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**Paraji and Bidan in Rancaekek : integrated medicine for advanced partnerships among traditional birth attendants and community midwives in the Sunda region of West Java, Indonesia**

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## Summary

This study focuses on the utilisation of plural (traditional and modern) Maternal and Child Health (MCH) systems in Rancaekek Sub-District, representative of the Sunda area in West Java, Indonesia. The general aim is to investigate how traditional and modern MCH systems interact and to examine how a community chooses between medical systems when several are accessible. To do this, the health-seeking behaviours of pregnant and perinatal women are analysed with regard to the 'external' steps or number of contacts they make with the community's plural MCH systems. In rural areas of Indonesia, *paraji* (*dukun bayi* - Traditional Birth Attendants) commonly provide health care for both pregnant women and their offspring. During pregnancy and parturition, traditionally considered an unsafe 'weak' period for the mother and her offspring, the *paraji* tends to the expectant mother's physical as well as mental and spiritual well-being.

Although in the recent past a number of garment factories have been built along the main road in Rancaekek, most villages in Rancaekek still depend on agriculture. Because by and large most households in these geographically remote villages are low-income and quite far from a *Puskesmas* (Community Health Centre), traditional *paraji* play a significant role in providing Maternal and Child Health care.

In order to realize the general aim of this study – and taking into consideration its three major components, namely community health, MCH systems and utilisation of plural MCH systems – six specific points of interest are researched and documented:

- (1) To describe briefly Indonesia, as both research setting and developing country in South-East Asia, and the Sunda Region of West Java Province where research has been carried out;
- (2) To describe health and healing in Indonesia, including both traditional and modern medical systems, with a focus on Maternal and Child Health. In particular, the changing roles of Traditional Birth Attendants (*paraji/dukun bayi*) and Community Midwives (*bidan*) are described within the context of the Indonesian Government's current MCH policies;
- (3) To describe the community of Rancaekek as the locality where both the qualitative and quantitative surveys are carried out. In addition to describe the Rancaekek community itself: *e.g.* details about the study population and sample survey as well as an overview of the local MCH system and related knowledge about the use of Medicinal, Aromatic and Cosmetic (MAC) plants.
- (4) To describe plural MCH systems in the research setting, including the roles of *paraji* (TBA) and *bidan* (CMW) during pregnancy, labour and delivery as well as the MCH utilisation behaviour of pregnant women in their choice of health care;
- (5) To present behavioural patterns and interpret results for the utilisation of a plural MCH system by pregnant women in the sample survey in Rancaekek, implementing bivariate analysis, multivariate analysis and multiple regression analysis.
- (6) To formulate recommendations, based on research findings, on how to strengthen and sustain advanced partnerships and collaboration between *paraji* (TBA) and *bidan* (CMW) with regard to their shared interest in improving MCH in the community.

Chapter I discusses Maternal and Child Health which the Alma-Ata Conference in 1978 declared to be one of the most important sectors of Primary Health Care (PHC) worldwide. WHO emphasizes that Maternal and Child Health is an essential component of public health care that should be made universally accessible to individuals and families by means acceptable to them, through their full participation, and at a cost affordable to communities and countries alike. Maternal and Child Health should become an integral part of every country's medical system and nucleus for comprehensive socio-economic development policies in the community. The Alma-Ata Conference reformulated WHO's health-care policy in the slogan "Health for All by the Year 2000", in order to ensure that Primary Health Care becomes an integral part of community and national development and not just an isolated peripheral phenomenon. Action, promotion, coordination, and support of the administration are required, not only at local but also at intermediate and central levels of government. Primary Health Care must make full use of all available resources, *i.e.* it must mobilize the community's entire human potential. Unfortunately, more than 10 years later, not every country that ratified the Alma-Ata Declaration has succeeded in reaching its goal; Indonesia is one such country the target of which is set for the year 2015. In 2009 the WHO-SEAR Report has renewed its definition of 'Health for All', in which individuals should try to maintain good health by practicing self-care while, at the same time, being given access to adequate medical services – although this is only part of the larger picture. A medical system includes organisations, institutions and resources in public health. The Alma-Ata Declaration emphasizes the importance of fully organised community participation and ultimate self-reliance, with individuals, families and communities assuming more responsibility for their own health.

Indonesia presented "The Development and Implementation of Traditional Medicine for Self-Care" based on the country's growing interest in indigenous medicine in the context of self-care (2002-2005). The statement supports this study on the issue of integrating both Traditional Birth Attendants (*paraji* or *dukun bayi*) and *bidan* (CMW) as respective representatives of traditional and modern MCH systems at the national level, rather than marginalizing *paraji* as the cause for high Maternal (MMR) and Infant (IMR) Mortality Rates in Indonesia. The integration proposed in this study is through advanced partnerships between plural MCH systems. Because the traditional MCH system is based on indigenous knowledge handed down over generations, such knowledge will disappear if the *paraji* cease to function.

Recently, Indonesia has ratified a further commitment to implement, execute and monitor the Millennium Development Goals (MDG – *Tujuan Pembangunan Milenium*) that should be achieved by 2015. In 2005 the Asian Development Bank has stated that MDGs have united international programmes for development around a common global agenda aimed at reducing poverty worldwide. The Bank is dedicated to its vision of an Asia-Pacific region free of poverty. It defines specific goals and targets, providing indicators for measuring and monitoring progress towards the decrease in poverty levels. The MDGs represent a global partnership which has developed from the commitments and targets established at the world summits in the 1990s. Responding to the world's main developmental challenges and to calls for a civil society, the MDGs promote increased education and gender equality, on one hand, and strive to reduce poverty, maternal deaths, infant mortality, HIV/AIDS and other diseases, on the other hand. Set for the year 2015, the MDGs are an agreed upon set of goals can be achieved if all participants work together and take their part seriously.

In Chapter II, important research in health-care utilisation carried out around the globe is discussed in order to show why so many scholars in the recent past have been attracted to this

topic. Although pregnancy is not formally recognised as an illness, the dependency of pregnant women during childbirth resembles that of patients undergoing medical treatment. Therefore, the discussion will seek to contribute to existing knowledge and understanding about the relationship between the processes of pregnancy and parturition and the utilisation of available medical systems in rural communities. While the model for medical pluralism encompasses traditional, transitional and modern medical systems, here it is used to describe Maternal and Child Health in Rancaekek. The traditional and modern MCH systems are represented by *paraji* (TBA) and *bidan* (CMW) respectively, while the transitional medical system is under-represented in the plural MCH system.

Historically, developing countries have experienced an ongoing process of acculturation, where populations encountered foreign medical systems introduced by migrants arriving from distant lands such as India, Arabia and China. The modern Western or cosmopolitan medical system was first introduced in Indonesia as part of the Dutch Colonial Rule established by the end of the 19th century. Currently, health care in the developing countries is typified by different traditional, transitional, and modern medical systems that have developed from within the country and overlap both in theory and practice. Some of the related methodological complications basically refer to the difficulty that certain Western scientists have in understanding indigenous and ethnobotanical knowledge systems, in particular that value of belief systems as part of the indigenous ‘knowledge–practice–belief’ complex, regarding the systems of indigenous peoples. Medical systems are basically complex and have included local approaches within the socio-cultural life of developing countries long before the introduction of modern medical systems.

In this study, the concept ‘traditional’ as well as ‘indigenous’ and ‘modern’ are used to describe differences between plural MCH systems within the community. Indigenous peoples, community or nation, share a historical continuity with pre-invasion and pre-colonial societies which have developed within their territory, and they consider themselves distinct from other sectors of the societies now prevailing in those territories, or parts thereof. At present ethnicities represent non-dominant sectors of society determined to preserve, develop and transmit to future generations their ancestral territories and ethnic identity as basis for their continuing right to exist as indigenous peoples, in accordance with their own cultural patterns, social institutions and legal systems. ‘Traditional’ knowledge does not imply that it is antiquated but rather refers to the way in which it is acquired and put to use. In other words, the social process of learning and sharing knowledge, which is unique to each indigenous culture, lies at the very heart of its ‘traditionality’. Much of such knowledge is actually quiet new, but it has a social connotation and legal character entirely unlike other systems of knowledge. Traditional livelihood systems are constantly adapting to changing socio-economic and environmental conditions. They are dynamic, but – no matter the change – embrace principles of sustainability. However, the modern Western bio-medical system was introduced by the National Government to local communities. In this way a plural medical configuration takes root within the community which defines such systems as follows:

- (a) *Traditional system* embraces local perceptions, practices and beliefs, developed over generations in a particular culture or region;
- (b) *Transitional system* includes drug vendors who represent the final link in the sales chain within the modern pharmaceutical industry, which has discovered a profitable market among populations in developing countries;
- (c) *Modern medical system* is governed by biomedical in contrast to ethnomedical paradigms.

In the case of Maternal and Child Health, traditional MCH systems are embodied by *paraji* (TBA), while the modern MCH system is represented by *bidan* (CMW). However, an indigenous culture is neither isolated nor immune to the influences of other cultures and develops through cultural contacts between countries within a global world. Traditional culture should be interpreted as continuing phenomena with differing ideas, organisations and collection of innovations. Generally, the indigenous healer holds a respectable position in the community because of her expertise in the use of Traditional Medicine. In many communities, indigenous healers have a variety of specialisations, such as fixing bones, birth attendant, circumciser, supernatural healer, etc. An indigenous healer is generally held in high esteem by the community because of his/her knowledge and wisdom about health and healing accrued over many generations. While many people believe that they gain their abilities through spirit possession and trance, in reality, most indigenous healers acquired their knowledge through their parents and other senior healers or from personal experience. Initially, an indigenous healer was thought to be a mediator between the human and spirit worlds, through their ability to cure sick members of the community. In recent years, the role of indigenous healer, in particular that of *paraji* (TBA), is also seen as mediator between the community, traditional belief systems and modern MCH care.

Indonesia is a country which has acknowledged the importance of ethnomedicine and has allowed it to be an integral part of modern MCH care. However, not all aspects of the plural medical systems are fully integrated and there is still inadequate synergy in the way they interact from day to day. As already indicated, Primary Health Care is in need of reform if the Government indeed hopes to attain its aspired level of public health for all. *Paraji* (TBA) plays a lesser role during childbirth because, in contrast to the *bidan* (CMW), she has received no formal education. In some parts of West Java, *paraji* still assist during pregnancy and after childbirth, but not during the actual delivery. Only skilled *bidan* are allowed to assist a woman during labour and parturition because of the possible risks involved. Families should learn how to make choices which are relevant to their health. For example, the expectant woman with the help of a health care provider can discuss expectations and make contingency plans for childbirth. Relevant issues include where the birth will take place and who will organise the household chores and manage other children during delivery. Such discussions might address how to cover expenses and pay for medical supplies, how to arrange for transportation to a health facility or hospital as well as whether a blood donor should be tested for compatibility in case of haemorrhage.

Pregnancy is usually suspected when a woman initially experiences physical signs and symptoms such as nausea, vomiting, and headache. However, deciding whether to make use of MCH services depends on how the pregnant woman and her family interpret and experience her physical condition during pregnancy. A woman, who for the first time is pregnant, is generally more concerned about her condition than someone who has been pregnant before. A newly pregnant woman might seek information from family or friends who are more experienced. The use of a health-care system involves a complex decision-making process. Because socio-economic conditions differ for any individual or household, there will always be varying reasons for deciding which health system to approach, if at all. For example, while some people are insured and can afford modern MCH care, other families from a lower socio-economic background will have no alternative but to use the local medical system, although they may get social security.

Although pregnancy is not considered an illness, while some women experience no untoward effects, others might feel simply dreadful. Those women who feel poorly will most likely consult friends and family to learn how to restore their sense of well-being. The

decision where to seek help, however, will not only depend on the family's budget but also on the choices her husband and family make, often based on customs, beliefs and experiences. Even when the family realizes that choosing a modern *bidan* (CMW) might be preferable, their financial situation could compel them to seek out a *paraji* (TBA) instead. The traditional medical system is considered cheaper, more readily available and culturally more acceptable compared to modern MCH care. When discussing medical pluralism, the use of terms like 'traditional', 'modern' or 'indigenous' and 'Western' medicine is unavoidable; each medical system has its own advocates and users. In a pluralistic society such as Indonesia, Traditional Medicine still provides ethnobotanical herbal remedies called *jamu* concocted at home or packaged industrially. In 1983, WHO began promoting the use of ethnomedical systems, including indigenous practices, healers and birth attendants, as a form of primary health care for all peoples, thus enabling poor populations around the world the opportunity to lead healthier, more productive lives.

Indonesia is an archipelago composed of thousands of islands which have been inhabited since time immemorial by various ethnic groups, each with its own social and cultural ways of life. Each ethnic group has its own local medical system, including ways of caring for pregnant and post-natal women and their newborns. Throughout history, as migrants from areas as distant as South Asia, China, Portugal and Great Britain ventured out seeking new opportunities, they brought with them aspects of their own culture, including local medical systems. Indonesia which became a country during the 350-year Dutch Colonial Rule has formally adopted modern European medical systems, although traditional ways of providing health care are still practiced today. The public's health-seeking behaviour is relevant for any medical system. When an individual makes a decision with regard to his/her health, potential risks and/or benefits are weighed, based on issues such as environment, socio-cultural background and general view on life. When properly understood with regard to disease and illness, health-seeking behaviour could reduce delay to diagnosis, improve treatment compliance and promote health strategies in a variety of contexts. This study demonstrates that MCH utilisation behaviour is a process of engagement with a particular medical channel and is influenced by a variety of socio-economic variables such as gender, age, social status particularly of women, access to MCH systems, and perceived quality of services. When illustrating the factors which determine such patterns, one should observe carefully which barriers pregnant and perinatal women must surmount to reach MCH services in their community. A conceptual model should elucidate the inter-relation and influence between different factors on MCH utilisation behaviour at the household level, from the onset of pregnancy through to post-partum care. Using such an approach, one will encounter a variety of categorisations and terminologies which, when one scrutinizes them more closely, all tend to fall into similar slots: e.g. as psycho-social, perception, belief, geographical, socio-economic or institutional factors. The relevancy of these factors is not always immediately apparent for women's health-seeking behaviour during and after pregnancy, but they are, however, inherent to that act and must be acknowledged as such.

During pregnancy, childbirth and the post-partum period, focus is on the woman. Her ability to obtain treatment will be affected by a number of factors in her life such as actual financial income, social status, networks, autonomy and liability. Such issues clearly help demonstrate the complexity of decision-making processes, often aggravated by her gender, which women face on a daily basis. Moreover, many such factors can lead to three types of health-threatening delays. The *first delay* involves being too late in identifying the danger signs of pregnancy, which reflects a woman's lack of empowerment to decide for herself or with other family members who may be unaware of the risks a pregnancy presents or who fail

to pay attention to warning signals during childbirth. The *second delay* is mainly related to financial or geographical issues. Once a family realises that medical assistance is essential, then they will need money to pay for transportation to an appropriate health facility, if roads are accessible or public transportation is available. Unfortunately, especially in hilly and mountainous areas, transporting a pregnant or parturient woman means carrying her by foot for many hours to reach the nearest health facility. More community and financial support is needed, not just for available transportation. The *third delay* can occur once a woman reaches the health facility itself. She might not be attended to promptly, the quality of health care might be inadequate, or the health facility might not be equipped with the necessary staff, drugs, blood transfusions and equipment. Therefore, to ensure safe and healthy pregnancy and childbirth, an effort must be made at the community level to improve conditions.

Implementation of a modern MCH system, supported by the National Ministry of Health, actually entails a process of socio-cultural change in the area. Cultural contact with the prevalent modern medical system affects one's perspective about traditional health systems within the community. In the case of traditional MCH care, when *paraji* are the only 'system' responsible for managing pregnancy and childbirth in usually remote communities, then her role must be transformed into one of mediator between traditional and modern MCH systems. The *paraji* must learn to adopt certain aspects of modern health care such as knowledge about high-risk pregnancy, hygiene, medicines, techniques and tools.

In Maternal and Child Health, such knowledge includes how to make pregnancy and childbirth safer as well as which specific methods apply to MCH care. Communication can also help introduce new as well as change existing value systems. For example, communication can help empower woman to decide which MCH service to use during pregnancy and delivery, under specific conditions. Communication can teach how others behave, for example, which relatives and neighbours can help a woman during pregnancy. Understanding how other people think, behave and make choices can affect how a woman learns to make her own decisions when the time is ripe. Integrated information systems can produce a consolidated record; the exchange of health information is multi-directional. The information needed is available to authorized recipients in 'real time', *i.e.* at the point where service is being provided. A system for communicating information about Maternal and Child Health functions by bringing together the perspectives of all relevant participants such as community representatives. *Paraji* (TBA), volunteer health-care cadres, *bidan* (CMW), medical doctors, *Posyandu* and *Puskesmas* staff.

Chapter III discusses the fieldwork as a follow-up study of applied research carried out by the WHO Collaborating Centre–Perinatal Maternal and Child (WHOCC–PMC) Universitas Padjadjaran in collaboration with WHO South-East Asia Regional Office (WHO–SEARO) on the 'Making Pregnancy Safer' (MPS) Programme conducted in 2001–2002. It encompasses two main complementary approaches in research methodology: qualitative and quantitative. The method used is participatory observation through living in the community for an extended period of time, while at the same time conducting interviews and holding discussions with key informants and various community representatives such as *paraji*, *bidan*, and medical doctors at the Community Health Centre (*Puskesmas*) together with all sections involved in providing MCH services. The follow-up study examines an integrated medical system in Rancaekek which employs advanced partnerships between *paraji* (TBA) and *bidan* (CMW). Further information is needed about how they can work together to integrate traditional and modern MCH systems.

An attempt to integrate traditional and modern MCH systems in Indonesia began before the country gained its independence on 17 August 1945, and can be seen chronologically in

MCH programmes from time to time. The norms for traditional knowledge and practices are in sharp contrast to the ethos of modern science, rendering the unification of both systems at different levels still problematic. It is clear that, at the epistemological level, the option of integration is as yet largely constrained by the cognitive heterogeneity among different medical systems, despite recent attempts to adapt and transform the underlying local and global knowledge systems. In 1937, during the Dutch Colonial Era training of *paraji* (TBA) began in Purwokerto (Middle Java). The Health Service plan was to send more and well-trained *bidan* (CMW) to rural areas to take up private practice. To help the population temporarily and to bridge this initial period, the Health Services used community health centres (*Puskesmas*) and government-employed Community Midwives (*bidan*) to teach *paraji* about the necessity of hygiene. In 1950, the *Lembaga Makanan Rakyat Institute* was established to encourage people to consume healthy food, using the still memorable slogan: *Empat Sehat Lima Sempurna* ('Four is Healthy and Five is Perfect'). The slogan is meant to remind the public that a healthy diet should consist of four components: carbohydrates, proteins, fats and vitamins, complemented with milk for calcium intake. Specifically, the Ministry of Health's objective was to stress that a well-rounded nutritional intake was imperative for both maternal survival and child development. Such welfare programmes require community participation. According to the *Orde Lama* ('Old Order' or social political system under Soekarno), the best way to improve the health status of both mother and child was best expressed in the slogan '*dari rakyat untuk rakyat*' ('From People to People'). This slogan echoed the formal policy found in almost all of Soekarno's development programmes.

Since Soeharto's era, which began in 1965, the paradigm of health approaches has changed. Previous policies were inadequate to create a sustainable level of welfare for the Indonesian people. Therefore, the Family Planning Programme (*Program Keluarga Berencana*) was set up to reduce the number of births using the slogan '*small family norms*' to build better lives (NKKBS/*Norma Keluarga Kecil Bahagia Sejahtera*). The Family Planning Programme which was rejected by the *Orde Lama* Government was only applied by the NGO *Perkumpulan Keluarga Berencana Indonesia* (PKBI) an Association for Indonesian Family Planning. However, in 1965, the Family Planning Programme became an integral part of Indonesia's national development policies. In 1991, in the *Repelita I/ Rencana Pembangunan Lima Tahun Pertama* (First Five-Year Plan) the objective of the Family Planning Programme was to increase the general health status and welfare of mother and child, family and nation. All activities and health programmes were firmly integrated in community health centres, namely *Puskesmas* (*Pusat Kesehatan Masyarakat*). *Puskesmas* is a health facility in outreach, located in every sub-district (*kecamatan*). However, not all populations living in rural areas could make use of such facilities. Geographical, social and cultural distances between *Puskesmas* and local communities are part of the problem. To overcome the situation, in *Repelita III* (Third Five-Year Plan, 1979–1984), the idea to stimulate public participation in the implementation of activities on prevention and promotion of health under the Primary Health Care strategy was introduced by the Government. The strategy introduced the concept of 'volunteer health worker' (*kader kesehatan*) as key to improving public health. Justification for the concept is that health volunteers selected from within a community will understand its health issues far better. Health volunteers must mediate between the *Puskesmas* and the public to persuade resisting community members to use health-care facilities and willingly accept programmes for promotion of better health. Programmes promoting public participation continued to become the main policy for *Repelita IV* (Fourth Five-Year Plan, 1984–1989). By establishing a health section in village organisations for national village community resilience (LKMD/*Lembaga Ketahanan Masyarakat Desa*) and the sub-section of



family welfare establishment (PKK/*Pemberdayaan Kesejahteraan Keluarga*), health volunteers are required to bring social programmes designed by the Health Department to the people. In the conceptual framework, special emphasis is placed on the *Posyandu* (Post of Integration Health, *Posyandu/Pos Pelayanan Terpadu*), the prime activities of which are expected to be carried out by the community with the support of paramedics, specifically to serve mother and child, Health care for mother and child (KIA) was designed separately and then introduced to the community simultaneously as one integrated package.

In 1989, a policy for placing *bidan* (CMW) in rural areas, namely *Program Bidan Desa* (Community Midwives Programme), was established. A *bidan* would be the key person to handle problems arising during pregnancy, childbirth, and the post-partum period. During the Five-Year Plan, the Department of Health planned to re-locate 18.900 *bidan* in rural areas across Indonesia. In 1995/1996, 5.285 midwives were placed in West Java, meaning that 90% of the rural areas were then provided with midwives. Data from the West Java Health Office show that, in 2000, 5.513 midwives had already been sent to West Java (Profile West Java Health Office 2000). Placement of *bidan* in rural areas was strengthened by Presidential Decree No. 23 in 1994; when Community Midwives were appointed non-permanent government officers (Agenda of Community Midwives 1997). The main causes of maternal death in Indonesia are post-partum haemorrhages mostly due to placenta retention, infections, pre-eclampsia, prolonged labour, and complications during abortus. Maternal deaths which usually occur during delivery can in reality often be avoided through routine examination and the intake of proper nutrition during pregnancy. A high-risk pregnancy can usually be detected during the third-stage examination by a skilled health provider. A pregnant woman who visits an antenatal care facility will undergo the following procedures; she will be weighed, examined and given consultation by a Community Midwife (*bidan*) who will provide her with iron tablets and TT immunizations.

Only few health facilities in rural areas can operate properly for emergency obstetric and neonatal care. An effort was made to set-up birthing homes (*Pondok Bersalin Desa* or *Polindes*) as a community-based programme for obstetric and neonatal care run by Community Midwives (*bidan di desa*). *Polindes* are houses which have a spare room specifically for obstetric and neonatal care at the village level, especially in remote areas. However, only 50% of all villages in Indonesia have been provided such coverage, and not all facilities are functioning successfully. The *top-down* method during interventions applied by the Government may affect and divided community behaviour according to antenatal, perinatal and post-partum stages further sub-divided into three groups, respectively: (1) the group which uses only a traditional medical system for every stage of pregnancy through to childbirth; (2) the group which uses plural medical systems: *i.e.* modern medical facility for antenatal care, and a preference for a traditional medical system when pregnancy appears safe; (3) the group which uses only the modern medical system for every stage of pregnancy. In the past decade, the Indonesian Government has undergone decentralisation which has given its provinces more independence to create their own policies. Because the province of West Java is autonomous, it now has the opportunity to write its own policies on Maternal and Child Health issues. However, decentralisation has not yet been implemented with a good understanding of what autonomy actually entails, because for more than 30 years (during the *New Order* Government) various organisations have developed into uniform centralized systems. All regulations should come from the Central Government in Jakarta. In recent years, after implementation of decentralisation, the mentality of a uniform and centralised system is still retained by the provincial government offices.

*Paraji* is a Sundanese term for indigenous midwife or Traditional Birth Attendant who is generally an older woman, who understands the same language spoken in the community in which she lives and works. She will most likely be unable to read the Latin alphabet, although she might read Arabic, and be less able to communicate in Indonesian. Although often illiterate, the *paraji* speaks the local language and is an integral part of the religious and cultural community. She will practice midwifery as a part-time occupation. Her socio-economic status is considered poor, since her main occupation is labouring in the fields for which she receives a very low pay from the landlord. A *paraji* has not been given any formal training; she has learned through experience and by observing senior practitioners, perhaps her mother, grandmother, a relative, or a neighbour who used to help pregnant, parturient and post-partum women. *Paraji* have been found to be mediators par excellence. Furthermore, they have usually given birth to live offspring themselves. *Paraji* are generally wise women who are preferred by families in their village for their practical approach and experience. Many *paraji* have dynamic personalities and are accepted as figures of authority by the community. *Paraji* are private indigenous healers whose main concern is assisting their clients without first negotiating their own fees. Sometimes they receive payment in the form of cash or gifts but usually their compensation includes acknowledgement of their favoured status in the community.

To reduce the Maternal (MMR) and Infant (IMR) Mortality Rates, the National Department of Health through Provincial Health Offices has conducted a number of training programmes for *paraji* to broaden and update their knowledge about pregnancy and childbirth, especially how to detect a high-risk pregnancy, how to refer a woman to a medical facility should an untoward situation occur, and the importance of maintaining hygiene and proper treatment of the umbilical cord. After completing a training course, a *paraji* is awarded a UNICEF 'Dukun Kit'. A *paraji* is considered part of an extended family in the community because of her role in public health. When a *paraji* has successfully assisted a woman (*cocok*) through childbirth, then later the client's daughters and grand-daughters will also choose the same traditional system when they become pregnant. There is trust in maintaining a good relationship between client and *paraji*.

The *paraji* (TBA) not only offers health care during and after pregnancy and childbirth but also conducts traditional rituals during pregnancy and the post-partum period. *First*, one must consider a woman's health-seeking or MCH utilisation behaviour during pregnancy and childbirth at an individual level; here focus is on management of pregnancy which is divided into trimesters according to biomedical science. These three periods parallel foetal development and the steps ('external actions') taken by pregnant women to contact traditional and/or modern MCH systems available in the study area. It is remarkable that both ethno- and bio-medical MCH systems use almost identical estimations to pinpoint foetal development. Within 8–12 weeks of pregnancy, an expectant mother will begin to experience a fluttering sensation as the foetus grows and begins to move in the womb. In Rancaekek knowledge about foetal development is based on locals' beliefs as well as on Islam. Thus when a pregnant woman begins to feel the foetus move at ca. 4 months gestation, tradition indicates that Allāh (God) has blown the soul into the body of the foetus to create a new life (*cf.* Chapter VI). To honour this phenomenon, traditionally the pregnant woman's family holds a group ritual or *pengajian* or reading of the Holy Qur'ān by inviting a religious leader to conduct the ceremony. When pregnancy reaches the seventh month, modern bio-medical techniques and intensive care are frequently able to keep alive infants born during the 28th week. In contrast, traditional knowledge indicates that the 7th month of pregnancy is considered 'mature'; if a baby is born at this time, s/he will grow to lead a normal life if it is strong

enough to survive childbirth. Because there is always the possibility that a pregnancy will terminate in childbirth during the 7th month, the family will perform a ritual called *nujuh bulan* for a safe delivery and continued good health for mother and newborn (*cf.* Chapter VI). *Second*, patterns for MCH utilisation behaviour in Rancaekek's plural medical systems generally show which are determining factors which affect a woman's external actions during the process of pregnancy under varying socio-economic conditions. Analysis does not, however, include an assessment of the quality and range of MCH services offered. Although self-treatment ('internal' actions) is also included in the analysis, focus is on 'external' actions which lead to the utilisation of plural MCH systems in the study area. Thus, research into the utilisation of MCH systems concentrates on the number of contacts, expressed as scores; (*cf.* Chapter VII) which pregnant and perinatal women make after confirmation of pregnancy with components of plural MCH systems.

Although the study in Rancaekek collects data from 150 women (*cf.* Chapter III) who were pregnant during the 1-year period prior to the survey, only 127 women had actually given birth. As a consequence, only these 127 women, who completed the steps and made contact with traditional and/or modern MCH systems during the course of pregnancy and delivery, are followed individually, according to their external actions after confirmation of pregnancy. The 23 women who were still pregnant at the time of the survey are excluded from the survey sample. Based on the importance of women's total MCH utilisation behaviour for this study, preference was given to the 127 respondents who had completed the entire process.

The way in which women choose to use antenatal, perinatal and post-partum Maternal and Child Health care has a considerable impact not only on their own lives but also on the lives of their children. Therefore, further research is needed on MCH utilisation behaviour directed specifically at women. One problem has been identified in Rancaekek where women usually rely on the male head of the household to make not only financial decisions but also choices which will affect all their lives. As wife and mother, a woman will also require support from other family members to help with household chores and childcare while she is incapacitated during parturition. Although pregnancy is an individual concern, in the case of Maternal and Child Health issues, other family members generally become involved, offering advice and expressing empathy for a pregnant woman. They will share concern for her physical and emotional well-being, help prepare her for childbirth, hold appropriate rituals during and after pregnancy, and perhaps even help pay her expenses. Family members, neighbours and other relations will most likely offer suggestions when time comes to choose between MCH systems. The entire experience of pregnancy and the period which follows childbirth is socially constructed. The expectations of family, friends and close neighbours will affect the expectant mother even during childbirth when people in her close surroundings try to interpret her symptoms and provide solace.

MCH utilisation behaviour includes all steps taken by women from the first symptoms, diagnosis or confirmation of pregnancy until delivery. The MCH utilisation process describes her range of health-seeking actions supported by members of her household, labelled as 'no action', 'internal actions', and 'external actions'. Actions refer to the utilisation of the plural MCH system, according to a woman's needs during specific periods of pregnancy. A woman's utilisation behaviour is dependent on a number of factors such as trust, financial status of the household and socio-cultural background. In accordance with the conceptual model of analysis presented in Chapter III, the method of research of the utilisation of different components of the plural MCH system in Rancaekek is discussed. Seniority brings social privileges to the decision maker, in this case elder women experienced in the use of

MCH systems available in the area. Gender will be a determining factor when the time comes for a husband and/or his spouse and family members to decide whether to seek help during pregnancy; in Sundanese culture, regardless of whether the pair has discussed matters beforehand, it is still the husband and head of the household who generally has the final word regardless of the issue. A husband should ideally be older than his wife and treated as her 'elder brother', which demonstrates that the status of the husband and his wife is structured by the family's socio-cultural values

Chapter VII presents the Decision Tree which illustrates the flow of pregnant and parturient women within plural MCH systems in Rancaekek, marking subsequent health-seeking steps taken by pregnant women during the 12-month period prior to the survey. In the survey a woman's actions are categorised according to four steps taken from the onset of pregnancy through childbirth. Utilisation of traditional and/or modern MCH systems is very much dependent on predisposing, enabling and institutional factors. The final step in each category, which marks childbirth, shows the number of women who are giving birth using traditional or modern MCH systems available in Rancaekek. (*cf.* Figure 7.1. Decision Tree).

The Decision Tree shows the ways in which a pregnant or perinatal woman seeks help in a multiple-use strategy. Her choices reflect not only her own beliefs and preferences but also those of her family, friends or neighbours. The relationship between knowledge about pregnancy and childbirth and social context becomes considerably more complicated the more medically pluralistic traditional and modern system the society becomes. A community which offers plural medical systems stimulates its members to make choices regarding their own health and well-being. The opportunity to choose between plural medical system available in the area leads to integration of traditional and modern systems.

In addition the flow of respondents in the sample surveyed through plural MCH systems in Rancaekek demonstrates their health-seeking choices, with regard the variables in the conceptual framework, include independent variables in the conceptual framework:

(1) predisposing socio-demographic variables (*e.g.* age, marital status, place of birth, ethnicity, educations, occupations) (2) predisposing psycho-social variable at the individual level (*e.g.* knowledge, opinions, beliefs,); (3) enabling variables (*e.g.* socio-economic characteristics at the individual level); (4) perceived variables of pregnancy at the individual level (*e.g.* opinion about the *paraji* and *bidan*); (5) institutional variables geographical accessibility of the health services; (6) intervening variables on MCH introduced from outside the community, (*e.g.* government policies and promotions); (7 and 8) the independent variables concerning had reported utilisation of the respectively traditional and modern system of the MCH.

The multivariate model employed in this study is based on the Leiden Concept of 'ethnosystems' which not only broadens one's perspective on culture but also enables assessment of the cognitive and behavioural components of particular groups or communities as 'systems' in a rather *holistic* mode. More importantly, such a definition of ethnosystems furthermore facilitates elaboration of the concept of culture as the result of the historical process of acculturation in a more dynamic way. As such, the model proves to be well suited for the previously mentioned analysis of MCH utilisation behaviour in the plural MCH systems in Rancaekek.

#### (1) *Participants' View*

The decision to include the points of view of participants, or the target population, when planning and implementing innovative and developmental processes has encouraged a new relativist perspective on other cultures and societies.

### (2) *Field of Ethnosystems Study*

The Field of Ethnosystems Study (FES) refers to the concept 'culture area'. In the case of Indonesia, certain features such as kinship classifications, patterns of social organisation, ornaments on bronze kettle drums, patterns of woven cloths, and perceptions and practices in medical systems, which as pan-Indonesian characteristics are spread over what is called a field of ethnological study of Indonesia.

### (3) *Historical Dimension*

When studying and analyzing complex configurations, albeit in medicine, religion or agriculture, strict contemporary-oriented approaches have failed to highlight the dynamics of origins and developmental processes, which have led to present-day complexes. In sum, these aspects of the study and analysis of other cultures have helped to define the new approach to ethnosystems in a broader sense and have stimulated the recent reappraisal of the 'cultural dimension of development' in international cooperative efforts.

In the case of *paraji* (TBA) and *bidan* (CMW) in Indonesia, integrated medicine for advanced partnerships among *paraji* and *bidan* in Rancaekek, Bandung, West Java, and the population are women who have been pregnant or given birth during the prior 12-month period will make up the study population. To show that all groups with a specific background – such as ethnicities, education, occupation, religion, socio-economic status, and so forth – are represented in the sample, a decision was made to select villages categorized according to the local government.

During the research on the use of the plural system of MCH system in Rancaekek on the basis of the analytical model also the interaction and changes in the behaviour of the *paraji* and *bidan* were involved.

The multivariate model seeks to describe and explain the interactions among different determinants of the use of Maternal and Child Health (MCH) in Rancaekek. In case of the use of Maternal and Child Health (MCH) by pregnant women, attention is also paid on the external influence of government policies on the behaviour of women in the local MCH of the community.

In Chapter VIII, the way in which the bivariate analysis identifies the significant relations and interactions among variables which influence the utilisation of the plural MCH system. In this analysis, the independent and intervening variables are distributed over the two dependent variables of the use of modern and traditional systems of MCH, as reported by respondents pregnant during the 12-month period of time preceding the surveys in the research area. The bivariate analysis also indicates the significance of the relations and interactions between the variables, showing for the predisposing socio-demographic variables that the richer the community is, the less important the role of the *paraji* (TBA) is. Also, the education and occupation of women and their husbands influence the use of traditional or modern MCH systems. The relationships between variables in the predisposing psycho-social variables show that knowledge about pregnancies, high-risk deliveries and miscarriages reveal a significant relation with the utilisation of the traditional MCH; while opinions about *paraji* (TBA) and *bidan* (CMW), and beliefs in taboos during and after pregnancy and delivery also show a significant relation with utilisation of both MCH systems. Socio-economic status and geographical accessibility also show a significant relationship with the utilisation of traditional and modern MCH systems in Rancaekek.

Consequently, the second step of the analysis reflects the overall influence of all independent and intervening variables on the dependent variables in relation to and among each other. The OVERALS multivariate analysis not only identifies specific determinants for the utilisation of MCH systems, but also facilitates the measurement of the effects of different variables within the overall patterns of MCH utilisation behaviour during pregnancy and delivery. The final step using a multiple regression analysis illustrates additional relationships between groups of variables, represented as 'blocks' in the model, by pointing to relevant regression coefficients ( $r$ ). These analyses have provided deeper insight and new knowledge which help to elucidate the prediction of the values for the overall interaction between relevant variables in the behaviour of pregnant women in Rancaekek. The chapter is concluded with an interpretation and discussion of the outcomes of the analysis in relation to the structure of the model.

*Paraji* (TBA) with their knowledge of traditional herbal remedies play a special socio-cultural role in remote areas of Indonesia, not only when they provide care to pregnant and perinatal women, but also when they act as health consultants for families. The loss of one *paraji* means that indigenous knowledge systems of Maternal and Child Health issues, pregnancy, delivery and knowledge of herbal medicine (*jamu*) will disappear as well. Proponents of integrated indigenous and modern knowledge as the key to sustainable development support the concept of advanced partnerships between *paraj* (TBA) and *bidan* (CMW) in both Rancaekek as well as in the other local communities in Indonesia. The protection and revaluation of the traditional knowledge has to be strongly supported by government policies at all levels in a multi-cultural country such as Indonesia.

Although the WHO Report (2008) indicates that the focus is shifting from the health of mother and child to that of the entire community, the policy makers should pay more attention to human resources for in government health policies with regard to the future generations. Integration of human and material resources in Maternal and Child Health systems is essential if conditions in the country are to be improved. In the indigenous MCH systems, *paraji* still plays an important role, while in modern MCH systems, the educated certified *bidan* (CMW) who are formally assigned by the Ministry of Health, provide health care for mother and child in the community. After being trained, the *paraji* can play a strategic role in stimulating community participation in 'Safe Motherhood' programmes. Training *paraji*, which began in the 1980s as a strategy and a way to reduce maternal morbidity and mortality has since then been accomplished worldwide. In recent years, however, fewer *paraji* have been trained, which presents a potentially hazardous situation for people living in remote areas who are rarely reached by modern health care. Moreover, the *paraji* can become important intermediaries in the relation between the community and its formal medical system and help integrate traditional and modern systems of MCH through the creation of partnerships aimed at reducing maternal and infant mortality.

Instead of pointing an accusatory finger at Traditional Birth Attendants (*paraji*) as the 'cause' of relatively high maternal and infant mortality, it would be far better not only to enhance the role of the *paraji* by providing them with education, but also enable them to share their unique local knowledge and practice with the *bidan* in order to sustain advanced partnerships among both functionaries in the plural MCH system in Indonesia. Similarly, in such partnerships the *paraji* and *bidan* could share and exchange their specific knowledge and practise in pregnancy and delivery, so that mutual respect, understanding and cooperation will lead to a new form of comprehensive MCH throughout the country. Moreover, not only the women, households and communities should be educated to understand and better support MCH programmes introduced by national and international institutions, but also the formal

health providers should learn from the particular knowledge, experience and practise of the *paraji*.

It is equally important to improve the MCH systems in local communities with specific reproductive health care services, and to recognize both the *bidan* and *paraji* as skilled birth attendants, and stimulate the community and its inhabitants to participate together in order to achieve safe pregnancy and childbirth. Educational programmes for Community Midwives (*bidan*) should also include information about community development, in particular how to motivate the community to become involved and participate in local ways of life.

A chain of participation “from the bottom” from individuals who link up with the entire community, starting at the individual household level and progressing through the neighbourhood and the involvement of *bidan*, *paraji*, health centres and health volunteers towards the local and national governments, will provide a major contribution to the improvement and sustainability of the integrated traditional and modern MCH systems in Rancaekek and thereafter, throughout entire Indonesia in the future.