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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 I INTRODUCTION

Rancaekek is a sub-district (*Kecamatan*) of Kabupaten Bandung (Regency) located 24 km east from the city of Bandung, capital of West Java Province, Indonesia. The area chosen for this study is home to the Sundanese culture and located in the *Tatar* (region) *Sunda* used to be called *Parahyangan* (Place of the Gods). In the past, the Rancaekek countryside was well known for its cultivation of high-quality rice for the Bandung District. However, that was before the Provincial Government adopted its policy to develop Rancaekek into an industrial area, in particular that section of land extending along the main provincial road from West to Central Java. The most striking consequence of this transformation from agricultural to industrial area has been the marked growth of the population, largely due to the almost magnetic pull of factories on migrants to come, settle and find work in Rancaekek. Consequently, its population growth has been conspicuous as verdant rice fields have given way to housing settlements. Local inhabitants have had to relocate to neighbouring areas as the land once used to cultivate rice has decreased substantially.

As migrants flock to Rancaekek from different parts of Indonesia, the area has subsequently become more heavily populated by plural communities: thus a once primarily agricultural area has developed into an agricultural-industrial community with a multi-ethnic rather than Sundanese character. Although land available for agriculture has since become scarcer, farming communities still exist where peasants keep to their traditions, in stark contrast to the inhabitants of industrialised communities who seek a more modern way of life.

Similar to cultural pluralism, where two or more cultural systems in continuous contact adapt mutually to sustain distinctive ways of life, the effects of multi-cultural encounters are also reflected in the plural medical system. ‘Medical pluralism’ refers to the historically grounded co-existence of more than one medical system which seeks to maintain the community’s health status in a more or less interconnected way (Slikkerveer 1990). This study focuses on the plural Maternal and Child Health (MCH) systems in Rancaekek and discusses its significance for human reproduction and Primary Health Care (PHC) in the community.

The Declaration of Alma Ata (1978) is rather explicit about which human values and principles should be pursued: *i.e.* social justice, the right to better health, community participation and solidarity (*cf.* Appendix I). The Declaration underscores that, in order to defend these basic values, fundamental changes must take place in the ways in which medical systems function: *i.e.* how they function and are implemented and integrated into existing medical systems and related sectors. Primary Health Care aimed at achieving ‘Health for All’ requires that medical systems “*Put people at the centre of health care*” (WHO 2008). In setting out its objectives, the World Health Organization (WHO 2008) reiterates that what the public reckons to be important is the idea that everyone can achieve a desirable way of life, both as individual and member of society. Such objectives are important parameters for the development of the health sector.

The ‘Health for All’ strategy requires that medical systems respond to the challenges which the changing world faces in terms of the growing demand of the population for improved health care. Such an approach necessitates a substantial reorientation toward the

ways in which medical systems function in today's society: which reforms have to be added in order to the agenda to bring about a positive change in Primary Health Care.

Maternal and Child Health (MCH), acknowledged universally as one of the most fundamental components of medical systems, is part of the 1978 Alma-Ata Declaration on Primary Health Care. During the Alma-Ata Conference, the WHO developed a new paradigm for its health-care strategies. From its very inception, WHO (1978: Declaration IX) has paid particular attention to Maternal and Child Health: *"Primary Health Care is essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and country can afford. It forms an integral part, both of the country's medical system of which it is the nucleus and of the overall social and economic development of the community"*.

The WHO Conference at Alma Ata in 1978 emphasizes the importance of organized community participation in which both the individual and the family unit can ultimately become self-reliant and take responsibility for their own health. In conclusion, the Conference's slogan re-affirms that health policies should aim towards "Health for All by the Year 2000". To ensure that the issue of Primary Health Care does not drift to the periphery and drop off the agenda, promotion, co-ordination and administrative support are underscored as an essential and integral part of a country's development, not only at community but also at intermediate and national levels. Primary Health Care should make full use of all available resources, thereby mobilising the entire community's human potential.

Primary Health Care, based on practical, scientific and socially acceptable methodologies, is a fundamental human right and should be made universally accessible and affordable to the public at large through active participation at individual, community and national levels. It is a vital component of any medical system which aims to manage a sustainable standard of good health for everyone. Primary Health Care is the main motor which drives the country's medical systems as well as the lens through which a community's overall social and economic development can be monitored. PHC facilities, i.e. the first step towards achieving good health care for everyone, provide the most important point of contact between the public, community and national medical systems.

More than thirty years later, WHO-SEARO (2009) redefines 'Health for All' as *"actively trying to attain good health or paying attention to self-care"*. WHO's renewed strategy reiterates that properly functioning medical systems should provide the public with access to good health services, i.e. to public health organisations, institutions and resources. Thus, in 2008, a new definition for 'Health for All' was proposed at the Regional Conference in Jakarta (WHO-SEARO 2009): *"A stage of health development, whereby everyone has access to quality health-care or practices self-care protected by financial security so that no individual or family experiences catastrophic expenditure that may bring about impoverishment"*.

In the South-East Asia Region (SEAR), with the exception of Sri Lanka and Thailand, Maternal Mortality Rates (MMR) is alarmingly high. SEAR's data represent 40% of the world's maternal deaths. MMRs vary from ca. 40 deaths per 100.000 women in Thailand to 515 deaths per 100.000 women in Nepal (WHO-SEARO 2004). In Indonesia, the MMR shows on average 307 deaths per 100.000 women, a figure which is still considerably high.

Pregnant and perinatal women die from such complications as haemorrhage, infection, high blood pressure, obstructed labour, unsafe abortion, and a range of diseases – such as malaria, hepatitis, rheumatic heart disease and diabetes – which present a greater threat during pregnancy but can be treated more cost-effectively in community or district hospitals where emergency obstetric services are available (WHO–SEARO 2000). In this context, one should recall that the Alma-Ata Declaration (1978) states that indigenous healers and birth attendants are found in most societies and that, once integrated into formal professionalized medical systems, such ethnomedical healers can become important allies in the struggle to improve health in their community. In its Regional Report on Self-Care, Indonesia presents its new PHC strategy ‘*Development and Implementation of Traditional Medicine for Self-Care*’ which mirrors the country’s growing interest in traditional medical systems (WHO–SEARO 2000). The conclusions contained within Indonesia’s Regional Report strengthen the message conveyed in this study: the concept of integrating traditional (at the community level) and modern (at the national level) MCH systems through advanced partnerships. Farnsworth, Akerele, Bingel *et al.* (1985) state that ca. 80% of the world’s population uses some kind of herbal medicine and that the majority of people living in developing countries still rely strongly on a traditional medical system. Therefore, as mentioned above, during the 1978 Conference, WHO had good reason to stress the paramount need for Primary Health Care for developing countries and re-define its ‘Health for All’ strategy as: “*essential health care made accessible at a cost that the country and community can afford*”, based on the principles of equity, participation, appropriate technology, prevention, and an inter-sectoral approach to public health problems. In addition, Slikkerveer (2006) states that: “*Among the programmes which were implemented, the provision of essential drugs, the promotion of health and the collaboration with traditional healers and birth attendants open up new health policy options for making use of local resources, particularly traditional and herbal medicine.*” Within Primary Health Care, the concept ‘self-care’ is basically understood as the translation of community participation into health-care development (WHO–SEAR 2009). Teaching ‘self-care’ at the community level means bringing knowledge to the public while never overlooking specific individual characteristics and conditions, helping the public learn how to choose between medical systems, in this case for Maternal and Child Health, and teaching the public how to formulate their goals for self-empowerment.

As a response to major global challenges and the call for a civil society, in 2005 the United Nations proposed the establishment of the ‘Millennium Development Goals’ (MDGs) with the objective to improve conditions for peoples living in developing countries at the start of the 21st century. The Millennium Development Goals – which underline the problems caused by poverty, poor primary education, maternal and child mortality, gender inequality, HIV/AIDS and other diseases – reflect global partnerships forged through a shared commitment to address the achievable proposals set during the world summits held in the 1990s (MDG Summit 2010). To reach the agreed upon time-bound Millennium Development Goals (MDG 2005) set for 2015, the world’s participating countries and development institutions must work together, taking their shared responsibilities seriously.

The aim is to achieve the following eight goals by the year 2015 (*cf.* Appendix II for complete details):

- (1) *Eradicate extreme poverty and hunger*: (Target 1.A) “Halve, between 1990 and 2015, the proportion people whose income is less than \$1 a day.” (Target 1.B) “Achieve full and productive employment and decent work for all, including women and young people.” (Target 1.C) “Halve, between 1990 and 2015, the proportion of people who suffer from hunger.”
- (2) *Achieve universal primary education*: (Target 2.A) “Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.”
- (3) *Promote gender equality and empower women*: (Target 3.A) Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.”
- (4) *Reduce child mortality*: (Target 4.A) “Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate.”
- (5) *Improve maternal health*: (Target 5.A) “Reduce by three-quarters the maternal mortality ratio.” (Target 5.B) “Achieve universal access to reproductive health.”
- (6) *Combat HIV/AIDS, malaria, and other diseases*: (Target 6.A) “Have halted by 2015 and begun to reverse the spread of HIV/AIDS.” (Target 6.B) “Achieve, by 2015, universal access to treatment for HIV/AIDS for all those who need it.” (Target 6.C) “Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.”
- (7) *Ensure environmental sustainability*: (Target 7.A) “Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.” (Target 7.B) “Reduce biodiversity loss, achieving, by 2015, a significant reduction in rate of loss.” (Target 7.C) “Halve, by 2015, the proportion of the population without access to safe drinking water and basic sanitation.” (Target 7.D) “By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers.”
- (8) *Develop global partnerships for development*: (Target 8.A) “Develop further an open, rule-based, predictable, non-discriminatory trading and financial system.” (Target 8.B) “Address the special needs of least developed countries.” (Target 8.C) “Address the special needs of land-locked developing countries and small island developing States.” (Target 8.D) “Deal comprehensively with the debt problems of developing countries.” (Target 8.E) “In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries.” (Target 8.F) “In cooperation with the private sector, make available benefits of new technologies, especially information and communications.”

In 2005 the Asian Development Bank stressed that the Millennium Development Goals should become part and parcel of international development policies, centring on a common agenda to reduce poverty worldwide. The Asian Development Bank is dedicated to its vision of a poverty-free Asia-Pacific region and has defined specific targets and proposed indicators for measuring and monitoring progress towards poverty reduction. In 2005 the United Nations Development Programme (UNDP) urges poor countries to pledge better governance and invest in their people by providing improved health-care services

and education. Most developed countries have pledged to support the Millennium Development Goals (MDG 2005) through aid, debt relief and fair trade.

Indonesia has recently ratified the *Tujuan Pembangunan Milenium*, expressing its ongoing commitment to implement and monitor the Millennium Development Goals (MDG 2005)¹ aimed at the year 2015. These goals specifically target two challenges addressed in MCH programmes: Goal 4 (child mortality) and Goal 5 (maternal health). Both issues are being confronted head on by WHO's (1999) 'Safe Motherhood Initiative' (SMI), as well as being addressed by Indonesia's modern MCH programmes which specify the need for a skilled birth attendant during parturition (MDG 2005). In short, having ratified both the Millennium Development Goals (MDG 2005) and the 'Safe Motherhood Initiative' (SMI), the Indonesian Government demonstrates its commitment to achieve both goals by the year 2015.

This study seeks to provide data on how MCH programmes function at the community level in the Sunda region, in this case in the Rancaekek sub-district near Bandung, West Java, and to assess how self-care behaviour can be integrated into MCH systems through community participation.

1.1 Medical Social Sciences in Indonesia

1.1.1 Medical Anthropological and Sociological Studies

The medical social sciences have not yet fully developed as a multi-disciplinary field of inquiry in Indonesia. Sciortino (1999b) states that Indonesia's Government recognizes that the country's diversity, with its 17,000 islands and more than 300 ethnic groups with their specific customs and beliefs about health and disease, is one of the constraints affecting health promotion and education. The country's already precarious situation deteriorated further during the monetary crisis in 1997 when the Indonesian economy collapsed, rendering it a 'patient' of the International Monetary Fund (IMF) and deep concern for other international organisations. Such dire circumstances not only burden the limited resources allotted to health care but also undermine public health. As the quality of health care dropped and less use was made of family-planning facilities, poor nutrition in combination with poor hygiene aggravated by fewer visits to medical facilities led to an increase in the number of diseases and deaths. Later, after the economic crisis in 2008, the resulting global recession affected not only the economy of Indonesia but also those of other developing countries. As a consequence, more people have become economic migrants struggling to find new job opportunities, legal or not, elsewhere. Out of dire necessity people are often forced to travel far and wide, even abroad, to seek work where they might risk living under the threat of violence, abuse, and disease. Politics and unstable economies have reduced masses of people to a state of fear and left them to cope under often deplorable conditions.

Schefold (2001) states that, the sub-division of provinces into smaller administrative entities appears to guarantee the basic structure of socio-cultural unity in Indonesia. During the last decade there has been a shift away from the policy of centralisation as provinces demand more autonomy at local and regional levels. The desire for regional autonomy

reflects socio-cultural differentiation and clears the way for a decentralized system of governance². The move towards regional autonomy will have both positive and negative effects on the next generation, especially with regard to women's reproductive health. Unfortunately it is still too early to assess the impact of decentralization on maternal and infant morbidity and mortality rates.

Sciortino (1999b) remarks that socio-cultural knowledge used to be largely ignored in medical science, a discipline which places more emphasis on biological and physical factors and takes less notice of a patient's socio-cultural background. Taking such a one-sided biomedical perspective has drastically influenced epidemiological research. For example, while medical science erroneously expected to eradicate major diseases, such as malaria and tuberculosis, worldwide by the end of the 20th century, new health hazards such as HIV/AIDS, diabetes mellitus, dengue fever and cardiovascular disease moved to the fore. In 2009, the WHO began focusing special attention on the deadly combination of tuberculosis and HIV/AIDS which threatens to cause more deaths throughout Asia, including Indonesia. In 2005, UNICEF has issued several communiqués warning about the increase in maternal morbidity and mortality as well as underscoring the fact that the unavailability of contraception will lead to an increase in unwanted pregnancies and unsafe abortions.

Failing to acknowledge the important role indigenous knowledge plays in health issues, medical social sciences tend to rely on socio-economic suppositions to explain changes in local patterns in Indonesia. Development of a conceptual framework would help broaden the perspectives of researchers in the medical social sciences. To isolate cogent methodological approaches, new theories and issues should be reviewed, both quantitatively and qualitatively. Taken alone, each approach has its pitfalls, but when applied concurrently to analyse human experience both approaches can yield complementary results: *e.g.* data from quantitative research can be supplemented – and vice versa – by in-depth descriptions from qualitative studies which might yield more empathetic, less general, yet more difficult to interpret information. To improve the quality of health care, with an eye to consumer needs, a qualitative approach should help determine which quantitative indicators will prove relevant. All the above emphasizes the need to employ an eclectic approach, borrowing ideas, concepts and methodologies from diverse scholarly disciplines. The focus of medical social science should be both trans- and interdisciplinary. Higginbotham, Freeman and Albrecht (1998) state that factors pertaining to health issues require in-depth assessment from the vantage point of related disciplines. Indeed, understanding inter-relationships between social and health sciences is imperative in order to achieve proper community health care.

Medical anthropological studies place considerable emphasis on the concept 'dual use', or how local populations use both traditional and modern medical systems. According to Colson and Selby (1974) and Foster (1958), the combined use of traditional and modern medical systems is prompted either by how people interpret the causes of disease traditionally or according to a population's diverse socio-demographic characteristics, sub-groups in particular. However, a plural approach opens the door to a wide variety of treatment options. Influenced by sociological theories on modernisation and socio-cultural change, Susser & Watson (1971) describe a number of studies on the role of modern

medicine in developing countries. This is analogous to the traditional approach in medical sociology which focuses on the patient and his/her disease and illness.

Foster & Anderson (1978: 7–8) explain that sociology and anthropology place emphasis on health and healing, issues about which most studies engage in explaining to health-care workers: *“how traditional beliefs and practices conflicted with western medical assumptions, how social factors influenced health care decisions and how health and disease are simply aspects of total culture patterns, which change only in the company of broader and more comprehensive socio-cultural changes.”* Slikkerveer (1990) adds that over the years anthropologists have become increasingly involved in solving the organisational problems of health care and thus contribute more frequently to the establishment and implementation of community health programmes in general. Bibeau (1981: 358) specifies three levels where social sciences can contribute: *“i) information concerning local cultures, in order to make direct intervention possible, ii) additional information mainly for the benefit of epidemiological research in particular, and iii) data concerning factors and principles of local social ecology.”*

Re-assessment of the human dimension in the dichotomy between humans and plants is described by Slikkerveer (2006: 1) in the rediscovery of herbal medicine: *“the integration of traditional medicine in Primary Health Care, and the growing interest in many Western countries in complementary and alternative medicine (CAM)”*. Furthermore, in light of the growing ‘chemophobia’ which cautions against the use of industrial pharmaceutical products and the global ‘back-to-nature’ movement, international organisations have been encouraged to introduce integrative strategies by welcoming the development and validation of herbal plants of Traditional Medicine (TM). Generally, the efficacy, variability and advantages of using indigenous remedies and practices are tested on the basis of Western scientific methodology. Slikkerveer (2006: 2) refers to: *“The specific field of ethnobotany as the multidisciplinary study of interactions between people and plants involving contributions from botany, ethnopharmacology and anthropology, as well as from ecology, economics and linguistics, builds on different methodologies developed to study and analyse these indigenous phenomena in a particular culture or community in a cross-cultural way.”*

In Indonesia, a number of universities have set up special departments and developed curricula well-grounded in the knowledge of traditional and herbal medicine. For instance, the Department of Pharmacology at Padjadjaran University offers lectures on *jamu*, cosmetics, natural pharmacy while Gadjah Mada University has also opened a Department of Biological Pharmacy. Slikkerveer (2006) draws our attention to a parallel development in the social sciences – in the interdisciplinary fields of medical anthropology, ethnomedicine and medical ethnobotany – directed towards refining new approaches to identify, document and analyze ethnomedical knowledge and practices, particularly on the topic of Medicinal, Aromatic and Cosmetic (MAC) plants.

Innovative wisdom in medical social science is needed to achieve sustainable developments for our future. While the efficacy of medicinal plants can be experimentally validated, *e.g.* by extraction, isolation and determination of plant morphology, the ‘flies in the ointment’ remain the sky-high costs and lengthy administrative procedures required to obtain official approval (Farnsworth *et al.* 1994). Slikkerveer (2003) explains that the specific field of Ethnobotany – the multidisciplinary study of interactions between people

and plants – encompasses contributions from botany, ethnopharmacology and anthropology and builds upon different methodologies developed to study and analyse indigenous phenomena in a particular culture or community in a specific way.

1.1.2 Pluralism in Maternal and Child Health Systems

Leslie (1978) states, that medical system employ categories of thought and attitudes common to a culture within a society and are, in general, inherently cultural and social. Medical systems define more clearly special aspects of a society's infrastructure, such as the division of labour. Leslie (1977: 9) defines the concept 'medical pluralism' as follows: "... *pluralistic structures with different kinds of practitioners and institutional norms*". Baer *et al.* (2003: 11) add that: "*Medical Pluralism flourishes in all class-divided societies and tends to mirror the wider sphere of class and social relationships. [...] In reality, plural medical systems may be described as dominative medical system to other medical systems*". In other words, the dominant medical system, which enjoys the support of the social elite, predominates over other medical systems.

Slikkerveer (1990) notes, that it is the realism in this approach which has captured scholarly interest. As with cultural pluralism, where two or more cultural systems in continuous contact over time have learned to maintain distinctive ways of life, medical pluralism also implies the existence of two or more medical systems within a community seeking ways to interconnect for the mutual benefit of public health. Press (1980) suggests that, to refer to a plural medical configuration, a society must generally have more than one paradigmatically differentiated medical system. However, a multiplicity of knowledge and perceptions about ill health, behaviour and use of various forms of health care could also be seen as medical pluralism. Press (1980: 47) summarizes that: "*our task must be determining the extent to which users of the particular medical configuration under study conceptually compartmentalize the various elements or integrate them into a coherent cognitive system*". His comment illustrates that a plural medical system can encourage members of a society to adopt a willingness to use multiple co-existing medical systems, referred to as 'healer shopping'.

The history of community health in Indonesia³ is rooted in the early 17th century with the arrival of the *Verenigde Oost-Indische Compagnie* (VOC: Dutch East India Company) during Dutch Colonial Rule. Sciortino (1992) states that it was the Dutch Colonial Government which decided to fight disease using a community health approach. For example, from 1927 to 1948, communities in Indonesia implemented health measures in their struggle to control smallpox (*Variola postural* or *cacar*) and cholera (*kolera*) epidemics were decimating the population. Notoatmodjo (2003) notes that, as early as 1807, under Governor-General Daendels, women were being trained to assist during childbirth, which can be construed as an effort to reduce maternal and infant mortality. Daendels' efforts could not be sustained because few people could teach midwifery at that time. The initiative was re-launched more than a century later in 1930 when Traditional Birth Attendants (TBA) was required to be registered. Such indigenous healers are known as *dukun bayi* (Ind.) or *paraji* (TBA) (Sd.)⁴. After Indonesia gained her independence, women were once again being taught midwifery in 1952. Today, two categories (traditional and modern) of MCH systems are found in Indonesian villages. The traditional medical

system relies on indigenous knowledge and self-medication therapies, including herbal remedies and massages, of (*paraji* (TBA)). In contrast, modern Maternal and Child Health is a formal professionalized system supported by local and regional governments and the National Ministry of Health. Cogently, a transitional medical system draws upon both modern medicine manufactured commercially by the pharmaceutical industry as well as *jamu* concoctions traditionally thought to be efficacious for a variety of physical complaints such as headache, back-pain, stiff muscles, rheumatism, and diarrhoea. While *jamu* is available to relieve a minor indisposition without undergoing a doctor's examination, this does not apply to conditions encountered during pregnancy and childbirth.

Generally, because there is little social distance between them, the Tradition Birth Attendant (*paraji*) and her client share an emotionally intimate bond. Often coming from the same community or a similar socio-cultural background, the *paraji* and her client can speak the same language and understand familiar symbols which refer to health matters. Pregnant and perinatal women can seek the help of a *paraji* any time of the day or night. The *paraji* is frequently present the day after childbirth, usually early in the morning, for the purpose of cleaning or massaging both mother and newborn. Never seeking payment for services rendered, a *paraji* will accept any fee, reward or gift presented by her client out of appreciation. She extends her services simply to help people benefit from her knowledge of Traditional Medicine.

Most traditional practices and rituals involve the use of herbal concoctions and manual or hands-on therapy; in the case of pregnant women, indigenous practices are strictly synchronized with the phases of pregnancy and continue throughout the 40-day period following childbirth, for both mother and infant. Slikkerveer (2006) explains that, in terms of a culturally determined body of indigenous knowledge, beliefs and practices, Traditional Medicine has provided the primarily plant-based foundation for many ethnomedical⁵ systems which already existed long before the arrival of 'scientific' or 'cosmopolitan' medicine. Rubel & Hass (1996) add that ethnomedical research has made a significant contribution to our understanding of how knowledge of disease and illness influences health-seeking behaviour. Rivers (1924) states that ethnomedicine has contributed to the development of theories and methodologies in socio-cultural anthropology by pointing out the functional integration of components of health-care institutions within a community's culture, social organisation or political system. In an attempt to examine ethnomedical issues, investigating a community's culture holistically has helped delineate distinct differences between how groups conceptualize disease, its causes and cures, what role healers' play, and how thoughts about disease relate to cosmology and the use of Traditional Medicine. Although in West Java *paraji* are usually women, in some areas, such as Bali and Tanjungsari, a *paraji* or indigenous healer can also be a man. In 1992 WHO defined the *paraji* (TBA) as: "... a person who assists the mother during childbirth and initially acquired her skills by delivering babies herself or through apprenticeship to other Birth Attendants". Lefèber (1994) states: that the role of Traditional Birth Attendant is to help care for pregnant women before, during and after childbirth. As stated above, the activities of *paraji* are not only limited to assisting women during labour and delivery but also to providing basic care to pregnant women and healthy newborns. Moreover, the *paraji* often functions as health consultant for local families, not for just women. More

recently, *paraji* have been trained to help promote modern contraception for family planning and to identify and refer high-risk patients.

A Traditional Birth Attendant (*paraji*) will be summoned for consultation when a family member is feeling poorly. Usually she will massage her client's muscles and provide a herbal concoction for use either as ointment or drink. Sometimes the indigenous wisdom and emotional guidance of a *paraji* appear so all-encompassing that people come to believe that she possesses supernatural powers. Ultimately, the use of traditional medicines and practices during pregnancy, labour and delivery illustrates how highly local inhabitants value traditional medical systems. Unfortunately, since gaining their autonomy, several Indonesian provinces have adopted regulations, designed to help reduce maternal and infant mortality and morbidity, which thus prohibit *paraji* from assisting women during childbirth.

In this study, the *paraji* (TBA) is considered part of the ethnomedical system. Bodeker (1994: 98–99) states that: *“Traditional medical systems extend to an appreciation of both the material and non-material properties of plants, animals and minerals. Here, the term ‘systems’ is used to reflect the organized pattern of thought and practice – diagnostic, clinical and pharmacological – that shapes and maintains most bodies of traditional health knowledge. These are systems of knowledge that include concepts of both the sacred and the empirical: frameworks for understanding health and healing; assumptions of cosmos and causality, and taxonomies which address a perceived order in nature. They range from the cosmological to the particular in addressing the physiological make-up of individuals, their communities, and the specific categories of materia medica – plants, animals and minerals – used for therapeutic purposes to enhance health and well being. Food and medicine may not be separated into discrete categories.”*

How modern and traditional medical systems are seen to interact depends upon the epistemological issues involved. To date, dialectic approaches toward unification have found little response among political policy makers. Consequently, recent attempts to reconcile only the ‘scientific’ aspects of classical wisdom with biomedicine have proven less successful. Unschuld (1992: 46) states: *“Similarly, attempts to restructure traditional conceptual systems to match biomedicine standards have failed as traditional heterogeneity seems as yet incompatible with Western monoparadigmatic medical science.”*

Maintaining balance is a fundamental concept in ethnomedical systems. The inextricable interconnectedness between mind and body, people and their environment, man and his universe is a harmony which should not be knocked out of balance. In the case of traditional Maternal and Child Health (MCH) systems, the *paraji* strives to help maintain the natural balance between a woman and the fruit of her womb, during and after pregnancy, within the ever-widening circles of mind, environment and cosmos. For this reason, herbal medicine is viewed as both a cultural heritage and biodynamic substance. The pharmacological potential of plants contributes to but also transcends the cultural meaning given to herbal remedies by people who use them to prevent or cure disease and to promote good health. Ethnomedicine, ethnobiology and ethnopharmacology are directly related to medical anthropology; they are instruments with which an attempt is made to comprehend the dynamic relationships at work in the environment affecting human health – here with particular regard to mothers and their infants during and after pregnancy.

1.2 West Java: Challenges of Maternal and Infant Mortality

In 2001, the Indonesian Government began implementing its policy to decentralize; thus matters concerning income and development became the responsibility of each individual province. Before 2001, all health programmes followed policies drawn up by the National Ministry of Health; however, during the last decade, autonomous Provincial Health Offices have been free to choose independently which health programmes are necessary to address particular health issues in their specific regions. However, the National Ministry of Health maintains its task as central policy maker for formal health programmes in Indonesia. Nevertheless, each regency and city is now autonomous, with the power to regulate its own income and expenditures and to implement necessary strategies. The West Java Health Office, for example, is expected to propose its own specific public health strategy for the province. The Human Development Index (HDI)⁶ is one important indicator of the level of welfare in West Java for which Prayudha (2003) lists three factors: (a) life expectancy, (b) index of (continuing) education, and (c) development of a strong community. In 1996 (before the 1997 economic crisis), the Human Development Index (HDI) for West Java was 68.2%; however, by 1999 the level had dropped to 64.5%. More specifically, the Infant Mortality Rate (IMR) has the greatest impact on average life expectancy (64.3 years). In 1999, the Poverty Index showed one of the highest rates (26.9%) for West Java: 22.4% of the population had no access to health care, 62.1% had no access to clean water, and 27.2% of 'children under five' were malnourished. Prayudha (2003) explicitly states that access to health care is a major problem which must be addressed. Several reasons why people do not visit the *Puskesmas* (Community Health Centre) are the following: (1) geography – the price of transportation can actually exceed the cost of a health-centre consultation; (2) perceptions – people feel they must wait too long for treatment, find public health care disappointing, and are hesitant to use certain procedures; (3) attitude – health-care providers, even if present, may appear unfriendly.

In an attempt to reduce Maternal (MMR) and Infant (IMR) Mortality Rates, the Indonesian Government has created a policy stating that newly graduated Community Midwives (BDD: *Bidan di Desa*) should be allocated to communities to replace *paraji* (TBA). The task of professionalized *bidan* is to follow the *paraji*'s example and establish closer contacts with women in the community where they provide MCH services but to use a modern biomedical approach when assisting pregnant and perinatal women to ensure better hygienic conditions and safer outcomes. The introduction of *bidan* could backfire however due to two major social drawbacks: (1) relatively young *bidan* compare unfavourably with the generally older *paraji* and (2) *bidan* are frequently unmarried women. In the past, the public was somewhat inclined to show more respect for *paraji*, given their seniority; however, to some extent, this problem has been surmounted with the passage of time. In the research setting Rancaekek, *bidan* are being more readily accepted by the community as they adopt some traditional practices from *paraji*, e.g. how they communicate and pay home visits. West Java Province has the highest MMR in Indonesia. The most recent (2008) MMR for Bandung Region is 262 deaths per 100.000, while the IMR is 32 deaths per 1.000; while in the year of 2008, the estimation of West Java MMR is

278 per 100.000 compare to Indonesia's MMR is 226 per 100.000 and IMR is 26.9 per 1000 (Publichealth's Blog 2010).

Maternal Mortality Rates are affected by the young age (64% <18 years) at which girls marry in West Java as well as by the four following 'Too ...' conditions (*Empat Terlalu*): (1) 'too young' (< 20 years) for childbirth; (2) 'too old' (>35 years) for childbirth; (3) 'too frequent' births; and (4) 'too brief' (<3 years) an interval between deliveries. According to the National Bureau of Statistic (BPS 2003), the MMR in West Java was 321 deaths per 100.000 live births. In plain terms, 3.126 women die every year due to childbirth 260 women every month; 52–54 every week; 7–8 every day, and 1 woman every 3 hours (*Pikiran Rakyat* 11/6/2006: 14). In four districts, 60 women died during childbirth: 25 were attended by a *paraji*; 24 by a *bidan*; and 11 by doctors. In five districts in West Java, 64 women died during childbirth: 30 died in hospital, 12 in *Puskesmas* (Community Health Centre), 7 in *Polindes* (Community Birthing Home), 3 in a *paraji*'s house, and 7 elsewhere (perhaps at home). Haemorrhage is one of the most immediate causes of death in parturient women, followed by infections and pre-eclampsia (*Pikiran Rakyat* 2006). Haemorrhage is often the result of poor nutrition, anaemia, a high-risk pregnancy or having too many children (too frequent deliveries). Other factors relate to three types of delay: (1) delay in identifying danger signs during pregnancy, which impedes decision making and referral at the household level (perhaps due to finances); (2) delay after referral in reaching a health centre and/or hospital due to lack of transportation and/or geographical distance; (3) delay after reaching a health centre in being given immediate treatment, due to an insufficient number of skilled midwives, equipment or other shortages.

Generally speaking, although people living in the Rancaekek sub-district visit *Puskesmas* when feeling unwell, they still commonly prefer to use herbal medicine (*jamu*) to prevent illness. The public is accustomed to buying *jamu* from local vendors or at the market. Javanese women often sell home-made *jamu gendong*, wandering from door to door or to other locations seeking people who need their herbal concoctions. In addition to home-made *jamu*, they also sell packaged industrially produced *jamu*. Traditional *jamu* is prepared by individuals knowledgeable in the use of herbal medicine, for example, *jamu* for women during pregnancy or childbirth.

Ambaretnani (2002) lists the following medical systems similar to those in Rancaekek and Arjasari: (1) the modern medical system provided by the National Development of Health Policy; (2) the traditional medical system arising from within a local culture which provides MCH services during pregnancy, labour and delivery; (3) the modern medical system provided by the *Badan Koordinasi Keluarga Berencana Nasional* (BKKBN: 'National Family Planning Board') since 1989 in an endeavour to reduce Maternal and Infant Mortality Rates.

1.2.1 Maternal and Child Health Policies

The Alma-Ata Declaration was announced at the end of the 1978 International Conference on Primary Health Care (PHC). Its slogan "Health for All" has since found wide acceptance. The Alma-Ata Declaration recognizes Primary Health Care as the axis around which a country's medical system revolves and an important component of overall socio-economic development. Its objective is to provide the public with accessible, affordable

Primary Health Care at both local and national levels. Maternal and Child Health (MCH) policies expressed in the 'Safe Motherhood Initiative' (SMI) aim to provide greater awareness of the challenges involved in reducing maternal mortality. Campbell *et al.* (1997) state that the aim of these programmes is to improve first-referral-level hospitals and ways to make referral more effective, with regard to components of 'Information, Education and Communication' as well as to provisions for community-based family planning and obstetrics. However, WHO (1999) points out that measuring changes and the results of the 'Safe Motherhood Initiative' (SMI) is itself a challenge. To reduce maternal, foetal and neonatal mortality, it is essential that a skilled birth attendant be present, especially during complicated deliveries, to provide vital obstetric and neonatal care. Building a strong reproductive health-care infrastructure not only places demands on but also contributes to a solid equitable system of overall health care (*cf.* Graham 2002). Nachbar *et al.* (1998) point out that the causes of maternal mortality interconnect at different levels, *e.g.* involving poverty and gender inequity at one level and the effects of specific cultural beliefs and practices at another level. Malnutrition and direct biomedical problems, such as complications during labour and delivery, are indirect contributors to maternal mortality. The concept 'Safe Motherhood' includes not only the mother but also her newborn – as well as anyone whose decisions might influence whether a mother and her infant survive and thrive: *e.g.* family members, indigenous healers and/or staff employed by formal health-care facilities.

Various programmes have been implemented in order to reduce Maternal and Infant Mortality Rates in Indonesia: *e.g.* 'Safe Motherhood Initiative' since 1991; '*Bidan di Desa*' (BDD: certified community-based midwives) since 1998; '*Gerakan Sayang Ibu*' (GSI: 'Mother's Friendly Movement') since 1996; 'Integrated Reproductive Health Framework of Service' since 1997; the '60–60–60 Guideline' (60% births attended by a skilled midwife; 60% MCH services; and 60% high-risk pregnancy saved); and most recently '*Bidan Delima*' since 2005. Despite such efforts, Maternal and Infant Mortality Rates remain high. Recently, a new programme called '*Desa Siaga*'⁷ ('Village Alerts': Kepmenkes No. 564/SK/VIII/2006) has been introduced throughout Indonesia. 'Village Alerts' is not limited to Maternal and Child Health and addresses multiple health issues by providing a solid wall of defence to help combat epidemics. Despite all such efforts, reducing Maternal and Infant Mortality Rates in West Java will demand even greater attention.

As for modern midwifery, the '*Bidan di Desa*' (BDD) Programme stationed 55,000 *Bidan* (CMW) in villages throughout Indonesia in 1998. After first receiving a general education in nursing, women could follow a 1-year Maternal and Child Health (MCH) training programme. However, training participants during such a short time span to become fully expert, responsible and accepted providers of MCH care proved difficult in rural areas where locals rely heavily on their own traditional systems of medicine. Assessment of the '*Bidan di Desa*' Programme shows that *bidan* were insufficiently proactive from the start.

As outsiders in the communities where they were stationed, *bidan* were unforthcoming which affected their working relationship with the *paraji*. In contrast, *paraji* and their clients often share similar roots in a familiar socio-cultural environment. For this reason, *paraji* can more easily forge sustainable bonds with clients, their families and the

community at large where they are respected because of their seniority: *i.e.* the majority of *paraji* are older, post-menopausal women.

1.2.2 Maternal and Infant Mortality Rates in West Java

During the early 1990s, in an ongoing effort to improve public health, the Indonesian Government turned its attention to the challenges of Maternal and Child Health (MCH). Convinced that the extremely high Maternal (MMR) and Infant (IMR) Mortality Rates are exacerbated by the practices of ‘unskilled’ Traditional Birth Attendants (*paraji*), the National Minister of Health decided to reduce gradually the number of ‘less reliable’ indigenous healers while, at the same time, stepping up introduction of certified professionalized *bidan* (CMW) into rural areas. It was assumed that once the *Bidan di Desa* (BDD) Programme gained ground, ‘unskilled’ *paraji* would automatically fall from grace as indigenous healers. In reality, the Government’s expectations failed to take into account the public’s general high regard for indigenous healers. Therefore, it is of little surprise to find a resurgence of interest in ethnomedical systems, *e.g.* *paraji* in Rancaekek, where one might otherwise have expected to find a fully functional modern medical system for Maternal and Child Health. Faced with this dilemma, the Indonesian Government has changed its strategy and now advocates the policy of ‘collaboration through partnership’ between *paraji* and *bidan*.

Although West Java Province, with its specific character, shares a border with Jakarta, the capital city of Indonesia, its MMR (333 deaths per 100.000) and IMR (55 deaths per 1.000) are considered high. In 2000, WHO–South-East Asia Regional Organisation (WHO–SEARO) selected the Rancaekek sub-district in which to launch the pilot project ‘Making Pregnancy Safer’ (MPS). Regular meetings are still conducted to manage a sustainable foundation for the proposed model for advanced partnerships between *paraji* and *bidan* to overcome ‘competition’ between traditional and modern medical systems for Maternal and Child Health.

In 1999/2000, West Java Health Office defines ‘partnership’ as: “*a cooperation process between traditional birth attendances with community midwives to do the advocacy for women since pregnancy (perinatal), period of delivery and post-natal/post-partum care, have been able to experience a safe and clean delivery by pregnant women*”. The intended result, stated herein, is to monitor and protect women’s health during the process of reproduction. The creation of partnerships between *paraji* (TBA) and *bidan* (CMW) aims at enhancing opportunities for improved MCH services in the community.

As Alisjahbana (1993) explains, training a *paraji* to recognize the dangers of high-risk labour and delivery, to maintain hygienic conditions during parturition, and to provide adequate care for women and their newborns aims at avoiding various undesirable outcomes of childbirth that occur when attended by indigenous healers. Although *paraji* are not permitted to provide curative care, such as giving injections and immunisation, they are being trained to improve standards of hygiene, to educate women about the need for improved nutrition during pregnancy, to provide information about weaning an infant, to motivate women to think about family planning, and to keep records of births and perinatal deaths. At the end of the training, each *paraji* (TBA) is tested and then provided with a basic UNICEF midwifery (‘*dukun*’) kit.

1.3 New Perspective on Integrated Medicine

In the field of medical anthropology, socio-cultural studies have generated a wider interest in medicine from a pluralistic perspective. There has been a tremendous surge in research on plural medical systems, especially cross-cultural comparisons between different medical systems in developing countries. Slikkerveer (1990: 16) states that: *“As the holistic study of medical knowledge and practices within a particular socio-cultural context has led to a new ethnomedical approach in the medical social sciences, promising research has developed into a theoretical framework, distinct the biomedical paradigm”*. During the course of their development, medical social sciences, such as medical anthropology and medical sociology, have published a range of definitions for ‘medical system’ and ‘integrated medicine’ which reflect their differing perspectives and orientations. According to Glick (1967: 32), a medical system is: *“... a patterned set of ideas and practices having to do with illness”* whereas Dunn (1976: 135) states that a system of health-care delivery is: *“... the pattern of social institutions and cultural traditions that evolves from deliberate behaviour to enhance health, whether or not the outcome of particular items of behaviour is ill health”*. These concepts accept the view that every community has its own medical system, which has developed over time and inter-relates with other medical systems in the surrounding area. Ernst (2005) states clearly that health care incorporates selective elements of Complementary and Alternative Medicine (CAM) into a comprehensive treatment. In addition, Ernst points out that health and healing, rather than disease and treatment, take pride of place, an attitude which views patients holistically, i.e. as having minds and spirits as well as physical bodies. Here integrated medicine refers to the incorporation of elements of Complementary and Alternative Medicine (CAM) into routine health care.

Values expressed during the Alma-Ata Conference in 1978 are not always easily translated into effective medical systems. WHO (2008: 13–15) states that: *“All too often, the PHC movement has oversimplified its message, resulting in one size fits all recipes, adapted to different contexts and problems. As a result, national and global health authorities have at times seen PHC not as one health-care delivery program among many, providing poor care for poor people. [...] At the same time, PHC reforms, and PHC movement that promotes them, have to be more responsive to social change and rising expectations that come with the development and modernisation. People all over the world are becoming more vocal about health as an integral part of how they and their families go about their everyday lives, and about the way their society deals with health and health care. The necessary reorientation of medical systems has to be based on sound scientific evidence and on rational management of uncertainty, but it should also integrate what people expect of health and health care for themselves, their families and their society”*. Primary Health Care (PHC), as described earlier, is an essential human right that should be made available to the general public in a manner considered acceptable and with everyone’s full participation, at a cost which both communities and country can afford. The Alma-Ata Conference (1978) emphasizes the importance of fully organized participation leading towards ultimate self-reliance, with each individual, family or community assuming more responsibility for improved health.

The term ‘integrated medicine’, coined by the medical social sciences, is a rather recent concept. An integrative approach examines not only a patient’s physical complaints but also administers to his/her complete well-being – i.e. to the individual’s mind, body and soul. An integrative approach, focusing on health and healing, sheds light on areas where community health programmes are needed. Using integrated medical methodology, one can better address problematic issues concerning health and healing as well as provide communities with additional knowledge on modern techniques, treatments and how to educate the public about the importance of improved self-care – physically, emotionally, psychologically and spiritually. Cohen (2000) states that: *‘Integrative medicine or integrative health care are to describe a system of medicine that integrates conventional care with complementary and alternative medicine and seeks to provide safe, effective, and appropriate care in the best interest of the patient’*.

The following sections will describe the development of integrated medicine and its implications for MCH systems in developing countries, in particular West Java Province. Special attention will be paid to the design of an explanatory model for utilisation of MCH systems. The following sections will discuss traditional and modern medical systems before moving on to integration through advanced partnerships.

1.3.1 Traditional Medicine

Plural medical systems in developing countries include both traditional and modern medicine. As Noe (2006: 1) states: *“Traditional medicine refers to the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, used in the maintenance of health and in the prevention, diagnosis, improvement or treatment of physical and mental illness”*. Traditional Medicine includes a wide variety of therapies and practices which vary between countries and even between regions within a country. The diversity of practices found in traditional systems is best illustrated by the number of *dukun* active in Java listed by Geertz (1960: 86): *“dukun bayi (midwives), dukun pijet (masseurs); dukun prewangan (mediums); dukun calak (circumcisers); dukun wiwit (harvest ritual specialists); dukun temanten (wedding specialists); dukun petungan (experts in numerical divination); dukun sibir (sorcerers); dukun susuk (specialists who cure by inserting golden needles under the skin); dukun japa (curers who rely on spells); dukun jampi (curers who employ herbs and other native medicines); dukun siwer (specialists in preventing natural misfortune – keeping rain away when one is having a big feast, preventing plates from being broken at the feast, and others); dukun tiban (curers whose powers are temporary and the result of their having been entered by a ‘spirit’)”*. Normally a particular individual will possess one such special power although he/she might also possess other ‘gifts’. For example, in addition to her chief skill in assisting pregnant women and delivering babies, a *dukun bayi* or *paraji* (TBA) is also a masseuse and expert healer with extensive knowledge of herbals and other native remedies. It is also the *dukun bayi* or *paraji* who is responsible for performing the necessary rites and chanting requisite spells for specific stages during and after pregnancy.

From time immemorial, indigenous healers have practiced Traditional Medicine in their direct surroundings. Over many generations, indigenous or Traditional Medicine has

maintained its popularity around the world. Since the 1990s, the demand for Traditional Medicine has increased in both developed and developing countries. In poorer countries, more than one-third of the population lacks access to government-provided Primary Health Care (PHC). Therefore, once proven to be safe and effective, Traditional Medicine (TM) and Complementary and Alternative Medicine (CAM) could provide important means for improving the health of a large part of the population. To reach such improvement effectively, traditional and modern medical systems should be integrated to provide better treatment and adequate follow-up of patients (WHO 2009). Ethnomedicine embraces the sum of indigenous knowledge, skills and practices rooted in the ancient traditions, beliefs and experiences of a particular culture. Traditional Medicine is used to maintain or improve health as well as to prevent, diagnose and treat physical disease and mental illness (WHO 2000a). Friction occurs when almost invariably stereotypes the traditional medical systems as being contra-indicative to and basically different from dominant systems of modern medicine.

Wolffers (1990: 6) points out that: “*WHO would have done better to engage the expertise of a medical anthropologist to present a definition of medical traditions which goes beyond a biased opinion*”. WHO and its Member States (2002–2005) support the use of Traditional Medicine for health care. Their collaborative strategy is:

- To integrate Traditional Medicine into national medical systems, working in collaboration with national policies to regulate products, practices and providers to ensure quality health care;
- To ensure the quality, safety and efficacy of products and practices, based on available evidence;
- To acknowledge access to Traditional Medicine as part of Primary Health Care, and to safeguard the preservation of traditional knowledge and its resources;
- To ensure patient safety by upgrading the skills and knowledge of traditional medical providers.

As already stated, Traditional Medicine (TM) has been part of the human experience throughout history, while alternative or holistic medicine is a contemporary expression for healing practices which have evolved over many centuries. Traditional Medicine and the use of herbal remedies is often the only option for obtaining basic health care for the majority of people in most developing countries, especially in rural areas. In contrast, the attraction of in industrialized countries, Complementary and Alternative Medicine (CAM) derives from the remarkable variety of healing practices discovered among indigenous peoples untrained in the ways of modern physicians, nurses or related health-care practitioners (Stieg 2005). Although scientific testing has provided limited evidence about the safety and efficacy of Traditional Medicine and practices, some evidence now suggests that acupuncture, particular herbal remedies and manual therapies (*e.g.* massage) may prove effective under certain conditions.

Medicinal herbal materials are both cultivated and collected from wild plant populations. The expanding herbal market poses a mounting danger in that it could lead to over-harvesting of plants and threaten biodiversity. Poorly managed collection and cultivation practices could result in the extinction of endangered plant species and

destruction of natural resources. If traditional natural medicine is to remain sustainable, an effort must be made to protect plant populations as well as knowledge about their use for medicinal purposes. While many people believe that herbal or traditional remedies are harmless by their very nature, Traditional Medicine can prove dangerous if used unwisely, *e.g.* sometimes in conjunction with other drugs. Better education, training and communication skills are important assets for health-care providers to increase patient awareness about the safety of such traditional medicines.

1.3.2 Modern Medicine

Traditional and modern medical systems have their roots in differing philosophies and cultural settings. While Traditional Medicine has developed over time within the boundaries of a particular indigenous culture, modern medicine has evolved in the ‘West’ and spread to ‘non-Western’ countries. During the 20th century, medical science discovered increasingly more about the causes and symptoms of disease and about the control and treatment of illness caused by infectious vectors such as viruses and bacteria in particular. As cosmopolitan biomedicine advanced with rapid strides, it was usually quick to replace Traditional Medicine. Today modern medical systems offer methodologies to inform, educate and train people to become health practitioners.

Modern medical science includes the applied health sciences, biomedical research and medical technology, all of which aim to help diagnose disease and medicate illness. Therapy generally refers to medication and surgical procedures. Health practitioners or doctors diagnose a patient’s symptoms using clinical observation to determine the ailment. Interaction between a doctor and his/her patient begins with a review of the patient’s medical history, followed by an interview and physical examination. To obtain more detailed information about a patient’s specific symptoms, a doctor might order clinical tests (such as a biopsy) or prescribe pharmaceutical drugs or other therapies.

Traditional and modern medical systems follow different roads of inquiry when confronting health issues related to illness and disease. In this context, Kleinman (1995), a noted medical anthropologist, distinguishes disease from illness: while ‘disease’ refers to abnormalities in the structure and/or function of organs and organ systems, ‘illness’ refers to a person’s perceptions and experiences of certain socially less valued states including, but not limited to, disease. Disease refers to biological conditions, upon which modern medicine generally focuses to diagnose and treat the underlying cause. In contrast, illness refers not only to a sick physical body but also takes into account an individual’s social, psychological and spiritual state. Some critics of modern medicine believe that humanity has paid a heavy price in its enthusiasm to understand disease. The art of healing has been lost through our failure to view the individual holistically.

1.3.3 Advent of Integrated Medicine

Integrated medicine has a broader connotation and mission, focusing on health and healing rather than on disease and treatment. Integrated medicine is not simply a synonym for ‘complementary medicine’ or what might be used above and beyond any conventional treatment. When following a holistic approach, a doctor will observe how a patient’s mind,

body and spirit function before addressing health issues. Therefore the doctor will not only search for signs of disease but also pay close attention to what the patient says about his/her daily lifestyle: *e.g.* dietary problems, work, exercise, hygiene, quality of sleep, and relationship with people and the environment.

Conventional medicine has grown reliant on expensive, and often ineffective, technology to help resolve health problems. In man's eagerness to embrace modernity, especially in the field of medicine, he has often neglected simple holistic interventions such as adjusting the diet or learning how to relax. Although alternative medical systems can prove invaluable, people still need guidance in selecting which therapeutic option to choose, especially since some conventional approaches have been shown to be relatively ineffectual or even harmful.

Under the policies endorsed by the World Health Organisation, some form of integration of modern and traditional medicine needs to be attempted in order to achieve optimal coverage of health care needs (Stepan 1983). Because an integrative approach officially acknowledges and brings together traditional and modern systems of medicine, it thereby provides Complementary and Alternative Medicine (CAM) a place in all areas of health care as well as inclusion in national drug policies (WHO 2000–2005). Alternative health-care providers and products are registered, regulated and made available at hospitals and clinics (both public and private). Now officially recognized, treatment using traditional or Complementary and Alternative Medicine can be reimbursed by health insurance. In countries such as China, the Democratic People's Republic of Korea, the Republic of Korea, and Vietnam, relevant research is being carried out and the public educated about traditional or Complementary and Alternative Medicine. Alisjahbana (1995) developed an integrated village maternity service to improve referral patterns in a rural area in Tanjungsari, West Java. Indonesia's Regional Report (WHO–SEARO 2009) explains the growing interest in Traditional Medicine in the context of self-care for which it is frequently used. This is exemplified by the concept *Taman Obat Keluarga* (TOGA: 'Medical Family Garden') on the cultivation of medicinal plants in household gardens, a 'Family Welfare Empowerment' Programme (PKK: *Pembinaan Kesejahteraan Keluarga*) introduced in 1987 by the Minister of Internal Affairs.

In summary, a new integrative model of health care based on both conventional and alternative medicine has recently been developed. Integrated medicine recognizes the human body's potential to heal naturally and emphasizes the importance of practitioner–patient interaction to foster this ability. The integrative model confirms health and healing and reaffirms that lifestyle as well as psychosocial and spiritual matters affect one's quality of health. Therapeutic modalities, whether conventional or alternative, require that patients play a pivotal role in taking responsibility for their own health and well-being through self-care. Therefore, higher-level institutions should educate the public on the importance of self-empowerment as well as provide accessible, affordable medical systems, whether for conventional or alternative medicine.

1.4 Aim and Objectives of the Study

1.4.1 General Aim of the Study

The general aim of this study is to contribute to the knowledge and understanding about the relationship between traditional and modern Maternal and Child Health (MCH) systems, as represented by their practitioners, *i.e.* *paraji* (TBA) and *bidan* (CMW). This study analyzes how existing MCH systems function in a community where two different types of health care are accessible. To this end, the behaviours of pregnant and perinatal women are studied to learn how they utilize the MCH services in their community. Previous studies show that the way in which women make use of community MCH services is influenced by different factors: *i.e.* socio-demographic, psycho-social, perceived pregnancy, enabling, institutional, and intervening factors which affect utilisation of traditional and/or modern MCH systems.

This study, inspired by results emerging from the ‘Making Pregnancy Safer’ Programme (MPS) conducted by WHOCC–PMC in collaboration with WHO–SEARO in 2001–2002, is based on longitudinal qualitative fieldwork which began in 1999. Research continued in 2005 at which time qualitative data was collected. In 2006, these findings were applied to develop quantitative questionnaires for a household survey, using as representative sample 150 households in which women had delivered a live offspring during the 12-month period prior to the actual household survey. A total of 127 women had completed their pregnancy and given birth, while 23 respondents were still pregnant at the time of writing. The population surveyed in the field was drawn from 798 households in the sub-district Rancaekek, a semi-urban community located on the periphery of Bandung and Sumedang. Because the study concentrates on the use of plural Maternal and Child Health (MCH) systems, steps taken by the women between confirmation of pregnancy and labour and delivery had to be traced retrospectively. In this case, data from only 127 respondents contributed to the analysis. This study describes patterns of behaviour for pregnant and perinatal women and the utilisation of existing MCH systems in their community. It is expected that growing awareness of the wisdom and knowledge inherent in ethnomedical traditions will help create ‘advanced partnerships through integration’ between traditional and modern MCH systems in the research setting.

1.4.2 Specific Objectives

The following six objectives form the basis for this study:

- (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 *paraji/dukun bayi* (TBA) and *bidan* (CMW) 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.

1.4.3 Structure and Arrangement of the Dissertation

In order to meet the general aim and specific objectives of this study, the structure and organization of this dissertation has been divided into nine chapters as follows.

Chapter I presents a general overview of applied medical anthropological and sociological theories about plural medical systems, placing special emphasis on Maternal and Child Health (MCH) in the study area Rancaekek. Policies pertaining to Maternal and Child Health, particularly in West Java Province, are described and integrated medicine introduced as a new perspective in Primary Health Care (PHC). Furthermore, the general aim and specific objectives of this study are to develop an integrative model for Maternal and Child Health based on community participation.

Chapter II provides a theoretical framework for the purpose of developing medical anthropological and sociological theories on the concept of medical pluralism and the integration of traditional and modern MCH systems, based on the assumption that various factors influence the utilisation of MCH systems. The discussion on objectives already introduced in Chapter I is continued.

Chapter III describes research methodology as well as the analytical model: more specifically, the research design, selection of the research setting and respondents and case studies are complemented with methodological decisions made during the household surveys. The types of analyses applied in this study, and their expected outcomes, are presented.

Chapter IV gives a general overview of the research setting in Indonesia, focusing on West Java Province in particular. This chapter reviews Indonesia's geography, demographics and health conditions in terms of crude birth rates, total fertility rates, socio-

economic conditions, poverty level, education, and public health which correspond to some of the major issues addressed in this study.

Chapter V discusses health and healing in Indonesia, including traditional and modern medicine, the development of Primary Health Care (PHC), and integration of the roles of *paraji* (TBA) and *bidan* (CMW) through advanced partnerships.

Chapter VI describes the infrastructure and demographics of the Rancaekek community, the study population and selection of five sample villages, medicinal plants and the traditional MCH system.

Chapter VII presents a qualitative overview of women's behaviour during pregnancy, labour and delivery in the research setting as well as provides patterns for utilisation of plural Maternal and Child Health.

Chapter VIII first discusses the use of bivariate analysis to obtain behavioural patterns for the utilisation of MCH systems, followed by the application of multivariate analysis to study correlations between various utilisation factors.

Chapter IX discusses the research findings and draws not only conclusions but also puts forward theoretical and practical implications for social and ethnomedicine as interdisciplinary studies.

Notes

1. The Millennium Development Summit, held in September 2000, drew up eight number agreements in Millennium Development Goals (MDG) to be achieved by the year 2015. The Indonesian Government and 188 other Member States have ratified the UN Millennium Declaration.
2. Since 1999, with the issuance of Regulation No. 32, Indonesian provinces have been granted regional autonomy to write their own policies.
3. Their neglect to include indigenous healers in the research plan was the main objection expressed during evaluation of the *Werkgemeenschap Zuid-Oost Azië* (a Dutch agency for scientific research in South-East Asia), as if it is a *must* for medical anthropology invariably to involve Traditional Medicine, notwithstanding the focus of the subject chosen (Sciortino 1992).
4. *Paraji*, or *peraji*, is a Sundanese term for a 'helper' whose motivation is chiefly social. She never takes into account whether her clients can afford to pay for her services. In Sundanese, *paraji* used to be called *indung beurang* (*indung* = mother, *beurang* = day). It is a vocation with a profound significance: *i.e.* the *paraji* is the individual who receives the baby directly from the dark place (mother's womb) during delivery and ushers it into the light. According to Tiarsa (*Pikiran Rakyat* 2006: 26), there are two kinds of *paraji* in Sundanese: (1) a delivery assistant and (2) a circumciser for Muslim males (*paraji sunat* or *bengkong*; generally a man). Other familiar regional terms for *paraji* are *dukun bayi* (Ind. and Javanese), *bidan* (Malay), *bideun* (Aceh). Alfian (1977) relates that, in the past, the role of *bideun* included performing rituals in the family for a pregnant woman. Sometimes a ritual was conducted by a *teungku ineung* (woman who teaches recitation of the Holy Qur'ān). Nowadays, rituals are performed by a grandmother or senior female member of the *gampong* (village). The aim of such rituals is to ensure a safe pregnancy and childbirth. *Bideun* inherit the magical lore (*kedukunan*) required to attend to pregnancy and childbirth from their mothers or grandmothers. The main tools of their trade are *teumen* (bamboo knives), *kunyit* (turmeric or curcuma) and *sirih* (betel leaves). Generally, a *bideun* has several professions besides helping pregnant and parturient women,

namely she is also a *meurajah obat aneuk-aneuk* (prepares herbal concoctions for children) and a *teungku ineung* (lays out the body of the deceased, especially women).

5. Ethnomedicine encompasses “*those beliefs and practices relating to disease which are the products of indigenous cultural development and not explicitly derived from the conceptual framework of modern medicine*” (Hughes 1968: 88). Ethnomedicine can be applied more broadly to refer to ‘culturally oriented studies of illness’. The task of an ethnomedical investigator is to explain “*an illness – its genesis, mechanism, descriptive features, treatment, and resolution – as an event having cultural significance*” (Fabrega 1974: 39–43).
6. In 2006 West Java Province accelerated the launch of programmes by introducing a competition to reach the target (80 by the year 2010) set by *Program Pendanaan Kompetisi-Indeks Pembangunan Manusia* (PPK-IPM: Human Development Index or HDI). The PPK-IPM Programme encourages health development in a particular region. The Bandung region recently initiated a number of activities, such as *Perilaku Hidup Bersih dan Sehat* (PHBS: ‘Clean and Healthy Life Behaviour’), in anticipation of a prospective lag in good-quality health services in communities located in underdeveloped, remote areas.
7. ‘*Desa Siaga*’ (‘Alert Village’) resembles a movement or neighbourhood participation to improve Maternal and Child Health (MCH) and lower maternal and child morbidity and mortality rates. The aim of ‘*Desa Siaga*’ is to stimulate the public to take responsibility for improved health in their community.

