



International Tobacco Control China Survey

Wave 1 (2006) ITC China Technical Report*

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Preface

The International Tobacco Control (ITC) Survey is a longitudinal survey of smoking behaviour among adults in China.

The broad objective of this project is to evaluate and understand the psychosocial and behavioural effects of national-level tobacco control policies of the Framework Convention on Tobacco Control (FCTC), the first-ever international treaty on health, which was adopted by 192 countries of the World Health Organization (WHO) and which has already have been ratified by 154 countries. In addition to the quasi-experimental evaluation of change in policies, the cohort design of the ITC China Survey allows us to understand naturally occurring changes in smoking behaviour and their association over time with policies.

1. Introduction

Background

The International Tobacco Control (ITC) Policy Evaluation Project is a prospective cohort survey designed to evaluate national level tobacco control policies. The ITC Project is unique in that it is being administered in 14 different countries: the United States, Canada, Australia, the United Kingdom, Ireland, France, Germany, South Korea, Mexico, Uruguay, China and New Zealand as well as Thailand and Malaysia. The first wave of the ITC China survey was conducted in seven Chinese cities between April and August 2006.

Main Objectives

The objectives of the Wave 1 of the ITC China Survey are:

a) **To examine patterns of smoking behaviour in China.**

This study provides very detailed information about smokers' quitting behaviour, consumption patterns, and other important aspects of smoking behaviour.

b) **To examine the impact of specific tobacco control policies implemented in China during the next 5 years.**

The ITC survey has several sections that are intended to evaluate the impact of specific policies, such as health warning labels on cigarette packs, anti-smoking campaigns, and price/taxation increases. As a result, the survey is able to examine to what extent policies change smoking behaviour and attitudes towards smoking.

c) **To continue to compare smoking behaviour and the impact of policies between China and other ITC countries.**

The ITC survey is being administered in 14 other countries. Because most of the questions are the same, we will be able to compare patterns of smoking and policies in China and each of the 13 other countries.

Survey Design

The ITC Survey is a longitudinal cohort study. Therefore, the respondents who participated in this survey will be recontacted in the future to answer the follow-up survey. The longitudinal design will allow the research team to track any changes in smoking behaviour and to examine the predictors of smoking behaviour, including the impact of policies introduced during the survey period. The plan at the time of Wave 1 was to recontact the respondents for follow-up surveys in the following 4 years.

The Wave 1 survey was conducted in seven cities in China, namely Beijing, Changsha, Guangzhou, Shanghai, Shenyang, Yinchuan and Zhengzhou.

The Survey Teams

The survey was conducted by team members from the Central China CDC and the local CDCs in Beijing, Changsha, Guangzhou, Shanghai, Shenyang, Yinchuan and Zhengzhou. The research team is collaborating with an international team of researchers in Australia (The Cancer Council of Victoria), Canada (The University of Waterloo) and the United States (Roswell Park Cancer Institute and The State University of New York).

2. The Sampling Design

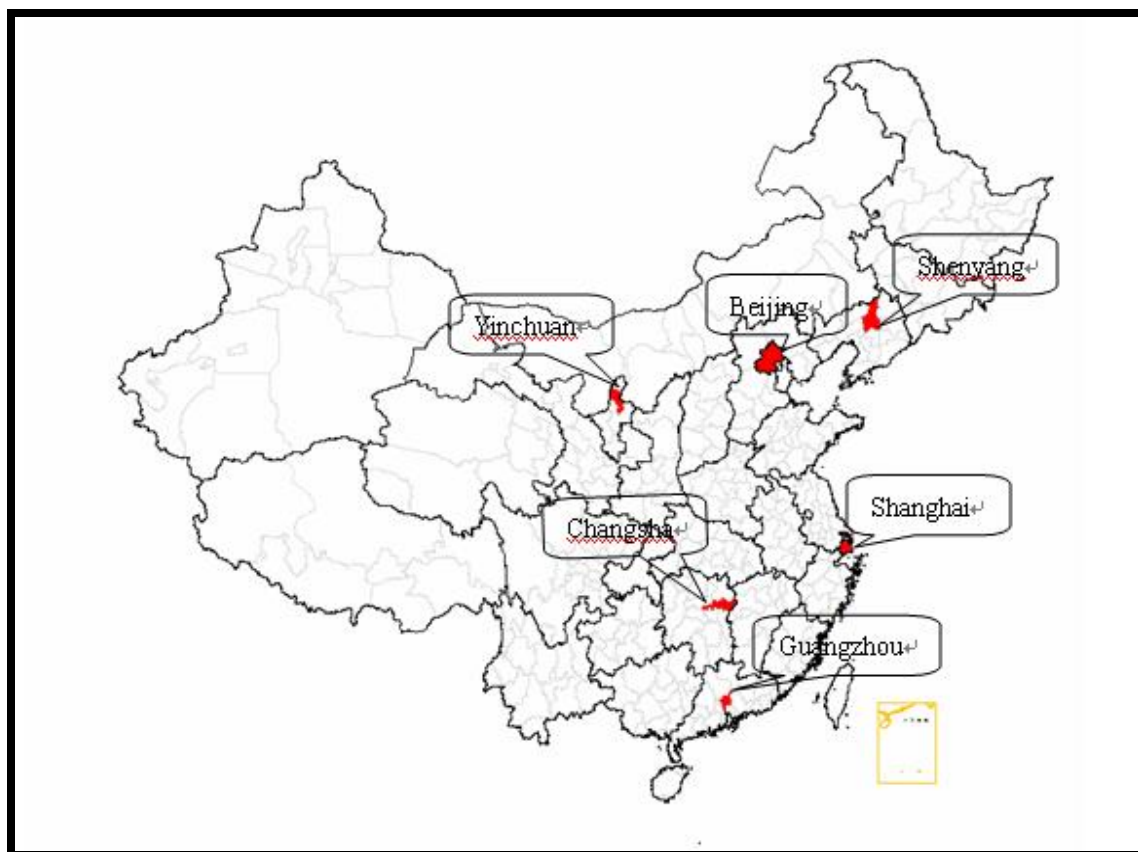
Target Population

Eligible adult respondents in each of the seven cities included smokers and non-smokers 18 years of age and older. Individuals in jail and those living in institutions were ineligible for the survey. The survey was originally conducted in the seven capital cities of one autonomous region, two municipalities and four provinces. However, the data quality from Zhengzhou city was found to be poor. It was, therefore, decided that the data from this city is not included in the analysis.

City	Autonomous Region/Municipality/Province
Beijing	Beijing Municipality
Changsha	Hunan Province
Guangzhou	Guangdong Province
Shanghai	Shanghai Municipality
Shenyang	Liaoning Province
Yinchuan	Ningxia Hui Autonomous Region
Zhengzhou*	Henan Province (not included in analysis)

*not included in data analysis

ITC SEA Wave 1 Survey Locations in China



Planned Sample Size

The planned sample size was designed to include in each city (excluding Zhengzhou):

- 800 adult smokers (aged 18 years+, smoke at least weekly)
- 200 adult non-smokers (aged 18 years+)

The tables below show the actual sample sizes of wave 1 survey data for China and for the individual cities.

Sample size for China

Sample Size	Smoker	Non-smoker
<i>Total</i>	4805 (100%)	1270 (100%)
Male	4560 (94.90%)	528 (41.57%)
Female	245 (5.10%)	742 (58.43%)
Gender Missing	10	0

Beijing

Sample Size	Smoker	Non-smoker
<i>Total</i>	804 (100%)	219 (100%)
Male	756 (94.38%)	100 (45.66%)
Female	45 (5.62%)	119 (54.34%)
Gender Missing	3	0

Changsha

Sample Size	Smoker	Non-smoker
<i>Total</i>	803 (100%)	205 (100%)
Male	733 (91.40%)	89 (43.41%)
Female	69 (8.60%)	116 (56.59%)
Gender Missing	1	0

Guangzhou

Sample Size	Smoker	Non-smoker
<i>Total</i>	804 (100%)	227 (100%)
Male	755 (94.38%)	94 (41.41%)
Female	45 (5.63%)	133 (58.59%)
Gender Missing	4	0

Shanghai

Sample Size	Smoker	Non-smoker
<i>Total</i>	801 (100%)	204 (100%)
Male	781 (97.50%)	91 (44.61%)
Female	20 (2.50%)	113 (55.39%)
Gender Missing	0	0

Shenyang

Sample Size	Smoker	Non-smoker
<i>Total</i>	801 (100%)	200 (100%)
Male	755 (94.38%)	68 (34.00%)
Female	45 (5.63%)	132 (66.00%)
Gender Missing	1	0

Yinchuan

Sample Size	Smoker	Non-smoker
<i>Total</i>	802 (100%)	215 (100%)
Male	780 (97.38%)	86 (40.00%)
Female	21 (2.62%)	129 (60.00%)
Gender Missing	1	0

Sampling Frame and Sample Selection

The Wave 1 survey used a multistage cluster sampling method to obtain a representative sample of adult smokers and adult nonsmokers who are registered residents in the six cities. In each of the six cities the China team selects 10 Jie Dao or Street Districts, with probability of selection proportional to population size of the Jie Dao. Within each of these Jie Dao, two residential blocks or Ju Wei Hui are selected, again with probability of selection proportional to size. Within each Ju Wei Hui, the addresses of the dwelling units (households) are listed first, and then a sample of 300 addresses are drawn by simple random sampling without replacement. Information on age, gender and smoking status for all adults living in these 300 households is collected. The enumerated 300 households are then randomly ordered, adult smokers and non-smokers are then approached following the randomized order until 40 adult smokers and 10 adult non-smokers are surveyed. Because of low smoking prevalence among women, one female smoker from every selected household is surveyed whenever possible to allow for the examination of gender effects.

Eligible Types of Dwellings

Private Homes

A private home is any dwelling that is considered to be the usual place of residence for at least one of the persons living there. The person may be:

- a family member
- a roomer / boarder
- an employee

Private Home AND Business

A private home and business is any dwelling that serves both as a business and the usual place of residence, such as in the case of a business operating out of the home.

Dwellings Not Eligible

Surveys were not conducted in dwellings that are businesses only or with individuals living in institutions, such as hospitals, nursing homes or jails.

Definition of a Household

A household is any persons or group of persons living in a dwelling. It may consist of:

1. one person living alone
2. a family sharing the same dwelling
3. a group of people who are not related but share the same dwelling

To be included on the *Household Enumeration Form* for a particular dwelling, a respondent must have regarded the dwelling as his/her usual place of residence.

3. Protocols and Quality Control

Collection Method

Data were collected through household surveys. Adult smokers and non-smokers responded to a “face-to-face” survey.

Main Component of the Survey

The ITC Survey protocol consisted of four main steps:

1. Household Enumeration (including demographic information)
2. Participant Selection and Consent
3. Main Questionnaire
4. Exit and Compensation

The kind of questions that will be asked have been described in the text of the application but the following is a summary of those questions:

- a) Demographic questions (e.g., age, gender, indicators of socio-economic status);
- b) Questions relevant to the policies of interest (policy-relevant, or “proximal” measures) of the kind outlined in the description of each of the main policy areas (e.g., warning labels, “light/mild”, advertising/promotion, price/taxation, smoke-free, cessation)
- c) Moderator variables (e.g., time perspective, collectivist vs. individual orientation);
- d) Other well-established questions assessing smoking behaviour; and
- e) Other important psychosocial predictors of smoking behaviour (e.g., normative beliefs, self-efficacy, intentions to quit) (distal variables).

In short, none of the survey questions will ask respondents to report on behaviors that are illegal. Moreover, none of the questions deal with matters that are overly personal and none of them should be surprising to respondents given that this is a “survey about smoking.” The ITC China Survey is included in the Appendix.

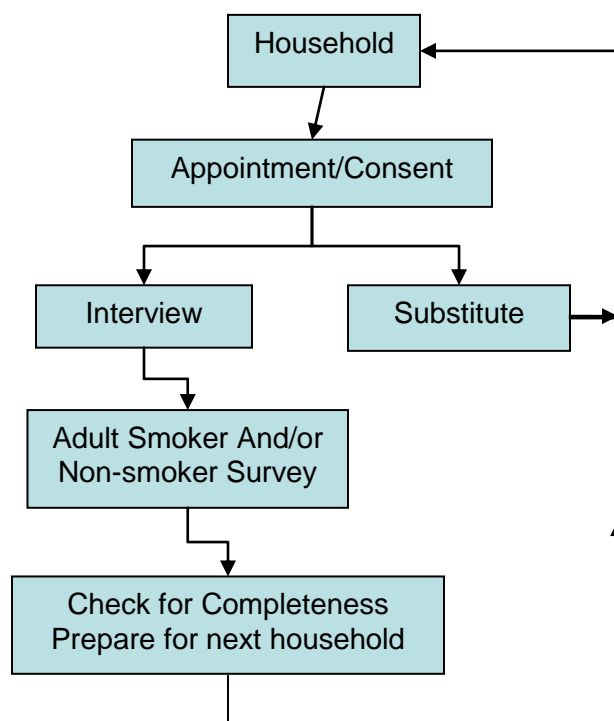
At the end of the survey, the respondent will be thanked for his/her participation and will be asked to provide the name, address, and phone number of one person who will always know where the respondent is, in the event that the respondent has moved in the next year.

The respondent will be reminded that we will be returning in about 1 year for the next wave.

Length of the Interview

The interview of the survey took a total of approximately 50 minutes to complete for adult smokers and 10 minutes for non-smoking adults.

The entire interview process is shown in the following chart.



During the survey field work period, the coordinator of each city was to hold weekly meetings of all interviewers, the data manager and the quality control staff member. Items on these meetings were to include i) summarizing the work for the past week; ii) identifying problems and find solutions; iii) arranging job tasks for the coming week, etc.

Selection of Household Members

The addresses of all the households for each Ju Wei Hui were provided to the research team in each city. The China CDC randomly selected 300 household from that list of addresses. The Ju Wei Hui members then collected basic information using the household enumeration form on every person over the age of 18 in every one of these 300 households. From this information, the China CDC randomly selected 50 respondents to participate in the survey.

Household Enumeration

At each dwelling, before respondents were selected, information was collected about the household, including a roster of all household members (with age, gender, and (for adults) smoking status). This information could be obtained from any adult member of the household. The ethnicity of the household informant was also coded. Time required to complete the *Household Enumeration Form* is: 2-5 minutes

Attempts to Enumerate

A maximum of 4 attempts were made to enumerate each household.

Respondent Gift/Enumeration

The interviewer will then indicate that, if the respondent agrees to participate and completes the survey, he/she will receive a thank-you gift. Smokers will receive a small but useful gift (i.e. soaps) which will be equivalent to about 10-20 Yuan. The respondent will be told that he/she would receive the same payment every time he/she participates.

Private Interviews

Adult participants were interviewed alone whenever possible. If another person insisted on being present, the agreement of the respondent was necessary in order to proceed with the interview. Adolescents completed the questionnaire in private.

Proxy Interviews

A proxy interview is an interview conducted with another knowledgeable member of the household on behalf of the selected respondent. Proxy interviews were not allowed in the ITC Survey.

Respondent Not Available

If a respondent was unavailable, an appointment time (hard appointment) was made to interview that respondent.

Fieldwork Team

Specially trained Ju Wei Hui staff will visit the sampled addresses and enumerate each of the 300 households. Upon reaching a household, the Ju Wei Hui staff member will identify him/herself and indicate that the National Centers for Disease Control is conducting a 30-40 minute health survey in the country. He/she will indicate also that this is a research survey and that it does not in any way involve selling or advertising any products. The respondent will be asked if he/she is willing to answer a few short questions to determine survey eligibility.

The Ju Wei Hui staff member will ask a series of screening questions determining for each adult household member, gender, smoking status, birth date, and residential status. The Ju Wei Hui staff member will thank the respondent and tell the participant that if someone in the household is selected for participation, they will be visited in the next few months by a survey interviewer from the Centers for Disease Control.

Survey administration will be conducted by survey interviewers from the local Centers for Disease Control in each of the cities, who will be trained by the National CDC and the Local CDC.

From a randomly ordered list of enumerated households, the National Chinese CDC staff will then use the next birthday method to select respondents within the households, in sufficient

number to reach quotas in each Ju Wei Hui of 40 adult smokers and 10 adult non-smokers. At most one smoker and one non-smoker will be selected in each household.

Interviewers will contact the selected respondents and explain that we are inviting the respondent to participate in the group of 1,000 respondents that have also been randomly selected, and that we would be contacting the respondent every year to complete a survey.

If the respondent agrees to participate, the interviewer will reiterate the confidential nature of their responses and will indicate to respondents that the questions asked will not be of an overly personal nature. The respondent will be given an information letter and asked to sign a consent form.

A total number of 20 Ju Wei Hui in each city were selected to participate in the survey. Each participating city formed a project team, which consisted of the following:

- 1 City Coordinator: Responsible for setting up the local fieldwork team, supervising fieldwork, overseeing the fieldwork plan and reporting to national CDC coordinators for any problems.
- 20 Survey Interviewers: Selected by the city coordinator according to local situations. They formed 10 groups, one male and one female for each group. All the interviewers were to have a college or university degree, be younger than 45 years old, and have indoor interview experience. It was recommended that, if possible, interviewers be chosen from university students majoring in preventive medicine.
- 1 Data Manager: Responsible for collecting the initial demographic information needed for sample selection, collecting finished questionnaires from interviewers along with the MP3 recordings, transferring data to central CDC, etc.
- 1 Quality Controller: Responsible for checking if the fieldwork procedures are strictly followed, the completeness of finished questionnaires and MP3 recordings, and writing quality control reports.

MP3 recording

All adult smoker survey interviews were recorded. Whenever possible, non-smoker interviews were recorded. If the interviewer need to do a smoker survey and a non-smoker survey in the same household, then only the smoker survey was recorded.

Identifying Eligible Members

There were three or four different categories of eligible respondents in a household

- 1) Adult Male Smokers
- 2) Adult Female Smoker
- 3) Adult Non-smokers

Information and Consent

Once a respondent was selected, the information letter was provided and the consent form was administered.

Language

The English surveys were translated into the Chinese language in order for the face-to-face interview to be conducted in the language.

Training Manual

An English manual on how to enumerate a household and conduct a survey interview were written to train survey interviewers before the survey fieldwork begins. The English language manual was translated into Chinese.

Monitoring and Quality Assurance

To ensure the accuracy and quality of the ITC survey, the fieldwork was monitored in several ways. The China CDC and the research team in the city applied quality control to the Ju Wei Hui data collection. They checked the forms submitted and to re-collected the information if the forms were incorrectly filled out.

During the survey interviewing stage, at the end of each day, interviewers were to carry out a self-check on the survey questionnaires they completed. The data manager collected all the completed surveys from all interviewer teams. Each day the data manager also copied all the MP3 recordings into a designated computer and used a unified file name system. Each recording file was named using the same coding on the cover page of the survey in the order of city (4 digits), Jie Dao (4 digits), Ju Wei Hui (4 digits), interviewer (2 digits), individual (2 digits) separated by a hyphen “-“. The total number of digits is 20, e.g. “2101-0085-0001-2418-58-02.wav”. No other characters and symbols are allowed for these recording files. Each Monday the data manager sent all recording files using a CD to the central team through courier service. The central team randomly selected 50% of the MP3 recordings and did the actual checking.

After the survey was completed, all surveys were collected, organized and bound together and send to the central team at China CDC.

4. Disposition Codes and Response Rates

Outcome Codes: Households

- 01 Not a current dwelling unit: DO NOT RETURN
- 02 No contact made, not sure whether a dwelling unit: MUST RETURN
- 03 No contact made, known to be a dwelling unit: MUST RETURN
- 04 Contact made, cannot answer at this time, but could in the future: MUST RETURN (and write appointment information in outcome)
- 05 Contact made, no one at all able to answer: DO NOT RETURN
- 06 Contact made, refusal: DO NOT RETURN
- 07 Contact made, Household Information Form completed: DO NOT RETURN
- 09 All other cases

If a household could not be contacted after four visits, one in weekday, one in weekday evening, one in weekend and one in weekend evening, the household was not contacted further.

Respondent ID

The respondent ID is a combination of the long ID written on page 1 of the survey in the the order of city (4 digits), Jie Dao (4 digits), Ju Wei Hui (4 digits), interviewer (2 digits), individual (2 digits) separated by a hyphen "-". The total number of digits is 20, e.g. "2101-0085-0001-2418-58-02.

Response Rates

The response rates for smokers are listed here for each city. Out of six, three cities have the exact response rates while the remaining three are estimates.

City	Exact %	Estimated %
Shenyang	50.0	
Shanghai	61.3	
Yinchuan	39.4	
Changsha		50.0
Beijing		50.0
Guangzhou		66.0

For Wave 1, the response rates for non-smokers could not be obtained.

Cooperation Rates

City	Exact %	Estimated %
Shenyang	81.2	
Shanghai	84.2	
Yinchuan	90.3	
Changsha		95.0
Beijing		80.0
Guangzhou		80.0

For Wave 1, the cooperation rates for non-smokers could not be obtained.

Weight Construction

Sample Selection

a) First Stage: Jie Dao (JD)

For each city, ten (10) JDs were selected with probability proportional to the JD population size.

b) Second Stage: Ju Wei Hui (JWH)

For each selected JD, two (2) JWHs were selected with probability proportional to the JWH population size.

c) Third Stage: Household (HH)

For each selected JWH, 300 (or so) HHs were selected using simple random sampling and information on gender, age and smoking status of all adults in these HHs is collected; these 300 HHs were further stratified into Smoking HH (SMHH) and Non-smoking HH (NSHH); 6 NSHHs and up to 40 SMHHs were selected (treated as a stratified simple random sample) to meet the quota of 40 adult smokers and 10 adult non-smokers to be surveyed. Note: In some JWHs, the Non-smoking HHs are not necessarily from the 300 enumerated HHs; The number “6” (NSHH) has sometimes been replaced by a close number (say 7).

d) Fourth Stage: Individual

For each one of the 6 (or 7) NSHHs, one (1) adult non-smoker was selected using the next-birth date method. For each of the selected SMHHs, the following procedure was used to select adult smokers and non-smokers:

- If the SMHH had only one adult smoker, the smoker was selected
- If the SMHH had two or more adult smokers of same gender, one of them was selected using the next-birth date method
- If the SMHH had adult smokers of both genders, one male smoker and one female smoker were selected (with the next-birth date method if there were two or more adult smokers of same gender).
- If the SNHH had adult non-smokers, one of them was selected (with the next-birth date method if necessary). The total number of adult non-smokers targeted from SMHHs was four (4) or three (3).

Weight Calculation: Smokers

Survey weights for sampled individuals are best constructed from the bottom level (Household) first, and then move up one-level-at-a-time to reach the final weight. Bottom level (HH) weights depend on how the domains of interest are defined. We consider the simple scenario where,

$$\text{Population} = \text{Male Smokers} + \text{Female Smokers} + \text{Non-smokers}$$

which is the basic structure for the ITC China survey.

HH level weights

Each surveyed individual has a household level weight W_1 . This is the number of people in the same household and the same sampling category **represented** by the surveyed individual:

- For adult male smokers, W_1 is the number of adult male smokers in the household.
- For adult female smokers, W_1 is the number of adult female smokers in the household.

JWH level weights

Each surveyed individual has a JWH level weight W_2 . This is the number of people in the same JWH and the same sampling category **represented** by that person:

$$W_2 = \frac{N_1}{N_2} \times \frac{M_1}{M_a} \times W_1$$

where N_1 is the total number of HHs in that JWH; N_2 is the number of HHs enumerated (by design we should have $N_2 = 300$ for most JWHs); M_1 is the number of smoking households (SMHH) **among the N_2 enumerated HHs**; and M_a is the number of SMHHs **surveyed** to reach the quota of 40 smokers (by design we should have $M_a \leq 40$ but it is not always the case since the quota 40 has to be adjusted sometimes).

JD level weights

Each surveyed individual has a JD level weight W_3 . This is the number of people in the same JD and the same sampling category represented by that person:

$$W_3 = \frac{P_b}{2P_c} \times W_2$$

where P_b is the **population size of the JD**, and P_c is the **population size of the JWH** from which the individual is surveyed. The factor 2 in the denominator represents the number of JWHs selected within the JD.

Final weights

Each surveyed individual has a final weight W_4 at the city level. This is the number of people in the city and the sampling category represented by that person:

$$W_4 = \frac{P_a}{10P_b} \times W_3$$

where P_a is the **population size of the city**, and P_b is the **population size of the JD** from which the individual is surveyed. The factor 10 in the denominator represents the number of JDs selected within the city.

Weight Calculation: Non-smokers

HH level weights

Each surveyed individual has a household level weight W_1 . This is the number of people in the same household and the same sampling category **represented** by the surveyed individual. For adult non-smokers, W_1 is the total number of adult non-smokers in the household.

JWH level weights

We now treat the selected households as a simple random sample from the whole list of households in the JWH.

$$W_2 = \frac{N_1}{M_b + M_c} \times W_1$$

where N_1 is the total number of HHs in that JWH and $M_b + M_c$ is the number of HHs surveyed (In most cases $M_b + M_c = 10$).

JD level weights

Each surveyed individual has a JD level weight W_3 . This is the number of people in the same JD and the same sampling category represented by that person:

$$W_3 = \frac{P_b}{2P_c} \times W_2$$

where P_b is the **population size of the JD**, and P_c is the **population size of the JWH** from which the individual is surveyed. The factor 2 in the denominator represents the number of JWHs selected within the JD.

Final weights

Each surveyed individual has a final weight W_4 at the city level. This is the number of people in the city and the sampling category represented by that person:

$$W_4 = \frac{P_a}{10P_b} \times W_3$$

where P_a is the **population size of the city**, and P_b is the **population size of the JD** from which the individual is surveyed. The factor 10 in the denominator represents the number of JDs selected within the city.

Variables Required for Weight Calculation

C_1 – City code

C_2 – Jie Dao code

C_3 – Ju Wei Hui code

C_4 – Household code

C_5 – Individual code

P_a – City population size

P_b – Jie Dao population size

P_c – Ju Wei Hui population size

N_1 – Total number of households in the Ju Wei Hui
 N_2 – Number of households enumerated ($N_2 = 300$ for most cases)
 M_1 – Number of smoking households among the N_2 enumerated households
 M_2 – Number of non-smoking households among the N_2 enumerated HHs ($M_2 = N_2 - M_1$)
 M_a – Number of smoking households surveyed to reach the quota of 40 (or so) smokers
 M_b – Number of smoking households surveyed to reach the quota of 4 (or 3) non-smokers
(In most cases $M_b = 4$ or 3)
 M_c – Number of non-smoking households surveyed to reach the quota of 6 (or 7) nonsmokers
(In most cases $M_c = 6$ or 7)
 I_1 – Household classifier: $I_1 = 1$ for smoking households; $I_1 = 0$ for non-smoking households
 I_2 – Smoking status indicator: $I_2 = 1$ for smokers; $I_2 = 0$ for non-smokers
 G – Gender: $G = 1$ for male and $G = 2$ for female (This is Question P1 on the questionnaire)
 L_1 – Number of male adults in the household (This is Question P8A in the questionnaire)
 L_2 – Number of male adult smokers in the household (This is Question P8B in the Questionnaire)
 L_3 – Number of female adults in the household (This is Question P9A in the questionnaire)
 L_4 – Number of female adult smokers in the household (This is Question P9B in the Questionnaire)

Appendices

Country Profile

China has an estimated population of 1.3 billion people¹ 70% of which are concentrated in rural areas, however it is anticipated that 55% will live in urban areas by 2025.² GDP per capita is US \$6,600.³ Tobacco-related deaths contribute to four of the five leading causes of mortality in China.⁴ Lung cancer rates in China are also on the rise.⁵ It is anticipated that if current smoking patterns continue, tobacco will account for more than 2 million deaths in China annually.⁶ China is the largest producer and consumer of tobacco in the world.⁷ Prevalence estimates in 2002 indicate that 57% of males and 2.6% of females are current smokers.⁸ China produces over 31% of the world's cigarettes.⁹ To date, there are over 180 factories and 2,000 brands of cigarettes in the Chinese market.¹⁰ Over 15 million workers are employed by the China National Tobacco Corporation either in tobacco farming, industry, or retail sales.¹¹ Tobacco specific taxes on cigarettes in China are 21% of the price of the total cost.¹² The tobacco industry accounts for a significant proportion of the Chinese economy, and tobacco taxes represent the largest source of tax revenue to the Chinese provincial and local governments.¹³

The China National Tobacco Corporation controls 90-97% of the cigarette market. Joint ventures, however, with foreign cigarette companies exist (Imperial Tobacco and Gallaher have licensing agreements with the CNTC). In December 2005, the CNTC finalized a joint venture with Philip Morris International to produce Marlboros domestically. The specter of the world's most popular brand being produced domestically in China is disturbing. Moreover, the CNTC is undergoing consolidation within China (from over 3,000 brands to the goal of a few hundred), in preparation for entry into the export market. So the specter of domestic Marlboros may ultimately be dwarfed by the specter of the world's largest cigarette producer entering the export market.

China is just beginning to engage in tobacco control. They ratified the FCTC in October 2005 and established a governmental office for FCTC implementation. China has had several "Quit and Win" campaigns beginning in 1996, and quit lines have also been established.¹⁴ Services offered through cessation clinics are available in several cities. Nicotine replacement therapy has recently become available in China although it is not subsidized. In the future, the government plans to allocate some funds to build more cessation clinics and cessation education.

Many of the research reports on smoking in China are from school-based surveys.^{15 16 17 18 19} Although other household surveys of adult smokers have been conducted, virtually all are cross-sectional and focus on basic questions about smoking behaviour.^{20 21 22 23 24 25 26 27 28 29 30} Other important surveys in China with international comparisons focus on smoking among youth.^{31 32}

There are no surveys or other research efforts currently in China for rigorous evaluation of tobacco control policies that approach the comprehensiveness of the ITC China survey.

The Tobacco Journal International reported that for the first six months of 2007, China's tobacco industry registered more than RMB200 billion (USD26.5 billion) in pre-tax profits, up by 26% from 2006.³³ China, the world's largest producer and consumer announced in August 2008 that it will ban all forms of tobacco promotion by January 2011.³⁴

The China National Tobacco Corporation (CNTC) announced its joint venture with Schweitzer-Mauduit International to set up a facility for tobacco-related papers in the province of Guangdong.

The following tables are taken from the 2008 WHO document on global tobacco epidemic.

Demographics

Population (1000s)	1,323,345
Adults (>15 years)	78.6%
Urban	40.0%
Growth rate	0.8%
Income Group	Middle
Income per capita (Intl \$)	\$6,600
Extreme Poverty Rate	16.6%
Literacy Rate	90.9%

Smoking Prevalence

Youth Prevalence (2004 GYTS in Shanghai: 13-15 years)	
Males	7.1%
Females	4.1%
Overall	5.5%

Adult Prevalence (2002 – national)	
Males	57.4%
Females	2.6%
Overall	31.4%

Tobacco Industry

Tobacco Industry (from Tobacco Atlas, 2006)	
Cigarette Production (Ms)	1,748,500
Cigarette Imports (Ms)	47,740
Cigarette Exports (Ms)	41,566

Country (Ratification Date)	Domains									
	Labeling		Product			Advertising and Promotion				
	% of Pack	Picture Labels	Health Warnings	Light/Mild Descriptors	Emissions/Contents/Performance Standards	Broadcast	Print-Domestic	Print-Int'l	Bill-board	Sponsorship ³
China (11 Oct 05)	5% FUTURE 30% by 1 Jan 2009	No	1 FUTURE 2 in Jan 2009	No legislati on	None	Full	Full	Full	None	None

Advertising/Promotion/Sponsorship Bans—Codes: DBM=distribution by mail; PD=promotional discounts; NTP=non-tobacco products identified with tobacco brand names; TP=brand name of non-tobacco products used for tobacco products; TVF=appearance of tobacco products in TV and/or films; SE=sponsored events

Country (Ratification Date)	Domains					
	Cessation		Price and Taxation		Smoke Free	
	Programs	NRT Availability/Use	Taxes - % of retail price	Other Issues	Ban in Public Places ¹	Ban in Hospitality
China (11 Oct 05)	Bupropion (at pharmacy with Rx), cessation support available in some primary care facilities, hospitals and communities	pharmacy	21% FUTURE: Possible increases	Price of 20-cigarette pack: 4.00 CNY (\$0.50 USD)	Full: EDU None: HCF, UNI, GOV, IO, OIW FUTURE: city-driven smoke-free laws (eg Beijing 2008)	None FUTURE: city-driven smoke-free laws (eg Beijing 2008)

Smoke-Free Venue Codes: ¹HCF=Health-care facilities; EDU=educational facilities; UNI=universities; GOV=government facilities; IO=indoor offices; OIW=other indoor workplaces RES=restaurants; B&P=bars & pubs

City Profiles

Beijing

Location: The capital of People's Republic of China. Beijing is China's second largest city after Shanghai. It is a metropolis located in the northern tip of the roughly triangular North China Plain. Beijing is the political, educational and cultural centre of China. Beijing has 18 administrative subdivisions, county-level units governed directly by the municipality (second-level divisions). Of these, 16 are districts and 2 are counties. The urban and suburban areas of the cities are divided into: 8 districts (city proper+inner suburbs); 6 districts (more distant suburbs and satellite towns constituting part of the metropolitan area) and; 2 districts+2 counties (located further out govern semirural and rural areas).

Population: About 18 million people reside in Beijing for 6 months or more per year. Out of this number, approximately 12 million people are permanent residents with permits while the remainder are residents with temporary permits. In addition, there is a large but unknown number of migrant workers who live illegally in Beijing without residence permit. The city core has around 8 million people. Over 95% of Beijing residents belong to the Han Chinese majority.

Tobacco Production: Beijing has a cigarette factory. Zhongnanhai is the major brand (it has 10 varieties). This brand is mostly sold locally. Tobacco production is high and is sold to other areas.

Cultural Associations with Tobacco: There are no special cultural associations with tobacco because most people in Beijing are from different regions in China.

Smoke-Free Laws in the City: Beijing has implemented a new smoke-free policy as of 1 May 2008. Smoking is now banned in healthcare and educational facilities, including universities, government facilities, entertainment facilities (e.g. cinemas, concert halls, museums, etc.), inside public transportation vehicles and facilities, and in stadiums and gymnasiums. Designated smoking areas are permitted in service areas of business places (e.g. food and drink business establishments, establishments offering internet services), in public places (e.g. parks, playgrounds), and in waiting rooms for means of public transportation. Lodging businesses are required to have smoke-free rooms and/or floors.³⁵

Other Tobacco Control Measures/Policy: There are no other tobacco control laws. Jie Daos may have their own tobacco control campaigns. There are lots of tobacco-free campaigns being run in Beijing. The government has pledged to ban all forms of tobacco advertising and promotions by 2011 in accordance with FCTC regulations.³⁶

Changsha

Location: Is the capital city of Hunan, a province of Southcentral China.. Has jurisdiction over 5 districts, 3 counties and 1 city.

Population: 6 138 719 (2000). Urban: 2 743 825.

Tobacco Production: A major tobacco producer. Furongwang and Baisha – two cigarette factories merged together. Cigarette production is the highest among the 7 cities (and probably the highest cigarette producer in China). Philip Morris has also entered Changsha and a Philip Morris factory in Changsha makes Marlboro cigarettes. Furongwang is the leading brand in China in terms of sales. Tobacco is the major industry in Hunan.

Local Economy: Is a major port and, commercial and industrial centre. In 2007, nominal GDP was US \$31.3 billion. Is one of China's top 20 "economically advantaged" cities.³⁷

Cultural Associations with Tobacco: Changsha has a very "good" cultural association with tobacco. The government encourages the development of tobacco industry. The government wants to increase the production of tobacco and cigarettes. Tobacco ads are everywhere on the streets.

Smoke-Free Laws in the City: No local smoke-free laws. The Department of Health and the Ministry of Industry and Business are the major tobacco control government agencies. Smoke-free bus.

Other Tobacco Control Measures: Quit and win competition.

Guangzhou

Location: Capital and sub-provincial city of Guangdong Province. Located in the south of China, Guangzhou is close to Hong Kong and Macau. Guangzhou has 10 districts and two county-level cities.³⁸

Population (2006): City: 7 607 200; Urban: 6 253 300; Metro: 9 754 600.

Tobacco Production: Three cigarette factories were merged in 2004 with an annual production of 50 billion cigarettes per year. Gross sale is approximately 6 billion Yuan (about \$1 billion US)

Local Economy: Guangzhou is the economic centre of the Pearl River Delta and the heart of one of mainland China's leading commercial and manufacturing regions. It is the third wealthiest city in China, behind Beijing and Shanghai. The GDP in 2007 was about US \$100 billion.

Cultural Associations with Tobacco: It is reported that less people smoke in public places here than in other cities. In addition, many young people in the city have started to smoke. The prevalence of smoking among females in this city is also increasing, especially among young females who tend to smoke Marlboro.

Smoke-Free Laws in the City: Smoke-free legislation has been drawn up, which would ban smoking in 13 public spaces, including cinemas, concert halls, stadiums, libraries, museums, department stores and waiting rooms at public transportation facilities. Smoking on public transit would also be prohibited. However, there is no time-line for this legislation to be implemented.³⁹

Other Tobacco Control Measures: In May 2006 there was a media campaign on television. In July 2006, they started creating a new policy on smoke-free public places. Guangzhou became a Tobacco Ads Free City in Marcy 2008.⁴⁰

Shenyang

Location: In the northeast of China, Shenyang is the capital of Liaoning province. Shenyang has 13 county-level districts and 1 city; they are divided into inner city districts (5) and, outer districts and areas (5 districts, 1 city and 3 counties).

Population: 7 204 000 (2004). Urban: 5 066 000.

Tobacco Production: Has one cigarette factory, has been merged with Hongta Corp, which is a famous cigarette corporation in China.

Local Economy: Important industrial centre in China more recently – software, automotive and electronics. Was the transportation and commercial centre of China’s focusing on heavy industry especially aerospace, machine tools, heavy equipment and defence.⁴¹

Cultural Associations with Tobacco: Smoking prevalence is high: 60% among males.

Smoke-Free Laws in the City: Has local laws restricting smoking in public places. Has smoke-free signs in all public places.

Other Tobacco Control Measures: Quit and Win.

Shanghai

Location: Is a municipality within China. It is the largest city in China in terms of population and one of the largest urban areas in the world with over 20 million people in its extended metropolitan area. Located on China’s central eastern coast, it is administered as a municipality with provincial-level status: 19 divisions: 18 districts and 1 county.

Population: 18 450 000 (2007).

Tobacco Production: Has local cigarette factory. Produce “Zhonghua” cigarettes which are very expensive (30-50 Yuan/pack). Most people smoke “Double Happiness” brand – (7 Yuan/pack). They also produce “Mudan” (3 Yuan/pack). This is a very large cigarette corporation. Zhonghua is the leading brand in China???

Local Economy: Centre of trade and finance in mainland China. In 2007, Shanghai's nominal GDP posted a 13.3% growth to 1.2 trillion Yuan.⁴²

Cultural Associations with Tobacco: Smoking prevalence is 60% among males, but a little lower recently (50-60%)

Smoke-Free Laws in the City: Currently, cinemas, libraries and concert halls are smoke-free. Shanghai plans to extend this ban to more public places (office areas and restaurants) by the 2010 World Expo.⁴³ Has local laws – implementation is good. Smoke free schools – 80%
Smoke free hospitals – 54%

Other Tobacco Control Measures: Tobacco control campaign: media campaign each year around May 31st.

Yinchuan

Location: In the northwest of China. Yinchuan is the capital city of Ningxia Hui Autonomous Region. Yinchuan is a small city (the smallest among the 7 cities) with 3 districts, 1 city and 2 counties.

Population: 1.5 million people, 1.1 million urban population.

Tobacco Production: No local cigarette factory – a factory in NINGXIA close to Yinchuan.

Local Economy: Poor area in China. GDP per capita (2003) was US \$1450. Main industries are production of Chinese wolfberry, wheat, apple and rice.⁴⁴

Cultural Associations with Tobacco: Smoking prevalence is high. It is popular to give cigarettes as a gift.

Smoke-Free Laws in the City: Has a local smoke-free law, but the implementation is only good in hospitals and schools.

Other Tobacco Control Measures: Quit and win.

Zhengzhou

Location: Zhengzhou is a prefecture-level city, and capital of Henan Province. Located in central China, Zhengzhou is an important city for transportation connections. There are 12 county-level divisions: 6 districts, 5 county-level cities, and 1 county.

Population: 7 243 000 (2006). Urban: 4 362 800.

Tobacco Production: Zhengzhou is a high producer of cigarettes. The tobacco industry is the major tax contributor. Two major cigarette companies in Zhengzhou were merged last year to form Henan Cigarette Corporation. Henan Cigarette Corporation produces 1/3 of the cigarettes for the whole province.

Local Economy: Zhengzhou is a major industrial city in China, its staple industry being textiles.⁴⁵ The GDP per capita is 23305 Yuan (2005).

Cultural Associations with Tobacco: There is a high prevalence of smoking (34% of the population was smokers in 1996; 26% of health care providers smoke according to a 2005 study). Using cigarettes as gifts is popular.

Smoke-Free Laws in the City: Has a smoke-free law which is currently being revised. At this time, smoking is prohibited in hospitals and schools.

Other Tobacco Control Measures: There are several health education campaigns and it is believed that many people know that smoking is harmful to health. There is a tobacco control campaign that is a surveillance of second-hand smoke in public places. There is also a Quit and Win campaign.

Form 1

Wave 1 FCTC Surveillance/ITC China Survey
Phase 1 Sample Selection Form (CN-ITC-2005-S-1)

City code	City/District names	Street Code	Street Name	Population	Street Description

Note: Data manager is in charge of collecting street information, filling out the form and sending it to China CDC.

Form 2

**Wave 1 FCTC Surveillance/ITC China Survey
Phase 2 Sample Selection Form (CN-ITC-2005-S-2)**

Street Code	Street Name	JuWeiHui Code	JuWeiHui Name	JuWeiHui Population	JuWeiHui Description

Note: Data manager is in charge of collecting JuWeiHui information in terms of phase 1 sample selection, filling out the form and sending it to China CDC.

Form 3

Wave 1 FCTC Surveillance/ITC China Survey
Phase 3 Sample Selection Form (CN-ITC-2005-S-3)

JuWeiHui Code	JuWeiHui Name	Household Code	Household Address

Note : Data manager is in charge of collecting household information in terms of phase 2 sample selection, filling out the form and sending it to China CDC.

Form 4

**Wave 1 FCTC Surveillance/ITC China Survey
Phase 4 Sample Selection Form (CN-ITC-2005-S-4)**

JuWeiHui Code	JuWeiHui Name	Household Code	Household Address	Individual Code	Name	Sex	Date of Birth	Permanent Resident or not	Smoker over 100 or not	Currently Smoking or not

Note : Before the fieldwork, there should be some awareness activities in each selected JuWeiHui, letting JuWeiHui Staff realize the importance of ITC project. JuWeiHui staff only participate in collecting household basic information, informing the households might be selected, and entering household with interviewers. JuWeiHui Staff do not make appointment with household. Project manager in each city is in charge of collecting information, filling out the form and sending it to China CDC.

Form 5

**Wave 1 FCTC Surveillance/ITC China Survey
Respondent Information Form (CN-ITC-2005-S-5)**

City code CODE1	Street code CODE2	JuWeiHui code CODE3	Household code CODE4	Individual code CODE5	Name	Household address	Note

Note : This form is the results of phase 4 sample selection, which is filled out by CDC and sent to data manager. When interviewers enter into household, they should take this form with them and fill out the survey number in term of the respondents' codes.

Form 6

Wave 1 FCTC Surveillance/ITC China Survey
Fieldwork supplies list (CN-ITC-2005-S-6)

City: _____

Supplies		Quantity	Received Quantity	Good quality or not
Survey Material	Respondent Information Form	20		
	Consent Form	900		
	Adult Smoker Survey	900		
	Adult Non-Smoker Survey	300		
	Training Manual	30		
	Quality Control Manual	10		
	Telephone Double Check EpiData Database	1		
	MP3	12		
Survey Instrument	Name Card	30		
	Battery	800		
	Marker	200		
	Electric Torch	30		
	Shoe Cover	2000		
	Backpack	25		
	Gift	800		

Note: Writing materials will be provided by China CDC, and survey instruments will be purchased by city CDC. City coordinator is in charge of preparing all supplies and sending the form back to China CDC. If supplies are enough and in good condition, mark “√” in the form, otherwise fill out the insufficient quantity and the numbers having poor quality.

City coordinator : _____

Date : yy mm dd

Form 7

Wave 1 FCTC Surveillance/ITC China Survey
Training Location and Equipment list (CN-ITC-2005-S-7)

Supplies		Quantity
Training Location	Size	
	Table and Chair	
	Good for Practicing	
Training Equipments	1.Notebook Computer	
	2.Multi-Media Projector	
	3.Audio Equipment	
Training Material	4.Qestionnaire	
	5.Fieldwork Registration Form (CN-ITC-2007-S-16)	
	6.Respondent Information Form (CN-ITC-2007-S-5)	
	7.Telephone Double-Check Form (EpiData Database)	
	8.MP3	
	9.Training Manual	
	10.Qaulity Control Manual	
	11.Interviewer Registration Form (CN-ITC-2007-S-8)	
	12.Interviewer Attendance Form (CN-ITC-2007-S-9)	
Other	13.Document Envelope	
	14.Marker	

Form 8**Wave 1 FCTC Surveillance/ITC China Survey
Interviewer Registration Form (CN-ITC-2005-S-8)**

City: _____

Name	Sex	Age	Profession	Education	Feildwork Experience	Telephone	Note

Note: This form should be filled out by interviewers.

Form 9

Wave 1 FCTC Surveillance/ITC China Survey
Interviewer Attendance Form (CN-ITC-2005-S-9)

City: _____

Name	Attendance							
	/mm /dd		/mm /dd		/mm /dd		/mm /dd	
	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon

Note: Each interviewer's attendance to each training is marked by CDC staff. Attendance marked "√", Late for the training marked "Δ", absence marked "x"

Date : yy mm dd

Form 10

Wave 1 FCTC Surveillance/ITC China Survey
Fieldwork Staff Registration Form (CN-ITC-2005-S-10)

City: _____

Project Team	Name	Code	Telephone	Cell Phone	E-mail
Project Manager					
Coordinator					
Data Manager					
Quality Controller					
Interviewer		01			
		02			
		03			
		04			
		05			
		06			
		07			
		08			
		09			
		10			
		11			
		12			
		13			
		14			
		15			
		16			
		17			
		18			
		19			
		20			

Note: This form provides information for monitoring fieldwork, which is filled out by city coordinators. The information in the form is allowed for some changes in terms of actual situation later on. This form should be sent to China CDC before the fieldwork. The codes are only for interviewers, each interviewer has one code, and there are total 20 codes for all interviewers.

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City code
CODE1

--	--	--	--

Street code
CODE2

--	--	--	--

JuWeiHui
Code

--	--	--	--

Household
CODE4

--	--

Individual
CODE5

--	--

Interviewer
CODE0

**Wave 1 FCTC Surveillance/ITC China Survey
Fieldwork Registration Form (CN-ITC-2005-S-16)**

1. Individual Appointment Record

Appointment #		Date of Appointment				Time of Appointment				Outcome					
1	QCA1			yy		mm		dd	QCB1		hh		min	QCC1	
2	QCA2			yy		mm		dd	QCB2		hh		min	QCC2	
3	QCA3			yy		mm		dd	QCB3		hh		min	QCC3	
4	QCA4			yy		mm		dd	QCB4		hh		min	QCC4	

Outcome :
①entering household
②nobody home or answering the door
③refusal

2. Survey time

Date

QCA5

--	--	--	--

 yy

--	--

 mm

--	--

 dd

time

QCB5

--	--

 hh

--	--

 min

3. Individual survey outcome

	Outcome code	Note
Adult male smoker	QCAMS	
Adult female smoker	QCAFS	
Adult non-smoker	QCANS	

Outcome code
①complete the survey
②partly complete the survey
③survey can not be conducted
④refusal

Note : ① Before conducting survey, interviewer should fill out "individual appointment record" "Survey time"; and after survey, interviewer should fill out "individual survey outcome" ②each form for each respondent.

FCTC Surveillance/ITC China Survey—Household Enumeration Form (CN-ITC-2005-S-15)

Jie Dao: < Code2> Ju Wei Hui: < Code3> Household <Code4>

Address: _____ Interviewer: _____

	Date	Time	Outcome
Contact Attempt 1	____/____/____ Year ____/____/____ Day	____/____/____ Hour ____/____ Minute	
Contact Attempt 2	____/____/____ Year ____/____/____ Day	____/____/____ Hour ____/____ Minute	
Contact Attempt 3	____/____/____ Year ____/____/____ Day	____/____/____ Hour ____/____ Minute	
Contact Attempt 4	____/____/____ Year ____/____/____ Day	____/____/____ Hour ____/____ Minute	

Any Child Living in the Household? YES NO

Interviewer Code Code5	Name	Gender	Birthday			Permanent Resident Status (Yes:√ No:×)	Smoke Over 100 Cigarette (Yes:√ No:×)	Current Weekly Smoker (Yes:√ No:×)
			Year	Month	Day			
01								
02								
03								
04								
05								
06								

Outcome Code:

- 01 Not a current dwelling unit: DO NOT RETURN
- 02 No contact made, not sure whether a dwelling unit: MUST RETURN
- 03 No contact made, known to be a dwelling unit: MUST RETURN
- 04 Contact made, cannot answer at this time, but could in the future:
MUST RETURN (and write appointment information in outcome)
- 05 Contact made, no one at all able to answer: DO NOT RETURN
- 06 Contact made, refusal: DO NOT RETURN
- 07 Contact made, Household Information Form completed: DO NOT RETURN

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