

Title of the project	Study of Prevalence of Tobacco Use in Indonesia
Conducted by	Center for Health Research, University of Indonesia
Supported/funded by	JHU
Date	2001
Sample size	7500 respondents
Team	Budi Haryanto, Rita Damayanti, Dadun, Heru Suparno, Amri Ismail

Tobacco use is a major public health problem in all countries. In United States of America, tobacco use is the single leading preventable cause of death, accounting for approximately 430,000 deaths each year. As was documented extensively in previous Surgeon General's reports, cigarette smoking has been causally linked to lung cancer and other fatal malignancies, atherosclerosis and coronary heart disease, chronic obstructive pulmonary disease, and other conditions that constitute a wide array of serious health consequences (USDHHS 1989). More recent studies have concluded that passive (or involuntary) smoking can cause disease, including lung cancer, in healthy non-smokers. In Indonesia, the prevalence of tobacco smoking was about 54 percent in 1980 (Household Health Survey, 1980), 53 percent in 1986 (HHS 1986), 61 percent in 1989 (Survey Research Indonesia, 1989), and 57 percent in 1990 (SRI 1990) among male, and 5 percent in 1990 among female.

The objective of the study is to build a database on prevalence of tobacco use in the total population and among specific population subgroups, for the purpose of advocacy for tobacco control and planning tobacco control interventions and evaluation in Indonesia. Specifically, the objective is to conduct a survey on tobacco use in urban and rural area in Indonesia (Jakarta for urban area and Sukabumi for rural area).

Using a cross-sectional cluster survey design with a structured questionnaire, self reported tobacco use behaviour data were collected at the sampling or cluster sites from those with ages of ten year-olds and up in the city of Jakarta and the district of Sukabumi. By using the rate of 50% with 95% confidence interval, $\pm 5\%$ limit of precision and sex sub-group are applied, the estimated sample size for each survey site is about 7,500. This population size was randomly allocated into 60 clusters (about 125 population each) in survey area. The number of 60 clusters was applied. With 120 clusters and 125 persons per cluster a total of 15,072 respondents were interviewed with expected finding of 15,000 persons aged ten year and older.

The average of respondents' ages was 32.7 year old. The highest proportion of age was on the age of 20-24 years old (14 percent) while the lowest was on the age of 60-64 years old (about 3 percent). The majority proportion of ages were on the age of 15-19 years, 20-24 years, 25-29 years, 30-34 years, and 35-39 years with percentages of more than 10 percent each. More than half of respondents were male (51 percent) and most of respondents were married (67 percent). Among the educational level, the majority of the respondents (43 percent) had completed primary school and followed by those who completed high school (25 percent) and middle school (21 percent). Thirty nine percent of 15,072 sampled people with ages 10-year old and up reported ever use of tobacco products (5,899 persons). Only 80 persons reported ever used of nyirih/betel quid. The average of household member was 5 persons and the average of family's monthly income was Rp.1,135,630.

Among male respondents, there were about 68 percent of those who had experienced in using tobacco. In contrast, only about eight percent among female respondents have such experience. In total samples, male and female respondents who have experience in using tobacco were 35 percent and 4 percent respectively. Those who were married were more likely having experiences of using tobacco (42 percent) than the unmarried (33 percent). For the educational level groups,

those who have high school educational level were most likely having experience in using tobacco (48 percent) compared to the other educational level groups.

The distribution of tobacco use found comparable between urban and rural location of the study. The percentage of respondents who reported ever use of tobacco and ever smoking were found a little bit higher in urban than in rural, meanwhile for those with the status of current tobacco smokers and current daily tobacco smokers was found a little bit higher in rural than urban. It seems that more respondents in urban having experience in using of tobacco including smoking but discontinued the habit, on the other hand, less respondents in rural having experience in using of tobacco including smoking but still maintaining the habit. The majority of proportions distribution for all of the status of tobacco use was found among those with the ages of 20-24 year old (the highest), 25-29 year old, 30-34 year old, and 35-39 year old. The data revealed that higher percentage of respondent smokers in urban was in the younger age groups. Contrary, the percentage of smokers was more in older age groups in rural area.

Among adult tobacco user (ages of 15 years old and up), the major proportion of household monthly income was among those in the ages of 15 – 49 years old with the highest proportion for those whose the household monthly income of Rp.400,000 – Rp.599,000, followed by those with household monthly income of less than Rp.300,000 and Rp.800,000 and up.

Among youth ages 10 to 14 years old, the majority of those who ever use of tobacco were boys (about 92 percent). For both boys and girls, the highest proportion of ever use of tobacco was among those with age of 13 years old (about 41 percent) and followed by those with the age of 14 years old (about 23 percent). It seems that boys have experience in using of tobacco in earlier ages (10 and 11 years old) compared to girls (12 years old). The experience of youth tobacco use was dominantly among those who living in urban area (about 79 percent). Meanwhile, the major percentage of the youth tobacco use was in the level education of primary/middle school, followed by those with level education of high school and illiterate.

The common tobacco smoking substances available and used in the study sites (Jakarta and Sukabumi) were cigarettes (filtered/white cigarettes), *kretek* (un-filtered cigarettes), and cigar/*klobot*/self-rolling. The usage of cigarette (filtered/white cigarette) seems more popular to respondent smokers than the other types of the smoking products. The data showed that more than half respondents who had ever used the cigarette product reported used to consume the product daily for more than 3 months, used the product more than 100 times, and currently using the product daily for more than 3 months, meanwhile less than half of smokers used *kretek* (un-filtered cigarette) product for the same experiences. Only a few of smokers experienced using smoking products of cigar/*klobot*/self-rolling cigarette (less than five percent). Almost half of respondent smokers (49 percent) reported use cigarette products daily currently and about 40 percent use *kretek* daily. Contrary, only about two percent reported use cigar/*klobot*/self-wrapping smoke daily.

The majority adult respondents (about 90 percent) reported that their first age using tobacco was after 10 years old. Meanwhile, only a few of them reported their first age using tobacco before 10 years old which was no one of female included in this group. The majority of adult respondents (about 81 percent) reported that their frequency in consuming of tobacco smoking was more than 6 times in a day. Meanwhile, 19 percent of them reported their frequency in consuming tobacco smoking of one to five times in a day. Almost two-third of adult respondents (about 61 percent) reported having experience in using tobacco more than 10 years, and the rests consumed tobacco in less than 10 years (39 percent). The last month expenditure on cigarette smoking among adults

current smokers were distributed highest on group of expenditure of less than Rp.60,000 (about 43 percent), followed by expenditure group of Rp.61,000 to Rp.100,000 and Rp.101,000 and up.

Betel quid and chewing tobacco were identified as smokeless tobacco products used by respondents (a small number) both in Jakarta and Sukabumi. Only about one percent (58 persons) of 5,899 tobacco users reported as those who had ever used betel quid and less than half percent (22 persons) had experienced in the use of chewing tobacco. This phenomenon indicates that the spread of smoking products has widely reached all over the area and population of the study sites, in where could easily be found smoking products surrounding respondents' home which have significantly competed with some people efforts in searching betel quid and chewing tobacco. The percentage distribution of male respondents who reported experienced of *nyirih* was mostly in the ages of 25 to 49 year old for the status of ever *nyirih* and current *nyirih*, while for those with the status of current daily *nyirih* were only in the ages of 35 to 44 year old. On the other hand, the distribution among female respondents was mostly in the very old ages such as 60 year old and up for all of the status of *nyirih* tobacco. For the chewing tobacco status, the percentage distribution of users was mostly in the middle age for male respondents in almost of all the status, while it was mostly in the very old ages for female respondents. The highest percentage distribution of last month expenditure for *nyirih* was among those who spent of Rp.7,000 to Rp.17,000, and followed by those who spent Rp.18,000 and more, and the last was less than Rp.6,000 group.

The data revealed that more than half of tobacco (smoking) users (about 53 percent) reported ever though of giving-up or cutting down tobacco use. Among of the reasons were the tobacco health effects in the long term as the highest (79 percent) and followed by the impact of economic to self or family (38 percent). The tobacco (smoking) user who ever made any attempts to give-up or cut down tobacco use was about 40 percent. In which, the average of the attempting was 2 times during the last 12 months and almost 2 times (1.8 times) before the last 12 months. Self-determination and health reasons were the selected reasons of the method used by those who ever made any attempts to give-up or cut down tobacco use rather than economical reasons and support from family or friends. They were about 52 percent and 35 percent respectively. Adult male respondents having major proportions on cessation of tobacco use such as thought previously to quit (90 percent), thinking presently to quit (88 percent), and quit completely (78 percent). However, the percentage of male practices to quit of using tobacco was lower than their plan/wishes, unlike adult female practices, which was higher percentage in practicing quit than the plan/wishes.

The data revealed that almost all of the respondents (90%) understood the harmful of tobacco for health. While the rest of respondents did not know and even said that tobacco use was not harmful for health. The data showed that most of the respondents (84 percent) was familiar with the disease that directly and frequently faced by the smokers such as coughing. Heart disease was only mentioned by one fourth of the respondents as a disease caused by tobacco used. Cancer disease was mentioned by about 9 percent of the respondents. The major percentage distribution of the knowledge of harmful effects mentioning kinds of health effects among tobacco use respondents was respiratory ailments (74 percent), and followed by heart ailments (about 20 percent). The harmful health effects mentioned by respondents were comparable between male and female as well as in urban and rural. Meanwhile, the such matters reported mostly among respondents with their household monthly income of Rp.400,000 to Rp.599,000, followed by those with household monthly income of less than Rp.300,000 and Rp.800,000 and up. About 41 percent of respondents have positive response to the tobacco products. They mostly mentioned fun (22 percent) and relaxing (14 percent) for tobacco products being used. On the other hand,

about 32 percent of respondents have negative image to tobacco products with the most was repulsive/disgusting (14 percent).

The primary indicators developed in this study included those that measure the prevalence of tobacco use in urban and rural area; age in the first time using tobacco products; method used to quit of using tobacco products; knowledge of the health effects of tobacco products; and people opinions of supporting government efforts in reducing tobacco use. Accordingly, this report presents only baseline measures of prevalence of tobacco use in selected urban and rural areas: the city of Jakarta and the district of Sukabumi. It is recommended that similar data be further collected from the same sampling sites over a regular time periods among these selected groups of population in order to provide data for measuring trends and levels of the prevalence of tobacco use. The baseline data from this study may be able to support analysis for the Government of Indonesia series of indicators and action to address particular groups with focused intervention.