SPECIAL COMMUNICATION

Women and tobacco in Indonesia

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Abstract

***Objectives*—To present a broad exploration of the relationship of women and tobacco in Indonesia and to describe action on tobacco and health specific to women taken by government and non-government agencies.**

***Data sources*—Published and unpublished prevalence surveys, official documents, vernacular newspapers, secondary sources, unstructured interviews, and personal observations.**

***Study selection*—Data on smoking prevalence among women was primarily sought from official household surveys but several smaller scale local surveys were also examined. The only representative national household data on smoking prevalence from 1995 suggested a national prevalence for occasional and regular smoking of 2.6% for women aged 20 years or older. Smaller, local level surveys had reported rates varying from 4% for junior high school girls, and 2.9% for women undergraduates at a provincial university, to 6.4% of women in a representative sample in Jakarta. Claims that the incidence of female smoking is increasing cannot be confirmed due to an absence of comparable national longitudinal data.**

***Conclusion*—Although Indonesian women are conspicuous in growing and processing tobacco, their rates of smoking are low in comparison with their male compatriots and internationally. Anecdotal evidence suggests that their disinclination to smoke is commonly attributed to cultural values, which stigmatise women smokers as morally flawed, while at the same time sanctioning smoking by men. Although there is little evidence of tobacco advertising directly targeting women, Indonesian health activists interviewed by the author felt that women are increasingly taking up smoking due to a weakening of stigma and to Western cultural influences. Cultural factors in the low rates of smoking among Indonesian women deserve closer investigation as they have proved to be a major source of health protection, albeit within a stigmatising context. More also needs to be known about the dynamics of female tobacco use in Indonesia and the factors contributing to marked geographical variations in smoking prevalence.**

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Introduction

The purpose of this overview article is to explore what is known about the relationship of Indonesian women to tobacco. Of special concern is the prevalence of smoking among women, whether or not the rate of female smoking is increasing, whether there is evidence of tobacco companies targeting women, and health promotion activities concerned with women and smoking. In comparison with many countries, developed and developing, Indonesia has been notable for the low levels of smoking among women, and the possible explanations for this phenomenon are of particular interest.

Tobacco in Indonesia

With an estimated population of 195.5 million in 1996, Indonesia is the fourth most populous nation in the world. Indonesia has a long historical tradition of tobacco growing and trading. Tobacco is a major part of Indonesia's contemporary economic and cultural life. Indonesia is famous for its aromatic *kretek* cigarettes, which are made from a mixture of tobaccos and *cengkih* (cloves). Although several international brands are manufactured locally under licence, *kretek* brands produced by Indonesian companies dominate the retail market.

According to the Department of Agriculture, the government derived some 2 720 000 000 rupiahs from tobacco taxes in 1994, while some 3.4 million workers are involved in all aspects of the tobacco industry from growing to retailing. The multiplier effect means that 13.6 million Indonesians, most of whom are women and children, are estimated to be dependent for their support upon tobacco.[1]

Although comparatively few women are smokers, they are a major source of labour in the manufacture of cigarettes. Traditionally tobacco production has been considered to be women's work. In the Jember area in the Besuki Residency in Java, some 50% of Indonesia's total export crop is produced, and most of the labour-intensive work in the fields and factories is done by females. Rates of pay are insufficient for the minimum physical needs of workers.[2]

Public policy on tobacco and health in Indonesia

The basic policies for the national health system and the long-term development plan for health assert that the government and

community "are responsible for maintaining and raising the level of the community's health".[3] However, there is almost no public policy on tobacco and health in Indonesia. As Wisnu Katim, the director-general of food and drug control in the Ministry of Health concluded, the high levels of smoking in Indonesia are influenced by the fact that restrictions in the sale or supply of cigarettes to adolescents have not been introduced nor has smoking in public places been prohibited. Moreover there are still no regulations on the promotion or advertising of cigarettes.[4] Since 1991, cigarette packets sold in Indonesia have carried the same general health warning and there are no special warnings relating to smoking and women's health.

In its health promotion materials, the Ministry of Health lists non-smoking as one of the prerequisites for a healthy lifestyle and offers advice for quitting.[5] Official attempts to discourage tobacco usage have not been well received by those ministries responsible for taxation revenue, exports, and agricultural production. Moreover, it was extremely difficult to act against the financial interests of Indonesia's former "first family" which had longstanding links with the tobacco industry through the clove monopoly which was controlled by Hutomo "Tommy" Mandala Putra, a son of former President Soeharto (see also *Tobacco Control* **8**:90).

The economic restraints upon decisive action on tobacco and health have been candidly acknowledged by a previous minister of health, Mr Sujudi, who explained that the Ministry of Health has still not issued regulations controlling smoking in public places because the "negative impact" of such a move was still being considered. According to the ex-minister, the government received some 3 000 000 million rupiahs annually from cigarette taxes. Moreover, almost four million Indonesians, many of whom are women, working in various sectors of the cigarette industry would lose their livelihoods if prohibitions were instigated.[6]

Much of the health promotion activity against tobacco in Indonesia is carried out by non-government organisations, including public health and medical associations and the asthma, cancer, and heart foundations. Two organisations are specifically concerned with tobacco and health. These are the *Lembaga Menanggulangi Masalah Merokok* (the Indonesian Smoking Control Society) and *Wanita Indonesia Tanpa Tembakau* (Indonesian Women Without Tobacco). Since 1990 there has been an annual communications forum on smoking, conducted under the auspices of the directorate-general of food and drug control in the Ministry of Health.[7] The annual "No-smoking day", promoted by the World Health Organization, allows for activities such as public meetings and media announcements to raise consciousness about tobacco and health.

Prevalence and nature of smoking by Indonesian women

Before examining some statistical findings of studies of smoking prevalence in Indonesia, it is important to note the belief, encountered in the course of the author's interviews with Indonesian health promoters, that women are increasingly smoking. Indeed, the director-general of food and drug control has publicly stated that the numbers of women and children who smoked are increasing.[4] However, as will be seen, comparative longitudinal data from Indonesia-wide household health surveys is not yet available to establish that more women are smoking.

Data on the prevalence of smoking by women in Indonesia can be obtained from small-scale surveys conducted by health promotion organisations and academic investigators, and the larger-scale official national surveys. Estimates of the prevalence of female smoking have differed substantially, as the following brief survey indicates. It should also be noted that overall rates can differ, depending on the age group. Official Indonesian statistical publications often cite data on female smoking from aged 10 years, a practice which yields a lower rate than would the use of an age group of 20 years or older.

In the report published by Chapman and Wong,[8] estimates of female adult smoking ranged from 3.6% to 10%, and a local study conducted in 1984 in West Java was cited, which found an extremely high rate of 25% of smoking mothers, although no details of sample size or methodology were provided.

In reviewing rates of smoking in Indonesia, Pol and Brand[7] cited a study of some 4000 adults in three cities conducted in 1986 and 1990 by Survey Research Indonesia, which reported an increase in the female smoking rate between these years from 5% to 7% in Jakarta and from 4% to 8% in Bandung, whereas the rate in Surabaya remained static at 1%.[7]

A literature review conducted by the author of local level surveys in the holdings of the libraries of the Ministry of Health, the University of Indonesia, and several health promotion organisations, and summarised in table 1, revealed a variety of rates for females smoking in the different settings investigated.

The national household health survey, conducted in 1986, estimated a rate of 3.6% for regular and occasional female smokers 10 years of age and over.[9] This survey was limited to just seven provinces and therefore cannot be directly compared with the 1995 household health survey which covered all provinces.

The most recent and comprehensive data on smoking in Indonesia is to be found in Suhardi's monograph on smoking prevalence in Indonesia.[10] Estimates in this study are primarily based on seven questions on smoking in the national socio-economic survey in 1995, which involved interviewing 216 389 respondents aged 10 years or older. In addition, data from the national household health survey in 1995, which contained a question on frequency of smoking, was used. According to estimates derived from the data from these two

Table 1 Selected prevalence surveys on smoking in Indonesia

Source	*Year*	*Sample*	*Location*	*Prevalence by sex (%)*	
				Male	*Female*
National Heart Centre and Harapan Kita Heart Hospital (1)	1988	2012 Adults aged 25–64 from diverse socioeconomic backgrounds	Jakarta	56.7	6.4
Indonesian Ministry of Health (2)	1989–1990	4610 Adult employees of Ministry of Health	Jakarta	39	3.8
Survey Research Indonesia (for Heart Foundation) (3)	1990	307 School pupils aged 11–16	Jakarta	31	4
Ganiwijaya, Ernijati, De Backer, *et al* (4)	1992	13 863 Adults aged 25–74	West Java rural areas	84	5
Theodorus (5)	1993	820 Undergraduates	Universitas Sriwijaya	39.6	2.9
Suhardi (6)	1995	Household survey of 216 389 people aged ⩾10 years	Urban areas	60.1	2.0
			Rural areas	73.7	3.0

The prevalence rates are for regular (daily) and occasional smokers.
Sources:
(1) World Health Organization MONICA Project. *Penyakit Jantung Koroner Di Indonesia: Naik Atau Turun?* Jakarta, 1993:5.
(2) Suhardi, Marwoto P, Reflinar R, *et al. Survai Prevalensi dan Perilaku Merokok Pegawai DEPKES RI Pusat Jakarta Tahun 1989/90.* Jakarta: Pusat Penelitian Penyakit Tidak Menular, Badan Litbangkes DEPKES RI, 1990.
(3) Survey Research Indonesia. *Findings of research into the behaviour and attitudes of junior high school pupils towards smoking.* Jakarta, 1990.
(4) Ganiwijaya G, Ernijati S, De Backer, G, *et al.* Prevalence of cigarette smoking in rural areas of West Java, Indonesia. *Tobacco Control* 1995;**4**:335–7.
(5) Theodorus. Ciri Perokok di Kalangan Mahasiswa/i Universitas Sriwijaya. *Jurnal Jaringan Epidemiologi Nasional* 1994;**3**:22–6.
(6) Suhardi. *Perilaku Merokok di Indonesia*. Seri Survei Kesehatan Rumah Tangga, Departemen Kesehatan, Republik Indonesia. Jakarta: Badan Penelitian dan Pengembangan Kesehatan, 1997:24–9.

surveys, the national prevalence of smoking (daily and occasional) for Indonesian females aged 10 years or older was 2% and for women aged 20 years or older was 2.6%. By comparison, some 61.3% of males aged 10 years or older were smokers, whereas 68.8% of men aged 20 years or older smoked.[10]

Data on the association of age with smoking for women suggested that older women tended to have a higher prevalence. Those aged 65 years or older were almost three times as likely to smoke than women aged between 25 and 29 years. Some 3.4% of women aged 50–54 years described themselves as daily smokers. The figures on younger smokers indicated a sharp difference between the sexes. Although 15.6% of males aged between 15 and 19 years reported that they were daily smokers, only 0.4% of similarly aged females were daily smokers. Only 0.1% of girls in the age group 10–14 years were daily smokers.[10]

The cultural diversity of the Indonesian archipelago is mirrored in the estimated rates of female smoking. Table 2 shows the location of the five highest and lowest rates of daily smoking among women in Indonesia's 27 provinces in Suhardi's study. These rates suggest wide variations and defy attempts to predict female smoking rates by reference to religion or ethnicity. The province of Jambi, which is 96% Muslim, has a female smoking rate more than seven times that of West Nusa Tenggara which has the same ratio of Muslims in its population. Predominantly Christian Irian Jaya has a rate of female smoking more than four times that of predominantly Christian East Timor. In the case of Sulawesi there are large variations between different parts of the same geographical entity. Bali, which is 93% Hindu, and Aceh, which is 98% Muslim, share comparatively low rates of female smoking.

*Table 2 The estimated five highest and lowest rates of daily smoking by women aged ⩾20 years in Indonesia, by province**

Highest		*Lowest*	
Province	*Smoking rate (%)*	*Province*	*Smoking rate (%)*
West Kalimantan	7.3	West Nusa Tenggara	0.6
Irian Jaya	4.9	Yogyakarta	0.6
Jambi	4.4	Aceh	0.8
Central Sulawesi	3.9	North Sulawesi	0.9
SE Sulawesi	3.0	Maluka	1.0
		Bali	1.0
		East Timor	1.1
		East Nusa Tenggara	1.1

*Estimates derived from Suhardi,[10] page 26. No denominators were provided by the author.

Indonesian women share their menfolk's taste for the aromatic and "stronger" *kretek* cigarette. Only 13.3% of Indonesian women smokers prefer the filtered "white" cigarettes which are commonly promoted as "women's cigarettes" in many Western countries. *Linting* (roll-your-own) cigarettes are the first choice of 33.1% of females and 25.4% of males among rural smokers. Rural women also share a taste for *kretek* cigarettes with slightly more women (23.8%) preferring the non-filtered brands to those with a filter (23%).[10] When the preferences of rural smokers are aggregated, it is evident that some 60.5% of women (compared with 53.1% of men) are smoking non-filtered varieties of cigarettes.

Among urban women smokers the most popular type of cigarette is the filter *kretek* which was smoked by some 54.3% of female smokers in the national socioeconomic survey in 1995. The second most popular type of cigarette for women was the non-filter *kretek*, which was the choice of 22.1 % of urban women. Urban males were more likely to smoke filtered *kretek* cigarettes (59.8%) and had a lower rate of non-filtered kretek smoking (20.8%).[10]

Most Indonesian women smokers (67%) consume between one and 10 cigarettes per day, with 30% smoking between 11 and 20 sticks. Approximately 3% of female smokers consume more than 21 sticks per day.[10]

Smoking correlates with lower formal educational attainment. Women with the lowest level of formal education were almost four times as likely to smoke as those with tertiary qualifications.[10]

Other forms of tobacco used by Indonesian women

Tobacco is used as part of the mixture chewed with *sirih* (betel). Practised for the most part in rural areas, betel chewing involves the creation

of a quid consisting of a mixture of betel and other ingredients such as areca nut, lime, *gambier* (a plant extract used for flavouring), and tobacco. It is regarded as a declining habit in the face of modernisation. The 1986 household health survey of seven provinces found that betel nut chewing was predominantly a female practice. Whereas only 3.7 of males surveyed reported that they chewed *sirih*, the rate for females was 16.7%. Among women, the habit was most common in the higher age groups. Although 50.3% of women aged over 60 years chewed *sirih*, only 4.5% of those aged 25 to 29 years did so.[9]

Although the use of oral snuff is alien to Indonesia, there have been warnings that smokeless tobacco products are being promoted in many Indonesian cities and that such tobacco is damaging to health.[11]

The issue of passive smoking

In some workplaces and air-conditioned facilities, and on certain commercial aircraft flights, smoking is not permitted. In general, however, men will smoke even in the most enclosed spaces such as mini-buses and trains, and despite the presence of children. The family home is another popular site for smoking on the part of men and women. Data from the national socioeconomic survey in 1995 indicated that 92.8% of male daily smokers aged 20 years or older smoked inside the home. For female smokers the rate was even higher at 93.8%.[10] Research by Surjadi into household environmental health in Jakarta identified indoor pollution, including cigarette smoke, as having a significant correlation with maternal respiratory disease.[12]

Given the cultural acceptability of smoking by men, lack of information about the health risks associated with environmental tobacco smoke, and cultural expectations that women will not question the smoking behaviour of men, passive smoking remains a latent health issue for Indonesian women and their children. Moreover, most women who smoke also do so within the home.

Economic costs of smoking for the family

Given that many families in Indonesia are struggling to make ends meet, an important indirect health consideration for women (and children) is the possible negative consequences for health and wellbeing of money being spent on tobacco instead of food and other household necessities. Expenditure on cigarettes can constitute a major item of household expenditure. In 1995 the average weekly wage of production workers in Indonesia was Rp39 000, while the average retail price of a packet of 10 *kretek* cigarettes in Jakarta was Rp837.[13] Some 53% of males smoked in excess of one packet per day.[10] Many households could therefore be spending a sizeable proportion of income to support the smoking habit of their menfolk. In many homes this diversion of spending for tobacco will inevitably require a sacrifice of other goods and services on the part of women and children. The relative costliness of cigarettes for many Indonesians is underscored by research which has found that cigarettes are often bought by the single stick, rather than in packets.[7] Indonesia's currency crisis, which began in 1997, led to a steep increase in the price of basic foodstuffs, leaving little surplus in the household budgets of most Indonesian families, and magnifying the negative economic consequences of expenditure on tobacco.

Societal values and female smoking: the protective paradox

Despite the prevalence of smoking among a minority of women of markedly different social classes, men and women identified traditional strictures against women smoking in discussing the issue with the author. It is commonly held in Indonesia that women have not taken to smoking in large numbers because of strong cultural disapproval of the practice for women. At the same time, smoking among men is regarded as culturally appropriate. In seeking to explain the dominance of males in smoking in Indonesia, Suhardi observed that the culture was less accepting of the smoking behaviour of women and that it could be said that promotion attempts aimed at women by the cigarette industry had failed (or at least not yet succeeded) in overcoming this cultural resistance.[10]

In the course of the author's discussions with Indonesian men and women on the subject of women smoking, several made a distinction between what was acceptable in more traditional rural settings and in the cities. It was suggested that many more affluent, urban, "modern" women now smoked cigarettes and that this was acceptable in their circle. The "modernity" thesis might explain the uptake of smoking by urban, educated Indonesian women; yet, as Hoepoedio and Pulangan have argued,[14] it does not explain why women, even in remote villages, have been smoking tobacco for several generations.

It is paradoxical that stereotypical societal values, which regard smoking as appropriate for men yet an indication of moral laxity for women, should actually benefit women by imposing strong sanctions against taking up the habit.

Women are officially promoted as the guardians of their families' health.[15] However, there are tensions between this function and their conspicuous inability to prevent the males in their families from smoking.

Promotion of smoking

Tobacco companies in Indonesia employ a range of familiar methods to promote their products. These include advertising in the electronic and print media, billboards, sponsorship of sporting events and cultural activities, and the distribution of free samples. Observation of promotional material undertaken in the course of the author's stay in Indonesia did not reveal any obvious targeting of women. Indeed, many brands including Marlboro and Gudang Garam consciously promoted a "macho" image (see also *Tobacco Control* 1999; **8**:86). Women did appear in some

Indonesian cigarette advertisements but were not portrayed as smoking; rather, they were shown in the company of men who smoked. Several advertisements relied on abstract images, such as a blossom tree by a lake, or a simple representation of the cigarette packet without a ready gender identification.

Health promotion concerned with women and smoking

The World Health Organization Regional Office for Southeast Asia has called for tobacco use by women to be recognised as a major health and social problem and for a national coordinating body to be established in each country to deal with this problem.[16]

It is certainly the case that the issue of women's health and smoking is of less immediate concern than a range of other health issues in Indonesia, a country in which the maternal mortality rate was 358 per 100 000 pregnant women in 1995.[17] The fact that the prevalence of smoking among women is so low in comparison with the rate for males also militates against concerns about the special needs of women in relation to their use of tobacco. The official profile of women's, mothers' and children's health did not include tobacco usage.[18] Indeed, in most official health reports, when smoking rates are mentioned, the figures are not differentiated according to sex, thereby obscuring one of the most significant aspects of the nature of smoking in Indonesia.[19]

The Ministry of Health makes use of traditional media such as the *wayung kulit* (shadow puppet theatre) as vehicles for health promotion messages. Among the suggested messages are warnings about the harmful effects of smoking for pregnant mothers and their unborn babies, and the dangers of smoking for all of the family.[20] The ministry also occasionally distributes posters highlighting the effects of smoking on the unborn child and also the dangers of passive smoking for women and children.

Several Indonesian non-government organisations actively involved in health promotion to discourage smoking have included the issue of women and smoking in their activities. Heart Foundation Indonesia is active in the field of tobacco and health and promotes tobacco-free areas in factories and educational institutions. The foundation's programmes, including its No-Smoking Leaders Group, actively involve women.

Lembaga Menanggulangi Masalah Merokok (Lembaga M3) founded in 1990, is involved in a broad range of anti-smoking activities; these have included involving local government in efforts to promote smoke-free environments and seeking to mobilise Islamic scholars against smoking. Lembaga M3 also gives specific attention to the issue of women and smoking. The president of KOWANI (*Kongres Wanita Indonesia*) the country's foremost women's body, representing 64 women's organisations, was a co-founder of Lembaga M3 and appointed an adviser to the governing board. Lembaga M3 emphasises the ability of women to influence the behaviour of their children with respect to smoking and its health consequences. The organisation has commissioned articles on the health effects of smoking in women and has held special seminars on this topic.[14 21]

One organisation has been established with the principal purpose of reducing the number of women smoking. *Wanita Indonesia Tanpa Tembakau* (WITT) or Indonesian Women Without Tobacco was founded as a self-funding non-government organisation by a group of 12 women in 1995. Among the members of WITT at the time of its establishment were the wives of four Indonesian cabinet ministers, the chairwoman of the Indonesian Heart Foundation, a leading model, and several successful businesswomen. The group's official patron was the then minister of health. In keeping with official ideological pronouncements on the role of women, WITT endorses the idea that women should set an example to guide the family.

WITT has produced three video clips for broadcast on Indonesian television in donated non-primetime slots. The clips present anti-smoking messages from well-known Indonesian women, including a popular singer, a former Miss Indonesia, and a television star. The group has also arranged a seminar on women and smoking in collaboration with *Femina* magazine and produces stickers featuring the ill-effects of smoking on women and children.

It is clear that WITT's membership and activities are largely concerned with the upper echelons of society and its impact on the wider population is limited. Moreover, despite the closeness of some of its leading members to the Indonesian national political leadership, there is little evidence that the group had any impact on public policy. It does, however, represent a symbolic statement from a section of the Indonesian elite that something should be done to curb an anticipated growth in the number of women smoking.

Conclusions

The foregoing discussion of research on smoking by women in Indonesia has established a comparatively low level of usage in comparision with Indonesian men. Estimates based upon the most recent and comprehensive surveys suggests a national rate for female adult smoking of 2.6%. The absence of comparable longitudinal data means that, until the next national household survey of all provinces, it will not be possible to establish whether rates for female smoking have increased, as is claimed by some Indonesian health promoters.

The use of tobacco by Indonesian women is an important health issue regardless of the low rates of smoking. It is unacceptable to dismiss the need for further research on tobacco use by women in Indonesia on the grounds that smoking rates are low. Despite the low percentages, at least two million Indonesian women are smoking. Concerns have been also been expressed by a prominent Indonesian

researcher and anti-tobacco activist that the historical trend to greatly increased rates of smoking among women in developed countries will spread to Indonesia and that steps need to be taken to prevent this.[22]

It is also important for those involved in health promotion to understand why the rates are so low in Indonesia and to what extent they are the result of cultural forces that militate against female smoking. Lower levels of female income and weaker power positions to control the nature of household expenditure could well be as significant as cultural values in determining the smoking choices of women. The dominant assumption of cultural values as the prime force protecting Indonesian women from tobacco needs to be tested by research. Certainly, in the case of smoking it is hard to accept the officially promoted view that women are a positive exemplary force in shaping the behaviour of their family members, as most husbands and sons will take up the habit. It is also important to discover if there is evidence that the cultural disapproval of women smoking is softening.

It is not inevitable that economic development will lead to Indonesian women taking up smoking. Nevertheless, there is a need for the quantitative emphasis of most studies to be matched with a qualitative approach. It is inappropriate for health promotion material distributed within Indonesia to assume that Indonesian women are behaving in the same ways as women in developed countries. Such material needs to be based on local research which is of greater relevance to local women.

The diversity in patterns of tobacco use among women evident from different studies cautions against generalisations. Local level studies are needed to explore the reasons for different attitudes towards smoking on the part of different population groups. The cultural and religious beliefs of Indonesian women towards tobacco need to be investigated and regional and ethnic variations explored. The association of social class and tobacco use among women needs to be investigated. More action on tobacco and health needs to be undertaken for rural women who are unlikely to be affected by present efforts of groups such as WITT and Lembaga M3, which are based in Jakarta. Changing patterns of tobacco use by women need to be explored and in particular whether the decline in the use of *sirih* has been compensated for by an uptake in cigarette smoking.

This article has presented a broad exploration of the phenomenon of women and tobacco in Indonesia and the discussion has been intended to identify many areas where further research is needed better to understand its dynamics.

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