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Indonesian Fertility Behaviour Before the Transition: Searching for Hints in the Historical Record

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ABSTRACT

People facing rapid social change draw comfort from the apparent certainty of 'traditions' that are presumed to reflect the beliefs and behaviours of their ancestors. Such comfort may not be beneficial to successive generations, particularly if the traditions are based on myths rather than realities. In the case of sexuality and family planning the difficulties of sorting myths from realities are particularly acute due to the very personal and persistent moral pressures that repress efforts to correct the inaccuracies and fill the gaps of conventional histories. This paper reviews historical accounts of Indonesian sexuality and contraceptive behaviour to see if current notions of 'tradition' conform to the historical record of behaviour. Very broadly they do not. The paper concludes that a more realistic vision of traditions could be very helpful in forming and implementing more humane and effective family planning and sex education policies for current populations of Indonesia.

INDONESIAN FERTILITY BEHAVIOUR BEFORE THE TRANSITION: SEARCHING FOR HINTS IN THE HISTORICAL RECORD¹

Terence H. Hull

ON THE REINVENTION OF HISTORY

When societies undergo rapid social change the need for new histories to explain different

systems of organisation or morality increases, and it is common for the "fables" to be invented to

meet new requirements. In modern times rapid social changes have been accompanied by the

growth of literacy, so the new fables have the benefit of being written, and thus fixed in form and

substance but subject to reinterpretation. However, in terms of breadth of communication and

impact on the exercise of power, the spoken word frequently continues to have a position of

prominence in shaping the thinking of all classes, including the intelligentsia. Over the long term,

societies in the course of rapid social change need reference to history to maintain some sense of

coherent identity and common purpose. Theoretically a long tradition of written history would

offer the most stable foundation for such cultural identification, but among developing nations

written histories are often sparse and suspect, since they were the product of colonial institutions

rejected in the rise of nationalism. Instead reinterpretations of written histories are elaborated

through reference to oral traditions and imagined "realities", to produce visions of society more

in consonance with modern conditions and political needs.

This paper explores a case of "reinvented history" in the development of the orthodox

story of the institutions of the family and family planning in Indonesia. With a remarkable

persistence some basic ideas have become part of the national understanding of the nature of

family planning in Indonesia. First, it is often argued that before 1967 Indonesia was

¹ Forthcoming in Ts'ui-jung Liu (ed) Asian Population History. Oxford University Press.

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"pronatalist". Second, people believe that before 1957 women in Indonesia had no access to means of birth control. Third, current discussion of the "family" describes a strong institution of marriage and the lack of premarital sex as characteristics of "traditional" moral strictures which are breaking down under the influence of westernisation. Fourth, there is the frequent declaration that abortion is condemned in the eyes of both religion and culture, and is not be accepted conduct for Indonesian women². The importance of these ideas about morality is that they support a particular case for modern political debate and law. The backing of "history" is vital to provide indigenous legitimation for the "orthodoxy". In themselves each of these propositions has some basis in fact, and a large amount of speculative elaboration. Their strength lies in the purposes they serve in providing a useful "history" to explain, extol, and enshrine a contemporary government sponsored programme.

Though these arguments for mythic traditionalism appear regularly in the popular press and in many academic works they are seldom backed up by reference to historical documents³. They are popularly accepted because they seem so "reasonable". This paper will look at some of the available documents to argue that educated Indonesians over the course of the early Twentieth Century knew much more about birth control than is implied by the orthodox history, and will infer from what we know of both colonial law and indigenous practice that the idea and practice of birth control was widely known in the Dutch East Indies. This did not necessarily mean that it was widely or effectively practiced. Moreover, it will be argued that the "traditional" moralities condemning pre-marital sexual relations are very much imported moralities having more to do with Islam and Dutch colonialism than with traditional Malayo-Polynesian social patterns.

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² The Indonesian position at the 1994 Cairo Conference on Population and Development and the 1995 Beijing Conference on Women strenuously denied that abortion could be 'a method of family planning', rejected any recognition of same-sex unions and promoted a concept of traditional family values against what was described as inappropriate calls for 'equality' between men and women. In contrast Indonesia promotes gender 'equity'. (source: various press accounts and Ministerial speeches, June-August, 1994). It should be noted that government statements assiduously avoided total condemnation of abortion, being careful to refer to it in the context of family planning.

³ Indonesia is an "oral culture" not only in the difficulty many people have in reading and writing serious works, but also in the lack of interest in documentation of arguments or review of literature.

The greatest difficulty encountered in attempts to understand 'traditional' patterns of sexual behaviour is not simply the paucity and bias of documentary evidence. Much of social history is poorly documented, but careful marshaling of evidence and interpretation of slight indications can yield rich insights. Instead, the difficulties of studying sex are inherent in the 'private' nature of the activities and the universal nature of the actors. There is a need to treat the subject matter very democratically -- the behaviour of the pauper is just as important as that of the prince in determining overall fertility rates. The fact that for much of history there were so many more "paupers" than "princes" makes the search for the 'common people' that much more important to undertake. Since the main actors of interest are women, it is doubly likely that important stories will be missed by male chroniclers.

MARRIAGE, MATING AND MORALITY FROM THE FIFTEENTH TO THE TWENTIETH CENTURY

Among the more important issues surrounding fertility in a pre-transition era is the nature of the institutions and practices of mating. It is important to use the term mating, to emphasize the point that reproduction may very well take place before or outside social institutions of marriage. This certainly was the case for much of the population of Indonesia prior to the spread of Dutch and Islamic moralities which demanded formally contracted marriage ties to ensure the stability of unions, and enforce the responsibilities of those entering unions.

In Indonesia today many marginal groups in Java and many ethnic minority communities in the so-called "outer" islands follow traditional patterns of mating which allow sexual relations and child-bearing before formal marriage ceremonies are held. In particular the people of East Nusatenggara and the other islands of eastern Indonesia accept the pairing off of young couples months or years before a marriage contract including an exchange of bride wealth, can be

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completed⁴. This reflects an acceptance of the biological realities of young adulthood, while maintaining the traditional demands of economic ties between extended families. Thus both the legal and religious marriage ceremonies may occur long after the families and community have accepted the relationship between a young woman and man.

While these practices are frowned upon by government authorities, and ascribed to particular "primitive" cultures, they may reflect traditions which were common throughout the Malay world. English travelers to Java in the late 1700s and early 1800s were surprised at the looseness of the institution of marriage among Javanese commoners. Earl (1837) attributed this to both the autonomous standing of women in the economic system, and the relative productivity of the economy:

Among the lower classes of Javanese a nuptial ceremony is rarely performed, the mere fact of a man and a woman living together constituting the marriage. Neither is polygamy practiced by them for the men often find one wife too much for their domestic comfort. The females . . . enjoy a degree of liberty perhaps unequaled in any country in the world. The necessaries of life are to be procured so cheaply, that the women, who are even more industrious than the men, find no difficulty in supporting themselves, and consequently feel quite independent, and at liberty to act according to their inclinations. As no ceremony is required for the marriage, of course none can be necessary for the divorce, and when the parties tire of each other, they separate and form new connexions. [Twenty three year old] Women . . . may sometimes be seen living with their fourth or fifth husbands, without any great odium attached to them on account of the frequent transfer of their affections. (Earl 1837, 59)

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⁴ While the government does not approve of such practices, they are described in an official publication of the Department of Education and Culture (1983) titled *Adat dan Upacara Perkawinan Daerah Nusa Tenggara Timur (Marriage Traditions and Ceremonies in the Regions of East Nusa Tenggara*).

While this may have been a common situation among the lower class of some areas of Java, Boomgaard's review of the available evidence concludes that formally recognised (ie. in census and other records) marriage was universal in Java, but subject to wide variations in method of arrangement, responsiveness to economic circumstances, and timing, in regard to the ages of the couple (1989: 139-145). Of course, the difficulty here is in distinguishing marriage as a simple pairing off of a couple, a more organized acknowledgment of the relationship by the families and local community, and the formal ceremonies, registration and payment of fees demanded by religions and the state. Different sources (eg Raffles) may use the term marriage to refer to any or all of these relationships. Moreover, each may have different meanings for nobility and commoners, rich and poor, and various ethnic groups.

PREMARITAL SEXUALITY

Looking at the evidence left by European adventurers, Reid (1988: 146-160) has noted that the late age at marriage and relative emphasis on chastity in their own societies caused them to describe the practices found in Southeast Asia in terms of lasciviousness and promiscuity. Shorn of the Christian moralism, what they observed were societies where 'pre-marital sexual relations were regarded indulgently, and virginity at marriage was not expected of either party' (p. 153). Nonetheless, the freedom related to premarital sexual relations was closed off at marriage, with both partners expected to be monogamous and faithful. An example of this sheer moral divide is given for Aceh in the early Fifteenth Century:

Before getting married the girls do not scruple to prostitute themselves to anyone they consider suitable, which in no way prevents them from marrying. . . . When they are married, they would not dare to accost any man other than their husband, under pain of death or having their nose or ears cut off (Martin 1602, in Reid 1995, 58)

Paiva, quoted by Schurhammer (1977, 530) reported that in South Sulawesi:

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If anyone sinned with a married woman, he was punished with death, whereas one who had relations with unmarried women or virgins was not punished.

Traveling to Borneo in the early Sixteenth Century Daniel Beekman (1718, 41-2) commented on the women of what is now the Banjarmasin region:

The women are very little, but very well shaped, having handsomer features and better complexion than the men . . . They are very constant when married, but very loose when single; neither is her former compliance counted a fault in a wife; and mothers do often prostitute their daughters at eight or nine years for a small lucre [payment]. They generally marry at that age, and sometimes under⁵. . .

The extant question about 'traditional' sexual behaviour and marriage is that of defining the boundary between pre-marital and marital relations in a society where marriage itself had so many, often subtle, stages, from first pairing to official religious and state recognition. Here again the relative invisibility of women in the historical documents means that the issue is clouded, and many observations are extremely unclear.

FREEDOM AND SELF-CONTROL

The culture of easy acceptance of premarital relations and relatively easy divorce or separation found in the indigenous peoples of Indonesia should not be interpreted as a form of unbridled individualism. As Reid (1988, 154) argues, citing a mid-nineteenth century traveler's observations, the ease of divorce probably formed a strong motive for couples to treat each other with increased care and affection. In West Java, as early as 1606 Scott commented that

⁵The difficulty of estimating the calendric age of people throughout the region, even as recently as the 1971 Census, casts some doubt on the assertion that clearly pre-menarchic girls were sexually active or married. Since Beekman makes no comment on physical maturation, it is possible that his estimates of age are based on the stature and openness of the girls rather than true age. However this question over ages does not invalidate his observations of the acceptance of premarital sexuality.

the domestic violence found in cases of foreigners married to locals would not be tolerated in unions of Javans (Scott 1606, 127). 'The economic autonomy of women and their capacity to escape from unsatisfactory unions obliged husbands as well as wives to make some effort to keep the marriage intact' (Reid 1988, 154). This interpretation could be amplified with reference to modern studies of Javanese family relations (eg. Geertz, H. 1962, Hull, V. 1975) where the ease of divorce is found to both promote affection in some relationships and divorce and quick remarriage in others.

As might be expected in a land where trade and colonialism brought a variety of cultures into contact, the institutions of mating and marriage and divorce undoubtedly underwent substantial changes over time. Perhaps the three most important trends shaping these changes were first, the growth of Islam as a dominant religion among the common people, with rules about family formation and personal morality; second, the extension and legitimation of the colonial civil state, with a bureaucracy to define and regulate family units; and third, the growing influence of the Dutch Christian churches in pressing for social laws upholding particular patterns of morality and family life. As trends these changes had mixed impact on the behaviour of people, and as the travelers' tales bear out, there was always a high degree of tension between officially expressed rules and moralities, and actual behaviour on a day to day basis. There were also wide differences by region and class, though at times travelers write of cases as 'Javanese' behaviour, with no particular appreciation of such differences. In general, though, it seems that 'tradition' as expressed in the behaviour of people in villages, and among the poor of the cities, consistently acknowledged community interests and ceremonies as being the important consideration in defining a marital union, and civil and religious ceremonies as optional. Sex before civil marriage was obviously not a major issue among the common people right through the Twentieth Century. Sex before community acknowledgment of a union was largely a function of the nature and strength of religious institutions in the region, with Islam demanding stricter controls than had been the case with pre-Islamic traditions (adat).

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NINETEENTH CENTURY CONTROLS ON FERTILITY: ABORTION, BREASTFEEDING AND ABSTINENCE

Nineteenth Century Java is one of the classic examples of "rapid population growth" unleashed by modernity, and the debate on the causes of this growth has been long, acrimonious and ultimately inconclusive. It was sometimes asserted the population of Java grew from 4.6 million at the time of Raffles enumeration in 1815 to 28 million in 1900 implying an annual rate of just over two percent per annum. By the standards of the time this was an impressive growth rate which, if true, implied relatively salubrious conditions in this tropical country. The conventional colonial explanation of alleged rapid population growth was that strong governmental institutions introduced by the Dutch both stopped the disruptive effects of internecine wars and improved the economic institutions in ways which wiped out periodic famines, ensured a basic level of food security, and extended the benefits of medical improvements.

Most critical comment on this argument has pointed to two major issues⁶. First, the beneficial effects of colonialism are questioned, and by extension the argument made that mortality rates were likely to have been as high or higher under the tightening grip of colonial rule than in the period before Raffles. Second, given the simple arithmetic of demographic analysis, if mortality had not fallen (and assuming that fertility was a given) the only explanation plausible was that the basic population data were incorrect, and population had not in fact grown at a high rate. Because the modern population estimates were assumed to have a relatively high degree of accuracy, this meant that Raffles' enumeration was incorrect, and instead of 4.6 million Javans in 1815 the true number was closer to 8 to 10 million. How such a large error in enumeration could be made is explained by the fact that Raffles (like Dutch officials preceding and succeeding him) had ordered a simple headcount to be carried out by Javan village and other local officials for purposes of government administration, which in the case of Raffles was the introduction of a new system of taxation. The result seems commonsensical today — massive

⁶ Good starting points for study of the debate are Boomgaard (1989 and 1987) for English language readers, and Peper (1975) for Indonesian language readers.

undercounts as village heads minimized the administrative work which would predictably follow the count, and as people with weak or no ties to formal government were omitted from the operation.

In both the framing of the problems and the marshaling of evidence the debate over Java's population growth has been marked by simplifications designed to round off arguments rather than open issues for investigation. Two major problems arise from these practices. First there is an assumption of homogeneity attached to many explanations, such that ethnicity, class, and individuality fade while strong statements about the 'growth' of trends -- vaccination, the Cultivation System, and nutrition -- provide a gray backdrop to contesting viewpoints. Second is the problem of finding any hard evidence of behaviours related to fertility such as abortion, manipulative massage, herbal contraception, breastfeeding, and post-partum and other forms of abstinence.

The interest in fertility behaviour as a force behind population increase in Nineteenth Century Java arose primarily out of theories of labour demand which posited that colonial economic systems increased the demand for labour in family economies, and as a result it became rational for peasants to bear and raise ever larger families (see White 1973). The puzzle then became, how did they do this?

Paul Alexander's 1984 elaboration of the demand for labour hypothesis is both the most explicitly 'demographic' in honing an argument carefully on the classic Davis and Blake (1956) classification of intermediate variables for fertility analysis, and the most avidly speculative in pushing 'scraps of information patched with analysis' (1984:369) to a sharp conclusion. Looking at the spread of the colonial system of commercial crops, Alexander argues that a major impact of new economic arrangements was the absorption of women into disciplined and arduous forms of work outside the immediate household economy. The 'work the women began to undertake made it increasingly difficult to breastfeed their children. As the average period of breastfeeding fell, the average period of postpartum abstinence declined and fertility

increased' (1984:361). Alexander asserts that marriage was already young and universal, and therefore earlier age at marriage could not be the engine behind increased fertility (1984: 370). He also explicitly rejected the idea that welfare or nutrition could have improved, and contended that there was no decline in mortality, leaving the bulk of the explanation of population growth to changes in breastfeeding and abstinence.

Boomgaard (1989: 187-192) in an analytic review of the potential impact of changing patterns of economic institutions on epidemics, communications and health services concludes that mortality rates were very high between 1800 and 1820, may have dropped somewhat between 1820 and 1850, and definitely declined in a series of measurable ways after 1850 (1989:1888). Using data from local government and plantation records, he shows that evidence of mortality decline is both consistent and growing across a wide range of settings. The more important portion of the Boomgaard review is the argument that not only did fertility not rise (as posited by White and Alexander), but it most likely fell in the period after 1850. His argument is based on a search for parallels between European and Javanese experience, with particular attention to links between economic conditions and marriage rates, with the latter being the primary proximate determinant of fertility levels. Under Boomgaard's scenario, the influence of the Cultivation System was to communalize landholdings, followed by a distribution of 'shares' and an encouragement to non-agricultural employment, both of which served as a spur to younger marriages. These younger marriages should have produced higher fertility but according to Boomgaard they didn't, at least in part because Javanese women would have been breastfeeding for longer periods on average as infants were more likely to survive, but also because they may have had recourse to birth control. As time went on the ability of the system to support more shares in communal land dried up, and non-agricultural employment stagnated, leading to a gradual rise in the age at marriage (which Boomgaard sees in figures for the period 1861/70) and a fall in fertility.

For the period to the end of the Nineteenth Century Boomgaard mentions three possible methods of birth control: abstinence, interception of conception and abortion. He dismisses the

first as being unlikely to have influenced the level of marital fertility. Given that Javanese behaviour over the last century has frequently been characterized by various forms of asceticism, and Javanese culture is often portrayed as a culture of great self-control, it is odd that Boomgaard would dismiss prolonged abstinence entirely as a method of fertility control—though perhaps acting indirectly as people use abstinence for other objectives. This oversight is matched by a failure to cite or discuss the Alexander paper in an otherwise extensive review of the literature. In terms of measures to prevent conception both prolonged breastfeeding and massage inversion of the uterus are mentioned, but Boomgaard seems skeptical about the efficacy of both as volitional means to control fertility, and notes that documentary evidence is weak concerning the extent of use of either (1989:194-195). Only abortion is regarded (based on speculation rather than hard evidence) as both widespread and likely to have been successful in preventing births. Given that the most effective forms of abortion were also the most dangerous, and the most widespread forms of abortion through the use of herbs were unlikely to have been effective, there are many unanswered questions about the likely impact of changes in attempts to abort pregnancies on the trends in fertility over time.

In the uncertainty of Nineteenth Century fertility related behaviour it is unfortunate that the diametrically opposed conclusions reached by Alexander and Boomgaard are not illuminated by a more direct comparison and analysis of data. The basic argument linking an increased demand for labour with an increasing (or declining) level of fertility is necessarily complicated, and ultimately untestable. It involves a series of behavioural changes on the part of women including participation in more formal labour institutions, devotion of more time to work some distance from the household, shortening of durations of breastfeeding, changing patterns of infant feeding, enforcement of different durations of post-partum or other forms of abstinence, and acceptance of changing patterns of residence of husbands and wives. As Boomgaard argues, there is no direct evidence for the changes in the biological behaviour (levels of abstinence and breastfeeding), and only partial and contradictory evidence for the economic variables. But neither is there any direct evidence on the use or efficacy of herbal or massage forms of contraception or changes in the practice of different types abortion, so notions of Javan

women striving to maintain a 'target' family size (Boomgaard, 1989:192) remain purely speculative.

Finally, despite Alexander's rejections of any improvement of health conditions, his thesis suggests it would be useful to consider changes in the physical capability of women to conceive and carry a pregnancy successfully to term, including changing patterns of disease, medical treatment, and regular nutrition.

Had we a series of Nineteenth Century "World Fertility Surveys", we might just begin to untangle the complex interactions of all these behaviours over the lifecourses of women, and among women of strikingly different social and economic conditions. But rather than reams of tables we have only oblique footnotes, occasional stories, and imaginative (but speculative) analysis. The generalizations supported by such speculation tend to picture the Javan woman at the turn of the century as having some freedom (albeit varied, and declining) to choose sexual partners prior to arranging an appropriate marriage, increasing pressures to adapt to formal rules concerning marriage, broad access to information and materials said to prevent conception or procure abortion, and a fair degree of economic autonomy, which equated with concerns over the management of the household economy. The letters of the elite at the time mention some of these issues, and particularly reflect the great concern people had over the high risks of maternal mortality related to the difficulties of childbearing. Yet nowhere in Indonesian records are there found descriptions of the primitive condoms and caps which had been mentioned in European literature for centuries. The archipelago may have had some notions of contraception and abortion in 1900, but they were distinctly pre-industrial, and remarkably circumscribed.

CONTRACEPTION: CONDOMS, CAPS AND OTHER METHODS

The Twentieth Century brought a shift in emphasis from fertility controlling behaviours to fertility control devices, as mass production and distribution of a variety of barrier contraceptives came on to international markets, and various efforts to promote birth control encouraged women in

particular to consider limiting their family sizes. One of the interesting examples of the promotion of contraceptives comes from a brochure printed in Semarang in 1933 by Chan Kok Cheng, a Chinese-Indonesian journalist using the nom de plume 'Sub-Rosa'. The title *Neomalthusianism* atau Birth Control accurately reflected the array of information covered, with chapters on economic theory, moral considerations, health impacts, and in the final chapter, five means of contraception. Relying on books published in England and Germany, Chan described the use of soluble pessaries, rubber pessaries, sponges, cotton, and condoms. Over the next few years writers in Medan, Padang, and Jakarta wrote both in praise and condemnation of Chan's book, which, they indicated, had a wide readership among urban Indonesians. Indonesian language newspapers and magazines of the period carried the messages of nationalism and feminism to the rapidly growing population of readers, and with these came small advertisements for sexual aids and condoms imported from Japan. The emphasis of the ads was on protection from disease, but some also contained messages about fertility control.

Interviews with women who were young in the 1930s and 1940s give hints that contraception was discussed by some doctors in Indonesia, and devices and services were available, at least to well-to-do women able to afford private physicians⁷. The more general impression, though, is that ordinary women of the period had little access to imported devices, though they were aware of indigenous contraception involving herbs or massage. What is less clear is their awareness of, and acceptance of withdrawal as a method of birth control.

The advent of freedom in 1950 saw not only a new and idealistic government, but also the flowering of a wide variety of publications designed to educate and entertain a new and democratically motivated populous. Among these were handbooks on marriage and home medical treatment, which, among other information, discussed the importance of birth control.

⁷ Dr Yulfita Rahardjo relates how her elderly mother claims to be one of the early family planning pioneers because she received a diaphragm from Dr Suharto in 1942. Other women tell of knowing about, though not using, cervical caps and condoms. On the other hand some women tell stories of asking for some means to control fertility, only to be rejected by doctors who told them that they were 'young and healthy and should

In one of the most interesting contributions to this list, Amir Ta'at Nasution wrote the guide *Sorga Perkawinan* (roughly *Marital Bliss*) in 1949. By 1954 it had gone through five printings in Indonesia (for a total print run of 55,000 copies)and five printings in Malaysia (25,000 copies) and, according to the author, had attracted thousands of letters of thanks, hundreds of letters with specific questions, and a number of attempts by police in West Java and Palembang to have distribution halted. In 1952 the publisher sought a ruling from the High Court to determine if the book was to be banned, and received assurances that the content of the book was not in question, only the problem of sale of copies to under-age readers. Thus, the introduction to the 1954 edition contains a special plea to booksellers to sell the volume only to those who have reached marriageable age (ie. puberty) -- though notably not necessarily only those who had married. *Sorga Perkawinan* is still sold in bookshops throughout Indonesia. The thirteenth printing in 1965 was followed by a hiatus of 13 years. In 1978 the author added sections on new methods of birth control, and further discussions of household management for the fourteenth edition. The fifteenth printing in 1982 came out under a Surabaya imprint, but remained true to the style and ideosyncracies of the original editions.

Readers of the guide find detailed descriptions of ways to prevent pregnancy (1954: 62-68) and select the sex of a child (69-73). The reasons for using birth control are described in terms of the health benefits of spacing births and the need to balance the number of children against the economic resources of the household. Nasution's description of birth control methods ranges from the very brief (herbs and patent medicines easily available from 'medicine stores', and inversion of the uterus⁸ by the traditional or village midwife) to the more detailed descriptions of the use of withdrawal, condoms and rhythm.

not be afraid of having children'. It is fast approaching the time when oral histories from such women will be impossible to obtain.

⁸ Inversion of the uterus is well known from medical studies of Java in the Nineteenth Century, where the practice was called *pijat walik*. Nasution refers to the practice as *kusuk* (sic) and says it is common among 'our people' but does not make clear whether he is referring to North Sumatra or Indonesian in that generalization.

Given our growing understanding about the importance of withdrawal (Santow, 1995) in the European fertility decline and in Islamic tradition (*azel*) it is notable that Nasution discussed the method in some detail. He noted that after ejaculation the man should not resume intercourse. This, he says,

'gives rise to a danger with the method, that is the failure to satisfy the woman, and the incomplete satisfaction of the man. . . . Remember !! If the woman is not satisfied with us, the result is she will seek satisfaction elsewhere, even though this might not be fully moral and may even be done in secrecy.' (1954: 63)

Similarly, in describing condoms (*kapotjes*) Nasution says they frustrate both man and woman, but they 'are good enough for emergencies or when there is no alternative.' (64) However, in setting aside these and other 'theories' as having drawbacks, Nasution describes the Knauss-Ogino⁹ method of determining the fertile period as the best method of regulating conception — as long as the man is 'a little patient and controls the ever-present desire for sex'. He then goes on to provide a long description of ways to minimize the chance of pregnancy through careful calculation of safe and fertile days during the menstrual cycle. A letter published in the back of the 1954 edition asks the author to explain the difference between his method of calculating the fertile period, and that presented in another book, *Nafsu dan Kesehatan Perkawinan (Desire and Marital Health)* by P. Lubis. Nasution explains that both methods are the same, but that the Lubis book had suffered from a printers' error. Looking back from the 1990s what is remarkable about the Nasution volume is the detail, forthrightness, and reader response related to the subject of birth control at a time when popular history tells us Indonesia had no interest in contraception¹⁰.

 $^{^9}$ Nasution comments that the method is particularly recommended because it was developed by both a westerner and an easterner.

¹⁰ There is some evidence that the discussion of birth control in Indonesia was influenced by books and pamphlets published in Britain, Germany and Australia. There are certainly parallels between the Nasution

While Nasution and Lubis could be regarded as indigenous contributions to the birth control literature, albeit based on international (and largely western) source materials, it is possible that booksellers in the 1930s-1950s were dominated by books translated from Dutch, or in the original Dutch. In the early part of the century Indonesian readers could rely on an Anonymous pamphlet titled 'Pengatahoean Sexueel Orang Lelaki dan Prampoean' (Sexual Knowledge for Men and Women) compiled from the writings of Cospard, Hufeland, and Giraudeau de Saint Gervies¹¹ Stressing the need to be aware of the strength of sexual feelings, and the consequent need for studied self control. The advice includes little about contraception other than abstinence, and much about the changes brought on at puberty, and the dangers of masturbation. In the 1950s and 1960s Indonesian Christians could read similar messages in the translation¹² of Verkuyl's Christian Ethics which was published in Jakarta and distributed throughout the nation. Part II/2 of the series is devoted to a discussion of sexual ethics. Using detailed references to Christian (both Protestant and Roman Catholic) and psychiatric literature the volume argues strongly against neo-malthusianism (89-90), and is consequently critical of birth control, though not in a doctrinaire fashion. Verkuyl, like Nasution, uses psychiatric literature to argue that withdrawal is a dangerous method because it fails to satisfy the woman. Similarly, total abstinence is said to produce neuroses (according to psychiatric research), but is acceptable as one means of controlling family size, according to ethical teaching (p. 95).

There were undoubtedly many other books and manuals published in the 1930s-1960s which provided information on techniques of birth control, and commentary on the ethical issues to be considered by the educated reader. Nasution and Verkuyl, though approaching the problem differently, reach similar conclusions. Abortion and sterilization are immoral and potentially dangerous. Condoms, diaphragms and caps are of questionable efficacy. Withdrawal is potentially dangerous due to the unsatisfied stimulation it brings to the sex act.

booklet and Taylor's (1937) guide to birth control for Australians, including the warning about the dangers of withdrawal leading to frustration and biological consequences for the woman deprived of seminal fluids.

¹¹ The pamphlet has no date, and provides very limited information on sources. It does refer to a three volume set of books on the same topic (400 pages, complete with tables and tens of pictures) for f10 per volume, titled *Wet Nasehat dan Resia Manoesia*.

¹² Though a translation from Dutch, Verkuyl's book is written for an Indonesian audience, and contains numerous references to Indonesian Christian and government positions on birth control and marriage.

Calendar rhythm or other forms of periodic abstinence can be useful and successful, if couples have the patience and discipline to practice them consistently. Both authors are skeptical about total abstinence. It might be argued that these manuals were obviously read and discussed by urban residents of Indonesia over the late colonial and early republican period, and were thus influential in shaping the attitudes and values of the current political leadership (all of whom are over 45 years of age) and older members of the Indonesian elite. It is difficult to imagine how these ideas changed, or even shaped, behaviour in general, but clearly some of the strong themes of Chan and Nasution found resonance in the acrimonious political debates over birth control starting in 1952.

Given the liveliness of the sex and family planning manuals published in the years between 1930 and 1970, it is ironic that many of the publications since the establishment of the family planning program have been brief, dull, and narrow in their coverage. This is particularly true of pamphlets published by government agencies. They tend to take a mechanistic approach to describing the various modern hormonal and barrier methods, and dismiss "traditional" methods as being totally ineffective or dangerous. The contrast between these and earlier publications is sharp, but there has never been an analysis of the content and readership of such manuals, so policy-makers tend to assume that the public need for information is limited, and the government efforts are sufficient to meet these needs. Looking back to the 1960s two authors stand out as offering sex education which is both authoritative and interesting. In 1967 Dr A. Seno Sastroamidjojo published a guide to family planning, which was thorough (to the length of over 200 pages, including many medical illustrations), eclectic, and up to date with discussions of the oral contraceptive pill. Two years later anthropologist Dr Masri Singarimbun published a pair of booklets for use of the fledgling family planning movement, the first giving a history of family planning in England and America, and the second giving a very clear exposition on the various methods of contraception available in the late 1960s, in a balanced way that made no firm distinction between traditional or modern contraceptive behaviour. Sadly, in the thirty years since those publications appeared there have been few indigenous contributions to surpass their coverage and scholarship.

WHAT DO WE KNOW ABOUT THE PRESENT?

If the information on traditional methods of contraceptive use in the past is scanty and contradictory, has the investment in demographic research in the three decades in which family planning has been government policy yielded a clear picture of these important behaviours? To be fair, we have to acknowledge that surveys have produced a wealth of information on the use of modern contraception, but to be blunt, it is obvious that surveys have not been successful in recording knowledge or use of the wide range of so-called traditional behaviours which might influence fertility, such as withdrawal, periodic abstinence (rhythm), prolonged abstinence, or even the use of condoms.

There appear to be three major problems in making any assessment of the degree to which 'traditional' behaviour shapes the level and trends of fertility. First, most surveys collecting data on contraceptive use are designed to guide national policies and programmes which are wholly or mainly concerned with modern, largely clinically supplied, forms of birth control. Both interviewers and respondents have notions of contraception which are shaped by government propaganda, and tend to define other behaviours — even those specifically intended to prevent conception — as not being official methods to be reported on surveys. The United Nations (1989: 80) relates the experience of two French surveys, a year apart which showed the use of rhythm and withdrawal falling from 22 percent to a mere one percent, due to a change of question design. In the former survey those stating that they were not using birth control were probed for further information by asking, 'Neither you nor your husband are taking any precautions?' The difference in response, which represented one quarter of all contraceptive behaviour, was primarily due to differences in reporting use of withdrawal. Minor changes in the language of questions can have major impacts in the numbers recorded as knowing or using a method.

An example of this problem in Indonesia arises in surveys where people are asked about contraception, first in terms of methods of family planning they can spontaneously list, and then methods they recognise after probing with some further explanation or question. In the 1976 Indonesian Fertility Survey (Biro Pusat Statistik, 1978: 40), spontaneous recognition was highest for the pill, followed by IUD and condom. Probing added an additional 30, 40 and 80 percent respectively to total numbers saying they were familiar with the methods. In contrast, very small numbers of women spontaneously named rhythm, withdrawal or abstinence as means of family planning, but probing increased recognition by factors of 3, 25 and 40 times, respectively. Even after probing, though, only small minorities of respondents understood these to be means of controlling family size, which raises some important questions about both survey design and basic sex education. If women do not know that abstinence can prevent conception, then what could they understand as the cause of conception? Depth interviews and other forms of qualitative research indicate that women know of rhythm, withdrawal and condoms, but they do not regard these as methods of family planning. Withdrawal is known in terms of Quranic teachings (azel) and condoms are often considered methods to control sexually transmitted disease.

Second, the discourse surrounding 'traditional' methods has a large and growing 'value loading' associated with strong political and personal attempts to promote or discredit these behaviours both locally and in terms of the international politics of fertility control. The field is full of euphemisms designed to promote causes rather than assess demographically important activities and the average respondent is often bewildered by high sounding scientific terms which have little currency in daily speech. Even if they might understand particular methods if told what they look like, or how they are used, they might not know the official names for devices, or they may only know terms in local dialects which are unfamiliar to interviewers. Communication about 'traditional' methods is much more difficult than that for modern devices, because in the latter case the vocabulary comes from the central government, and is promoted through a variety of media. 'Condoms' are automatically associated with immorality and low effectiveness as birth control, periodic abstinence or rhythm is officially regarded as an ineffective method,

and routinely discredited by government workers, and withdrawal is the subject of off-color jokes, and dismissed by largely male officials as an 'impossible' method. For researchers the problem is how to separate objective questions about what respondents might know or do from programme messages about what the government thinks they should know or do.

Third, whether described as 'traditional' or 'folkloric' many of the behaviours practiced today are distinctly different from the activities carried out in previous generations, and are learned, practiced and regarded in distinctly modern terms, which makes comparison of use over time problematic. The rhythm method, for instance, includes a wide variety of ways of determining the fertile period, including rough estimation based on calendars, careful charting of basal body temperature, examination of the viscosity of cervical mucus, and the use of a variety of gadgets to refine these calculations. Similarly the commitment of time and effort to enforce the discipline required for this method -- through counseling, motivation courses, and communication -- all bear on the likelihood that the method will be used effectively and continuously, yet the questions on surveys simple ask if 'rhythm' has been or is being used. An additional difficulty of interpreting any of the behavioural modification methods (eg. rhythm, withdrawal, abstinence, mutual masturbation) is that while each may be regarded as having a relatively low use effectiveness when practiced exclusively, they are often used in conjunction with other modifications of behaviour or simple methods. It is thus possible for couples to combine a sophisticated understanding of rhythm, with the use of withdrawal and condoms at times over the course of the menstrual cycle, to minimize risks of pregnancy when it is clear that risk cannot be eliminated entirely. Combining methods do not necessarily increase protection. A single method used efficiently is better than three methods used poorly. However these are issues for which counseling and education can be of great assistance.

Nearly thirty years of government family planning effort has shown a very patchy result in terms of the understanding and use of 'traditional' methods of fertility control. Tables 1-4 indicate that there has been some increase in the reported recognition of condoms, but little change in proportions thinking that rhythm or withdrawal might be used for family planning. The

knowledge of rhythm appears to be growing between 1976 and 1994, but the pattern for national samples is so erratic as to suggest that question design and interviewer training may be more important determinants of the trends than changes in actual knowledge and behaviour. Thus, it is unlikely that knowledge of the method grew from eight to 22 percent between 1976 and 1991, while current use was reported to have fallen from 1.5 to 1.1 percent. Without strong efforts to test the reliability of such results, skepticism seems the only reasonable reaction. Such skepticism drifts into cynicism when looking at reported use of condoms. Indonesia would be one of the few countries of the world where condom use fell by over 30 percent in the decade from the detection of the first Indonesian infected with HIV and the 1994 Demographic and Health Survey. These figures may be true, but if so they have not been reflected in any public discussion of either health or family planning.

The recently released results of the 1993-94 Indonesian Family Life Survey, which covered 13 provinces, or over 80 percent of the national population, revealed that the use of traditional methods of contraception tends to be greatest among the most highly educated, and most economically advantaged sections of the population (see Table 5). While the experience of methods, and current use rises with age in the case of rhythm and condoms, withdrawal appears to be steady over the age range. The fact that the poor and uneducated tend not to use rhythm may be due to the family planning programme exerting greater pressure on these groups to use programme methods of contraception, like the IUD, injectables and implant, which are more provider than client controlled. If so, then one aspect of all 'traditional' methods which deserves more investigation is the degree to which historically they were used spontaneously and autonomously by women with little reliance on professional or governmental intervention. This aspect of the methods would help to explain why they are not more prominently discussed in contemporary accounts, or subsequent histories, and why they received so little attention from the medical profession at the turn of the century.

The patterns of use by income and education group also relate to another finding of the 1994 DHS, that while 67 percent of users of calendar-rhythm could correctly identify the fertile

period of a menstrual cycle, only 13 percent of users of other methods understood the basic concept, with half the women either not knowing at all, or thinking that fecundity was constant over the cycle (BKKBN 1995:No. 4 p. 18).

DISCUSSION: HOW WOULD AN UNDERSTANDING OF TRUE 'TRADITIONS' INFLUENCE CONTEMPORARY POLICY?

In some ways the demonstration that contemporary assumptions about Indonesian history are based on inadequate or false information is easily carried out but of questionable value. All societies have strong myths which do not stand up to historical critique, but no matter how often challenged the need for the myth as part of ideology always overwhelms the niceties of correcting falsehoods in the historical record. Myths often promote important values like honesty and truthfulness, and teachers fear that to debunk the myth is to imply to children that the values are also questionable. Yet as parents and teachers quickly learn, children soon question the stories, and there is a need for explanations which distinguish between events which happened in fact, and historical myths which are constructed for beneficial purposes, much as any other form of literature. To continue to imply that a myth is historically true risks a cynical reaction when contradictory facts emerge.

So what of the myths of traditional morality, marital stability, and historic natural fertility which have pervaded the public discussion of fertility and family planning in Indonesia over the past two decades? Far from benign entertainments, these myths run the risk of destroying a useful understanding of the past which would both conform more closely to historical truth, and accord more with the commonly held public values of tolerance and mutual respect which are also part of the public morality agenda of governments and community leaders. To recognise that marriages were generally loose social institutions among the mass of Indonesians does not necessarily mean that they were either universally fragile, or lacking in socially important elements of strength and resilience.

The value of premarital chastity may be better defended on the grounds of the health implications of irresponsible sex, and the importance of respect and self-respect in sexual relations, than on a false notion of 'traditional' chastity. Pointing to a grandparental generation and extolling their morality as adolescents is dangerous since the newspapers from the 1920s and 1930s are full of admonishments against youth who were accused of behaving loosely. Moreover some of the grandparents might well let slip the secret of how they came to be married, or, among the upper-class men, how their parents arranged safe 'village women' to service their adolescent biological needs in advance of marriage, rather than risk disease with prostitutes, or an unfortunate pregnancy with an unsuitable city girl. ¹³

Families and family values can be promoted without resort to implying that 'western' values are causing increased divorce when it is demonstrable that divorce has been declining in modern Indonesian society. Moreover, some of the interpretations of history presented above are consonant with the promotion of democracy within marriage, like the fact that relatively equal economic potentials among men and women in Java in the 16th century were seen to be associated with less marital violence and more affectionate relations, even while implying more fragile unions.

Finally, if many, or even some, common women in the past regarded the spacing and number of births as within their conscious control, and if they used the technologies and understandings of the time to prevent or terminate pregnancies, then the myth of uncontrolled and uncontrollable fertility is not only a distortion of reality, but a misrepresentation of elements of important explanations of demographic history. The history of contraceptive behaviour can be seen to have important implications for current expectations regarding the feasibility of implementing programmes of education and advocacy explicitly including 'traditional methods' like periodic abstinence, withdrawal, and condoms. Modern Indonesian governments have

¹³ A number of Javanese friends have related stories as to how they learned of such situations in their families. Told in whispered tones, and apparently understood as a demonstration of the sort of measures

discredited traditional methods and worked to reduce reliance on methods in the direct control of couples, in favour of long-term, medicalized methods. Yet women today are better educated, both in the technical sense of being able to read and write, and in the broader sense of being able to understand three distinct concepts of 'risk': the 'risk' attached to the chances of pregnancy when using any contraceptive, the health 'risk' of side-effects associated with contraception and the 'risk' attached to household economy and personal opportunities when facing an unplanned and unwanted pregnancy. In a family planning programme committed to empowering couples simple methods of contraception are options which women and men might validly consider in their personal calculation of these competing risks. Such choices would be seen as steps in the development of truly 'self-reliant' approaches to reproductive health care. While the historical record to date has only yielded hints of the foundations of birth control in Indonesia's past, these are distinctive and strong. An understanding of this past gives an entirely different perspective on the moralistic myths passing as history in current debates. It leads to the hope that further research will be able to give more factual accounts of the foundations of Indonesian cultures as an antidote to the myths.

Table. 1. Reported Knowledge, Ever Use and Current Use of Periodic Abstinence (Rhythm or Calendar Method)

Study Site	Data Source	Year	Know of	Ever	Current
			Method	Used	Use
Jakarta	KAP Survey	1968	17.0	6.0*	
W. Java Urban	FM Survey	1973	17.4	-	-
W. Java Rural	FM Survey	1973	6.1	-	-
C. Java Urban	FM Survey	1973	20.9	-	-
C. Java Rural	FM Survey	1973	5.9	-	-
E. Java Urban	FM Survey	1973	15.7	-	-
E. Java Rural	FM Survey	1973	2.7	-	-
Bali	FM Survey	1973	10.9	-	-
Sulawesi Urban	FM Survey	1973	15.2	-	-
Sulawesi Rural	FM Survey	1973	6.5	-	-
National 23+	SUPAS II	1976	8.0	2.0	1.5
Java-Bali	SUPAS III (Ever-married)	1976	11.7	2.7	0.7
Java-Bali	SUPAS III (Exposed)	1976	13.8	3.5	1.2
Java	SUSENAS (Vol II: 151)	1979	-	-	1.1
National-20	CPS	1987	21.4	4.6	1.2
National-27	DHS	1991	21.6	3.3	1.1
National-13	IFLS	1993-4	24.2	5.7	1.2
National-27	DHS	1994	27.0	4.0	1.1

Note: Currently Married Women. "National" figures have sometimes been based on samples excluding particularly difficult provinces or parts of provinces. These are indicated by reference to number of provinces covered in the survey. The 1976 sample marked 23+ indicates 23 full province samples, plus one regency each in Nusatenggara Timur, Maluku and Irian Jaya.

^{* 1968} Question was asked of both males and females and referred to use in the last year. Sources: The various survey reports.

Table 2. Reported Knowledge, Ever Use and Current Use of Condoms

Study Site	Data Source	Year	Know	Know	Ever	Current
			of	How	Used	Use
			Method	to Use		
Jakarta	KAP Survey	1968	20.0		2.0*	-
W. Java Urban	FM Survey	1973	23.5	6.2	1	0.5
W. Java Rural	FM Survey	1973	13.6	6.5	ı	0.2
C. Java Urban	FM Survey	1973	50.8	32.5	ı	2.3
C. Java Rural	FM Survey	1973	40.9	14.2	ı	0.7
E. Java Urban	FM Survey	1973	17.4	6.4	ı	1.1
E. Java Rural	FM Survey	1973	9.4	4.4	ı	0.1
Bali	FM Survey	1973	18.4	9.6	ı	0.2
Sulawesi Urb.	FM Survey	1973	13.9	1.3	ı	0.0
Sulawesi Rural	FM Survey	1973	5.3	0.6	-	0.0
National 23+	SUPAS II	1976	39.7		5.2	2.9
Java-Bali	SUPAS III (ever-mar.)	1976	40.7	-	4.6	1.6
Java-Bali	SUPAS III (exposed)	1976	46.2	-	6.2	2.6
Jakarta	SUPAS III (exposed)	1976	-	-	ı	5.6
Java-Bali	SUSENAS	1979	-	-	ı	3.6
National 27	Sensus	1980				0.9
Jakarta	CPS, Urban	1983	85.1	1	ı	3.0
Jakarta	SUPAS	1985	-	1	ı	1.6
National-27	SUPAS	1985	-	•	•	0.7
National-20	CPS	1987	65.2	•	6.3	1.6
National-27	DHS	1991	63.9	•	5.0	0.8
National-27	SUSENAS	1992	-	•	-	1.3
National-27	SUSENAS	1993	-	•	•	1.1
National-13	IFLS	1993-4	63.2	-	6.2	0.8
National-27	DHS	1994	66.5	-	5.0	0.9

Note: Currently Married Women. "National" figures have sometimes been based on samples excluding particularly difficult provinces or parts of provinces. These are indicated by reference to number of provinces covered in the survey. The 1976 sample marked 23+ indicates 23 full province samples, plus one regency each in Nusatenggara Timur, Maluku and Irian Jaya.

^{* 1968} Question was asked of both males and females and referred to use in the last year. Sources: The various survey reports.

Table 3. Reported Ever Use or Current Use of Withdrawal (Sangamma Terputus, Azel)

Study Site	Data Source	Year	Know of Method	Ever Use	Current Use
Jakarta	KAP Survey	1968	9.0	2.0	-
W. Java Urban	FM Survey	1973	2.5	-	-
W. Java Rural	FM Survey	1973	1.4	-	-
C. Java Urban	FM Survey	1973	13.6	-	-
C. Java Rural	FM Survey	1973	5.1	-	-
E. Java Urban	FM Survey	1973	4.7	-	-
E. Java Rural	FM Survey	1973	1.3	-	-
Bali	FM Survey	1973	11.2	-	-
Sulawesi Urban	FM Survey	1973	7.4	-	-
Sulawesi Rural	FM Survey	1973	4.1	-	1
National 23+	SUPAS II	1976	3.6	0.3	0.1
Java-Bali	SUPAS III (ever-married)	1976	7.4	1.9	0.3
Java-Bali	SUPAS III (exposed)	1976	8.6	2.5	0.5
Java	SUSENAS (Vol II: 151)	1979	-	-	0.1
Jakarta	CPS, Urban	1983	17.7	-	1.0
National-20	CPS	1987	15.4	5.0	1.3
National-27	DHS	1991	14.5	3.1	0.7
National-13	IFLS	1993-	12.7	4.1	0.6
		4			
National-27	DHS	1994	16.1	3.2	0.8

Note: Currently Married Women. "National" figures have sometimes been based on samples excluding particularly difficult provinces or parts of provinces. These are indicated by reference to number of provinces covered in the survey. The 1976 sample marked 23+ indicates 23 full province samples, plus one regency each in Nusatenggara Timur, Maluku and Irian Jaya.

^{* 1968} Question was asked of both males and females and referred to use in the last year. Sources: The various survey reports.

Table 4. Reported Knowledge, Ever Use or Current Use of (Prolonged) Abstinence.

Study Site	Data Source	Year	Know of	Ever	Current
			Method	Use	Use
National 23+	SUPAS II	1976	3.2	0.4	0.2
Java-Bali	SUPAS III (ever-married)	1976	12.8	3.5	0.9
Java-Bali	SUPAS III (exposed)	1976	13.8	4.1	1.4
Java	SUSENAS (Vol II: 151)	1979	-	1	0.7
National-20	CPS	1987	0.9	0.6	-

Note: Currently Married Women. "National" figures have sometimes been based on samples excluding particularly difficult provinces or parts of provinces. These are indicated by reference to number of provinces covered in the survey. The 1976 sample marked 23+ indicates 23 full province samples, plus one regency each in Nusatenggara Timur, Maluku and Irian Jaya. The 1987 CPS report left prolonged abstinence off the list of methods currently used, and the 1991 and 1994 DHS reports failed to tabulate information about the method at all. Sources: The various survey reports.

Table 5. Social Dimensions of Ever-Use and Current Use of Rhythm, Condom and Withdrawal, 1993-94.

Group	Ever Use of Method			Current Use of Method			
	Rhythm	Condom	Withdrawal	Rhythm	Condom	Withdrawal	
Overall Use Rates	5.7	6.2	4.1	1.2	0.8	0.6	
A C F.W							
Age Group of Women	0.1	0.0	1.0	0.1	0.0	0.0	
15-19	0.1	0.0	1.3	0.1	0.0	0.8	
20-24	2.2	3.3	3.4	0.2	0.5	0.5	
25-29	5.3	3.9	4.2	0.6	0.6	0.7	
30-34	5.8	7.5	5.4	1.3	1.4	0.7	
35-39	8.2	10.1	4.9	1.5	1.0	0.5	
40-49	7.4	7.1	3.1	2.1	0.5	0.3	
Region of Residence							
Java Bali				1.0	0.7	0.5	
Outer Islands				1.6	1.1	0.7	
Urban	10.8	13.1	8.0	2.6	1.8	0.8	
Rural	3.2	2.8	2.1	0.5	0.3	0.5	
Economic Status							
Lowest twenty percent	1.0	2.4	1.6	0.1	0.2	0.5	
Second twenty percent	4.7	4.3	2.1	0.3	0.4	0.3	
Third twenty percent	3.5	3.3	2.8	1.0	0.2	0.6	
Fourth twenty percent	7.0	7.5	5.9	1.4	1.3	0.4	
Highest twenty percent	13.1	14.6	8.4	3.2	2.0	1.1	
Completed Schooling							
None Schooling				0.3	0.0	0.4	
Some Elementary	-	-	-	0.5	0.0	0.4	
Elementary Graduate	-	_	-				
Junior Secondary	-	-	-	0.8	0.6	0.5	
Graduate	-	-	-	1.7	1.1	0.9	
Senior Secondary Graduate	-	-	-	4.0	3.0	0.8	

Note: (-) Data not available in the source. Source: Serrato and Melnick (1995):

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