Cambodia National Tobacco Prevalence Survey Report

2005

For developing and strengthening of Tobacco Control Policy

By

National Institute of Statistics and Ministry of Planning
Phnom Penh, Royal Kingdom of Cambodia

Adventist Development and Relief Agency (ADRA) Cambodia

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Under
Tobacco research for policy development and tobacco control
In the Royal Kingdom of Cambodia

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Acronym	
ADRA	Adventist Development and Relief Agency
ADs	Advertising
CSPro	Census and Survey Processing System
EA	Enumeration Area
ISOC	International Standard Occupations Classification
LLU	Loma Linda University
MoP	Ministry of Planning
NIS	National Institute of Statistics
NTPS	National Tobacco Prevalence Survey
PSU	Primary Sampling Unit
SATCA	Southeast Asia Tobacco Control Alliance
SSU	Secondary Sampling Unit
TCLT	Tobacco Control for Leadership Training
TC	Tobacco Control
TH	Tobacco or Health
USNIH	United States National Institute of Health
WHO	World Health Organization
SoW	Scope of Work
NIH	National Institute of Health

Acknowledgements

It is with great pleasure that we present this report containing the results of the 2005 National Tobacco Prevalence Survey of The Royal Kingdom of Cambodia. This is the second survey of Cambodia conducted by the National Institute of Statistics (NIS). In consideration of the sampling techniques and the sample size (about 13,988 eligible participants 18 years of age and older), this survey report is considered a nationally representative survey of tobacco use among the general populations within the Royal Cambodian Kingdom.

It was not only designed to obtain tobacco consumption prevalence's of Cambodians, but also to gather more detailed information on issues related to tobacco use behavior, health economics, maternal of tobacco use, sources and reasons of initiation and continuation of use, and dietary patterns.

This report illustrates that tobacco is not just a simple health issue, but involves economics, business, trade, etc, and needs a multidisciplinary approach and with effective measures to reduce the widespread prevalence in order to protect the health and future of the people of Cambodia.

This National Prevalence Survey also promotes capacity building within the Kingdom of Cambodia for future tobacco research and long-term tobacco control strategies.

On behalf of the Ministry of Planning, we wish to pay gratitude to the United States National Institute of Health (NIH) that has been awarded the Tobacco Control Leadership Training (TCLT) collaborative project to Loma Linda University and the Adventist Development and Relief Agency Cambodia (hereinafter referred to as ADRA Cambodia) for their sponsoring the survey and their technical assistance. My sincere thanks go to Mr. Mark Schwisow, ADRA Cambodia Country Director, and funding program for TCLT survey 2005.

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I am sure that our government, economic planners, policy markers and researchers will find the report useful.

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Executive Summary

The 2005 National Cambodia Tobacco Survey report tracks consumption trends of populations within the Royal Kingdom of Cambodia. Its objective is to obtain a nationally representative sample of tobacco use among the nation's citizens. It will focus on tobacco use, patterns, and behaviors associated with the consumption of tobacco products. This survey report includes findings reported from urban and rural settings.

The national government of Cambodia seeks to protect their citizens from the terrible burden caused by tobacco use. Non-existent tobacco control legislature and the extraordinary human and financial toll caused by chronic disease have played a prominent role in the increased morbidity and mortality associated with the use of tobacco products.

At the very heart of chronic disease is tobacco related death and disease. Tobacco use remains the number one cause of preventable death in the world and its costs to health care systems and the national economies are breathtaking. These patterns are seen around the world and within countries such as Cambodia make clear that tobacco prevention and cessation must be at the heart of any effective national health care policy. The simple fact that study after study shows that the countries that enact the policies that have been proven to save lives—high tobacco product taxes, tobacco prevention and cessation programs funded at levels recommended by CDC and comprehensive smoke free laws—will reap the financial rewards. Yet, despite this evidence, there is lack of tobacco control policies found among Southeastern Asian countries such as Cambodia.

Sampling design

The sample population was representative of 12 individual provinces and the following five groups of provinces. The sample population was stratified in three stages. Initially, the whole sample population was divided by domain: urban and rural then by other criteria. All potential participants from each selected household were interviewed. In consideration of sampling techniques and the sample size (about 13,988 eligible participants 18 years of age and older), this survey report is considered a nationally representative survey of tobacco use among the general populations within the Royal Cambodian Kingdom.

Smoking Awareness and smoke free areas

The research study found that the public has a high level of awareness of the bad effects of smoking in causing many diseases such as harmful to the health of fetus, Bronchitis, Lung Cancer, Heart Disease and Any illness. These results are similar to previous studies of Analysis of Smoking Behavior Survey (ASBS) 2004. The majority of the public is also aware that smoking is addictive and has negative effects on the family economy. Over 63.21% of smokers want to quit smoking, but because of addiction they cannot quit by themselves.

The majority of study participants understand that smoking cause harm by exposure to second smoke. The majority (39.85%) of study participants have faced the problem of second hand smoke. Additionally, a majority (48.98%) of study participant's dislike

having to face second hand smoke situations – especially non-smokers (37.4 %) and surprisingly many smokers (62.6%). These results corroborate with the conclusion that there is strong support for the establishment of Smoke Free Areas (37.40% non-smokers and 62.60% smokers).

Health warnings and advertising

Health warnings in the form of advertising (television, radio, and printed media) and healthcare workers offer a direct way of communicating and informing users and potential users of tobacco products about the adverse health consequences associated with the consumption of tobacco products. Health warnings are regarding as effective and important by most study participants with slightly more then half the sample population reporting they saw television advertisement informing the public of the dangers of tobacco products. The low numbers of advertisements found in print or the radio also indicated this.

Tobacco Control Issues

According to these study findings, the public strongly supports the government to pass tobacco control laws demonstrating they are aware and believes the negative consequences of smoking and want domestic tobacco legislation preventing the adverse health effects of tobacco use. The majority of participates reported that they believe that the use of tobacco products are very harmful to the consumer's health. However less than half of the participants only believe that passive or second hand smoke is harmful to others.

A large majority of participants believe tobacco smoking should be banned from public places, a ban on cigarette advertisements, and the inclusion of packaging labels on cigarette packs notifying the consumer of the harmful effects of tobacco smoking. Furthermore, it was also reported that a large majority believe that a law should be passed to ban the sale of tobacco products to the youth. Note, that with all this public awareness of the harmful effects of tobacco there is a lack of tobacco control policies that protects and prevent the use of tobacco products in Cambodia.

Conclusion

Findings from this survey are reported across both sectors (urban and rural) with prevalence rates of tobacco use among men (2 times more frequently) as compared to women use. Similarly, in urban areas male consumption is four times as more likely as compared to women. In the rural sector, male consumption is twice the female rate.

It should be stressed that prevalence among men remains very high compared to other countries and this result cannot lead to the conclusion that total consumption has declined. One finding of potential significance is the consumption of chewing tobacco by female participants. A complete report of the implications of these findings was recently published in the Bulletin of the World Health Organization.

Dissimilar to the tobacco cigarette and its chewing form, the tobacco pipe used in Cambodia is not popular and is reported as infrequently used. The reported reasons for the initiation and continuation of tobacco were also reported. The most common reasons for both imitation and continuation of tobacco were the influence of older relatives. This was reported by both genders and suggests a strong indicator of

tobacco use within the social-cultural content of tobacco influence within social and family circles.

The provincial variation in the use of tobacco in its various forms and between both genders were found to exist in the following provinces the Oddar Mean Chey, Siem Reab, Preah Vihear, Sueng Traeng, Rotana Kirir, and the Mondol Kiri.

A majority of all survey participants agree with the hypothesis about harmful effects from tobacco used for both women and men. Since there is not a lack of health beliefs and awareness this may represent a disparity that national health strategists and policy makers may consider investigating. A majority of all survey participants also all agree and report attitudes about tobacco addiction. Almost all report that tobacco, alcohol, opium, gambling and other drugs possess harmful effects to their health and the health of their families and their nation.

The reported exposures to media anti-tobacco ads were also reported. There is a lack of printed anti-tobacco advertisements reported by survey participants. This is a potential avenue for future tobacco programming.

Recommendations

This survey presents striking information that will enable possible recommendations for future public health within the Cambodian Kingdom. These results must be explored to improve the tobacco control and protect the future health of the citizens of Cambodia. The following are recommend activities that may be considered for future programming.

- Surveillance activities should be adopted and mandated by public policy. This includes regular or time interval surveys in order to monitor and assess current consumption trends within the Cambodia Kingdom.

- Standardized methods in surveys, data analysis and reporting should be used so that all surveys can produce comparable results to monitor trends more accurately.

- Improve tobacco control research capacity by building human capacity and skills in tobacco control.

- Extend anti-tobacco campaigns through all means of media to reduce the appeal of tobacco use and make people aware that tobacco use is an important contributor to the development of disease and death and contributes to the loss of family income through spending on tobacco and treatment of tobacco–caused diseases. Such campaigns should aim to prevent an increase in women's tobacco use.

- Government should give serious consideration to all strategies aimed at reducing tobacco use, especially policies and regulations that became obligatory under the Framework Convention on Tobacco Control, such as:
  Increasing taxes and prices on all tobacco products; Banning all forms of tobacco advertising, promotion and sponsorship; Requiring tobacco packaging

to include strong health warnings, tobacco ingredients and smoke emissions, and no misleading terms such as “light” and “mild”; Creation of smoke free areas in work and public places.

- The best instrument how to implement these policies would be to adopt the National Tobacco Control Law.

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Introduction

Background

The 2005 National Cambodian Tobacco Survey has been designed as a multi-stage process, which allows the tobacco researchers the opportunity to learn and experience a variety of research methods.

The key component of the national curriculum includes participation in a large-scale survey project, which allows Cambodian researchers from the Ministry of Health an opportunity to learn the various steps and techniques required to obtain accurate quantitative data from a targeted population (Ferry, 2006). To meet this requirement, the NIS and ADRA has planned a national tobacco survey that will be carried out by the NIS's staff in collaboration with NIH trained personnel from the Ministry of Health. These personal who completed a 28-unit graduate certificate in research methods from Loma Linda University.

The 2005 National Tobacco Survey is conducted as a nationwide sample survey of villages and households that allows the creation of a national representative sample of 13,988 participants aged 18 years and older. The survey was undertaken as part of a research project called "Tobacco Control for Leadership Training Program (TCLT)" that was sponsored by Loma Linda University, USA in collaboration with ADRA, Cambodia. Due to time constraints, the TCLT program was encouraged to contract data collection activities as part the survey process to a local contractor (NIS) in cooperation with the TCLT program NIS staff. The following report discusses in draft-form the scope of work that was required by the contractor.

Objective

The research report contributes in meeting the unmet needs for tobacco control activities in Cambodia in an effective and sensible manner. As a result this report aims to accelerate the process of national tobacco control law ratification. The Tobacco Control law is being drafted through the Ministry of Health after sending back from Council of Ministers for modifications. Currently, the drafting of legislation for the acceptance and enforcement of national laws and regulations are being considered by the Council of Ministers.

A concise and strategic approach and its associated methodology were necessary to investigate the nature linked to the behavior and consumption trends of tobacco products within the national Cambodian population. In order to these achieve national research activities; these activities required the use of authorized institutions with existing stakeholder relationships of superior collaboration with local and national government.

The objective of the 2005 National Tobacco Prevalence Survey was to access and report the consumption of tobacco products in order to evaluate any potential adverse effects resulting from the sales, production and advertisement of tobacco products within the national Cambodian population. A specific aim of the survey was to evaluate tobacco consumption of tobacco products then previously performed.

This report focuses on acquiring information of tobacco consumption patterns between both genders, the current knowledge of the adverse health effects of tobacco use, tobacco cessation attitudes and perceptions, and tobacco household expenditures that potentially harm the sovereignty of the Cambodian family.

Methods

Confidentiality of Information

All survey participants provided their approval and were assured that any information provided during the National Tobacco survey will be held confidential and not be released. All participants were consented and informed that their information will be held confidential and used to produce statistical reports defining the scale of national tobacco use, understanding the effects of tobacco use, and to monitor tobacco use that will contribute to the development of a strategic national tobacco policy. All participants were assured that their information would not be used against them such as identifying persons who failed to pay taxes or for any other legal purpose.

Scope and Coverage

In order to achieve the objectives of this survey, a nationally representative sample was targeted in order to achieve the necessary scope and coverage required for this national survey. The sample population consisted of 13,988 participants aged 18 years and old from 6,254 households that comprised of 434 sample clusters. The 434 sample cluster populations consisted of 64 urban area and 370 rural or rural villages. In each sample cluster, 11 households were selected at random from each urban area and 15 households were selected at random from sample villages in rural areas. Seventeen sampling domains were considered in separate strata at the stage of sampling selection of clusters. The survey was designed to cover all private households including single member households. The exclusion criteria include household such as military barracks, prisons, hospitals and boarding houses.

Sampling Design and Sample Size

The sample population was representative of 12 individual provinces (Banteay Mean Chey, Kampong Cham, Kampong Chhnang, Kampong Spue, Kampong Thum, Kandal, Koah Kong, Phnom Penh, Prey Veang, Pousat, Svay Rieng, and Takaev) and the following five groups of provinces: Battdambang, Krong Pailin, Kampot, Krong Preah Sihanouk and Krong Kaeb, Kracheh, Preah Vihear, and Stueng Traeng, Mondol Kiri and Rotanak Kiri, and Otdar Mean Chey and Siem Reab. The sample population was stratified in three stages. Initially, the whole sample population was divided by domain: urban and rural then by other criteria. All potential participants from each selected household were interviewed.

Questionnaires, Staff Training, Data Collection

The data collection was obtained through the use of a survey instrument and was prepared in a random selection process. Initially, a registry of potential households was developed to supply the planned sample population. A list of households was compiled for every sample village (or segment of sample village) and was necessary

to select sample households for use as an input to derive household weights. The survey questionnaire filled up for the following list of items of information was collected from the sample households within sample village (or segment of sample village) about 103 items including demographic characteristics, tobacco use, knowledge and attitudes about tobacco use, exposure to second hand smoke, smoking cessation activities, lifestyle habits, exposure to tobacco media advertisements, and other miscellaneous questions.
A total of 86 interviewing staff and their supervisors were recruited and trained by the National Institute of Statistics and the Ministry of Planning. All staff members hired for data collection activities were trained covering the interview process (concepts, definitions) and filling out the questionnaires. All training of participating staff was completed within five days.

Data collection was conducted over a month and began on April 02, 2005 and concluded April 30, 2005. During this process, a Primary Sampling Unit (PSU) was randomly selected from each sampling village using the 1998 Census framework. This allowed researchers to generate a field listing of potential participant households. The PSU was based on the total number of EA divided within the village. In order finalize sampling methodology; it was necessary to carry out a complete canvass of the EA in order to generate a complete and accurate listing of each household. The procedure included the use of a national demographic map, which included prominent landmarks of each sampled EA. In addition, a sketched map was also prepared showing all residential households in each EA that was used by interviewing staff.

Originally, a household was included through a systematic listing through a prepared pathway to ensure that all targeted households were accounted for by using the household registry form. The actual data collection was performed through the use of a prepared questionnaire from each of the rural or urban household. All residential members of each household were included in the survey process. The interview process consisted of two separate interviews that included an individual interview of the head of household or available adult (for demographic purposes) and a tobacco consumption interview of the available adults aged 18 years and older.

The completed questionnaires were collected by supervisors on the due date and submitted to offices of the Central NIS. After careful examination, each questionnaire was stored for entry. The editing and coding of each questionnaire was performed manually and submitted for entry.

Manual processing of questionnaires verified status of completeness, correctness, and consistency of the data entries. The coding classification of Occupations and Industries was used and were developed for the Cambodian National Tobacco Survey. The coding and classification scheme were based on the UN International Standard Occupations Classification (ISOC) and UN International Standard Industrial Classification (ISIC) systems, respectively. Manual editing and coding were performed by four persons (one supervisor and three processors) all of them from NIS. They participated in editing and coding of many surveys conducted by NIS.

A verification software package, known as the Census and Survey Processing System (CSPro), was used to verify data entry, correction of inconsistencies and tabulation of survey results. A single supervisor and four data entry personnel performed this

process of data process after being trained over the course of four days on entry verification, completeness of entry, correction of entry errors, and coding. Following data entry, a preliminary report was generated. A set of tables were include in this report and range checks were performed on all variables included in the survey questionnaire. The range checks that were generated indicated the minimum and maximum of all variables. All tabulations reported were extracted after cleaning of data files.

Survey results

The results of this national tobacco use survey included an in-depth view of tobacco use, geographical distribution of use; behaviors and attitudes found among tobacco users, exposure to passive smoke, self reported tobacco cessation activities, and report the sources of the harm of tobacco use. All estimates consist of segments by sector, gender and tobacco type consumed.

Demographics

All eligible participants were interviewed confidentially and face-to-face. The end result of all interviewing yielded a 97% percent response rate. The gender distribution of the sample population consisted of 6,130 men and 7,858 women for a total sample population of 13,988 participants. The urban sector was the minorities of the sample representing about 17% of the total sample population while the bulk of participants (83.0%) were from the rural sector. Gender distribution was similar according to total sample population, sector, and within sector population. Roughly, 56.2% of the total sample population consisted of women and 43.8% represented men who participated in the survey. Within both sectors women outnumbered men in rural (46.4% vs. 36.6%) and urban (9.8% vs. 7.2%) settings (see table 1.0).

	Urban (%)	Rural (%)	All (%)
Men	1,008 (7.2%)	5,122 (36.6%)	6,130 (43.8%)
Women	1,370 (9.8%)	6,488 (46.4%)	7,858 (56.2%)
Total	2,378 (17.0%)	11,610 (83.0%)	13,988 (100%)

Table 1.0 Demographics by Sector and Gender

The age distribution among survey participants was similar when comparing the total sample population and both genders of the sample population. Overall, the mean age in years of all participants of the survey was 38.95 years (95% CI (38.52, 39.38). Ages of women (mean age 39.20 (95% CI (38.77, 39.63) and men (mean age 38.63 (95% CI (38.06, 39.21) were very similar.

The bulk of the sample population was of the Khmer ethnicity (95.12%, 95% CI (92.73, 96.75)) and also represented the majority of the gender distribution (women 95.14% (95% CI 92.60, 96.84) and men 95.08% (95% CI 92.84, 96.64)).
Other ethnicities reported were Cham, Chinese, Lao, Thai, and other local groups. Religious affiliation followed a similar distribution with Buddhists representing the majority of the sample population (95.72%, 95% CI (93.39, 97.26)). The religious gender distribution was reflective of the sample population and consisted chiefly of Buddhists (women 95.72% (95% CI 93.19, 97.33) and men 95.74% (95% CI 93.59, 97.19)). Other reported religious traditions were Islamic, Christian and others.

Martial status followed a similar distribution as ethnicity and religious affiliation with currently married status representing the majority of the sample population (72.41%, 95% CI (70.59, 74.06)). Gender distribution within the strata of martial status was also reflective of the sample population and reported majority of both women and men being currently married at the time of interview (women 68.57% (95% CI 66.38, 70.67) and men 77.37% (95% CI 75.39, 79.24)). Participants who reported they were never married accounted for 17.77% (95% CI 16.12, 19.54) of the sample population. A

small number of participants did report of the practice cohabitation 2.15% (95% CI 1.83, 2.53).

Educational level followed a similar distribution as ethnicity, religious affiliation, and martial status with no education to class six levels representing the majority of the sample population (74.27%, 95% CI (70.70, 77.54)). However, the gender educational distribution was not reflective of the sample population and reported differences between both genders (women no education to class six 81.46% (95% CI 78.35, 84.21) and men no education to class six 64.95% (95% CI 60.64, 69.03)). This may be indicative a gender disparity that may be a result of maternal, cultural, economic or discriminative restrictions that may prevent young Cambodian women from acquiring the same educational levels as young Cambodian men.

Reported earned income was less than 120 thousand Riels per months for the majority of participants (74.10% (95% CI 71.99, 76.10)). However, there was a gender difference among women and men. Women reported a larger percentage of income earned as compared to men (at less than 120 thousand Riels per month, women 85.12% (95% CI 83.08, 87.02) vs. men 64.95% (95% CI 60.64, 69.03)). This increased percentage of earned income may be indicative of the lower educational level achieved by young women and may represent a cultural trait found in Cambodian families that require young Cambodian women to work rather than go to school.

The self reported occupation status and type varied among survey participants. A small minority of participants reported that they did not work (16.76% (95% CI 14.35, 19.48)). Differences were reported between women and men who reported that they did not work (women 22.21% (95% CI 19.26, 25.47) vs. men 9.71% (95% CI 7.58 12.37)). This may be due to age or cultural differences. Overall about 1% (1.09% (95% CI 0.79, 1.50)) of the total sample population reported a professional occupation such as law, medicine, or politics. The majority of survey participants reported a labor intensive occupation of farming (55.52% (95% CI (50.05, 60.87)). The trend of farming was also reported among both genders (women 53.27% (95% CI 48.59, 59.26) and men 57.53% (95% CI 51.66, 63.19)). Other reported occupations include nurse, nurse assistant, technical, labor, trades/crafts, and others.

All provinces within the Royal Kingdom of Cambodia were represented within the survey. The majority of participants reported their provincial residence in six provinces: Kampong Cham, Phnom Penh, Prey Veaeng, Kandal, Siem Reab, and Banteay Mean Chey. Kampong Cham reported the greatest number of survey participants 13.58% (95% CI 11.31, 16.23) and among both women (13.78% (95% CI 11.25, 16.78)) and men (13.33% (95% CI 11.12, 15.90)). The remaining participants were unequally distributed within the residual provinces.

Tobacco use

Tobacco consumption by Gender and Sector

The tobacco user was defined as a person who was aged 18 years and older who answered “Yes” to the questions if they consumed or used, “cigarettes, chewing tobacco and smoking tobacco by pipe.” According to self-reported data, the highest rate for both sexes is in the rural areas (about 51.21% for men and 22.90% for women). The highest rate of tobacco use in urban areas for men (almost 37.65%), can be observed for women as the same area is quite lower than men 36.27% points.

Across the sectors, the reported rates of tobacco use among men are higher than women (see table 2.0 below).

	All% (95% CI) n = 13,988	Women% (95% CI) n = 7,858	Men% (95% CI) n = 6,130
All			
Users	32.94 (30.55, 35.42)	20.53 (18.51, 22.71)	48.98 (45.42, 52.55)
Non Users	67.06 (64.58, 69.45)	79.47 (77.29, 81.49)	51.02 (47.45, 54.58)
Urban			
Users	21.26 (18.57, 24.24)	09.30 (07.19, 11.94)	37.65 (32.54, 43.05)
Non Users	78.74 (75.76, 81.43)	90.70 (88.06, 92.81)	62.35 (56.95, 67.46)
Rural			
Users	35.33 (32.33, 38.45)	22.90 (20.46, 25.54)	48.79 (44.30, 53.30)
Non Users	64.67 (61.55, 67.67)	77.10 (74.46, 79.54)	51.21 (46.70, 55.70)

Table 2.0 Tobacco use by Gender and Sector

Cigarette Tobacco Use

Study participants were asked about their consumption habits of tobacco in the form of cigarettes. Below, table 3.0 indicates the reported use of tobacco cigarettes among study participants by gender. Overall, both genders reported a 22.96% (95% CI 21.41, 24.60) prevalence of tobacco cigarettes. Men (47.99% (95% CI 44.53, 51.48)) represented the majority of tobacco cigarette consumers as compared to women (3.60% (95%CI 3.00, 4.32)). In addition, participants were asked about the frequency of the tobacco cigarette consumption. A large majority of the sample population reported that in the past 30 days (month), 88.61% (95% CI 86.95, 90.08)) said they smoked tobacco cigarettes.

	All% (95% CI) n = 13,988	Women% (95% CI) n = 7,858	Men% (95% CI) n = 6,130
Do you currently smoke cigarettes?			
Yes	22.96 (21.41, 24.60)	03.60 (03.00, 04.32)	47.99 (44.53, 51.48)
No	77.04 (75.40, 78.59)	96.40 (95.68, 97.00)	52.01 (48.52, 55.47)
What is your best estimate of the number of days you smoked during the past 30 days?			
1 day	00.32 (00.07, 01.45)	-	00.35 (00.08, 01.60)
2 to 5 days	01.23 (00.80, 01.89)	01.36 (00.53, 03.47)	01.21 (00.76, 01.94)
6 to 9 days	00.70 (00.41, 01.19)	01.69 (00.55, 05.11)	00.60 (00.33, 01.10)
10 to 19 days	02.60 (02.02, 03.34)	03.36 (01.82, 06.12)	02.53 (01.93, 03.30)
20 to 29 days	06.44 (05.26, 07.86)	10.38 (06.38, 16.45)	06.06 (04.85, 07.53)
All 30 days	88.61 (86.95, 90.08)	82.82 (75.57, 88.25)	89.17 (87.42, 90.70)
Don't know/refuse	00.11 (00.03, 00.32)	00.39 (00.08, 01.85)	00.08 (00.02, 00.33)

Table 3.0 Cigarette use by Gender and Frequency

Chewing Tobacco Use

Study participants were asked about their consumption habits of tobacco in the form of chewing tobacco. Below table 4.0 indicates the reported use of chewing tobacco among study participants by gender. Overall, both genders reported a 10.04% (95% CI 8.94, 11.25) prevalence of chewing tobacco. Women (17.02% (95% CI 15.23, 18.97)) represented the majority of chewing tobacco consumers as compared to Men (1.02% (95%CI 0.77, 1.36)). In addition, participants were asked about the frequency of the chewing tobacco consumption. A large majority of the sample population

reported that in the past 30 days (month), 83.76% (95% CI 81.20, 86.20)) said they chewing tobacco.

	All % (95% CI) n = 13,988	Women % (95% CI) n = 7,858	Men % (95% CI) n = 6,130
Do you currently chew tobacco?			
Yes	10.04 (08.94, 11.25)	17.02 (15.23, 18.97)	01.02 (00.77, 01.36)
No	89.96 (88.75, 91.06)	82.98 (81.03, 84.77)	98.98 (98.64, 99.23)
What is your best estimate of the number of days you chewed tobacco during the past 30 days?			
1 day	00.13 (00.03, 00.57)	00.14 (00.03, 00.60)	-
2 to 5 days	01.04 (00.58, 01.88)	01.01 (00.54, 01.88)	01.79 (00.25, 11.76)
6 to 9 days	01.17 (00.68, 02.02)	01.13 (00.64, 01.99)	02.04 (00.28, 13.39)
10 to 19 days	04.75 (03.50, 06.43)	04.69 (03.41, 06.42)	06.20 (01.96, 17.89)
20 to 29 days	08.86 (07.05, 11.08)	08.78 (06.93, 11.06)	10.71 (04.22, 24.63)
All 30 days	83.76 (81.20, 86.20)	83.96 (81.34, 86.28)	79.26 (64.71, 88.85)
Don't know/refuse	00.28 (00.07, 01.13)	00.29 (00.07, 01.18)	-

Table 4.0 Chewing Tobacco use by Gender and Frequency

Tobacco Pipe Use

Study participants were asked about their consumption habits of tobacco smoking in pipe form. Below in table 5.0, it is indicated that reported use of tobacco pipe smoking among study participants by gender. Overall both genders reported a small percentage of currently smoking tobacco in a pipe 0.28% (95% CI 00.14, 00.57) prevalence of tobacco cigarettes. Women and men reported use of tobacco in pipe smoking reported a similar percentage (0.31% (95% CI 0.15, 0.63) and 0.24% (95% CI 0.11, 0.53), respectively). In addition, participants were asked about the frequency of the tobacco pipe smoking. A large majority of the sample population reported that in the past 30 days (month), 97.25% (95% CI (86.24, 99.34)) said they smoked tobacco using a pipe.

	All % (95% CI) n = 13,988	Women % (95% CI) n = 7,858	Men % (95% CI) n = 6,130
Do you currently smoke a tobacco pipe?			
Yes	00.28 (00.14, 00.57)	00.31 (00.15, 00.63)	00.24 (00.11, 00.53)
No	99.72 (99.43, 99.86)	99.69 (99.37, 99.85)	99.76 (99.47, 99.89)
What is your best estimate of the number of days you smoked a tobacco pipe during the past 30 days?			
1 day	-	-	-
2 to 5 days	-	-	-
6 to 9 days	-	-	-
10 to 19 days	00.59 (00.08, 04.15)	00.94 (00.13, 06.61)	-
20 to 29 days	02.17 (00.40, 10.93)	00.90 (00.11, 06.93)	04.23 (00.53, 26.92)
All 30 days	97.25 (89.24, 99.34)	98.15 (92.33, 99.58)	95.77 (73.08, 99.47)
Don't know/refuse	-	-	-

Table 5.0 Pipe Smoking by Gender and Frequency

Reasons for Starting and Continuing Tobacco Use

The reasons for starting and continuing tobacco use are discussed in detail in a 2009 report from the Bulletin of the World Health Organization. Briefly, these data indicate that the most common reason for starting and continuing tobacco use was the influence of older relatives.

Attitudes about Tobacco Use

Study participants were asked about their feelings and attitudes toward the use of tobacco between both genders and if their social perceptions and practices reflective of approval of such practices. Below, table 6.0 indicates the reported use of tobacco is not socially acceptable behavior for a Cambodian male and does not constitute a prerequisite for respect or defining the male character among all, male and females participants (All 89.12% (95% CI 87.72, 90.39), men 88.31% (86.72, 89.73), and women 88.31% (86.72, 89.73)). Hence, among all survey participants smoking is not reflective of male supremacy or complete content of the ideal acceptable behavior. Compared to their male counterparts, female tobacco use is viewed similarly as male tobacco use. It reported that is not socially acceptable behavior for a Cambodian female to smoke and does not constitute a prerequisite for acceptable fashion trends or defining the female character among all, male, and females participants (All 79.53% (95% CI 77.51, 81.42)), men 79.32% (95% CI 77.14, 81.34)), and women 79.82 (95% CI 77.69, 81.79)). These similar findings suggest that female smoking is not reflective or indicate any female level of achievement or entitlement within cultural or social circles.

	All % (95% CI) n = 13,988	Women % (95% CI) n = 7,858	Men % (95% CI) n = 6,130
"A man who does not smoke is not a real man"			
Agree	07.70 (06.65, 08.90)	07.47 (06.37, 08.76)	08.00 (06.86, 09.32)
Disagree	89.12 (87.72, 90.39)	88.31 (86.72, 89.73)	88.31 (86.72, 89.73)
Don't know/refuse	03.17 (02.55, 03.94)	04.22 (03.33, 05.32)	04.22 (03.33, 05.32)
"It is fashionable that a young woman is a smoker"			
Agree	13.95 (12.41, 15.65)	13.67 (12.04, 15.47)	14.32 (12.61, 16.21)
Disagree	79.53 (77.51, 81.42)	79.32 (77.14, 81.34)	79.82 (77.69, 81.79)
Don't know/refuse	06.51 (05.47, 07.74)	07.02 (05.88, 08.36)	05.87 (04.80, 07.15)
"Smoking can enhance work efficiency for exhausted people"			
Agree	16.53 (14.66, 18.58)	10.70 (09.11, 12.51)	24.06 (21.06, 27.35)
Disagree	68.81 (64.64, 72.68)	69.87 (65.14, 74.21)	67.43 (63.56, 71.08)
Don't know/refuse	14.67 (11.97, 17.86)	19.44 (15.46, 24.15)	08.51 (07.08, 10.18)

Table 6.0 Pipe Smoking by Gender and Frequency

Environmental Tobacco Smoke Exposure

Study participants were asked about their exposure to second hand or passive tobacco smoke. These findings were recently published (Rudatsikira, 2008) and the data is summarized here. Below in table 15.0, it is reported frequency of exposure to tobacco smoke by study participants. Overall, both genders reported a 39.85% (95% CI 37.04, 42.73) incidence of exposure to tobacco smoke (>15 mins/day once a week) from another person who smokes. Men (44.92% (95% CI 41.54, 48.35)) reported a higher percentage of exposure to tobacco some as compared to women (35.92%

(95% CI 33.21, 38.73)). In addition, participants were asked about the frequency of exposure to another person's tobacco smoke. The majority of survey participants reported exposure to second hand smoke occurred 1-3 days per week most of the time (All 48.98% (95% CI (44.26, 53.71)), 54.24% (95% CI (48.89, 59.49)), 43.53% (95% CI (38.78, 48.41)). The most common located was also reported of exposure to second hand smoke. Results varied and among all study participants, the home was the location of the exposure of second hand smoke (45.51% (95% CI 42.10, 48.97). Similarly among women, the home was the most frequent place where they were exposure to second hand smoke (64.91% (95% CI 60.18, 69.36). Men reported that their highest level of exposure to second hand smoke was in public places (55.16% (95% CI 51.18, 59.06). This may be reflective of socializing practices among Cambodian males.

	All % (95% CI) n = 13,988	**Women % (95% CI) n = 7,858**	**Men % (95% CI) n = 6,130**
Do you inhale the smoke from any smoker (other than yourself) for more than 15 minutes per day, and more than 1 day per week?			
Yes	39.85 (37.04, 42.73)	35.92 (33.21, 38.73)	44.92 (41.54, 48.35)
No	57.74 (54.74, 60.68)	61.51 (58.46, 64.47)	52.86 (49.48, 56.22)
Don't Know/refuse	02.41 (01.16, 04.98)	02.57 (01.31, 04.98)	02.22 (00.96, 05.05)
How many days per week do you inhale the smoke from any smoker (other than yourself)?			
7 days per week	23.49 (19.42, 28.10)	19.51 (15.53, 24.23)	27.59 (22.75, 33.03)
3-6 days per week	27.54 (24.17, 31.19)	26.24 (22.75, 30.06)	28.88 (25.18, 32.87)
1-3 days per week	48.98 (44.26, 53.71)	54.24 (48.89, 59.49)	43.53 (38.78, 48.41)
Where do you inhale the smoke from any smoker (other than yourself)?			
Home	45.51 (42.10, 48.97)	64.91 (60.18, 69.36)	25.46 (22.61, 28.52)
Work Place	12.32 (10.29, 14.68)	05.48 (03.82, 07.81)	19.39 (16.33, 22.86)
Public Place	42.17 (38.58, 45.84)	29.61 (25.71, 33.83)	55.16 (51.18, 59.06)

Table 7.0 Exposure to second hand smoke

Exposure to Tobacco Media

In order gage the effects of external forces that may affect their tobacco use among the survey's participants, each participant was asked about their experiences of tobacco marketing in the main stream media such as the television, newspapers, billboards advertisements, etc. Study participants were asked about their experiences of viewing anti-tobacco advertisements. Below in table 8.0, the reported exposure to anti-tobacco advertisements is reported by survey participants. Overall, both genders reported a 57.88% (95% CI 45.32, 75.88) prevalence of exposure to anti-tobacco advertisement between 1 to 25 times in the prior 30 day month period. Male and female survey participants reported similar frequency exposures. In addition, participants were asked about the frequency of the anti-tobacco radio ads heard on the local radio stations. A majority of the sample population reported that in the past 30 days (month), 55.51% (95% CI (43.94, 71.74)) said they heard anti-tobacco advertisements on local radio stations. Male and female participants reported similar exposure to anti-tobacco advertisements. Exposure to anti-tobacco advertisements in the form of print (such as newspapers) was also reported. Although there were similar findings in overall, male, and female groups there were a small percentage of survey participants that reported exposure to anti-tobacco advertisements in print as compared to the television and radio media (see below).

	All % (95% CI) n = 13,988	Women % (95% CI) n = 7,858	Men % (95% CI) n = 6,130
During the past 30 days how many anti-tobacco ads have you seen on TV?			
0 times	18.92 (16.47, 21.64)	20.91 (18.35, 23.73)	16.35 (13.85, 19.19)
1 to 25 times	57.88 (45.32, 75.88)	59.41 (44.64, 81.70)	56.64 (43.63, 75.26)
26 to 50 times	21.87 (18.08, 27.38)	21.39 (17.40, 27.62)	22.60 (18.19, 29.35)
51 to 75 times	00.90 (00.36, 02.27)	00.96 (00.35, 02.75)	00.80 (00.32, 02.36)
76 to 100 times	00.39 (00.16, 01.23)	00.68 (00.24, 02.10)	00.21 (00.06, 00.90)
During the past 30 days how many anti-tobacco ads have you heard on the radio?			
0 times	40.33 (36.44, 44.33)	37.13 (32.97, 41.49)	42.80 (38.89, 46.80)
1 to 25 times	55.51 (43.94, 71.74)	58.41 (44.12, 79.62)	49.03 (42.74, 69.80)
26 to 40 times	04.05 (03.16, 05.31)	03.82 (02.91, 05.27)	04.25 (03.21, 06.05)
41 to 60 times	00.09 (00.03, 00.34)	00.08 (00.02, 00.26)	00.13 (00.03, 00.51)
61 to 90 times	00.04 (00.00, 00.15)	00.02 (00.00, 00.14)	00.03 (00.00, 00.27)
During the past 30 days how many anti-tobacco ads have you seen in print?			
1 to 25 times	08.47 (05.72, 12.48)	06.71 (03.78, 12.47)	10.74 (07.08, 17.07)
26 to 40 times	01.91 (00.95, 04.01)	00.89 (00.41, 01.99)	03.20 (01.43, 07.28)
41 to 60 times	00.63 (00.21, 02.31)	00.34 (00.07, 01.61)	01.03 (00.36, 03.72)
61 to 90 times	00.06 (00.00, 00.32)	00.00 (00.00, 00.02)	00.12 (00.01, 00.75)
If seen in theses media types:			
Newspaper			
0 times	84.10 (78.35, 88.54)	86.51 (80.88, 90.68)	80.98 (74.86, 85.89)
1 to 10 times	14.80 (09.50, 24.45)	13.00 (07.39, 23.26)	17.18 (10.48, 28.59)
11 to 20 times	00.64 (00.27, 01.61)	00.35 (00.13, 00.99)	00.99 (00.39, 02.85)
21 to 30 times	00.44 (00.18, 01.26)	00.14 (00.04, 00.48)	00.85 (00.33, 02.29)
Billboard/ Signs/ Posters			
0 times	67.78 (62.86, 72.34)	72.51 (67.65, 76.89)	61.67 (58.50, 66.59)
1 to 10 times	29.32 (21.65, 39.93)	25.70 (18.51, 36.04)	34.02 (24.37, 47.53)
11 to 20 times	01.90 (01.04, 03.72)	01.23 (00.57, 03.15)	02.86 (01.55, 05.47)
21 to 30 times	00.94 (00.57, 01.72)	00.53 (00.28, 01.06)	01.48 (00.79, 03.12)
31 to 60 times	00.03 (00.01, 00.20)	00.03 (00.00, 00.15)	00.06 (00.01, 00.28)
Other Printed Material			
0 times	74.90 (68.31, 80.51)	70.18 (63.47, 76.12)	78.56 (72.03, 83.90)
1 to 10 times	24.03 (16.22, 35.50)	20.88 (13.56, 32.01)	28.15 (18.86, 41.75)
11 to 20 times	00.69 (00.34, 01.45)	00.33 (00.12, 00.98)	01.12 (00.56, 02.34)
21 to 30 times	00.37 (00.20, 00.71)	00.21 (00.10, 00.53)	00.54 (00.29, 01.16)
31 to 40 times	00.01 (00.00, 00.06)	-	00.03 (00.00, 00.13)

Table 8.0 Exposure to tobacco media

When examining the different forms of printed media, there was a similar finding across all printing media. The majority of men and women reported that in the prior 30 day month period reported not to have seen any anti-tobacco advertisement in newspapers, billboards, signs, posters, or other printed material. This may represent a lack of initiation by the domestic printed media industry to adequately inform the public of the harms and adverse health effects of the use of tobacco and tobacco products.

Provincial variation

From the survey, the geographic use of tobacco products within the Cambodian Kingdom and between both genders is described as heterogeneous phenomena.

Distinguishing features are the different consumption patterns and types of tobacco products are different among the region's residents. As the maps below indicate, tobacco use in all its forms differs among the genders by regional location within the Cambodian kingdom.

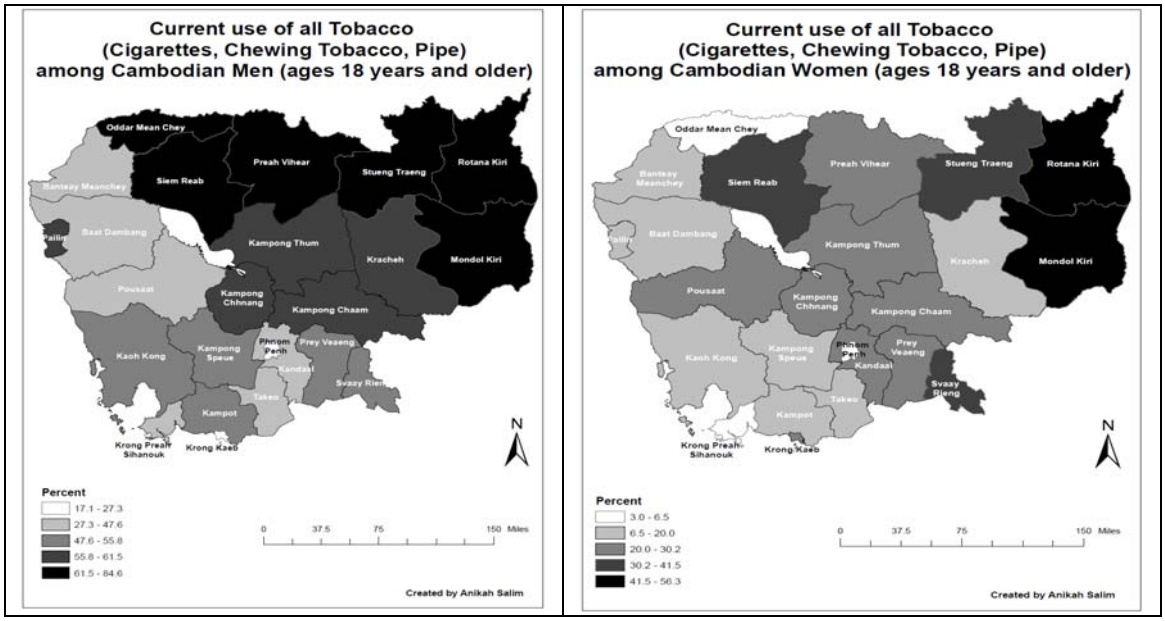

Figure 1.0 Tobacco by Provincial Region

Overall, there are high concentrations of male consumption within the northern regions of the country while female consumption seems to be predominately in the eastern provinces. These include the Oddar Mean Chey, Siem Reab, Preah Vihear, Sueng Traeng, Rotana Kirir, and the Mondol Kiri provinces. This is indicative of only male consumption but differs when access in female consumption patterns. Among female participants, only the provinces of Rotana Kiri and Mondol Kiri have a significant among female tobacco consumers (41-56.3%).

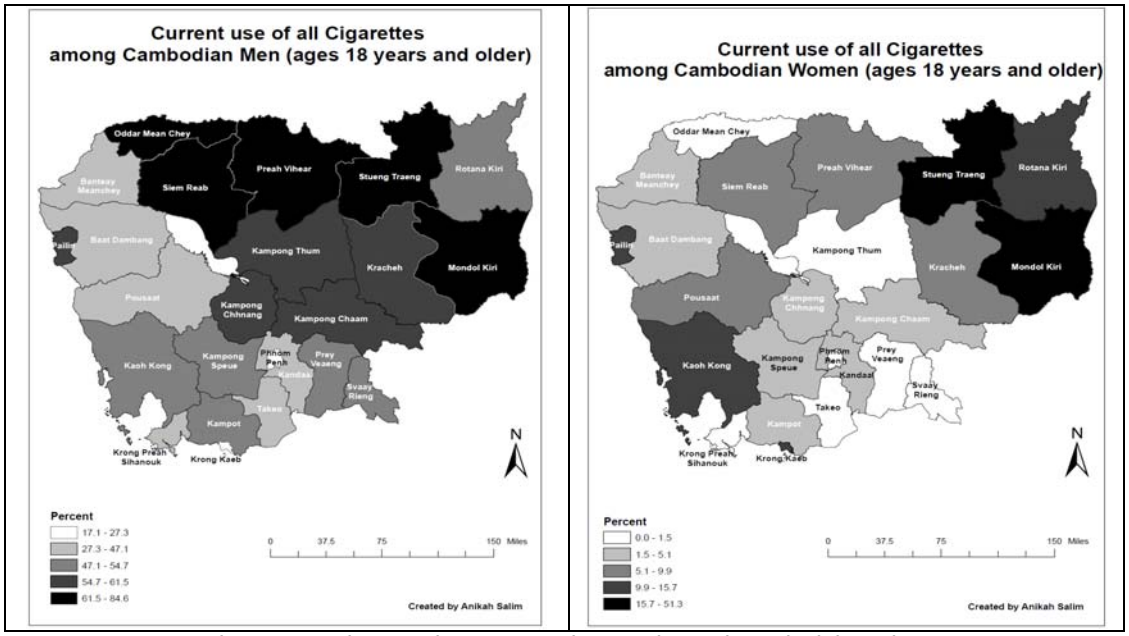

Figure 2.0 Tobacco Cigarette Use by Gender and Provincial Region

The consumption of tobacco cigarettes is similar in provincial region distribution as compared to the overall use of tobacco products. In figure 2.0 (above), a similar geographical report of use is found among both men and women who smoke tobacco cigarettes. The only difference within this northern region of the Cambodian Kingdom is found in the Rotana Kiri province. This may be due to the remote location within the Cambodia and the lack of tobacco knowledge harms and health risks associated with its use. This may also represent areas of endemic use of tobacco use that may be traced back for centuries. Hence, smoking tobacco in rural communities with strong ethnic traditions may result in the majority of tobacco cigarette consumers being characterized as men.

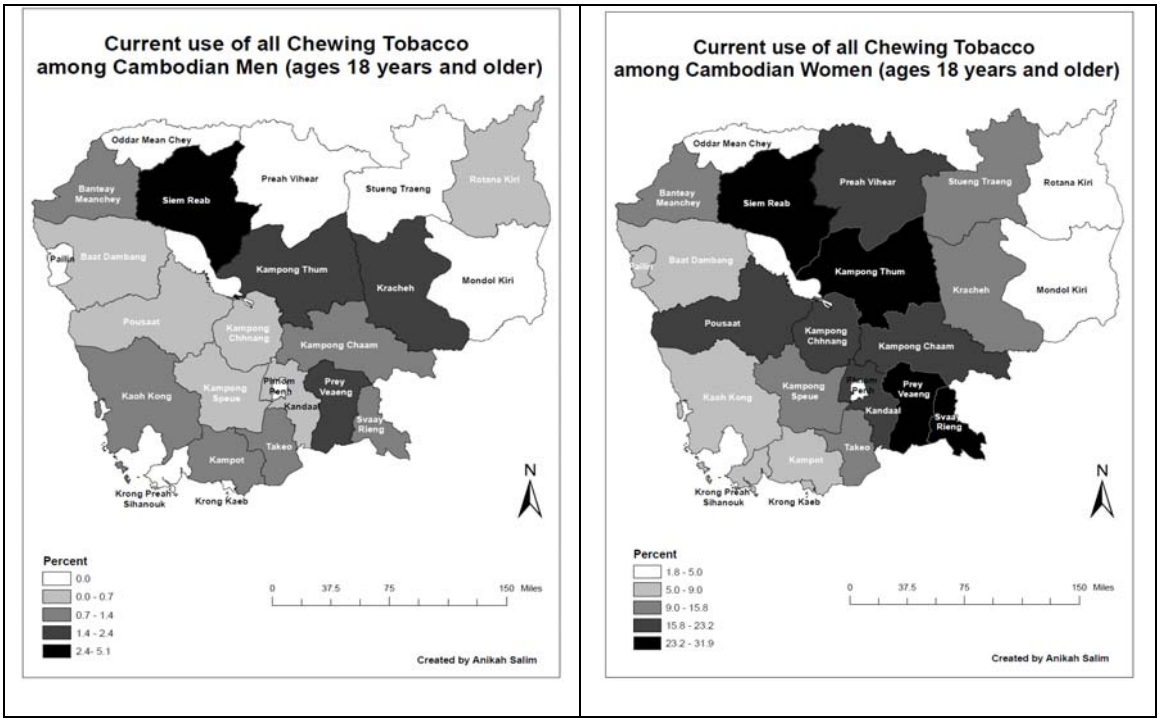

Figure 3.0 Chewing Tobacco Use by Provincial Region

The self reported use of chewing tobacco products has been reported and is illustrated by the above maps as a female dominated practice within Cambodian communities. Furthermore, it is also suggested by WHO, that chewing of tobacco products has been reported through Southeast Asia as predominately a women's trait and seldom seen as a common practice among men.

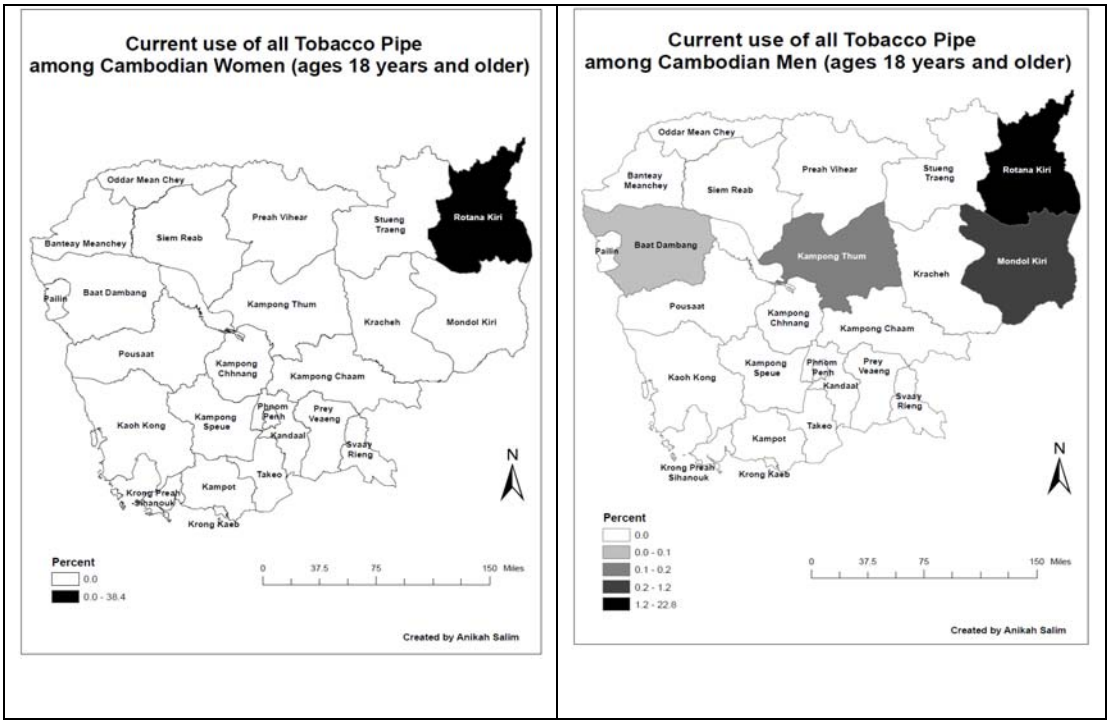

Figure 4.0 Tobacco Pipe Use by Provincial Region

Tobacco pipe smoking has been reported as a male practice and very seldom as a female practice. As illustrated in the about maps, there is a higher percentage in male consumption as compared to female use. This is complementary to the suggestion that women chew their tobacco while men smoke their tobacco in form of cigarettes, hand rolled cigarettes, and the tobacco pipe.

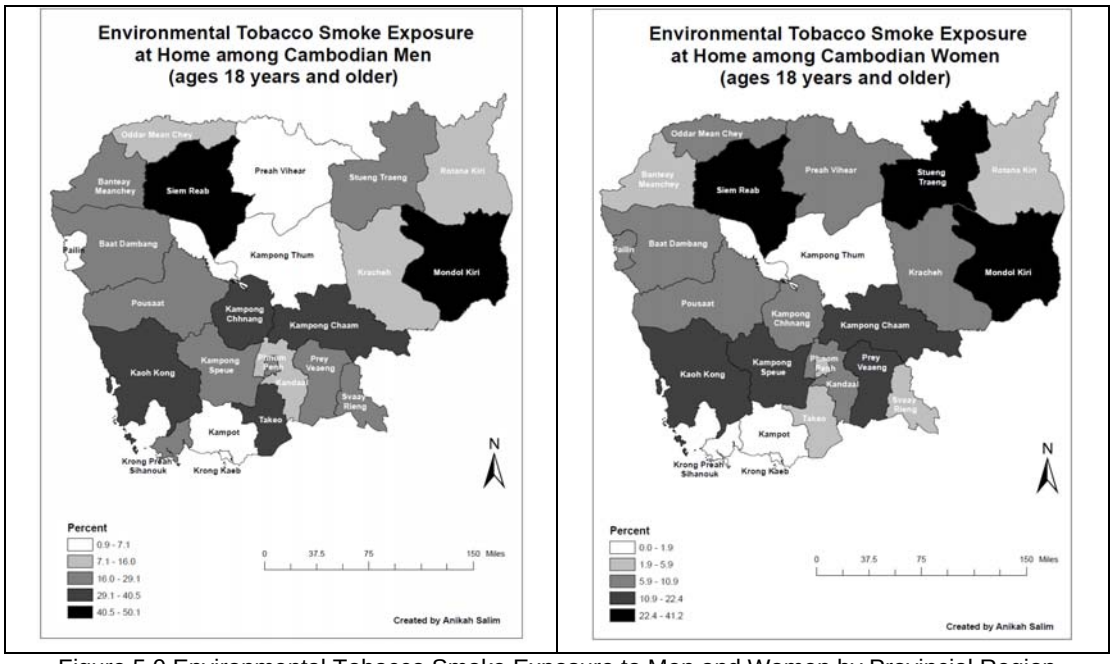

Figure 5.0 Environmental Tobacco Smoke Exposure to Men and Women by Provincial Region

Percentages of homes were men and women are exposed to passive or environmental tobacco smoke is presented (Figure 5.0). The provinces of Siem Reab and Mondal Kiri both report 20-50% of homes where both genders are exposed to

tobacco smoke for more than 15 minutes a day. Kampong Thum represents a region of the Cambodia that experiences the least amount of exposure to tobacco smoke (0 to 7.1%).

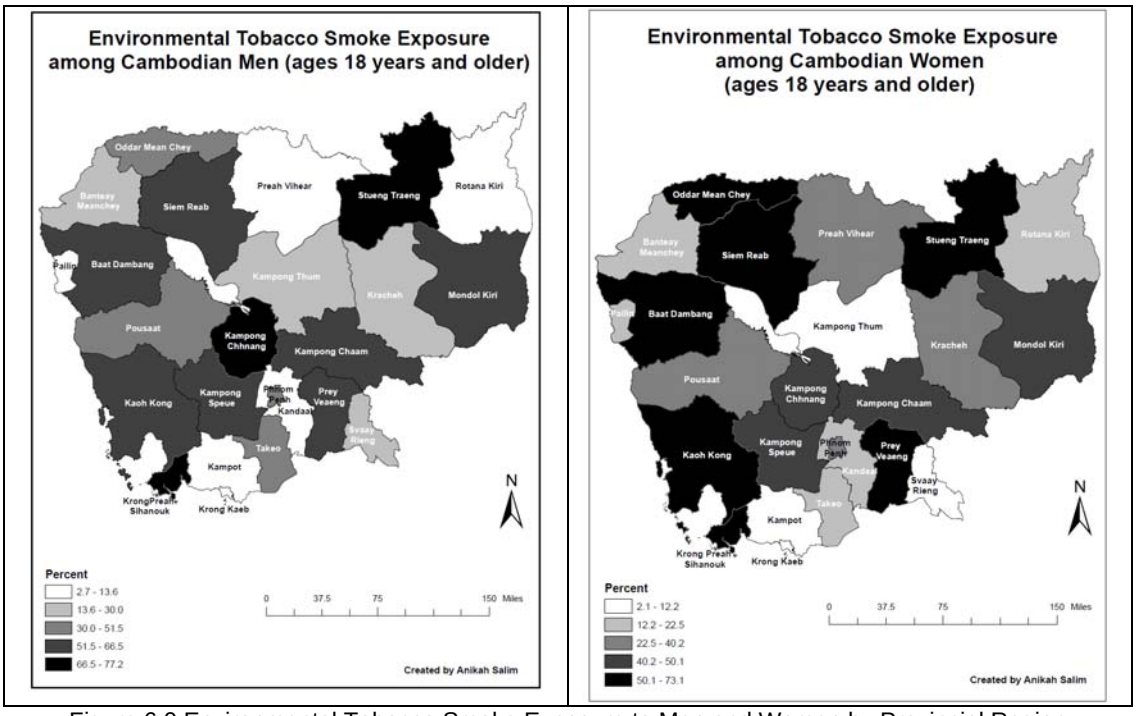

Figure 6.0 Environmental Tobacco Smoke Exposure to Men and Women by Provincial Region

As figure 6.0 indicates, there is exposure to environmental tobacco smoke among men and women as reported by respondents. Several provinces including Baat Dambang, Siem Reab, Stueng Traeng, Kampong Chhnang and Kaoh Kong report 40-70% of homes where both genders are exposed to tobacco smoke for more than 15 minutes a day. Kampong Thum represents a region of the Cambodia that experiences the least amount of exposure to tobacco smoke to women (0 to 7.1%) and Preah Vihear, Rotana Kirir, Kampong Thum represent regions were exposure to tobacco smoke is minimal (2% to 12%).

Discussion

Smoking Awareness and smoke free areas

The research study found that the public has a high level of awareness of the bad effects of smoking in causing many diseases such as harmful to the health of the fetus, Bronchitis, Lung Cancer, Heart Disease and Any illness. These results are similar to previous studies of Analysis of smoking Behavior Survey (ASBS) 2004. The majority of the public is also aware that smoking is addictive and has negative effects on the family economy. Over 63.21% of smokers want to quit smoking, but because of addiction they cannot quit by themselves.

The majority of study participants understand that smoking cause harm by exposure to second smoke. The majority 39.85% of study participants have faced the problem of second hand smoke. Additionally, a majority 48.98% of study participant's dislike having to face second hand smoke situations – especially non-smokers 37.40 % and surprisingly many smokers 62.6%. These results corroborate with the conclusion that there is strong support for the establishment of Smoke Free Areas 37.40% non-smokers and 62.60% smokers).

Health warnings and advertising

Health warnings in the form of advertising (television, radio, and printed media) and healthcare workers offer a direct way of communicating and informing users and potential users of tobacco products about the adverse health consequences associated with the consumption of tobacco products. Health warnings are regarding as effective and important by most study participants with slightly more then half the sample population reporting they saw television advertisement informing the public of the dangers of tobacco products. The low numbers of advertisements found in print or the radio also indicated this. Remarkably, most people also reported that healthcare professionals infrequently advised dangers associated with the consumption of tobacco products. The chief source that talked to them about quit was within their family.

Tobacco Control Issues

According to these study findings, the public strongly supports the government to pass tobacco control laws demonstrating they are aware and believes the negative consequences of smoking and want domestic tobacco legislation preventing the adverse health effects of tobacco use. The majority of participates reported that they believe that the use of tobacco products are very harmful to the consumer's health. However less than half of the participants only believe that passive or second hand smoke is harmful to others. Furthermore only slightly more than half the participants believe that smoking during pregnancy is harmful to the mother and her unborn baby.
A large majority of participants believe tobacco smoking should be banned from public places, a ban on cigarette advertisements, and the inclusion of packaging labels on cigarette packs notifying the consumer of the harmful effects of tobacco smoking. Furthermore, it was also reported that a large majority believe that a law should be passed to ban the sale of tobacco products to the youth. Note, that with all this public awareness of the harmful effects of tobacco there is a lack of tobacco control policies that protects and prevent the use of tobacco products in Cambodia.

Conclusion

Findings from this survey are reported across both sectors (urban and rural) with prevalence rates of tobacco use among men (2 times more frequently) as compared to women use. Similarly, in urban areas male consumption is four times as more likely as compared to women. In the rural sector, male consumption is twice the female rate.

It should be stressed that prevalence among men remains very high compared to other countries and this result cannot lead to the conclusion that total consumption has declined

One finding of potential significance is the consumption of chewing tobacco by female participants. This the subject of a report recently published in the Bulletin of the World Health Organization.

The provincial variation in the use of tobacco in its various forms and between both genders were found to exist in the following provinces the Oddar Mean Chey, Siem Reab, Preah Vihear, Sueng Traeng, Rotana Kirir, and the Mondol Kiri.

A majority of all survey participants agree with the hypothesis about harmful effects from tobacco used for both women and men. Since there is not a lack of health beliefs and awareness this may represent a disparity that national health strategists and policy makers may consider investigating. A majority of all survey participants also all agree and report attitudes about tobacco addiction. Almost all report that tobacco, alcohol, opium, gambling and other drugs possess harmful effects to their health and the health of their families and their nation.

The reported exposures to media anti-tobacco ads were also reported. There is a lack of printed anti-tobacco advertisements reported by survey participants. This is a potential avenue for future tobacco programming.

Recommendations

This survey presents striking information that will enable possible recommendations for future public health within the Cambodian Kingdom. These results must be explored to improve the tobacco control and protect the future health of the citizens of Cambodia. The following are recommend activities that may be considered for future programming.

- Surveillance activities should be adopted and mandated by public policy. This includes regular or time interval surveys in order to monitor and assess current consumption trends within the Cambodia Kingdom.

- Standardized methods in surveys, data analysis and reporting should be used so that all surveys can produce comparable results to monitor trends more accurately.

- Improve tobacco control research capacity by building human capacity and skills in tobacco control.

- Extend anti-tobacco campaigns through all means of media to reduce the appeal of tobacco use and make people aware that tobacco use is an important contributor to the development of disease and death and contributes to the loss of family income through spending on tobacco and treatment of tobacco–caused diseases. Such campaigns should aim to prevent an increase in women's tobacco use.

- Government should give serious consideration to all strategies aimed at reducing tobacco use, especially policies and regulations that became obligatory under the Framework Convention on Tobacco Control, such as:

    - Increasing taxes and prices on all tobacco products.
    - Banning all forms of tobacco advertising, promotion and sponsorship
    - Requiring tobacco packaging to include strong health warnings, tobacco ingredients and smoke emissions, and no misleading terms such as "light" and "mild".
    - Creation of smoke free areas in work and public places.

- The best instrument how to implement these policies would be to adopt the National Tobacco Control Law.

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Appendices

Table 9.0 Demographics

	All % (95% CI) N= 13,988	Women % (95% CI) N = 7,858	Men % (95% CI) N = 6,130
Age (mean) in Years	38.95 (38.52, 39.38)	39.20 (38.77, 39.63)	38.63 (38.06, 39.21)
Ethnicity			
Khmer	95.12 (92.73, 96.75)	95.14 (92.60, 96.84)	95.08 (92.84, 96.64)
Cham	03.08 (01.70, 05.53)	03.25 (01.76, 05.91)	02.86 (01.60, 05.06)
Other Local Groups	00.63 (00.30, 01.32)	00.58 (00.27, 01.23)	00.70 (00.34, 01.44)
Chinese, Lao, Thai	01.17 (00.71, 01.93)	01.03 (00.64, 01.67)	00.58 (00.27, 01.23)
Religion			
Buddhist	95.72 (93.39, 97.26)	95.72 (93.19, 97.33)	95.74 (93.59, 97.19)
Islamic	03.19 (01.79, 05.62)	03.32 (01.82, 05.96)	03.02 (01.74, 05.21)
Christian	00.35 (00.17, 00.71)	00.31 (00.14, 00.67)	00.41 (00.19, 00.86)
Other	00.68 (00.46, 01.02)	00.63 (00.42, 00.95)	00.75 (00.50, 01.12)
None	00.05 (00.01, 00.33)	00.02 (00.00, 00.15)	00.09 (00.01, 00.56)
Marital Status			
Never married	17.77 (16.12, 19.54)	16.34 (14.47, 18.40)	19.61 (17.75, 21.62)
Currently married	72.41 (70.59, 74.06)	68.57 (66.38, 70.67)	77.37 (75.39, 79.24)
Live together	02.15 (01.83, 02.53)	03.50 (02.96, 04.12)	00.42 (00.28, 00.62)
Widowed	06.95 (05.94, 08.11)	10.87 (09.39, 12.55)	01.88 (01.43, 02.47)
Divorced/Separated	00.72 (00.41, 01.28)	00.73 (00.41, 01.28)	00.72 (00.38, 01.35)
Education			
None – Class 6	74.27 (70.70, 77.54)	81.46 (78.35, 84.21)	64.95 (60.64, 69.03)
Class 7 – Class 12	23.26 (20.21, 26.63)	16.98 (14.43, 19.87)	31.41 (27.59, 35.51)
Secondary/Technical	01.39 (00.99, 01.96)	00.94 (00.54, 01.63)	01.99 (01.35, 02.91)
College/Graduate	01.07 (00.70, 01.65)	00.63 (00.36, 01.11)	01.65 (01.10, 02.47)
Monthly Income In Riels (in thousands)			
> 0 & <120	74.10 (71.99, 76.10)	85.16(83.08,87.02)	59.80 (57.08, 62.46)
> 120 & <240	12.56 (11.56, 13.63)	06.94(06.03,07.98)	19.82 (18.09, 21.67)
> 240 & <360	05.70 (04.59, 07.06)	03.34(02.38,04.68)	08.74 (07.23, 10.53)
> 360	07.64 (06.60, 08.84)	04.55(03.43,06.02)	11.64 (09.96, 13.55)
Occupation			
Does not work	16.76 (14.35, 19.48)	22.21 (19.26, 25.47)	09.71 (07.58, 12.37)
Professional	01.09 (00.79, 01.50)	00.39 (00.21, 00.74)	01.99 (01.49, 02.65)
Health Professional	00.41 (00.24, 00.67)	00.23 (00.11, 00.48)	00.64 (00.38, 01.05)
Nurse	00.03 (00.01, 00.09)	00.06 (00.02, 00.15)	-
Nurse Assistant	00.14 (00.07, 00.28)	00.07 (00.03, 00.19)	00.22 (00.09, 00.55)
Traditional Healer	0.03 (00.01, 00.08)	00.04 (00.01, 00.12)	00.03 (00.01, 00.12)
Technical	02.27 (01.60, 03.21)	01.75 (00.94, 03.22)	02.93 (02.34, 03.67)
Clerical	00.77 (00.54, 01.08)	00.27 (00.16, 00.45)	01.40 (00.90, 02.18)
Service Worker	00.33 (00.22, 00.51)	00.23 (00.14, 00.40)	00.46 (00.25, 00.83)
Protective Services	00.68 (00.42, 01.11)	00.04 (00.01, 00.11)	01.51 (00.92, 02.48)

Sales	10.72 (09.02, 12.69)	14.54 (12.22, 17.21)	05.77 (04.43, 07.50)
Tobacco	00.30 (00.06, 01.59)	00.27 (00.06, 01.25)	00.34 (00.05, 02.09)
Farming	55.52 (50.05, 60.87)	53.29 (48.59, 59.26)	57.53 (51.66, 63.19)
Labor	08.55 (07.00, 10.40)	03.73 (02.67, 05.19)	14.78 (12.04, 18.00)
Trades/Crafts	01.90 (01.49, 02.43)	02.18 (01.61, 02.95)	01.55 (01.11, 02.14)

Table 10.0 Demographics by Sector, Gender, and Province

	All % (95% CI) n = 13,988	Women % (95% CI) n = 7,858	Men % (95% CI) n = 6,130
Sector			
Urban	17.01 (12.10, 23.37)	17.43 (12.27, 24.17)	16.45 (11.81, 22.46)
Rural	82.99 (76.63, 87.90)	82.57 (75.83, 87.73)	83.55 (77.54, 88.19)
Province			
Banteay Mean Chey	05.15 (04.20, 06.31)	05.29 (04.27, 06.55)	04.97 (04.06, 06.08)
Bat Dambang	07.44 (06.04, 09.12)	07.20 (05.87, 08.81)	07.75 (06.19, 09.65)
Kampong Cham	13.58 (11.31, 16.23)	13.78 (11.25, 16.78)	13.33 (11.12, 15.90)
Kampong Chhang	03.64 (03.23, 04.09)	03.73 (03.32, 04.18)	03.52 (03.03, 04.09)
Kampong Speu	04.55 (04.08, 05.06)	04.68 (04.21, 05.19)	04.38 (03.82, 05.01)
Kampong Thum	04.41 (03.85, 05.04)	04.75 (04.16, 05.41)	03.96 (03.36, 04.66)
Kampot	01.96 (01.45, 02.65)	01.94 (01.44, 02.60)	01.99 (01.45, 02.73)
Kandal	08.47 (07.28, 09.83)	08.17 (07.07, 09.42)	08.85 (07.45, 10.49)
Kaoh Kong	01.50 (01.27, 01.77)	01.40 (01.19, 01.65)	01.63 (01.37, 01.93)
Kratie	02.90 (01.42, 03.07)	02.03 (01.37, 03.00)	02.18 (01.48, 03.20)
Mondul Kiri	00.29 (00.14, 00.63)	00.28 (00.13, 00.59)	00.32 (00.15, 00.67)
Phnom Penh	12.62 (07.54, 20.36)	11.93 (07.31, 18.89)	13.50 (07.84, 22.26)
Preah Vihear	01.27 (00.61, 02.63)	01.18 (00.56, 02.45)	01.38 (00.66, 02.88)
Prey Veaeng	07.23 (05.95, 08.75)	07.41 (05.95, 09.18)	07.00 (05.84, 08.36)
Pousat	02.97 (02.56, 03.45)	03.10 (02.65, 03.63)	02.80 (02.41, 03.26)
Rattanak Kiri	00.88 (00.66, 01.17)	00.80 (00.60, 01.07)	00.97 (00.73, 01.29)
Siem Reab	05.75 (04.55, 07.23)	05.81 (04.62, 07.29)	05.67 (04.42, 07.25)
KrongPreah Sihanouk	03.55 (01.07, 11.10)	03.81 (01.13, 12.09)	03.22 (01.00, 09.90)
Stueng Traeng	00.72 (00.27, 01.89)	00.77 (00.29, 02.04)	00.66 (00.25, 01.72)
Svay Rieng	03.84 (02.85, 05.16)	03.86 (02.94, 05.07)	03.81 (02.71, 05.34)
Takaev	06.50 (05.81, 07.27)	06.43 (05.71, 07.23)	06.59 (05.85, 07.42)
Oudor Mean Chey	01.15 (00.34, 03.84)	01.23 (00.36, 04.10)	01.06 (00.31, 03.52)
Krong Kaeb	00.11 (00.02, 00.79)	00.11 (00.02, 00.78)	00.11 (00.02, 00.79)
Krong Pailin	00.33 (00.05, 02.36)	00.32 (00.04, 02.24)	00.36 (00.05, 02.51)

Table 11.0 Tobacco use by Gender and Sector

	All% (95% CI) n = 13,988	Women% (95% CI) n = 7,858	Men% (95% CI) n = 6,130
All			
Users	32.94 (30.55, 35.42)	20.53 (18.51, 22.71)	48.98 (45.42, 52.55)
Non Users	67.06 (64.58, 69.45)	79.47 (77.29, 81.49)	51.02 (47.45, 54.58)
Urban			
Users	21.26 (18.57, 24.24)	09.30 (07.19, 11.94)	37.65 (32.54, 43.05)
Non Users	78.74 (75.76, 81.43)	90.70 (88.06, 92.81)	62.35 (56.95, 67.46)
Rural			
Users	35.33 (32.33, 38.45)	22.90 (20.46, 25.54)	48.79 (44.30, 53.30)
Non Users	64.67 (61.55, 67.67)	77.10 (74.46, 79.54)	51.21 (46.70, 55.70)

Table 12.0 Cigarette Use

	All % (95% CI) n = 13,988	Women % (95% CI) n = 7,858	Men % (95% CI) n = 6,130
Have you smoked at least 100 cigarettes in your lifetime?			
Yes	28.79 (27.33, 30.30)	04.77 (04.03, 05.64)	59.85 (56.57, 63.04)
No	71.21 (69.70, 72.67)	95.23 (94.36, 95.97)	40.15 (36.96, 43.43)
Have you smoked daily for at least six months during your life?			
Yes	27.92 (26.47, 29.42)	04.64 (03.90, 05.51)	58.02 (54.79, 61.18)
No	72.08 (70.58, 73.53)	95.36 (94.49, 96.10)	41.98 (38.82, 45.21)
Do you currently smoke cigarettes?			
Yes	22.96 (21.41, 24.60)	03.60 (03.00, 04.32)	47.99 (44.53, 51.48)
No	77.04 (75.40, 78.59)	96.40 (95.68, 97.00)	52.01 (48.52, 55.47)
What is your best estimate of the number of days you smoked during the past 30 days?			
1 day	00.32 (00.07, 01.45)	-	00.32 (00.07, 01.45)
2 to 5 days	01.23 (00.80, 01.89)	01.36 (00.53, 03.47)	01.23 (00.80, 01.89)
6 to 9 days	00.70 (00.41, 01.19)	01.69 (00.55, 05.11)	00.70 (00.41, 01.19)
10 to 19 days	02.60 (02.02, 03.34)	03.36 (01.82, 06.12)	02.60 (02.02, 03.34)
20 to 29 days	06.44 (05.26, 07.86)	10.38 (06.38, 16.45)	06.44 (05.26, 07.86)
All 30 days	88.61 (86.95, 90.08)	82.82 (75.57, 88.25)	88.61 (86.95, 90.08)
Don't know/refuse	00.11 (00.03, 00.32)	00.39 (00.08, 01.85)	00.11 (00.03, 00.32)
On the day or days you smoked cigarettes during the past 30 days, how many cigarettes did you smoke per day, on average?			
< 1 cigarette per day	02.10 (01.37, 03.21)	01.72 (01.01, 02.92)	05.97 (03.69, 09.52)
1 cigarette per day	04.26 (03.32, 05.44)	03.69 (02.81, 04.82)	10.14 (06.84, 14.78)
2 to 5 cigarettes per day	15.95 (14.05, 18.04)	14.60 (12.75, 16.67)	29.80 (23.84, 36.54)
6 to 15 cigarettes per day	37.48 (34.86. 40.18)	37.95 (35.27, 40.69)	32.72 (26.04, 40.18)
16 to 25 cigarettes per day	32.74 (30.07, 35.54)	34.56 (31.71, 37.52)	14.04 (10.02, 19.31)
26 to 35 cigarettes per day	04.82 (03.83, 06.05)	04.64 (03.62, 05.93)	06.68 (03.47, 12.45)
> 35 cigarettes per day	02.55 (01.99, 03.26)	02.76 (02.15, 03.54)	00.36 (00.11, 01.15)
Don't know/refuse	00.10 (00.02, 00.47)	00.08 (00.01, 00.58)	00.30 (00.04, 02.09)
On the day or days you smoked a cigarette in the past 30 days; did you smoke a "Hand Rolled by own-self" cigarette?			
Yes	29.79 (26.83, 32.93)	28.50 (25.61, 31.57)	43.09 (36.17, 50.28)
No	70.10 (66.94, 73.08)	71.38 (68.28, 74.29)	56.91 (49.72, 63.83)

Don’t know/refuse	00.11 (00.03, 00.39)	00.12 (00.04, 00.43)	-
On the day or days you smoked a cigarette in the past 30 days; did you smoke a commercial (i.e. packaged) brand?			
Yes	78.01 (75.38, 80.42)	79.38 (76.84, 81.71)	63.85 (56.54, 70.58)
No	21.96 (19.54, 24.58)	20.58 (18.25, 23.12)	36.15 (29.42, 43.46)
Don’t know/refuse	00.04 (00.01, 00.20)	00.04 (00.01, 00.22)	-
On the day or days you smoked a commercial brand (i.e. packaged) in the past 30 days what TYPE of cigarette did you use?			
Lights	72.10 (67.62, 76.18)	72.39 (68.03, 76.35)	68.48 (57.25, 77.90)
Full	26.57 (22.58, 31.00)	26.28 (22.41, 30.55)	30.34 (20.99, 41.65)
Menthol	00.45 (00.13, 01.53)	00.48 (00.14, 01.65)	-
Don’t know/refuse	00.87 (00.50, 01.51)	00.85 (00.48, 01.51)	01.18 (00.37, 03.75)
What brand of commercial (i.e. packaged) cigarette do you most often smoke?			
Angkor	01.13 (00.65, 01.95)	01.64 (00.51, 05.13)	01.09 (00.60, 01.97)
ARA	12.76 (10.21, 15.82)	05.19 (02.57, 10.18)	13.35 (10.65, 16.60)
Haknumam	00.44 (00.24, 00.82)	-	00.48 (00.26, 00.88)
Bareycheat	00.78 (00.26, 02.30)	00.45 (00.06, 03.13)	00.80 (00.26, 02.49)
Phnom Meas	00.25 (00.07, 00.92)	-	00.27 (00.07, 00.99)
Wat Phnom	00.04 (00.01, 00.30)	-	00.04 (00.01, 00.32)
Victory	00.14 (00.04, 00.46)	-	00.15 (00.05, 00.49)
Tonle Sap	07.20 (05.75, 08.99)	09.94 (05.73, 16.69)	06.99 (05.57, 08.74)
Elephant	03.54 (02.40, 05.19)	07.47 (02.45, 20.59)	03.23 (02.24, 04.64)
Luxury	15.76 (13.28, 18.61)	12.05 (07.55, 18.70)	16.05 (13.53, 18.95)
Romdoh	00.05 (00.01, 00.33)	-	00.05 (00.01, 00.35)
Bayon	00.03 (00.00, 00.22)	-	00.03 (00.00, 00.24)
Pich	00.16 (00.07, 00.40)	00.43 (00.11, 01.73)	00.14 (00.06, 00.34)
Prasatmeas	00.03 (00.00, 00.22)	-	00.03 (00.00, 00.24)
Olympic	00.54 (00.30, 00.97)	00.58 (00.08, 03.99)	00.53 (00.30, 00.95)
OKI	07.86 (06.10, 10.08)	07.94 (03.71, 16.19)	07.86 (06.17, 09.96)
Century	00.04 (00.01, 00.31)	-	00.05 (00.01, 00.34)
Crown	08.56 (06.61, 11.03)	09.99 (05.58, 17.24)	08.45 (06.52, 10.90)
Liberty	06.14 (04.52, 08.30)	07.13 (03.69, 13.33)	06.06 (04.50, 08.12)
Cambo	10.92 (08.67, 13.67)	12.74 (07.86, 19.99)	10.78 (08.53, 13.53)
Domestic product (1)	10.57 (08.17, 13.57)	13.52 (07.61, 22.87)	10.34 (08.01, 13.25)
Domestic product (2)	00.73 (00.34, 01.55)	-	00.79 (00.37, 01.68)
Domestic product (3)	00.35 (00.13, 00.94)	-	00.38 (00.14, 01.02)
Fine	-	-	-
555	00.50 (00.10, 02.57)	-	00.54 (00.10, 02.76)
Nise	00.05 (00.01, 00.36)	-	00.05 (00.01, 00.39)
Hero	-	-	-
Naga	00.34 (00.06, 01.99)	-	00.37 (00.06, 02.15)
Mild Seven	-	-	-
Marlboro	-	-	-
Gold Seal	00.12 (00.03, 00.49)	-	00.13 (00.03, 00.53)
Fortune	01.15 (00.29, 04.49)	-	01.24 (00.31, 04.84)
5A	03.05 (02.16, 04.29)	02.13 (00.30, 13.60)	03.12 (02.19, 04.44)
Marchedes	00.11 (00.03, 00.48)	00.35 (00.05, 02.47)	00.09 (00.02, 00.37)

Alain Delon	-	-	-
London	-	-	-
Royal	-	-	-
L&M	00.43 (00.11, 01.60)	00.36 (00.05, 02.57)	00.43 (00.11, 01.71)
West	-	-	-
Eagle	-	-	-
Other Cigarettes	06.21 (04.62, 08.30)	08.10 (04.60, 13.88)	06.06 (04.52, 08.09)
How do you purchase commercial cigarettes?			
As single cigarettes	11.85 (09.61, 14.51)	11.48 (09.40, 13.94)	16.59 (10.10, 26.03)
In a pack	76.38 (72.47, 79.89)	76.86 (72.96, 80.35)	70.22 (61.02, 78.03)
Both	11.09 (08.83, 13.84)	11.08 (08.74, 13.95)	11.23 (06.91, 17.75)
Don't know/refuse	00.68 (00.24, 01.93)	00.58 (00.18, 01.88)	01.96 (00.41, 08.78)
What is the cost (in riels) of each commercial (i.e. packaged) cigarette you smoked?			
In riels (mean)	34.67 (29.28, 40.06)	26.01(21.86, 30.16)	35.35 (29.66, 41.04)
How much did you spend on cigarettes in the past week?			
In riels (mean)	2773.56 (2472.58, 3074.53)	1475.05 (1197.06, 1753.05)	2899.62 (2576.64, 3222.61)
Amount of the TOTAL purchased			
In riels (mean)	2727.77 (2426.78, 3028.77)	1459.13 (1179.26, 1739.00)	2850.94 (2528.10, 3173.77)
Amount of the TOTAL "taken in trade"			
In riels (mean)	09.78 (02.01, 17.55)	04.99 (-02.63, 12.61)	10.25 (01.81, 18.69)
Amount of the TOTAL from gifts			
In riels (mean)	36.00 (22.22, 49.78)	10.93 (-00.60, 22.45)	38.44 (23.86, 53.01)
Where did you obtain the cigarettes?			
Purchased at store	97.30 (96.16, 98.11)	94.79 (90.68, 97.15)	97.54 (96.44, 98.31)
"in kind" trade	00.61 (00.31,01.20)	00.88 (00.13, 05.88)	00.58 (00.31, 01.08)
I grow my own tobacco	01.45 (00.87, 02.41)	03.71 (01.92, 07.02)	01.23 (00.72, 02.12)
Gift	00.51 (00.19, 01.38)	-	00.56 (00.20, 01.51)
Don't know/refuse	00.13 (00.06, 00.31)	00.62 (00.13, 02.80)	00.09 (00.03, 00.23)

Table 13.0 Chewing tobacco use

	All % (95% CI) n = 13,988	Women % (95% CI) n = 7,858	Men % (95% CI) n = 6,130
Have you chewed tobacco daily for at least six months during your life?			
Yes	10.14 (09.04, 11.35)	17.17 (15.38, 19.13)	01.05 (00.79, 01.39)
No	89.86 (88.65, 90.96)	82.83 (80.87, 84.62)	98.95 (98.61, 99.21)
Do you currently chew tobacco?			
Yes	10.04 (08.94, 11.25)	17.02 (15.23, 18.97)	01.02 (00.77, 01.36)
No	89.96 (88.75, 91.06)	82.98 (81.03, 84.77)	98.98 (98.64, 99.23)
What is your best estimate of the number of days you chewed tobacco during the past 30 days?			
1 day	00.13 (00.03, 00.57)	-	00.14 (00.03, 00.60)
2 to 5 days	01.04 (00.58, 01.88)	01.79 (00.25, 11.76)	01.01 (00.54, 01.88)
6 to 9 days	01.17 (00.68, 02.02)	02.04 (00.28, 13.39)	01.13 (00.64, 01.99)
10 to 19 days	04.75 (03.50, 06.43)	06.20 (01.96, 17.89)	04.69 (03.41, 06.42)
20 to 29 days	08.86 (07.05, 11.08)	10.71 (04.22, 24.63)	08.78 (06.93, 11.06)
All 30 days	83.76 (81.20, 86.20)	79.26 (64.71, 88.85)	83.96 (81.34, 86.28)

Don't know/refuse	00.28 (00.07, 01.13)	-	00.29 (00.07, 01.18)
During the past 30 days, on how many days did you chew tobacco?			
1 to 10 days	03.60 (01.67, 08.88)	03.35 (01.55, 09.37)	06.20 (00.86, 40.28)
11 to 20 days	07.38 (04.26, 14.17)	05.86 (03.20, 14.20)	10.21 (02.82, 33.75)
21 to 30 days	89.98 (84.72, 98.96)	90.28 (84.90, 99.27)	83.59 (65.31, 116.2)
Don't know/refuse	00.28 (00.07, 01.13)	00.29 (00.07, 01.18)	00.29 (00.07, 01.18)
On the day or days you chewed tobacco during the past 30 days, how many times per day did you chew?			
1 to 10 times	98.97 (83.75, 117.6)	98.92 (83.45, 117.9)	100.0 (50.24, 207.75)
11 to 20 times	00.41 (00.07, 02.58)	00.44 (00.08, 02.69)	-
21 to 30 times	00.58 (00.22, 01.84)	00.10 (00.22, 01.54)	-
31 to 40 times	00.04 (00.01, 00.31)	00.05 (00.01, 00.33)	-
On the day or days you chewed tobacco during the past 30 days, how much tobacco did you chew each time? Picture card 2 (Amount of Chewing Tobacco).			
More than shown	02.70 (01.59, 04.54)	-	02.83 (01.67, 04.74)
About this amount	07.70 (06.13, 09.62)	08.81 (03.85, 18.93)	07.65 (06.05, 09.63)
Less than shown	89.60 (87.02, 91.72)	91.19 (81.07, 96.15)	89.53 (86.85, 91.71)
How much did you spend TOTAL on chewing tobacco in the past week?			
Price in riels (mean)	573.90 (526.9, 621.1)	516.10 (414.3, 617.9)	576.70 (527.8, 625.5)
Amount of the TOTAL purchased			
Price in riels (mean)	550.90 (505.3, 596.6)	484.17 (379.9, 588.5)	554.10 (506.9, 601.2)
Amount of the TOTAL "taken in trade"			
Price in riels (mean)	11.44 (00.73, 22.14)	12.34 (-11.53, 36.21)	11.40 (00.43, 22.36)
Amount of the TOTAL from gifts			
Price in riels (mean)	11.60 (06.41, 16.80)	19.58 (-00.26, 39.43)	11.23 (06.12, 16.34)
Where did you obtain the chewing tobacco?			
Purchased at store	95.39 (93.03, 96.97)	94.68 (82.39, 98.55)	95.42 (93.12, 96.98)
"In kind" trade	00.75 (00.37, 01.49)	00.37 (00.05, 02.64)	00.77 (00.38, 01.55)
"I grow the tobacco I chew"	01.77 (00.85, 03.65)	02.37 (00.33, 15.16)	01.74 (00.86, 03.51)
As a gift	01.90 (01.40, 03.43)	02.57 (00.36, 16.11)	01.87 (01.00, 03.46)
Don't know/refuse	00.19 (00.06, 00.59)	-	00.20 (00.07, 00.62)

Table 14.0 Tobacco Pipe Use

	All % (95% CI) n = 13,988	Women % (95% CI) n = 7,858	Men % (95% CI) n = 6,130
Have you smoked a tobacco pipe daily for at least six months during your life?			
Yes	00.42 (00.25, 00.71)	00.31 (00.15, 00.64)	00.56 (00.34, 00.93)
No	99.58 (99.29, 99.75)	99.69 (99.36, 99.85)	99.44 (99.07, 99.66)
Do you currently smoke a tobacco pipe?			
Yes	00.28 (00.14, 00.57)	00.31 (00.15, 00.63)	00.24 (00.11, 00.53)
No	99.72 (99.43, 99.86)	99.69 (99.37, 99.85)	99.76 (99.47, 99.89)
What is your best estimate of the number of days you smoked a tobacco pipe during the past 30 days?			
1 day	-	-	-
2 to 5 days	-	-	-
6 to 9 days	-	-	-
10 to 19 days	00.59 (00.08, 04.15)	00.94 (00.13, 06.61)	-
20 to 29 days	02.17 (00.40, 10.93)	00.90 (00.11, 06.93)	04.23 (00.53, 26.92)

All 30 days	97.25 (89.24, 99.34)	98.15 (92.33, 99.58)	95.77 (73.08, 99.47)
Don't know/refuse	-	-	-
During the past 30 days, on how many days did you smoke a tobacco pipe?			
10 days	00.59 (00.08, 04.15)	00.94 (00.13, 06.61)	-
20 days	00.56 (00.07, 04.40)	00.90 (00.11, 06.93)	-
29 days	01.61 (00.20, 11.74)	-	04.23 (00.53, 26.92)
30 days	97.25 (89.24, 99.34)	98.15 (92.33, 99.58)	95.77 (73.08, 99.47)
On the day or days you smoked a tobacco pipe during the past 30 days, how many times did you fill the tobacco pipe each day?			
1 time	00.59 (00.08, 04.15)	-	-
2 to 5 times	03.99 (00.65, 24.13)	05.70 (00.70, 38.32)	02.94 (00.41, 20.52)
6 to 9 times	11.11 (03.00, 40.95)	07.61 (01.30, 40.07)	13.26 (03.67, 48.47)
10 to 20 times	83.06 (53.70, 146.8)	85.01 (52.79, 154.2)	81.82 (53.56, 149.8)
21 to 30 times	01.26 (00.18, 08.80)	01.66 (00.20, 12.33)	01.02 (00.15, 06.61)
On the day or days you smoked a tobacco pipe during the past 30 days, list the type of tobacco pipe you smoked			
Water pipe	01.39 (00.17, 10.26)	-	03.65 (00.45, 23.97)
Other tobacco pipe	98.61 (89.74, 99.83)	-	96.35 (76.03, 99.55)
How much did you spend TOTAL on pipe tobacco in the past week?			
Amount of the TOTAL purchased price in Riels (mean)	855.86 (599.33, 1112.38)	815.73 (589.33, 1042.13)	921.16 (557.82, 1284.51)
Amount of the TOTAL "taken in trade" Enter price in Riels (mean)	855.86 (599.23, 1112.38)	815.73 (589.33, 1042.13)	921.16 (557.82, 1284.51)
Amount of the TOTAL "taken in trade" Enter price in Riels (mean)	-	-	-
Amount of the TOTAL from gifts. Pice in Riels (mean)	-	-	-
Where did you obtain the tobacco for your pipe?			
Purchased at store	82.60 (53.14, 95.21)	79.58 (47.01, 94.48)	87.51 (62.44, 96.72)
'In kind' trade	-	-	-
I grow tobacco for my pipe	17.40 (04.79, 46.86)	20.42 (05.52, 52.99)	12.49 (03.28, 37.56)
Gift	-	-	-
Don't know/refuse	-	-	-

Table 15.0 Tobacco Use by Province

	All Tobacco Users % (95% CI)	All Cigarette Users % (95% CI)	All Chewing Tobacco Users % (95% CI)	All Pipe Smoke Users % (95% CI)
Provinces				
Banteay Mean Chey	29.01 (23.64, 35.04)	21.39 (17.67, 25.65)	07.75 (05.56, 10.70)	-
Bat Dambang	25.02 (20.09, 30.69)	20.47 (16.89, 24.58)	04.61 (02.57, 08.13)	00.06 (00.01, 00.45)
Kampong Cham	40.11 (35.35, 45.07)	26.95 (23.72, 30.43)	13.75 (10.98, 17.11)	-

Kampong Chhang	39.49 (35.28, 43.86)	27.53 (23.95, 31.44)	12.37 (09.61, 15.77)	-
Kampong Speu	32.26 (27.89, 36.95)	23.35 (20.22, 26.80)	09.27 (06.83, 12.47)	-
Kampong Thum	40.23 (35.84, 44.78)	23.35 (20.43, 26.54)	16.92 (14.60, 19.52)	00.09 (00.01, 00.64)
Kampot	31.24 (28.06, 34.60)	26.66 (23.80, 29.73)	05.53 (03.55, 08.51)	-
Kandal	34.68 (30.24, 39.41)	22.92 (19.83, 26.34)	12.06 (09.38, 15.39)	-
Kaoh Kong	34.49 (28.52, 40.99)	30.12 (24.28, 36.68)	05.02 (03.82, 06.57)	-
Kratie	36.31 (31.22, 41.73)	30.76 (26.17, 35.76)	06.65 (04.05, 10.73)	-
Mondul Kiri	67.12 (58.20, 74.96)	63.89 (55.30, 71.67)	02.67 (01.20, 05.82)	00.56 (00.09,03.28)
Phnom Penh	09.55 (05.94, 15.00)	08.34 (05.08, 13.38)	01.21 (00.51, 02.84)	-
Preah Vihear	50.66 (39.16, 62.09)	39.98 (29.13, 51.91)	11.20 (07.73, 15.95)	-
Prey Veaeng	40.20 (35.63, 44.95)	23.92 (20.80, 27.35)	16.51 (12.39, 21.66)	-
Pousat	34.45 (28.95, 40.41)	22.28 (18.95, 26.00)	12.36 (09.26, 16.30)	-
Rattanak Kiri	64.54 (48.71, 77.72)	32.67 (23.61, 43.23)	01.04 (00.34, 03.14)	30.84 (15.49, 52.03)
Siem Reab	51.53 (45.64, 57.37)	34.22 (31.06, 37.52)	18.36 (13.82, 23.98)	-
KrongPreah Sihanouk	18.95 (14.66, 24.13)	15.45 (11.19, 20.94)	03.50 (02.68, 04.55)	-
Stueng Traeng	58.68 (32.01, 81.08)	55.36 (31.01, 77.38)	07.02 (02.08, 21.12)	-
Svay Rieng	40.29 (32.32, 48.82)	21.69 (18.17, 25.68)	18.70 (13.87, 24.73)	-
Takaev	30.22 (26.31, 34.44)	21.21 (19.02, 23.58)	09.28 (06.64, 12.81)	-
Oudor Mean Chey	31.50 (29.49, 33.57)	29.22 (26.45, 32.16)	02.28 (00.35, 13.53)	-
Krong Kaeb	24.00 (24.00, 24.00)	20.00 (20.00, 20.00)	04.00 (04.00, 04.00)	-
Krong Pailin	39.29 (39.29, 39.29)	35.71 (35.71, 35.71)	03.57 (03.57, 03.57)	-

Provinces	All Users N=13,988				All Women N=7,858				All Men N=6,130			
	All Tobacco Users % (95% CI)	All Cigarette Tobacco Users % (95% CI)	All Chewing Tobacco Users % (95% CI)	All Pipe Tobacco Users % (95% CI)	All Women Tobacco Users % (95% CI)	All Women Cigarette Tobacco Users % (95% CI)	All Women Chewing Tobacco Users % (95% CI)	All Women Pipe Tobacco Users % (95% CI)	All Men Tobacco Users % (95% CI)	All Men Cigarette Users % (95% CI)	All Men Chewing Tobacco Users % (95% CI)	All Men Pipe Tobacco Users % (95% CI)
Banteay Mean Chey	29.01 (23.64,35.04)	21.39 (17.67,25.65)	07.75 (05.56,10.70)	-	16.19 (11.96, 21.55)	03.62 (01.97,06.59)	12.79 (09.02, 17.81)	-	46.65 (39.10,54.36)	45.84 (38.13, 53.75)	00.81 (00.21, 03.07)	-
Bat Dambang	25.02 (20.09, 30.69)	20.47 (16.89,24.58)	04.61 (02.57, 08.13)	00.06 (00.01,00.45)	11.16 (06.77, 17.85)	03.11 (01.78, 05.38)	08.05 (04.42, 14.23)	-	41.67 (34.99, 48.67)	41.32 (34.69, 48.29)	00.48 (00.12, 01.89)	00.13 (00.02, 00.99)
Kampong Cham	40.11 (35.35, 45.07)	26.95 (23.72,30.43)	13.75 (10.98, 17.11)	-	26.42 (21.89, 31.51)	03.98 (02.56, 06.14)	23.16 (18.43, 28.66)	-	58.42 (52.47, 64.14)	57.64 (52.10, 63.00)	01.20 (00.50, 02.89)	-
Kampong Chhang	39.49 (35.28, 43.86)	27.53 (23.95,31.44)	12.37 (09.61, 15.77)	-	24.89 (19.83, 30.74)	04.46 (02.74, 07.19)	21.13 (16.32, 26.91)	-	59.49 (53.22, 65.45)	59.12 (52.65, 65.29)	00.36 (00.05, 02.56)	-
Kampong Speu	32.26 (27.89, 36.95)	23.35 (20.22,26.80)	09.27 (06.83, 12.47)	-	18.36 (14.32, 23.23)	03.21 (01.49, 06.74)	15.78 (11.86, 20.69)	-	51.45 (43.86, 58.97)	51.17 (43.70, 58.85)	00.29 (00.04, 02.06)	-
Kampong Thum	40.23 (35.84, 44.78)	23.35 (20.43,26.54)	16.92 (14.60, 19.52)	00.09 (00.01,00.64)	26.92 (23.54, 30.60)	00.62 (00.14, 02.65)	26.30 (23.09, 29.79)	-	60.85 (51.93, 69.09)	58.57 (49.71, 66.91)	02.38 (01.15, 04.84)	00.23 (00.03, 01.62)
Kampot	31.24 (28.06, 34.60)	26.66 (23.80,29.73)	05.53 (03.55, 08.51)	-	13.28 (09.43, 18.38)	05.07 (02.54, 09.87)	08.98 (05.70, 13.87)	-	53.87 (49.26, 58.41)	53.87 (49.26, 58.41)	01.18 (00.29, 04.66)	-
Kanda	34.68 (30.24, 39.41)	22.92 (19.83,26.34)	12.06 (09.38, 15.39)	-	24.09 (18.91, 30.15)	02.71 (01.58, 04.61)	21.93 (16.85, 28.02)	-	47.33 (41.18, 53.55)	47.03 (40.84, 53.31)	00.30 (00.04, 02.02)	-
Kaoh Kong	34.49 (28.52, 40.99)	30.12 (24.28,36.68)	05.02 (03.82, 06.57)	-	19.05 (13.77, 25.76)	11.53 (06.65, 19.27)	08.44 (06.28, 11.27)	-	51.71 (42.64, 60.66)	50.85 (41.85, 59.79)	01.20 (00.41, 03.44)	-
Kratie	36.31 (31.22, 41.73)	30.76 (26.17,35.76)	06.65 (04.05, 10.73)	-	16.72 (11.02, 24.55)	06.55 (02.46, 16.28)	10.81 (07.04, 16.26)	-	59.87 (51.44, 67.75)	59.87 (51.44, 67.75)	01.64 (00.44, 05.92)	-
Mondul Kiri	67.12 (58.20, 74.96)	63.89 (55.30,71.67)	02.67 (01.20, 05.82)	00.56 (00.09,03.28)	56.31 (43.81, 68.06)	51.29 (39.24, 63.19)	05.02 (02.29, 10.68)	-	79.40 (68.79, 87.08)	78.20 (68.24, 85.69)	-	01.21 (00.20, 06.94)
Phnom Penh	09.55 (05.94, 15.00)	08.34 (05.08,13.38)	01.21 (00.51, 02.84)	-	02.98 (01.25, 06.91)	00.70 (00.19, 02.52)	02.27 (00.99, 05.14)	-	17.06 (10.12, 27.31)	17.06 (10.12, 27.31)	-	-
Preah Vihear	50.66 (39.16, 62.09)	39.98 (29.13,51.91)	11.20 (07.73, 15.95)	-	30.22 (20.18, 42.59)	09.86 (04.22, 21.37)	21.34 (14.44, 30.37)	-	73.22 (52.93, 86.92)	73.22 (52.93, 86.92)	-	-
Prey Veaeng	40.20 (35.63, 44.95)	23.92 (20.80,27.35)	16.51 (12.39, 21.66)	-	28.78 (21.88, 36.83)	01.45 (00.52, 03.92)	27.33 (21.06, 34.65)	-	55.83 (49.29, 62.18)	54.68 (48.52, 60.71)	01.70 (00.69, 04.12)	-
Pousat	34.45 (28.95, 40.41)	22.28 (18.95,26.00)	12.36 (09.26, 16.30)	-	26.31 (20.90, 32.55)	06.11 (04.15, 08.92)	20.50 (15.24, 27.00)	-	46.12 (38.08, 54.37)	45.42 (37.52, 52.56)	00.70 (00.18, 02.74)	-
Rattanak Kiri	64.54 (48.71, 77.72)	32.67 (23.61,43.23)	01.04 (00.34, 03.14)	30.84 (15.49,52.03)	55.84 (36.97, 73.16)	15.67 (08.42, 27.30)	01.81 (00.63, 05.14)	38.35 (19.60,61.36)	73.84 (61.22, 83.47)	50.83 (38.55, 63.01)	00.20 (00.03, 01.52)	22.81 (10.10,43.73)
Siem Reab	51.53 (45.64, 57.37)	34.22 (31.06,37.52)	18.36 (13.82, 23.98)	-	35.41 (28.39, 43.11)	08.36 (04.82, 14.09)	28.39 (20.81, 37.42)	-	72.87 (65.92, 78.82)	68.46 (62.13, 74.18)	05.09 (03.40, 07.55)	-
KrongPreah Sihanouk	18.95 (14.66, 24.13)	15.45 (11.19,20.94)	03.50 (02.68, 04.55)	-	06.45 (05.83, 07.14)	00.66 (00.07, 06.00)	05.79 (04.49, 07.44)	-	38.03 (30.85, 45.77)	38.03 (30.85, 45.77)	-	-
Stueng Traeng	58.68 (32.01, 81.08)	55.36 (31.01,77.38)	07.02 (02.08, 21.12)	-	41.54 (19.14,68.08)	36.02 (15.92, 62.60)	11.66 (03.09, 35.31)	-	84.63 (50.15, 96.79)	84.63 (50.15, 96.79)	-	-
Svay Rieng	40.29 (32.32, 48.82)	21.69 (18.17,25.68)	18.70 (13.87, 24.73)	-	32.52 (25.01, 41.04)	00.63 (00.19, 02.12)	31.88 (24.43, 40.40)	-	50.48 (40.55, 60.38)	49.29 (40.19, 58.43)	01.43 (00.47, 04.23)	-
Takaev	30.22 (26.31, 34.44)	21.21 (19.02,23.58)	09.28 (06.64, 12.81)	-	16.43 (11.84, 22.36)	00.69 (00.23, 02.05)	15.74 (11.21, 21.65)	-	47.62 (42.54, 52.75)	47.09 (42.06, 52.17)	01.12 (00.45, 02.78)	-
Oudor Mean Chey	31.50 (29.49, 33.57)	29.22 (26.45,32.16)	02.28 (00.35, 13.53)	-	03.79 (00.58, 21.04)	-	03.79 (00.58, 21.04)	-	73.23 (68.88, 77.17)	73.23 (68.88, 77.17)	-	-
Krong Kaeb	24.00 (24.00, 24.00)	20.00 (20.00,20.00)	04.00 (04.00, 04.00)	-	21.43 (21.43, 21.43)	14.29 (14.29, 14.29)	07.14 (07.14, 07.14)	-	27.27 (27.27, 27.27)	27.27 (27.27, 27.27)	-	-
Krong Pailin	39.29 (39.29, 39.29)	35.71 (35.71,35.71)	03.57 (03.57, 03.57)	-	20.00 (20.00, 20.00)	13.33 (13.33, 13.33)	06.67 (06.67, 06.67)	-	61.54 (61.54, 61.54)	61.54 (61.54, 61.54)	-	-