analyses between two sets of variables such as those mentioned in objective 3 of this research (Huck, Cormier & Bounds, 1974; Thompson, 1984). Development identification, area identification, knowledge, attitude and practice of community as well as community participation would influence health and SE-RH variables of the community. Hence the first set of variables would be the development identification, area identification, knowledge, attitude, practice and community participation composite variables and another set of variables would be health and SE-RH composite variables.

MANOVA was used to analyze the interactions among the variables. Together with the student t-test or Range Test, the use of MANOVA analysis was related to the fourth objective of this study in comparing three independent samples of equal size (Snedecor & Sochran, 1978; Tabachnick & Fidell, 1983). These samples were (1) the G0 group, (2) the G0Y25 group, and (3) the G0Y>5 group. These three groups were compared as to whether or not there was a significant difference among the health and socio-economic indicators of the communities' samples.

The Chi-square methods were primarily concerned with the analysis of frequency data occurring in the form of cross-classification or contingency tables. Basically, this is a test of association because it answered the questions of whether there is any association between a factor and an outcome. The qualitative part of objectives 1 and 2 consisted primarily of cross-tabulations and Chi-square calculation (Davis, 1971; Evezitt, 1977).

The descriptive part was done by using the logical inference suggested by Mitchell (1984). Furthermore, the detailed discussion of these five statistical analytic methods would be discussed in Chapter V, "The Research Findings."

CHAPTER V

RESEARCH FINDINGS

Introduction

This chapter presents the research findings with separate sections focusing on each of the study's specific objectives. Preliminary to this presentation is a discussion of the quality of the data and their limitations and a summary of the demographic, socio-economic and some health characteristics of the sample population at the community, district and regency levels. Provided in this summary is basic information about the sample population. In addition, distinctions between segments of the community sample which will have bearing upon the statistical techniques chosen for analysis are discussed.

The Quality of Data and Their Limitation

To assure the validity and reliability of the data collected in a research study, various methods of data collection were utilized. Questionnaires were pretested at least three times per questionnaire. Interviewers were preselected for educational background and experience and were given intensive training and supervision to guarantee uniformity in data collection and to obtain valid information from the respondents.

It must be understood, however, that data collection was conducted within a field context which presented several problems: (1) Geographic inaccessibility of study area which caused supervision difficulties; (2) Incomplete secondary data or archival data in the study area; (3)

Data collection during periods of heavy rain, and/or harvesting and plantation time; and (4) Unexpected problems such as disease outbreaks in some villages, surveyors illness and personal problems of surveyors.

These problems had to be taken into account in the interpretation of data and led in some cases to a decision not to include certain data in the analysis. For example: (1) some of the data such as disease pattern for a one-month recall period, had to be interpreted carefully; and (2) some secondary data from village, district, and regency level such as mortality, migration and birth data were found to be incomplete and disorganized. These data will not be used in data analysis, although they will still be presented here as supplementary information. In cases where original respondents were found to be busy with harvesting and planting during the period of this study, they were replaced by new respondents. It was impossible to observe some activities due to heavy rain and geographic inaccessibility.

Furthermore in data analysis, ordinal and interval data were chosen for some continuous data such as total income, total monthly expenses, value of ownership, age, weight of under-five children and so on. This decision was made due to digit preference problem by the respondents in expressing some number due to their low level of education. This problem can only be solved by applying classes or groups of age, income, expenditures, value of ownership and so on in data analysis.

Open-ended questions in the questionnaires required transition coding before they could be coded for the final data analysis. Some

of the answers which were improperly coded were eliminated from the data analysis or put into the missing value. Some of the data could not be coded or quantified, and these were only for descriptive explanation and analysis.

Some members of the original sample at the regency could not be interviewed. In order to achieve the sample size expected, they were dropped and replaced randomly by other providers. However, two of the respondents at the regency level could not be replaced due to limitations in the numbers of providers as determined by the operational definition and they were dropped from the samples.

Summary of Findings of the Demographic, Socio-Economic and Health Characteristics of Respondents in the Sample

A total of 480 households with one or more children under-five years of age comprised the sample, resulting in a sample population of 2,683 individuals. Age composition of the sample showed a high dependency ratio. The statistical mean for sample family size was 5.6. There was a substantial difference in almost all of the health and socio-economic conditions of the samples in plain and mountain areas.

The education level of married individuals was low, particularly in the mountain area. More than 60% of the sample either never attended or had not completed elementary school. Only 25% of the samples had completed elementary school and it was lower in the mountain area. Not surprisingly, the illiteracy rate was roughly 30% among the married individuals, with illiteracy rate much higher in the mountain area as compared to the plain area. More than two-thirds of the heads of

households were engaged in agricultural activities as the main source of income. Most of the wives did not participate in the formal labor sector, preferring instead to work as traders and sellers in the non-formal labor sector.

Average monthly household income was US\$53.00 or Rp. 58,160.00 (US\$1.00 = Rp. 1,120 in June 1985) with monthly expenditures on average of US\$56.00/month or Rp. 61,893.30. However, income was maldistributed with a large range between highest and lowest monthly income. This disparity was most pronounced in the mountain area, where the highest average monthly income was US\$2,300.00 compared to the lowest average monthly household income of US\$10.00.

The average value of material possessions per household was US\$162.00. Households in the mountainous area seemed to have more material possessions due to several households with extremely high values. However, in the plain area the average value of material possessions was more evenly distributed. The mean of land ownership was 3,562 m². Households in the mountain area had more land ownership when compared to households in the plain area. Probably due to the substantially cheaper price for land and lower productivity of land in the mountain area as compared to the plain area. Total numbers of fruit and lumber trees, which serve as a supplementary source of food and income, was again higher in the mountain area than in the plain area. Corn was the carbohydrate staple for the mountain area households, and rice was the carbohydrate staple for plains area households. Cassava was not very popular as a main carbohydrate source in either geographic area. Consumption of vegetables, animal protein,

colorful fruits and green leafy vegetables was considerably higher in the plain area. However, red or other colorful vegetables were available in small quantities in both mountain and plain areas, with slightly higher consumption of colorful vegetables in the mountain area. Milk is generally unpopular and consumed in small quantities in both geographic areas, with milk consumption slightly but not significantly higher among people in the plain area.

Wood and bamboo were the predominant housing construction materials in the mountain area, and bricks were used in the plain area. Floors were still mainly soil in both areas. Other floor materials used in the mountain area were cement, while in the plain area tile floors were more popular. Homes in the mountain area had corrugated iron roofs. Clay tiles were the roofing material of choice in the plain area. Rooms in the mountain area were darker as compared to those in the plain area. Room conditions were cleaner, less humid and better ventilated in the plain area.

Cement water catchment tanks for drinking water storage were the most common water resource in the mountain as compared to shallow protected wells in the plain area. Communal bathing and latrine facilities were commonly used in both areas; however, bathing and latrine facilities in the house were more common in the plain area. Bathing facilities infested with mosquito larva were most prevalent in the plain area. Bathing facilities in the mountain area were more generally moldy, had mud floors, and poor drainage. Both areas were generally remiss in covering the latrines, with no significant difference in this practice between the areas.

The number of live births in the entire sample during the five year period (May 1980 to May 1985) was 1,153. Each family had roughly 2.4 live births during that period. The number of surviving children was 1,001 children or approximately 2.1 children per family, meaning that 13.3% of all children born to households in this sample died before the age of five. Among the 153 deaths occurring in the sample, 53.9% occurred among children less than one year old. The major causes of death were tetanus neonatorum, diarrhea, pneumonia and fever.

A total of 556 persons reported at least one illness during the previous month, which was about 20% of the total number of individuals in the sample or one month prevalence. Dermatitis was the major cause of morbidity in the plain area while upper respiratory tract infections caused the most morbidity in the mountain area. Children in the 0-4 and 5-9 years age groups accounted for 65% of all morbidity. The high prevalence was probably caused by a seasonal outbreak of certain diseases such as morbilli, dermatitis, influenza, conjunctivitis, upper respiratory tract infections, etc. Seventeen percent of the total morbidity could be categorized as severe illness. The highest first aid preference in both areas was health centers; the second highest was village health post and third was self-treatment.

The nutritional status of children under-five was adequate, with one of the children under-five categorized as severely malnourished (less than 60% of weight for age as determined by weight standard card of Department of Health). Nutritional status of children under-five in the mountain area was poorer than those living in the plain area. The regularity of monthly weighing and the frequency of monthly weight increase was higher in the plain area.

Physical infrastructure in the mountain area was considerably worse than the plain area. There were two villages in the mountain areas that could not be reached by either motorcycles or cars. The remaining villages were accessible by motorcycle but it required several hours from the capital of Banjarnegara. Only two villages in the plain area were located in slightly inaccessible areas easily reached by motorcycle. However, accessibility to those two villages was compromised during the rainy season.

The sample of providers at the district level were mostly government officials, 20 persons out of 48 respondents (41.7%) from Department of Health, 15 persons (31.3%) from the Department of Interior and the remaining were from the Department of Education (6.3%), National Family Planning Coordinating Board (6.3%), Department of Agriculture (4.2%), Department of Information (4.2%), Department of Animal Husbandry or Fishery and Department of Social Welfare (each of them was 2.1%). Only one community leader was interviewed (2.1%) in this sample.

Most of these respondents were well educated, having graduated from senior high school (47.9%), or an academy or university (21.3%). The rest were lower than senior high school but at least graduated from the elementary school. Forty-four percent of the providers were under 35 years old and had worked at the district level for an average of 9.5 years. Most of them were married.

At the regency level, 60% of 25 providers sampled were government officials, five persons (20%) were from NGOs, three persons (12%) were from political parties and the remainder (8%) were businessmen and community leaders. Most of them (96%) were 35 years old or more. All of them were married. Four providers (16%) out of 25 were women.

Fully 64% had graduated from an academy or university, and only one respondent stated his maximum educational attainment as elementary school. Their mean of length of employment in Banjarnegara was 14.8 years.

From the above discussion clear differences in health and socio-economic status emerge between communities in mountain and plain areas. Education, literacy, income, size of land holdings, value of possessions, housing, accessibility, morbidity, nutritional status, water and sanitation are all affected by topography and geography. The analysis underlines the importance of differentiating the sample between these two areas for the purposes of this study.

The Findings of Research Objective I

As mentioned in Chapter I, the first objective of this research is to explore the process for increasing community participation in PHC programs developed by providers of PHC at the district and village levels. This process will be presented qualitatively and descriptively in this section. This process cannot really be explored without doing direct observation of what is going on in the study area.

In developing a response to this first objective, the researcher, supervisors and interviewers directly observed some providers and community meetings, training sessions and other activities being carried out during the research period (February 1985 to June 1985). The results of those observations were discussed at weekly supervisors' meetings, during the researcher's routine supervision visits to the interviewers, and in every interviewer, supervisor and researcher meeting.

The results of those discussions were recorded by the researcher. The research team recorded observations from at least two village meetings per village; five district integrated team meetings per district; five "KRING" meetings; two combined village, district and regency providers training sessions; two integrated regency and YPPSE meetings; and supervisory visits to several different activities at the community level.

In this section, only findings related to district and regency integrated team meetings, supervisory visits and community activities including the "KRING" system will be presented in depth. The training process will be discussed in the findings of objective IV.

Generally the findings of this section indicate that community participation in PHC increased through several categories of inputs as follows: (1) Promotion of the integrated team in PHC and community development, (2) Consolidation of the regency and district integrated team, (3) Approach and social preparation of the community, (4) Establishment and organization of simple community based activities, (5) Inclusion of the village in the "KRING" system, (6) Maintenance and supervision of village activities.

1. Promotion of the Integrated Team in PHC and Community Development

Promoting the integrated team in PHC and community development in Banjarnegara Regency is done through formal and informal channels. The research teams' empirical findings indicate clearly that the personal and informal approaches favored by YPPSE were most effective in promoting the PHC regency and district integration teams in Banjarnegara.

Most of the village providers (82%) had never heard of YPPSE, probably resulting from YPPSE's policy of functioning as a facilitator and assistant to local government at the regency level, not as the prime mover. YPPSE stresses the fact that its programs are carried out through the government channels, and maintains a low profile as a facilitating agency. Village providers claimed that they learned about PHC and community development from district integrated teams, district administrator, HC's doctor or HC's staff member, teacher, and another district department officer. Although some respondents heard about these activities personally, most of them claimed that their major source of information came from meetings and information from the government. Ten percent of them were familiar with YPPSE through the "KRING" system. The remaining village providers (8%) knew YPPSE by chance because the location of their villages were close to the capital of Banjarnegara.

Most of the respondents in the regency level (82%) claimed that they knew about YPPSE from the Regent and Chief of the Banjarnegara Regency Health Office personally in the middle of the 1970s. The Regent and the Chief of the Banjarnegara Regency Health Office were the Chairman and Executive Chairman of YPPSE at that time. The remaining providers were informed by either the Chief of Banjarnegara Planning Division or other local department officers. All of the providers at the district level recognized that they obtained firsthand information about YPPSE from the HC doctors, the Chief of Banjarnegara Regency Health Office and the Banjarnegara Regent.

Most of the HC doctors (52%) claimed that they were introduced personally to YPPSE, PHC and community development programs by the Chief of Banjarnegara Health Service Office when they came to work in Banjarnegara for the first time. Some of them (45%) received their information during their training in Klampok and Karangobar HCs. There is a tradition in Banjarnegara that a new doctor must receive 2-3 weeks training at either of those two HCs after the first or second month of his/her assignment as a HC doctor. The remaining HC doctors got firsthand information from other YPPSE staff members, regent, district administrators and others.

In the researcher's observation, the YPPSE staff members especially the chairman, vice chairman, and the full-time personnel actively motivated every new HC doctor and paramedical personnel who were assigned by the President's decree to the HC. Although the Chairman of YPPSE was also the Chief of the Banjarnegara Health Service Office, the motivation process was slow and laborious. During the researcher's observations, there were three new HC's doctors and five paramedical personnel who were informed by the Chairman of YPPSE about PHC and community development. The Chairman motivated them gradually every time they met, providing personal attention where possible. For instance, he accompanied the new HC doctors or paramedical personnel to their new destinations, introducing them to the local district administrator and other local department officers. The Chairman or other YPPSE members conducted two to three follow-up visits to each of the HCs during the first month of their assignments. Then

they were given the opportunity to visit other HCs which were headed by senior HC doctors.

In these observations it was found that new HC doctors and para-medical personnel were generally disinterested with PHC and community development upon their arrival in Banjarnegara. All of these new personnel (100%) were more interested in working in well-equipped HCs in locations easily accessible to Banjarnegara. They also complained about inadequacy of HC facilities, unsuitable housing conditions, personnel insufficiency, and geographic inaccessibility (87.5%). However, following some practical experiences working in the HC, several meetings with the YPPSE Chairman and training with other senior HC doctors, 75% of the providers claimed interest in and enthusiasm for PHC and community development. Only 25% of the providers were still not interested in PHC and community development after six months of observation.

2. Consolidation of District and Regency Integrated Teams

Consolidation of regency and district integrated teams is one of the most important factors in improving the community participation in PHC and community development. One of the YPPSE's functions is to facilitate consolidation of the integrated teams. Local political commitment and training are the two critical components in establishing that consolidation. These two important components will be discussed in the research findings of objective II. This section will discuss the perception of district and regency providers about their role in the integrated teams.

District administrators and HC doctors play the most important role in the district integrated team in the development of community-based programs either in PHC or community development. The integrated teams in the district level were most dependent upon whether or not one of these key persons was interested in PHC and community development. In only two out of 10 districts surveyed (20%), neither district administrators nor HC doctors exhibited interest in PHC and community development. In four of the remaining districts, the district administrators (40%) alone played the key role. In two of the districts (20%) observed, the HC doctors assumed the leadership of important roles. And in the two remaining districts (20%) both district administrators and HC doctors played important roles in initiating the development of PHC and community development.

In the interviews of the providers at the district level, Table 5.1 shows perceptions of 48 respondents regarding coordination, integration and participation of their own integrated teams.

Between 50 to 60% of the respondents felt that the coordination and integration in their own integrated teams at the district level were good. About 70-80% of respondents felt that participation among the providers in the integrated teams were good. However, there were still many respondents who felt uncertain regarding the coordination and integration fo their teams. In order to explain why there was still high frequency of uncertainty about coordination and integration, Table 5.2 presents a cross-tabulation of providers' perception by the key role of the initiator.

Table 5.1

Level of Providers Perception by Coordination, Integration and Participation Functions at the District Level in Banjarnegara Regency, June 1985

Coordination, Integration, and Participation Functions	Level of Providers Perception							
	Very Good		Good		Uncertain		Insufficient	
	N	%	N	%	N	%	%	
Coordination								
1. PHC	2	4.2	26	54.2	20	41.7	0	0.0
2. Com. Dev.	1	2.1	23	47.9	22	45.8	2	4.2
Integration								
1. PHC	0	0.0	28	58.3	18	37.5	2	4.2
2. Com. Dev.	1	2.1	26	54.2	18	37.5	3	6.2
Participation								
1. PHC	1	2.1	35	72.9	11	22.9	1	2.1
2. Com. Dev.	1	2.1	38	79.1	7	14.6	2	4.2

Notes: 1. Com. Dev. = community development, it means non-PHC community based activities such as farmer club, religious groups, etc.

2. In the questionnaire there are five criteria, very good, good, uncertain, insufficient, and very insufficient. The Very Insufficient box is empty, it is excluded from this table.

Table 5.2 describes the important role of district administrator was the prime initiator, provider perceptions of integration and coordination in community development were higher, but unsatisfactory for PHC. The important role of both district administrators and HC's doctors as co-prime initiators is emphasized most strongly by the

Table 5.2
Level of Providers Perception by Key Role Initiators, and Coordination
and Integration Functions at the District Level
in Banjarnegara Regency, June 1985

Key Role Initiators	Coordination and Integration Functions ^a	Level of Providers Perception							
		Very Good		Good		Uncertain		Insufficient	
		N	%	N	%	N	%	N	%
Neither ^b	Coordination								
	1. PHC	0	0.0	4	36.4	7	63.6	0	0.0
	2. Com. Dev.	0	0.0	3	27.3	6	54.5	2	18.2
	Integration								
	1. PHC	0	0.0	5	45.4	5	45.4	1	9.1
	2. Com. Dev.	0	0.0	3	27.3	5	45.4	3	27.3
HC's Doctor	Coordination								
	1. PHC	0	0.0	7	77.8	2	22.2	0	0.0
	2. Com. Dev.	0	0.0	2	22.2	7	77.8	0	0.0
	Integration								
	1. PHC	0	0.0	6	66.7	3	33.3	0	0.0
	2. Com. Dev.	0	0.0	4	44.4	5	55.6	0	0.0
District Administrator	Coordination								
	1. PHC	0	0.0	8	42.1	11	57.9	0	0.0
	2. Com. Dev.	0	0.0	11	57.9	8	42.1	0	0.0
	Integration								
	1. PHC	0	0.0	9	47.4	9	47.4	1	5.2
	2. Com. Dev.	0	0.0	12	63.2	7	36.8	0	0.0
HC's Doctor & District Administrator	Coordination								
	1. PHC	2	22.2	7	77.8	0	0.0	0	0.0
	2. Com. Dev.	1	11.1	7	77.8	1	11.1	0	0.0
	Integration								
	1. PHC	0	0.0	8	88.9	1	11.1	0	0.0
	2. Com. Dev.	1	11.1	7	77.8	1	11.1	0	0.0

^a1. Com. Dev. = community development, it means non PHC community based activities such as farmer club, religious groups, etc.

2. In the questionnaire there are 5 criteria, very good, good, uncertain, bad, and worse. Since the worse box is empty, it is excluded from the table.

^bNeither HC doctor nor district administrator

results of Table 5.2 where the perception of providers toward coordination and integration in both PHC or community development was absolutely satisfactory.

From the researcher's observations, well coordinated and integrated teams exhibit regular supervision and meeting schedules; good personal relationships and communication among the team members; an equal degree of knowledge, practice and attitude about PHC and community development; equal opportunity for involvement in program planning, budgeting, implementation and evaluation for each member of the team; a priority of program development that has to be solved; a commitment to a multi-sectoral focus of development rather than unisectoral focus to development; and a dedicated coordinator (district administrator) who is assisted by an equally dedicated HC doctor.

At the regency level, the findings of providers' perceptions toward consolidation of YPPSE can be seen in Table 5.3. Almost all of the YPPSE officials (87.5%) were not satisfied with the management performances of YPPSE. All of the YPPSE respondents (100%) were dissatisfied with uncertainty and insufficiency of YPPSE performance in coordinating and integrating in evaluating programs. And 87.5% of the YPPSE's officials felt that coordination and integration in the budget area had not shown good management. Only in the program implementation (87.5%) did they express satisfaction with YPPSE's performance. All of the respondents at the regency level agreed that the budget of YPPSE was used for the PHC and community development, but recommended that a better financial reporting and recording system

Table 5.3

Level of Providers Perception by Management Functions and
Level of Involvement in YPPSE at the Regency Level
in Banjarnegara Regency, June 1985

Level of Providers Involvement in YPPSE Organization	Management Functions of Coordination and Integration in:	Level of Providers Perception					
		Good		Uncertain		Insufficient	
		N	%	N	%	N	%
Not Involved Directly	1. Planning	1	20.0	2	40.0	2	40.0
	2. Implementation	3	60.0	0	0.0	2	40.0
	3. Budgeting	1	20.0	1	20.0	3	60.0
	4. Evaluation	1	20.0	1	20.0	3	60.0
	5. Overall	2	40.0	1	20.0	2	40.0
Used to be Involved Directly	1. Planning	5	41.7	3	25.0	4	33.4
	2. Implementation	8	66.7	2	16.7	2	16.7
	3. Budgeting	5	41.7	3	25.0	4	33.4
	4. Evaluation	2	16.7	3	25.0	7	58.4
	5. Overall	8	66.7	2	16.7	2	16.7
Involved Directly	1. Planning	1	12.5	4	50.0	3	37.5
	2. Implementation	7	87.5	0	0.0	1	12.5
	3. Budgeting	1	12.5	4	50.0	3	37.5
	4. Evaluation	0	0.0	4	50.0	4	50.0
	5. Overall	1	27.3	3	37.5	4	50.0

be developed and made available. They also suggested that YPPSE should strive to achieve self-sufficiency and not depend primarily on external donor resources.

The same pattern of perception was shown by the providers who were not involved directly in the organization of YPPSE but who work as their partner in the integrated team at the regency level. They perceived that YPPSE's coordination and integration was only satisfactory in program implementation.

However, perceptions of providers formerly used to be involved directly with YPPSE felt that its overall integration and coordination was good. In the area of implementation, almost 70% of them agreed that coordination and integration were good. Coordination and integration in budget and planning were chosen by 40% of the providers as good. Among this group of respondents, evaluation was still considered poor. This difference in perception might be caused by the transformation of PPSE to YPPSE in 1980. The YPPSE was a real NGO and PPSE was the "quasi NGO." The explanation of this transformation will be discussed in Chapter VI.

The above findings do not imply that YPPSE was really ineffective in its management or made no effort to coordinate and integrate its components of activities with the regency level integrated team. Almost all of the providers at the regency level claimed that they still needed YPPSE and they supported YPPSE as an organization that could help the government in achieving its development goals. They had reservations about YPPSE because they felt that YPPSE could be more efficient and effective in its management system. The chairman of YPPSE and other senior officials also recognized these management deficiencies but claimed that budgetary constraints had caused manpower shortages in personnel areas essential for good management. This situation was caused by the growing needs of the community and local government in PHC and community development along with increased workload.

All of the providers surveyed at the regency level claimed that they were involved to some degree in the four management components

of YPPSE. Of these respondents, 36% (9 providers) claimed that they were not so involved in the planning section; 24% (6 providers) stated that they were not so involved in the implementation program; 56% (14 providers) felt that they were not so involved in the budgeting section; and 68% (17 providers) of them were not so involved in the evaluation section.

Even though it is impossible for an organization to permit all of its members and partners to be involved in all aspects of management components of the organization, it is important for members and partners to know what is going on with the four management components. The partial involvement of providers in the four management functions, then, is not unexpected.

Most providers did not feel that YPPSE was rigid in financial management, delegation of authority and program priority. Only in the area of flexibility of financial management and delegation of authority did an appreciable number of regency level providers express some dissatisfaction.

3. Approach and Social Preparation of the Community

Based on the researcher's subjective observations of the integrated team and during interviews of the providers at the district level, some principles of approach and social preparation of the community emerged. usually, members of the integrated team established a schedule for visiting villages, and official letters were sent to inform the village in question at least two weeks in advance of the visit.

On the appointed day, the district integrated team, consisting of 5-10 district providers, visited the village. The district

administrator or his staff member and the HC doctor or his staff member formed the core of the team. In general, the village was represented by the village head man, the other village officers, the sub village head man, religious leaders, informal leaders, political leaders, traditional healers and other key persons in the community.

Following a formal ceremonial welcome, the district administrator or his staff member explained the purpose of the integrated team's visit. Then a HC doctor or his staff explained the importance and advantages of PHC. Following these explanations, the general and health problems of villages were discussed, the causes were postulated, efforts to solve the problems were reviewed, and human, financial and material resources possessed by the villagers were identified.

Upon concluding these discussions the district administrator emphasized that the government would assist the village in solving their problems to the extent possible, but that government funds were limited, and that the communities' own contribution, both financial and material, would have to constitute the major input toward solution of their problems. This plea for community participation capitalized upon the traditional Javanese value of "gotong royong," and stressed once again the importance placed upon community participation as probably the single most critical ingredient to the success of the PHC and community development program.

YPPSE was invited to join the second or third informal meeting between the district integrated team and the villagers. By this time a joint plan of action had been drawn up and arrangements had been made to provide a training program as the first input into this process,

with YPPSE providing the training. The content of the training program is drawn up with the villagers, and is geared toward the introduction of some simple yet visible activity as the first step toward achieving the objectives of the communities' PHC and development plan. This component of the YPPSE strategy is discussed in more detail in the next section.

The whole process of social preparation takes from 4-6 months, involves a series of formal and informal meetings, and is designed mainly to involve the community as a full and active partner in solving their own problems. YPPSE's role is as facilitator and provider of technical assistance. The role of the district providers, and the integral part they play in approaching the community and eliciting their cooperation and participation, is probably the critical element in the success of YPPSE's approach to the community.

4. Establishment of Simple Community Based Activity and Its Organization

In the villages observed during this study a simple activity was introduced first which yielded quick and very visible results. Some examples of these initial activities are:

(a) Health Post or Village Health Insurance. Volunteers were trained to treat about 10 common complaints, simple illnesses and frequent minor accidents, with operational responsibilities for 20-30 households. This unit of households, usually a hamlet, chose the volunteers, bought the initial supply of medicines from the HC (with 50% discount from the retail price) and determined regulations for membership, fees, and access to care. Where villages were in close

proximity to the HC, the operational unit paid the fees for members' care at the HC. In this study, it was observed that 60% of these health posts had closed because of the low cost of HC service. But 20% of health posts maintained some form of village health insurance for emergency care. This activity was very useful in the remote villages which were far away from the HC.

(b) Nutrition Club or Weighing Program. Involved monthly weighing of children under-five, and recording of weight on a government supplied growth monitoring card by the village volunteer. The weighing sessions became social gatherings where mothers, assisted by the volunteers, exchanged ideas about child nutrition status, and in some clubs, provided a communal meal prepared by mothers at the time of weighing. The material for that meal was contributed by the mother from their own home gardens. This stimulated gardening and animal raising, as well as effectively changed feeding pattern in the family. Some other activities such as family planning pill and condom distribution, health education, simple treatment, vitamin A and oral rehydration package distribution, immunization and some income generating activities were provided by the HC's supervisors. The weighing program has been most effective as the initial activity, with the monthly weighing post becoming institutionalized in the village under the Family Welfare Movement or "PKK."

(c) School Health Program, provided simple curative care, environmental sanitation, school gardening, animal raising, food preparation demonstrations and health education using the school as community focus.

(d) "ARISAN," this is a collective lottery activity or social gathering to which members contribute the same amount on a monthly basis and funds are distributed via a monthly drawing. Contributions are in cash or kind, and all members must win the lottery at least once before any member can win a second time. In the observations and interviews of this research, it was found that this activity had been particularly successful to provide the funds for housing rehabilitation, latrine construction, well building and so on.

These are only examples of initial activities introduced via YPPSE, as the entry point for PHC and community development. What all initial activities had in common was the role played by the community and the requirement for some community contribution in either manpower, money and material.

5. Putting the Village in the "KRING" System

Following the activities mentioned in the previous section, the villages in this stage were put in the "KRING" system. This was a grouping of about 10 to 15 villages, of which two to four villages were relatively advanced in their development, two to four were in the medium stage in their development and the remaining were new participants or in the initial stage of their development. In observations and interviews of this research it was found that this configuration was not rigid, some villages which had not yet started the initial visible activity were included in the "KRING" system because YPPSE had hoped that the new villages would receive stimulus from the more advanced villages.

The "KRING" system is unique to YPPSE's approach, and operates as follows: About 5-6 village leaders from each village, usually the village headman, chief of the village council, informal community leaders, and some village volunteers, met every three months on a rotation basis to discuss one another's development and plan village development activities for the next quarter. The members of the district integrated team, YPPSE, and representatives from the regency level attended as facilitators. The "KRING" meetings last for three days and all participants, including the facilitators, stayed in the village.

During the meeting each village gave a status report on the programs being implemented in their communities, how they were financed, what problems were being faced, what solutions were possible, and outlines of the next quarterly plan. Villages with similar problems worked in small groups, and assisted by the facilitators, brainstormed successful solutions, and presented them in plenary sessions.

Each group then wrote their suggestions about subjects that they still needed to obtain inputs of training refreshers. Later on after the meetings were completed, while the participants took a rest for 1-2 hours, the moderators and facilitators discussed the inputs that the participants still needed. The priority of inputs were decided based on the resource persons who attended that meeting. The others would be given in the next meeting.

The same night, the meeting was continued with lectures on topics arising from previous discussions of the last meeting and inputs raised at the afternoon meeting. Some of the facilitators did not give formal

lectures, but instead presented materials on a case study, a story of successful programs, simulation exercises in management and other simple but appropriate methods. After the meeting, the participants were assigned to stay in the local villagers' houses which again provided opportunities to hold informal discussions with the owners of the houses.

"KRING" members visited the local community on the second day, examining housing, sanitation and water facilities, family planning, and community health and socio-economic conditions. Panel discussions were held following the field visit to discuss the findings of their tour and make suggestions for improvements in the village being used for the "KRING."

On the final day of the "KRING" meeting, participants were again divided into small groups, each group containing members of the same village, to finalize planning for the upcoming quarter for PHC and community development and to develop proposals. The time and agenda for the next "KRING" meeting was also set.

Following completion of the "KRING" meeting, the district integrated team formulated a composite proposal for submission to the Regent and YPPSE, with action taken within one week of its submission. The villagers, in turn, returned to their communities and presented results to fellow villagers. Revisions of plans developed at the "KRING" meeting were possible in the rare cases where plans were rejected by the community.

The "KRING" meeting moved every three months to another village location decided upon at the last meeting. Then, it returned to the

initial village after a meeting had been held in all villages joined in that "KRING."

In the observations, interviews and secondary data reviews, it was found that, by May 1985, the Banjarnegara Regency had 12 "KRING's" covering 134 villages. The first six "KRING's" with 82 villages were mostly located in the northern and middle part of the Regency ("KRING" nos. I to VI). The other six "KRINGS" with 52 villages were mostly located in the middle and southern part of Banjarnegara Regency ("KRING" nos. A to F). This meant that almost 50% of the total villages in Banjarnegara Regency were included in this "KRING" system.

YPPSE provided a budget of roughly \$130.00 for each "KRING" meeting, to cover transportation for facilitators, and supplies for the meeting. The village hosting the "KRING" provided food and lodging for all participants. YPPSE provided a contribution for the first 10 "KRING" meetings. Costs for all subsequent meetings had to be borne by the villages in the "KRING."

The findings of observations, interviews and archival search related to the "KRING" system describe some important benefits of the "KRING" system as follows:

- a. Maintenance and improvement of community participation in existing PHC and community development activities in participating "KRING" villages.
- b. Stimulation of community participation in PHC and community development in the villages that are not yet developed by the YPPSE.

- c. Enhancement of the friendship among the participants in the "KRING" meetings and between those participants and the local communities.
- d. Rewarding the villages hosting the meeting if the result of their participation in PHC and community development is good, and to make the participants proud of their achievements through their reports and panel discussions.
- e. Providing opportunities for exchanging experiences either among the participants or between the participants and the villagers who live in the village used for the meeting.
- f. Improvement in villagers' self confidence in their abilities to participate in PHC and community development activities.
- g. Establishing more collegial relationships between the village volunteer workers and the local community and district and regency providers.
- h. Improvements in knowledge, attitude and skill of the villagers and participants in managing and using appropriate technologies for PHC and community development.
- i. Increasing actualization of political commitment among the district and regency providers due to their close association, the intimate opportunity they had for three days to view village life firsthand, the chance to discuss problems with villagers and get to know them personally.

- j. Monitoring the village activities every three months, so that the YPPSE can know quickly and accurately the status of each village's development activities.
- k. Deeper understanding of community needs enabling YPPSE's assistance to more suitably meet the community needs.
- l. Solving the supervision problems created by a lack of manpower, budget and geographic inaccessibility.
- m. Mutual stimulation of the learning process of both villagers and providers in PHC and community development.

Disadvantages and problems of the "KRING" system are as follows:

- a. This system needs special funds, especially for the first 10 meetings and for some development assistance for proposed community programs.
- b. Requires an experienced, mature and dedicated integrated team at the district level as well as a high degree of political commitment from the providers at the regency level.
- c. Requires an extensive lead time before substantial results can be seen (at least 1 or 2 years after the system implementation).
- d. Unexpected climatic problems, or social, cultural and agricultural events delay the "KRING" meetings.
- e. Creation of a boomerang effect if the plans of action developed at the "KRING" meeting do not receive immediate responses from Regent or YPPSE.

- d. Local culture should be carefully considered and local adaptations must be made in the general process and sequence of the "KRING" described in this manuscript.

6. Maintenance and Supervision of Village

Based Activities

Maintenance and supervision of village community based activities were conducted by the integrated team or individual department from either the district or regency levels. This function had to be conducted both in those villages already involved in the "KRING" system and those not yet involved. Maintenance and supervision in the villages which were not involved in the "KRING" system was more frequent, in order to perform the functions carried out by the "KRING" system and to prepare those villages for their later involvement in the "KRING" system.

Home visits, activities observations, and attendance at village/subvillage and hamlet meetings were mostly done by all members of the district integrated team. Technical guidance and management as well as administrative assistance were usually provided by the team. Supervision also served to reinforce community participation as a visible sign of the district providers' interest and concern for the villagers' problems. Basic cultural and religious approaches were things that could be accepted without any hesitation by the community.

However, in the research observations, not all the supervisions that were scheduled either at the district level or regency level could be conducted. There were two villages that were supervised only once by the district integrated team and they were never supervised by the

regency staff members during the five months of this research period. Both of these villages were located in the remote mountain area. Most of the villages were supervised two to three times during the research periods by the district teams and once by the regency team. Villages in the plain area obtained more supervision as compared to those in the mountain area. The exception was in the two districts, whose district administrators and HC doctors were both interested in PHC and community development. Villages in these two difficult areas received more supervision than those in the other districts. The schedule of supervision, coordination, and integration of the teams as well as delegation of authority from the district administrators were more organized as compared to other districts.

Maintenance and supervision problems were due to personnel insufficiency, geographic inaccessibility, lack of infrastructure and unexpected weather conditions particularly in the mountain area. But management difficulties, especially poor coordination and integration still plagued some of the district level integrated teams. These problems also occurred at the regency level. Sometimes supervision, meetings, "KRING" meetings and training (basic or refresher) were pre-empted due to other activities. Some of the providers at the village, district and regency complained that there was no refresher training or traing evaluation during the previous three-year period from the YPPSE.

The Findings of Research Objective II

Objective II attempts to describe the effect of the process of training and "politicalization" upon strengthening the political

commitment of the Banjarnegara programs. In other words, how do these two important variables influence the knowledge, practice and attitude of the providers and influence their commitments to the maintenance and promotion of PHC and community development.

In this section, qualitative, quantitative and descriptive analyses are used to explain the relationships relevant to this objective. Findings for both providers at the regency and district levels are presented.

As previously discussed, "POLITICALIZATION" is used in this study as an expression of the degree to which political commitment is manifested and actualized in the development of PHC and community development in the Banjarnegara Regency. The component variables are: (1) the degree of commitment toward the philosophy of the YPPSE; (2) the degree of involvement in the planning, implementation, budgeting and evaluation process in Banjarnegara PHC and community development; (3) flexibility of the managerial process in delegation of authority, budgeting, and priorities for program development; (4) the degree of involvement in the training process; (5) the degree of involvement in the maintenance of PHC and community development through the "KRING" system; and (6) attitude and perception of providers toward the goal and future of integrated PHC and community development in achieving health for all by the year 2000.

Training variables are (1) Frequency of basic training and refresher training; (2) Length of training; (3) Usefulness of training materials; and (4) Level of interest in training methodology.

Knowledge and attitude are measured in relation to these factors: (1) PHC, (2) community development, (3) community participation, (4) training, (5) integration, (6) "KRING," (7) function of YPPSE, (8) programs of YPPSE, (9) volunteerism, (10) PHC management, and (11) appropriate technologies.

Practice is measured through observation of the following factors: (1) team leadership, (2) level of integration in a team, (3) level of participation in a meeting or team, (4) activities as trainers in a training session, (5) personal approach in a team, meeting or training, and (6) level of technical assistance in a meeting or activity.

These variables are used in the findings discussed in this section. For purposes of clarity, the discussion will be divided into several subsections: (1) "POLITICALIZATION" and Training at the district level; (2) "POLITICALIZATION" and Training at the regency level; and (3) Relationship of providers in both levels.

1. "POLITICALIZATION" and Training at the District Level

a. "POLITICALIZATION"

Commitment toward YPPSE philosophy in PHC and community development was found to be strong at this level. The strongest commitment was found in the districts where both the district administrator and HC doctors were interested in PHC and community development. Where only the district administrators were interested in PHC and community development, a strong commitment was also established. However, in the districts where only HC doctors expressed interest in PHC and community development, or where neither district administrators nor

HC doctors were interested in PHC and community development, commitment to the YPPSE philosophy was not as strong as in the others. This statement was supported by Table 5.4. In this table, high commitment toward YPPSE philosophy was shown where both the district administrators and HC doctors were interested in PHC and community development (33.3%), and in the districts where district administrators alone played the key role in PHC and community development (21.1%).

Table 5.4

Level of Providers Commitment to the YPPSE's Philosophy
by Key Role Initiators at the District Level
in Banjarnegara Regency, June 1985

Level of Providers Commitment to YPPSE's Philosophy	Key Role Initiators in PHC and Community Dev.							
	Neither ^a		HC Doctor		District Adminis- trator		District Administrator & HC's Doctor	
	N	%	N	%	N	%	N	%
Low	4	36.4	4	44.4	3	15.8	1	11.1
Medium	5	45.5	4	44.4	12	63.2	5	55.6
High	2	18.2	1	11.1	4	21.1	3	33.3
Total	11	100.1	9	99.9	19	100.0	9	100.0

^aNeither HC Doctor nor District Administrator.

Their major source of information about the YPPSE philosophy came from their interactions with the YPPSE and from their informal discussions with some of YPPSE officials. In the training they were never taught the YPPSE's philosophy by the trainers. The main reason for their commitment to the YPPSE's philosophy was that they felt that

this philosophy most closely coincided with the purpose of their jobs in developing the Indonesian people in their entirety.

The second component variable in "POLITICALIZATION" was the degree of provider involvement in planning, implementation, budgeting, and evaluation of PHC and community development. Provider involvement in budgeting was found to be low at the district level. Only 22.9% (11 providers) out of 48 providers claimed that they were involved in the budgeting process, and most of these were the district administrators and HC doctors. However, in the districts where both HC doctors and district administrators played key roles in PHC and community development, 55.6% of the providers in these areas stated that they were involved in the budgeting process.

This research also found that the involvement of providers in the planning and evaluation process were reasonably high. Fully 60.8% and 47.9% of total samples claimed that they were involved in the planning and evaluation process of PHC and community development respectively. The highest involvement in planning was found in the area where both district administrators and HC doctors were key role initiators. However, the highest involvement in evaluation was found in the districts where district administrators played the key role in PHC and community development (Table 5.5).

The third variable of "POLITICALIZATION" was flexibility of the managerial process in PHC and community development. Table 5.6 shows the flexibility of budgeting used, delegation of authority and establishment of program priorities.

Table 5.5

Level of Providers Involvement in Management Functions
by Key Role Initiators at the District Level
in Banjarnegara Regency, June 1985

Key Role Initiators in PHC and Community Development	Management Functions of PHC and Community Development	Level of Involvement					
		Involved		Not So Involved		Not Involved at all	
		N	%	N	%	N	%
Neither ^a	1. Planning	5	45.5	2	18.2	4	36.4
	2. Implementation	7	63.6	4	36.4	0	0.0
	3. Budgeting	1	9.1	3	27.3	7	63.6
	4. Evaluation	1	9.1	4	36.4	6	54.6
HC's Doctor	1. Planning	3	33.3	1	11.1	5	55.6
	2. Implementation	8	88.9	1	11.1	0	0.0
	3. Budgeting	2	22.2	1	11.1	6	66.7
	4. Evaluation	1	11.1	1	11.1	7	77.8
District Administrator	1. Planning	13	68.4	4	21.1	2	10.5
	2. Implementation	16	84.3	2	10.5	1	5.3
	3. Budgeting	3	15.8	7	36.8	9	47.4
	4. Evaluation	15	79.0	2	10.5	2	10.5
District Administrator and HC's Doctor	1. Planning	8	88.9	1	11.1	0	0.0
	2. Implementation	7	77.8	1	11.1	1	11.1
	3. Budgeting	5	55.6	0	0.0	4	44.4
	4. Evaluation	6	66.7	1	11.1	2	22.2
Total	1. Planning	29	60.4	8	16.7	11	22.9
	2. Implementation	38	79.2	8	16.7	2	4.2
	3. Budgeting	11	22.9	11	22.9	26	54.2
	4. Evaluation	23	47.9	8	16.7	17	35.4

^aNeither HC doctor nor District Administrator

Table 5.6

Level of District Integrated Teams Flexibility in Budgeting,
Delegation of Authority and Program Priority
by Key Role Initiators at the District Level
in Banjarnegara Regency, June 1985

Key Role Initiators in PHC and Community Development	Management Specification of YPPSE in PHC and Community Development ^a	Level of Flexibility					
		Flexible		Not So Flexible		Not Flexible at all	
		%	%	N	%	N	%
Neither ^b	1. Budgeting	3	27.3	3	27.3	5	45.5
	2. Deleg. of Aut.	1	9.1	2	18.2	8	72.7
	3. Program Prior.	3	27.3	4	36.4	4	36.4
HC's Doctor	1. Budgeting	2	22.2	5	55.6	2	22.2
	2. Deleg. of Aut.	3	33.3	3	33.3	3	33.3
	3. Program Prior.	4	44.4	3	33.3	2	22.2
District Administrator	1. Budgeting	9	47.4	8	42.1	2	10.5
	2. Deleg. of Aut.	8	42.1	8	42.1	3	15.8
	3. Program Prior.	9	47.4	7	36.8	3	15.8
District Administrator & HC's Doctor	1. Budgeting	6	77.8	3	33.3	0	0.0
	2. Deleg. of Aut.	8	88.9	1	11.1	0	0.0
	3. Program Prior.	6	66.7	2	22.2	1	22.2
Total	1. Budgeting	20	41.7	19	39.6	9	18.7
	2. Deleg. of Aut.	20	41.7	14	29.2	14	29.2
	3. Program Prior.	22	45.8	16	33.3	10	20.8

^aDeleg. of Aut. = Delegation of Authority
Program Prior. = Program Priority

^bNeither HC Doctor nor District Administrator

Roughly 41% to 42% of the providers perceived managerial flexibility in PHC and community development. Similar perception patterns occurred in involvement in the management process. In other words, the areas where both district administrators and HC doctors played key roles as initiators of PHC and community development, there tended to be better management flexibility.

The fourth variable measuring "POLITICALIZATION" was involvement in the development training process. This variable was measured by combining the district providers' involvement in planning implementation, budgeting and evaluation of the training process for village volunteer workers. The individual variable measurement can be seen in Table 5.7. Overall involvement in development training was high at the district level except for involvement in budgeting. However, in districts where both district administrator and HC doctors worked together, scores for this variable were slightly higher.

The fifth variable was involvement in the "KRING" system. Less than one-third of the providers (29.2%) were involved in the "KRING" system. In the districts where neither district administrators nor HC doctors were involved actively as the key role person, a high percentage of providers either were not involved or were only marginally involved (9.1%). In the observations and discussions with some of the district administrators and HC doctors, two of them refused to become involved in the "KRING" system. However, they did not refuse to assist YPPSE to develop the "KRING" system in their districts. The distribution of providers involvement in the "KRING" system can be seen in Table 5.8.

Table 5.7

Level of Providers Involvement in Management Functions
in Training by Key Role Initiators at the District Level
in Banjarnegara Regency, June 1985

Key Role Initiators in PHC and Community Development	Management Functions of Training for Village Volunteer Workers in PHC and Community Development	Level of Involvement					
		Involved		Not so Involved		Not Involved at all	
		N	%	N	%	N	%
Neither ^a	1. Planning	8	72.8	0	0.0	3	27.3
	2. Implementation	9	81.8	1	9.1	1	9.1
	3. Budgeting	1	9.1	4	36.4	6	54.5
	4. Evaluation	9	81.8	0	0.0	2	18.2
HC's Doctor	1. Planning	5	55.6	1	11.1	3	33.3
	2. Implementation	7	77.8	2	22.2	0	0.0
	3. Budgeting	2	22.2	3	33.3	4	44.4
	4. Evaluation	7	77.8	1	11.1	1	11.1
District Administrator	1. Planning	17	89.5	1	5.3	1	5.3
	2. Implementation	17	89.5	2	10.5	0	0.0
	3. Budgeting	4	21.1	7	36.8	8	42.1
	4. Evaluation	17	89.5	2	10.5	0	0.0
District Administrator and HC's Doctor	1. Planning	6	66.7	2	22.2	1	11.1
	2. Implementation	6	66.7	2	22.2	1	11.1
	3. Budgeting	3	33.3	5	55.6	1	11.4
	4. Evaluation	5	55.6	2	11.1	2	22.2
Total	1. Planning	36	75.0	4	8.3	8	16.7
	2. Implementation	39	81.2	7	14.6	2	4.2
	3. Budgeting	10	20.8	19	39.6	19	19.9
	4. Evaluation	38	79.2	5	16.7	5	10.4

^aNeither HC Doctor nor District Administrator

Table 5.8

Level of Providers Involvement in "KRING" System
by Key Role Initiators at the District Providers
in Banjarnegara Regency, June 1985

Level of Providers Involvement in "KRING" System	Key Role Initiators in PHC and Community Dev.							
	Neither ^a		HC's Doctor		Adminis- trator		District Administrator & HC's Doctor	
	N	%	N	%	N	%	N	%
Not Involved at all	5	45.1	1	11.1	1	5.3	1	11.1
Not so Involved	5	45.5	5	55.6	11	57.9	5	55.6
Involved	1	9.1	3	33.3	7	36.8	3	33.3
Total	11	100.1	9	100.0	19	100.0	9	100.0

^aNeither HC Doctor nor District Administrator

The last variable measuring "POLITICALIZATION" was attitude toward the goal and future of PHC and community development for health for all by the year 2000. These attitudes were measured by open-ended questions with some key important words. High scores for attitude were measured if respondents indicated a belief that PHC and community development was one of many ways to achieve health for all in the year 2000 with supporting reasons. Medium scores for attitude were measured if respondents indicated a similar belief but without any supporting reasons. Low scores for attitude were measured if respondents indicated a lukewarm belief or worse in PHC and community development as a way

to achieve health for all. The detailed results of this variable measurement is presented in Table 5.9.

Table 5.9

Level of Providers Attitude Toward Future of PHC
Community Development by Key Role Initiators
at the District Level in Banjarnegara Regency,
June 1985

Level of Providers Attitude Toward Future of PHC and Community Development	Key Role Initiators in PHC and Community Development							
	Neither ^a		HC's Doctor		District Administrator		District Administrator & HC's Doctor	
	N	%	N	%	N	%	N	%
Low	3	27.3	1	11.1	1	5.3	1	11.1
Medium	5	45.5	4	44.4	6	31.6	3	33.3
High	3	27.3	4	44.4	12	63.2	5	55.6
Total	11	100.1	9	99.9	19	100.1	9	100.0

^aNeither HC Doctor nor District Administrator

The highest scores for attitude were achieved in the districts where district administrators played the dominant role as the initiators of PHC and community development (63.2%), followed closely by providers in the district where both district administrators and HC doctors played equally important roles as initiators of PHC and community development (55.6%). The lowest scores for attitude were found in those districts where neither the district administrators nor HC

doctors expressed particular interest or involvement in PHC and community development (27.3%).

Therefore, the findings presented in this section support the proposition that better relationships and cooperation between district administrator and HC's doctors would create better "POLITICALIZATION."

b. Training

About 69% of the providers at the district level had attended at least one training program at PHC and community development provided by the Government and YPPSE. Only two providers out of 48 sampled (4.2%) claimed that they had attended more than four training programs of PHC and community development provided by the Government and YPPSE since they started to work in Banjarnegara. About 35% said that they were trained twice by Government and YPPSE in PHC and community development since they started to work in Banjarnegara. The frequency distributions of training in PHC and community development are shown in Table 5.10.

In districts where neither the HC doctors nor district administrators were interested in PHC and community development, the percentage of never trained providers was highest (36.4%), and lowest in districts where HC doctors were the key initiators only (22.4%). In the remaining groups, one third or less of the providers had never been trained.

Those providers trained in the "HC doctor" group attended at least two training programs (77.8%). Providers in the "none" group claimed that 36.4% of them received training two times or more. About 50% of the providers in each of the remaining groups stated that they were trained two times or more.

Table 5.10

Frequency of District Providers Training by Key Role
Initiators in Banjarnegara Regency, June 1985

Frequency of Providers Training in PHC & Community Development	Key Role Initiators in PHC and Community Development							
	Neither ^a		HC's Doctor		District Administrator		District Administrator & HC's Doctor	
	N	%	N	%	N	%	N	%
Never	4	36.4	2	22.2	6	31.6	3	33.3
One Time	3	27.3	0	0.0	4	21.1	1	11.1
Two Times	3	27.3	7	77.8	4	21.1	3	33.3
More than Two Times	1	9.1	0	0.0	5	26.3	2	22.2
Total	11	100.1	9	100.0	19	100.1	9	99.9

^aNeither HC Doctor nor District Administrator

The median length of training was three days (75.7%). Table 5.11 presents the details of length of training in days.

The average number of hours of training per day was 10 hours (51.3%), ranging from 4 hours/day to 14 hours a day. The fewer the training days, the greater the number of hours of training that were carried out. For example, the two day training programs contained 12 to 14 hours of training per day. The three day training programs consisted of 8 to 10 hours training per day. Two day training programs with 12 to 14 hours of training per day were usually for the refresher training and in an emergency condition. The average number of hours of training per day is reported in Table 5.12.

Table 5.11

Length of District Providers Training by Key Role
Initiators in Banjarnegara Regency, June 1985

Length of District Providers Training in PHC & Community Development	Key Role Initiators in PHC and Community Development							
	Neither ^a		HC's Doctor		District Administrator		District Administrator & HC's Doctor	
	N	%	N	%	N	%	N	%
Two Days	0	0.0	0	0.0	1	7.7	0	0.0
Three Days	6	85.7	5	71.4	8	61.5	6	100.0
More than Three Days	1	14.3	2	28.6	4	30.8	0	0.0
Total ^b	7	100.0	7	100.0	13	100.0	6	100.0

^aNeither HC Doctor nor District Administrator

^bTotal trained providers only 33 persons (N = 33)

According to the trained providers interviewed, training consisted mostly of some practical management principles in integrated team and community-based activity; some key speeches from the Regent and/or other important persons from the regency level about the policy and goal of PHC and community development; case studies of PHC and community development programs; the purpose and management of the "KRING" system; culture, community participation and volunteerism in PHC and community development; presentations from the district administrators, HC's doctors, village headman, and village volunteer health workers

Table 5.12

Average Daily Hours of District Providers Training by
Key Role Initiators in Banjarnegara Regency, June 1985

Average Daily Hours of District Providers Training in PHC and Community Development	Key Role Initiator in PHC and Community Development							
	Neither ^a		HC's Doctor		District Administrator		District Administrator & HC's Doctor	
	N	%	N	%	N	%	N	%
Less Than 10 Hours	2	28.6	1	14.3	4	30.8	0	0.0
Ten Hours	3	42.8	4	57.1	6	46.1	6	100.0
More Than 10 Hours	2	28.6	2	28.6	3	23.1	0	0.0
Total ^b	7	100.0	7	100.0	13	100.0	6	100.0

^aNeither HC Doctor nor District Administrator

^bTotal trained providers only 33 persons (N = 33)

regarding their experiences in developing PHC and community development; and appropriate technologies in supporting PHC and community development.

The training time schedule, outline of each subject to be presented in the training, and summaries of key speeches were given to the participants before the training began. However, some handout of subject presentations were distributed at the end of each training day. Additional reading materials about subjects of interest were given out upon request by the participants. Daily evaluation sheets were distributed at the end of each training day. Funds for the

training including accommodations for the participants and incentives for the teachers were mostly paid by the YPPSE. The local government contributed some manpower and facilities of training. Table 5.13 presents the perception of district providers regarding the training materials.

Table 5.13
Perception of District Providers Toward Training
Materials by Key Role Initiators in
Banjarnegara Regency, June 1985

Perception Toward Training Materials in PHC & Community Development	Key Role Initiators in PHC and Community Development							
	Neither ^a		HC's Doctor		District Administrator		District Administrator & HC's Doctor	
	N	%	N	%	N	%	N	%
Not useful	2	28.6	1	14.3	1	7.7	0	0.0
Useful	5	71.4	6	85.7	12	92.3	6	100.0
Total ^b	7	100.0	7	100.0	13	100.0	6	100.0

^aNeither HC Doctor nor District Administrator

^bTotal trained providers only 33 persons (N = 33)

Most of the trained providers (87.9%) perceived that the materials of training were useful and only 12.1% of trained providers did not feel the usefulness of those materials in implementation of PHC and community development in the field. Surprisingly, almost all of the providers who perceived that the materials of training were not useful were HC doctors and staff members. Most of the district administrators

felt that the materials of training were very useful for PHC and community development implementation.

Training methodologies included lectures, simulation games, group dynamics, field study and case presentations. Audiovisual assistance was always used in these training sessions. Only 30.3% of total sample providers perceived that the training methodologies were interesting. Most stated that the training methodologies were not so interesting (45%). About 25% of them claimed that the methodologies were not interesting at all. Table 5.14 will lead into the detailed perception of the providers toward those training methodologies.

From the researcher observations during two training sessions, although theoretically the materials and methodologies were very important and interesting, some teachers who carried out the methodologies were not capable. In the providers' individual evaluations, the professional teachers from the NGOs and some YPPSE officials received high ratings from most of the participants.

From the findings in the training section, it can be summarized that most of the district providers attended two training programs conducted by YPPSE. The length of training was generally three days with an average of 8 to 10 hours of training per day. Most providers perceived that the training materials were useful for the implementation of PHC and community development in the field. However, most of them felt that the training methodologies were not so interesting. This factor being mostly dependent upon the skills of the trainers.

Table 5.14

Perception of District Providers Toward Training Methodologies
by Key Role Initiators
in Banjarnegara Regency, June 1985

Perception of District Providers Toward Training Methodologies in PHC	Key Role Initiators in PHC and Community Development							
	Neither ^a		HC's Doctor		District Administrator		District Administrator & HC's Doctor	
	N	%	N	%	N	%	N	%
Not Interesting	2	28.6	2	28.6	3	23.1	1	16.7
Not so Interesting	3	42.8	3	42.8	6	46.1	3	50.0
Interesting	2	28.6	2	28.6	4	30.8	2	33.3
Total ^b	7	100.0	7	100.0	13	100.0	6	100.0

^aNeither HC Doctor nor District Administrator

^bTotal trained providers only 33 persons (N = 33)

c. Knowledge, Attitude and Perception of the Providers

After running the factor analysis in SPSSX, the result of this analysis suggested that the 11 variables of knowledge and attitude as well as six practice variables could be classified into three categories: KNOWLDG or KNOWLEDGE SCORE, ATTITUD or ATTITUDE SCORE and PRACTIC or PRACTICE SCORE. These three new composite variables were created by adding each of the 11 component knowledge variables for KNOWLDG, 11 component attitude variables for ATTITUD and six practice component variables for PRACTIC. Mean and SD were used to create cut off points in order to categorize these three composite variables into three categories: high, medium and low.

The same techniques were also used to create the composite variable POLITICA or "POLITICALIZATION" SCORE from six "POLITICALIZATION" component variables. The POLITICA was also categorized into three levels: high, medium and low. The training variable TRAINING, was divided into two categories: trained and untrained providers. POLITICA which represented the six "POLITICALIZATION" component variables, together with TRAINING would be used to analyze their relationship to the providers' knowledge, attitude and practice. As mentioned before, the knowledge, attitude and practice of district providers were represented by KNOWLDG, ATTITUD and PRACTIC composite variables.

Empirically, the trained providers should have higher knowledge, attitude and practice scores as compared to those untrained providers. Table 5.15 presents the distribution of trained and untrained providers based on their knowledge, attitude and practice scores.

Knowledge score and attitude score showed a significant difference between trained and untrained providers. However, practice score was not significant at $p < 0.01$, but was significant at $p < 0.05$. It could be explained that there was only a slight difference between untrained and trained providers in terms of their practice score. Hence, there might be another factor that caused significant differences in practice score.

The POLITICA composite variable should also have some impact on knowledge, practice and attitude scores. Table 5.16 describes in detail the differences in knowledge, practice and attitude scores after cross tabulation with POLITICA. There were significant differences

Table 5.15

Knowledge, Attitude and Practice Score of District
Providers by Training Status
in Banjarnegara Regency, June 1985

Knowledge, Attitude and Practice of District Providers		Training Status of Provider			
		Untrained		Trained	
Subject	Score	N	%	N	%
1. Knowledge	a. Low	4	26.7	0	0.0
	b. Medium	7	46.7	6	18.2
	c. High	4	26.7	27	81.8
p = 0.0002; Chi-Square = 16.75; DF = 2; Min E.F. = 1.25					
2. Practice	a. Low	1	6.7	0	0.0
	b. Medium	6	40.0	5	15.2
	c. High	8	53.3	28	84.8
p = 0.419; Chi-Square = 6.34; DF = 2; Min E.F. = 0.313					
3. Attitude	a. Low	3	20.0	1	3.0
	b. Medium	8	53.3	1	3.0
	c. High	4	26.7	31	93.9
p = 0.0000; Chi-Square = 23.88; DF = 2; Min E.F. = 1.25					

among those three variables by POLITICA at $p < 0.01$. The results from Tables 5.15 and 5.15 suggest that POLITICA might influence knowledge, practice and attitude score more than TRAINING variable. The relationship between POLITICA and TRAINING variables can be seen in Table 5.17. There was a significant difference between POLITICA and TRAINING at $p = 0.0013$. Table 5.17 also showed that these two variables were mutually supportive. The trained providers at the district level had higher scores of "POLITICALIZATION" more than untrained providers.

Table 5.16

Knowledge, Attitude and Practice Score of District Providers
by Level of "POLITICALIZATION" in Banjarnegara Regency,
June 1985

Knowledge, Attitude and Practice of District Providers		Level of "POLITICALIZATION"					
		Low		Medium		High	
Subject	Score	N	%	N	%	N	%
1. Knowledge	a. Low	4	40.0	0	0.0	0	0.0
	b. Medium	5	50.0	7	36.8	1	5.3
	c. High	1	10.0	16	63.2	18	94.7
p = 0.0000; Chi-Square = 28.44; DF = 4; Min E.F. = 0.83							
2. Practice	a. Low	1	40.0	0	0.0	0	0.0
	b. Medium	8	40.0	3	15.8	0	0.0
	c. High	1	20.0	16	84.2	19	100.0
p = 0.0000; Chi-Square = 30.23; DF = 4; Min E.F. = 0.21							
3. Attitude	a. Low	4	40.0	0	0.0	0	0.0
	b. Medium	4	40.0	4	21.1	1	5.3
	c. High	2	20.0	15	78.9	18	94.7
p = 0.0001; Chi-Square = 24.68; DF = 4; Min E.F. = 0.83							

Almost all of providers with high "POLITICALIZATION" were trained providers (94.7%) and vice versa.

Table 5.17
Training Status of District Providers by Level of
"POLITICALIZATION" in Banjarnegara Regency,
June 1985

Training Status of District Providers	Level of "POLITICALIZATION"					
	Low		Medium		High	
	N	%	N	%	N	%
Untrained	7	70.0	7	36.8	1	5.3
Trained	3	30.0	12	63.2	18	94.7
Total	10	100.0	19	100.0	19	100.0

$p = 0.0013$; Chi-Square = 13.24; DF = 2; Min E.F. = 3.13

d. Quantitative Analysis

Canonical analysis was performed to analyze the relationship between POLITICA and TRAINING as a set of independent variables (IV) with KNOWLDG, PRACTIC and ATTITUD as a set of dependent variables (DV). The BMDP6M (Dixon, 1985) was used in analyzing these sets of variables. Results of the canonical analysis of the relationship between the IV and DV set is presented in Table 5.18. As suggested by Bartlett's test in this analysis, only the first canonical factors will be used in this analysis. In other words, only one canonical factor from two canonical factors created by the BMDP6M was statistically significant as suggested by Bartlett's test. The detail discussion of the canonical analysis can be seen in Chapter V objective number III.

Table 5.18
 Result of Canonical Correlation Analysis Between
 Variable Sets at the District Level
 in Banjarnegara Regency, June 1985

Variable Sets ^a	First Canonical Variable	
	Can. Var. Load ^b	St. Coef. Can. ^c
IV Set		
1. Politica	0.996	0.922
2. Training	0.685	0.120
Percent of Variance	0.730	
Redundancy	0.513	
DV Set		
1. Knowldg	0.886	0.175
2. Practic	0.862	0.528
3. Attitud	0.865	0.451
Percent of Variance	0.759	
Redundancy	0.534	
Canonical Correlation	0.838	

^aIV = Independent Variable and DV = Dependent Variable

^bCanonical variable loading

^cStandardized coefficients for canonical variables

Source: BMDP Statistical Analysis 6M.

That canonical correlation is 0.83866, representing 70.34% overlapping variance between the first pair of canonical factors. With the cut-off point 0.3, both of the IVs and all three of the DVs are relevant to the canonical factor. Taken as a pair, the canonical factor indicates that those with a high score in "POLITICALIZATION" and those who were trained by YPPSE tend to have higher scores in knowledge, practice and attitude. The analysis also shows that

"POLITICALIZATION" is a more important composite variable in influencing the knowledge, practice and attitude score of district providers as compared to the training variable.

2. "POLITICALIZATION" and TRAINING at the Regency Level

a. "POLITICALIZATION"

In this level, commitment toward YPPSE's philosophy in PHC and community development is a little bit stronger (24% of providers had a high level of commitment) than at the district level (20.8% of providers had a high level of commitment). Providers involved directly with YPPSE demonstrated much higher commitment as compared to the others. However, providers who were formerly directly involved showed a substantial commitment as compared to providers who were not involved directly with YPPSE. Table 5.19 shows the frequency distribution of the commitment by involvement level in YPPSE of regency providers.

The degree of involvement in planning, implementation, budgeting and evaluation in PHC and community development is presented in Table 5.20. Most of the providers who were involved directly with YPPSE claimed a substantial involvement. No respondents from this category answered that they were not involved at all. The degree of involvement of other categories of providers was somehow much lower as compared to those who were involved directly with YPPSE. Only in the implementation component, were they highly involved. However, there were still some providers who claimed that they were involved or at least had minimal involvement in the remaining components of management in PHC and community development. Most of them were providers from other governmental departments and working closely with the YPPSE program

Table 5.19

Level of Providers Commitment to the YPPSE Philosophy
by Level of Involvement at the Regency Level
in Banjarnegara Regency, June 1985

Level of Providers Commitment to the YPPSE's Philosophy	Level of Involvement in YPPSE					
	Not Involved Directly		Used to be Involved		Involved Directly	
	N	%	N	%	N	%
Low	4	80.0	4	33.3	0	0.0
Medium	1	20.0	7	58.3	3	37.5
High	0	0.0	1	8.3	5	62.5
Total	5	100.0	12	99.9	8	100.0

such as the Departments of Health, Interior, Education, Fisheries, Animal Husbandry, Social Welfare, Agriculture, Religion, and the National Family Planning Coordinating Board.

In comparison to the degree of involvement at the district level, involvement in most of the management components at the regency level was lower than those at the district level. The only exception was budgeting, with 22.9% of the district providers and 28% of the regency providers involved in the budgeting. This could be explained by the fact that YPPSE was most visible at the regency level and its budgeting process was concentrated there.

The distribution of the third "POLITICALIZATION" variable, the degree of flexibility in budgeting, delegation of authority and program priority is presented in Table 5.21. Flexibility of all three

Table 5.20

Level of Providers Involvement in YPPSE Organization by Level of Involvement in Management Functions at the Regency Level in Banjarnegara Regency, June 1985

Level of Providers Involvement in YPPSE Organization	Management Functions of YPPSE in PHC and Community Development	Management Function Involvement					
		Involved		Not so Involved		Not Involved at all	
		N	%	N	%	N	%
Not Involved Directly	1. Planning	0	0.0	1	20.0	4	80.0
	2. Implementation	3	60.0	2	40.0	0	0.0
	3. Budgeting	0	0.0	2	40.0	3	60.0
	4. Evaluation	1	20.0	1	20.0	3	60.0
Used to be Involved	1. Planning	2	16.7	6	50.0	4	33.3
	2. Implementation	10	83.3	2	16.7	0	0.0
	3. Budgeting	1	8.3	2	16.7	9	75.0
	4. Evaluation	0	0.0	2	16.7	10	83.3
Involved Directly	1. Planning	7	87.5	1	12.5	0	0.0
	2. Implementation	6	75.0	2	25.0	0	0.0
	3. Budgeting	6	75.0	2	25.0	0	0.0
	4. Evaluation	5	62.5	3	37.5	0	0.0
Total	1. Planning	9	36.0	8	32.0	8	32.0
	2. Implementation	19	76.0	6	24.0	0	0.0
	3. Budgeting	7	28.0	6	24.0	12	48.0
	4. Evaluation	6	24.0	6	24.0	13	52.0

components was generally higher at the regency level than at the district level especially for delegation of authority and program priority. The majority of providers directly involved perceived that there was not much flexibility in the three components of the YPPSE program. On the contrary, the majority of the providers who used to be involved in YPPSE were satisfied with YPPSE's flexibility in those three components.

Table 5.21

Level of Providers Involvement in YPPSE by Level of Flexibility
in Budgeting, Delegation of Authority and Program Priority
at the Regency Level in Banjarnegara Regency, June 1985

Level of Providers Involvement in YPPSE Organization	Field Specification of PHC and Community Development ^a	Level of Flexibility					
		Flexible		Not so Flexible		Not Flexible at all	
		N	%	N	%	N	%
Not Involved Directly	1. Budgeting	0	0.0	3	60.0	2	40.0
	2. Deleg. of Aut.	3	60.0	2	40.0	0	0.0
	3. Program Prior.	2	40.0	3	60.0	0	0.0
Used to be Involved	1. Budgeting	8	66.7	2	16.7	2	16.7
	2. Deleg. of Aut.	7	58.3	2	25.0	2	16.7
	3. Program Prior.	8	66.7	3	25.0	1	8.3
Involved Directly	1. Budgeting	3	37.5	4	50.0	1	12.5
	2. Deleg. of Aut.	6	42.1	2	42.1	0	0.0
	3. Program Prior.	3	47.4	5	36.8	0	15.8
Total	1. Budgeting	11	44.0	9	36.0	5	20.0
	2. Deleg. of Aut.	16	64.0	7	28.0	2	8.0
	3. Program Prior.	13	52.0	11	44.0	1	4.0

^aDeleg. of Aut. = Delegation of Authority
Program Prior. = Program Priority

The fourth variable was the degree of involvement in the training management process. Most providers (50-60%) were involved in each phase of the training management process with the exception of the evaluation of the training which was usually done by the providers who were directly involved in the YPPSE organization (especially from the donor agencies or other NGOs). The degree of involvement of the providers at the regency level was lower than of those at the district

Table 5.22

Level of Providers Involvement in YPPSE by Planning, Implementation Budgeting and Evaluation of Training at the Regency Level in Banjarnegara Regency, June 1985

Involvement in YPPSE Organization	Field Specification of Training for District Provider in PHC and Community Development	Management Function Involvement					
		Involved		Not so Involved		Not Involved at all	
		N	%	N	%	N	%
Not Involved Directly	1. Planning	3	60.0	1	20.0	1	20.0
	2. Implementation	4	80.0	1	9.1	0	9.1
	3. Budgeting	3	60.0	1	20.0	1	20.0
	4. Evaluation	0	0.0	1	20.0	4	80.0
Used to be Involved	1. Planning	7	58.3	4	33.3	1	8.3
	2. Implementation	5	41.7	6	50.0	1	8.3
	3. Budgeting	5	41.7	6	50.0	1	8.3
	4. Evaluation	1	8.3	8	66.7	3	11.1
Involved Directly	1. Planning	6	75.0	2	25.0	0	0.0
	2. Implementation	7	87.5	1	12.5	0	0.0
	3. Budgeting	6	75.0	1	12.5	1	12.5
	4. Evaluation	4	50.0	2	25.0	2	25.0
Total	1. Planning	16	64.0	7	28.0	2	8.0
	2. Implementation	16	64.0	8	32.0	1	4.0
	3. Budgeting	14	52.0	8	32.0	3	12.0
	4. Evaluation	5	20.0	11	44.0	9	36.0

level. Only in the area of budgeting were the providers at the regency level more involved than those at the district level. Table 5.22 above shows the frequencies of distribution of this variable.

Furthermore, involvement of the regency providers in the "KRING" system was found to be satisfactory, about 52% (13 out of 25 providers) claimed that they were actively involved in the "KRING" system. Of

the 16% (4 providers) who stated that they were not involved at all, none were providers who were directly involved in the YPPSE organization, rather they were mostly providers who used to be involved in YPPSE. Table 5.23 presents a detailed frequency distribution of the regency providers' degree of involvement in the "KRING" system.

Table 5.23

Level of Providers Involvement in "KRING" System by Level of Involvement in YPPSE Organization at the Regency Level in Banjarnegara Regency, June 1985

Level of Providers Involvement in "KRING" System	Level of Involvement in YPPSE Organization							
	Not Involved Directly		Used to be Involved		Involved Directly		Total	
	N	%	N	%	N	%	N	%
Not Involved at all	1	20.0	3	25.0	0	0.0	4	16.0
Not so Involved	3	60.0	4	33.3	1	12.5	8	32.0
Involved	1	20.0	5	41.7	7	87.5	13	52.0
Total	5	100.1	12	100.0	8	100.0	25	100.0

The last variable measured for "POLITICALIZATION" was attitude toward PHC and community development for health for all by the year 2000. Most claimed that they believed the contribution of PHC and community development to obtain health for all by the year 2000. In other words, 48% of providers (12 out of 25 providers) demonstrated high attitude scores and 36% (9 providers) presented medium attitude scores regarding the goal and future of PHC and community development.

Only 16% (4 providers) demonstrated low attitude scores toward PHC and community development achievements in Banjarnegara. Table 5.24 presents the distribution of attitude responses as mentioned above.

Table 5.24

Level of Providers Attitudes to the Future and Goal of PHC & Community Development by Level of Involvement in YPPSE Organization at the Regency Level in Banjarnegara Regency June 1985

Level of Providers Attitudes Toward Future of PHC & Community Development	Level of Involvement in YPPSE Organization							
	Not Involved Directly		Used to be Involved		Involved Directly		Total	
	N	%	N	%	N	%	N	%
Low	3	60.1	1	8.3	0	0.0	4	16.0
Medium	1	20.0	5	41.7	3	37.5	9	36.0
High	1	20.0	6	50.0	5	62.5	12	48.0
Total	5	100.0	12	100.0	8	100.0	25	100.0

b. Training

Providers at the regency level claimed that about 32.0% (8 providers) never received training directly from YPPSE. Most of the providers (40%) stated that they attended only one training session. About 28% of all providers acknowledged that they attended at least two PHC and community development training programs provided by the Government and YPPSE since they started to work in Banjarnegara. Table 5.25 illustrates the frequency distribution of the number of training programs attended by the regency providers.

Table 5.25

Frequency of Providers Training by Level of Involvement
in YPPSE Organization at the Regency Level
in Banjarnegara Regency, June 1985

Frequency of Providers Training in PHC & Community Development	Level of Involvement in YPPSE Organization							
	Not Involved Directly		Used to be Involved		Involved Directly		Total	
	N	%	N	%	N	%	N	%
Never	3	60.0	2	16.7	3	37.5	8	32.0
One Time	2	40.0	7	58.3	1	12.5	10	40.0
Two Times	0	0.0	2	16.7	1	12.5	3	12.0
More than Two Times	0	0.0	1	8.3	3	37.5	4	16.0
Total	5	100.0	12	100.0	8	100.0	25	100.0

Most regency providers (15 persons or 88.2% out of 17 trained providers) had received a 40 day training program during the "Ramadhan" month or Moslem fasting period, for an average of 3 to 4 hours per day. The training started daily at 7:30 p.m. after breaking the fast. The remaining providers who had attended training programs (11.7%) claimed that the length of training was roughly 3 to 7 days with approximately 8 to 12 hours of training per day. For providers who attended two or more training programs, the first one was usually basic training and subsequent training was refresher.

The regency providers mostly stressed that the training materials were heavily concentrated in the management of PHC and community development, leadership, community participation, voluntarism, and

analysis of case studies. Mostly the materials were developed based on the W.H.O. Management Training and some NGOs Training in voluntarism and community development. Almost all of the trained providers acknowledged that the training materials were useful or very useful in the implementation of PHC and community development in the field. Only one provider out of 17 trained providers (4.0%) complained that the training materials were not useful.

The training methodologies used were group dynamics, brainstorming, simulation games in management, and case presentations. None of these providers claimed that the training methodologies were "not so interesting" or "not interesting." All of them stated that the training methodologies were interesting (64.7%) or very interesting (35.3%).

It seemed there was a different perception between regency and district providers about methodologies of training. The difference was caused by (1) quality of trainers; in the 40 days training, the trainers were professional trainers, who really knew and mastered the training methodologies being utilized. However, at the district training, not all of the trainers fully understood and mastered the training methodologies. Most of them were volunteers and sometimes a designated trainer sent inexperienced replacements if they could not attend the session; (2) Too much material was included and tiven in the three day training programs, thus there was insufficient time to adequately use the designated training methodology; and (3) Dis-satisfaction of several new providers in the district level who had just graduated from high school or colleges stemmed from the different

approaches and methodologies used in informal as opposed to formal training, and their lack of familiarity with the former as opposed to the latter.

c. Knowledge, Attitude and Perception of the Providers

The SPSSX factor analysis, the same method used in analyzing providers at the district level was also executed for this analysis.

Table 5.26 depicts a cross tabulation between knowledge, practice, attitude and training obtained by the providers at the regency level.

Table 5.26

Knowledge, Attitude and Practice Score of
Regency Providers by Training Status
in Banjarnegara Regency, June 1985

Knowledge, Attitude and Practice Score of Regency Providers		Traning Status of Provider			
		Untrained		Trained	
Subject	Score	N	%	N	%
1. Knowledge	a. Low	4	50.0	2	11.8
	b. Medium	1	12.5	10	58.8
	c. High	3	37.5	5	29.4
p = 0.0479; Chi-Square = 6.078; DF = 2; Min E.F. = 1.92					
2. Practice	a. Low	4	50.0	5	29.4
	b. Medium	1	12.5	8	47.1
	c. High	3	37.5	4	23.5
p = 0.2436; Chi-Square = 2.824; DF = 2; Min E.F. = 0.31					
3. Attitude	a. Low	4	50.0	1	5.9
	b. Medium	0	0.0	10	58.8
	c. High	4	50.0	6	35.3
p = 0.0058; Chi-Square = 10.29; DF = 2; Min E.F. = 1.60					

It seemed that the practice of regency providers was not influenced by training attended. There was no significant difference between providers with training and without training in terms of practice in PHC and community development. However, attitude of the providers showed a highly significant difference as compared to those who did not attend the training. Knowledge was somehow influenced by training in some proportion. The chi-square showed a slightly significant difference at p between 0.01 and 0.05.

Table 5.27

Knowledge, Attitude and Practice Score of Regency Providers
by Level of "POLITICALIZATION"
in Banjarnegara Regency, June 1985

Knowledge, Attitude and Practice of Regency Providers		Level of "POLITICALIZATION"					
		Low		Medium		High	
Subject	Score	N	%	N	%	N	%
1. Knowledge	a. Low	6	75.0	0	0.0	0	0.0
	b. Medium	2	25.0	7	77.8	2	25.0
	c. High	0	0.0	2	22.2	6	75.0
p = 0.0001; Chi-Square = 23.85; DF = 4; Min E.F. = 1.92							
2. Practice	a. Low	8	100.0	1	11.1	0	0.0
	b. Medium	0	0.0	8	88.9	1	12.5
	c. High	0	0.0	0	0.0	7	87.5
p = 0.0000; Chi-Square = 49.99; DF = 4; Min E.F. = 2.56							
3. Attitude	a. Low	5	62.5	0	0.0	0	0.0
	b. Medium	3	37.5	6	88.9	1	12.5
	c. High	0	0.0	3	33.3	7	87.5
p = 0.0002; Chi-Square = 21.56; DF = 4; Min E.F. = 1.00							

"POLITICALIZATION" showed a significant influence upon the attitude, knowledge and practice variables. The three variables were significantly different after they were cross tabulated with the "POLITICALIZATION" variable at $p < 0.0001$ or the same to 0.0001 (Table 5.27).

The cross tabulation between "POLITICALIZATION" and the training variables can be seen in Table 5.28. There was no significant difference between trained and untrained providers in the degree of their "POLITICALIZATION." It seemed that "POLITICALIZATION" is more important than the training variable in influencing the providers' knowledge, attitude and practice at the regency level.

Table 5.28

Training Status of Regency Providers by Level of "POLITICALIZATION" in Banjarnegara Regency, June 1985

Training Status of Regency Providers	Level of "POLITICALIZATION"					
	Low		Medium		High	
	N	%	N	%	N	%
Untrained	4	50.0	1	12.5	3	37.5
Trained	4	23.5	8	47.1	5	29.4
Total	8	32.0	9	36.0	8	32.0

$p = 0.2115$; Chi-Square = 3.107; DF = 2; Min E.F. = 2.56

d. Quantitative Analysis

The IV and DV sets used in analysis at the district level were also used for analysis at the regency level. The IV set was POLITICA and TRAINING variables. The DV set consisted of KNOWLEDG, PRACTICE and ATTITUDE variables. In order to investigate the relationship of these two sets of variables, a canonical analysis was also applied by using BMDP6M on the two sets of variables.

Results of the canonical analysis of the relationship between those two sets of variables is presented in Table 5.29. Bartlett's test of this BMDP6M analysis indicated only one out of two canonical factors created in the canonical analysis was considered necessary.

Table 5.29

Result of Canonical Correlation Analysis Between
Variable Sets at the Regency Level in
Banjarnegara Regency, June 1985

Variable Sets	First Canonical Variable	
	Can. Var. Load. ^a	St. Coef. Can. ^b
IV Set		
1. Politica	0.986	0.952
2. Training	0.361	0.170
Percent of Variance	0.552	
Redundancy	0.483	
DV Set		
1. Knowledg	0.876	0.331
2. Practice	0.987	0.799
3. Attitude	0.875	-0.090
Percent of Variance	0.865	
Redundancy	0.733	
Canonical Correlation	0.838	

^aCanonical variable loading

^bStandardized coefficients for canonical variables

Source: BMDP Statistical Analysis 6M.

The canonical correlation of two set variables in the first canonical factor is 0.93619, representing 87.64% overlapping variances between the first pair of canonical factors. At the desired cut off point set at the 0.3 level, both variables in the IV set and all three variables in the DV set are highly relevant to the canonical factor. Taken as a pair, the canonical factor indicates that those with high score in "POLITICALIZATION" and those who obtained training from YPPSE tended to have higher knowledge, practice and attitude scores. The analysis also shows that the "POLITICALIZATION" variable is more relevant to the practice, knowledge, and attitude of the regency providers respectively as compared to the training variable.

3. The Relationship Between Providers at the Regency and District Levels

As mentioned before, the channel used by the YPPSE uses existing government channel. In this channel, of course, some bureaucracies still existed. The district providers were a lower hierarchical administration in the government structure. As mentioned in Chapter II, autocratic leadership is usually carried out in this channel. However, on the other side, some paternalistic attitudes of lower providers frequently appeared in the relationship to the upper level.

In this research, several observations of this relationship were also carried out. Although training of sensitivity was conducted several times, these attitudes were still found to exist, whether in the formal or informal meeting between these two levels of bureaucrats. In a particular situation, a traditional "father" figure was sometimes needed in the PHC and community development. It is a part of the

culture that has deep roots in the hearts of people in the Banjarnegara area. It could not be changed directly by providing a training which lasts only 30 hours.

YPPSE attempted also to reduce these particular relationships in every program development. The combined regency, district and village training was one of the mechanisms by which the YPPSE was trying to improve feelings of mutual understanding and awareness among the bureaucrats. In this combined course, a group dynamic consisting of various level of providers was used as the main training method. The purpose of this combined training was to build a good team in which providers could know each other without any barrier to their position in the government structure. Another good example in solving the above problems by YPPSE was through "KRING" meetings. In these meetings all levels of providers could better understand and be more aware about the relevance of an integrated team based on the reality they were experiencing and finding in the community level.

The Findings of Research Objective III

Data relevant to this objective were collected for roughly 170 component variables in an effort to define health composite variables and for roughly 240 component variables to define the health-related socio-economic (SE-RH) composite variables. Since time and budget constraints precluded the use of this quantity of data for analysis, the "factor analysis" data reduction technique, available in the SPSSX statistical program, was used. In the first step of factor analysis, the two sets of variables were inputted for analysis. In the second

step, the "principal component factor analysis" technique was used to analyze the set of health variables and SE-RH variables separately. The purpose of this analysis was to obtain a reduced set of composite variables, or factors, with eigenvalue greater than or equal to one. Results of the principal component factor analysis suggested the extraction of six factors underlying the health-related variables and nine factors underlying the SE-RH variables. In the third step "principal axes factor analysis with varimax rotation" was conducted, identifying variables that loaded most highly (0.30 or more) among the factors. In the fourth and final step, a reduced set of new composite variables was created based upon the results of the factor analysis in step three. Six health composite variables as indicators of health were created and labeled ILLINDEX, WEINDEX, SANITFAS, HOSSANIT, WT and BRSINDEX. Nine composite variables as indicators of SE-RH were created and labeled TOTINCOM, ENDINEX, TOTAL, TOTMEX, VALOWN, ARENU, HOUSEIND, AREAIND and FODINDEX. These new reduced sets of health and SE-RH variables are defined and described below.

The ILLINDEX composite variable is a combination of three components: (1) whether or not there was a sick person in the family, (2) his/her preference to seek first aid, and (3) the degree of severity of the illness. WEINDEX connotes the monthly increase, decrease or stability of a child's weight in a 40 month weighing program of under-five children in the family, divided by the difference between the child's age in April 1985 and the child's age at the first time he/she was involved in the weighing program (calculated in months). WT is the percentile ranking of under-five children's weight in April

1985, based on the Health Card criteria from the Department of Health, Indonesia. HOSSANIT represents a variable created by the calculation of sanitation, humidity, ventilation and illumination of living room, bedroom, kitchen and other rooms in the family house. SANITFAS represents a composite calculation of bathroom and latrine facilities in the family as well as their sanitation conditions. BRSINDEX is a composite value of the total number of bedrooms, width of bedrooms, and their ratio per person in the family.

TOTINCOM is the per capita family income per month. EDINDEX is a composite score of the education level and degree of illiteracy of the husband and wife in the family. TOTAL is defined by a score which weights numbers of trees owned by a family calculated based upon the species and age of the trees. TOTMEX is a per capita monthly expenditure in a family. VALOWN is a per capita indicator of cash value of furniture and home supplies, housing equipment, food supplies on hand, livestock and other material wealth in a family unit. HOUSEIND is a composite calculation of the quality of building material used for the floors, roof, walls and windows in a domicile. AREAIND represents the per capita area of land owned by a family for their garden, housing, and farming. ARENU is the composite per capita value given to the total garden area planted as source of supplementary food plus varieties of nutritious plants in the garden owned by a family. FODINEX represents food varieties on the day observed and the monthly food habits of the family.

The same factor analysis technique was used in order to create the KNOWLEDG (knowledge), PRACTICE, ATTITUDE, PARTICIP (participation) and other variables in this research as described in Chapter IV.

A "canonical analysis" using the BMDP6M program was carried out to achieve the third objective of this research. The purpose of this analysis is to identify different dimensions representing relationships between two sets of variables. As mentioned in the description of the conceptual framework of this study in Chapter III, it was hypothesized that the community's knowledge, attitude and practice and the degree of community participation would influence health and SE-RH indicators of the community. Consequently, in this analysis KNOWLEDG, ATTITUDE, PRACTICE and PARTICIP comprised the Independent Variables or IV and, health and SE-RH indicators comprised the Dependent Variables or DV. It was also hypothesized that location of the community (AREAID-area identification: mountain and plain) and degree of exposure to the YPPSE program (DEVEID-development identification) influenced health and SE-RH indicators. DEVEID was operationalized to represent three groups: (1) communities developed by government and others or "GO"; (2) communities developed by government, others and YPPSE 2-5 years or "GOY25"; and (3) communities developed by government, others and YPPSE more than 5 years or "GOY>5." These two composite variables were also included as IV.

Hence, there were six composite variables in the IV set: (1) Development Identification, (2) Area Identification, (3) Knowledge of community, (4) Practice of community, (5) Attitude of community and (6) Community participation. There were 15 composite variables in the DV set as mentioned in the previous paragraph.

Results of the canonical analysis of the relationship between the IV set and DV set are presented in Tables 5.30 and 5.31. As shown

in Table 5.30, the Bartlett's test indicated that only the first four functions of the analysis were statistically significant. In view of the complexity of this analysis, the canonical as well as four significant functions will be explained to aid comprehension of the major findings.

Table 5.30

Canonical Correlations and Significance Levels for Sets of Canonical Correlations in Community Sample at Banjarnegara Rural Area, April 1985

Eigenvalues	Canonical Correlation	Number of Eigenvalues Removed	Bartlett's Test for Remaining Eigenvalues		
			Chi-Square Test	DF	Tail Probability
		0	1027.84	90	0.0000
0.71863	0.84772	1	436.90	70	0.0000
0.41609	0.64505	2	186.19	52	0.0000
0.22790	0.47739	3	65.66	36	0.0018
0.06743	0.25967	4	33.13	22	0.0600
0.05099	0.22581	5	8.75	10	0.5564
0.01859	0.13635				

Source: Selected BMDP6M Output, June 1986.

The first canonical correlation is 0.84772, representing 71.86% overlapping variance between the first pair of canonical factors. The second canonical correlation is 0.64505, representing 41.61% overlapping variance between the second pair of canonical factors. The third canonical correlation is 0.47739, representing 22.79% overlapping variance between the third pair of canonical factors. The last canonical correlation is 0.25967, representing 6.74% overlapping

variance between the fourth pair of canonical factors. Although they are highly significant, only the first two canonical correlations represent a substantial relationship.

Analyses of the four significant pairs of canonical factors that accompany the four canonical correlations are shown in Table 5.31. Table 5.31 presents the correlations between the variables and the canonical factors, standardized canonical factors coefficients, within-set variance accounted for by the canonical factors (percent of variance), redundancy indices, and canonical correlations. Total percent of variance and total redundancy index indicate that the canonical analysis is more efficient for the first set of variables (IV) as compared to the second (DV) set of variables. The size of canonical correlations indicates that interpretation of the third and fourth pairs of canonical factors should proceed cautiously.

The first function of the analysis represents the first dimension underlying the relationship between the two sets of variables. This function identifies those variables that are most important in describing the relationship between IVs and the DVs. According to Tabachnick and Fidell (1983), the cutoff correlation used for interpretation is generally 0.3. With this cutoff point, the IVs relevant to the first canonical factor are, in order of magnitude, DEVEID (.92), ATTITUDE (.77), KNOWLEDG (.75), PARTICIP (.61) and PRACTICE (.59). Among the DVs, WEINDEX (.88), WT (.83), SANITFAS (.67), HOSSANIT (.49), TOTAL (.49) and FODINEX (.44) are relevant to the first canonical factor.

Table 5.31

Results of Canonical Correlation Analysis
Between Variable Sets in Community Samples
at Banjarnegara Rural Area, April 1985

Variable Sets	First		Second		Third		Fourth		Total
	1* ^a	2* ^b	1*	2*	1*	2*	1*	2*	
IV Set									
1. Knowledg	.75	.22	.06	-.02	-.44	-.35	.01	-.59	
2. Practice	.59	-.05	.12	-.06	-.25	.06	.63	1.23	
3. Attitude	.77	.24	.00	-.01	-.44	-.49	.26	0.42	
4. Particip	.61	.05	-.09	.04	-.50	-.65	-.20	-.61	
5. Areaid	.21	.15	.98	1.00	.05	.19	.04	-.22	
6. Deveid	.92	.68	-.21	-.19	.30	1.05	-.04	-.21	
Percent of Variance	.46		.17		.13		.09		.85
Redundancy	.33		.07		.03		.01		.44
DV Set									
1. Illindex	.10	.06	-.06	-.06	.12	.10	-.62	-.63	
2. Weindex	.88	.40	-.14	.19	.01	.08	.01	.06	
3. WT	.83	.30	-.10	.03	.03	-.10	-.03	-.22	
4. Totincom	.05	.10	.22	.07	-.39	-.11	-.17	-.05	
5. Hossanit	.49	.13	.22	.25	-.28	-.11	.07	.36	
6. Sanitfas	.67	.26	-.17	-.19	-.22	-.04	.17	.19	
7. Brsindex	.21	.06	.50	.52	-.41	-.02	-.09	-.05	
8. Edindex	.24	.07	.11	-.01	-.37	-.07	-.40	-.44	
9. Total	.49	.20	-.17	.16	.34	.63	-.09	-.22	
10. Totmex	.02	-.10	.17	.13	-.40	.13	-.08	.11	
11. Valown	.13	-.06	-.15	-.19	-.80	-.73	-.12	-.12	
12. Houseind	.21	-.05	.03	-.11	-.50	-.16	-.35	-.48	
13. Arenu	.15	-.03	-.60	-.43	-.08	-.12	.04	.06	
14. Areaind	-.08	-.10	-.70	-.49	-.13	.03	.01	.10	
15. Fodinex	.44	.08	.05	.08	-.36	-.14	.32	.51	
Percent of Variance	.18		.08		.13		.06		.45
Redundancy	.13		.03		.03		.01		.20
Square Can. Correlation									
	.72		.42		.23		.07		

^a1* = Canonical variable loading

^b2* = Standardized coefficients for canonical variables

Source: Selected BMDP6M Output, June 1986

Taken as a pair, the first canonical factor indicates that those communities developed by Government and YPPSE, with high scores in knowledge, attitude, practice and participation tend to have higher scores on weight increase among children under-five, nutritional status of children under-five, sanitation facilities, housing sanitation, total number of trees in the garden and food pattern during the day of observation and monthly food habit. In short, the first canonical factor suggests that development by Government and YPPSE is the most important variable in the relationship and determines the variables mentioned above.

The relationship of the IV set and the DV set in the first canonical factor of this analysis is shown in Figure 5.1.

Figure 5.1 depicts the square canonical correlation in the first canonical factor in which 72% of the variance is shared between the IV and DV sets. The first canonical variable from the IVs extracts 46% of the variance from the DVs and only 18% of the IVs' variance is extracted by DVs.

The second function of the analysis represents the second dimension underlying the relationship between the IVs and DVs. This function identifies those variables that are most important in the relationship between the two sets of variables, after the first dimension has been removed or accounted for.

The variable relevant to the second canonical factor in the IV set is only AREAID (0.98). Among the DV set, AREAIND (-0.70), ARENU (-.60) and BRSINDEX (.50) are relevant to the second canonical factor. Taken as a pair, these variables suggest that households from the plain

area have higher bedroom space per capita as compared to households from the mountain area. However, households from the mountain area have higher scores in nutritious home gardens and total land area owned as compared to those in the plain area.

Figure 5.2 illustrates the relationship between the IV and DV sets for the second canonical factor. In this figure, it is shown that roughly 42% of the variance is shared between the IV and DV sets. The second canonical factor from the IVs extracts 17% of the variance from the DVs, while only 8% of variance from IVs is extracted by DVs.

The third function of the analysis represents the third significant dimension underlying the relationship between the IVs and DVs, after the first and second dimensions have been accounted for.

The variable that is most relevant to the third canonical factor among the IVs is PARTICIP (-0.50), followed by KNOWLEDG (-0.44), ATTITUDE (-0.44) and DEVEID (0.40). The variables relevant to the third canonical variable among the DVs include VALOWN (-0.80), HOUSEIND (-0.50), BRSINDEX (-0.41), TOTMEX (-0.40), TOTINCOM (-0.34), EDINDEX (-0.37), FODINDEX (-0.36), and TOTAL (0.34).

Taken as a pair, these variables suggest that lower knowledge, attitude and participation are associated with lower total income per capita, lower bedroom space per capita, lower education and literacy level, lower total monthly expenses, lower value of ownership, lower cost of housing material used, and lower food consumption on the day of observation and poorer monthly food habits. The findings also suggest that the greater the involvement of YPPSE in the development, the greater number and variety of trees in the households sampled.

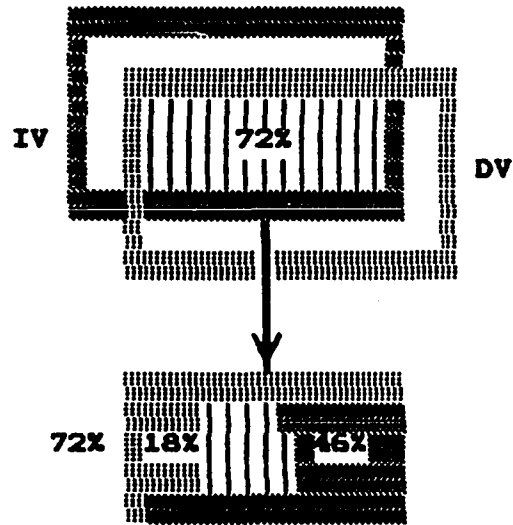


Figure 5.1. The Relationship of IV Set and DV Set in the First Set of Canonical Variables

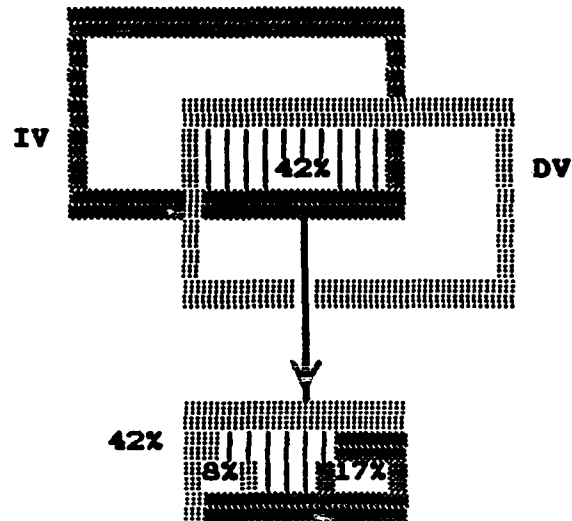


Figure 5.2. The Relationship of IV Set and DV Set in the Second Set of Canonical Variables

Furthermore, the square canonical correlation in the third canonical factor indicates that 23% of the variance is shared between the IV and DV sets. The third canonical factor from the IVs extracts 13% of the variance from the DVs and the same percentage of IVs' variance is extracted by DVs.

The fourth and final function of the analysis represents the fourth significant dimension underlying the relationship between the IVs and DVs, after the first, second, and third dimensions have been removed.

The variable relevant to the fourth canonical factor among the IVs is only PRACTICE (0.63). Among the DVs, ILLINDEX (-0.63), FODINDEX (0.51), EDINDEX (-0.44), HOUSEIND (-0.35), and HOSSANIT (0.35) are relevant to the fourth canonical factor. Taken as a pair, these variables suggest that communities with higher practice scores have higher scores for food preferences in the day of observation, and monthly food habits, as well as a higher score for housing sanitation. Further, these communities have a lower prevalence of sick persons, higher utilization of health facilities, lower degree of severity of illnesses, lower education levels and literacy levels, and lower value of housing materials used.

The square canonical correlation for the fourth canonical factor shows that roughly 42% of the variance was shared between the IV and DV sets. The fourth canonical factor from the IVs extracts 9% of the variance from the DVs, while only 6% of variance from IVs are extracted by DVs.

Hence, all four canonical factors extract 85% of variance in the DVs and 45% variance in the IVs. In other words, 85% of DV variance can be explained by the IV set and 45% of IV variance can be explained by the DV set.

As mentioned in the beginning of this section, composite variables used in this analysis were created by several component variables. One of these composite variables is community participation or PARTICIP, formed from five participation component variables. They are INVINPLN or involvement in the planning of PHC and community development; INVINIMP or involvement in the implementation of PHC and community development; INVINBUD or involvement in the budgeting of PHC and community development; INVINEVA or involvement in the evaluation of PHC and community development; and TOTACTI or total activities that are involved in PHC and community development.

In order to determine how these community participation component variables are related to KNOWLEDG, ATTITUDE and PRACTICE, as specified in the third objective, additional canonical analysis was conducted. In this analysis, KNOWLEDG, ATTITUDE and PARTICIP are the IVs and the five participation component variables are used as the DVs. Bartlett's test shows that only one canonical factor out of two is significant.

The results of canonical analysis are presented in Table 5.32. It shows that all of the IVs in the first set (KNOWLEDG, PRACTICE and ATTITUDE) are relevant to most of the participation component variables, except the community involvement in evaluation of the PHC program.

Taken as a pair, this analysis indicates that higher knowledge, practice and attitude of the community is associated with higher

Table 5.32

Results of Canonical Correlation Analysis Between Variable Sets
(KNOWLEDG cs. and Participation Components) in
Community Samples at Banjarnegara Rural Area
April 1985

Variable Sets	First Canonical Variable	
	Can. Var. Load. ^a	St. Coef. Can. ^b
IV Set		
1. KNOWLEDG	0.902	0.451
2. PRACTICE	0.884	0.485
3. ATTITUDE	0.797	0.206
Percent of Variance	0.743	
Redundancy	0.278	
DV Set		
1. INVINPLN	0.613	0.087
2. INVINIMP	0.646	0.317
3. INVINBUD	0.552	0.322
4. INVINEVA	0.249	0.043
5. TOTACTI	0.863	0.642
Percent of Variance	0.381	
Redundancy	0.143	
Canonical Correlation	0.612	

^aCanonical variable loading

^bStandardized coefficients for canonical variables

Source: Selected BMDP6M Output, July 1986.

involvement of the community in planning, implementation, budgeting and total activities (TOTACTI). The community involvement in evaluation is not relevant for the IV set used in this analysis.

Furthermore, in order to see the relationship between the set of DEVEID and AREAID variables and the set of KNOWLEDG, PRACTICE, ATTITUDE and five component variables of PARTICIP, another additional

canonical analysis was conducted. The DEVEID and AREAID were the IVs and the remaining composite variables were the DVs.

Bartlett's test shows that both of the canonical factors are significant. Table 5.33 shows that only one variable (DEVEID) in the IV set and all of the variables in the DV set are relevant to the first canonical factor. Taken as a pair, this analysis shows that the longer YPPSE has been involved, the more the community is involved in planning, implementation, budgeting, and in total community-based activities. The data also show that with longer YPPSE involvement, knowledge, practice and attitude of the local community are higher. The second canonical factor suggests that the community in the plain area has a higher level of practice but less involvement in planning.

In summary, the analyses conducted to meet the third research objective suggest that the implementation of PHC and community development programs by the Government of Banjarnegara and YPPSE is associated with greater knowledge, practice, and attitude of the Banjarnegara households who have a child or children under-five years of age. It was also found that the increased level of development with the assistance of YPPSE is related to increased community participation in planning, implementation, and budgeting and increased community involvement in total activities.

The analyses also indicate that the most important factor in the relationship is PHC and community development programs carried out by the Government of Banjarnegara and YPPSE. This factor determines weight increase among children under-five, nutritional status of children under-five, housing sanitation, sanitation facilities, total

Table 5.33

Results of Canonical Correlation Analysis Between Variable Sets (DEVEID & AREAID and KNOWLEDGE cs.) in Community Samples at Banjarnegara Rural Area, April 1985

Variable Sets	First Can. Fac.		Second Can. Fac.	
	1* ^a	2* ^b	1*	2*
IV Set				
1. AREAID	0.249	0.252	0.968	0.968
2. DEVEID	0.968	0.968	-0.252	-0.249
Percent of Variance	0.499		0.501	
Redundancy	0.416		0.087	
DV Set				
1. KNOWLEDG	0.827	0.195	0.196	0.372
2. PRACTICE	0.775	0.247	0.413	0.804
3. ATTITUDE	0.842	0.373	0.022	-0.307
4. INVINPLN	0.561	0.190	-0.497	-0.572
5. INVINIMP	0.473	0.079	0.286	0.442
6. INVINBUD	0.529	0.185	-0.158	-0.359
7. INVINEVA	0.305	-0.003	-0.214	0.021
8. TOTACTI	0.625	0.163	-0.297	-0.469
Percent of Variance	0.213		0.063	
Redundancy	0.177		0.011	
Canonical Correlation	0.653		0.356	

^a1* Canonical variable loading

^b2* Standardized coefficients for canonical variables

Source: Selected BMDP6M Output, July 1986.

numbers and varieties of species of trees in the garden, and daily food availability and monthly food habits. The intervening variable (AREAID = mountain and plain area) shows a relationship with bedroom space per capita, size and quality of home garden, and area of land ownership.

The analyses also indicate that lower community participation, lower knowledge, and lower attitude of the community are associated with lower total income, lower total monthly expenditure, lower value of ownership, lower value of housing materials, smaller bedroom space per capita, lower education and literacy levels, and poorer food patterns and habit. The relationships between higher practice scores reflecting the community's ability to utilize health technologies and services, lower disease prevalence, lower degree severity of illnesses, lower education and literacy levels and lower value of housing materials are established by this analysis.

The Findings of Research Objective IV

As mentioned earlier, the fourth objective of this research was to determine the extent to which the community development variables used in this research were significantly different in the family samples which have been developed by Government and others as compared to those who live in the village which have been assisted by YPPSE.

In order to control for the confounding effect of geographic location of the villages sampled, area identification (AREAID) was also used in this analysis. The significant influence of this variable was shown in the previous discussion about socio-demographic characteristics of the sample population. The discussion showed that the

geographic differences between communities in the plain and those in the mountain area must be considered in the analysis of community development efforts.

To test the effects of PHC, three groups of communities based on the development identification (DEVEID) were compared with the variables described below. The three groups were 'GO', 'GOY25' and 'GOY>5' (see pages 79 and 159). These groups were further divided according to their location in either mountain or plain areas (AREAID). Thus, DEVEID and AREAID are the two independent variables (IV) used in this analysis.

A 2 X 3 between-subjects multivariate analysis of variance or MANOVA was performed on the 19 variables: knowledge ('KNOWLEDG'), attitude ('ATTITUDE'), practice ('PRACTICE'), community participation ('PARTICIP'), index of illnesses ('ILLINEX'), bedroom space per capita ('BRSINDEX'), index of food ('FODINDEX'), value of ownership ('VALOWN'), area of nutrition garden ('ARENU'), education level ('EDINDEX'), total trees owned ('TOTAL'), area of farm and garden ('AREAIND'), index of housing ('HOUSEIND'), total weight per age ('WE'), index of weight ('WEINDEX') housing sanitation ('HOSSANIT'), sanitation facilities ('SANITFAS'), total monthly expenses ('TOTMEX') and total monthly per capita ('TOTINCOM').

The SPPSSX MANOVA program was carried out for this analysis with the hierarchical or default adjustment for nonorthogonality. Order of entry of IVs was area identification and then development identification. Total N = 480 was reduced to 477 due to missing data with deletion of all within-cell outliers with $p < 0.01$. Results of

evaluation of assumptions of homogeneity, normality and linearity were satisfactory after deletion of outliers. However, determinant of variance-covariance matrix showed a value that was very close to 0, which indicated that many variables in this analysis had a very small eigenvalue with some multicollinearity. Despite this problem, some experts say that the results of MANOVA may still be interpreted with caution.

Overall results of the MANOVA are presented in Table 5.34. Using all of the multivariate criteria reported in this table, the combined DVs are significantly affected by development identification, area identification, as well as their interaction. For example, with the use of Wilks' criterion, the combined DVs were significantly affected by development identification, $F(38,906) = 30.55007$; area identification, $F(19,453) = 21.71185$; and interaction between area identification and development identification, $F(38,906) = 5.52916$.

To investigate the effects of each main effect and interaction on the individual DVs, a stepdown analysis was performed, on the basis of an a priori ordering of the importance of the DVs. Thus each DV was analyzed sequentially, covarying for DV's of higher priority. Homogeneity of regression was achieved for all components of the stepdown analysis. All DVs were judged to be sufficiently reliable to warrant stepdown analysis. Table 5.35 summarizes the results of the stepdown univariate analyses. Table 5.36 presents η^2 (eta square) for the effects development identification, area identification and their interactions. The η^2 is the ratio between sum of squares for the effect of interest and the total sum squares, and describes the strength of association between an IV and the DV.

Table 5.34

MANOVA Test of Significance: Main Effect and First Order Interaction of Development and Area Identification on the Set of Dependent Variable at the Community Sample, in Banjarnegara Rural Area, April 1985

1. EFFECT AREA IDENTIFICATION

Multivariate Tests of Significance (S=3, M=8, N=225 1/2)

No	Test Name	Value	Approx. F	Hypothesis DF	Error DF	Signif. of F
1	PILLAIS	.47662	21.71185	19.00	453.00	0.000
2	HOTELLINGS	.91065	21.71185	19.00	453.00	0.000
3	WILKS	.52336	21.71185	19.00	453.00	0.000
4	ROYS	.47662				

2. EFFECT DEVELOPMENT IDENTIFICATION

Multivariate Tests of Significance (S=2, M=8, N=225 1/2)

No	Test Name	Value	Approx. F	Hypothesis DF	Error DF	Signif. of F
1	PILLAIS	1.00327	24.05134	38.00	908.00	0.000
2	HOTELLINGS	3.18756	37.91514	38.00	904.00	0.000
3	WILKS	.19214	30.55007	38.00	906.00	0.000
4	ROYS	.73876				

3. EFFECT AREA IDENTIFICATION BY DEVELOPMENT IDENTIFICATION

Multivariate Tests of Significance (S=2, M=8, N=225 1/2)

No	Test Name	Value	Approx. F	Hypothesis DF	Error DF	Signif. of F
1	PILLAIS	.37435	5.50233	38.00	908.00	0.000
2	HOTELLINGS	.46709	5.55588	38.00	904.00	0.000
3	WILKS	.65894	5.52916	38.00	906.00	0.000
4	ROYS	.22902				

Source: Selected SPSSX MANOVA Output, July 1986

Table 5.35

Effects of (Top to Bottom) AREAID, DEVEID, AREAID by DEVEID
Interaction on Dependent Variables as Determining by
Univariate and Stepdown Analyses at Community Level
in Banjarnegara Rural Area, April 1985

IV		DV		UNIVARIATE		STEPDOWN		
No	Name	No	Name	F	DF	F	DF	SIG.
1	AREAID	1	KNOWLEDG	30.49	1/471	30.49	1/471	0.000*
		2	PRACTICE	49.85	1/471	24.30	1/470	0.000*
		3	ATTITUDE	16.90	1/471	0.45	1/469	0.503
		4	PARTICIP	0.15	1/471	8.38	1/468	0.004*
		5	ILLINDEX	0.36	1/471	0.09	1/467	0.768
		6	WEINDEX	4.85	1/471	0.39	1/466	0.530
		7	WT	6.51	1/471	1.10	1/465	0.295
		8	TOTINCOM	9.19	1/471	4.75	1/464	0.030**
		9	HOSSANIT	26.58	1/471	13.59	1/463	0.000*
		10	SANITFAS	0.03	1/471	1.63	1/462	0.203
		11	BRSINDEX	63.80	1/471	46.23	1/461	0.000*
		12	EDINDEX	4.79	1/471	0.37	1/460	0.544
		13	TOTAL	0.05	1/471	1.10	1/459	0.295
		14	TOTMEX	5.29	1/471	1.75	1/458	0.186
		15	VALOWN	4.19	1/471	42.81	1/457	0.000*
		16	HOUSEIND	0.65	1/471	3.12	1/456	0.078
		17	ARENU	60.74	1/471	74.91	1/455	0.000*
		18	AREAIND	126.98	1/471	55.96	1/454	0.000*
		19	FODINDEX	6.07	1/471	0.90	1/453	0.342
2	DEVEID	1	KNOWLEDG	115.35	2/471	115.35	2/471	0.000*
		2	PRACTICE	85.07	2/471	15.65	2/470	0.000*
		3	ATTITUDE	159.03	2/471	38.52	2/469	0.000*
		4	PARTICIP	91.12	2/471	17.78	2/468	0.000*
		5	ILLINDEX	2.16	2/471	3.95	2/467	0.020**
		6	WEINDEX	260.09	2/471	101.72	2/466	0.000*
		7	WT	200.19	2/471	17.58	2/465	0.000*
		8	TOTINCOM	2.83	2/471	7.67	2/464	0.001*
		9	HOSSANIT	27.26	2/471	0.75	2/463	0.471
		10	SANITFAS	159.79	2/471	48.80	2/462	0.000*
		11	BRSINDEX	1.33	2/471	1.01	2/461	0.366
		12	EDINDEX	5.08	2/471	0.92	2/460	0.399
		13	TOTAL	68.87	2/471	34.47	2/459	0.000*
		14	TOTMEX	3.26	2/471	3.75	2/458	0.024**
		15	VALOWN	3.65	2/471	13.81	2/457	0.000*
		16	HOUSEIND	1.70	2/471	1.81	2/456	0.150
		17	ARENU	8.94	2/471	0.68	2/455	0.508
		18	AREAIND	5.27	2/471	6.91	2/454	0.001*
		19	FODINDEX	35.62	2/471	3.96	2/453	0.020**

*Significant at $p < 0.01$; **Significant at $0.01 > p > 0.050$

Table 5.35 (continued) Effects of (Top to Bottom) AREAID, DEVEID, AREAID by DEVEID Interaction on Dependent Variables as Determining by Univariate and Stepdown Analyses at Community Level in Banjarnegara Rural Area, April 1985

IV		DV		UNIVARIATE		STEPDOWN		SIG.
No	Name	No	Name	F	DF	F	DF	
3	AREAID BY DEVEID	1	KNOWLEDG	5.56	2/471	5.56	2/471	0.004*
		2	PRACTICE	0.37	2/471	3.54	2/470	0.030**
		3	ATTITUDE	2.30	2/471	0.81	2/469	0.445
		4	PARTICIP	3.34	2/471	5.43	2/468	0.005*
		5	ILLINDEX	7.37	2/471	6.71	2/467	0.001*
		6	WEINDEX	16.92	2/471	19.62	2/466	0.000*
		7	WT	4.64	2/471	0.34	2/465	0.716
		8	TOTINCOM	2.44	2/471	2.65	2/464	0.072
		9	HOSSANIT	3.47	2/471	2.68	2/463	0.069
		10	SANITFAS	0.70	2/471	1.07	2/462	0.345
		11	BRSINDEX	2.98	2/471	3.25	2/461	0.040**
		12	EDINDEX	1.04	2/471	2.80	2/460	0.062
		13	TOTAL	14.26	2/471	17.81	2/459	0.000*
		14	TOTMEX	1.51	2/471	2.14	2/458	0.118
		15	VALOWN	3.79	2/471	7.66	2/457	0.001*
		16	HOUSEIND	13.91	2/471	13.19	2/456	0.000*
		17	ARENU	0.40	2/471	0.43	2/455	0.653
		18	AREAIND	1.60	2/471	0.87	2/454	0.421
		19	FODINDEX	2.98	2/471	2.11	2/453	0.123

*Significant at $p < 0.01$; **Significant at $0.01 > p < 0.050$

Source: Selected SPSSX MANOVA Output, July 1986

A unique contribution to predicting differences among three groups of community as mentioned before, GO, GOY25, and GOY>5 is made by KNOWLEDG (knowledge of community). The importance of KNOWLEDG in explaining the differences between the three groups of communities can be seen in Table 5.35 and Table 5.36 showing that KNOWLEDG has $F(2/471) = 115.35$, $p < 0.001$ and $n^2 = 0.31$. Turning to the mean KNOWLEDG scores for the three communities, Table 5.37 shows that communities developed by YPPSE for more than 5 years (higher DEVEID) have greater knowledge than the other two groups of communities. After the pattern of differences measured by KNOWLEDG is entered, a difference is also found on WEINDEX, stepdown $F(2/466) = 101.72$, $p < 0.000$ and $n^2 = 0.287$. Looking at the group WEINDEX means presented in Table 5.38, communities who were developed by the assistance of YPPSE programs have higher score of continuity in increasing the weight of children under-five than those communities in the lower DEVEID (GO) group. The third variable that also makes a contribution to differentiating the three groups of communities, is SANITFAS, stepdown $F(2/462)$, $p < 0.000$ and $n^2 = 0.173$. Table 5.38 shows that YPPSE communities have higher sanitation facilities score as compared to the non-YPPSE communities. Other variables which contribute significantly to differentiating the DEVEID groups are PARTICIP (community participation), PRACTICE (practice toward PHC), WT (weight per age of under-five), ILLINDEX (illness index), ATTITUDE (attitude toward PHC), TOTINCOM (total income per capita), FODINDEX (food index), TOTAL (total trees in the garden), VALOWN (value of ownership) and AREIND (area of garden and land owned) respectively. The DF, F and n^2 for each

Table 5.36

Summary of η^2 (ETA)² for Effects of AREAID, DEVEID
and AREAID by DEVEID Interaction on DVs at Community
Level in Banjarnegara Rural Area, April 1985

No	Name of DVs Variables	Eta Square (η^2) for Effects of:		
		AREAID	DEVEID	AREAID X DEVEID
1	KNOWLEDG	0.041	0.310	0.015
2	PRACTICE	0.046	0.059	0.013
3	ATTITUDE	0.001	0.141	0.003
4	PARTICIP	0.016	0.068	0.021
5	ILLINDEX	0.000	0.016	0.027
6	WEINDEX	0.001	0.287	0.055
7	WT	0.002	0.070	0.001
8	TOTINCOM	0.010	0.031	0.011
9	HOSSANIT	0.028	0.003	0.011
10	SANITFAS	0.003	0.173	0.004
11	BRSINDEX	0.090	0.004	0.013
12	EDINDEX	0.001	0.004	0.012
13	TOTAL	0.002	0.122	0.063
14	TOTMEX	0.004	0.016	0.009
15	VALOWN	0.079	0.051	0.028
16	HOUSEIND	0.006	0.008	0.054
17	ARENU	0.141	0.003	0.007
18	AREIND	0.106	0.026	0.003
19	FODINDEX	0.002	0.017	0.009

Note: η^2 was calculated based on a formula suggested by
Tabachnick and Fidell (1983, p. 277)

variable are shown in Tables 5.35 and 5.36. Means for the three
groups on these variables are shown in Tables 5.37 and 5.38.

Nine DVs, KNOWLEDG, PRACTICE, PARTICIP, TOTINCOM, HOSSANIT,
BRSINDEX, VALOWN, ARENU, and AREAIND significantly distinguished
between those communities located in mountain and plain areas. A
unique contribution is made by ARENU, the highest priority DV, in
differentiating the difference among the communities, stepdown $F(1,455)$

Table 5.37

Individual Observed Means for AREAID and DEVEID in
Community Sample at Banjarnegara Regency, April 1985

No	Name of DVs Variables	Individual Observed Means for:				
		Area Identification		Development Identification		
		Mountain	Plain	1* ^a	2* ^b	3* ^c
1	KNOWLEDG	1.8125	2.1435	1.3333	2.2550	2.3481
2	PRACTICE	1.6583	2.0633	1.3345	2.0750	2.1709
3	ATTITUDE	1.8042	2.0338	1.2138	2.2937	2.2468
4	PARTICIP	1.8500	1.8734	1.3019	1.9688	2.3152
5	ILLINDEX	1.9375	1.8903	1.8113	1.9187	2.0112
6	WEINDEX	1.9542	2.0675	1.2327	2.1250	2.6772
7	WT	2.0292	2.1899	1.2516	2.3000	2.7785
8	TOTINCOM	1.8292	2.0338	2.0189	1.8250	1.9494
9	HOSSANIT	1.5333	1.8903	1.3601	1.8125	1.9620
10	SANITFAS	1.8125	1.8228	1.1824	2.1937	2.0759
11	BRSINDEX	1.5625	2.0675	1.7484	1.8750	1.8165
12	EDINDEX	1.7917	1.9409	1.7174	1.9063	1.9747
13	TOTAL	1.8958	1.8776	1.4465	1.8063	2.4414
14	TOTMEX	1.8167	1.9873	2.0126	1.7816	1.9114
15	VALOWN	2.0125	1.9650	1.8553	2.0750	1.8861
16	HOUSEIND	1.8125	1.8692	1.7547	1.8500	1.9177
17	ARENU	2.1917	1.6033	1.6918	1.9250	2.0823
18	AREAIND	2.3417	1.5781	1.8616	2.1125	1.9114
19	FODINDEX	1.7625	1.9283	1.4465	2.0938	1.9938

^a1* Developed by Government and others

^b2* Developed by Government and others plus YPPSE 2-5 years

^c3* Developed by Government and others plus YPPSE 5 years

Source: Selected SPSSX MANOVA Output, July 9, 1986.

Table 5.38

Combined Observed Means for AREAID and DEVEID in
Community Sample at Banjarnegara Regency, April 1985

No	Name of DVs Variable	Combined Observed Means					
		Mountain			Plain		
		1* ^a	2* ^b	3* ^c	1*	2*	3*
1	KNOWLEDG	1.0875	2.2250	2.1250	1.5823	2.2750	2.5769
2	PRACTICE	1.1500	1.8375	1.9875	1.5190	2.3125	2.3590
3	ATTITUDE	1.0250	2.2500	2.1375	1.4051	2.3375	2.3590
4	PARTICIP	1.2625	1.8750	2.4125	1.3418	2.0625	2.2179
5	ILLINDEX	1.6250	2.0625	2.1250	2.0000	1.7750	1.8974
6	WEINDEX	1.0250	2.0125	2.8250	1.4430	2.2375	2.5256
7	WT	1.0555	2.2250	2.8125	1.4557	2.3750	2.7436
8	TOTINCOM	2.0253	1.7125	1.7625	2.0253	1.9375	2.1410
9	HOSSANIT	1.1125	1.7625	1.7250	1.6076	1.8625	2.2051
10	SANITFAS	1.1625	2.1625	2.1125	1.2025	2.2250	2.0385
11	BRSINDEX	1.5875	1.5250	1.5750	1.9114	2.2250	2.0641
12	EDINDEX	1.6500	1.8875	1.8375	1.7848	1.9250	2.1154
13	TOTAL	1.2238	2.0375	2.4125	1.6582	1.5750	2.4103
14	TOTMEX	2.0125	1.6250	1.8125	2.0127	1.9375	2.0128
15	VALOWN	1.8750	2.2875	1.8750	1.8354	1.8625	1.8974
16	HOUSEIND	1.5250	2.0750	1.8375	1.9873	1.6250	2.0000
17	ARENU	1.9375	2.2500	2.3875	1.4430	1.6000	1.7292
18	AREAIND	2.2375	2.5750	2.2125	1.4810	1.6500	1.6026
19	FODINDEX	1.3250	2.1250	1.8375	1.5696	2.0625	2.1539

^a1* Developed by Government and others

^b2* Developed by Government and others plus YPPSE 2-5 years

^c3* Developed by Government and others plus YPPSE > 5 years

Source: Selected SPSSX MANOVA Output, July 1986

= 74.91, $p < 0.000$, $n^2 = 0.141$. The mean ARENU scores shown in Table 5.37 indicate that communities in the mountain area have statistically higher area of nutritious garden than those located in the plain area. AREAIND is the next significant variable that distinguished mountain and plain communities, stepdown $F(1,454) = 55.96$, $p < 0.000$, $n^2 = 0.106$. The mean area of land ownership scores in Table 5.37 show that people who live in the plain area have lower area of land ownership as compared to those who live in the plain area. The third variable that significantly distinguished the difference between plain and mountain area is BRSINDEX variable, stepdown $F(1,461) = 46.23$, $p < 0.000$, $n^2 = 0.090$. Communities located in the plain area have owned higher bedroom per capita as compared to those who live in the mountain area. This figure can be seen in Table 5.37. The remaining variables on which plain and mountain area communities differ significantly are VALOWN, KNOWLEDG, PRACTICE, HOSSANIT, PARTICIP and TOTINCOM.

Seven variables have demonstrated their unique contribution to distinguishing between six different groups representing development-by-area effects. The variable that uniquely distinguished the group is TOTAL, stepdown $F(2,459)$, $p < 0.000$, $n^2 = 0.063$. Communities located in mountain area and only developed by G0 have the lowest total trees in their gardens. The highest TOTAL mean was found in those who live in both areas (plain and mountain) and developed by GOY>5. WEINDEX is the second unique priority DV, stepdown $F(2,466)$, $p < 0.000$ and $n^2 = 0.055$. Communities in both plain and mountain areas that received the assistance of YPPSE more than 5 years, have the highest WEINDEX. However communities in the mountain area and developed by

G0, has the lowest mean. The third unique variable is HOUSEIND, step-down $F(2,456)$, $p < 0.000$ and $\eta^2 = 0.054$. The mean shown in Table 5.38 indicates that HOUSEIND is highest among communities in the mountain area and developed by GOY25. The remaining variables that distinguish the six groups are, in decreasing magnitude, VALOWN, ILLINDEX, KNOWLEDG, PRACTICE as well as BRSINDEX (see Table 5.35). Correlation of each variable can be seen in Table 5.39.

In summary, the analysis for research objective 4 shows that (1) People who live in villages developed by G0 have less knowledge, lower skill, less positive attitude, and less participation of PHC rather than those who live in the villages developed by GOY25 and GOY>5. They also have been less active in weighing programs for their children under-five, have lower weight per age for their children under-five, have poorer sanitation facilities, have fewer total trees in the garden, have lower value of ownership, and have less area for gardening and farming. However, these villages have a higher per capita income than those villages developed by GOY25 and GOY>5. (2) Communities in the plain area are more knowledgeable, more skillful, and participate in PHC more than communities in the mountain area. Those who live in the plain area have higher per capita income, better housing sanitation, and more bedroom space per capita. However, they have lower levels for value of ownership, area of nutritious garden, and area for gardening as well as agriculture as compared to those who live in the mountain area. (3) Village communities which were developed by GOY25 and GOY>5 and lived in the plain area have greater scores of knowledge and participation in PHC than the plain communities developed by

Table 5.39

Pooled Within-Cell Correlation Among Variables at
Community Level in Banjarnegara Rural Area, April 1985

No	Name of Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		KNOW	PRAC	ATTI	PART	ILLI	WEIN	WT	TOTI	HOSS	SANI	BRSI	EDIN	TOTA	TOTM	VALO	HOUS	AREN	AREI	FODI
1	KNOWLEDG	.66																		
2	PRACTICE	.46	.63																	
3	ATTITUDE	.53	.34	.61																
4	PARTICIP	.37	.36	.27	.68															
5	ILLINDEX	.01	-.15	-.07	-.04	.85														
6	WEINDEX	.28	.11	.31	.11	-.05	.57													
7	WT	.26	.08	.20	.08	-.06	.49	.69												
8	TOTINCOM	.19	.13	.14	.23	-.02	.02	.02	.74											
9	HOSSANIT	.20	.10	.25	.14	.06	.16	.03	.17	.76										
10	SANITFAS	.20	.11	.14	.15	-.06	.09	.03	.11	.17	.55									
11	BRSINDEX	.19	.08	.18	.20	-.03	.04	-.03	.30	.14	.20	.69								
12	EDINDEX	.13	.06	.09	.27	-.03	.06	.06	.30	.18	.10	.39	.75							
13	TOTAL	-.04	.01	-.03	.00	-.14	-.00	.01	.17	.10	.00	.07	.08	.73						
14	TOTMEX	.20	.15	.14	.22	.09	.08	.06	.79	.19	.13	.30	.33	.17	.81					
15	VALOWN	.25	.17	.35	.36	-.09	.11	.01	.49	.27	.25	.45	.38	.21	.53	.79				
16	HOUSEIND	.20	.05	.23	.22	.03	.12	.02	.37	.49	.22	.29	.31	.06	.39	.43	.79			
17	ARENU	.10	.07	.08	.04	-.14	.07	.10	.16	.04	.00	.21	.12	.42	.25	.25	.08	.82		
18	AREIND	-.02	.04	-.05	.07	.01	-.04	-.08	.17	.10	.04	.14	.14	.31	.17	.29	.14	.29	.74	
19	FODINDEX	.17	.16	.19	.18	-.03	.13	.04	.18	.20	.16	.28	.19	.14	.25	.34	.29	.16	.14	.74

Notes: 1. Standard Deviation on DIAGONAL

2. Source: Selected SPSSX MANOVA Output, July 1986

GO. They are more active in the weighing program, have more trees in their garden, have higher value of ownership and better score of housing materials than the villagers developed by GO.

The Findings of Research Objective V

This objective addressed the question of whether there were other factors than those studied influencing knowledge, practice and attitude of the providers either at the regency or district levels. To respond to this objective, qualitative, quantitative and descriptive findings are presented in this section.

1. Qualitative and Descriptive Findings

Findings were based on researcher, supervisors and interviewer observations of selected events, activities and discussions of providers at each level of government administration. Some archival reviews were also used in the interpretations of these findings which will be presented in Chapter VI.

Statistically, it was shown that the composite variable named "POLITICALIZATION" influenced the knowledge, attitude and practice of the providers in improving some of the health and SE-RH indicators of the community. However, there were other factors that were difficult to quantify but appear important to note in supporting the findings of the research objective.

First, the opportune timing for YPPSE to introduce PHC and Community development activities: From 1972 to 1974, as previously mentioned, the budget allocations for health services and other sectoral programs were unsatisfactory. The manpower, facilities,

government programs, and infrastructure were in an uncertain condition. At that time, the government of Banjarnegara was very pleased with the idea of establishing the YPPSE which could contribute additional budget and appropriate activities for the welfare of the people. During this period several new and old NGOs were seeking opportunities to obtain appropriate ideas and concepts for the practical implementation of PHC and community development programs. With the introduction of the "PPSE" (the name of YPPSE before 1980) as "a unique quasi-NGO," which physically was a NGO but politically was a branch of the government body. It provided a good opportunity for the other NGOs to develop close relationships with YPPSE. This was due to the failure in several NGOs' programs to develop PHC and community development without involvement of the government. The NGOs needed an organization which was flexible, good in management and not too strong in bureaucracy. Hence, this period was a very desirable time for "PPSE" to obtain strong support from NGOs, government and the community.

Second, there were three types of "dedicated" manpower: (1) A dedicated and brilliant manager with his ability to look to the foreseeable future as well as the needs of providers and community; (2) A dedicated "FATHER" figure who influenced and helped motivate the providers, with his patience, love, kindness, compassion, honesty, and understanding; and (3) Dedicated and hard-working workers in the field, who were respected and accepted by the community as informal or formal leaders. This was supported by the research findings which indicated that most of the providers with high and medium levels of knowledge, practice, and attitude were motivated first by the above-mentioned three components.

Third, the way YPPSE behaved in PHC and community development. YPPSE policy had been to refrain from seeking credit for itself. It used and promoted the popularity of the government in the community. Thus the jealous feelings from other formal government departments did not exist. Most of the providers did not perceive themselves as working for YPPSE; instead YPPSE assisted them. In fact, however, they were managed by the YPPSE in their programs.

Fourth, the socio-cultural aspects of the community still had a pure feeling of participation (see Chapter II). This could be hypothesized that the area was isolated for a long time due to non-cooperation of the former regents with the Dutch. These regents always stressed and encouraged self-sufficiency among the Banjarnegara community rather than depended on the Dutch.

Fifth, the government programs, especially through the President's Instruction which provide some additional manpower, budget, facilities and development of infrastructure were big contributions toward the YPPSE programs.

Sixth, the presence of several NGOs' and universities specializing in PHC and community development work which provided technical assistance in training, program design, and appropriate technologies ("Yayasan Indonesia Sejahtera or YIS," "Dian Desa," "OXFAM," "Lembaga Pembinaan Usaha Bersama," "University of Gajah Mada," "Institut Pertanian Bogor," etc.) as well as some financial assistance ("YIS" and "OXFAM") to YPPSE for PHC and community development programs.

There were some other factors such as the use of Banjarnegara for field studies by several universities, Department of Health, Family

Planning Coordinating Board and various NGOs which might have played some role in encouraging the improvement or maintenance of knowledge, practice and attitude among the providers.

2. The Quantitative Findings

Again, canonical analyses were used in the quantitative part of data analysis. Through this technique of data analysis, relationships among the two sets of variables could be detected. Instead of running only POLITICA and TRAINING variables, other variables suggested by the factor analysis were used in this analysis.

The findings are presented in two subsections as follows: (a) at the district level and (b) at the regency level.

a. At the DISTRICT Level

The IV set contained 11 variables. The variables were POLITICA, TRAINING, AGE (age of providers), NUMBER (key role initiator), OCCUP (occupation of providers), SEX (male or female), EDUC (level of education of providers), LEWBAN (length of working in Banjarnegara), LEWARE (length of working in the district studied), MARRIED (marital status), and CHILDNO (number of children he/she has). The DV set still consisted of three variables: KNOWLEDG, PRACTICE and ATTITUDE.

Table 5.40 shows the results of canonical analysis of those two sets of variables (IV and DV). The IV variables relevant to the canonical factor are POLITICA (0.907), TRAINING (0.641), NUMBER (0.347), OCCUP (0.328) and MARRIED (-.344). The DV variables are all related to canonical factor. Taken as a pair, the canonical factor indicates that those with high "POLITICALIZATION" score, ever attended a training,

Table 5.40

Result of Canonical Correlation Analysis Between
Variables Sets (11 Variables in POLITICA cs. and 3
Variables in KNOWLEDG cs.) of District Providers
in Banjarnegara Regency, June 1985

Variable Sets	First Canonical Variable	
	Can. Var. Load. ^a	St. Coef. Can. ^b
IV Set		
1. POLITICA	0.907	0.892
2. TRAINING	0.641	0.129
3. NUMBER	0.347	-0.067
4. AGE	0.054	-0.266
5. OCCUP	0.328	-0.062
6. SEX	-0.056	0.072
7. EDUC	0.168	0.083
8. LEWBAN	0.152	0.319
9. LEWARE	-0.249	-0.052
10. MARRIED	-0.344	-0.272
11. CHILDNO	-0.274	-0.030
Percent of Variance	0.724	
Redundancy	0.153	
DV Set		
1. KNOWLEDG	0.911	-0.405
2. PRACTICE	0.846	1.112
3. ATTITUDE	0.870	-0.658
Percent of Variance	0.309	
Redundancy	0.110	
Canonical Correlation	0.851	

^aCanonical variable

^bStandardized coefficients for canonical variables

Source: Selected BMDP6M Output, July 1986

work in the area developed by both district administrator as well as HC's doctor, work at the department of interior, and married tend to have high knowledge, practice and attitude scores and vice versa. These relationships are strong enough and the IV can explain about 76.76% of variance created by both sets.

b. At the REGENCY Level

There were 15 variables found in the IV set. They were POLITICA, TRAINING, AGE, SEX, EDUC (education level), OCCUP (occupation), OTOCCUP (other occupations), LEWBAN (length of work in Banjarnegara), KNYPPFS (length of know YPPSE), FROM (know YPPSE from whom), INVYPP (involvement degree in YPPSE), LEWYPP (length of work in YPPSE), POSITION (position in YPPSE), REASON (reason involve in YPPSE), and ACTIV (degree of activity in YPPSE). The DVs set contained the same variables as provider at the district area (Table 5.41).

With a 0.3 cut-off point in canonical variable loading, the IV relevant to canonical factor are, in order of magnitude: POLITICA (0.898), ACTIV (0.761), INVYPP (0.733), LEWYPP (0.721), FROM (0.548), POSITION (0.544), TRAINING (0.398), REASON (0.322), and EDUC (0.306). Among the DV, all of the variables were relevant to canonical factor. Taken as a pair, the canonical factor indicates that those with high "POLITICALIZATION" score, high activity involvement in YPPSE, involved directly in YPPSE, longer work with YPPSE, get motivation and information about YPPSE from the Regent, and higher position in YPPSE organization tend to have higher score in knowledge, practice and attitude. Training involvement, better reason in involvement in YPPSE and higher education also tend to have higher knowledge, practice and attitude

Table 5.41

Result of Canonical Correlation Analysis Between
Variable Sets (15 Variables of POLITICA cs. and 3
Variables of KNOWLEDG cs.) of Regency Providers in
Banjarnegara Regency, June 1985

Variable Sets	First Canonical Variable	
	Can. Var. Load. ^a	St. Coef. Can. ^b
IV Set		
1. POLITICA	0.898	0.454
2. TRAINING	0.398	-0.002
3. AGE	-0.220	-0.065
4. SEX	-0.008	-0.012
5. EDUC	0.306	0.014
6. OCCUP	0.125	0.107
7. OTTOCUP	0.057	-0.031
8. LEWBAN	0.039	-0.020
9. KNYPFPT	0.288	0.121
10. FROM	0.548	0.166
11. INVYPP	0.733	0.243
12. LEWYPP	0.721	-0.059
13. POSITION	0.544	0.033
14. REASON	0.322	0.048
15. ACTIV	0.761	0.296
Percent of Variance	0.227	
Redundancy	0.226	
DV Set		
1. KNOWLEDG	0.915	-0.937
2. PRACTICE	0.948	0.691
3. ATTITUDE	0.863	-0.594
Percent of Variance	0.827	
Redundancy	0.227	
Canonical Correlation	0.851	

^aCanonical variable loading

^bStandardized coefficients for canonical variables

Source: Selected BMDP6M Output, July 1986

scores although their relevancy was not as high as the first six variables. In short, the first six variables were the most important variables in the relationship and were related to knowledge, practice and attitude scores of the providers.

CHAPTER VI

INTERPRETATION AND DISCUSSION OF RESEARCH FINDINGS

This chapter consists of five sections as follows: the process of improving community participation; the influence of training and "POLITICALIZATION" upon the knowledge, attitude and practice of the providers at the regency and district levels; the relationship between the level of community participation, community's knowledge, practice, and attitude and the health and socio-economic indicators found in this research; the influence of YPPSE upon the variables mentioned in Chapter V; and the other factors influencing knowledge, attitude and practice of the providers at the regency and district levels.

Each section will be interpreted and discussed independently.

Process of Increasing Community Participation

Community participation is not a new concept in Banjarnegara Regency. It has been an integral part of the culture since ancient times. The concept of "gotong royong" or mutual self-help, and other cultural concepts such as "mufakat" and "rukun" have been a part of life in Banjarnegara Regency for generations. They are the traditional mechanisms for providing the social support necessary for dealing with everyday problems. In village organizations in Indonesia, the doctrine of community participation reflects the institutionalization of consensus as the essence of democratic decision making. During the war with the Dutch for independence, charismatic political leadership successfully mobilized community participation for the purposes of

achieving independence. Community support and involvement, then, is a national resource waiting to be mobilized.

However, mobilizing community participation requires an appropriate approach and strategy. The approach and strategy employed by YPPSE and described in Chapter V is presented schematically in Figures 6.1 and 6.2. The critical element in this approach and strategy is the regency and district integrated teams, which are characterized as "providers" in this research study. One of the major factors in this strategy is the knowledge, attitude and practice of those providers. YPPSE played a facilitating role in improving their knowledge, attitude and practice. The providers played the primary role.

The study shows that upon arrival in Banjarnegara Regency, the health providers (doctors and health auxiliaries) were poorly informed and generally disinterested in PHC and community development. Given the medical and curative nature of their technical training, this finding is not surprising. Following training and meetings organized by YPPSE, 75% of the providers reported interest in and enthusiasm for PHC and community development.

The district administrator was the other essential provider in the integrated team. Where the integrated team functioned as a coordinated unit, PHC and community development programs tended to be more successful. Again, knowledge, attitude and practice of the providers was an important variable. In those integrated teams where the district administrator and the HC doctor were well motivated and interested, the perception of providers towards coordination and integration of PHC and community development was satisfactory. The research indicates

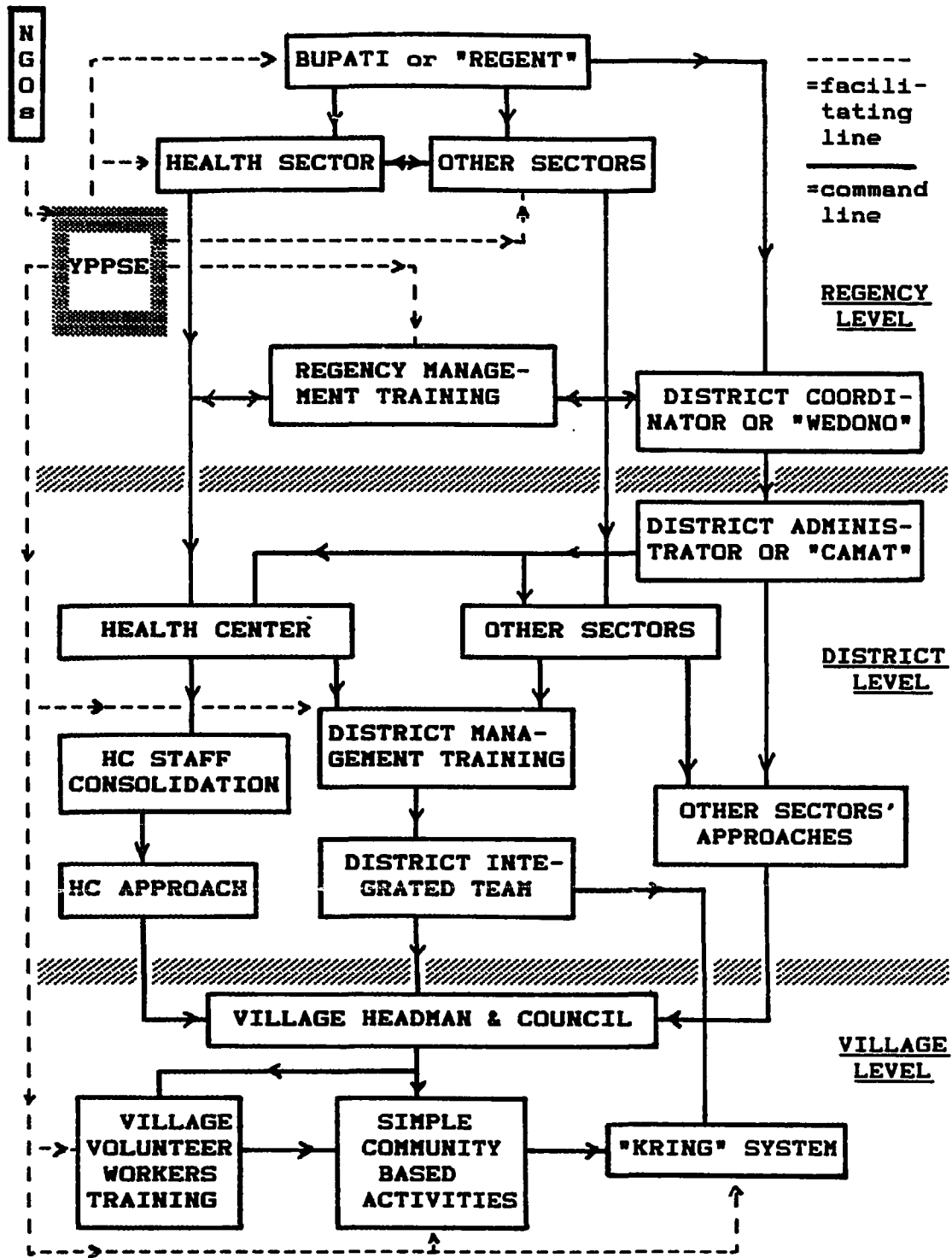


Figure 6.1 Schematic Approaches in PHC and Community Development Program in Banjarnegara Regency

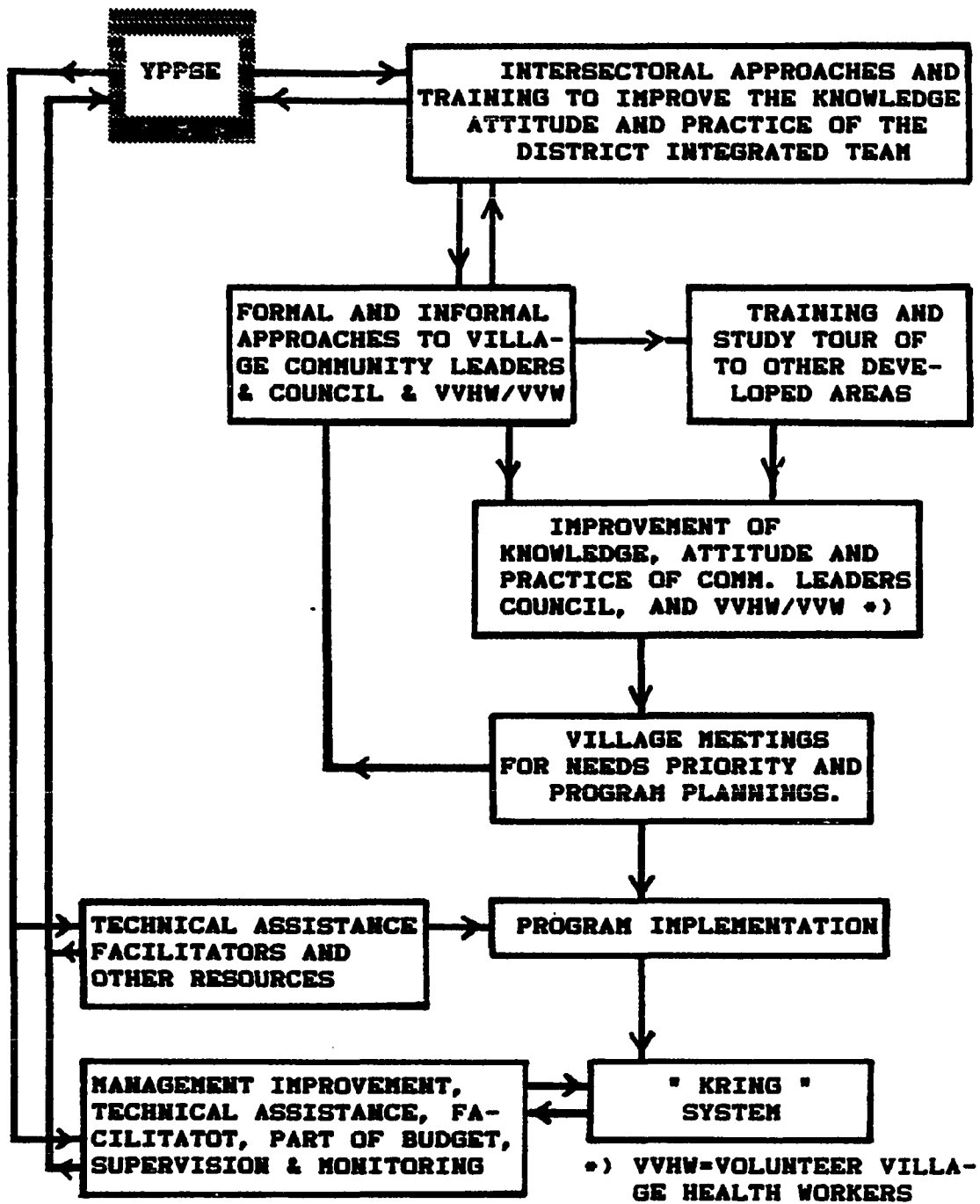


Figure 6.2. The Process of Motivation, Improvement of Knowledge, Practice, Attitude and Participation of Community and Providers As Well As the Role of YPPSE in Banjarnegara Regency

that YPPSE's role in educating and motivating providers in the district teams, in particular, and the regency teams to a lesser but still significant extent, had substantial impact upon the consolidation of those teams. Well consolidated teams are much more effective in engaging the villages, promoting their inclusion into the "KRING" system, and consequently in mobilizing community participation.

Given this motivational or educational role, the providers perception of YPPSE, as presented in this study, requires further consideration. In general they were supportive of the YPPSE role in PHC and community development, but found management deficiencies. They also expressed some dissatisfaction with the distance that seems to be developing between YPPSE and the government providers. This perception can be explained by the organizational transition which YPPSE effected in 1980, changing its status from a quasi-NGO to a full NGO. While maintaining quasi-NGO status, YPPSE had direct institutional linkages to the government through the Regent's position in YPPSE management. When a new Regent was assigned to Banjarnegara in 1980, the Chairman of YPPSE and several key persons in YPPSE, in anticipation of the possibility that the new Regent might be less supportive of YPPSE, changed its status to a full NGO. While the new Regent was equally, if not more supportive of YPPSE than his predecessor, the organizational transition to full NGO deprived YPPSE of the special relationship that it previously had with government, and possibly explained of the providers' reservations about YPPSE.

YPPSE staff members themselves were even more critical of the organization's performance than other providers, and this finding

indicated an awareness of impending managerial problems. Their perceptions of YPPSE's managerial deficiencies were viewed by the researcher as a healthy sign that these deficiencies could be addressed and eventually overcome.

The process of social preparation as described in this study is clearly dependent upon the knowledge, attitude and practice of the providers. The process is time consuming, and only highly motivated providers will persevere through the 4 to 6 months process. YPPSE plays an important facilitator role, and is involved in the social preparation process almost from its inception. However, it is the district integrated team that makes the first contact, that must have a sufficient understanding of village problems, and who must work with them jointly in finding solutions. The volunteer training provided by YPPSE, and the introductory community based activity are visible products of the support that YPPSE and the government are willing to provide.

The "KRING" system is unique to Banjarnegara Regency and is considered by the researcher to be one of the most important mechanisms for generating community participation in all phases of PHC and community development. It capitalizes upon traditional community values of pride and self-help. It also institutionalizes the community's role in planning, proper implementation, budgeting, monitoring, evaluation and maintaining PHC and community development programs. And it lays the foundations for eventual self-sufficiency. It is the researcher's view that, at the present time, the "KRING" system functions to a large extent through the unifying and motivating role

played by the facilitators, and the core support provided by YPPSE. The facilitating role provided by the district integrated team will be a continuing long term need to guarantee operation of the "KRING" system. From the observations of the researcher, it is not possible to predict, at this point, when that facilitating role will no longer be necessary; and it is also difficult to predict the fate of the "KRING" system once core support from the YPPSE ceases. These questions could be the subject of further research.

The role of YPPSE and the district integrated team in mobilizing community participation is presented schematically in Figure 6.3. In general, well-consolidated integrated teams are the catalyst for effective social preparation of a village and its eventual inclusion into the "KRING" system, the mechanism identified by this research as most effective in generating community participation. Well-consolidated integrated teams are enhanced by positive knowledge, attitude and practice of the providers, in this case the district administrator and HC doctor, about PHC and community development. It is YPPSE, through the process of training and "POLITICALIZATION," that can most directly influence the knowledge, attitude and practice of providers.

The Scope and Outcome of the Training and "POLITICALIZATION"
Processes in Strengthening Political Commitment Relevant
to Implementation and Maintenance of PHC
in Banjarnegara

Data presented in Chapter V indicated that both training and "POLITICALIZATION" variables showed a high correlation with increased

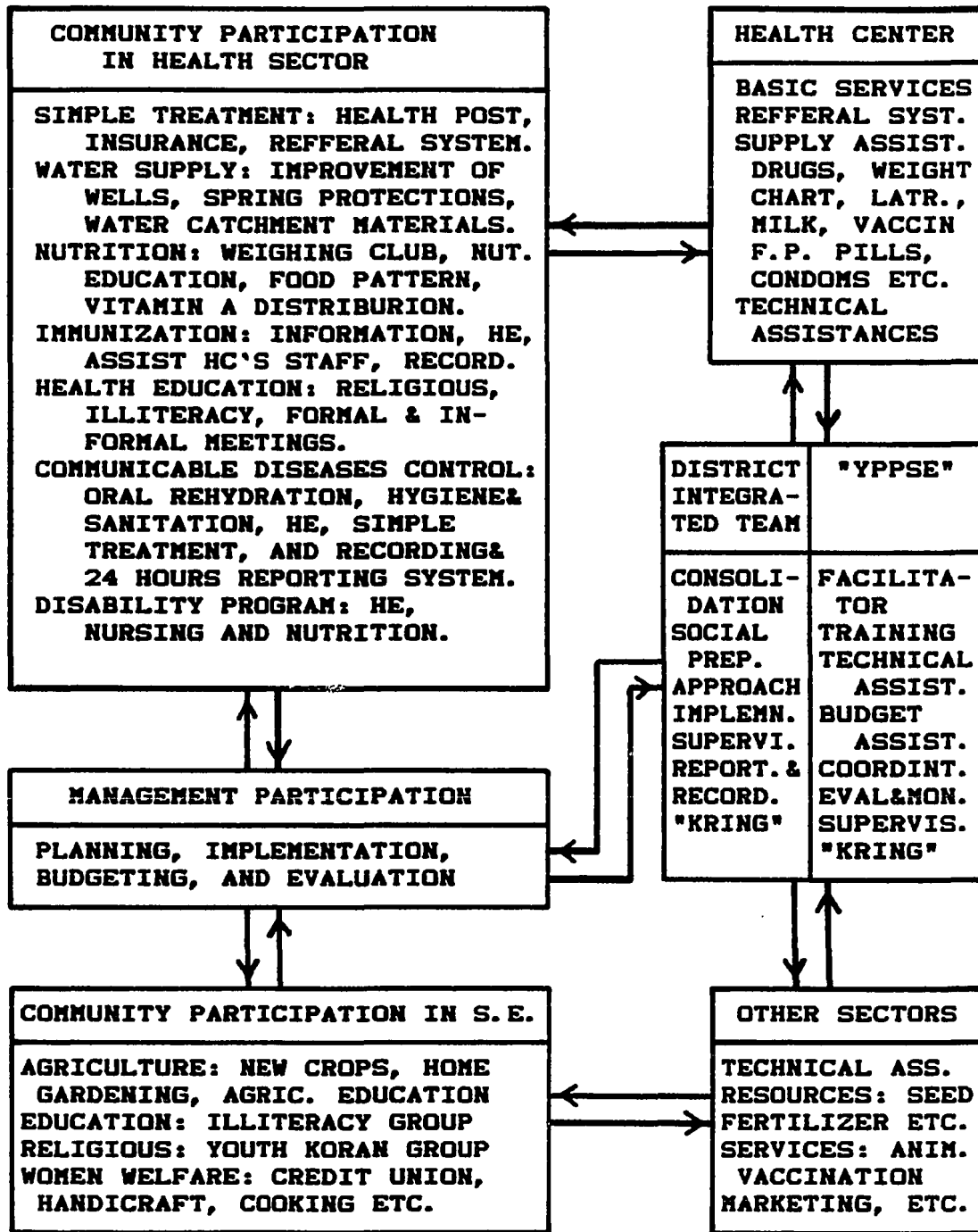


Figure 6.3. Community Participation and the Role of YPPSE, District Integrated Team and Individual Sectors in PHC Development in Banjarnegara Rural Area

knowledge, practice and attitude of the providers. Between those two variables, "POLITICALIZATION" was more relevant as compared to the training variable. However, training seems to reinforce "POLITICALIZATION"; providers who had been trained tended to have high scores in that category.

The findings of objective II establish clear statistical correlations between "POLITICALIZATION" and training of providers at the district and regency level and their KAP in PHC and community development. The single most important factor which seems to effect "POLITICALIZATION" at the district level was the interest and the enthusiasm of the district administrator and HC doctor in PHC and community development. Every component variable which had been factored to create the composite variable "POLITICALIZATION" was influenced by the key initiator of PHC and community development. The most favorable situation existed when the HC doctor and district administrator played the key initiator role. Such a situation would strongly favor "POLITICALIZATION" and knowledge, attitude and practice (KAP) of providers. However, these findings indicated that, though less favorable, situations where either the HC or district administrator were key role initiators, "POLITICALIZATION" also took place though to a lesser extent. Where neither the HC doctor nor district administrator was involved as a key initiator, a very unfavorable situation existed for "POLITICALIZATION" and consequently increased KAP of providers about PHC and community development. This finding had implications for decision makers in Banjarnegara Regency.

At the regency level, "POLITICALIZATION" was quite acceptable probably due to the special relationship which existed between YPPSE and the regency government, and to the motivational and leadership role played by the Chief of Regency Health Services and the Regent.

A significant degree of dissatisfaction and disinterest was expressed by district providers with the YPPSE training programs. Daily length of training seemed excessive (10-14 hrs/day) and questions were raised as to whether there was a point of diminishing returns with the number of training hours per day. Training methodology was also found deficient in this study, probably related to the skills of the trainers in the YPPSE team. Professional trainers were not the norm in district training. Trainers frequently hold structural positions in the district level bureaucracy and have no qualifications as trainers.

A mixture of several different theories of learning was combined in the methodology of provider training in Banjarnegara. For example, it seemed that in the regency and district level, the training placed more emphasis in the S-T theory, Motivational-Personality theory by Hilgard, and Self-Actualizing Approaches described by Srinivasan. However, in the village level, training focused more in the Cognitive theory, S-T theory by Hilgard and Problem-Centered Approach.

District and regency level training programs placed more emphasis on the classroom rather than in the field. On the other hand, the "KRING" system placed more emphasis on field training. Both YPPSE and the district and regency level integrated teams need to spend more time on training preparation, and in integrating participatory training

methodologies into the curriculum. If this is not done, training quality suffers and the "foundation" of KAP of providers will be reduced accordingly.

From the researcher observations of some "KRING" meetings and combined regency, district and village trainings, as well as interviews conducted during the course of this research, it seemed that the training preparation was insufficient. Fifty percent of sample providers at the district level claimed that the training methodology was not so interesting and 16.7% stated that it was not interesting at all. However, most providers at the regency level stated that the methodology was interesting or very interesting. As was mentioned previously, one of the probable reasons for the difference was a high degree of professionalism among trainers in the regency training and relative lack of professional trainers at the district level. Of those district providers who perceived that the training methodology was interesting, most had obtained their training before 1980. Those trained after 1980 expressed greatest dissatisfaction with the training. This finding indicates that the training quality of YPPSE has decreased, and one of the causes was lack of good training preparation. Post training evaluations were not generally utilized and analyzed properly to improve the next training program. Too many participants were trained at one time and there was an attempt to cover too much material in a 2-3 day training program. Some trainers did not really know what their didactic responsibilities to the trainees were.

Training materials were found to be mostly useful and very useful by the trainees, either at the district or regency level. As mentioned

in Chapter V, almost all of the providers who perceived that the training materials were not useful were HC's doctors and HC's staff members. The reasons most frequently expressed were (1) the training materials were not appropriate to conditions in their HCs and district teams, (2) the training materials were too general in community development in which they were not involved directly and (3) approaches taught during the training were too idealistic, and could not be carried out in reality, or were excessively time consuming. From this result, it could be interpreted that although the Chief of Banjarnegara Regency Health Office attempted to convince the HC's doctor regarding the significance of PHC and community development, some of them were still reluctant to accept the concept of PHC and community development.

Another problem was limitation of training follow-up. As an example, following completion of a 40-day regency providers training in 1976, there was an agreement that the follow-up and refresher training would be carried out one year post training and at yearly intervals thereafter. For various reasons, however, this schedule could not be adhered to, and training follow-up was not conducted again until 1978, and then in 1985 when this research study was conducted.

Figure 6.4 is a schematic representation of training in the "KRING" system as described in Chapter V.

The training methodology used in the "KRING" system was more fundamentally dialogical like the "participatory training" described by Kurian (1983) with both trainers and trainees contributing to the learning situation. Self-awareness and self-confidence on the part of trainees were considered an invaluable outcome of the training process (Dayrit, 1984).

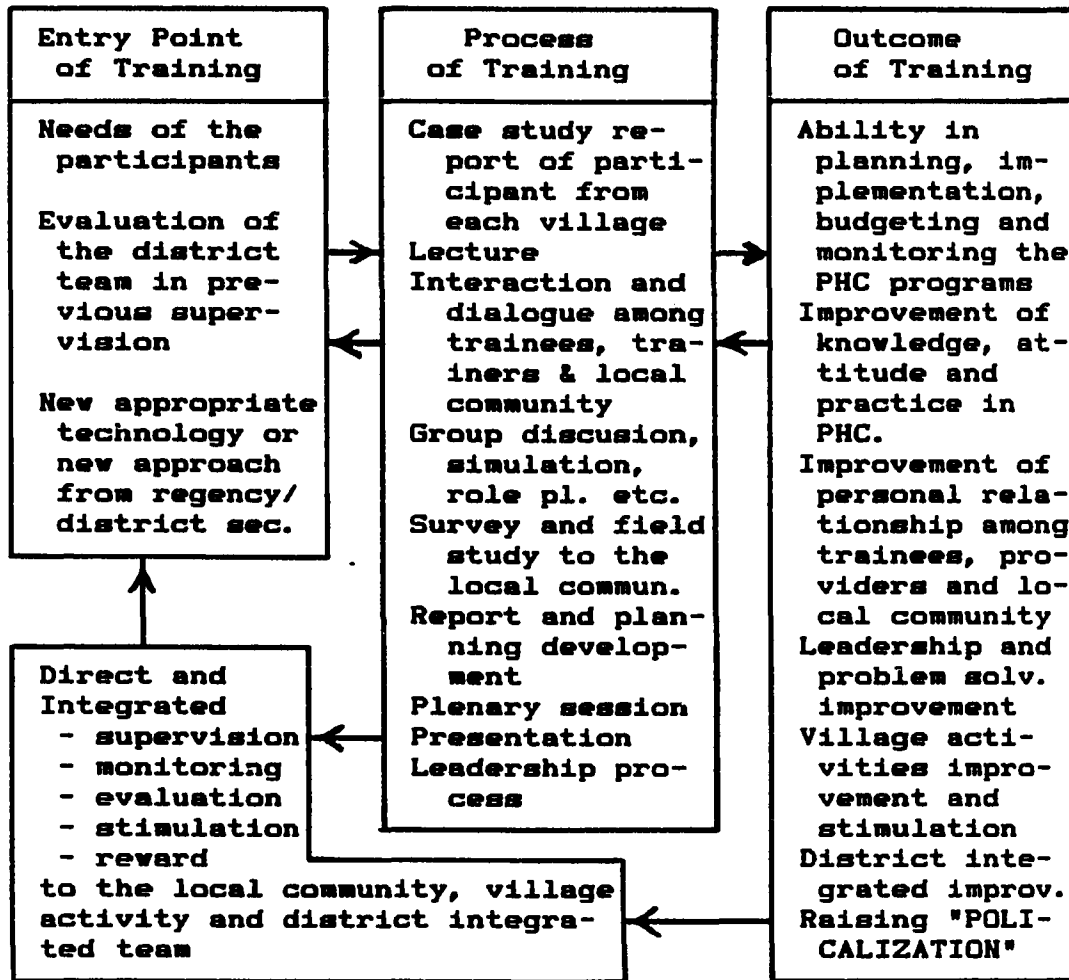


Figure 6.4. Schematic Representation of Training in the "KRING" System in Banjarnegara Regency

The opportunity provided by the "KRING" meeting for interaction among trainers (represented by YPPSE, district providers and regency providers), trainees (village volunteer workers and village leaders) and the local community seemed to develop a very favorable climate for mutual learning as well as indirect training feedback. Individual and group learning seemed to be enhanced during the unique interaction provided by the "KRING." The personal relationships developed between the trainers, trainees, and local community members while living and working together during the "KRING" period, where the providers stayed in the local households, ate together with the community members, spent leisure time together, and conducted community needs assessments together, reinforced learning and compensated for training deficiencies providers experienced during district training and regency training in particular and training in general.

The "KRING" system seems to encourage both the community and providers to: (1) improve political commitment in the village, district and regency team toward the development of PHC and community development; (2) stimulate the community's and providers' degree of involvement in planning, implementation, budgeting and evaluation of PHC and community development; (3) increase the quality of the training process; (4) maintain and improve the implementation, budgeting, supervision and monitoring of their activities; (5) reduce the managerial bureaucracy and improve the flexibility of the managerial process based upon the community needs; and (6) speed up the dissemination of the PHC and community development program.

In other words, "KRING" system was one of the tangible manifestations of "POLITICALIZATION" which actualized political commitment of district and regency providers in development of PHC and community development in the Banjarnegara rural area. The research also shows that, in addition to being a manifestation of "POLITICALIZATION," the "KRING" system also has an added feedback input which tends to enhance "POLITICALIZATION" of providers mainly by strengthening their political commitment to PHC and community development. In April and May 1985, the Regent of Banjarnegara, "Drs." Winarno Adisubrata twice arranged three-day meetings to discuss more efficient utilization of the "KRING" meetings. Those two meetings were attended by all district administrators, chiefs of regency departments, heads of district sectors, village headmen, village counsel chairmen, and village volunteer workers in the villages involved in the "KRING" system as well as some NGO partners of YPPSE. The meeting adopted the "KRING" system as a media for exchange of information, an instrument for monitoring and stimulating the community, and as a training strategy for the total development in Banjarnegara regency.

In some villages, the village headmen adopted a mini-"KRING" system as a motivational development, and monitoring tool and stimulating system for their villages. In this spin-off model, the hamlets or "RT" within those villages were grouped in a small "KRING" system, with rotating meetings in a fashion similar to the implementation of the "KRING" system.

One indicator of the seriousness of political commitment (WHO, 1982) was the level of community involvement in health decision making

and the existence of effective mechanisms for people to express demands and needs. WHO also suggested that an indicator for both political commitment and community involvement was the degree of decentralization of decision making, which facilitates more effective involvement at the community level and ensures that it would produce results that could be implemented. With the "KRING" system it was clear that all of the planning, implementation, budgeting, and evaluation was developed by the community. This would provide a high degree of community participation in health and community development decision making based on their need and demands.

The "KRING" system, with its provision for involvement of all components in planning, implementation, budgeting and evaluation could also be interpreted as an "action research" process or AR. McGill (1974) described AR as a continuous process of doing research which leads to learning and further action. The essential elements of the process were planning, implementation and review, carried on in a cycle by researchers and community members participating in full and equal roles.

Peters and Robinson (1984) stated that there were at least three minimal requirements of AR: (1) the involvement in change characteristics, i.e., problem-focused and directed toward the improvement of some existing social practice; (2) it shared the organic process characteristics i.e., research consisted of a series of systematic cyclical or iterative stages of fact finding, reflection and planning, strategic action, and evaluation; and (3) it shares the collaborative characteristic, for example research was carried on as joint and

cooperative endeavors among participants. AR should proceed in a "Spiral Step" management process in which each step is composed of a small circle or loop of planning, action and evaluation of the action results (Peters & Robinson, 1984).

Considering the discussion above, the "KRING" system manifests the AR concept, in which each circle of the "KRING" represents each loop of AR. Figure 6.5 presents an illustration of the "KRING" system in light of the spiral steps of the AR process.

In conclusion, there are two pertinent components related to the strengthening of political commitment in implementation and maintenance of PHC and community development in the Banjarnegara rural area. The first one is "POLITICALIZATION" or the degree of acceptance to which political commitment is manifested and actualized in the development of PHC and community development. The second is training, which is needed to initiate the development of "POLITICALIZATION." Although the training quality of YPPSE seems to have decreased due to problems of inadequate professional trainers, insufficiency of budget and a growing range of activities, the "KRING" system seems to compensate for the decreased quality of training. The "KRING" system is one of the manifestations of "POLITICALIZATION" in the implementation and maintenance of PHC and community development in the Banjarnegara Regency, and has an impact upon the improvement of integrated team performance, interpersonal relationships between providers and community, ability in simple management system, supervision, and monitoring. The "KRING" system is also an example of simple action research in PHC and community development. The prospect of utilizing the

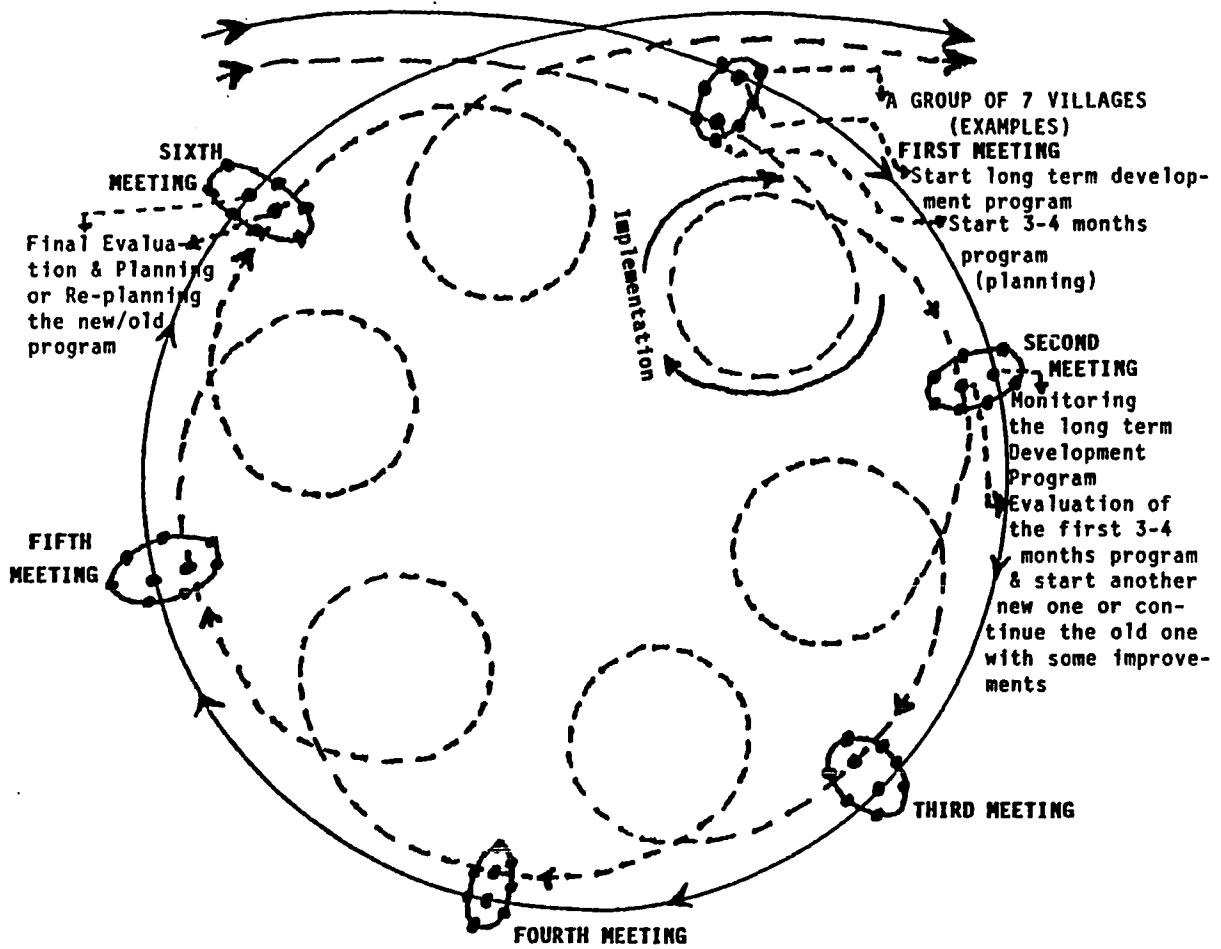


Figure 6.5. An Illustration of the "KRING" System in Light of the Spiral Steps of the Action Research (AR) Process

"KRING" system in the foreseeable future for implementation and maintenance of PHC and community development activities is undoubtedly positive. However, this system has several limitations as follows: (1) should be properly prepared in each level of government administration; (2) need more time and effort in implementing this system; (3) need some additional budget; (4) there will be a period of confusion during the implementation of this system; and (5) should be matched with the local culture or tradition.

Relationship Among Community Participation; Community's
Knowledge, Practice, and Attitude; and Health
and Socio-economic Related Health Indicators

The findings of objective 3 in Chapter V showed that (1) villages developed by the Government and YPPSE with high scores in knowledge, attitude, practice, and participation tend to have high scores on weight increase among children under-five, nutritional status of children under-five, housing sanitation, sanitation facilities, total trees in the garden and food consumption on the day of observation and monthly food habits; (2) villages in the plain area have higher scores in bedroom space per capita as compared to those in the mountain area, but samples from the mountain area have higher scores in nutrition garden and land ownership as compared to those in the plain area; (3) lower community participation, knowledge and attitude was associated with lower total income per capita, lower bedroom space per capita, lower education level, lower literacy, lower total monthly expenditure, lower value of ownership, lower value of housing material, and lower food consumption on the day of observation as well as monthly

food habits; (4) the more YPPSE is involved in the development, the greater number of trees and kinds of trees among samples households; (5) the higher the practice score of the community, the lower the value of housing material and the higher food consumption on day of observation and monthly food habits; (6) the higher practice levels of the community, the lower the possibility of having sick people, the lower degree of severity and higher preference to choose first aid, lower education, and lower literacy; (7) the higher knowledge, practice and attitude score of households who have a child or children under-five, the higher their participation in program planning, implementation, budgeting, and total activities; and (8) the influence of PHC and community development programs by combined Government and YPPSE efforts correlates with higher scores for knowledge, practice, attitude, and community participation.

Based on the findings mentioned above, the relationship among the variables is presented schematically in Figure 6.6.

The results suggest the importance of YPPSE's assistance to the Government in the dissemination of PHC and community development programs, and several critical health indicators. The findings show that the YPPSE approach, which emphasizes the crucial role of the community and focused its resources and assistance at that sociologic unit, has a significant impact upon increasing the level of the community's knowledge regarding health, its attitude towards positive health behavior, and its utilization of health resources and technologies offered by the Government.

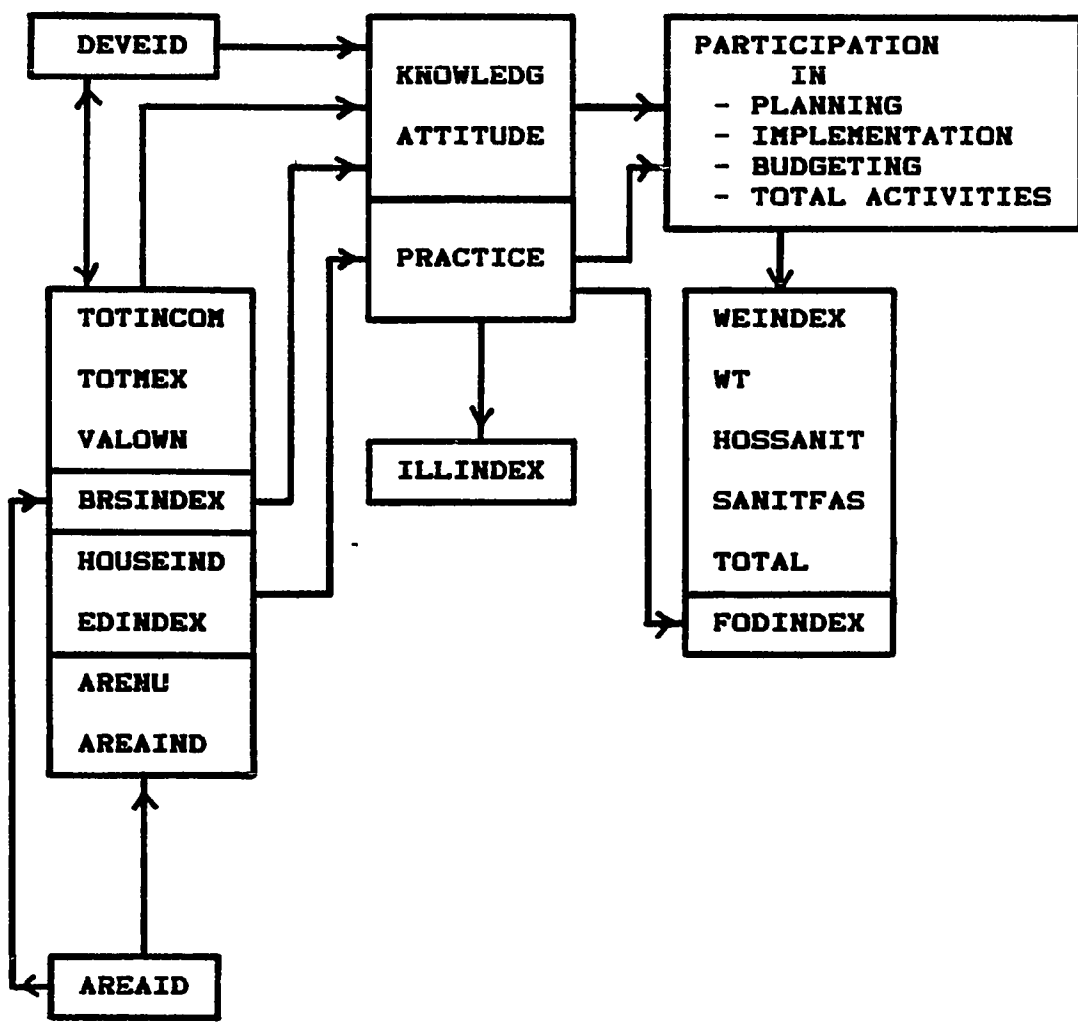


Figure 6.6. Summary of Relationship Among Variables Found in the Canonical Analysis of Community Samples at the Banjarnegara Rural Area

However, the impact upon these community participation composite variables is an intervening step only. The canonical multivariate analysis indicates that community KAP (Knowledge, Attitude and Practice) is correlated with community participation in planning, budgeting and implementing PHC programs, resulting in a greater sense of the community's involvement in and responsibility for its own health programs. As a result, in communities where YPPSE and the Government jointly introduce and maintain a PHC program, total community involvement in PHC activities tends to be higher, and in these communities nutritional status is better, more attention is given to sanitation, housing conditions are superior, food habits support good nutrition, and households are taking the initiative to engage in agricultural practice, particularly in planting trees whose produce can supplement food supply or income.

The analysis also shows that there were several intervening variables such as geographic area, socio-economic status, education and literacy level and land ownership. However, those intervening variables can also be interpreted that the YPPSE mostly started to work in the villages or communities with low education and socio-economic status. Communities with higher scores for KAP and participation showed a relatively higher level of education and income. However, personal observations of the researcher indicate that even in communities with higher KAP and consequently statistically higher income and education, the poorer strata in those communities do not generally participate or take advantage of health and development activities available through the Government and YPPSE. While the research shows

that the program has some impact on education and SE-RH indicators, it was the opinion of the researcher that these gains were most prominent among the higher socio-economic groups within the community and still do not reach the poorest of the poor.

The improvement in nutritional status among YPPSE villages is illustrative of the advantages of the YPPSE approach. There is a monthly nutrition surveillance/intervention program introduced by the Government and YPPSE, characterized by the monthly weighing of children under-five. By mid-1980 there were 282 village or subvillage weighing posts in Banjarnegara regency. At the present time, almost all villages are covered by this program. In the villages included in the sample for this study, there was a minimum of one weighing post in each village, each with a minimum of three village nutrition volunteer workers.

The marked improvement in numbers of village weighing posts can be attributed to the Family Nutrition Improvement Program ("UPGK") introduced by the National Family Planning Coordinating Board ("BKKBN") in 1982. This program provided weighing scales and nutrition related supplies such as iron tablets, vitamin A, oral rehydration solutions and educational materials. The program also trained the village nutrition volunteers, or "kader" to weigh children and record their weight monthly on a growth card held by the mothers, distribute the iron, vitamin A and oral rehydration solutions as necessary, and advise mothers on proper nutritional habits for their children based upon results of monthly weighings.

In the villages where the nutrition program was introduced without YPPSE assistance, the inputs were rigid and unidimensional. Training packages were standardized, and training sessions for the "kaders" were rote exercises in what Freire (1980) calls the "Banking System" of education where knowledge transfer is a one-way process stored in the mind of the trainee or community but with no guarantee that it can or will be understood and utilized. Weights were being inaccurately recorded on weight charts and health education messages were either being inaccurately transmitted or not at all. Attendance had fallen substantially (20-30% during 2 years) and some of the weighing post activities had been discontinued.

In those villages where the program was instituted with YPPSE's assistance, the community was consulted and involved in the decision to introduce the nutrition program, and the standardized inputs were adapted to the communities perceived needs and local cultures. Although the physical act of weighing children was a constant in all villages, some villages chose to emphasize nutrition education, while others emphasized home gardening, food preference or credit union activity. The standard training packets were then adapted accordingly. The rote lecture/question/answer training technique which predominates in the Government and YPPSE "kader" training, was abandoned in favor of more participatory training methodologies which involved the trainee as an active participant in the training program. The statistically significant improvement in nutritional status in the YPPSE and Government villages found in this study was accompanied by higher attendance and longer continuity of weighing post activities, and was testimony to the effectiveness of the YPPSE approach.

Home gardening, housing, water, and sanitation are important components of the YPPSE program. YPPSE has emphasized the importance of trees as a source of food and income, since its inception, and has actively encouraged communities to plant trees in and around housing areas. Working with the Department of Agriculture and Family Welfare Movement ("PKK"), they have disseminated new varieties of guava, papaya, clove, coffee, tea and other fruit trees in the area. The study shows that positive results have been most pronounced in the mountain areas where a particular program was stressed and land ownership favors the proliferation of trees. These factors explain the study's findings that total trees have increased in YPPSE and Government area.

In 1980, YPPSE's archives revealed that 56 villages developed housing improvements programs. By the time this study had been conducted, that number had doubled. YPPSE has trained district integrated teams and HC staffs about the importance of basic housing improvements, and had assisted villages to establish community local funds to finance them. Whitewashing walls, expanding window space, construction of earthen hearths, and placement of river stones for flooring material make substantial improvements at affordable costs. Housing improvements were common among village plans submitted to the "KRING" system.

Three sample villages assisted by YPPSE and government had home improvement programs. In the first step of the program, only households with higher per capita income could participate in this effort due to high cost of building materials. In two of those villages, agreements were reached to hire laborers from the lower income community within their own village for home improvement programs.

Proceeds of 30-50% salaries were deposited into a fund for each lower income laborer and eventually used to fund improvements in the laborer's own home. The multiplier effect of this system expanded home improvement benefits to more families, particularly the lower income families, and probably accounted for the relationship found in this study. YPPSE does not encourage the use of expensive housing materials for home improvement.

The 1980 YPPSE archives show that 45 villages have drinking water and irrigation systems. By the time of this study that number had tripled. The assistance provided through YPPSE and government through special Presidential Instruction program ("INPRES") is postulated as a primary reason for the improvements. The "INPRES" program provides pipes, cement, cylinders, pumps, and other building materials. While water and sanitation systems were being built, these efforts were plagued with routine maintenance problems.

With YPPSE's assistance, the villages were motivated to participate in the building and maintenance of the latrine and water systems, contributing their manpower and some local materials. Through the influence of the "KRING" system, YPPSE was also able to motivate the villagers to maintain latrines. While only two villages sampled in this research provided any funds for latrine and water supply maintenance, these funds were only sporadic (once or twice in the past seven years). However, both the number and condition of latrines and water supply in the YPPSE villages were consistently higher.

Other auxiliary findings concerning objective 3 indicated that better community health practice is related to lower ILLINDEX, EDINDEX,

HOUSEIND and FODINDEX. This relationship should be interpreted cautiously for several reasons. Firstly the canonical correlation is weak (see Table 5.31) and extracts less than 10% of variance. Thus, it is difficult to draw any conclusions. Secondly, especially in the case of the composite variable ILLINDEX, the components variables are diverse, and very significantly among themselves. Prevalence of disease, one of the component variables, was artificially high due to an outbreak of several diseases during the study period. Preference for seeking health services is also very high, but the final component, severity of illness is low and moderate. There is also no clear unifying construct underlying the component variables, as is the case with EDINDEX, HOUSEIND and FODINDEX. As a result, the researcher mentions this relationship but will not infer any conclusions from the relationship.

From the findings of this study it can be concluded that the YPPSE approach is the major independent variable influencing KAP and community involvement with resultant impact upon critical health indicators. However, the findings also suggest that topographic characteristics (AREAID) and the YPPSE/Government development model (DEVEID) work through a set of intervening SE-RH or health related socio-economic variables (TOTINCOM, TOTMEX, VALOWN, BRSINDEX, HOUSEIND, EDINDEX, ARENU and AREAIND) to reinforce the relationship. What is not clear is whether DEVEID influences the SE-RH directly, or whether the DEVEID and SE-RH relationship result from the selection criteria imposed by YPPSE in choosing villages for inclusion into its program. Such

determinations are beyond the scope of this study, but require further study and analysis.

The Differences Between Villages (G0, GOY25, and GOY 5)
in Knowledge, Practice, Attitude, Participation,
Health and SE-RH Indicators

As described in Chapter V, the MANOVA analysis for research objective 4 showed that: (1) People who live in villages developed by G0 have less knowledge, lower skill, less positive attitude, and less participation of PHC rather than those who live in the villages developed by GOY25 and GOY>5. They also have been less active in weighing programs for their children under-five, have lower weight per age for their children under-five, have poorer sanitation facilities, have fewer total trees in the garden, have lower value of ownership, and have less area for gardening and farming. However, these villages have a higher per capita income than those villages developed by GOY25 and GOY>5. (2) Communities in the plain area are more knowledgeable, more skillful, and participate in PHC more than communities in the mountain area. Those who live in the plain area have higher per capita income, better housing sanitation, and more bedroom space per capita. However, they have lower levels for value of ownership, area of nutritious garden, and area for gardening as well as agriculture as compared to those who live in the mountain area. (3) Village communities which were developed by GOY25 and GOY>5 and lived in the plain area have greater scores of knowledge and participation in PHC than the plain communities developed by G0. They are more active in the weighing program, have more trees in their

have higher value of ownership and better score of housing materials than the villagers developed by GO.

Research objective 4 attempts to test the statistical significance of differences between the mean of villages which have been developed by the assistance of YPPSE and those which have not yet been assisted by YPPSE in the KAP, community participation, health indicators and SE-RH indicators. This research objective is related to proposition h, which was mentioned previously in Chapter IV of this study.

Proposition h. states that there will be significant differences in the health indicators and SE-RH indicators between the area developed by Government and others (GO), the area developed by Government and others with the assistance of YPPSE 2-5 years (GOY25), and the area developed by Government and others with the assistance of YPPSE for more than 5 years (GOY>5).

Although the results of 2X3 between-subjects MANOVA analysis used in this research support research objective 4 and proposition h., they do not identify which one of the three development programs is significantly different. Statistically, the significant differences among those three programs of development can be tested by using a range test, such as Scheffe, Turkey, LSD, Duncan tests, etc. However, due to time limitations and technical difficulties, it was not feasible to perform such tests.

However, rough differences among the three areas can be isolated by studying the differences among the means of composite variables in each area of development. As described earlier, there was a significant main effect for DEVEID on 14 of the 19 composite variables.

Inspection of Table 5.37 suggests that large differences exist between the G0 and GOY25 groups, as well as between the G0 and GOY>5 groups, are probably significant on most of the composite variables. These differences are much more likely to be significant than the differences between the means of the GOY25 and GOY>5 groups. In other words, it appears that there are strong differences between the G0 group and either GOY25 or GOY>5, but there is uncertainty as to the significance of difference between the GOY25 groups for the composite variables that are significant in the stepdown analysis.

Regarding the significant interaction between AREA IDENTIFICATION and DEVELOPMENT IDENTIFICATION, the MANOVA analysis suggest that the differences between the three development groups (G0, GOY25, GOY>5) on nine of the composite variables differs significantly, depending on the geographic location of the villages (i.e., mountain or plain areas). Specifically, significant interaction effects were found on: KNOWLEDG, PRACTICE, PARTICIP, ILLINDEX, WEINDEX, BRSINDEX, TOTAL, VALOWN, and HOUSEIND. In studying the mean scores presented in Table 5.38, it can be seen that in the plain area, the GOY>5 group has the highest mean scores on seven of the nine significant composite variables. These composite variables are: KNOWLEDG, PRACTICE, PARTICIP, WEINDEX, TOTAL, VALOWN, and HOUSEIND. However, in the mountain area the GOY>5 group has the highest mean scores on the following composite variables: PRACTICE, PARTICIP, ILLINDEX, WEINDEX, BRSINDEX, and TOTAL.

In summary, the statistical result related to objective 4 of this study appear to confirm the expectation that Government and YPPSE programs (i.e., GOY25 and GOY>5) are relatively more successful than

Government only programs in terms of the community participation, health and some of the SE-RH indicators.

Additional Significant Factors Influencing the Banjarnegara PHC and Community Development Programs

This research demonstrated that training and "POLITICALIZATION" are the two most important factors in the development of PHC and community development in Banjarnegara regency.

Furthermore, the findings of research objective 5, Chapter V, can be summarized that there were several additional factors influenced to the Banjarnegara PHC and community development program as follows: (1) the opportune timing of YPPSE to introduce PHC and community development in Banjarnegara; (2) there were three types of "dedicated" manpower: (a) a manager and conceptor, (b) a father figure, and (c) creative and hard workers in the field who are accepted and respected by the community; (3) the way YPPSE behaved without raising its flag or name in PHC and community development; (4) socio-culture aspects of Banjarnegara community which aided participation; (5) there were some Government programs especially through President Instruction which provided additional manpower, development of infrastructure, facilities and budget; (6) several NGOs and universities specializing in PHC and community development provided budget, technical assistance and promotion about PHC and other Banjarnegara community development programs; (7) reward from the Government by adapting several models of Banjarnegara programs; (8) at the district level, the close relationship and mutual understanding between the HC's doctor and district administration provided a very important influence to the achievement

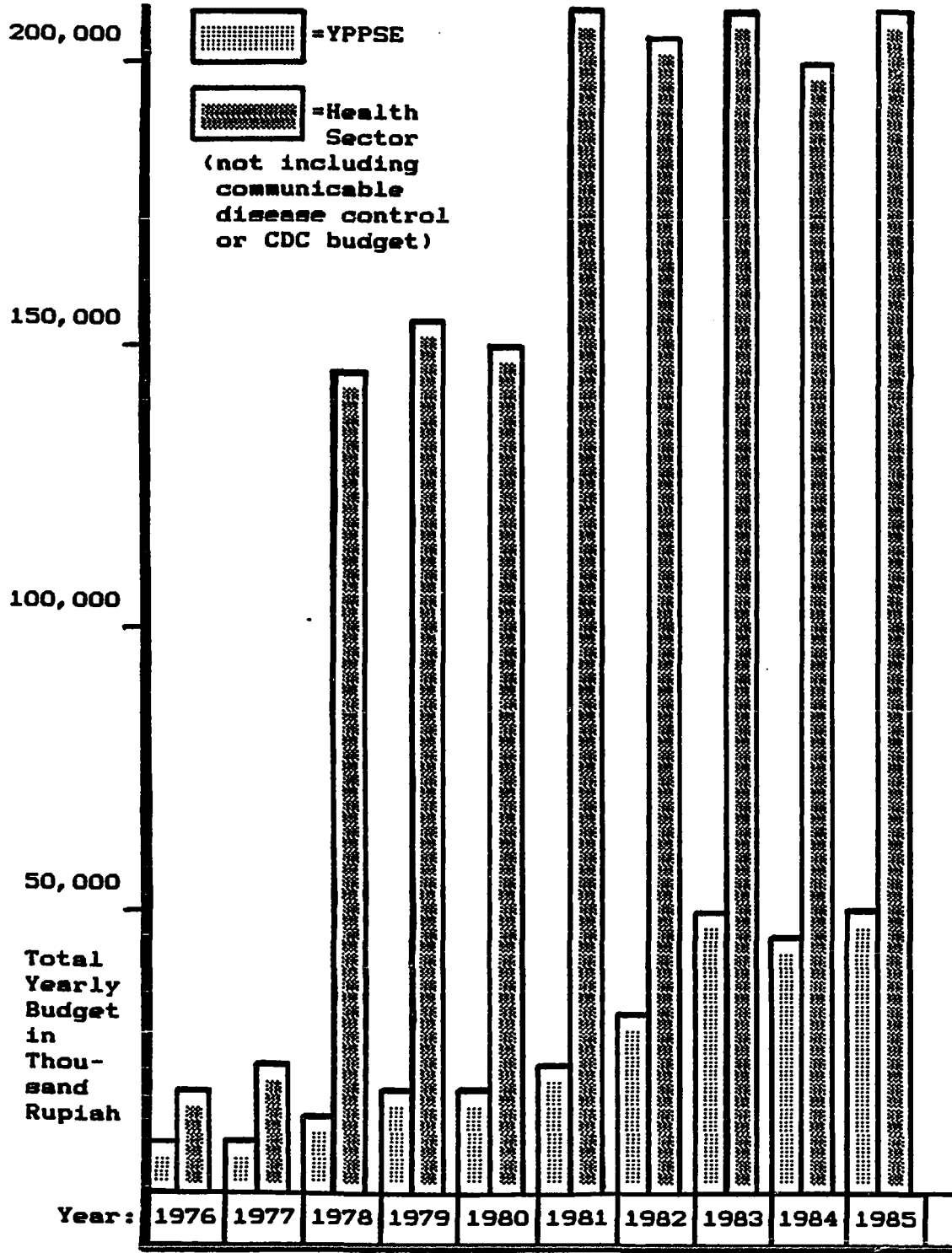
of PHC and community development programs; and (9) the better performance of providers at the regency level was correlated with more active participation and direct involvement in YPPSE organization, longer in length of work with YPPSE, higher position in YPPSE as well as motivation by the Regent.

However, the Banjarnegara PHC and community development programs also suffered from several factors as follows: (1) poor management of YPPSE organization, especially in integrated planning, budgeting and evaluation; (2) lack of qualified manpower with high administrative and organizational skills; (3) dependency of YPPSE on other NGOs' budgets; (4) decrease of training quality for providers and lack of training follow-up; (5) overloaded activities; (6) decrease of the strongest supports and involvements from chairmen of non-health sector government agencies that YPPSE ever had before it changed its status to become a pure NGO; (7) difficulty in providing motivation to the intern health sector personnel and (8) "boomerang" effect of YPPSE program that has been adopted to the national program and then carried out again as a program package in the Banjarnegara area.

Most of the additional facilitating and restraining factors were already discussed in Chapter V, only several additional important factors such as budget provided by YPPSE, dependency of YPPSE to other NGOs, the need of qualified YPPSE manpower with high quality of administrative and organizational skills, overloaded activities and the "boomerang" effect would be explained and discussed in depth in the following paragraphs.

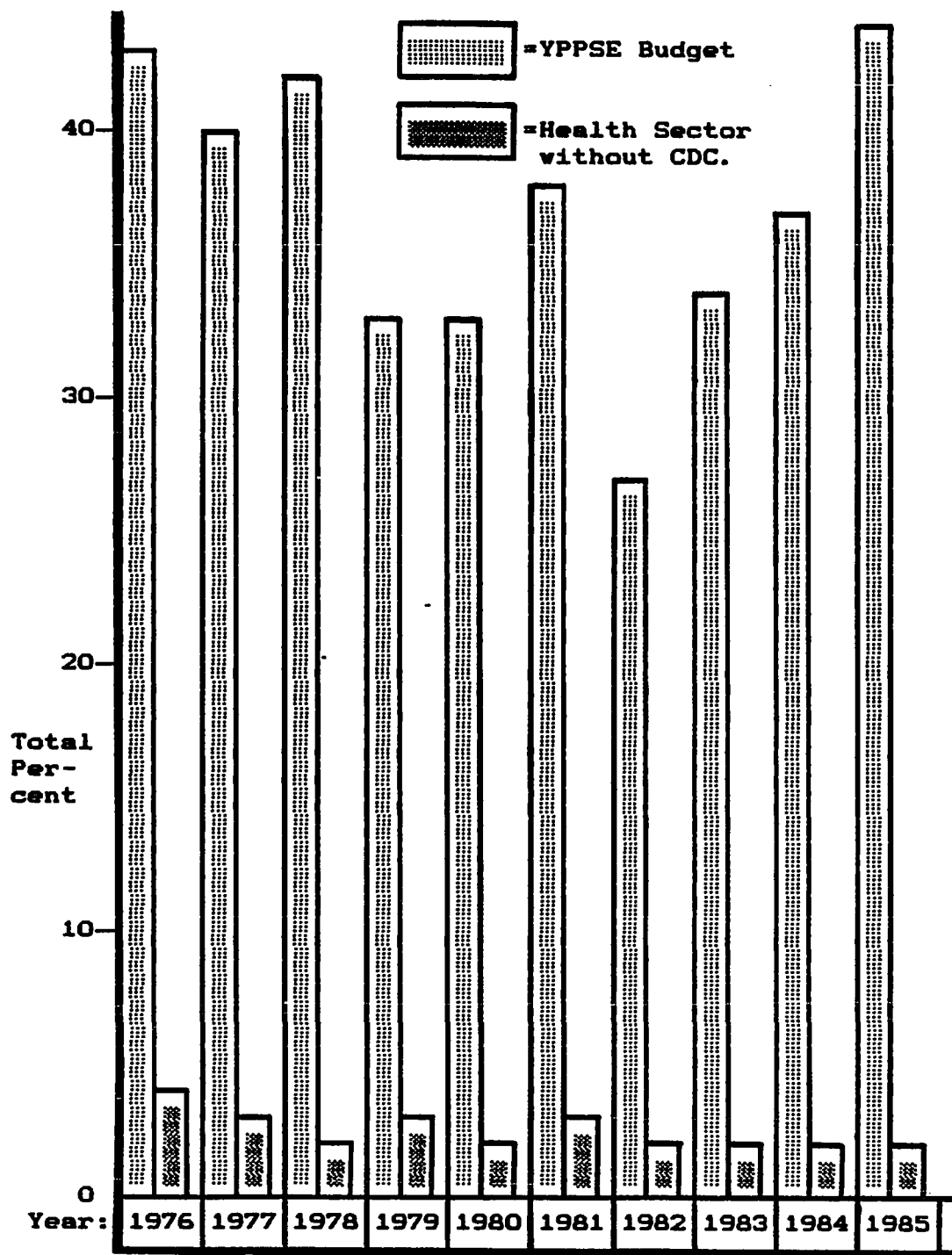
Figure 6.7 shows the comparison of absolute budget of YPPSE to health sector budget. The health sector budget comprised the operational budgets for MCH, Nutrition, Health Education, Hygiene and Sanitation, Public Health Nursing, School Health Services and Drug and Food Control. The Communicable Disease Control division's budget was eliminated since there was a special budget for the malaria control program which was an exceptional budget as compared to other Regency Health Service Offices. Office and personnel budgets were not included since the data were not available. The YPPSE budget was for community development, education, personnel, logistic as well as administrative purposes. The per capita budget per year for the health sector since 1976 was Rp. 265.50 as compared to Rp. 22.67 per capita budget per year of YPPSE or Rp. 14.56 per capita per year (since 1976) without administration, logistic and personnel budget to be counted. Thus, input given by YPPSE was less than 5.5% of the health sector budget. The per capita per year budget of total development budget in Banjarnegara Regency was Rp. 7,112.00. As compared to this total development budget, the input of YPPSE did not mean anything, or only a very small amount of input.

However, Figure 6.8 shows the percentage budget of YPPSE used for training as compared to the health sector budget for the same purpose. Approximately 40% of the YPPSE budget was used for training and education in PHC and community development programs as well as "KRING" system. On the contrary, however, less than 3% of the health sector budget was used for education or training in community health development such as MCH, traditional birth attendant, school health services training, nutrition and other activities.



Source: Banjarnegara Regency Health Office & YPPSE Archives 1976 - 1985

Figure 6.7. Comparative Health Sector and YPPSE Budget from 1976-1985



Source: Banjarnegara Regency Health Office and YPPSE Archives 1976 - 1985

Figure 6.8. Percentage of Educational Budget of YPPSE and Health Sector in Banjarnegara, 1976-1985

Both of these figures showed, at least, that YPPSE supported almost all of the training and the "KRING" system in PHC and community development in Banjarnegara. This was one of the biggest contributions of YPPSE in PHC and community development in Banjarnegara which in turn influenced strong political commitment among the providers.

The second interesting discussion was the dependency of YPPSE on other NGOs. Almost all of the YPPSE budget was dependent on other NGOs. The two biggest contributors or donor agencies were OXFAM and YIS ("Yayasan Indonesia Sejahtera"), the others were: "Yayasan Bina Swadaya," "Dhian Desa," some universities such as IPB Bogor, University of General Sudirman, and many other small NGOs. Not all of them contributed money or were donor agencies, but some universities contributed technical assistance.

Budget dependency could create a big problem in the future of YPPSE, because it seemed that some of the donor agencies used the "business" principles in helping the YPPSE. It meant that they expected certain advantages such as approval and benefits from other larger NGOs as well as the Government by helping or joining YPPSE. Some NGOs tried to be "brokers" to promote YPPSE activities, and usually the brokers would get more advantages than the owner. In other words, they maneuvered and compromised YPPSE to gain some benefits for themselves. Some NGOs attempted to "piggy-back" on the popularity of YPPSE for the benefit of their own development and opportunities. Some of them used YPPSE as a field of trial and error for their organization needs. Thus, not all of the NGOs that helped YPPSE, did so based on the purpose and philosophy of YPPSE, they used YPPSE for their own

advantages. Hence, some efforts toward independence had to be made, or at least maintenance of relationship should be continued only with a few bona fide NGOs which directly funded YPPSE activities.

The third factor that should be mentioned here is the need for qualified YPPSE staff members who had a high ability in organization and administrative skills. YPPSE had several good, dedicated and "field oriented and practical" staff members. These staff members were not adequate for the growing needs of the organization with enhanced activities and responsibilities for the PHC and community development programs in Banjarnegara. Most of the departmental officers in Banjarnegara cherished the hope that some day the Government of Banjarnegara, with the assistance of YPPSE, would be able to bring all of the Banjarnegara community to an improved state of well-being without any dependency. This was the time that YPPSE was not only satisfied with the assistance it was giving in emergency situations, for example to malnourished community, and to small scale local development. This was the time that the YPPSE needed a real institutionalization of suitable system development with a mature concept of development and an appropriate management system, and not only action programs. The internal focus of organizational development was needed in the NGO which was in the "stage" of YPPSE recently. Figure 6.9 shows the stages that had already been developed by YPPSE and the proposed stage as mentioned before, with some features that existed.

The fourth factor was an overload of activities. With limited budget and personnel, YPPSE was too ambitious and tackled too many

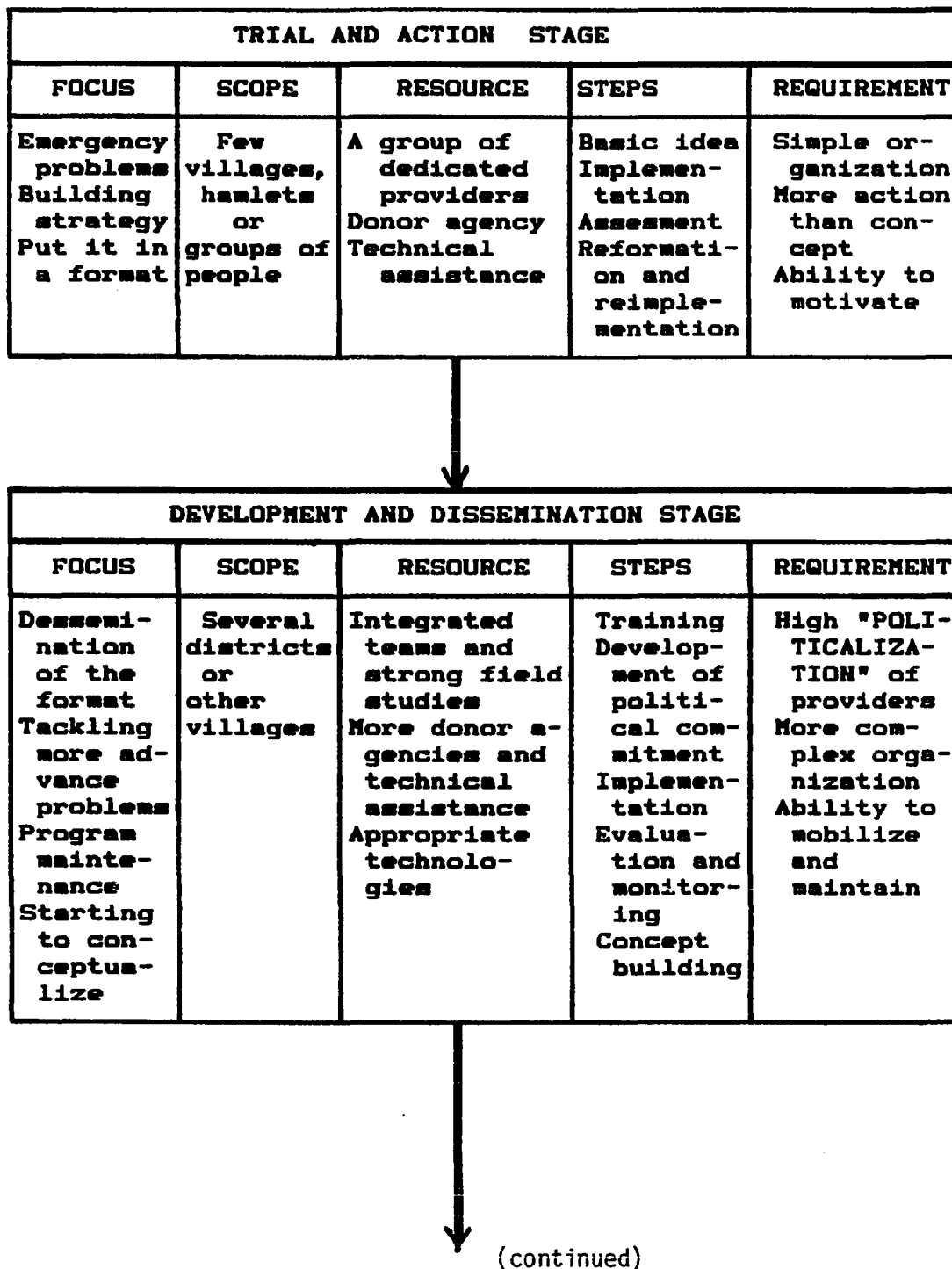



Figure 6.9. Stages in YPPSE Development and Their Features in the Banjarnegara Regency



CONSOLIDATION STAGE				
FOCUS	SCOPE	RESOURCES	STEPS	REQUIREMENT
Maturity conceptual framework of the program and the format Organization Development Program maintenance Action research	Regency or larger than regency	Integrated Development Teams Self-sufficient and selected qualified donor agencies High quality managers and members of the organization Advance technical assistance Advance evaluation and research Advance administration system	Training for the new providers and refresher for the providers Institutionalization of Political Commitment Resources development Evaluation, monitoring and research (including action research) Format and program expansion	Maintain horizontal and vertical "POLITICALIZATION" High quality of organizational management High creativity in developing self-resources Ability to facilitate and to conceptualize

Figure 6.9 (continued). Stages in YPPSE Development and Their Features in the Banjarnegara Regency

programs. This was due to the fact that the starting point of most programs begin with the needs expressed by the local community. In one hamlet of a village, the program of milk production was developed based on the meeting decision; in another hamlet goat or sheep development; in another village agriculture garlic development; in another village from another district nutrition, credit union, income generating and family planning development programs; village in the urban area raised "TRICYCLE" program; another district wanted to develop a disability program; in another one a health post with a credit union; in another, housing improvement; then water resources program for communities in the mountain area; irrigation programs for communities in the dry area and so on. There were more than 25 different activities mentioned by Rohde (1980), and in this research, there were 36 different activities outside of training and "KRING" system found which had been taken on by YPPSE. Although these were really amazing and one has to admire the YPPSE achievement, to have the idea that YPPSE should start with what people needed, in reality it was a kind of suicide. It is astonishing that donor agencies and technical assistance from the other NGOs continue to suggest that YPPSE develop yet other new programs instead of advising the YPPSE to focus on several useful programs. In the interviews, some of the donor agencies realized this practice overloaded activities, but they were happy when YPPSE found something new for them to sell. In addition, many NGOs, there were often two to three visits each week. This was a serious problem for YPPSE because with limited staff members, YPPSE had to use its staff to take the guests to the village, sometimes for a whole

day. Although it was good for promotion, frequent visitors caused boredom and waste of the providers' time.

The last factor was the "boomerang" effect of the program when it was adopted at the national level, and then spread out as a package to almost two-thirds of the villages in Indonesia. Fortunately, many of the villages in Banjarnegara were in that program. According to most of the village, district and regency providers, they had to repeat the development process of the program from the very beginning. In several villages used in this research, the old program including the administration, reporting and recording system had to be changed to the new system. There were several district and village providers who claimed that they were really confused owing to the uncertain situation and new instructions from the new program. Some providers claimed that they had to change the administration system, weighing card, reporting and recording system two to four times during the last three years.

Another program, the "Integrated Village Post," the new program package with immunization, oral rehydration, MCH, family planning and nutrition programs were carried out in 1984/1985. The idea was to create a "one-stop" post at the village level where those five programs were available. This was achieved by creating a mechanism for joint planning, implementation and supervision between the Ministry of Health and the National Family Planning Coordinating Board (BKKBN). The plan was to have at least one complete post for every village by 1986, while maintaining the present activities or posts until they were all transformed into the complete posts in the years to come.

Since there were some misinterpretations, or according to some HC's doctors, it was direct instruction from the Ministry of Health and "BKKBN," in some villages used in this research, there were some old health posts or nutrition and family planning programs that were stopped and then changed to the new approach. Some village volunteer health workers were confused and some of them did not want to continue, they perceived that all of their responsibilities would be taken back by the HC. Then, other programs that supported the health insurance scheme were also stopped. This meant that while some of them continued as independent and separate programs, others stopped.

It was interesting to note that the terms "PKMD" or "PHC" were not even mentioned in relation to this new program. In reality, this new approach was a conceptual and managerial breakthrough from the old "PKMD" model which was perhaps more compatible with the nature of the present health system. Rifkin (1986) described this new type of PHC as "Selected PHC."

In the National Health System mentioned in Chapter II, the major emphases were the reduction of infant and childhood mortality and the reduction of morbidity of several infectious diseases and nutritional deficiencies. The purpose of the integrated village post was effective delivery mechanism rather than to act as a catalyst in an overall development process. In the old "PKMD," the health sector was just an equal contributor, however, in the new "PKMD" it seemed that the health sector should take the leading role in this coordination. In the concept of community participation, it was no longer that the community played a critical role in determining their health needs

and then the health sector responding to the needs. On the contrary, community participation was a mechanism to get the community to utilize the service packages which were designed and delivered by the health system.

Of course, in Banjarnegara, as one of the pioneers of the old "PKMD" this was a completely different development philosophy. However, when this new program was instructed to be carried out, the YPPSE could not do anything, because of bureaucratic problems and the new program was a politically powerful national program to achieve the goal of national health system which should be carried out. The result, as mentioned before, was the "boomerang" effect that restricted the development of the original concepts of the program called "PKMD."

CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

Primary health care (PHC) forms the basis for the strategy of health for all by the year 2000 by using a comprehensive integrated team approach and full participation of the community. PHC has been adopted as an integral part of Indonesia's national health system and of the overall social and economic development of the community.

A PHC program has been carried out in Banjarnegara Regency on a pilot basis since 1972 and in the country as a whole, though sporadically, since 1979. The Banjarnegara program has manifested itself in several different kinds of activities such as village health insurance, village health posts, integrated nutrition programs, integrated village health posts, improved housing and sanitation and others. However, as has been observed by many experts in PHC, the implementation of this program is still not optimal, and wide scale replication will be even more complex.

This research study was carried out in Banjarnegara Regency, Central Java, because it represents one of the country's first combined PHC and total community development programs developed by either a government or non-governmental organization (NGO). The Banjarnegara experience was unique because it represented a combination of commitment and resources from the Government with the innovation, flexibility and enthusiasm of an NGO in developing a PHC program considered to be an integral part of the entire community development effort.

This study addressed several factors influencing the development of the PHC program in Banjarnegara Regency. Attention was directed toward obtaining significant and reliable information about the relationships among training; political commitment and "POLITICALIZATION"; knowledge, attitude and practice (KAP) of providers and communities; community participation in planning, implementation, budgeting and evaluation of PHC programs and community development; and their individual or combined effect upon health and health-related socio-economic (SE-RH) indicators. The conclusions obtained from this study raise important issues which can provide meaningful input to assist decision makers to improve the quality of PHC program implementation in Banjarnegara Regency in particular and Indonesia in general.

This chapter will be organized into four sections as follows: Conclusions; Recommendations to YPPSE and the Banjarnegara Regency administration; General recommendations regarding the relevance of the Banjarnegara experience for the dissemination of PHC and community development in Indonesia; and Recommendations for further research.

Conclusions

YPPSE model was considered appropriate for PHC and community development in Banjarnegara Regency. YPPSE was established in 1974 to assist the local government to face the challenges of community development in an atmosphere of budget stringency and insufficiency. Its development at that time was opportune since development expenditures were still quite low prior to the worldwide rise in oil prices of the mid-to-late 1970s which substantially increased government revenues, and subsequently development expenditures. Its existence

is still considered essential today as the reduced world demand for oil has severely constricted availability of financial resources for health and development.

YPPSE is a non-government organization or NGO, although most of its senior members are Government officials, and it maintains a special relationship with local Government. Hence, it is a quasi NGO which bridges the gap between other NGOs and Government, other NGOs and communities and communities and Government. YPPSE sets up flexible mechanisms to coordinate and manage the various Government and NGO projects from the regency level, and carries them out in the rural communities without sacrificing Government control over the overall program direction. YPPSE also prepares communities for PHC and community development programs through increasing their awareness about these programs, and eliciting their full and active participation as equal partners in programs affecting their communities.

Based upon the findings of this research study and their interpretations, the researcher has drawn the following conclusions:

1. "POLITICALIZATION" is defined as the degree to which political commitment toward PHC and community development by integrated teams of providers can be manifested and actualized. The composite variable "POLITICALIZATION" consists of six component variables: (1) the degree of the providers' commitment toward YPPSE philosophy; (2) the degree of the providers' involvement in planning implementation, budgeting and evaluation of PHC and community development programs; (3) the degree of YPPSE's flexibility of budgeting, delegation of authority and program priority; (4) the degree of the providers' involvement in the training program; (5) the degree of the providers' involvement

in the "KRING" system; and (6) the degree of the providers' attitude toward the future and goals of the YPPSE. In this research it was found that the high values for the composite variable "POLITICALIZATION" had a very strong correlation with high values for the composite variables for the KAP of the providers. From these findings it can be concluded that "POLITICALIZATION" is the most important factor increasing the KAP of the providers.

2. The canonical analysis also shows that the training composite variable is the second important variable which relates to the KAP of the providers. However, the canonical relationship between these two variables is weak which leads the researcher to conclude that the training variable works through "POLITICALIZATION" to influence the KAP of the providers rather than influencing it directly. This conclusion does not demean the importance of training to the YPPSE approach. The result of this study implies that training is a fundamental factor which serves as an entry point to reinforce the degree of "POLITICALIZATION" of the providers, but it is the "POLITICALIZATION" which actually has more influence on their KAP.

3. The concept of a "key role initiator" in the district level is an important factor in developing "POLITICALIZATION." The district administrator and HC doctor are the key role initiators who have most strongly influenced the degree of the providers political commitment toward the YPPSE philosophy. The mutual understanding and cooperation between the district administrator and the HC doctor have highly influenced the degree of the providers' involvement in the management functions of PHC as well as other "POLITICALIZATION" component

variables such as involvement in training management, involvement in the "KRING" system, and the providers' attitude toward the future of PHC and community development.

4. The "KRING" system is an important factor in reinforcing the "POLITICALIZATION" composite variable. The district and regency providers stay together in the village during the "KRING" and experience the reality of community life. From the researcher's observations this opportunity which lasts for at least three days creates a degree of intimacy and understanding among the regency and district providers which naturally strengthens their political commitment toward the PHC and community development. Conversely this research also demonstrated that the "KRING" system created by YPPSE is one of the manifestations of "POLITICALIZATION" which strengthens the interdepartmental commitment toward the integrated team approach to PHC and community development at the regency, district and community levels. Hence, the new and unique approach embodied in the "KRING" system mutually reinforces the "POLITICALIZATION" of providers, their commitment toward an integrated approach toward PHC and community development, an understanding and empathy towards problems faced by villagers and the community's participation in the planning, budgeting and implementation of PHC and community development programs.

5. The providers at the regency and district level had significantly different perceptions regarding the quality of training provided by YPPSE. These differences were primarily caused by the level of professionalism of trainers at the district and regency level and the degree of education of the providers; and probably result from

the fact that professional trainers conduct regency level training while non-professionals are frequently called upon on an ad-hoc basis to provide the district level training.

6. The findings indicate that, using the YPPSE system, increased KAP of the providers will correlate highly with increased KAP of the communities and subsequently with increased community participation. However, the study found that there were several other intervening factors which influenced this relationship as follows: (a) the degree of consolidation of the integrated district teams, with those teams being most effective where the key role initiators are both HC doctor and district administrator; (b) the degree of social preparation by the district integrated teams; (c) the "KRING" system.

7. The YPPSE PHC and community development approach correlates positively and strongly with improvements in several health indicators found in this research among others, they are: nutrition status of under-five children, index of weight increase of under-five children, housing sanitation, sanitation facilities, housing materials, total trees in the communities' gardens, and food consumption on the day of observation as well as monthly food habits.

8. The YPPSE PHC and community development approach achieves this effect through the improvement of community participation in planning, implementation, budgeting and total community involvement in PHC and community development programs.

9. The YPPSE approach correlates positively with several SE-RH indicators. However, it is not clear whether this correlation is due

to the YPPSE approach directly or to other intervening variables. The SE-RH variables which show some correlation are total monthly income per capita, total monthly expenditure per capita, education and literacy level of household and spouse, value of ownership, and bedroom space per capita. The canonical analysis also indicates that these SE-RH variables also correlate to the KAP of the communities. What is not clear from these findings is whether the YPPSE approach influences these SE-RH variables, or whether inadvertent pre-selection criteria favored the inclusion of villages with higher SE-RH variables into the YPPSE program. The researcher hypothesizes that the latter is probably the case, and the SE-RH variables are intervening variables which favor higher community KAP. Area of identification (geographical area), mountain or plain, seems to be an important intervening variable effecting the SE-RH indicators.

10. There is a significant difference in health and SE-RH indicators mentioned in conclusion no. 8 in villages assisted by YPPSE as compared to those indicators in the villages which have not yet been assisted by the YPPSE.

11. This research also found that there are mostly no significant differences in these health and SE-RH indicators based upon the length of YPPSE involvement, whether 2-5 years or more than 5 years.

12. Three key of personality types among leaders are considered to be the most important elements in successfully carrying out "POLITICALIZATION." The first is a charismatic individual with ability as a manager and a thinker; second, is the "BAPAK" or 'father' figure,

an individual who, by virtue of his position and reputation, has authority to provide strong leadership and serve as a role model for other providers; and the third element is a diligent, dedicated and enthusiastic core of providers to carry out the pHC and community development program. These three types of providers should exist simultaneously and work together as a team.

In the YPPSE model, the Chief of the Banjarnegara Regency Health Office has emerged as the charismatic manager, thinker, and leader. Through his role as the 'father' figure, the Regent of Banjarnegara Regency promoted YPPSE and its philosophy and legitimated its existence. The dedication of a core group of district administrators and HC doctors provided the impetus for carrying out the YPPSE approach. Without their joint contributions, the researcher concludes that the degree of "POLITICALIZATION" of the providers would be significantly compromised.

The first component variable of the composite variable of "POLITICALIZATION," or degree of commitment toward philosophy of YPPSE was high at the regency area since the Regent actively motivated the providers. At the district level, the district administrator and HC doctor strongly influenced the degree of providers' commitment toward the YPPSE philosophy.

The second component variable or the degree of involvement in planning, implementation, budgeting and evaluation in regency level is dependent upon the ability of the charismatic manager and thinker. In Banjarnegara, where the Regent has delegated some of his authority and prestige to the executive chairman of the YPPSE the providers'

degree of involvement in planning, implementation, budgeting and evaluation is adequately high. At the district level, the example of mutual understanding between the district administrator and HC doctor has a strong influence upon the degree of providers' involvement in those management components in PHC.

The same reasons seem to explain the flexibility of delegation of authority, money, and program priority as well as other "POLITICAL-IZATION" variables, involvement in training management, involvement at the "KRING" system as well as the attitude toward future of PHC and community development.

13. There are several other factors found in this research that influence the degree of "POLITICALIZATION" of YPPSE such as the assistance of other NGOs and universities, YPPSE's sensitivity regarding its relationship with Government and willingness to give all credit to the government, the opportune timing for establishing YPPSE, and the legacy of strong "gotong royong" or community self-help existing within the local culture.

14. From the researcher's observations, it seems that the change of status of this organization from a quasi NGO to a pure NGO is diminishing the degree of "POLITICALIZATION" of YPPSE, YPPSE continues to exist because most of the governmental officials and community members surveyed perceived that they still need YPPSE assistance to achieve the goal of health and development in Banjarnegara Regency, are supportive of its existence, and recognize its accomplishments. However, some reservations and suspicions seem to be surfacing, especially among those providers who used to be closely involved with

YPPSE before it assumed full NGO status. Hence, the researcher concludes that YPPSE will function better as a quasi-NGO than a full NGO because full NGO status establishes some distance between YPPSE and Government and jeopardizes the special relationship that YPPSE has traditionally enjoyed with Government.

15. The YPPSE PHC and community development approach is an effective and socially appropriate way to optimize health and development resource allocation, maximize resource utilization and effect real changes in community health status.

16. The regency is a very important administrative unit in which to foster the process of "POLITICALIZATION." The district is a very important administrative unit for PHC and community development implementation especially with regard to the performance of the district integrated team and its eventual success in carrying out the PHC and community development programs in the rural area. Finally, the village is the most important administrative unit for reinforcing "POLITICALIZATION," and engendering community participation.

In summary, this research study concludes that, although there are identifiable weaknesses requiring management and organizational attention, YPPSE has assisted the Banjarnegara government and community to improve the actualization of political commitment and integrated team performances as well as to provide informal training for providers and communities. The result has been improved knowledge, attitude and practice of the providers and communities, which in turn has elicited greater community participation and involvement in planning, budgeting and implementation of their own PHC and community development

programs. The final result has been improved nutrition status of under-five children, better housing and sanitation, improved sanitation facilities, better food preferences and habits, the introduction of new crops to provide the community with a source of supplemental nutritious food or additional income, and the introduction of some appropriate technologies for PHC and community development.

Recommendation to YPPSE and Banjarnegara Regency

This research was conducted in Banjarnegara Regency, Central Java, Indonesia. The conclusions of this research, of course, have particular relevance for the qualitative improvement of PHC and community development in this area. Based upon the findings, interpretations, and conclusions of this research, some suggestions to improve the quality of PHC and community development in Banjarnegara can be formulated as follows:

1. YPPSE should consider the possibility of reverting to the status of a quasi-NGO especially since the decree which bestows such status is still valid. This organizational transformation will increase YPPSE's cooperation with local government and allow for a more open managerial style.
2. Efforts should be made to improve the managerial, administrative and training skills of YPPSE personnel. New staff with these skills will be needed to assist YPPSE as it moves into its third phase of organizational development as mentioned in this research.
3. An on-line recording and reporting system should be developed which can provide timely monitoring information and can enhance YPPSE's

ability to evaluate the outcomes of its activities. Evaluation was recognized as a management deficiency by both YPPSE and non-YPPSE providers in this study.

4. The training program for regency and district providers needs more emphasis in terms of frequency and quality in light of the important part training plays in the "POLITICALIZATION" process, especially because of the high mobility of district and regency providers.

5. The understanding and mutual cooperation between district administrators and the HC doctors should be improved and maintained by encouraging a closer relationship between the Banjarnegara Health Officer and the Regent.

6. Efforts should be started to pursue financial self-sufficiency and independence from too many external donor resources by identifying local and other indigenous resources which can provide long-term sponsorship and permanent income for YPPSE.

7. YPPSE should build better relationships with universities and research institutions to conduct action research which can provide new insights regarding program quality and direction and especially with regard to strategies to reach the poorest of the poor in the rural areas.

8. More in-service training should be provided for YPPSE staff members especially in practical management of PHC and community development, accounting and simple statistical technique and analysis.

9. Programs directed toward under-five growth surveillance, immunization, family planning, appropriate simple treatment of diseases and injuries, "arisan," credit union, improvements in housing and sanitation facilities, health education and the introduction of new crops for additional income generation will achieve the best results in improving some of the indicators of health status found in this study.

10. YPPSE should work more closely with Banjarnegara Health Office and the Banjarnegara National Family Planning Coordinating Board to carry out their integrated health and family planning as well as integrated health post programs to prevent duplication of programs and confusion among the providers and the communities.

11. The close relationship between YPPSE and the Family's Welfare Movement (PKK) should be encouraged since most of the correlations established by this research relate to programs already mentioned in the "Sepuluh Segi Pokok PKK" or the ten major programs of Family's Welfare Movement.

12. The development of future manpower for YPPSE who will be needed to continue the YPPSE's program should begin now.

13. Special attention should be given to motivating and educating the Banjarnegara Regency Health Office and HC staff members in PHC and community development.

14. The "KRING" system should be supported and expanded to be more effective and efficient in its management and steps should be taken to assure its continuity.

15. The YPPSE should work with those donor agencies or NGOs that can really assist the Banjarnegara community rather than with NGOs more concerned with personal benefits or the publicity which may accrue to their organizations from their assistance.

16. Promotion of good and dedicated providers should be considered in addition to "psychological" rewards.

Recommendations for Central Government

1. The involvement of local indigenous NGOs at the regency level should be encouraged and supported as partners to local Government in implementing PHC and community development programs.

2. National level NGOs should be encouraged to work through local indigenous NGOs and local Government in providing health and development assistance to rural peoples.

3. The YPPSE PHC and community development model should be tested in other settings to assess its potential for replicability on a wider scale.

4. Special efforts should be made to orient, educate and motivate HC doctors in practical preventive medicine, primary health care and community development from the very beginning of their education and prior to their deployment to rural health centers.

5. Consideration should be given to strengthening the preventive medicine, nutrition, public health and community development orientation of medical school curricula to better prepare physicians technically and philosophically for their work in the health centers.

6. Joint HC doctors and district administrators training programs should be developed and tested whose purpose is to encourage their cooperation and collaboration, and to facilitate the development of integrated PHC and community development teams.

7. Some culturally acceptable variations of the "KRING" system should be developed and tested to explore their potential for wider replicability.

8. Cooperation among the triangulation of Department of Health, Department of Home Affairs especially the Family's Welfare Movements and the National Family Planning Coordinating Board should be demonstrated in a more practical way in the process of actualization of their political commitment expressed on paper.

9. More research in PHC and community development especially in specific cases similar to the Banjarnegara program should be encouraged.

10. Special incentives should be provided to the HC doctors and district administrators who are interested in the development of rural PHC and community development.

Recommendations for Future Research

The experience provided from this research highlights several issues which are considered to be important for future investigations as follows:

1. This study cannot establish direct causality between the YPPSE approach and the SE-RH indicators nor the relationship between individual component variables. The impact of this relationship could

be better analyzed quantitatively through path analysis or cohort qualitative study with participant observation.

2. A comparative cost benefit analysis between the YPPSE program and other Government or NGO programs in areas other than Banjarnegara regency.

3. The cost effectiveness and efficiency of YPPSE's "KRING" system as well as the sustainability of "KRING" system following discontinuation of external funding.

4. The testing of the validity and reliability of the "COMPOSITE" variables used in this research in areas other than Banjarnegara Regency.

5. A study similar to this one but which uses a regency other than Banjarnegara as a control area.

APPENDIX A

OBSERVATIONAL GUIDELINES H-1 (COMMUNITY LEVEL)

Date of observation: Month, Day, 1985.

Name of observer:

Observer's signature:

Supervision:

1. Date of supervision: Month, Day, 1985.

Name of supervisor:

Signature of supervisor:

Action to be taken: Accepted/Reobserve for page /

Cross-check/Revise page /Eliminate from survey.

2. Date of supervision: Month, Day, 1985.

Name of supervisor:

Signature of supervisor:

Action to be taken: Accepted/Reobserve for page /

Cross-check/Revise page /Eliminate from survey.

3. Date of supervision: Month, Day, 1985.

Name of supervisor:

Signature of supervisor:

Action to be taken: Accepted/Reobserve for page /

Cross-check/Revise page /Eliminate from survey.

4. Date of supervision: Month, Day, 1985.

Name of supervisor:

A. Housing Conditions and Sanitary Facilities

1. The Wall Materials of the Following Rooms is Made by:

No	Materials	Living-room	Bedroom	Kitchen	Other rooms*)
1	Wood				
2	Wood and River Stone				
3	Wood and Brick				
4	Wood + Bamboo				
5	Brick				
6	River Stone				
7	Bamboo				
8	Other *)				
9	Do not know				

Please mark "X" for the answer in the proper column

*) Specify

NOTE/COMMENT:

.....

2. The Floor Materials of the Following Rooms is Made by:

No	Materials	Living-room	Bedroom	Kitchen	Other Rooms*)
1	Soil				
2	Cement				
3	Tile				
3	Wood				
4	Bamboo				
5	Brick				
6	River Stone				
7	Other *)				
8	Do not know				

Please mark "X" for the answer in the proper column

*) Specify

NOTE:

.....

3. The Roof Materials of Rooms is Made by:

No	Materials	Living-room	Bedroom	Kitchen	Other Rooms*)
1	Tiled without glass roof and the room is dark				
2	Tiled without glass roof but the room is not dark				
3	Tiled with glass roof and the room is not dark				
4	Tiled with glass roof but the room is still dark				
5	Palm leave, fibre, straw or hay and the room is dark				
6	Palm leave, fibre, straw or hay and the room is not dark				
7	Corrugated iron and the room is not dark				
8	Corrugated iron and the room is not dark				
9	Other **)				

Please mark "X" for the answer in the proper column

*) Specify
 **) Specify

NOTE/COMMENT:

4. The Cleanliness and Ventilation of the Following Rooms:

No	Condition of	Living-room	Bedroom	Kitchen	Other Rooms*)
	<u>Cleanliness</u>				
1	Dry & dusty				
2	Dry & clean				
3	Wet & no mold				
4	Wet & moldy				
5	Muddy				
	<u>Ventilation</u>				
1	No smell and no stuffiness				
2	Smelly but no stuffiness				
3	Stuffiness but no smell				
4	Smelly and stuffiness				
5	Very smelly & stuffiness				

Please mark "X" for the answer in the proper column

*) Specify

NOTE/COMMENT:

5. Do you see cowdung and compost in the following rooms?

No	Condition	Living-room	Bedroom	Kitchen	Other Rooms*)
	<u>Cowdung</u>				
1	Plenty				
2	Few				
3	None				
	<u>Compost</u>				
1	Plenty				
2	Few				
3	None				

6. How many bedrooms do you see in this house?

Circle the best answer!

- 1. None
- 2. One
- 3. Two

- 4. Three
- 5. Four
- 6. More than four

5. The Windows of the Following Rooms

No	Conditions	Living-room	Bedroom	Kitchen	Other Room*)
1	Wood, has never been opened				
2	Wood, has often been opened				
3	Glass				
4	Other **)				
5	No window				

Please mark "X" for the answer in the proper column

*) Specify

***) Specify

6. Source of Water for Drinking

Circle only the best answer for the following:

- a. Superficial hand pump well
- b. Deep hand pump well
- c. Well with cemented lip
- d. Well with bamboos lip
- e. Well without lip
- f. Tap water source (spring) with cemented wall and iron or plastic pipe
- g. Tap water source (spring) without cemented wall but it uses iron or plastic pipe
- f. Tap water source (spring) with cemented wall but without iron or plastic pipe
- g. Tap water source (spring) without cemented wall and without iron or plastic pipe
- h. Clear/pure river without latrine
- i. Clear/pure river with latrine
- j. Dirty river
- k. Other (.....)
- l. None

The source of water drinking was established on: (month), and in : (year); by.....

Distance from the house: meters

Was there any other source of water drinking before one mentioned above? Answer: (choose from the above list of source of water drinking). When? Mo. Yrs... Reason why they do not use the old one anymore?

7. Sanitation Facilities:

No	Sanitation Facilities	Circle Only the Best Answer for the Following		Distance in meters from:	
		Kind of Sanitation Facilities	Conditions of Sanit. Facilities	House	Clean Water Source
1	Bathing room	1. Private 2. Collective (river) 3. Collective (other) 4. Other	1. Dry floor & mosquito larva (+) 2. Dry floor & mosquito larva (-) 3. Wet floor & mosquito larva (+) 4. Wet floor & mosquito larva (-)		
2	Latrine	1. Private 2. Collective (river) 3. Collective (fish-pond) 4. Collective (INPRES) 5. Other	1. The latrine hole is closed by something 2. The latrine hole is not closed by something		

8. The Number of Cattle Do You See:

No	Kind of Cattle	Total no.	Explain Stable Condition
1	Buffalo/Cow		... m X ... m = m ²
2	Goat/Sheep		Location:
3	Chicken/duck		Distance to house: m
4	Rabbit		Ventilation:
5	Other		Cleanliness:

9. Fishpond

- a. m. X m. = m2.
- b. Kind of Fish:
- c. Number of Fish:
- d. Where did you get the fingerlings?
- e. When did you get/buy them?
- f. Do you see any human faeces in the pond?
- g. Other:

10. Food Pattern During the Day of Observation:

Please circle the right one of the following food pattern:

- a. Rice Yes / No
- b. Corn Yes / No
- c. Cassava Yes / No
- d. Other carbohydrate source Yes / No
- e. Vegetable protein Yes / No
- f. Animal protein Yes / No
- g. Dark green leafy Yes / No
- h. Kind of nuts Yes / No
- i. Tomato/carrot Yes / No
- j. Colorful fruit Yes / No
- k. Milk Yes / No
- l. Other (.....) Yes / No

11. Please list of food given to under-five year old children based upon your observation:

Food Classification	Age Classification	
	0 - 1 year	>1 - 5 years
Carbohydrate		
Animal Protein		
Vegetable Protein		
Vegetables		
Fruits		
Breast feeding		
Other milk		
Other		
.....		
.....		

NOTE: Write down something that is special in your observation about how the family prepares food for today's lunch or dinner!

.....

.....

12. Personal Hygiene and Observed Symptom of Illnesses
 (Mark X in for the right answer in the proper column)

No	Personal Hygiene and Symptom of an Illness	Children age of 6 - 12 years number:					Children age of 0 - 5 years number:					
		1	2	3	4	5	1	2	3	4	5	
1	Hair disorder											
2	Runny Nose											
3	OMP											
4	Conjunctivitis											
5	Skin disorder											
6	Dirty nail											
7	Frog belly											
8	Pale											
9	Dirty feet											
10	Other											
											
											

If among the children mentioned above and other household members there are sick person as defined in the criteria of sick. Write them down and consult with the supervisor and researcher for further diagnosis!

13. Household Participation in PHC and Community Development

- a. Name of activities:
- Household members involve:
- Position in the activities:
- Management component that he/she is involved:
 - Planning:.....
 - Implementation:
 - Budgeting:
 - Evaluation:
- b. Name of activities:
- Household members involve:
- Position in the activities:
- Management component that he/she is involved:
 - Planning:.....
 - Implementation:
 - Budgeting:
 - Evaluation:

- c. Name of activities:
 Household members involve:
 Position in the activities:
 Management component that he/she is involved:
 - Planning:.....
 - Implementation:
 - Budgeting:
 - Evaluation:
- d. Name of activities:
 Household members involve:
 Position in the activities:
 Management component that he/she is involved:
 - Planning:.....
 - Implementation:
 - Budgeting:
 - Evaluation:
- e. Name of activities:
 Household members involve:
 Position in the activities:
 Management component that he/she is involved:
 - Planning:.....
 - Implementation:
 - Budgeting:
 - Evaluation:
- f. Name of activities:
 Household members involve:
 Position in the activities:
 Management component that he/she involve:
 - Planning:.....
 - Implementation:
 - Budgeting:
 - Evaluation:
- g. Name of activities:
 Household members involve:
 Position in the activities:
 Management component that he/she involve:
 - Planning:.....
 - Implementation:
 - Budgeting:
 - Evaluation:
- h. Name of activities:
 Household members involve:
 Position in the activities:
 Management component that he/she involve:
 - Planning:.....
 - Implementation:
 - Budgeting:
 - Evaluation:
- i. Name of activities:
 Household members involve:
 Position in the activities:

Management component that he/she involve:

- Planning:.....
- Implementation:
- Budgeting:
- Evaluation:

j. Name of activities:

Household members involve:

Position in the activities:

Management component that he/she involve:

- Planning:.....
- Implementation:
- Budgeting:
- Evaluation:

k. Name of activities:

Household members involve:

Position in the activities:

Management component that he/she involve:

- Planning:.....
- Implementation:
- Budgeting:
- Evaluation:

l. Name of activities:

Household members involve:

Position in the activities:

Management component that he/she involve:

- Planning:.....
- Implementation:
- Budgeting:
- Evaluation:

14. Please write down everything that related to this HH activities in PHC and Community development in your observation which are not covered by this guideline in the back of this page. If there is not enough space, write it down in the back of other pages!

15. Please do not forget to write down your observation in each community activity (what, when, where, why and how) and do not forget to write something that is missing or over as compared to the standard activity you got in the training! Write them down in your yellow note!

APPENDIX B
QUESTIONNAIRE M-2 (COMMUNITY LEVEL)

Date of interview: Month, Day, 1985.

Name of interviewer:

Interviewer's signature:

Supervision:

1. Date of supervision: Month, Day, 1985.

Name of supervisor:

Signature of supervisor:

Action to be taken: Accepted/Reinterview for page /

Cross-check/Revise page /Eliminate from survey.

2. Date of supervision: Month, Day, 1985.

Name of supervisor:

Signature of supervisor:

Action to be taken: Accepted/Reinterview for page /

Cross-check/Revise page /Eliminate from survey.

3. Date of supervision: Month, Day, 1985.

Name of supervisor:

Signature of supervisor:

Action to be taken: Accepted/Reinterview for page /

Cross-check/Revise page /Eliminate from survey.

4. Date of supervision: Month, Day, 1985.

Name of supervisor:

Signature of supervisor:
Action to be taken: Accepted/Reinterview for page/
Cross-check/Revise page/Eliminate from survey.

Sample cross-check:

Date of cross-check: Month, Day, 1985.
Name of supervisor:
Signature of supervisor:
Action to be taken: Accepted/Reinterview for page/
Cross-check/Revise page/Eliminate from survey.

Final checking by researcher:

Date of final checking: Month, Day, 1985.
Action to be taken: Accepted/Reinterview for page/
Cross-check/Revise page/Eliminate from survey.

Household (HH) Identification:

I. Name of head of household: Last name :
First name :

II. Household code:/...../...../...../
HH no. Sub-village Village District

III. Area of identification: 1. Mountain 2. Plain

IV. Development identification:

- 1. Developed by Government & others, without YPPSE
- 2. Developed by Government & others + YPPSE 2-5 yrs.
- 3. Developed by Government & others + YPPSE > 5 yrs.



A. Vital Information on Each Household's Members

Family size: persons

No. of child bearing age couple in this household:
couple/couples.

No. of children under-five years old: child/children

No	Name of HH Member	Sex*)	Age Last Birthday	Place of Birth**)	Relation to HH***)	Marital St.****)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
13						
14						
15						

.....continued on page 4

Note: HH members are included head of the household
Choose only the right answer and write only the code number
of the right answer for the following subjects:

*) Sex:

1. Male;
2. Female

**) Place of birth:

1. In the same village
2. Another village, but still in the same district, regency, and province
3. Another village and district but still in the same regency and province
4. Another regency but still in the same province
5. Another province
9. Do not know or no answer

***) Relation to household:

1. Child; 2. Wife/Husband;
3. Parent; 4. Others;
9. No answer

****) Marriage status:

1. Married; 2. Living together;
3. Separate; 4. Divorce;
5. Widow; 6. Other;
9. No answer

Continuation from page 3

No	Education- al Level(c)	Length of Educ. **)	Illiteracy Level ***)	Occupation ****)	
				Main	Additional
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
13					
14					
15					

.....continued on page 5

Choose only one answer and write only the code number of the right answer of the following subject.

*) Education level:

1. No school at all;
2. Elementary school 1-3 grade;
3. Elementary school 4-6 grade;
4. Graduated elementary school; 5. Junior high school; 6. Graduated junior high school; 7. Senior high school; 8. Graduated senior high school;
9. Academy; 10. University; 11. Other; 99. No Answer.

***) Length of education in years which is counted by the highest education completed by each respondent in years. For example, if the respondent finished third grade of elementary school, the right answer would be 3 years. However if the latest education was third grade elementary school and the respondent did not finish it, then the right answer would be 2 years.

****) Literacy level:

1. Be able to read and write Indonesian language only;
2. Be able to read and write Indonesian language, Javanese and/or Arabic language;
3. Be able to read and write Javanese and/or Arabic language only;
4. Illiteracy; 9. No Answer.

*****) Occupation:

1. Farmer(owner); 2. Farmer(worker);
3. Farmer(contractor); 4. Farmer(other); 5. Paid worker;
6. Government official; 7. Village official;
8. Army; 9. Businessman/vendor; 10. Retired;
11. Other occupations; 12. No job; 99. No answer.

Note: Main occupation is the most productive occupation.

B. Morbidity, Mortality and Birth**1. Morbidity, aid preference, degree of severity and cost of aid**

Continuation from page 4.

No	Ever Sick During Last Month *)	Symptoms of Illness **)	Degree of Severity ***)	Estimate of Diagnosis ****)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
Total =				

..... continued on page 6

- *) Ever sick during last month: 1. Yes; 2. No
9. No answer
- ***) Symptom of illness: 1. Fever; 2. Cold; 3. Cough; 4. Runny nose; 5. Pain all of the body; 6. Painfully tired; 7. Diarrhea; 8. Vomiting; 9. Headache; 10. Stomachache; 11. Convulsion; 12. Shortness of breath; 13. Red spots on the body; 14. Itching; 15. Inflamed eye; 16. Toothache; 17. Earache; 18. Inflamed-skin; 19. Wound & bleeding; 20. Bone fracture; 21. Luxation; 22. Pain in the joint; 23. Worm; 24. Coughs up blood; 25. Blood in vomitus; 26. Incoherent; 27. Pale; 28. Nose-bleeding; 29. Problem of urination; 30. Low back pain; 31. Muscle pain and neuralgia; 32. Others (specify on the back of this questionnaire); 99. No symptoms
- ****) Degree of severity: 1. Sick, didn't reduce appetite and daily activities; 2. Sick, appetite and daily activities were decreased; 3. Sick, no appetite and bedridden.
- *****) Estimated diagnosis: by supervisor (physician) after doing some cross-check interview and looking at facts such as HC, private physician and hospital diagnoses.

Continuation from page 5

No	First Aid Preference *)	Initiated by **)	Reason ***)	Duration of Illness ****)	Cost ****)	Follow up		
						1*)	2*)	3*)
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

Choose only one answer and write only the code number of the right answer the following subjects: (except cost and duration of illness)

- *) First aid preference:
 1. Hospital; 2. HC; 3. Private MD.; 4. Nurse;
 5. Midwife; 6. Village volunteer health worker;
 7. Traditional birth attendant; 8. Traditional healer; 9. Drug store; 10. Market or shop;
 11. Self-treatment; 12. Others; 99. No answer
- ***) First aid was initiated by: 1. Husband; 2. Wife; 3. Grandfather/mother; 4. Other HH member; 5. Neighbor; 6. Village volunteer health worker; 7. Other; 8. None; 9. No answer
- ****) Reason for first aid preference: 1. No other treatment available; 2. No money; 3. Severe degree of illness; 4. Mild or moderate degree of illness; 5. By chance; 6. The closest place; 7. Transportation problem; 8. Geographic inaccessibility; 9. Tradition; 10. Confidence; 11. Other; 12. No reason; 13. Do not know; 99. No answer
- *****) Duration of illness: approximate length of time from the onset of illness until the sick person felt well. It has to be written in days.
- *****) Cost: how many 'rupiahs' was spent by respondent for the first aid.
 - 1*) Follow up preference, see the criteria for first aid preference.
 - 2*) Recover (1) or not yet recovered (0)
 - 3*) Cost in 'rupiahs' for the follow up

2. Mortality and birth during this last 5 years

Marriage, Birth & Mor- tality	Household Head	Other Couple 1	Other Couple 2	Total in the HH.
Age at time of marriage of: a. husband b. wife				
Live born baby/babies a. male number b. female number c. total number				
Children still alive a. male number b. female number c. total number				
Children who died befo- re the age of 1 month a. male number b. symptoms c. year of death d. female number e. symptoms f. year of death g. total number				
Children who died betw. the age 1 mo. -12 mo. a. male number b. symptoms c. year of death d. female number e. symptoms f. year of death g. total number				
Children who died betw. the age >1 yr. -5 yrs. a. male number b. symptoms c. year of death d. female number e. symptoms f. year of death g. total number				
Still births a. male number b. symptoms c. year d. female number e. symptoms f. year g. total number				

C. Monthly Income and Expenses**1. Earned Income by Family Members in Rupiah (Rp.)**

No	Name	Type of Monthly Income*)		Total Monthly Earned Income
		Cash	Other **)	
1				
2				
3				
4				
5				
6				
Total Household				

*) Total monthly income should be calculated by using both income from main and additional occupations. For each occupation there are some specific questions to be answered. For farmer (owner and contractor) area of agricultural lands, kind of crops planted, production per hectare or local measurement, local prices and harvesting times per year should be asked. For farmer (worker) and paid worker, wage per day/week/month and working days per month should be asked. Government officials, village officials and military as well as retired persons, should be asked about their position or their last position, work time, official rank or last official rank (retired persons) but not salary because this can be seen on the list of government salaries. Businessman or seller should be asked about their capital and assets.

***) Converted to 'Rupiah' by their monetary values according to the local market price

2. Income: Two, Five and Ten Years Ago

No	Level of Income	2 Yrs. Ago	5 Yrs. Ago	10 Yrs. Ago
1	Lower than now			
2	The same as now			
3	Higher than now			
4	Do not know			

Put X mark in the right answer

3. Monthly Expenses of Household in Rupiah (Rp.)

No	Type of Expenses	Monthly Expenses in Rp.
1	Food	
2	Health	
3	Children's schooling	
4	Transportation	
5	Clothes	
6	Secondary things	
7	Gifts to relatives	
8	Savings	
9	Taxes	
10	Agriculture	
11	Electricity/lighting	
12	Fuel/firewood	
13	Contributions	
	a. Burial service	
	b. Village health insurance	
	c. Nutrition program	
	d. Village council	
	e. Women welfare movement	
	f. Agriculture club	
	g. Wedding presents	
	h. Other ceremonies	
	i. Mosque/religious	
	j. Other contributions	
14	Other expenses	
Total monthly expenses in Rp. *)		

Note:

Expenses that cannot be calculated in monthly based should be counted yearly and then divided by 12. For example: cost of clothing, agriculture expenses, secondary things and health expenses.

*) Rp. = Rupiah.

4. Monthly Expenses: Two, Five and Ten Years Ago

No	Level of Expenses	2 Yrs. Ago	5 Yrs. Ago	10 Yrs. Ago
1	Lower than now			
2	The same as now			
3	Higher than now			
4	Do not know			

Put X mark in the right answer

5. Planning for Income Improvement & Reduction of Expenses

- = How do you plan to improve family income?
-
-
-
- = What is your plan for saving money?.....
-
-
-
- = How do you plan to economize in your monthly spending?
-
-
-
- = Please tell me what are your steps for prioritizing your expenditures!
-
-
-

6. Rural Community Activities That Improved Both Community Health and Socio-economic Conditions

- a. Are there rural community activities that improved both community health and socio-economic conditions? Circle only one best answer!
1. No; 2. Yes; 3. Do not know; 9. No answer
- b. If YES, list the activities mentioned above starting from the most improved to the least improved respectively!.....
-
- c. What are the reasons? or Why have they improved the socio-economic and health conditions of the community?
-
- d. If NOT (no improvements resulted), what are the reasons? or why?
-
-

7. Suggestions

Please list some suggestions for the Government and other organizations about how to be more effective in improving socio-economic and health conditions in rural communities for each of the following items:

- a. Planning:
- b. Implementation:
- c. Budgeting:
- d. Evaluation:
- e. Community participation:
- f. Training:
- g. Trainers:
- h. Trainees:
- i. Services:
- j. Transportation:

D. Housing Conditions and Sanitary Facilities

1. The Wall Materials of Rooms: Two, Five and Ten Years Ago

No	Materials	Living R.			Bed R.			Kitchen			Other R		
		2	5	10	2	5	10	2	5	10	2	5	10
1	Wood												
2	Wood and River Stone												
3	Wood and Brick												
4	Wood + Bamboo												
5	Brick												
6	River Stone												
7	Bamboo												
8	Other *)												
9	Do not know												

Please mark "X" for the answer in the proper column

Note: 2, 5 and 10 mean 2, 5 and 10 years ago

*) Specify

.....

.....

.....

2. The Floor Materials of Rooms: Two, Five and Ten Years Ago

No	Materials	Living R.			Bed R.			Kitchen			Other R		
		2	5	10	2	5	10	2	5	10	2	5	10
1	Soil												
2	Cement												
3	Tile												
3	Wood												
4	Bamboo												
5	Brick												
6	River Stone												
7	Other *)												
8	Do not know												

Please mark "X" for the answer in the proper column

Note: 2, 5 and 10 mean 2, 5 and 10 years ago

*) Specify

.....

.....

.....

3. The Roof Materials of Rooms: Two, Five and Ten Years Ago

No	Materials	Living R.			Bed R.			Kitchen			Other R		
		2	5	10	2	5	10	2	5	10	2	5	10
1	Tiles without glass roof												
2	Tiles with glass roof												
3	Corrugated iron												
4	Palm leaves, fibre, straw or hay												
5	Other *)												
6	Do not know												

Please mark "X" for the answer in the proper column

Note: 2, 5 and 10 mean 2, 5 and 10 years ago

*) Specify

4. The Condition of Rooms Two, Five and Ten Years Ago

No	Condition	Living R.			Bed R.			Kitchen			Other R		
		2	5	10	2	5	10	2	5	10	2	5	10
1	Lighting												
	a. Darker												
	b. Similar												
	c. Brighter												
2	Don't know												
	Ventilation												
	a. Less												
	b. The same as now												
3	c. More												
	d. Don't know												
	Cleanliness												
	a. Dirtier												
3	b. Similar												
	c. Cleaner												
	d. Don't know												

Please mark "X" for the answer in the proper column

Note: 2, 5 and 10 mean 2, 5 and 10 years ago

*) Specify

5. The Windows of Rooms: Two, Five and Ten Years Ago

No	Conditions	Living R.			Bed R.			Kitchen			Other R		
		2	5	10	2	5	10	2	5	10	2	5	10
1	The same as now												
2	No windows												
3	Less windows than now												
4	Other *)												
5	Do not know												

Please mark "X" for the answer in the proper column

Note: 2, 5 and 10 mean 2, 5 and 10 years ago

*) Specify

6. Sanitation Facilities: Two, Five and Ten Years Ago

No	Conditions	Bathing R.			Latrine			Water R.			Other		
		2	5	10	2	5	10	2	5	10	2	5	10
1	Worse than now												
2	The same as now												
3	Better than now												
4	Other *)												
5	Do not know												

Please mark "X" for the answer in the proper column

Note: 2, 5 and 10 mean 2, 5 and 10 years ago

*) Specify

7. The Condition of Stable: Two, Five and Ten Years Ago

No	Stable Condition	2 yrs. ago	5 yrs. ago	10 yrs. ago
1	Worse & dirtier			
2	The same as now			
3	Cleaner & better			
4	Other *)			
5	Do not know			

Please mark "X" for the answer in the proper column

*) Specify

8. The Number of Cattle: Two, Five and Ten Years Ago

No	Stable Condition	2 yrs. ago	5 yrs. ago	10 yrs. ago
1	Less than now			
2	The same as now			
3	More than now			
4	Other *)			
5	Do not know			

Please mark "X" for the answer in the proper column

*) Specify

9. The Number of Bed Rooms: Two, Five and Ten Years Ago

No	Stable Condition	2 yrs. ago	5 yrs. ago	10 yrs. ago
1	None			
2	One			
3	Two			
4	Three			
5	Four			
6	More than four			

Please mark "X" for the answer in the proper column

E. Value of Possessions**1. Food Storage**

No	Kind of Food Available in Storage	Total in local measurement	Value of Food Storage in Rupiah Based on the Local Market Price
1	Rice		
2	Corn		
3	Cassava or "Gaplek"		
4	"Oyek"/"Leye"		
5	Other		
Total Value of Food in the Storage			Rp.

2. Appliances in House and Transportation Ownership

No	Appliances in House & Transportation Ownership	Total Number	Estimated Value Based on Local Market (Rp.)	Status of Ownership *)
1	Desks and Chairs			
2	Mattresses			
3	Display Cabinets			
4	Kerosene Stove			
5	Sewing Machines			
6	Radio & Taperecorder			
7	TV (Black and White)			
8	TV (Color)			
9	Kerosene Pump Lamp ("Petromak")			
10	Clock			
11	Horse			
12	Bicycle			
13	Tricycle			
14	Motorcycle			
15	Car			
16	Others			
Estimated Total Value			Rp.	

*) 1. Owned; 2. Borrowed; and 3. Bought on credit.

3. Housing Materials Storage

No	Kind of Housing Materials in Storage	Total in local measurement	Estimated Value in "Rupiah" Based on the Local Market
1	Pillar ("soko")		
2	Rafter ("usuk")		
3	Plate ("blabag")		
4	Other lumber		
5	Cement		
6	Roofs (glass)		
7	Roofs (others)		
8	River Stone		
9	Bricks		
10	Sand		
11	Bamboos		
12	Others		
Total Value			Rp.

4. Cattle Owned

No	Kind of Cattle Owned	Total Cattle Owned	Estimated Value in "Rupiah" Based on the Local Market
1	Cow		
2	Buffalo		
3	Goat/Sheep		
4	Chicken		
5	Duck		
6	Goose		
7	Rabbit		
8	Other		
Total Value			Rp.

5. Fish-pond

a. Area of fish-pond: m.X m. = m2.

b. Kind of fish:

- X @ Rp. = Subtotal Rp.
 - X @ Rp. = Subtotal Rp.
 - X @ Rp. = Subtotal Rp.
 - X @ Rp. = Subtotal Rp.
 - X @ Rp. = Subtotal Rp.
 Total value = Rp.

6. Overall Total of Value of Ownership

Total E.1 + Total E.2 + Total E.3 +

Total E.4 + Total E.5 = Rp.

F. AGRICULTURAL OWNERSHIP**1. Area of Land Property:**

a. Area of Garden = m2.

b. Area of House = m2.

c. Area of Farming = m2.

Total of Land Property = m2.

2. Agricultural Seeds Owned:

a.

b.

c.

d.

e.

3. Fertilizer and Insectized Owned:

a.

b.

c.

d.

4. Kind of fruit, lumbers, and other trees as well as nutritious vegetables in the garden:

Kind of Trees and Vegetables	Total Trees or Area of Vegetables in m2.	From whom you get the seed? and When?
<p>1. Fruit:</p> <ul style="list-style-type: none"> a. Local Guava b. Bangkok Guava c. Orange d. Apple e. Banana f. Papaya g. Coffee h. Clove g. Other: <ul style="list-style-type: none"> <p>2. Vegetable:</p> <ul style="list-style-type: none"> a. Spinach b. Onchoi c. Carrot d. Onion e. Garlic f. Green Onion g. Cabbage h. Beans i. Other: <ul style="list-style-type: none"> <p>3. Lumber:</p> <ul style="list-style-type: none"> a. Jack fruit b. Accasia c. "SUREN" d. Other: <ul style="list-style-type: none"> <p>4. Other:</p> <ul style="list-style-type: none"> a. Cassava b. Corn c. Taro d. Sweet Potatoes e. Other: <ul style="list-style-type: none"> 		

G. FOOD PATTERN

1. Household Food Habit

No	Food Classification	Frequency of Eating *)						
		1	2	3	4	5	6	7
1	Carbohydrate a. Rice b. Corn c. Cassava d. Other (.....)							
2	Protein a. Vegetable b. Animal							
3	Vegetable a. Dark green leaf b. Beans c. Tomato/ carrot							
4	Colored fruit							
5	Milk							

- *) Mark X for the best answer in the proper line for the following:
1. Never
 2. Seldom, less than 1 time per month
 3. One time per month
 4. Less than three time per week
 5. At least three time per week
 6. One time daily
 7. More than one time daily

(Criteria from Melly G. Tan et. al.: Social and Cultural aspects of Food Patterns and Food Habits in Five Rural Areas in Indonesia, Department of Health, Jakarta, 1970).

NOTE:

2. Food Pattern for Under-five Children

- a. Breast feeding started: months old.
Breast feeding stopped: months old.
- b. Reason for giving breast feeding?
- Are there any local beliefs for breast feeding?
- Reason for stopping breast feeding?

- c. For under one year children, when did the mother start to feed the following food?
1. First solid food months
 2. Second solid food months
 3. Vegetables months
 4. Fruits months
 5. Protein vegetable months
 6. Protein animal months

G. KNOWLEDGE, ATTITUDE AND PRACTICE OF THE COMMUNITY:

1. Knowledge of:

a. Immunization: (circle only one right answer for each of the following question)

- What is the purpose of immunization? (key: body protection toward disease)
 - 0. Does not know
 - 1. He/she knows
- Does the head of household or his wife know the following vaccination?
 - BCG 0. Does not know
1. Yes, he/she does
 - DPT I and II 0. Does not know
1. Yes, he/she does
 - Polio 0. Does not know
1. Yes, he/she does
 - Morbilli 0. Does not know
1. Yes, he/she does

b. Nutrition:

- What is the purpose of health card (KMS)? (Key: Note for under-five years old weight development)
 - 0. Does not know
 - 1. She knows
- Can she explain the chart written in the KMS? (Key: If the weight chart increase, it will show a good condition of the child. If the weight chart indicates decrease or stability, it will show that something is wrong with the child. If under the red line, it will show that the child is ill or has bad nutrition status)

c. Oral rehydration (ORALIT):

- What is ORALIT?
 - 0. Does not know
 - (Key: Diarrhea) 1. She knows
- What is "Sugar Salt Solution"?
 - 0. Does not know
 - (Key: Diarrhea) 1. She knows
- What is "blue spoon"?
 - 0. Does not know
 - (Key: Diarrhea) 1. She knows
- What is the purpose of the three things above? (key: for rehydration)
 - 0. Does not know
 - 1. She knows
- Does she know when it has to be given to her child? (key: every time her child has diarrhea)
 - 0. Does not know
 - 1. She does know

- Can she explain the dose of ORALIT?
(key: 1 glass of ORALIT per 1 time diarrhea)
0. She cannot 1. She can

d. High dose of vitamin A:

- Does mother know the advantage of vitamin A?
(key: to prevent from xerophthalmia or "kotok ayam")
0. She does not
1. She does
- At what age should a child obtain a high dose of vitamin A? (key: 1 - 5 Year)
0. She does not know
1. She knows
- Does she know the interval of giving a high dose of vitamin A? (key: 6 month)
0. She does not
1. She knows

e. Primary Health Care:

- What are the most important principles in PHC?
(key: "gotong royong", integrated, comprehensive, cheap and appropriate technology in health care)
0. She/he does not understand
1. She understands
- Who should carry out the PHC and for whom?
(key: by the people and for the people themselves)
0. She/he does not understand
1. She understands
- What is the most important principle for a "KADER" in PHC implementation? (key: voluntarism)
0. She/he does not understand
1. She understands

2. Practice of:

a. Immunization:

- Does the following household member have BCG scar in the right upper arm?

No	Household member	Yes / No
1	Head of the household	
2	Spouse	
3	Child no. 1.	
4	Child no. 2.	
5	Child no. 3.	
6	Child no. 4.	
7	Child no. 5.	
8	Child no. 6.	
9	Child no. 7.	
10	Child no. 8.	
11	Other	
12	Other	
13	Other	

- Do the following children obtain complete DPT vaccination?

Children:	According to:		
	Interview	Health Card	HC Record
Age 0 - 5 years			
number 1.	yes/no	yes/no	yes/no
2.	yes/no	yes/no	yes/no
3.	yes/no	yes/no	yes/no
4.	yes/no	yes/no	yes/no
5.	yes/no	yes/no	yes/no
Age 6 - 12 years			
number 1.	yes/no	yes/no	yes/no
2.	yes/no	yes/no	yes/no
3.	yes/no	yes/no	yes/no
4.	yes/no	yes/no	yes/no
5.	yes/no	yes/no	yes/no

b. Nutrition:

- Does the mother have a health card for at least one of her children?
 - 0. No, she does not
 - 1. Yes, she does
- Do all of the children under-five years old have the health cards?
 - 0. No, they do not
 - 1. Yes, they do
- Are the Health cards completely filled in ?
 - 0. No, it is not
 - 1. Yes, it is

If are not filled in completely, what part of the health cards are not filled in?

- Can mother demonstrate how to fill in the health card?
 - 0. No, she cannot
 - 1. Yes, she can
- Can mother demonstrate how to weigh the children?
 - 0. No, she cannot
 - 1. Yes, she can

c. Oral Rehydration:

- Can mother demonstrate how to make "ORALIT"?
 - 0. No, she cannot
 - 1. Yes, she can
- Can mother demonstrate how to make "Solution of water salt and sugar"?
 - 0. No, she cannot
 - 1. Yes, she can

If she cannot, what are the errors that she makes?

.....

d. High dose of vitamin A.:

Does mother know how to give a high dose of vitamin A to her children? (key: cut the top of the capsule with a scissor, press it then give it to the children)

0. No, she does not

1. Yes, she does

e. Primary Health Care:

- Did you choose the village volunteer health workers in this village?

0. No, he/she did not

Then, who chose them?

1. Yes, he/she did

- Did you choose the village volunteer nutrition workers in this village?

0. No, he/she did not

Then, who chose them?

1. Yes, he/she did

- Did you choose the other village volunteer workers in this village?

0. No, he/she did not

Then, who chose them?

1. Yes, he/she did

- Were you involved in forming the PHC program in this village?

0. No, he/she did not

Then, who formed them?

1. Yes, he/she did

- Is he/she spitting in the improper place when you are interviewing him/her?

0. Yes, she/he is

1. No, she/he is not

- Are the windows opened when you are interviewing him/her?

0. No, they are not

1. Yes, they are

- Write down some other important things in practice of PHC that are not mentioned in this questionnaire!

.....

3. Attitude of:

a. How you are going to protect your family, especially your children, toward the infectious diseases and nutrition problems? Why?

.....

- b. Do you believe that through the weighing program your children will achieve better nutrition status? Why?
.....
.....
.....
.....
- c. Do you still believe traditional ways to cure the gastroenteritis diseases are more effective than using Oralit? Why?
.....
.....
.....
.....
- d. Do you also still believe traditional ways to cure "kotok ayam" are more effective than high dose vitamin A protection? Why?
.....
.....
.....
.....
- e. Do you believe that through PHC the community in this village will obtain its welfare in the foreseeable future? Why?
.....
.....
.....
- f. How do you propose to improve the implementation of PHC in your village?
.....
.....
.....

APPENDIX C

QUESTIONNAIRE FOR PD (DISTRICT PROVIDERS)

District:

Date of interview: Month, Day, 1985.

Name of interviewer:

Interviewer's signature:

Supervision:

Date of supervision: Month, Day, 1985.

Name of supervisor:

Signature of supervisor:

Impression: Accepted/Reinterview for page /

Cross-check/Revise page / Eliminate from survey.

Final checking by researcher:

Date of final checking: Month, Day, 1985.

Impression: Accepted/Reinterview for page /

Cross-check/Revise page / Eliminate from survey.

Researcher's initial:

I. VITAL INFORMATION

1. Provider's complete name: Last name :
First name :
2. Age at the last birthday: years.
3. Sex: Male/Female (circle the right one).
4. The highest level of education completed: (circle the right letter)
 - a. Elementary School
 - b. Junior High School
 - c. Senior High School
 - d. Academy
 - e. University
 - f. Other

5. Main occupation: (circle the right letter and fill in the blank)
 - a. Government official: Department
Position
 - b. Political figure: Party
Position
 - c. Informal figure: What?
Position
 - d. Other: What?
6. Additional occupation (write letter in accordance with no.5):, Position
- Note:
7. Length of duty in this district years months
Length of duty in Banjarnegara years months
8. Marital status: (circle the right letter)
 - a. Married
 - b. Single
 - c. Other
9. Number of children: children, ages..... years,
..... years, years, years

II. PRIMARY HEALTH CARE AND COMMUNITY DEVELOPMENT

1. According to you, what is meant by the following?
 - a. Community Development (CD):.....
 - b. Primary Health Care (PHC):
2. According to you, are CD and PHC closely related?.....
Explain!
3. Do you have both of the CD & PHC activities in this district?

Activity	1. Yes *) 2. No 3. Do not know	When Stated It (month & year)	Who Pioneered (name, occu- pation & po- sition)	Your Role in It
1. CD 2. PHC				

Note: *) write just the number!

4. Related to the elements of management and your role in the above activity in which element do you think you are involved? Give your reason!

Activity	Planning	Implementation	Budgeting	Evaluation
1. CD *) 2. PHC*)				

*) Put number (1) for "not involved"; (2) for "not so involved"; (3) for "uncertain"; (4) for "involved" and (4) for "very much involved"

Then NEXT TO the figure, write down what your reason is each column should be filled & no "X" MARKS should be written. Use the back of this paper if column space is not sufficient.

5. What suggestions do you have for improvements to each element of both programs mentioned above? Write the obstacles also!
- a. CD: - Planning: Suggestions:.....
Obstacles:.....
 - Implementation : Suggestions:.....
Obstacles:.....
 - Budgeting: Suggestions:.....
Obstacles:.....
 - Evaluation: Suggestions:.....
Obstacles:.....
 - b. PHC:- Planning: Suggestions:.....
Obstacles:.....
 - Implementation : Suggestions:.....
Obstacles:.....
 - Budgeting: Suggestions:.....
Obstacles:.....
 - Evaluation: Suggestions:.....
Obstacles:.....

If the respondent have suggestions on manpower and organization development, please write it down on the back of this page!

6. In CD and PHC programs, there are an district integrated teams to carry out the programs. Could you tell your impression of these teams?

Subject	Level of Impression *)	Reason
CD: -Coordination -Integration -Participation PHC: -Coordination -Integration -Participation		

*) Put number (1) for "BAD"; (2) for "Not so good"; (3) for "Uncertain"; (4) for "Good"; and (5) for "Very Good".

7. What are the obstacles of the above integrated teams and what are your suggestion to improve the work of the teams?
- a. Coordination: Obstacles:
Suggestions:
 - b. Integration: Obstacles:
Suggestions:

- c. Participation: Obstacles:
 Suggestions:
8. Would you please describe management processes in delegation of authority, budgeting and program priority in your district integrated team?
- a. Delegation of Authority

- b. Budgeting

- c. Program priority

9. In your opinion how is the flexibility of those three components mentioned in no 8. in your district integrated team? Write the right number only for each subject!

Subject	(5) Very Flexible	(4) Flexible	(3) Un-certain	(2) Not so Flexible	(1) Not Flexible
Delegation of Author.					
Budget.					
Program Priority.					

8. You certainly have heard of the organization called YPPSE in Banjarnegara,
- a. When did you hear about this organization for the first time? month year
- b. Who told or informed you about it?
 Name: Position:
 Name: Position:
- c. Would you describe the aims of YPPSE; why it was formed, whose idea it was, and how it works? (Write down the respondent's answer on the back of this page!)
9. Do you agree with the statements below to be the way of life or philosophy of YPPSE? (Show the enclosed cards from number 1 till 10 one by one, then fill the above columns in accordance with the given statement and write down the number which matches the respondent answer!)

Statement	(1) Stronly disagree	(2) Disagree	(3) Un-certain	(4) Agree	(5) Strongly agree
Stat. I					
II					
III					
IV					
V					
VI					
VII					
VIII					
IX					
X					

10. What are the advantages and disadvantages of the YPPSE assistance to your villages due to its physical or non-physical support?
Advantages: a. Physical:
 b. Non-physical:
Disadvantages: a. Physical:
 b. Non-physical:
11. YPPSE has assisted the poor people in the rural village of Banjarnegara Regency through CD and PHC especially in developing their socio-economic conditions and in improving their health status.
 Do you agree with this statement? What is your reasons?

12. What have been the efforts of YPPSE in giving direct or indirect advantages to the poor in the rural village of Banjarnegara Regency?
 a. Direct:
 b. Indirect:
13. Do you think that the poor have succeeded in developing their awareness about the problems they have? What is your reason?
14. According to you, have the poor succeeded in increasing their awareness about their inability to overcome their overall problems and been able to prioritize their problems? And also could they realize their own capacity and potential either in CD and PHC? Please, give your reasons!
15. As a figure in this subdistrict town, do you believe and agree that the society's members, especially the poor, can help themselves to solve their problems? And do they have enough potential to overcome those problems? Give your reason and explain.
16. Do you believe that YPPSE can help the Banjarnegara

local government to make CD & PHC more successful and help community members, especially the poor, overcome their problems? Explain.....

17. Do you think that :

a. YPPSE has been appropriate in supporting Banjarnegara local goverment to develop the social-economic and health status of community of Banjarnegara? Explain!.....

b. CD and PHC in your subdistrict have been appropriate for helping the village society members develop their social economic condition and improve their health. Explain.....

18. According to you, what should YPPSE's participation in local government be in terms of CD and PHC to achieve prosperity of the community in this "PELITA" (=five year development plan) era and in the coming period? Explain.....

19. State the 5 main sectors or departments that gain great advantages from YPPSE & its activities! Explain your choices.

- 1.
- 2.
- 3.
- 4.
- 5.

20. Among following,

- A. Which do you consider an activity of YPPSE?
- B. Which do you consider an activity of CD?
- C. Which do you consider an activity of PHC?
- D. Which do you consider activities chosen by the community members?
- E. Which do you think can meet the needs of the society (especially the poor) to improve their health in this subdistrict?
- F. Which do you think can meet the needs of the society (especially the poor) in improving their socio-economic condition?
- G. Which is the most useful for the women's role in development?
- H. Which is the most helpful in developing the village as a whole?
- I. Which is the most useful for the development of your subdistrict in the future?
- J. Which are you active in?

Mark X in the column of the respondent choice. The respondent can give more than one answers.

order to implement CD and PHC in the field? Circle the best one only:

- 1. Unuseful
- 2. Not so useful
- 3. Uncertain
- 4. Useful
- 5. Very useful

- e. Who were the instructors / lectures? (mention three names and their positions and rate their ability in teaching methods by using your own opinion).
 - 1.(position
 - 2.(position
 - 3.(position
- f. Which part of the training did you like the most? Why?
- g. Please describe the follow-up of training / course that you attended?
- h. Did you participate as an instructor in the courses held in villages or subdistricts? Why?
- i. Were there any changes in your attitude, knowledge and skills of management of development and PKMD after you attended the training?.....
- j. What are your proposals and suggestions for improving the YPPSE courses at the district level? Could you elaborate?
- k. In the initial training for the village volunteer health workers what is your level of involvement in the following management components of training? Write only the number that chose by the respondent.

Subject	(5) Very Involved	(4) In- volved	(3) Un- certain	(2) Not so Involved	(1) Not Involve
Plan- ning Imple- menta- tion Budget- ing Evalua- tion					

22. Would you answer the following questions concerning "KRING" system in the villages of this district?
- a. Whose idea was it to hold these "KRING" systems?
 - b. For how many cycles have the seminars been given in this district ?
 - c. How many villages participated?

- d. For how many days was the "KRING" system carried out? For how many hours per day? At what time of day was it done?
- e. Could you please describe the process of "KRING" system?
 - 1. Preparation:
 - 2. Budgeting:
 - 3. Implementation:
 - 4. Follow-up:
- f. What things could be of some benefit for the district integrated team, village integrated team, village volunteer health workers and village community from this "KRING" system?
- g. What were the disadvantages of the "KRING" system?
- h. What are your suggestions in order to improve the implementation of the "KRING" system?
- i. In the "KRING" system what is your level of involvement in the following management components of "KRING" system? Write only the number that chose by the respondent.

Subject	(5) Very Involved	(4) Involved	(3) Uncertain	(2) Not so Involved	(1) Not Involve
Plan- ning					
Imple- menta- tion					
Budget- ing					
Evalua- tion					

23. (a) Please explain with your own words what the following subject means for you!
- (b) Then explain how each of the items listed below can be carried out, and/or worked out, and/or achieved, and used in the Banjarnegara development program.
1. Integrated Weighing program
 - (a)
 - (b)
 2. Integrated Village Health Post
 - (a)
 - (b)
 3. Coordination
 - (a)
 - (b)
 4. Integration
 - (a)
 - (b)
 5. Community participation
 - (a)
 - (b)
 6. Health for all by the year 2000
 - (a)
 - (b)
 7. Volunteer/volunteerism
 - (a)
 - (b)
 8. Training
 - (a)
 - (b)
 9. Appropriate technology
 - (a)
 - (b)
 10. Management in community based activity
 - (a)
 - (b)
 11. Function of NGO and YPPSE
 - (a)
 - (b)
24. In the regency meetings, trainings, and "KRING SYSTEM" as well as community-based activities (CD & PHC), please observe how this respondent acts in the following subjects:
- a. leadership:
 - Meeting 1:
 - Meeting 2:
 - Meeting 3:
 - Training :
 - KRING meeting 1:
 - KRING meeting 2:
 - community based activities 1:
 - community based activities 2:
 - community based activities 3:

- b. integration (attention to other sectors) in the
regency, district and village PHC teams:
 - Meeting 1:
 - Meeting 2:
 - Meeting 3:
 - Training :
 - KRING meeting 1:
 - KRING meeting 2:
 - community based activities 1:
 - community based activities 2:
 - community based activities 3:
- c. participation (gives suggestion, rational objection,
proposal and other):
 - Meeting 1:
 - Meeting 2:
 - Meeting 3:
 - Training :
 - KRING meeting 1:
 - KRING meeting 2:
- d. personal approach in decision and problem solving
 - Meeting 1:
 - Meeting 2:
 - Meeting 3:
 - Training :
 - KRING meeting 1:
 - KRING meeting 2:
 - community based activities 1:
 - community based activities 2:
 - community based activities 3:
- e. technical assistance
 - Meeting 1:
 - Meeting 2:
 - Meeting 3:
 - Training :
 - KRING meeting 1:
 - KRING meeting 2:
 - community based activities 1:
 - community based activities 2:
 - community based activities 3:
- f. other activities:
 - Meeting 1:
 - Meeting 2:
 - Meeting 3:
 - Training :
 - KRING meeting 1:
 - KRING meeting 2:
 - community based activities 1:
 - community based activities 2:
 - community based activities 3:

APPENDIX D

QUESTIONNAIRE FOR PR (REGENCY PROVIDERS)

Date of interview: Month, Day, 1985.

Name of interviewer:

Interviewer's signature:

Supervision:

Date of supervision: Month, Day, 1985.

Name of supervisor:

Signature of supervisor:

Impression: Accepted/Reinterview for page /

Cross-check/Revise page / Eliminate from survey.

Final checking by researcher:

Date of final checking: Month, Day, 1985.

Impression: Accepted/Reinterview for page /

Cross-check/Revise page / Eliminate from survey.

Researcher's initial:

I. VITAL INFORMATION

1. Provider's complete name: Last name :
First name :
2. Age at the last birthday: years.
3. Sex: Male/Female (circle the right one).
4. The highest level of education completed: (circle the right letter)
 - a. Elementary School
 - b. Junior High School
 - c. Senior High School
 - d. Academy
 - e. University
 - f. Other

5. Main occupation: (circle the right letter and fill in the blank)
 - a. Government official: Department
Position
 - b. Political figure: Party
Position
 - c. Informal figure: What?
Position
 - d. Other: What?
6. Additional occupation (write letter in accordance with no.5):, Position
- Note:
7. Length of duty in Banjarnegara years months
8. Marital status: (circle the right letter)
 - a. Married
 - b. Single
 - c. Other
9. Number of children: children, ages..... years,
..... years, years, years

II. MANAGEMENT OF THE "YPPSE"

1. Are you involved in YPPSE? (Circle the best answer only)
 - a. Yes, I am involved directly
 - b. Yes, I am involved indirectly
 - c. No, I am not, but I used to be involved
 - d. No, I was never involved

If the answer is a, b, or c then go to question no. 2. and question no. 3.

If the answer is d then go to question no. 3 and skip question no. 2.
2. a. When did you start to be involved in YPPSE? Month ..
Yrs ..
Why are you involved? Please give brief explanation!
.....
.....
The following question is only for the provider who used to be involved in YPPSE!
Why are you not involved anymore?
- b. What is or was your position in YPPSE?
 1. Chairman (since through)
 2. Executive Chairman (since through)
 3. Vice-chairman (since through)
 4. Secretary (since through)
 5. Treasurer (since through)
 6. Member (since through)
 7. Field Full Timer (since through)
 8. Other(since through)
3. a. When did you hear about this organization for the first time? month year

- b. Who told or informed you about it?
 Name: Position:
 Name: Position:
- c. Could you tell me in brief how, why, what were the reasons, and the history of YPPSE? Write down the answer on the back of this page.
4. Same question as in Appendix C question no. II. 9.
5. Related to the elements of management and your role in the YPPSE's activity in which element do you think you are involved? Give your reason!

Elements of Management	Degree of Involvement *)	Brief Reasons
1. Planning		
2. Implementation		
3. Budgeting		
4. Evaluation		

- *) Put number: -
 (1) for "not involved"; (2) for "not so involved";
 (3) for "uncertain"; (4) for "involved"
 and (4) for "very much involved"
6. Would you please tell me the problems that you encounter and your suggestion to improve the 4 element of management in YPPSE organization?
- a. Planning: Problems:
 Suggestions:
- b. Implementation: Problems:
 Suggestions:
- a. Budgeting: Problems:
 Suggestions:
- b. Evaluation: Problems:
 Suggestions:
7. In the implementation of PHC and community development programs, there is a regency integrated teams which is coordinated by YPPSE. Could you tell your impression of this team of the following components?

Subject	Level of Impression *)	Reason
-Coordination -Integration -Participation		

- *) Put number (1) for "BAD"; (2) for "Not so good";
 (3) for "Uncertain"; (4) for "Good"; and (5) for "Very Good".

8. What are the obstacles of the above integrated teams and what are your suggestion to improve the work of the teams?
- a. Coordination: Obstacles:
Suggestions:
 - b. Integration: Obstacles:
Suggestions:
 - c. Participation: Obstacles:
Suggestions:
9. Would you please describe of management processes in delegation of authority, budgeting and program priority of YPPSE ?
- a. Delegation of Authority
 - b. Budgeting
 - c. Program priority
10. In your opinion how is the flexibility of those three components mentioned in no 8. in YPPSE organization ? Write the right number only for each subject!

Subject	(5) Very Flexible	(4) Flexible	(3) Un-certain	(2) Not so Flexible	(1) Not Flexible
Delegation of Authority.					
Budgeting					
Program Priority					

III. TRAINING AND "KRING" SYSTEM

Same question as in Appendix C question no. II. 21 and II. 22

IV. PROGRAM ACTIVITIES

Same question as in Appendix C from question no. II. 10 to II. 20.

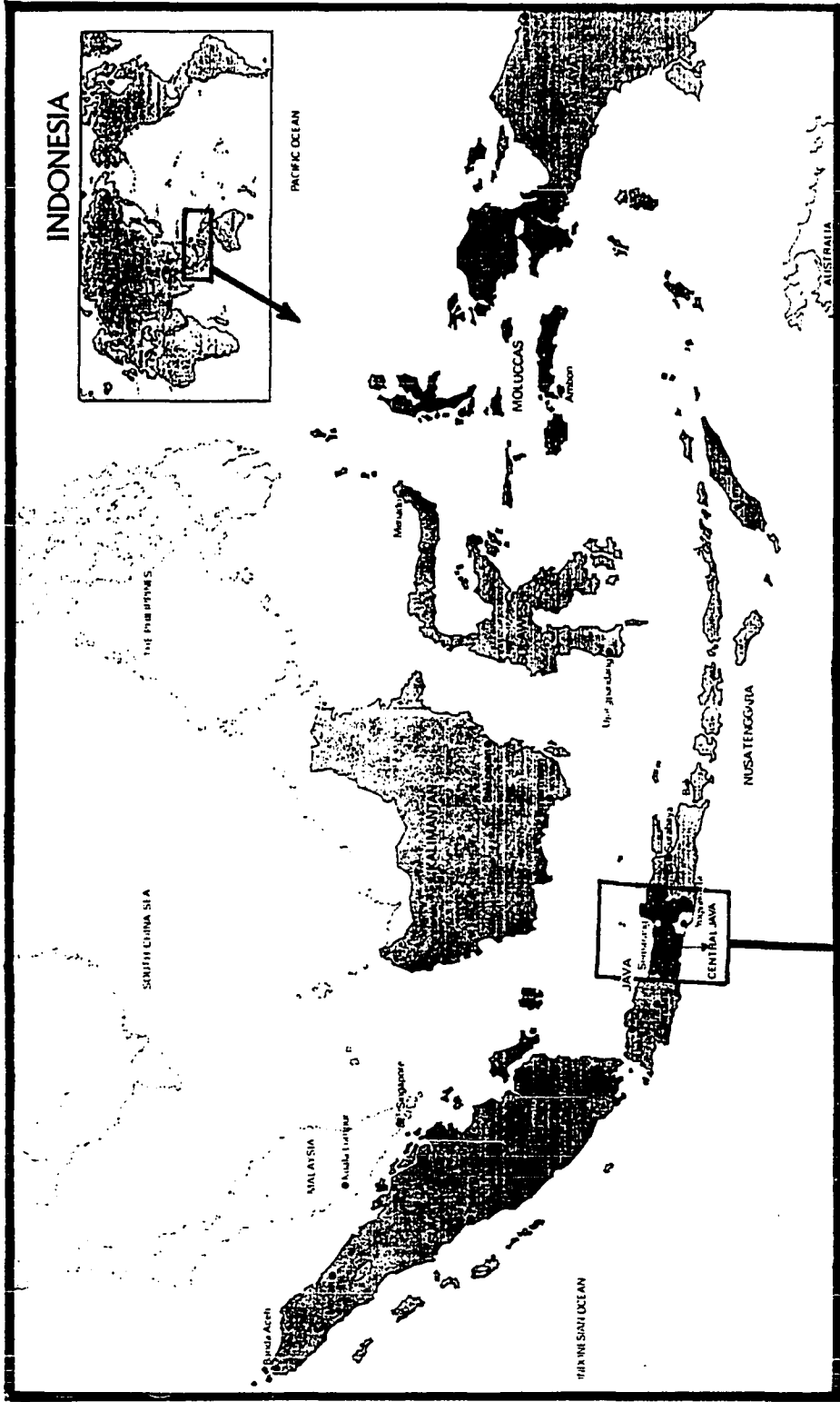
V. KNOWLEDGE AND ATTITUDE

Same question as in Appendix C question no. II. 23

VI. PRACTICE

Same question as in Appendix C question no. II. 24

APPENDIX E. MAP OF INDONESIA AND MAP OF STUDY AREA



See page 301

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