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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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Chapter IX CONCLUSIONS AND IMPLICATIONS

9.1 Conclusions

In 1978, the WHO Conference at Alma-Ata developed a new paradigm placing Primary Health Care (PHC) at the forefront of its global health-care strategies, with Maternal and Child Health (MCH) considered one of its most essential components from the onset. It is acknowledged that both primary and maternal and child health care are human rights which should be made accessible to all peoples globally, through their full participation and at a cost affordable at both community and national levels (*cf.* Chapter I). The Alma-Ata Convention emphasises that fully organized community participation is essential to achieve ultimate self-reliance, with individuals, families, and communities assuming more responsibility for their own health and well being. At its conclusion, the Alma-Ata Conference reformulated its policy with the goal “Health for All by the Year 2000”. In order to validate Primary Health Care (PHC) and assure that it remains an integral part of community and national development, rather than become an isolated non-essential activity, the National Government will need to provide support not only at local but also at intermediate and central levels.

The Alma-Ata Conference (1978) set the scene for the mobilization of PHC movements, especially in developing countries. Governments, Non-Governmental Organisations (NGO), social institutions and researchers embarked upon a path to develop more effective programmes to eradicate poor health conditions in their individual countries. Health policy makers need to formulate credible objectives to integrate plural medical systems into the current context of local health care. Indeed, this is what was expected to happen. People need additional support from medical systems, such as improved health assessments for themselves and their families, in the community in which they live. Data illustrate the inter-relationship between health systems and peoples’ needs. With an eye to Primary Health Care, popular reforms and PHC movements to reorganize community health services need to focus on the public’s growing expectations when trying to integrate medical systems. One must examine public health policies across sectors as well as health policy reforms which replace unequal reliance on command and control, on one hand, or leadership reforms, on the other hand (*cf.* WHO 2008).

Moreover, the WHO Report (2008: 15–17) on Primary Health Care in well-resourced contexts has been oversimplified in resource-constrained settings. Primary Health Care is like an institution where patients are guided through the medical system. It is unacceptable that, in low-income countries. Primary Health Care becomes synonymous with low-tech, non-professional care for the rural poor who cannot afford a better option or is reduced to minimal treatment of priority diseases or is trimmed down to no more than a stand-alone health post or isolated community health worker. Primary Health Care facilitates ongoing patient–clinician relationships, in which patients participate in decision-making processes concerning their own health: *i.e.* early detection of disease, treatment of illness, and promotion of well-being. Primary Health Care requires teams of health professionals such as physicians, nursing practitioners, and assistants with specific sophisticated biomedical and social skills. During the Regional Consultation in Bangkok (WHO 2009) on the development and implementation of Traditional Medicine for self-care, the Indonesian delegation reported that the role of indigenous health care is still categorised as primary, although health centres and health providers cannot reach every corner of the country which stretches over 1.928.600 km² and is divided into 36 provinces and 349 districts with countless out-of-the-way areas. The cost of

health care, including medication, is a burden felt by most patients and their families seeking treatment. Public interest in Traditional Medicine for self-medication is growing, a fact that should be taken into consideration with regard to integration of ethno- and bio-medical systems.

Every community has its own cultural guidelines for pregnancy, parturition and post-partum care rooted in local systems of knowledge, beliefs, values and practices. Every culture has developed specific systems, sets of belief and techniques to explain phenomena occurring during the processes of human reproduction, *i.e.* conception, pregnancy, miscarriage, childbirth and the period thereafter. Development of Maternal and Child Health (MCH) systems in Indonesia has had an impact on reproductive health and the often unsafe conditions threatening women and their offspring. The National Ministry of Health has shown a tendency to ignore indigenous MCH systems, basing their policies on stereotypical suppositions that *paraji* (TBA) are unskilled, uneducated and incapable of providing for their clients adequately. The high Maternal (MMR) and Infant (IMR) Mortality Rates in Indonesia point to two health issues which usually occur during parturition. Indonesia has among the highest rates in Asia; West Java Province has one of the highest rates in Indonesia. Based on the Demographic and Health Survey in Indonesia, the MMR decreased from 373 deaths per 100.000 in 2002 to 307 deaths per 100.000 in 2003. Every hour, two women will die giving birth. Health conditions in Indonesia correlate with the high IMR numbering 20 deaths per 1000 live births. Indonesia's targets for 2015 are to achieve an MMR less than 125 deaths per 100.000 and an IMR less than 15 deaths per 1000. Reaching this rather ambitious goal will oblige plural MCH systems to work solidly together at all levels. Based on such aims and strategies, however, improvement of maternal and neonatal health is becoming a more strategic challenge within human resource development. In West Java (*cf.* Kurnia 2008) the MMR was recently said to be 300 deaths per 100.000; this figure shows a tremendous drop since 2002 when the MMR equalled 390 deaths per 100.000.

Consequently, the tragedy of maternal deaths can often be prevented through regular check-ups and good nutrition during pregnancy. This study recommends that current MCH practices undergo revision to a certain extent to create a medical system which generates alternative strategies for *development from the bottom up* through community participation. In revitalising MCH systems, special emphasis should focus on health-care financing and the quality and number of *bidan* (CMW) as part of the health workforce. Community-based indigenous healers and community health volunteers (*kader kesehatan*) need to rely more on each other to supplement the shortage of government-employed *bidan* (CMW). A mother's death or morbidity impacts the health and well-being of her offspring. When a mother dies, her remaining children will have a 3–10 times higher risks of dying at the young age of 2 years, compared to children who still have both parents (*cf.* Tinker 1997).

Despite the successful implementation of several approaches and strategies which were designed for an integrated plural medical system, one must nevertheless acknowledge that 'Health for All by the Year 2000' (WHO 1981) has missed its mark. Today, a large segment of rural populations in the tropics is still deprived of adequate health care, partly as the result of the lack of integration of traditional healing and midwifery. This indicates that current researchers should possibly re-assess, fine-tune and rectify the existing shortcomings and methodologies. Mainly because of the ongoing division and often discord between bio- and ethnomedicine – as ethnomedical systems negotiate present-day challenges presented by science and technology – several theoretical and methodological obstacles must still be surmounted before the anticipated integration becomes a reality (*cf.* Slikkerveer 2003).

This study is based on longitudinal fieldwork carried out between 1999 and 2003 with the topic ‘Making Pregnancy Safer’. In 2005, collection of qualitative data recommenced for the study “*paraji* and *bidan* in Rancaekek: Integrated Medicine for Advanced Partnerships among *paraji* (TBA) and *bidan* (CMW) in the Sunda Region of Bandung, West Java, Indonesia”. Then, in 2006, the findings were used to develop structured questionnaires to conduct a survey using a sample of 150 households in which women pregnant during the prior 12-month period were categorized retrospectively: 127 women had completed their pregnancy and given birth to a live offspring while 23 respondents were still pregnant. The population of the sample survey comprise 798 households. However, since the focus of the study is on utilisation of plural MCH systems, it is necessary for the analysis to retrace which actual steps the pregnant women had taken after receiving confirmation of pregnancy through childbirth. Therefore only 127 respondents were found suitable for inclusion in the analysis. The study of the women’s health-seeking behaviour during all stages of their pregnancy and parturition reveals a pattern for the utilisation for existing MCH systems in the community; *i.e.* pregnant women who took 287 ‘external’ actions to contact traditional and modern MCH systems.

The general objective of this study is to augment the body of knowledge and increase understanding about how the process of reproduction relates to utilisation of existent traditional and modern MCH systems in a rural environment. Research focuses on the assessment of active health-seeking behaviour and utilisation of plural MCH systems in the community by studying, *e.g.* the socio-demographic and psycho-social backgrounds of the sample survey; people’s perceptions, knowledge and beliefs about pregnancy and childbirth; MCH practices in the local community; application of indigenous medicine in the research setting; ‘enabling’, ‘institutional’ and ‘intervening’ factors. In order to substantiate the theoretical orientation of the research in Rancaekek – a semi-urban area located on the periphery of Bandung and Sumedang in West Java – an overview is presented of relevant theoretical foundations of current ethnoscience research on plural medical systems.

Increased interest in traditional and modern MCH systems has led to attempts to revitalise and integrate them through advanced partnerships between *paraji* (TBA) and *bidan* (CMW). Such endeavours have come to be recognized as a potential opportunity to reduce maternal and infant deaths during pregnancy and delivery. What is now conceded as the *paraji*’s expertise – *i.e.* knowledge of important indigenous medicine, ability to communicate through ‘home visits’, and use of psychological approaches like touch to calm a woman’s anxiety – is expected to enhance advance partnerships with *bidan* in Rancaekek. However, an experienced *paraji* must also be trained in the use of modern techniques in order to participate equally with *bidan*. Since *paraji* and *bidan* share the same objectives, integration through partnerships creates a potential synergy for assisting women through the process of pregnancy, delivery and post-partum care while, at the same time, reducing maternal and infant mortality.

In actual fact, a multivariate model should not only advance thoughtful understanding of interactions between distinct factors and their relative effects on utilisation of MCH systems but also include a predictive value for planning purposes. Consequently, in this study, a model is developed for the integration of traditional and modern MCH systems to present an alternative way to achieve a safe functional MCH system in the Rancaekek community in particular and Indonesia in general. In the long run, hopefully this study will help improve the use of human resources in Indonesia so that the entire population will gain access to affordable Maternal and Child Health care, whether provided by *paraji* and/or *bidan*.

After the theoretical orientation, a description is given of the selected qualitative and quantitative research methodologies and analysis techniques. An analytical model is designed and tested to enable the calculation of interactions between various independent and

intervening variables, in relation to two dependent variables *utilisation of traditional MCH* and *utilisation of modern MCH*, as scored by survey respondents in the research area. After data collection, through the application of qualitative research and quantitative surveys, a series of bivariate and multivariate analyses are run to identify various categories of significant factors involved in the utilisation of traditional and modern MCH systems. Remarkable findings have demonstrated that the ‘invisible’ factors concerning knowledge, beliefs and perceptions appear to play a determinant role in the explanation and prediction of utilisation behaviour. On the basis of implementation of selected research methodology, the main results derived from specific study objectives can be summarized as follows.

(1) Chapter IV gives a description of the research setting in terms of the social geography of Indonesia as a developing country in South-East Asia and the Sunda Region of West Java Province where research is carried out. Social geography includes a description of the climate and layout of the country, its population, economic condition, and environment. The overview of the Sunda region describes the ethnic Sundanese who live there.

(2) Health and healing in Indonesia, including traditional and modern medical systems, are described with special attention focused on Maternal and Child Health. In particular, the changing roles of *paraji* (TBA) and *bidan* (CMW) are described within the context of current National Government policies on Maternal and Child Health. Ethnomedicine with its deeply rooted traditional use of herbal medicine (*jamu*) and Western medicine introduced during the Dutch Colonial Era continue to exert influence in the health-care services after the independence of Indonesia in 1945. After the Alma-Ata Declaration in 1978, Primary Health Care gained a foothold in Indonesia with the introduction of *Bidan di Desa* (Community Midwives), *Puskemas* (Community Health Centre) and *Posyandu* (Integrated Services Post) in rural areas. However, each community actually has its own local health system, with maternal and infant care being provided by Traditional Birth Attendants (*paraji*). To improve MCH services, cooperation between traditional and modern MCH systems is essential.

(3) Rancaekek as locality for both qualitative and quantitative surveys, the structure of the community, study population and sample survey are each discussed. An overview is given of the local MCH system, the role of Traditional Birth Attendants (*paraji*), and the ethnobotanical knowledge employed to prepare medicinal concoctions for use during pregnancy and parturition, but most often during the post-partum period. Their knowledge of and experience with specific plants and their functions is invaluable. Recording the taxonomies, functions and characteristics of indigenous plants in Rancaekek and how people relate to their use will increase our understanding about the role *paraji* play during and after pregnancy and childbirth. WHO’s (1978) strategy for achieving ‘Health for All’ through the concept Primary Health Care is redefined by referring to: “*essential health care made accessible at a cost that the country and the community can afford*”. The number of programmes aimed at health-care development has grown significantly, including integration of traditional MCH, *e.g.* training *paraji* to expand their understanding about attitudes and practices in the community and to supplement modern MCH systems still inaccessible in some rural areas (*cf.* Slikkerveer 2006). The *paraji*’s knowledge of medicinal plants and her ability to determine their efficacy illustrates just how specialized her skills are. Making use of a *paraji*’s expertise is in tune with WHO’s promotion of Traditional Medicine in Primary Health Care.

(4) Plural MCH services, the MCH utilisation behaviour of pregnant and perinatal women, and the determination of pregnancy by *paraji* and/or *bidan* in the research area are discussed. The configuration of plural MCH systems in the research area is described in terms of knowledge, practices, beliefs, functions and medicine. In Rancaekek, as well as other communities offering plural health services, traditional MCH systems have developed within the society's cultural context, adapting to the specific environment and needs of its peoples. Because the social sciences have carried out little research on Maternal and Child Health in Indonesia, this study on the applicability of partnerships between MCH systems to reduce maternal and infant mortality is important. The country's social sciences are starting to become involved in the issue of Maternal and Child Health in order to deepen understanding about socio-cultural and socio-economic influences on utilisation of MCH systems in Indonesia. One can investigate health-seeking patterns for MCH utilisation behaviour based on individual characteristics such as ethnicity, religion, socio-economic status, educational and occupational backgrounds, knowledge about reproduction, religious and cultural beliefs affecting the decision-making process whether to use available MCH services (*cf.* Chapter VII). For the 127 households surveyed, women are categorized according to whether they were pregnant or had already given birth during the 12-month period prior to the survey, as discussed in detail earlier. The decision whether to seek help begins when a woman and her household become aware that she is pregnant. Subsequently, a series of decisions will be made either by the woman herself, by her nuclear family (husband and wife), by members of her extended family, sometimes including influential neighbours, or occasionally by volunteer health workers, religious or community leaders anxious to intervene. Table 7.1 shows women's role in the decision-making process to seek help during pregnancy and childbirth. When a young woman has little knowledge or experience with the total process of pregnancy and delivery, as well as how to care for an infant, she will frequently 'surrender' to the decisions taken by her husband, senior family members or people in the community.

(5) Patterns for utilisation of plural MCH systems by sample respondents in Rancaekek are analysed and the results interpreted using bivariate, multivariate and finally, multiple regression analyses. Development of a multivariate model for integrated health care in a population group (*cf.* Slikkerveer 1990) as well as discussion of several earlier theoretical models is part of medical anthropological and sociological research into the use of MCH systems available in the Rancaekek study area. Special attention is paid to the theoretical model from the 'Leiden Tradition', *i.e.* the *emic* or 'participant's view' to assess at individual and household levels; the 'Field of Anthropological Study' (FAS) perspective to interpret phenomena in the specific study area; and the Historical Dimensions perspective to enable historical analysis of complex contemporary configurations in MCH systems in the area. The multivariate model provides an analytical framework which accommodates predisposing and enabling factors together with perceived factors for reproductive processes as well as takes into account intervening factors such as each programme introduced in the study area as well as other above-mentioned factors which influence utilisation behaviour. Furthermore, the aim is to incorporate the results of this study into a more generally applicable, explanatory model for utilisation behaviour in Indonesia.

(6) Recommendations are made on the basis of research findings about the reinforcement, support and interaction between *paraji* (TBA) and *bidan* (CMW) with regard to their shared aim to improve MCH services in the community and to foster sustained partnership between

practitioners, and representatives, of traditional and modern medical systems in the research area.

The role of *paraji* (TBA) in Maternal and Child Health is changing both socially and culturally as a result of the continual dissemination of information by modern MCH providers on issues such as training to become a *paraji*; referral of high-risk pregnancies to *Puskesmas* and hospitals; introduction of Misoprostol tablets to stop haemorrhage; promotion of modern MCH care; and development of new programmes under the auspices of the community to supplement MCH medical systems such as *ambulans desa*, health insurance (TABULIN: *tabungan ibu bersalin*), etc. Interaction between all elements in the community working to achieve well-functioning plural medical systems is discussed to give credibility and support attempts to establish MCH systems in Rancaekek. The overall pattern for utilisation of plural MCH systems demonstrates the differing needs of pregnant and perinatal women, as seen from their ‘external’ actions taken during pregnancy. The Decision Tree in Fig. 7.1 shows the flow of pregnant and perinatal women surveyed through the plural MCH systems in Rancaekek. The flow of women seeking help, especially outside the family, has subsequently been examined as they pick and choose between different services offered by plural MCH systems.

The role of modern MCH services (*bidan*) extends to various ‘Safe Motherhood’ programmes such as: ‘*Gerakan Sayang Ibu*’ (GSI), ‘Making Pregnancy Safer’ (MPS), ‘*Gerakan Pita Putih*’ (MNH), ‘*Desa Siaga*’ (‘Village Alert’), that aim to improve health by training *paraji*, promoting MCH care, developing new programmes for *ambulans desa* (village ambulance), health insurance (TABULIN) and so forth. The overall pattern for utilisation of plural MCH systems varies greatly among diverse classifications of villages (see Chapter III, Table 3.1). The more developed the village, the greater the utilisation of modern MCH systems. Developed villages, generally located near main roads, have better access to existing infrastructures like public transportation, schools, health centres, etc. Although the role of Community Midwife (*bidan*) in the modern MCH system has grown in importance in Rancaekek (see Chapter VIII), this does not mean that the role of *paraji* (TBA) is disappearing; *paraji* have the specific talent for helping pregnant, parturient and post-partum women by providing massage and herbal remedies (*cf.* Chapter VI). The scale-up to *bidan* and continuing importance of the *paraji* is due to the development of integrated partnerships between plural MCH systems.

Both *paraji* and *bidan* should be encouraged to interact and collaborate to achieve the same objectives in promoting MCH services in the community. Establishing advanced partnerships between plural MCH systems will create synergy to overcome long-existent problems and reduce maternal and child mortality in the study area. The next step will be to decide whether the model is applicable in other societies or cultures in Indonesia, hopefully helping to reduce Maternal (MMR) and Infant (IMR) Mortality Rates in Indonesia. The model works well when fitted to insights on women’s MCH utilisation behaviour during pregnancy and childbirth. The model not only correlates interactions between all categories or blocks of variables but also contributes to their predictive value. The calculated values for multiple correlation coefficients and relations between various blocks in the analytical model not only indicate the actual overall interaction between blocks of variables but also their remarkable predictive value for the utilisation of MCH systems in the study area. Respondents’ socio-economic status demonstrates a very strong and significant ‘impact’ on their participation in MCH programmes and has a significant relationship with the reported utilisation of both traditional and modern MCH systems.

Bivariate cross-tabulation analysis yields scores to help identify and describe strongly significant relationships using Pearson's χ^2 and Phi-Cramer's in several factors with 0.000 and <0.005 . Variables with a significant correlation to *utilisation of traditional MCH* (ustr) and *utilisation of modern MCH* (usmod) are: *type of villages* (typvil), *education of women* (eduw), *occupations of women* (occuw), *education of husbands* (eduh), *occupations of husbands* (occuh), *knowledge about pregnancy* (knopre), *knowledge about miscarriage* (knomis), *socio-economic status* (SES), *opinion about TBA [paraji] skills* (opitba), *opinion about midwife [bidan] skills* (opimid), and *impact of MCH programmes through participation* (impac). Strong correlations between several factors with *utilisation of traditional MCH* (ustr) and *utilisation of modern MCH* (usmod) show that collaboration among such systems is needed by the community and should be translated into advanced partnerships to avoid low-tech and non-professional help for pregnant and parturient women. Integrative partnerships should be dedicated to achieving accessible and affordable Maternal and Child Health for all populations in Indonesia. In addition to bivariate analysis, initiation of a multivariate model for MCH utilisation was attempted on the strength of quantitative data from the household survey. A non-linear, CANALS, OVERALS and canonical correlation, developed at the University of Leiden, rendered practicable exposition of the interaction and total coherence of all background variables among themselves with reference to the utilisation of plural MCH systems. It then became evident that relatively high correlations (r) were achieved between independent and dependent variables: predisposing factor for *utilisation of traditional MCH* (ustr=0.686) and *utilisation of modern MCH* (usmod=0.468). Strong coherence was also found between the factor *perception of pregnancy* and the variables *utilisation of traditional MCH* (ustr=0.584) and *utilisation of modern MCH* (usmod=0.230). This result, incidentally, demonstrates that traditional Maternal and Child Health plays a strong role in the community and therefore cannot possibly be stripped of its socio-cultural role because its origin is rooted in their indigenous knowledge about the ways of life.

The 21 predictor and 2 utilisation variables are later presented in the form of a spatial projection onto canonical space, which further enhances predictive power. The outcome of the canonical correlation analysis enables a more detailed explanation of differential utilisation, summarized as follows. A strong correlation emerges between *belief in taboos during pregnancy* and *geographical accessibility* and *opinion about TBA skills versus utilisation of traditional MCH* as opposed to *utilisation of modern MCH*. The variables *education*, *occupation*, *socio-economic status*, *type of village*, *age*, and *perception* also show a strong coherence with *utilisation of traditional MCH* and *utilisation of modern MCH*. Section 9.2 will discuss the implications for such a policy in Indonesia, in addition to presenting an overview of the theoretical implications of the study.

9.2 Implications

In addition to the conclusions mentioned above, some implications on a theoretical, methodological and practical level will now be presented as this study's contribution to the body of knowledge in medical anthropology and sociology and in an endeavour to participate in the development of a safe improved medical system for MCH care and, in the long run, to better apply human resources in Indonesia.

9.2.1 Theoretical Implications

In order to contribute to the development of a theoretical framework for comparison of ethnomedical systems separately from biomedical systems in which pregnancy is seen in the context of socio-cultural beliefs and lifestyles, a primarily behavioural basis for comparing MCH utilisation is chosen within the socio-cultural context of the community. The results revealed in this study substantiate the body of indigenous knowledge and wisdom, passed down over many generations, on traditional MCH systems rooted in the community, in this case Rancaekek.

Moreover, the results also support international concerns regarding 'Health for All' based on the Alma-Ata Declaration acknowledged at an International Conference on Primary Health Care in 1978 as being the axis around which a country's medical systems revolve and an important component of its overall socio-economic development (*cf.* WHO 1998). The objective of the 'Health for All' strategy is to make Primary Health Care accessible for all peoples as well as affordable for communities and countries during every stage of their development. In addition, the Millennium Development Goals (MDG) have united the global community around a common agenda to reduce poverty and create an Asia-Pacific region free of poverty. It defines specific goals and targets with indicators for measuring and monitoring progress toward poverty reduction (*cf.* ADB 2005). The Millennium Development Goals represent a global partnership which has grown from shared commitments and targets established at the world summits during the 1990s. Responding to major global challenges and the call for a civil society, the Millennium Development Goals promote education, gender equality, the reduction of poverty as well as maternal and infant mortality, and eradication of HIV/AIDS and other diseases. Millennium Development Goals, set for the year 2015, are an agreed upon set of goals which can be achieved if all participants work together and do their part. Poor countries have pledged to improve governance and invest in human resources through improved health care and education. Rich countries have promised to support poorer nations by providing aid, debt relief, and fairer trade (*cf.* UNDP 2005). In their 2008 Report at Almaty, Kazakhstan, WHO acknowledges that Primary Health Care requires teams of health professionals (physicians, nurses and practitioners with specific sophisticated biomedical and social skills). However, WHO does not accept low income as a reason why countries fail to provide Primary Health Care, which would be synonymous with low-tech, non-professional care for the rural poor who cannot afford a better option. For a developing country like Indonesia, with an unequally distributed population, imbalance in income, development and medical services, particularly in remote areas where there are few health centres and practitioners, indigenous healers and birth attendants still provide people with Primary Health Care. Although such Primary Health Care remains low-tech and non-professional, it is in fact the only health services available and should be integrated into modern systems of medical care. Such a move requires additional education and training for, in this case, indigenous healers in order to cope with health problems in remote areas. Health illiteracy must be reduced to a minimum by promoting good health and well-being through various means of communication to the public and traditional health providers.

Interest in redefining community health entails treating not just the physical and mental aspects of an individual but also his/her whole being holistically (*cf.* Sofoluwe & Bennett 1985). It also necessitates learning more about the knowledge systems of indigenous people in order to protect and sustain their natural cultural heritage. In her survey on traditional midwifery in Indonesia, Niehof (1992) found that mediation has clearly failed in cases where the mother or her offspring dies. It is the task of *paraji* (TBA) to pilot a pregnant woman

through the perils of childbirth and help deliver a living newborn into the world. The *paraji* are expected to surmount any obstacle and find solutions when problems arise. The *paraji* has indigenous knowledge about the stages of pregnancy: *i.e.* about the foetal position inside the womb; about a woman's physical experiences and psychological emotions during pregnancy; about giving massage and preparing herbal concoctions; about healthy and nutritional foods to consume during pregnancy; about how to avoid 'evil' influences during her 'weak' condition.

'Traditional' and 'modern' societies are an antithesis as pointed out by Burke (1993); the hierarchy of a traditional society is based on ascription and low social mobility in contrast to that of a modern society based on achievement and high social mobility. This is demonstrated clearly in their attitudes (if not mentality) *e.g.* to change. In a traditional society in which change takes place slowly, people often remain unaware of the changes taking place around them. In contrast, in a modern society, change is rapid and continuous. Where a traditional society is religious, rife with magic, and moreover irrational, a modern society is seen as being secular, rational and scientific. In reality, Slikkerveer (2002) points out that: "... *a valuable aspect of traditional knowledge should be understood, respected and synthesized with global knowledge in a balanced, humane way*". When striving for 'Health for All' (WHO 1978) and Millennium Development Goals (MDG 2005), Primary Health Care should provide a choice among several options, not just an obligation to use modern systems of health care, particularly with regard to Maternal and Child Health. In view of the fact that each community has its own MCH system, integration between systems creates synergy between all interactive components of human society and plural medical systems. The concept 'partnership' requires that two or more aspects – here traditional and modern Maternal and Child Health – integrate equally and respect the other's strong points. As stated in Chapter II, traditional medical systems are not static, having developed over time through discovery, innovation, and adaptation as well as having been transformed through the process of trans-culturation or contact with other regional or foreign cultures. Traditional MCH systems still exhibit trans-cultural traces or influences derived from local, Hindu and Islamic beliefs. It is essential that full use of the synergy is made which advanced partnerships and integration of plural MCH systems are providing.

Maternal and Child Health (MCH) systems in Rancaekek are classified rather holistically, following the ethnomedical approach Slikkerveer (1990) uses to validate insights into cognitive aspects of the health-seeking process. Health-seeking behaviour refers to activities undertaken by clients to utilise one or more social system (organisation) in a health-care delivery system. In reality, it shows that health behaviour changes both over time and through cultural exchange in the community. Rubel and Hass (1996) emphasize how knowledge about illness influences health-seeking behaviour and how informants express a preference for an illness-specific strategy; observations brought to light that women's behaviour reflects a multiple-use strategy. Inconsistency may occur because therapeutic choices reflect the beliefs and preferences not only of the patient but of family and friends as well. During the regional consultation in Bangkok, Thailand, WHO-SEARO (2009) introduced the concept 'self-care' in the context of Primary Health Care. The PHC approach rests on four principles: universal coverage, community participation, multi-sectoral collaboration, and use of appropriate technology. Self-care can be translated as community participation through empowerment which necessitates involvement in sectors other than health care. Behavioural patterns during pregnancy and delivery closely resemble those presented during illness.

A process of change is requisite to the situation of the community with regard to existent plural (traditional and modern) MCH systems. There is no guarantee that all members of the community will recognize and use a modern MCH system because changing knowledge,

beliefs, and attitudes is a process which must pass through many stages over time. When information about modern Maternal and Child Health continuously filters through to village leaders and local government institutions by way of various 'Safe Motherhood' programmes, utilisation of MCH services will be affected slowly, albeit not easily, among members of the community.

9.2.2 Methodological Implications

The methodological implications in this study are: (1) the integrated qualitative and quantitative approaches, and (2) the 'participant's view', as mentioned in the 'Leiden Tradition' which includes the participant's or target population's point of view when planning and implementing processes of innovation and development. This approach has encouraged a new 'relativist' way of seeing other cultures and societies. Using this method to observe and describe a socio-cultural system, an individual's 'subjective' perceptions and attitudes develop into an 'objective' social system which represents an important and valuable added component in the study of ethnosystems – indigenous world view, perceptions, and decision-making systems. This approach provides an *emic* rather than *etic* view of cultures.

Firstly, many researchers in the social sciences are accustomed to using qualitative and quantitative approaches separately. These same strengths can also be weaknesses. It should be apparent that the strengths of one approach may potentially complement the weaknesses of the other, and *vice versa*. Many surveys are developed on the spot, with questions asked from the locations where findings will be administered. Although questionnaires are occasionally constructed before going into the field, the questions themselves are usually not first fixed using systematically collected insights from the survey area. In this study on the use of traditional and modern MCH systems in Rancaekek, the process of constructing questionnaires for the quantitative survey is based on qualitative research done in advance to note essential issues concerning the utilisation of traditional and modern MCH services in Rancaekek. The study shows that qualitative methods are available to develop research before exploring some of the ways in which they could be usefully incorporated into more comprehensive methods and strategies to achieve the general aim and specific objectives of the study.

The type of data and methods used for the data collection, make points of departure possible for thinking more systematically about the appropriate approach. Although most research calls for the use of either qualitative or quantitative methods, one should note that qualitative methods can also be used to collect quantitative data, as is shown by this study. Quantitative methods can be used to collect qualitative data; when open-ended questions receive many 'subjective' responses, then quantitative measures are derived from a large number of qualitative responses. The integration of qualitative and quantitative methodology in this study is sequential. Throughout the data collecting phase, varying degrees of dialogue are sought between qualitative and quantitative methods. The qualitative findings not only help to design a better survey; the open-ended questions are also full of information which enriches explanations for both qualitative and quantitative data. The sequential steps are as follow:

- Using qualitative baseline techniques: observation, in-depth interviews, focus-group discussions, and secondary data collection;
- Constructing a quantitative survey instrument based on findings from qualitative baseline data collection which integrate understanding from the field;

- Conducting a quantitative household survey using the survey as instrument;
- Quantitative data processing collected through use of a household survey;
- Quantification coding 'subjective' responses;
- Analyzing quantitative variables using SPSS 15.0 and then SPSS 17.0;
- Enriching quantitative findings by conducting qualitative in-depth interviews based on uncertain data.

There is clearly an important role for the development of complementary qualitative and quantitative approaches in the social sciences. Reliance on quantitative or qualitative methods alone will not help achieve a superior outcome; combining both types of methodologies will enable the selected sample to express maximum diversity, validity, and full local ownership (*emic*). The more narrative and personal information provided by open-ended focus-group discussions and in-depth interviews, the better researchers can understand and interpret quantitative results.

Secondly, one must learn the viewpoints of participants. Field research uncovered two cases of pregnant women referred to a health centre because of a health risk at delivery; therefore a special technical approach is used to collect data and detailed explanations. This approach tries to include the perspective of everyone who was knowledgeable about those events, *i.e.* witnesses, experiences, and interpretation of causes and responsibilities involved leading to the particular outcome – albeit death or survival of the mother. The technique in the qualitative study takes a specifically *emic* approach and perspective in data analysis and is an anthropological attempt to study indigenous concepts of health and illness. The sequence for data collection is: (1) concentration on a dramatic case in a shared moment; (2) non-judgmental in-depth interview to determine who played specific roles during the incident, to learn their personal interpretations of the incident; (3) data collection based on fact and witness reports to obtain individual evaluation and confirmation of witness sources; (4) to draw conclusions about the relevance of direct policy and its impact on the decision-making process during the incident.

Interviews are recorded accurately in full, avoiding leading questions. Researchers must be certain that the major issues of the case are brought before the witness. Instead, this approach attempts to understand people's varying perceptions during the decision-making process as to how to prevent the death of the pregnant woman at risk. In these two cases, the participants were: the husband of the pregnant woman at risk during delivery, her mother or mother-in-law, the *paraji*, health cadres, *bidan*, and modern health provider (medical doctor) who cared for the woman. The findings about these at-risk women referred for complications during delivery are included in the categories of pregnant women surveyed, with their 5th step during childbirth, distributed according to the reported type of MCH services sought to obtain treatment (*cf.* Chapter VII).

9.2.3. Practical Implications

In 1990, in Asia, data show that one out of sixty-five pregnant women are at risk during pregnancy and childbirth. In comparison, data for Europe (1 death per 1.400) demonstrates that the disparity is too extreme. Attempts to reduce maternal and infant death have been ongoing for a long time; however, prevention is not easy. In 1807, under Governor-General Daendels, *paraji* (TBA) were already being trained to help women during labour and delivery and reduce the infant mortality rate. However, this effort was not sustainable because midwifery trainees were rare at that time. The programme was picked up again in 1930, when

woman began registering as Traditional Birth Attendant (*paraji/dukun bayi*) to help with childbirth and post-partum care. In 1952, after Indonesia gained its independence, the training of *paraji* has been continuous (*cf.* Notoatmodjo 2003). Maternal deaths are caused by a complex of factors, *i.e.* social, culture, economic, and political, which are not easy to eradicate. No single intervention can prevent the tragedy of maternal death. Within the last decade, many strategies translate the lessons which have been learned: helping women avoid unwanted pregnancy through a family planning programme will reduce death related to pregnancy due to childbirth and abortions. However, family planning is not having an effect on Maternal Mortality Rates (MMR); therefore, certain MCH interventions are needed.

The complex nature of the problem means that MCH systems, under the 'Safe Motherhood' programmes, must respond with a comprehensive package of interventions. Certainly 'Safe Motherhood' programmes must work to improve the quality of health-care services and accessibility to those services. Just as critical is the attention paid to the socio-cultural context – mothers, families, social and physical structures which make up the community. In many settings, adequate MCH services will remain unavailable for many years to come. In other words, available services are under-utilized. Over one-half of all children in the developing world are born at home. Moreover, regardless of whether MCH services exist or are used, many activities which affect the health of a mother and her newborn take place within the home or community. In addition to providing services, strategies aimed at reducing maternal mortality must also involve individuals, families, and communities (*cf.* Nachbar, Baume & Parekh 1998).

For early detection of complications, antenatal care should be introduced to teach pregnant women to recognize the symptoms and danger signs during pregnancy. In a number of African countries, the impact of antenatal care on maternal mortality is inconsistent. Evaluation of antenatal services in the Congo shows that such services have contributed to the drop in maternal deaths by reducing serious anaemia and prolonged labour. However, in Gambia and Tanzania, antenatal care has failed to reduce maternal deaths during pregnancy (*cf.* Greenwood *et al.* 1987; Moller *et al.* 1989; McDonagh 1996). Antenatal care differs between countries; for example, some countries offer extra services for pregnant women such as curing existing illnesses, treating complications and risk factors. Important components of antenatal care include: (1) screening for and treating, *e.g.* anaemia, malaria and sexually transmitted diseases; (2) early detection and treatment for complications, *i.e.* malpresentation, hypertension, oedema, and pre-eclampsia; and (3) attention to potential complications, such as when and to whom to turn for referral.

In recent years an ideal standard (T7) has been developed for antenatal care in which the *bidan* should aim to reach a minimal of seven Ts (*Timbang* = weighing; *ukur Tekanan darah* = measuring blood pressure; *ukur Tinggi fundus uteri* = measuring the height of *fundus uteri*; *imunisasi Tetanus toxoid* = tetanus toxoid immunisation; *TT lengkap* = complete TT; *pemberian Tablet zat besi* = iron (Fe) tablets; *Tes terhadap penyakit menular seksual* = test for sexually transmitted diseases). During pregnancy, a woman should consult the *bidan* at least four times: once during the first trimester, once during the second trimester, and twice during the third trimester including delivery. A woman who adheres to the minimum of four standard consultations improves her chances for experiencing a safe pregnancy and delivery (*cf.* Chapter VI). Figure 7.1 and Table 7.13 (*cf.* Chapter VII) present data for Rancaekek from the household survey: of the 127 post-natal women surveyed, a total of 287 contacts or visits were made to traditional or modern MCH systems. Most consultations with modern MCH care took place in Steps 2 and 3, with only four women continuing to Step 4. These data

forecast less use of modern MCH services in Rancaekek. Improvement is thus needed to reach the ideal antenatal care standard.

Management of complications during pregnancy and childbirth is the main key to prevent maternal deaths. When situations arise which could not have been prevented or predicted, then solutions can be found if qualified medical services are available. In fact, when a pregnant woman's emergency condition has already been detected, then keeping her alive depends on the rapidity in which essential MCH services treat the high-risk pregnancy. The health services should make women themselves, as well as their families and community (neighbourhood), aware of self-care and promote their ability to detect high-risk symptoms during pregnancy (*cf.* WHO–SEARO 2009). Both the *paraji* and health volunteers should also be trained to identify a high-risk pregnancy, so together they will be ready to help a pregnant woman. Simultaneously, essential MCH services offer: 24-h health care for pregnant and perinatal women for: (1) Caesarean section, (2) important treatment (including anaesthesia, antibiotics and intravenous feeding), (3) blood transfusions, (4) manual expulsion of the placenta, and (5) vacuum aspiration for incomplete abortions (*cf.* Family Care International and Safe Motherhood Inter-Agency Group 1998). In the long run, essential MCH services can become the basic services offering skilled midwives and general practitioners. If a complication cannot be treated by a basic medical service, then a *bidan* or doctor at the *Puskesmas* should refer the pregnant woman to the nearest hospital as early as possible. It is expected that providing essential basic MCH services will help reduce maternal deaths.

Consequently, a formal attendant and health facility should be available to provide safe and clean services for perinatal women; however, the *bidan* or medical doctor (skilled helper) should be able to supplement complicated maternal health care (alone or referred) to eliminate maternal mortality. Transportation during emergency situations should be made available either from health centres or community maternity groups. Ironically, in Indonesia, the use of *bidan* (CMW) has not automatically reduced the number of maternal deaths because of the growth of woman using health centres. Actually, the *bidan* plays an important role in the sustainability of services for pregnant woman, through the available series of referrals during every important stage. A *bidan* will be the first person to whom a *paraji* (TBA) refers a woman in need of assistance.

With their knowledge of traditional herbal medicines, *paraji* fulfil a special social and cultural role as health consultant in Indonesia's rural areas, not only for pregnant and perinatal women but also for families. The loss of one *paraji* means that her knowledge about Maternal and Child Health and indigenous herbal remedies also disappears with her. Proponents of integrated knowledge as the key to sustainable development anticipate an increase in advanced partnerships between *paraji* (TBA) and *bidan* (CMW) in Rancaekek as well as in every Indonesian community. The protection of indigenous knowledge should be underwritten by Government policies and institutions at all levels in a country like Indonesia.

Trained *paraji* play a strategic role in encouraging community participation for 'Safe Motherhood'. In the 1980s, training for *paraji* as a strategy and way to reduce maternal morbidity and death has been accomplished globally. Recently, less instruction has been offered which has resulted in numbers of new *paraji* who have never been trained. This creates a hazardous situation for people living in remote communities which are rarely reached by health providers. Thus *paraji* play an essential role as intermediary between the community and formal medical systems (Minden and Levitt 1996). Although *paraji* are forbidden to inject medicines to prevent maternal death when complications arise during childbirth, they can, however, help save women's lives by referring them within the system. Teaching *paraji* about safe and hygienic childbirth, better delivery management, early

identification of complications, and how to save women's lives by referring them to accessible health centres is an essential part of MCH services. Therefore, *paraji* should be introduced to and become accustomed with places for referral and, most importantly, teach those officials at the primary place of referral to recognize and appreciate the strategic roles which *paraji* play. Ongoing partnerships between *paraji* (TBA) and *bidan* (CMW) indicate the integration and sharing of each other's knowledge and resources and a commitment to reach the same goals, *i.e.* 'Safe Motherhood'. Consequently, integrated medicine could be interpreted as collaboration between *paraji* and *bidan* in the form of partnerships which demands continuous respect. Sincerity, appreciation and balance among individuals.

In the late 1990s, the concept 'partnership' was introduced with regard to the issue of maternal health care and infant mortality, after most developing countries, including Indonesia, had ratified the Millennium Development Goals (MDG). Insight from findings on MCH utilisation behavioural patterns in this study, where the continuum between utilisation of traditional and modern MCH systems presents the community's perspective, policy makers have to establish approaches based on the community's point of view. Targets to reduce child mortality (Point 4, MDG) and improve maternal health (Point 5, MDG) have been translated into several national programmes in Indonesia. This means that targets for the Millennium Development Goals, as well as for the 'Safe Motherhood Initiative' (SMI), have been ratified and point the country in the right direction to reach its objectives.

Integrative partnerships in rural areas should be developed among stakeholders with an interest in community MCH services, such as: pregnant women and their families, the community itself. Traditional Birth Attendants (*paraji*), health cadres, *bidan* (CMW), *Puskesmas* and policy makers. That is, health cadres (which already exist at all local levels in Indonesia) within neighbourhoods because they are part of the community, living in the vicinity of pregnant women and *paraji*, who are better educated and, as mediators, can convey messages between women and *paraji* and pass on responses to the *Puskesmas*. One partnership effort, which pertains to training based on performance to enhance accessibility to early treatment for effective and safe MCH care, strongly affects the cause of maternal death and awareness of symptoms and critical complications during and after childbirth or post-abortion. In spite of working through professional organisations, the *bidan* should be able to cooperate with the community in which she works.

Unfortunately, the concept 'partnership' has been understood differently from place to place and within various MCH organisations. Different frameworks allow for diverse interpretations of the concept 'partnership' which is mirrored by dissimilar planning and implementation in the field by modern MCH providers. In Rancaekek findings show that partnerships among *bidan* (CMW) and Traditional Birth Attendants (*paraji* or *dukun bayi*) are expressed in structured relationships. Modern midwives are younger and more educated than *paraji* who are generally older and less educated (some cannot read Latin); they also come from different socio-economic backgrounds. This brings to the fore feelings of pride and self-importance on the 'modern' side which is reflected in the relationships between the two systems. Some midwives appear more 'bossy' towards *paraji*, although this situation does not always occur. More *bidan* are learning to cope with *paraji*; for instance, *Puskesmas* Nanjung Mekar conducts monthly meetings for *bidan* and *paraji* from the area where they share information, experiences and knowledge but, above all, build partnerships based upon trust between the plural MCH systems. Consequently, future national plans of action should approve pluralistic strategies to improve 'Safe Motherhood' and, at the same time, help sustain partnerships with traditional MCH systems. The proposed MCH service and pattern of referral based on partnerships between traditional and modern systems shows two types of

stakeholders: (1) at the village or community level, pregnant women and their families, the health cadre, and the *paraji* and *bidan desa* working together (*i.e.* the accent of this study); and (2) at the formal health-care level, *Puskesmas*, district and provincial hospitals.

The crucial path for partnership begins at the village level and represents two kinds of interests: *i.e.* traditional and modern MCH systems which should cooperate to achieve reduction in maternal and child deaths. Pregnant women and their families come from different backgrounds, as discussed in Chapter IV about factors in the analytical model (socio-demographic, psycho-social, socio-economic status, perceived pregnancy and institutional), which influence the way they make decisions concerning the utilisation of MCH systems. Pregnant women from different backgrounds should be educated using familiar media close to their roots: *i.e.* from their own community or by people close to their community.

In sum, insight into patterns of MCH utilisation as well as vivid proof from the community's perspective about the role of traditional and modern MCH systems in the study area illustrate clearly that integration or partnerships must be encouraged first at the central level of decision-making institutions, *i.e.* the National Ministry of Health in cooperation with provincial and district Health Offices, and second at the district level from *kecamatan* (sub-district) to *desa* (village) where community midwives are posted. Every programme connected with 'Safe Motherhood' should reflect the necessity for partnership. 'Safe Motherhood' programmes are obliged to collaborate with all stakeholders in the model, including formal and informal village leaders, which demonstrates that the programmes both implement and facilitate decision making. The traditional MCH system should be appreciated as comprising indigenous wisdom – both medical knowledge and practices – which has flowered, from the bottom up, out of the community's socio-cultural background.

Traditional or indigenous herbal concoctions, derived from local knowledge about medicinal plants for prevention of illness, are characterised as cheap, accessible, and revitalising by TOGA (*Tanaman Obat Keluarga*: Slikkerveer and Slikkerveer 1995) and *dasawisma* (10 neighbouring households). In addition, traditional knowledge about herbal medicine, as a potential instrument in bio-prospecting for useful medicinal plants, has increasingly become a source of interest. Efforts should be made to test traditional plant-based medicines in order to extend Primary Health Care within reach of all members of the community (*cf.* Quah and Slikkerveer 2003). Then through local institutions like TOGA and *dasawisma* broad understanding of health care and its practices can be disseminated among the community at large.