



International Tobacco Control
Policy Evaluation Project

ITC Bangladesh Wave 3 Technical Report

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Preface to Wave 3 ITC Bangladesh Technical Report

This report documents the third wave of the International Tobacco Control Policy Evaluation Survey carried out in Bangladesh. The second wave was conducted 10 to 13 months after the first wave was conducted (March to June 2010). The third wave was conducted approximately 15 months after the second wave (November 2011 to May 2012).

For the most part, the format of this report is similar to the Wave 2 technical report. However, there are a number of changes to some content and methods in the third wave:

- a) Respondents from the second wave were recontacted to participate in the Wave 3 survey. New respondents were recruited to replace dropouts, using an extension of the Wave 1 sampling design.
- b) Addition of price collection protocols.
- c) Addition of new screeners and questionnaires.
- d) This report also presents the weight calculations for Wave 3 respondents.

1. Introduction

1.1 Background

The International Tobacco Control (ITC) Project is a multi-country prospective cohort study designed to measure the psychosocial and behavioural impact of key policies of the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC).

Bangladesh was the first country to sign the FCTC on 16 June, 2003 and ratified it on 10 May, 2004. The ratification was made concrete with the passage of the Tobacco Control Act (TCA) on 15 March, 2005. Under this Act, the following regulations are enforced as per a supplementary Gazette notification of the Government of Bangladesh dated 30 May, 2006:

- (i) It is prohibited to smoke in public places and transports, except at designated smoking areas.
- (ii) The advertising of tobacco products on print and electronic media, email, internet, or any other written or printed or spoken form, is banned.
- (iii) Consumption of tobacco products cannot be encouraged through charity, prizes, scholarships or sponsorships of sport activities.
- (iv) Automatic vending machines for selling tobacco products are not allowed.
- (v) Effective since 01 September, 2006, a warning label has to be printed on a minimum of 30% area of the packets of tobacco products, clearly stating that smoking causes death, stroke, heart disease, lung cancer, breathing or other health problems. It should warn against any of these ailments caused by smoking.

To evaluate the effect of the FCTC, the ITC Project is conducting parallel prospective cohort surveys with adult smokers in 23 countries— Canada, United States, Australia, United Kingdom, Ireland, Thailand, Malaysia, South Korea, China, New Zealand, Mexico, Uruguay, Germany, France, the Netherlands, Bangladesh, Brazil, Mauritius, Bhutan, India, Kenya, Nigeria, and Zambia. Half of the ITC countries represent high income countries and the other half low- and middle-income countries.

The ITC Bangladesh Wave 1 Survey was carried out from February to May 2009.

The ITC Bangladesh Wave 2 Survey was carried out from March to June 2010.

The ITC Bangladesh Wave 3 Survey was carried out from November 2011 to May 2012.

1.2 Main Objectives

The objectives of the ITC Bangladesh Survey are:

a. To examine the prevalence and patterns of tobacco use in Bangladesh.

The ITC Bangladesh Survey provides multidimensional estimates of prevalence and patterns of tobacco use among the Bangladeshi population. It describes the population's consumption patterns, quitting behaviour, as well as its knowledge, beliefs, and attitudes about tobacco use. Specifically, the survey investigates the population's shift from traditional tobacco products (in the form of bidis, smokeless tobacco) to cigarettes.

b. To examine the impact of specific tobacco control policies implemented in Bangladesh in course of the study period.

The ITC Bangladesh Survey evaluates the impact of tobacco control policies in the following areas of the FCTC:

- Health warning labels and package descriptors
- Smoke-free legislation
- Pricing and taxation of tobacco products, as well as the prevalence of compensatory behaviours that may offset the impact of taxation (e.g., cheaper purchasing options, smuggling)
- Education and support for cessation
- Tobacco advertising and promotion

In 2005, the Bangladesh Government passed the Tobacco Control Act, which was designed to implement FCTC policies in three areas: a ban on smoking in public places, a ban on advertising of tobacco products, and the implementation of text warning labels on packages. The TCA came into force in 2006.

This report provides a detailed picture of the current tobacco control policy landscape in Bangladesh, including cigarette and bidi smokers, and non-smokers' beliefs, attitudes, and behaviours, following the passage of the Tobacco Control Act of 2005. Of particular importance in Bangladesh is the linkage between tobacco control and the poverty of tobacco users.

c. To compare smoking behaviour and the impact of policies between Bangladesh and other ITC countries.

The ITC Project aims to provide an evidence base to guide policies enacted under the FCTC, and to systematically evaluate the effectiveness of these legislative efforts.

All ITC Surveys are developed using the same conceptual framework and methods, and the survey questions are designed to be identical or functionally equivalent in order to allow strong comparisons across countries. The evaluation studies conducted from the ITC Surveys take advantage of natural environments created when an ITC country implements a policy: changes in policy-relevant variables in that country from pre- to post-policy survey waves are compared to other ITC countries where that policy has not changed. This research design provides high levels of internal validity, allowing more confident judgments regarding the possible causal impact of the policy.

d. To suggest changes to current government tobacco policies

Recommendations to strengthen the current tobacco policies are made based on existing and derived survey information. The aim is to optimise the effects of tobacco control policies with regard to situational and individual difference moderators: (a) demographic variables; (b) personality variables (e.g. time perspective); (c) environmental context (e.g. number of peers/family members who smoke); and (d) the individual's smoking history (e.g. past quit attempts, smoking intensity and quitting smoking).

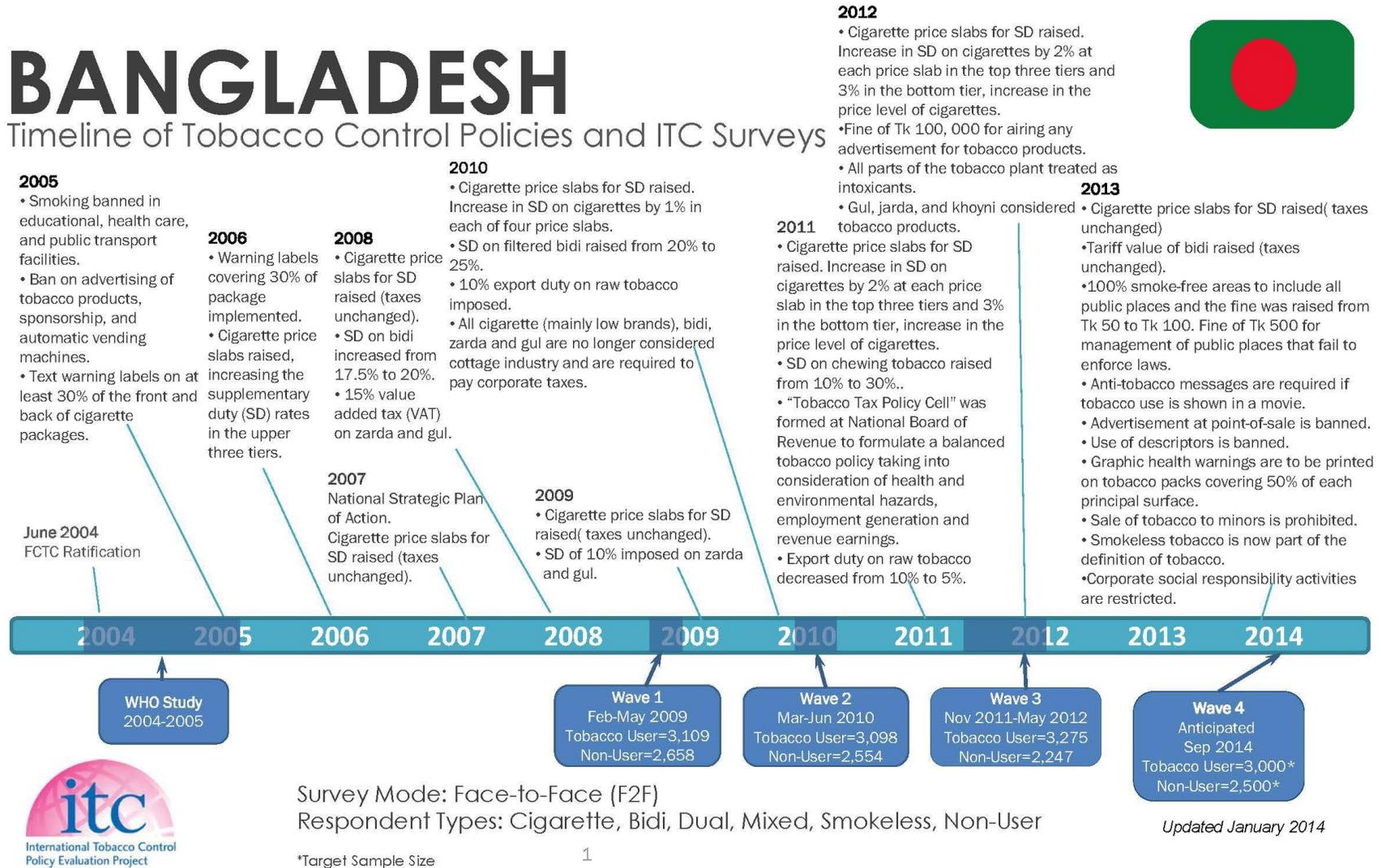
1.3 Survey Design

The ITC Bangladesh Survey is a longitudinal cohort study. In other words, the respondents who participate in this survey will be re-contacted in the future to participate in follow-up surveys. The plan for future survey waves in Bangladesh is to re-contact the respondents from Wave 3 for a follow-up survey in 2013 (Wave 4). Figure 1 shows the timeline of the ITC Bangladesh project.

Figure 1: ITC Bangladesh Survey Timeline

BANGLADESH

Timeline of Tobacco Control Policies and ITC Surveys



*Target Sample Size

1.4 The Research Team

The ITC Bangladesh Survey is conducted by researchers at the Bureau of Economic Research (BER) and the Department of Economics at the University of Dhaka, with assistance from one consultant at the Florida International University and an international team of ITC Project researchers, and project staff at the University of Waterloo in Canada.

2. Sampling Design

The ITC Bangladesh Survey is a nationally representative probability sample of tobacco users and non-users of tobacco selected through a multi-stage clustered sampling design (sampling with probability proportional to population size at the levels of district, upazila/thana, village/ward). For the details of the original sampling design see Chapter 6 of this report [citation for Wave 1 technical report].

In Wave 1, the total sample of the ITC Bangladesh Survey comprised two samples: a national sample (representing the broad national population of Bangladesh) and a floating population sample (representing the floating and urban poor population).

The probability sampling part of the national sample, which was designed to represent the broad national population of Bangladesh, was selected as part of the Wave 1 Survey in 2009. For this national sample, 23 districts out of the 64 districts covering Bangladesh were selected, and of the 23, 21 were selected randomly, with probability proportional to population size.

At the same time, certain parts of the national sample were selected purposively. Two districts were purposively selected to include the tribal populations (Garo and Chakma); as well, in one of the randomly selected districts, one with a single sampled upazila, one village was randomly selected while the other was purposively selected to cover one land port in which cross-border trades take place frequently, making it potentially a significant outlet of illegal trade of tobacco products between Bangladesh and India. The probability part of the national sample is considered to include this district and the randomly selected village.

A total of 40 upazilas from the 23 districts, and (usually) 2 villages (or wards) from each upazila (or thana) were selected, again with probability proportional to size (see Appendix G). Thus, a total of 80 villages/wards were selected for the main survey. One village included roughly 300-600 households. A maximum of 450 households could be enumerated in each village.

2.1 Wave 3 Enumeration

In W3, to enhance the rigor and usefulness of the project, a second round of enumeration of the sample areas was conducted in order to determine the prevalence of smoked and smokeless tobacco use. The first round of enumeration was done between December 2008 and January 2009 at the beginning of the project. The follow-up enumeration allows us to again estimate, with great precision (equal to that of the GATS) the prevalence of tobacco use and its varieties (including dual use and mixed use). This will also provide a broad assessment of whether tobacco control policies are having any significant impact on the overall tobacco use in Bangladesh. The enumeration was administered simultaneously with the W3 survey in the same area in order to economize on the travel allowance of the field investigators. The new enumeration was not used in the selection of new Wave 3 respondents.

2.2 Recontact

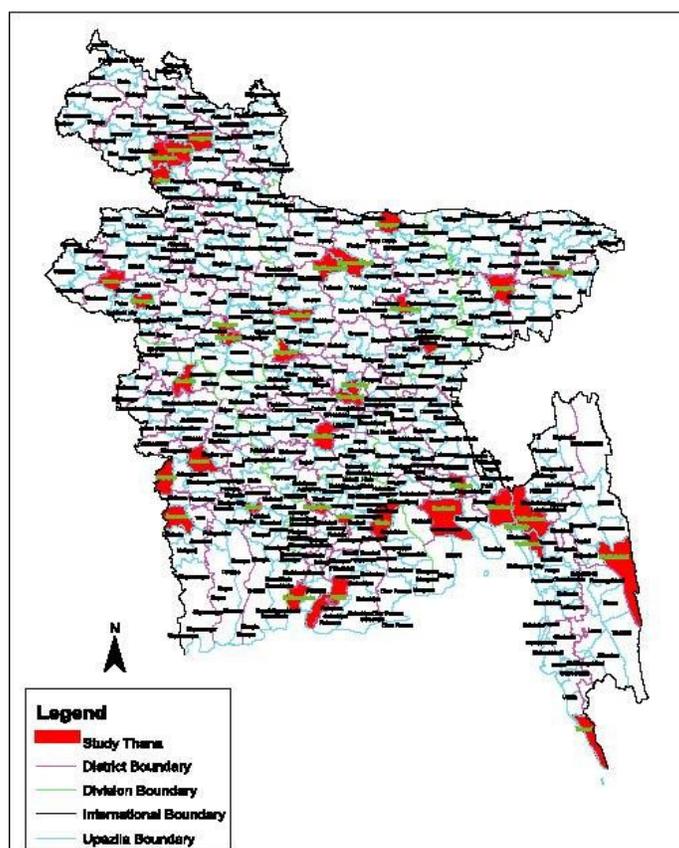
The Wave 3 sampling plan was to try to recontact as many respondents as possible from Wave 2 for participation in Wave 3, even if they were smokers at Wave 2 who have quit smoking. There was a separate quitter survey for those respondents from Wave 2 who quit smoking since that time. There were 5 individuals recruited in Wave 1, lost in Wave 2, and interviewed again in Wave 3. New respondents were interviewed to replace Wave 2 respondents who were lost at Wave 3, according to the scheme outlined in Section 2.2.

2.3 Replenishment Sampling

From each village/ward surveyed in the national sample (see Section 2.1), we selected 5 households from the Wave 1 enumerated sample that were not used for interviews in Wave 1 or Wave 2 --3 households with at least one smoker and 2 households with all non-smokers. Then from each household, one randomly selected non-smoker and all smokers were included on the replenishment sample list. The interviewers were asked to replenish from a new household following the smoking status in Wave 1. In case they could not find any respondent from the replenishment sample list or the list ran out due to refusal, they asked for a new sample and the survey coordinator randomly picked a new sample (only as many were needed in the field). Thus in some areas, more than 5 households could be selected. In a few sample areas, there were insufficient smokers for full replenishment.

In the fixed population sample, altogether 2061 Wave 2 (from cohorts #1 and #2) households and 4155 Wave 2 respondents were re-contacted; and 307 respondents from 170 new households were added at Wave 3.

Figure 2: ITC Bangladesh Wave 3 Sampling Areas



2.4 Floating Population Sample

In the floating population sample, no Wave 2 households were recontacted, and 1055 respondents from 495 new households were newly recruited at Wave 3. As in earlier waves, the

interviewers started randomly at one end of each area and continued enumerating at each household in a row until they met the target of the designated number of households from that area. The interviewers selected one non-smoker randomly and all smokers from each household.

3. Survey Protocols

3.1 Recontact Participant Selection and Consent

Respondents who were interviewed in Wave 2 were recontacted in Wave 3. No one who was not interviewed in Wave 2 could be interviewed in Wave 3, under this “recontact” category. Interviewers were asked to reintroduce themselves to respondents using a pre-determined script.

Information and Consent

Once contact with a respondent from Wave 2 was re-established, the information letter was provided and the consent form was administered (See Appendix B).

3.2 Replenishment Participant Selection and Consent

Identifying Eligible Members

There were two different categories of eligible respondents in a replenishment household:

- Adult Smokers
- Adult Non-Smokers

Selection of Household Members

Household members aged 15 years and older were sampled.

- From households without smokers, one non-smoker was randomly selected.
- From households with smokers, all available smokers were selected, and one non-smoker was randomly selected for interviewing.

Information and Consent

Once a respondent was selected, the information letter was provided and the consent form was administered (See Appendix B).

3.3 Main Questionnaire

3.3.1 Screener and Survey Types

There is one household survey; there are 8 individual screeners, and eight types of individual surveys.

- **Household (H) survey:** Only for the head of each household. There are three sections in this H survey that is given to the household head only: Tobacco Cultivation, Income and Expenditures and Wealth Index.
- **Screeners:** The purpose of the screeners is to establish the tobacco use status of a respondent in Wave 3. There are eight individual screeners (See Appendix C):
 - **Screeners 1:** Replenishment
 - **Screeners 2:** Never User and Ex User
 - **Screeners 3:** Smokeless Tobacco User
 - **Screeners 4:** Exclusive Cigarette Smoker or Cigarette Smoker and Smokeless Tobacco User
 - **Screeners 5:** Exclusive Bidi Replenishment Smokeless User

- **Screener 6:** Bidi Smoker and Smokeless Tobacco User
- **Screener 7:** Dual Smoker or Dual Smoker and Smokeless Tobacco User
- **Screener 8:** Quitter

Replenishment Surveys

These questionnaire are for new respondents at Wave 3 and for non-smoker respondents from Wave 2 who started smoking at Wave 3. Each survey is described briefly below:

- **Pp Survey:** Replenishment Supplement: given to ALL replenishment respondents and administered along with one of the individual surveys described below.
- **M Survey:** Mixed user: for respondents who use BOTH smoked and smokeless tobacco.
- **L Survey:** Smokeless user: for respondents who use ONLY smokeless tobacco products.
- **C Survey:** Cigarette smoker: for respondents who ONLY smoke cigarettes
- **B Survey:** Bidi smoker: for respondents who ONLY smoke bidis
- **D Survey:** Dual smoker: for respondents who smoke BOTH cigarettes and bidis.
- **N Survey:** Non-User: for respondents who DO NOT smoke either cigarettes or bidis, and do not use smokeless tobacco.

Recontact Surveys

For respondents from Wave 2 who continue to smoke or quit. Each survey is described briefly below:

- **M Survey:** Mixed user: for respondents who use BOTH smoked and smokeless tobacco. Respondents who were cigarette and/or bidi smokers as well as smokeless tobacco users at Wave 2 and continue to use BOTH smoked and smokeless tobacco at Wave 3, respondents who were only smokers (cigarette and/or bidi) in Wave 2 but have added smokeless tobacco at Wave 3, and respondents who were only smokeless tobacco users in Wave 2 but have added smoked tobacco products at Wave 3.
- **L Survey:** Smokeless user: for respondents who use ONLY smokeless tobacco products. These are respondents who were smokeless tobacco users at Wave 2 and continue to use smokeless tobacco at Wave 3, and respondents who were only smokers (cigarette and/or bidi) in Wave 2 but have switched to smokeless tobacco by Wave 3.
- **C Survey:** Cigarette smoker: for respondents who ONLY smoke cigarettes. These are respondents who were cigarette smokers in Wave 2 and continue to smoke at Wave 3, respondents who were bidi smokers in Wave 2 but have switched to cigarette smoking by Wave 3 and respondents who were smoking both cigarettes and bidis in Wave 2 but have stopped smoking bidis at Wave 3.
- **B Survey:** Bidi smoker: for respondents who ONLY smoke bidis. These are respondents who were bidi smokers in Wave 2 and continue to smoke at Wave 3, respondents who were cigarette smokers in Wave 2 but have switched to bidi smoking by Wave 3 and respondents who were smoking both bidis and cigarettes in Wave 2 but have stopped smoking cigarettes by Wave 3.
- **D Survey:** Dual smoker: for respondents who smoke BOTH cigarettes and bidis. Respondents who were cigarette and bidi smokers at Wave 2 and continue to smoke both, and respondents who were single tobacco product smokers (either cigarette or bidi) in

Wave 2 but have added another smoking tobacco product (either bidi or cigarette) at Wave 3.

- **N Survey:** Non-User: for respondents who DO NOT smoke either cigarettes or bidis, and do not use smokeless tobacco. These are respondents who NEVER smoked at Wave 2 and continue not to smoke at Wave 3 and also have NEVER used smokeless tobacco at Wave 2 and continue not to use smokeless tobacco products at Wave 3.
- **Q survey:** Quitter: for recontact respondents who have quit all tobacco products.

3.3.2 Content of Survey

The kinds of questions that were asked are described later in this report

. The following is a summary of those questions:

- Demographic questions (e.g., age, gender, religion, education, income, socio-economic status);
- Questions relevant to the policies of interest. These include measures of awareness (e.g., of warning labels, cessation assistance, advertising and promotion, prices) and, where relevant, of more extensive cognitive processing (e.g., thinking about health warnings);
- Moderator variables (e.g., time perspective, stress);
- Well-established questions assessing smoking behaviour;
- Other important psychosocial predictors of smoking behaviour (psychosocial mediating variables, e.g., normative beliefs, self-efficacy, intentions to quit); and
- Questions enquiring about household income, expenditures, wealth, and tobacco cultivation.

3.3.3 Language of Survey

All surveys were translated into Bengali which is the national language in Bangladesh. For surveys in the tribal areas, Garo and Chakma interviewers were employed to conduct the interviews in the corresponding tribal languages. The locations of the survey determined the language version.

3.3.4 Length of the Interview

The survey was conducted by a face-to-face interview with the respondent. It took about an hour and half to complete the tobacco user surveys, and about 45 minutes to complete the non-users of tobacco survey.

3.3.5 Collecting Empty Tobacco Packs

During the main survey, empty tobacco packs were collected from respondents who smoke cigarettes or bidis and subsequently handed to the Field Supervisor. Interviewers were provided with clear plastic bags and stickers for collecting empty cigarette and bidi packs from respondents.

3.4 Exit and Compensation

At the end of the interview, the respondents were debriefed, remunerated and thanked for their time. For each household of respondents, the head of the household was presented with a token of appreciation of 200 Taka (approximately 3.00 USD) as remuneration for their time.

3.5 Progress Report

3.5.1 Survey Translation

All the surveys for W3 fieldwork were finalized by the third week of October 2011. Translation of the survey documents into Bengali started by the end of October and was completed by the second week of November 2011. The printed copies of the questionnaires were ready for the survey teams by mid-November 2011.

3.5.2 Field Work Preparation

The Dhaka team prepared all the supporting survey materials (such as bags, T-shirts, pen, paper, official letters) for the survey teams by the second week of November 2011.

3.5.3 Interviewer Training Workshop

The Interviewer Training Workshop took place during the second week of November 2011. A three-day long training workshop was conducted by the Dhaka team at the Bureau of Economic research, Dhaka University. A total of 50 participants attended the workshop.

3.5.4 Survey Fieldwork

On November 16, 2011, four teams consisting of four enumerators and one supervisor left Dhaka city to travel to four different regions of Bangladesh, namely Chittagong, Barishal, Rajshahi and Dhaka. The four teams started the fieldwork in their respective areas on November 16, 2011. In addition to using some of the regional enumerators the Dhaka team recruited ten additional enumerators to conduct the fieldwork in Dhaka city (after training the new enumerators). The Wave 3 fieldwork was completed by the end of May, 2012. The total numbers of respondents include 2809 tobacco users (including cigarette smokers, bidi smokers, dual smokers, smokeless tobacco users, and mixed tobacco users) and 1706 nonusers.

3.5.5 Questionnaire Checking

The Dhaka team started to receive completed questionnaires from the field in the first week of December 2012. Questionnaire checking started immediately after that. Fieldwork and questionnaire checking continued simultaneously and questionnaire checking was completed by the June, 2012.

3.5.6 Data Entry

The Dhaka team received EpiData templates for the W3 surveys and household forms over the first two weeks of December 2012. A few changes had to be made to the EpiData template of each survey and form. The data entry was completed in July 2012 and the entries were checked immediately.

3.5.7 Data Checking and Cleaning

The data from the survey were checked for out-of-range values, outliers for open-ended responses, and mismatches of individual identifiers and smoking status between Wave 2 and Wave 3. The mismatches between household level forms and individual level surveys were also identified and corrected. The variables in W3 data were checked for consistency and errors. Corrections of data entry and cases with out-of-range values were also carried out using appropriate rules.

3.5.8 Linking of W3 Data to W2 and W1 Data

The checked and processed W3 data were linked to W2 and W1 data. The ID mismatches were resolved and the coding was completed for revisions in W1 and W2 ID variables. The screener data from Wave 3 was checked for changes in smoking status of individual respondents between the two waves. This data was used in the dynamic longitudinal analysis of smoking behavior.

3.5.9 Data Delivery

W3 data were delivered to the Data Management Centre (DMC) at the University of Waterloo in the first week of August 2012. A DMC data analyst has processed the W3 data which was released on October 30, 2013. The data are now available for further analysis.

3.6 Contingencies in Fieldwork

The field work was smooth during the first phase till end of December. Our field coordinator left after the end of the contract in December. We hired a new field coordinator from January. He was quick to take responsibilities and made several surprise visits to the field in January.

To check the quality of data collection, we randomly picked households (5% of the interviewed cases from each area) and made phone calls to the interviewed households. In one occasion in the area of Noakhali in Chittagong zone, we discovered that the interviewee compensation was not given. The field coordinator rushed to the field and found the evidence of that and called back the supervisor. It is found that when the team went to the field in a taxi, one package of T-shirts was forgotten. Fearing to report to the Dhaka office, they started to ration and skipped the compensation for some households. However, the situation was corrected and the field staff were asked to report of such incidences so that Dhaka office could take necessary measures to provide necessary support. In two other occasions, we found that the interviewer did not give sufficient time to the interview. The manager and the coordinator immediately rushed to the spot and withdrew two interviewers- one from the Barisal group and one from the Dhaka group. In one occasion it was found that the interviewer interviewed the spouse instead of the designated respondent since he was not available at home during the interview. We also withdrew the interviewer immediately and cautioned team leaders to inform the Manager or field coordinator in such circumstances.

The Dhaka group leader complained about an enumerator since he was not complying with the routine conveniently for others. He used to get up late in the morning. We changed him and posted him in Dhaka City group since in Dhaka city the suitable time for interviewing was on the week end and from the late afternoon.

Since this was our 3rd time in the field, respondents were aware of the survey and the unpleasant events which happened in first two rounds did not take place. Interviewers were welcomed and cooperated with in almost every case.

Concerning the floating household enumeration, we found a new challenge this year. Two of the six slums were evicted and people were relocated in other slum areas. Therefore, we had to increase the number of sample households in the existing 4 slum areas. The other issue was with Geneva Camp. This is mostly a permanent settlement of refugees from the Independence war in 1971. But there is no household number. The houses are in a cluster of a long terrace with a common household number. Because of that we did not collect the household number this year as we did in the previous year. The household number is in that case misleading since under one number there are many respondents.

4. Monitoring and Quality Control

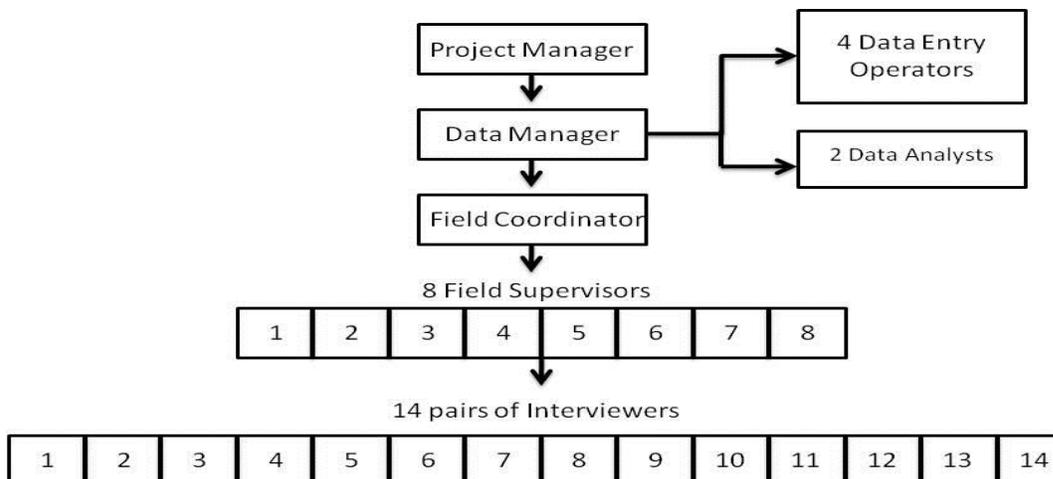
4.1 Management of Fieldwork Teams

The project fieldwork team consisted of five levels of management, including:

- **Project Manager:** responsible for overseeing all aspects of the survey fieldwork, as well as administrative duties and communicating with the ITC Bangladesh team in Waterloo and the Project Consultants.
- **Data Manager:** responsible for collecting and checking all completed forms and overseeing the data entry process. In addition, four data entry operators and two data analysts were engaged to conduct the data entry, checking, cleaning, and compilation.
- **Field Coordinator:** duties included training the Field Supervisors and interviewers and assigning them to survey areas, obtaining supplies, managing all forms, and reporting fieldwork progress.
- **4 Field Supervisors:** responsible for contacting local authorities, making appointments for interviews, gathering packages of tobacco products, and monitoring the interviews.
- **26 Interviewers,** working in teams of two (interviewers were instructed to work in pairs at all times, for reasons of safety and efficiency): responsible for obtaining consent, interviewing respondents, and reporting to the field supervisor with any problems.

20 interviewers in four teams consisting of 4 interviewers and one Field Supervisor in each team were assigned in four zones namely, Dhaka, Chittagong, Barisal, and Rajshahi, and collected data from districts outside the Dhaka city. Dhaka city was covered by 10 enumerators. They also worked as team of two in each group. The coordinator usually supervised them.

Figure 3: Hierarchical Order of the ITC Bangladesh Field Staff.



4.2 Training Manuals

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

4.3 Interviewing Aids (see Appendix A)

- **Manikin Flashcards:** There were two questions that required the aid of a flashcard when the response options were read out, to save time and to facilitate interviewing. The flashcards included pictures of little man-like figures (manikins) with bipolar degrees of emotion (from negative to positive emotions). Researchers studying emotional responses have found the use of these manikins to be helpful to respondents in rating their own emotional responses.

4.4 Monitoring & Quality Assurance

To ensure the accuracy and quality of the ITC Bangladesh Survey, the survey fieldwork was monitored in several ways.

- **Field Supervision:** The Field Supervisor travelled with each interview team and provided regular feedback to the interviewers. The Field Supervisor ensured that the survey protocol and data collection standards were being closely followed. Field Supervisors could monitor interviews and were available to address any questions or concerns from the interviewers.
- **Identification Numbers:** Field Supervisors were instructed to ensure that household and respondent identification numbers were being properly filled out.
- **Checking for Completeness:** At the end of each day, interviewers were required to perform a self-check on the survey questionnaires they completed that day. Each interviewer reviewed the entire completed survey to determine whether any questions were missed or skipped. The Field Supervisor then collected all completed questionnaires from the interview teams under his/her supervision. Upon the completion of each survey in each village/ward, the Field Supervisors gave the completed and checked questionnaires to the Field Coordinator. The Field Coordinator conducted some quality checks on data collection and then gave the questionnaires to the data manager for data entry.
- **Weekly Meetings:** During the survey fieldwork period, the Field Coordinator held weekly meetings with all interviewers, the Data Manager and quality control staff members. Items on the agenda of these meetings included: i) summary of work for the past week; ii) identifying problems and finding solutions; iii) arranging tasks for the coming week, etc. The Data Manager was responsible for taking minutes and keeping them on file.
- **Telephone Hotline:** A hotline on a mobile phone was used to communicate continuously with the field staff and to provide updates on fieldwork progress on a daily basis. The Field Supervisors were instructed to use the hotline mobile phone to report any difficulties to their Field Coordinator, so that the Field Coordinator could address it immediately.
- **Progress Reports:** The Project Manager provided regular progress reports on quotas and any problems or issues to the investigator teams.

4.5 Data Quality Control

Data entry proceeded in parallel with the field work. In order to ensure the quality of the data collection process, we used a multistage monitoring system:

- There were random visits by the Project Manager and the Field Coordinators to monitor the interviewers in the field.
- Enumerated households were randomly called to verify the information that enumerators filled in on the forms.
- Field Supervisors cross-checked all completed enumeration forms daily to ensure that they had been properly completed.
- After data entry, two data analysts continuously ran routine checks on the data sets, informing the Field Coordinator and Project Manager about any potential problems. When problems arose, the Project Manager consulted the investigators for input into making decisions about the best method(s) to correct errors. These methods could be communicated to all field staff using the hotline service. All the Field Supervisors possessed mobile phones and were instructed to report to the Field Coordinator and the data entry staff about any detected problems. As the survey proceeded, the feedback gathered from the data sets helped the enumerators in the field to learn from past omissions and to improve on the data collection process.

4.6 Handling Special Situations

Private interviews

Adult participants were interviewed alone whenever possible. If another person insisted on being present, the respondent needed to agree for the interview to proceed.

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 Bangladesh Survey.

Respondent Not Available

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

Substitution

Only if a selected household was recorded to have the disposition “No one at home” or “Cannot answer” for all four visits over four different times, (weekday day-time, weekday night-time, weekend day-time and weekend night-time) could the household be replaced by a substitute, selected by the Field Supervisor.

Handling Multiple Respondents

An interviewer could not interview two adults at the same time. If there was a smoker and a non-smoker in the same household, the Non-Smoker survey was conducted after the smoker survey. If only the non-smoker respondent was present, the Non-Smoker survey was postponed until after the smoker survey.

5. Disposition Codes and Retention Rates

5.1 Sample Size and Representation

The total sample consisted of 5522 respondents. The following tables are the breakdown of the sample.

Table 1: ITC Bangladesh Wave 3, total respondents by sampling area, tobacco use and gender

| | Tobacco Use Status | | | | | | | | | | | | | |
|---------------------------------|------------------------|--------|------------------|--------|-----------|--------|-------|--------|-----------|--------|---------|--------|----------|--------|
| | Exclusively cigarettes | | Exclusively bidi | | Dual user | | Mixed | | Smokeless | | Quitter | | Non-user | |
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| National sample | 1326 | 20 | 197 | 21 | 168 | 5 | 210 | 16 | 145 | 368 | 219 | 12 | 343 | 1173 |
| Dhaka slums | 322 | 0 | 16 | 2 | 11 | 0 | 53 | 1 | 57 | 193 | 0 | 0 | 79 | 321 |
| Border area | 14 | 0 | 5 | 0 | 6 | 0 | 4 | 0 | 2 | 5 | 5 | 0 | 4 | 14 |
| Tribal areas | 38 | 3 | 16 | 10 | 16 | 1 | 8 | 5 | 4 | 7 | 5 | 1 | 20 | 51 |
| Sub-Total by gender | 1700 | 23 | 234 | 33 | 201 | 6 | 275 | 22 | 208 | 573 | 229 | 13 | 446 | 1559 |
| Sub-Total by tobacco use | 1723 | | 267 | | 207 | | 297 | | 781 | | 242 | | 2005 | |
| Grand Total | 5522 | | | | | | | | | | | | | |

Table 2: ITC Bangladesh Wave 3, total respondents sampling area, smokeless use and sex.

| | Uses smokeless tobacco | | Does not use smokeless tobacco | |
|------------------------|------------------------|--------|--------------------------------|--------|
| | Male | Female | Male | Female |
| National sample | 355 | 384 | 2253 | 1231 |
| Dhaka slums | 110 | 194 | 428 | 323 |
| Border area | 6 | 5 | 34 | 14 |
| Tribal areas | 12 | 12 | 95 | 66 |

| | | | | |
|----------------------------|-------------|-----|------|------|
| Sub-Total by gender | 483 | 595 | 2810 | 1634 |
| Sub-total by user | 1078 | | 4444 | |
| Grand Total | 5522 | | | |

Table 3: ITC Bangladesh Wave 3, total respondents by sampling area, smoke status x smokeless use and gender

| | Smoker | | | | Non-smoker | | | |
|---------------------------------|------------------------|--------|--------------------------------|--------|------------------------|--------|--------------------------------|--------|
| | Uses smokeless tobacco | | Does not use smokeless tobacco | | Uses smokeless tobacco | | Does not use smokeless tobacco | |
| | Male | Female | Male | Female | Male | Female | Male | Female |
| National sample | 210 | 16 | 1910 | 58 | 145 | 368 | 343 | 1173 |
| Dhaka slums | 53 | 1 | 349 | 2 | 57 | 193 | 79 | 321 |
| Border area | 4 | 0 | 30 | 0 | 2 | 5 | 4 | 14 |
| Tribal areas | 8 | 5 | 75 | 15 | 4 | 7 | 20 | 51 |
| Sub-Total by gender | 275 | 22 | 2364 | 75 | 208 | 573 | 446 | 1559 |
| Sub-Total by tobacco use | 297 | | 2439 | | 781 | | 2005 | |
| Grand Total | 5522 | | | | | | | |

Table 4: ITC Bangladesh, total respondents recruited by wave, sampling area and initial tobacco use at the time of recruitment

| | | Wave of Recruitment | | | |
|------------------------|---------------------|----------------------------|-------------|-------------|--------------|
| | | 1 | 2 | 3 | Total |
| National sample | Tobacco user | 2368 | 123 | 157 | 2648 |
| | Non-user | 2010 | 120 | 146 | 2276 |
| | Sub-total | 4378 | 243 | 303 | 4924 |
| Dhaka slums | Tobacco user | 597 | 490 | 655 | 1742 |
| | Non-user | 540 | 426 | 400 | 1366 |
| | Sub-total | 1137 | 916 | 1055 | 3108 |
| Border area | Tobacco user | 37 | 1 | 2 | 40 |
| | Non-user | 24 | 0 | 0 | 24 |
| | Sub-total | 61 | 1 | 2 | 64 |
| Tribal areas | Tobacco user | 109 | 8 | 0 | 117 |
| | Non-user | 86 | 6 | 2 | 94 |
| | Sub-total | 195 | 14 | 2 | 211 |
| Grand total | | 5771 | 1174 | 1362 | 8307 |

Table 5: Total respondents participating in ITC Bangladesh Wave 3

| Sample | Wave 3 Tobacco Use | Cohort | | | |
|--------------------|------------------------|-------------|------------|-------------|-------------|
| | | 1 | 2 | 3 | Total |
| National sample | Exclusively cigarettes | 1203 | 55 | 88 | 1346 |
| | Exclusively bidi | 209 | 5 | 4 | 218 |
| | Dual user | 161 | 7 | 5 | 173 |
| | Mixed | 198 | 8 | 20 | 226 |
| | Smokeless | 450 | 26 | 37 | 513 |
| | Quitter | 209 | 19 | 3 | 231 |
| | Non-user | 1299 | 71 | 146 | 1516 |
| | <i>Sub-total</i> | <i>3729</i> | <i>191</i> | <i>303</i> | <i>4223</i> |
| Dhaka slums | Exclusively cigarettes | 0 | 0 | 322 | 322 |
| | Exclusively bidi | 0 | 0 | 18 | 18 |
| | Dual user | 0 | 0 | 11 | 11 |
| | Mixed | 0 | 0 | 54 | 54 |
| | Smokeless | 0 | 0 | 250 | 250 |
| | Non-user | 0 | 0 | 400 | 400 |
| | <i>Sub-total</i> | <i>0</i> | <i>0</i> | <i>1055</i> | <i>1055</i> |
| Border area | Exclusively cigarettes | 12 | 1 | 1 | 14 |
| | Exclusively bidi | 5 | 0 | 0 | 5 |
| | Dual user | 6 | 0 | 0 | 6 |
| | Mixed | 3 | 0 | 1 | 4 |
| | Smokeless | 7 | 0 | 0 | 7 |
| | Quitter | 5 | 0 | 0 | 5 |
| | Non-user | 18 | 0 | 0 | 18 |
| | <i>Sub-total</i> | <i>56</i> | <i>1</i> | <i>2</i> | <i>59</i> |
| Tribal areas | Exclusively cigarettes | 39 | 2 | 0 | 41 |
| | Exclusively bidi | 24 | 2 | 0 | 26 |
| | Dual user | 13 | 4 | 0 | 17 |
| | Mixed | 13 | 0 | 0 | 13 |
| | Smokeless | 11 | 0 | 0 | 11 |
| | Quitter | 6 | 0 | 0 | 6 |
| | Non-user | 63 | 6 | 2 | 71 |
| | <i>Sub-total</i> | <i>169</i> | <i>14</i> | <i>2</i> | <i>185</i> |
| Grand Total | | 3954 | 206 | 1362 | 5522 |

Table 6: Wave 1 to Wave 2 retention rates by sampling area and initial tobacco use at the time of recruitment

| | Tobacco user | | | | Non-user | | | | All Respondents | | | |
|------------------------|--------------|------|----------|------|----------|------|----------|------|-----------------|------|----------|------|
| | Lost | | Retained | | Lost | | Retained | | Lost | | Retained | |
| | Freq. | % | Freq. | % | Freq. | % | Freq. | % | Freq. | % | Freq. | % |
| National sample | 137 | 5.8 | 2231 | 94.2 | 125 | 6.2 | 1885 | 93.8 | 262 | 6 | 4116 | 94 |
| Dhaka slums | 439 | 73.5 | 158 | 26.5 | 424 | 78.5 | 116 | 21.5 | 863 | 75.9 | 274 | 24.1 |
| Border area | 1 | 2.7 | 36 | 97.3 | 0 | 0 | 24 | 100 | 1 | 1.6 | 60 | 98.4 |
| Tribal areas | 13 | 11.9 | 96 | 88.1 | 11 | 12.8 | 75 | 87.2 | 24 | 12.3 | 171 | 87.7 |

Table 7: Wave 2 to Wave 3 retention rates by cohort, sampling area and initial tobacco use at the time of recruitment

| | Cohort | Tobacco user | | | | Non-user | | | | All Respondents | | | |
|------------------------|-----------------|----------------------------------|------------|-------------|-------------|----------------------------------|------------|-------------|-------------|-----------------|-------------|-------------|-------------|
| | | Wave 2 Sample Followed to Wave 3 | | | | Wave 2 Sample Followed to Wave 3 | | | | Lost | | Retained | |
| | | Lost | Retained | Lost | Retained | Lost | Retained | Lost | Retained | Freq. | % | Freq. | % |
| National sample | 1 | 233 | 10.4 | 1998 | 89.6 | 158 | 8.4 | 1727 | 91.6 | 391 | 9.5 | 3725 | 90.5 |
| | 2 | 27 | 22 | 96 | 78 | 25 | 20.8 | 95 | 79.2 | 52 | 21.4 | 191 | 78.6 |
| | Combined | 260 | 11 | 2094 | 89 | 183 | 9.1 | 1822 | 90.9 | 443 | 10.2 | 3916 | 89.8 |
| Dhaka slums | 1 | 158 | 100 | 0 | 0 | 116 | 100 | 0 | 0 | 274 | 100 | 0 | 0 |
| | 2 | 490 | 100 | 0 | 0 | 426 | 100 | 0 | 0 | 916 | 100 | 0 | 0 |
| | Combined | 648 | 100 | 0 | 0 | 542 | 100 | 0 | 0 | 1190 | 100 | 0 | 0 |
| Border area | 1 | 3 | 8.3 | 33 | 91.7 | 1 | 4.2 | 23 | 95.8 | 4 | 6.7 | 56 | 93.3 |
| | 2 | 0 | 0 | 1 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 100 |
| | Combined | 3 | 8.1 | 34 | 91.9 | 1 | 4.2 | 23 | 95.8 | 4 | 6.6 | 57 | 93.4 |
| Tribal areas | 1 | 1 | 1 | 95 | 99 | 2 | 2.7 | 73 | 97.3 | 3 | 1.8 | 168 | 98.2 |
| | 2 | 0 | 0 | 8 | 100 | 0 | 0 | 6 | 100 | 0 | 0 | 14 | 100 |
| | Combined | 1 | 1 | 103 | 99 | 2 | 2.5 | 79 | 97.5 | 3 | 1.6 | 182 | 98.4 |

Table 8: Wave 1 to Wave 2 retention rates by division (excluding Dhaka slums) and initial tobacco use at the time of recruitment

| | Tobacco user | | | | Non-user | | | | All Respondents | | | |
|-------------------|------------------------------------|----------|-------------|-----------|------------------------------------|------------|-------------|-------------|-----------------|------------|-------------|-------------|
| | Wave 1 Recruits Followed to Wave 2 | | | | Wave 1 Recruits Followed to Wave 2 | | | | | | | |
| | Lost | | Retained | | Lost | | Retained | | Lost | | Retained | |
| | Freq. | % | Freq. | % | Freq. | % | Freq. | % | Freq. | % | Freq. | % |
| Barisal | 5 | 1.8 | 275 | 98.2 | 3 | 1.4 | 205 | 98.6 | 8 | 1.6 | 480 | 98.4 |
| Chittagong | 23 | 4.9 | 451 | 95.1 | 27 | 6.1 | 415 | 93.9 | 50 | 5.5 | 866 | 94.5 |
| Dhaka | 82 | 10.2 | 721 | 89.8 | 72 | 10 | 646 | 90 | 154 | 10.1 | 1367 | 89.9 |
| Khulna | 15 | 4.6 | 314 | 95.4 | 12 | 4.9 | 231 | 95.1 | 27 | 4.7 | 545 | 95.3 |
| Rajshahi | 17 | 3.5 | 473 | 96.5 | 15 | 3.7 | 387 | 96.3 | 32 | 3.6 | 860 | 96.4 |
| Sylhet | 9 | 6.5 | 129 | 93.5 | 7 | 6.5 | 100 | 93.5 | 16 | 6.5 | 229 | 93.5 |
| Overall | 151 | 6 | 2363 | 94 | 136 | 6.4 | 1984 | 93.6 | 287 | 6.2 | 4347 | 93.8 |

Table 9: Wave 2 to Wave 3 retention rates by cohort, division (excluding Dhaka slums) and initial tobacco use at the time of recruitment

| | | Tobacco user | | | | Non-user | | | | All Respondents | | | |
|----------------|-----------------|----------------------------------|-------------|-------------|-------------|----------------------------------|-------------|-------------|-------------|-----------------|-------------|-------------|-------------|
| | | Wave 2 Sample Followed to Wave 3 | | | | Wave 2 Sample Followed to Wave 3 | | | | | | | |
| | | Lost | | Retained | | Lost | | Retained | | Lost | | Retained | |
| | | Freq. | % | Freq. | % | Freq. | % | Freq. | % | Freq. | % | Freq. | % |
| Barisal | 1 | 35 | 12.7 | 240 | 87.3 | 18 | 8.8 | 187 | 91.2 | 53 | 11 | 427 | 89 |
| | 2 | 0 | 0 | 4 | 100 | 0 | 0 | 4 | 100 | 0 | 0 | 8 | 100 |
| | Combined | 35 | 12.5 | 244 | 87.5 | 18 | 8.6 | 191 | 91.4 | 53 | 10.9 | 435 | 89.1 |
| Chittagong | 1 | 35 | 7.8 | 416 | 92.2 | 24 | 5.8 | 391 | 94.2 | 59 | 6.8 | 807 | 93.2 |
| | 2 | 5 | 27.8 | 13 | 72.2 | 5 | 22.7 | 17 | 77.3 | 10 | 25 | 30 | 75 |
| | Combined | 40 | 8.5 | 429 | 91.5 | 29 | 6.6 | 408 | 93.4 | 69 | 7.6 | 837 | 92.4 |
| Dhaka | 1 | 87 | 12.1 | 634 | 87.9 | 70 | 10.8 | 576 | 89.2 | 157 | 11.5 | 1210 | 88.5 |
| | 2 | 19 | 23.8 | 61 | 76.3 | 16 | 23.2 | 53 | 76.8 | 35 | 23.5 | 114 | 76.5 |
| | Combined | 106 | 13.2 | 695 | 86.8 | 86 | 12 | 629 | 88 | 192 | 12.7 | 1324 | 87.3 |
| Khulna | 1 | 46 | 14.6 | 268 | 85.4 | 22 | 9.5 | 209 | 90.5 | 68 | 12.5 | 477 | 87.5 |
| | 2 | 1 | 6.7 | 14 | 93.3 | 1 | 12.5 | 7 | 87.5 | 2 | 8.7 | 21 | 91.3 |
| | Combined | 47 | 14.3 | 282 | 85.7 | 23 | 9.6 | 216 | 90.4 | 70 | 12.3 | 498 | 87.7 |
| Rajshahi | 1 | 26 | 5.5 | 447 | 94.5 | 16 | 4.1 | 371 | 95.9 | 42 | 4.9 | 818 | 95.1 |
| | 2 | 1 | 16.7 | 5 | 83.3 | 3 | 16.7 | 15 | 83.3 | 4 | 16.7 | 20 | 83.3 |
| | Combined | 27 | 5.6 | 452 | 94.4 | 19 | 4.7 | 386 | 95.3 | 46 | 5.2 | 838 | 94.8 |
| Sylhet | 1 | 8 | 6.2 | 121 | 93.8 | 11 | 11 | 89 | 89 | 19 | 8.3 | 210 | 91.7 |
| | 2 | 1 | 11.1 | 8 | 88.9 | 0 | 0 | 5 | 100 | 1 | 7.1 | 13 | 92.9 |
| | Combined | 9 | 6.5 | 129 | 93.5 | 11 | 10.5 | 94 | 89.5 | 20 | 8.2 | 223 | 91.8 |
| Overall | | 264 | 10.6 | 2231 | 89.4 | 186 | 8.8 | 1924 | 91.2 | 450 | 9.8 | 4155 | 90.2 |

Table 10: Wave 1 to Wave 2 retention rates by urban/rural residence (excluding Dhaka slums) and initial tobacco use at the time of recruitment

| | | Tobacco user | | | | Non-user | | | | All Respondents | | | |
|----------------|--|------------------------------------|-----|----------|------|------------------------------------|-----|----------|------|-----------------|-----|----------|------|
| | | Wave 1 Recruits Followed to Wave 2 | | | | Wave 1 Recruits Followed to Wave 2 | | | | | | | |
| | | Lost | | Retained | | Lost | | Retained | | Lost | | Retained | |
| | | Freq. | % | Freq. | % | Freq. | % | Freq. | % | Freq. | % | Freq. | % |
| Urban | | 73 | 8.7 | 768 | 91.3 | 62 | 8.8 | 639 | 91.2 | 135 | 8.8 | 1407 | 91.2 |
| Rural | | 78 | 4.7 | 1595 | 95.3 | 74 | 5.2 | 1345 | 94.8 | 152 | 4.9 | 2940 | 95.1 |
| Overall | | 151 | 6.0 | 2363 | 94.0 | 136 | 6.4 | 1984 | 93.6 | 287 | 6.2 | 4347 | 93.8 |

Table 11: Wave 2 to Wave 3 retention rates by cohort, urban/rural residence (excluding Dhaka slums) and initial tobacco use at the time of recruitment

| | | Tobacco user | | | | Non-user | | | | All Respondents | | | |
|----------------|-----------------|----------------------------------|-------------|-------------|-------------|----------------------------------|-------------|-------------|-------------|-----------------|-------------|-------------|-------------|
| | | Wave 2 Sample Followed to Wave 3 | | | | Wave 2 Sample Followed to Wave 3 | | | | | | | |
| | | Lost | | Retained | | Lost | | Retained | | Lost | | Retained | |
| | | Freq. | % | Freq. | % | Freq. | % | Freq. | % | Freq. | % | Freq. | % |
| Urban | 1 | 106 | 13.8 | 662 | 86.2 | 75 | 11.7 | 564 | 88.3 | 181 | 12.9 | 1226 | 87.1 |
| | 2 | 17 | 25.4 | 50 | 74.6 | 19 | 27.1 | 51 | 72.9 | 36 | 26.3 | 101 | 73.7 |
| | Combined | 123 | 14.7 | 712 | 85.3 | 94 | 13.3 | 615 | 86.7 | 217 | 14.1 | 1327 | 85.9 |
| Rural | 1 | 131 | 8.2 | 1464 | 91.8 | 86 | 6.4 | 1259 | 93.6 | 217 | 7.4 | 2723 | 92.6 |
| | 2 | 10 | 15.4 | 55 | 84.6 | 6 | 10.7 | 50 | 89.3 | 16 | 13.2 | 105 | 86.8 |
| | Combined | 141 | 8.5 | 1519 | 91.5 | 92 | 6.6 | 1309 | 93.4 | 233 | 7.6 | 2828 | 92.4 |
| Overall | | 264 | 10.6 | 2231 | 89.4 | 186 | 8.8 | 1924 | 91.2 | 450 | 9.8 | 4155 | 90.2 |

6. Weights Construction

6.1 Summary of Wave 3 weights computation

For households and respondents present at Waves 1, 2 and 3 we constructed longitudinal Wave 1 – Wave 2 – Wave 3 household and individual weights. For households and respondents present at Waves 2 and 3, we constructed longitudinal Wave 2 –Wave 3 longitudinal weights. For all Wave 3 respondents we constructed cross-sectional Wave 3 interview household and individual weights.

6.2 Longitudinal Wave 1 – Wave 2 -- Wave 3 weights

These longitudinal weights, for the fixed population sample with households and individuals present in all three waves, were based on the interviewed household weights *IHWT* from Wave 1. First, for those households which were still interview households in Wave 3, we rescaled the Wave 1 *IHWT* to sum to the total of the *IHWTs* for all Wave 1 households within each upazila crossed with Wave 1 household smoking status. This produced for households present in all three waves a Wave 1-Wave 2-Wave 3 weight *IHWT123*.

For each respondent present in all three waves, we multiplied *IHWT123* by the adjusted within-household weight *W1a* from Wave 1, producing a preliminary longitudinal weight *W123WTT*. We then rescaled these *W123WTT* weights to sum to the Wave 1 cross sectional weight (*aDE62915v*) totals for age group (15-29, 30-44, 45+) and gender within district or Dhaka (non-floating) or floating population area. This produced the longitudinal weights *W123WT* for individuals.

W123WT is variable *cDE62921v* on the data set.

There is also a version of this weight rescaled to sum to individual sample size within area type, crossed with smoker/non-smoker status at recruitment. Area type means (tribal, non-tribal outside Dhaka, Dhaka floating, Dhaka non-floating). This is variable *cDE62951v* on the data set.

6.3 Longitudinal Wave 2 – Wave 3 weights

These longitudinal weights for the fixed population sample with households and individuals present in Waves 2 and 3 were based on the interviewed household weights *IHWT* from Wave 2. First, for those households which were still interview households in Wave 3, we rescaled the Wave 2 *IHWT* to sum to the total of the *IHWTs* at Wave 2 within each upazila crossed with Wave 1 household smoking status. This produced for those households a Wave 2-Wave 3 weight *IHWT23*.

For each Wave 2 respondent still present in Wave 3 we multiplied *IHWT23* by the adjusted within-household weight *W1aX2* from Wave 2, producing a preliminary longitudinal weight *W23WTT*. We then rescaled these *W23WTT* weights to sum to the Wave 2 cross sectional weight (*bDE62915v*) totals for age group (15-29, 30-44, 45+) and gender within district or Dhaka (non-floating) or floating population area. This produced the longitudinal weights *W23WT* for individuals.

W23WT is variable *cDE62923v* on the data set.

There is also a version of this wave rescaled to sum to individual sample size within area type, crossed with smoker/non-smoker status at recruitment. Area type means (tribal, non-tribal outside Dhaka, Dhaka floating, Dhaka non-floating). This is variable *cDE62953v* on the data set.

6.4 Wave 3 cross-sectional weights

We first constructed Wave 3 cross-sectional interview household weights *IHWT3*. In fixed population districts, for each interview household in a village, whether a Wave 1 or Wave 2 household or a household newly recruited at Wave 3, we let *IHWT3* be the total value of *IHWT* from Wave 1 for households of the same village and household smoking status (stratum), divided by the number of interview households in that village-stratum in Wave 3.

In the tribal area where four new households were enumerated, the same procedure was followed.

In the floating population areas, as all respondents were new, the procedure for Wave 1 was followed instead. Using the new *EHWTs* computed for the Wave 3 enumeration data, *IHWT3* was computed in the same way as the interview household weights in Wave 1.

There were 3 women and 5 men in households enumerated in Wave 1 but having interviews for the first time in Wave 3, who were interviewed as smokers even though the Wave 1 household smoking status was non-smoker. For constructing Wave 3 cross-sectional weights, the status of the household was changed to smoker; however, the Wave 1 weights were not changed.

Step 311: Each interviewed individual, in an old household or a new household, has been given a household level weight *W1X3*. This is interpreted as the number of people in the same household with the same refined category.

- for an adult male smoker or quitter, *W1X3* is the number of adult male smokers or quitters in the same household, divided by the number of adult male smokers or quitters interviewed in that household
- for an adult female smoker or quitter, *W1X3* is the number of adult female smokers or quitters in the same household, divided by the number of adult female smokers or quitters interviewed in that household
- for an adult male non-smoker, *W1X3* is the number of adult male non-smokers in the same household, divided by the number of adult male non-smokers interviewed in that household
- for an adult female non-smoker, *W1X3* is the number of adult female non-smokers in the same household, divided by the number of adult female non-smokers interviewed in that household
- for nonsmoker households, *W1X3* is the number of adult nonsmokers (regardless of sex) in the same household divided by the number of adult non-smokers interviewed in that household
-

For a majority of recontact respondents, *W1X3* should be the same as *W1X2* from Wave 2. Where a Wave 1 or Wave 2 household has some Wave 3 interviews, but also at least one dropout, or at least one person who has changed from being a non-smoker to being a smoker, *W1X3* will

be different from $W1X2$ for some members of the household. Recontact respondents quitting smoking would not cause a change from $W1X2$ to $W1X3$.

Note: $W1X3$ as defined above does not necessarily sum within the household to the number of people aged 15 and over in the household, since there will typically be one refined category from which no one was interviewed (non-smoker, unrepresented sex).

We have capped the value of $W1X3$ at 3 to reduce the potential variability of the weights. Step 2I1a below ensures that each individual still represents an approximately correct number at the village level.

Step 3I1a: Each interviewed individual has been given an adjusted household level weight $W1aX3$. This adjustment is meant to ensure that the prevalence estimates based on the $EHWTs$ from Wave 1, and the final individual cross-sectional weights for Wave 3, will be approximately the same.

Consider a village stratum to be defined by smoker/non-smoker (when recruited) household within the village.

Let $CAMS_{hVI}$, $CAFS_{hVI}$, $CAMNS_{hVI}$, $CAFNS_{hVI}$ be respectively the contributions to total estimates at Wave 1 of adult male smokers, adult female smokers, adult male non-smokers, adult female non-smokers, from the enumeration in the village stratum. For example,

$$CAMS_{hVI} = \sum_{hVI} EHWT * n_{male,sm}$$

where the sum is taken over enumerated households in the village stratum.

Let $W1AMS_{hVI}$, $W1AFS_{hVI}$, $W1AMNS_{hVI}$, $W1AFNS_{hVI}$ be respectively the sums of $W1X3$ in all interviewed households for adult male smokers/quitters, adult female smokers/quitters, adult male non-smokers, adult female non-smokers, in the village stratum h .

- for an adult male smoker/quitter, $W1aX3$ will be given by

$$W1aX3 = (CAMS_{hVI} \times W1X3 / W1AMS_{hVI}) / IHWT3$$

- similarly for the other refined categories

In case there is representation of only one gender of smokers or of non-smokers in the village stratum, the relevant categories can be collapsed by gender for that village stratum.

For the floating population, village crossed with stratum were replaced by area crossed with smoking/non-smoking household.

Step 3I2: Each interviewed individual has been given a preliminary national level weight $W4X3$.

For an individual in a non-floating population in a non-tribal area, $W4X3$ will be thought of as the number of people in the country and same refined category represented by that individual. Similarly, for an interviewed individual in a tribal or purposive district, $W4X3$ will be thought of as the number of people in the same district and the same refined category represented by that individual. Finally, for an interviewed individual in the floating population in Dhaka, $W4X3$ will be thought of as the number of people in the floating population and the same refined sampling category represented by that individual.

The weight $W4X3$ is given by

$$W4X3 = IHWT3 \times W1aX3.$$

6.5 Calibration of individual weights at the national level

Step 3C1: Each interviewed individual has been given a calibrated national level weight

$$W6X3 = W4X3 \times N_{area,dem} / W4X3_{area,dem}$$

where $N_{area,dem}$ is the known number of people in the same area with same gender (but regardless of tobacco use status) as the individual, and $W4X3_{area,dem}$ is the sum of the $W4X3$ weights for interviewed individuals in the same area, with same gender (regardless of tobacco use status).

The choices for area were again the non-tribal districts outside Dhaka, including the border area; the tribal districts; Dhaka floating population; Dhaka non-floating population.

The inflation weights $W6$ are what would be used for descriptive inference about the country's population. (The variable name for $W6X2$ is cDE62915v).

6.6 Rescaling

Finally, the weights have been rescaled within each sampling category (smoker/quitter and non-smoker) and area to sum to national sample sizes, for analytical use or in pooled analyses. Area (tribal and border, non-tribal and non-border outside Dhaka, Dhaka floating, Dhaka non-floating).

The formula used for the final rescaled weights is as follows:

$$\text{Rescaled weight } RWTX3 = n_c \times W6X3 / (\sum_c W6X3),$$

where n_c is the actual (i.e. unweighted) size of the country subsample for the sampling category, and $\sum_c W6X3$ denotes a sum over that subsample of the original weights.

(The variable name for rescaled weight is cDE62919v.)

7. Protocol for Collecting Price of Tobacco Products in Bangladesh

Aim: The Bangladesh Government has recently increased taxes on tobacco products. Therefore, we would like to obtain the current market price of each tobacco product sold in Bangladesh. The collection of price information of tobacco products in Bangladesh is part of a larger national level survey - The International Tobacco Control Bangladesh Survey. The aims of the national research are: 1) to find out how many people in Bangladesh use tobacco—how many smoke and how many use smokeless tobacco, 2) to find out how the beliefs and opinions of tobacco users might be related to tobacco use and whether governmental policies and programs affect tobacco use, and 3) to find out how other events in Bangladesh—nationally or in your community—affect tobacco use. We will also examine how religion, culture, and ethnicity may affect smoking and smokeless tobacco use by comparing the views of Bangladeshi tobacco users to those of tobacco users from India, Southeast Asia, China, South Korea, and from western countries such as USA, Canada, UK, and Australia. We would like to invite you to take part in the price collection part of the study.

Instructions: Cigarettes

1. Record **ALL** brand families AND brand varieties sold in the local store. Examples of brand families would be Capstain, Star, Pilot, Marlboro, Gold Leaf. Examples of brand varieties would be *Filter*, *White*.
2. Record the price for each brand and variety in that store.
3. Record the price separately for sales in packs and in sticks by asking the storekeeper. Do not divide the price per pack by the number of sticks in pack to derive the price per stick.
4. Ask the storekeeper to identify the 10 brands s/he sells most commonly. Mark it with a ✓ (check) next to the brand name.
5. In the column for the unit of measurement in packs, record if it is a pack of 10 or 20 sticks.

Instructions: Bidis and Smokeless Tobacco

1. Record **ALL** brands of bidis and smokeless tobacco sold in the local store.
2. Record the price for each bidi brand and smokeless tobacco brand in that store.
3. Ask the storekeeper to identify the 10 brands s/he sells most commonly for bidis and smokeless tobacco. Mark it with an “X” next to the brand of bidis and smokeless tobacco.
4. In the column for the unit of measurement in minipacks/containers for smokeless tobacco, record the weight of the minipack or container. For example, a container of zarda can be big, medium or small size. So specify both size and weight, such as, *small (100gm)*. Use separate row for each size of the same brand. If the storekeeper reports the price of minipacks of gul in dozens, you have to write *dozen (each minipack 10 gm)*.
5. In the column for unit of measurement in loose amount of smokeless tobacco, mention the weight in grams.

Script:

After entering the store, you should introduce yourself and the purpose of your visit.

You say:

“Assalamualaikum, my name is < >, and I am a member of the University of Dhaka.”

(If you already know the person you may skip self-introduction)

You say:

“University of Dhaka is conducting an important national survey on tobacco use in Bangladesh. I am gathering information about the brands of cigarettes, bidis and smokeless tobacco available for sale in this ward/village. Participation is voluntary.

If you agree to take part, I would like to take a list of the cigarettes for sale in your store, their prices, and ask you which brands you sell the most. It should only take between 10 to 15 minutes. We will be providing you with 50 Taka as a small token of appreciation for your time.

I would like to assure you that the tobacco prices in your store are strictly confidential. Data from this research will not be destroyed but any details that could identify you or your store will be removed from the information collected. We will report price information based on the group of participating storekeepers. All price information will be kept strictly confidential and will not be shared with any person or group that is not

associated with this survey. Identifying information (which is not attached to the responses themselves) will be kept in secure locations here at the University of Dhaka and at the University of Waterloo, Canada, following security procedures that we employ for our surveys. The data will be held in secure electronic files on computers that have security certificates, are password protected, and can only be accessed by the research team. The main research team will report on the data, with no identifying information for various publications. Eventually, after two years, the data without names or personal information may be shared with other health researchers.

Would you be willing to let me record the tobacco product prices?"

If yes, collect the price information. After the collection of price information, you say:

"Thank you for all your help. I really appreciate it."

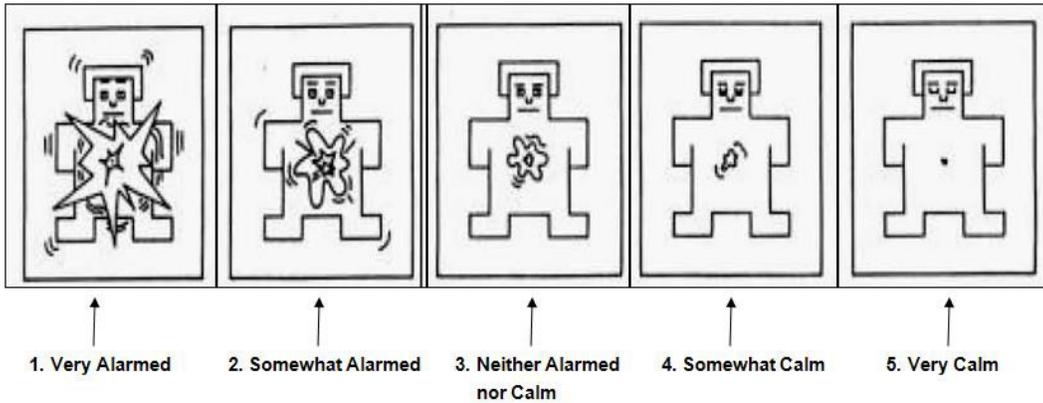
Provide the token of appreciation.

If no, thank the storekeeper and go to the next store.

Appendix A: Field Materials

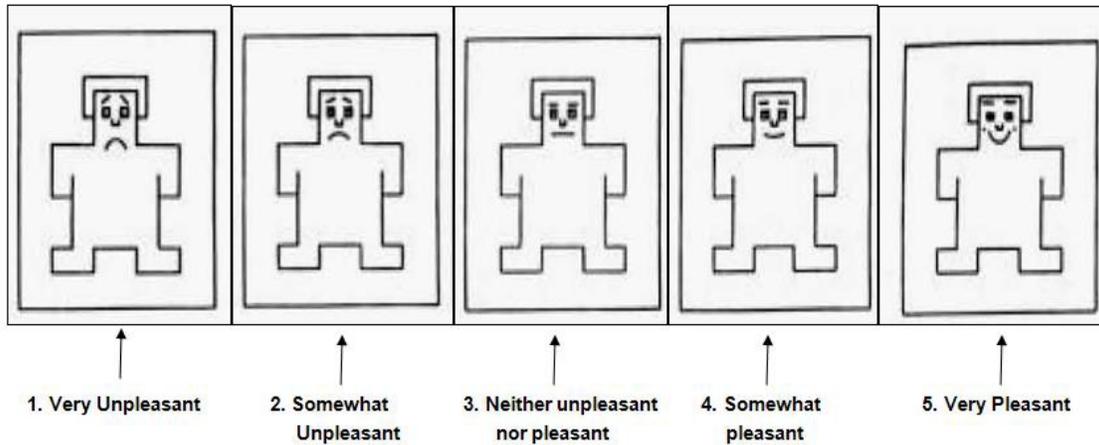
MANIKIN FLASHCARD 1

AROUSAL SCALE



MANIKIN FLASHCARD 2

VALENCE SCALE



Appendix B: Survey Information Letter and Consent Form



RESPONDENT INFORMATION LETTER

Research Project: Tobacco Control Policy Evaluation in Bangladesh
Human Research Ethics Committee, University of Waterloo Clearance Number: ORE 15019
University of Dhaka, Ethics Clearance Number: BMRC/ERC/2007-2010/1372

What is this research about?

The aims of this research are: 1) to find out how many people in Bangladesh use tobacco—how many smoke and how many use smokeless tobacco, 2) to find out how the beliefs and opinions of tobacco users might be related to tobacco use and whether governmental policies and programs affect tobacco use, and 3) to find out how other events in Bangladesh—nationally or in your community—affect tobacco use. We will also examine how religion, culture, and ethnicity may affect smoking and smokeless tobacco use by comparing the views of Bangladeshi tobacco users to those of tobacco users from India, Southeast Asia, China, South Korea, and from western countries such as USA, Canada, UK, and Australia.

Who is conducting this research?

This research is led by a team of Dhaka University professors from the Department of Economics:

- Professor SM Ashiquzzaman, Project Leader and Principal Researcher
- Dr. Ummul Hasanath Ruthbah, Co-Principal Researcher
- Mr. AKM Ghulam Hussain, Project Manager

The consultants for the project include:

- Dr. Nigar Nargis (Department of Economics, University of Dhaka, Bangladesh)
- Professor Geoffrey Fong (Department of Psychology, University of Waterloo, Canada)
- Professor Mary Thompson (Department of Statistical and Actuarial Science, University of Waterloo, Canada)
- Dr. Abu SM Abdullah (Florida International University, Miami, USA)

What are we asking of you?

This research involves completing the survey interview (approximately 90 minutes for tobacco users and 45 minutes for non-users of tobacco) today. We plan to return every 12-18 months to do follow-up surveys because we are interested in how people's opinions and behaviours might change over time. Tobacco use includes smoking cigarettes, smoking bidis, and using smokeless tobacco (e.g. jorda, shadapata).

We would also like to collect empty cigarette, bidi and smokeless packs from you and members of your household who are tobacco users for the purpose of comparing with the packs collected from other parts of the country.

Involvement in this research is voluntary. You and/or any of your household members are free to withdraw at any time or may decline to answer any of the questions. You or any member of your household may decline to participate or withdraw at any time without any impact on the token of appreciation that is provided. If you and/or any of your household members agree to participate in this research, we will provide your household with a token of appreciation for your time. Your household will be given a similar token of appreciation for each subsequent time that you agree to participate.

Confidentiality and Security of Data

All the information you provide is treated as strictly confidential. Data from this research will not be destroyed, but any identifying information about you such as name and address will be removed so that your answers cannot be linked back to you.

The data will be held in secure electronic files at the University of Dhaka and at the University of Waterloo on computers that have security certificates, are password protected, and can only be accessed by the research team. Eventually, after two years, the data without names or personal information may be shared with other health researchers.

Concerns and Complaints

If you wish to discuss any questions about this research project, please contact:

Professor SM Ashiquzzaman, Principal Researcher, Department of Economics, University of Dhaka, Dhaka-1000, Bangladesh, Phone: 9661900, ext. 6441.
Email: smashiq1@hotmail.com.

If you wish to lodge a complaint concerning the manner in which this research is being conducted, please contact: Professor Farid Uddin Ahmed, Dean, Faculty of Social Sciences, University of Dhaka, Dhaka-1000, Bangladesh. Phone: 9661900, ext. 4352. Email: dean.fss.du@yahoo.com.

This study has been reviewed and received ethics clearance through the Office of Research Ethics at the University of Waterloo, Canada. In the event you have any questions or concerns about your participation, please contact:

Dr. Susan Sykes, Director, Office of Research Ethics, University of Waterloo, 200 University Avenue West, Waterloo, Ontario, Canada, N2L 3G1 ph: +1 519 888-4567 ext. 36005. E-mail: ssykes@uwaterloo.ca

RESPONDENT CONSENT FORM

Research Project: Tobacco Control Policy Evaluation in Bangladesh
Human Research Ethics Committee, University of Waterloo Clearance Number: ORE 15019
University of Dhaka, Ethics Clearance Number: BMRC/ERC/2007-2010/1372

I agree to take part in the above international research project conducted in Bangladesh by a research team based at the Bureau of Economic Research at the University of Dhaka. I have read the participant information sheet, which I will keep for my records. I understand that:

- This project is being conducted for research purposes.
- Participation in this research is voluntary and that I am free to withdraw from the research at any time or to withdraw any information previously supplied during the interview.
- Participation in this research involves completing a face-to-face interview today lasting approximately 90 minutes for tobacco users and 45 minutes for non- users of tobacco.
- I will be given a gift as a token of appreciation for my time.
- Only those people involved with this research will have access to any information I supply.
- All the information I provide is treated as strictly confidential.

I, _____ give my consent to take part in this research.

PRINT NAME

Signed: **or Right thumb print:**.....

Date:/...../.....

Witness Name:

Witness Signature:

Current address and contact details:

Village/Ward/Road/House:.....

Thana:..... Post Office:.....

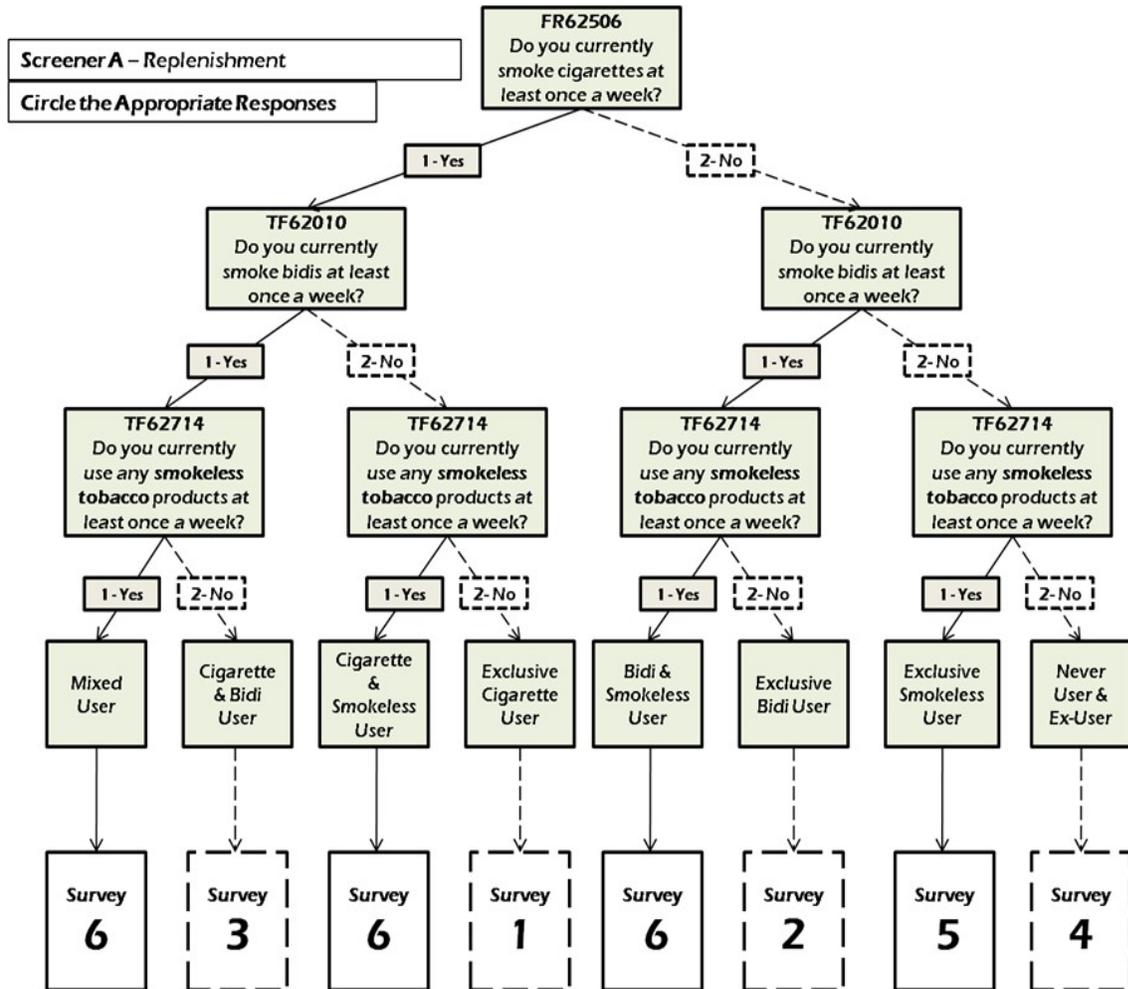
District:..... Division:.....

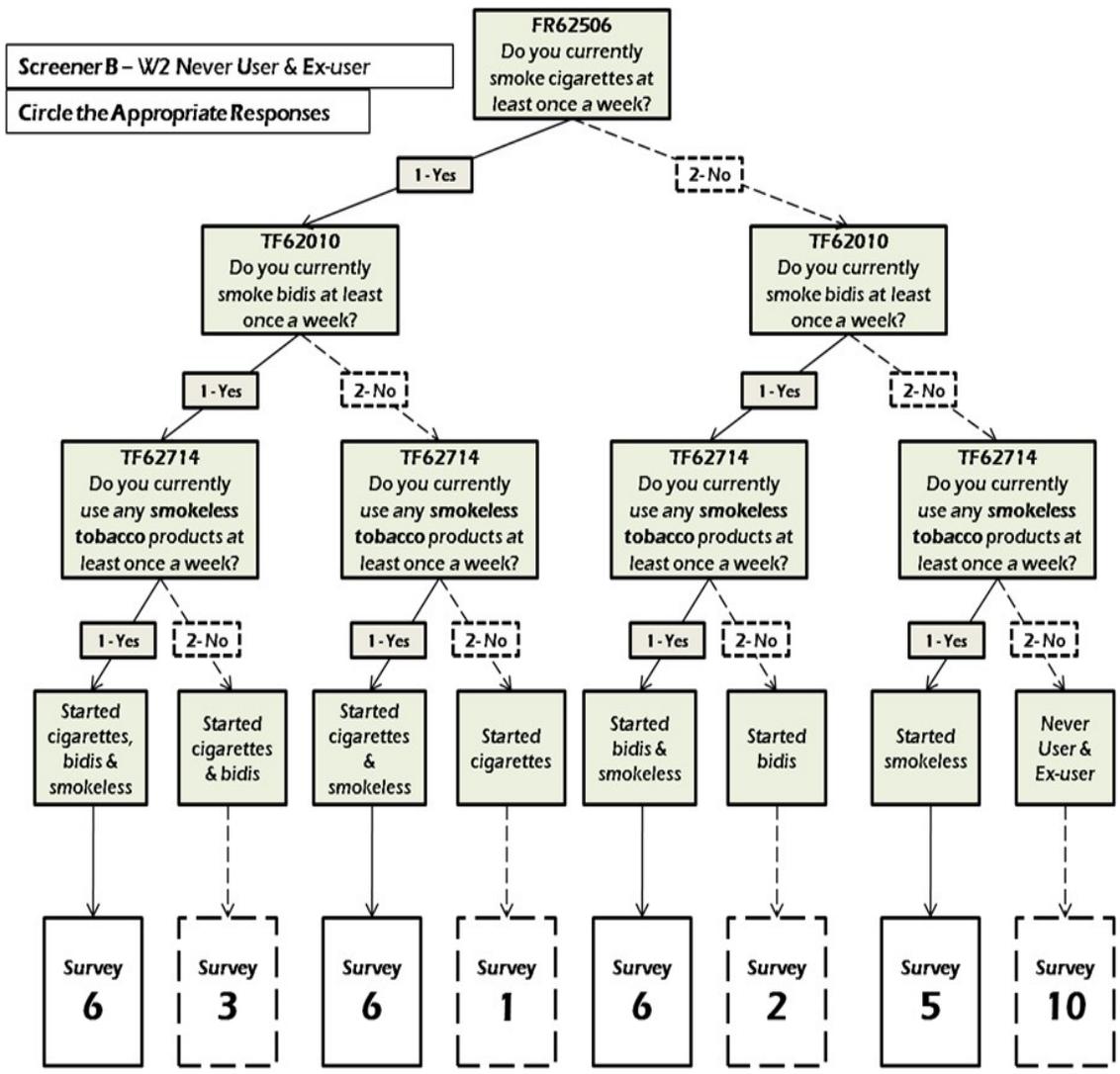
Telephone:-Home: Work:

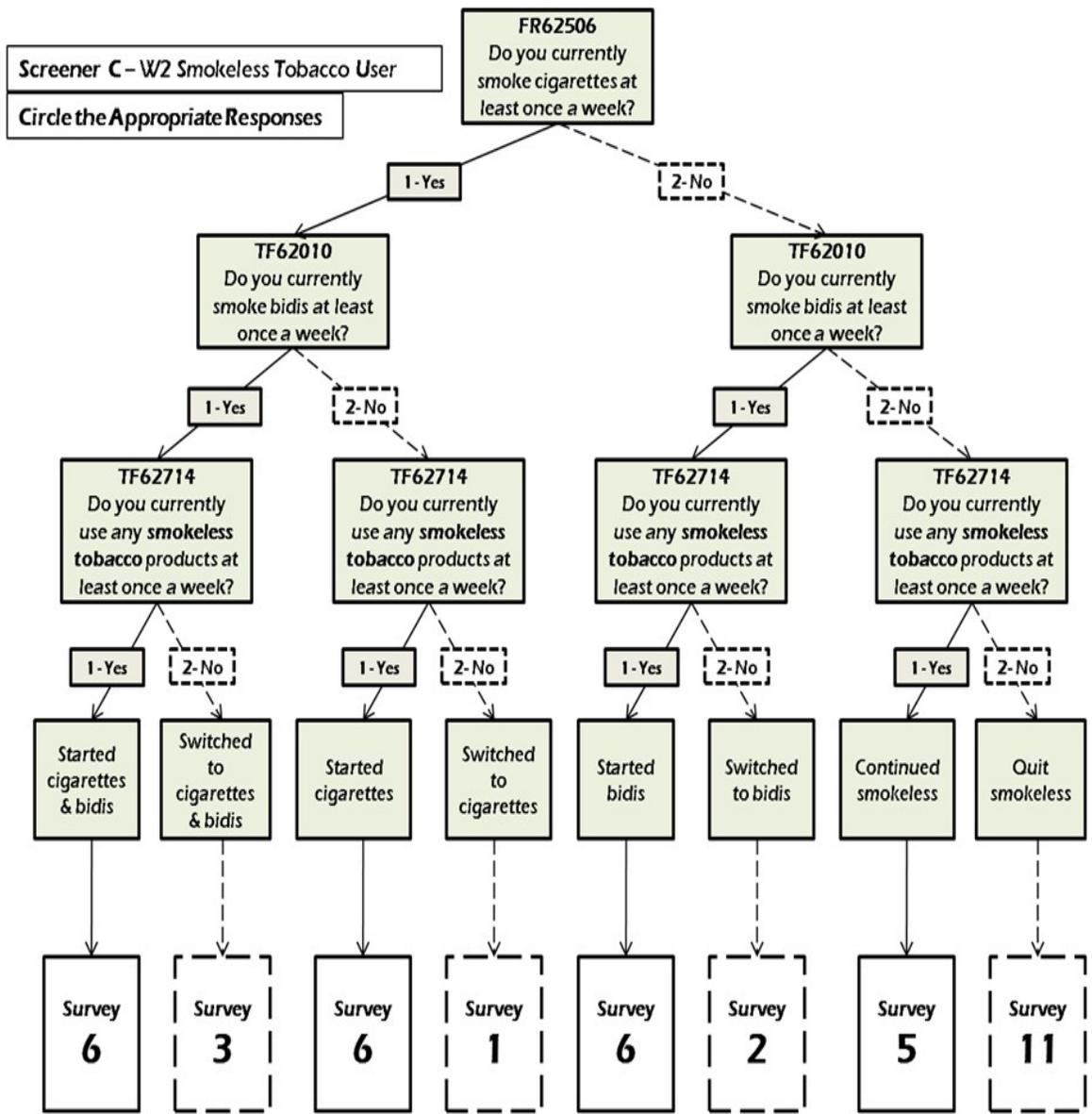
Cell:

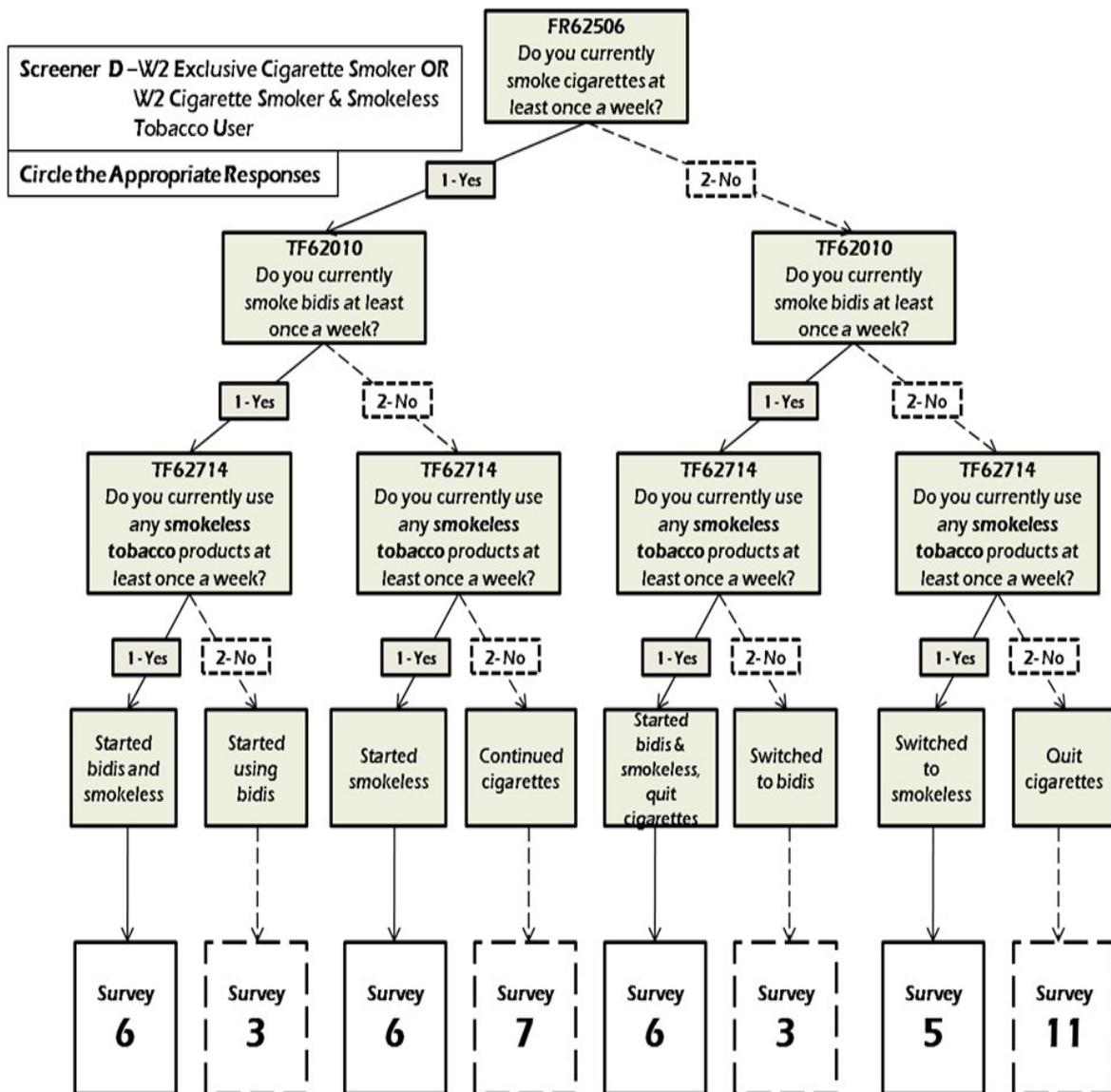
Note: Please notify the research team using the postcard provided if there is a change in contact details above before the end of the study.

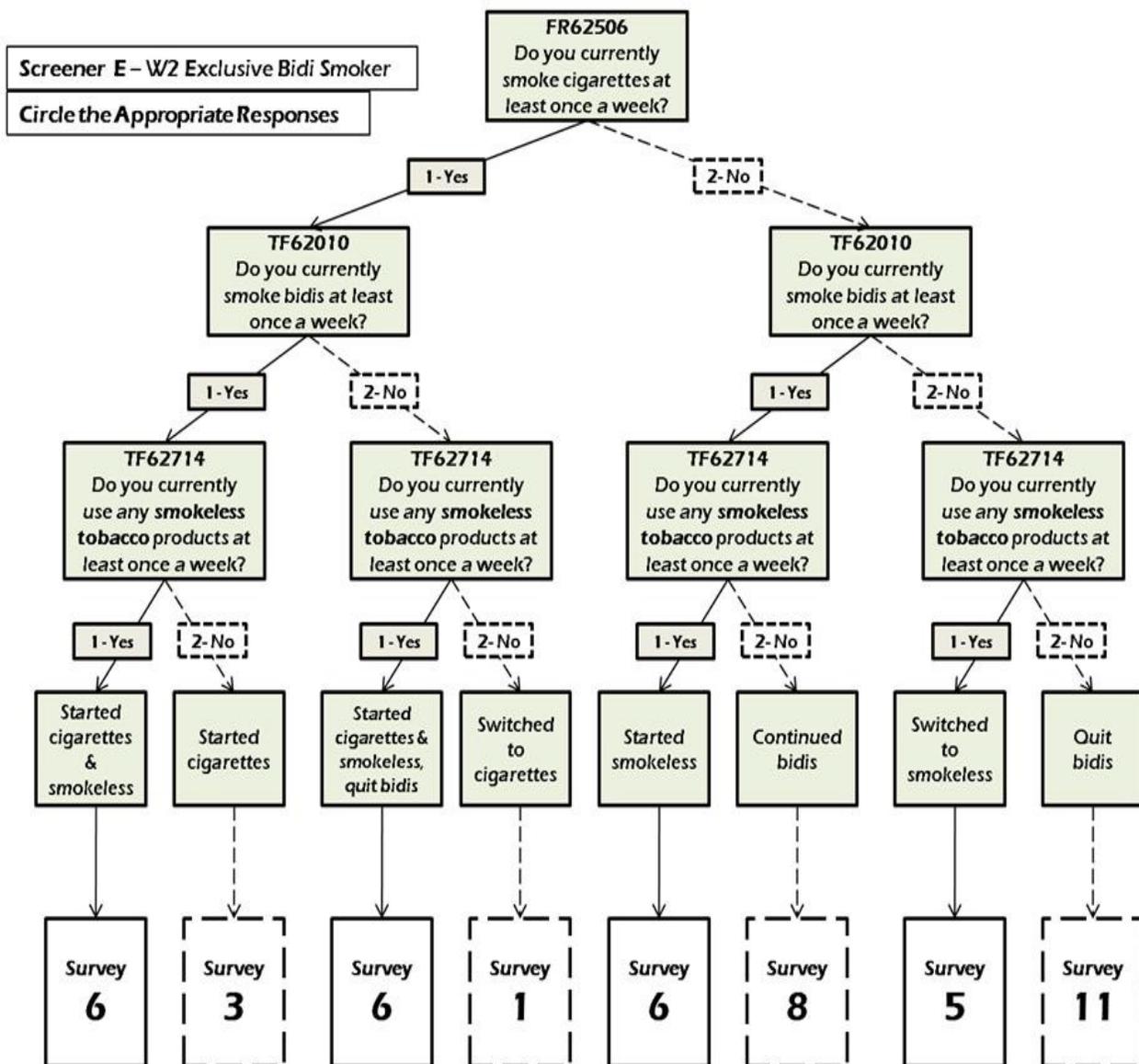
Appendix C: Screeners

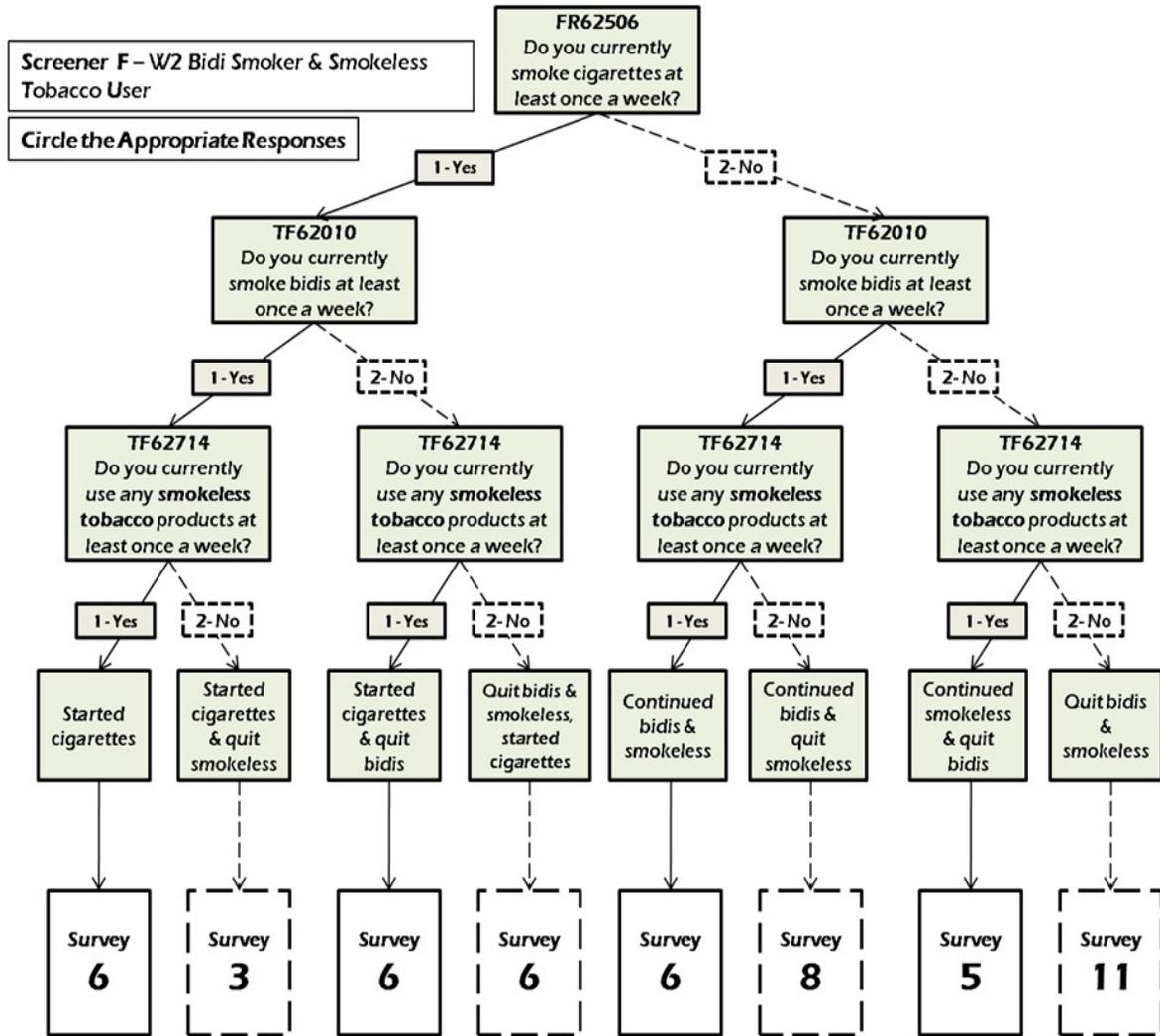


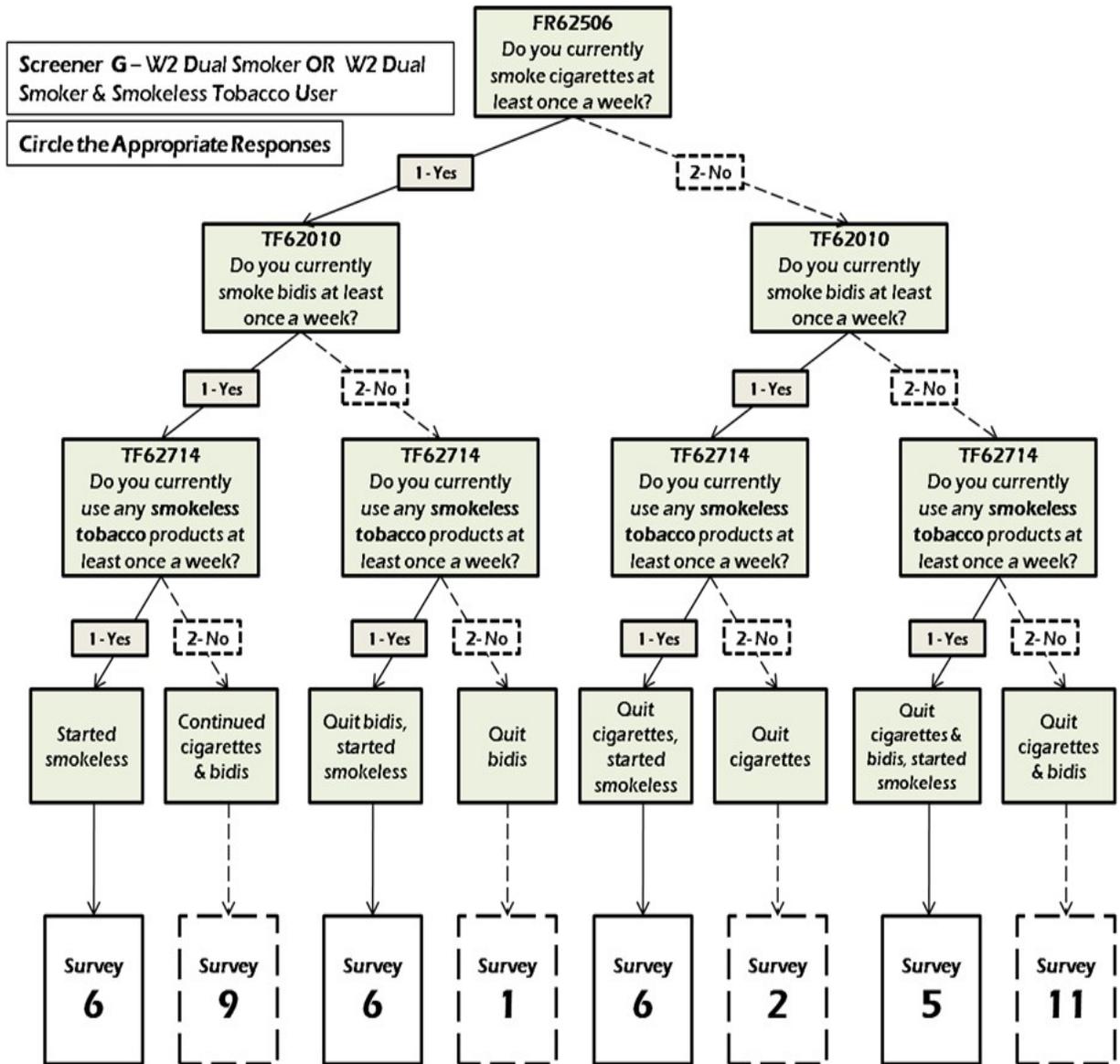


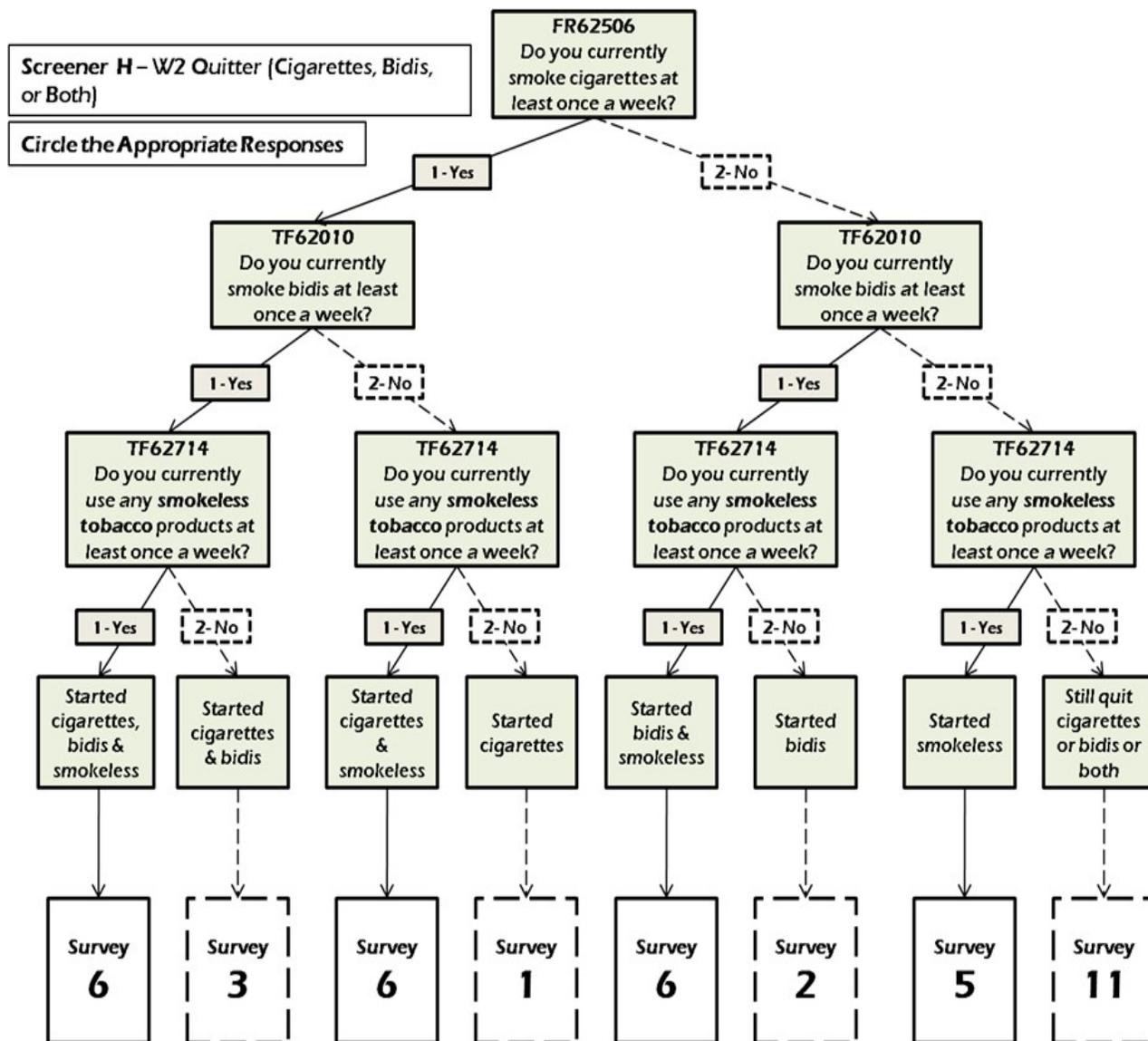












Appendix D: Pictures of Survey Fieldwork



Appendix E: Country Profile

Bangladesh has an estimated population of 156 million, 25% of whom live in urban areas. In 2009, GDP per capita was US \$1500. Tobacco use is the leading cause of death and disability in Bangladesh. Although an estimated 57,000 people die a year of tobacco use, this will climb considerably in the near future. Currently, there are 41.1 million people who use tobacco, including 20.9 million people who smoke either cigarettes or bidis, or both. Tobacco use in Bangladesh has increased considerably compared to five years ago - 8.7 million more people are using tobacco, including 2.5 million more smokers. The level of tobacco consumption is moved even higher in Bangladesh by a bottom heavy demographic structure (57.7% of the total population is aged below 25 years and one-third is below 15 years), widespread illiteracy (half of the adult population is illiterate), and poverty (about half of the total population lives below the poverty line).

In 2005, Bangladesh enacted the Tobacco Control Act (TCA), with corresponding regulations being implemented in 2006. However, recent evidence from two nationally representative surveys conducted in 2009—the Global Adult Tobacco Survey (GATS) and the International Tobacco Control (ITC) Bangladesh Survey—have found that despite the enactment of the TCA, Bangladesh has experienced an alarming increase (2.5 million more Bangladesh people are smoking) in tobacco consumption over the past five years. The low price of tobacco products, which has not kept up with the rapid increase in cost of living, is a major factor underlying the increase in tobacco use despite the Tobacco Control Act of 2005. The low impact of the TCA in failing to reduce tobacco consumption and prevalence in Bangladesh may also be due in part to low levels of enforcement of non-tax measures of the TCA, such as the advertising ban and smoke-free public places, and relatively low levels of implementation of warning labels.

As almost half of the population in Bangladesh lives below the poverty line, it is important to identify tobacco usage pattern and effectiveness of tobacco control initiatives specifically for the poor. Universal tobacco control policy instruments may not work unequivocally to save the poor from the tobacco epidemic. This aspect of tobacco control merits particular attention from policy makers in view of the growing concentration of tobacco usage in the developing countries, and among the poor within developing countries. Together, the evaluation provided by the proposed study and ongoing surveillance efforts will provide valuable information to the Bangladesh Government toward the goal of strong FCTC implementation. The placement of a longitudinal tobacco control policy evaluation study in Bangladesh is important in its own right, as there are no existing research projects in Bangladesh that are suitable to evaluating the impact of tobacco control policies. The Bangladesh Government has made considerable progress in enacting tobacco control regulations and is in the process of building capacities to support the entire drive. However, it is not yet clear how effective the already implemented tobacco control efforts have been or the planned efforts would be.

FCTC Status

Bangladesh was the first country to sign the FCTC (in June 2003) and among the first to ratify it (in June 2004). It introduced its Tobacco Control Act (2005) which banned smoking in health-care and educational facilities, restricted smoking in transportation and public places, and banned tobacco advertising, promotion and sponsorship. Current health warnings are text-based, covering 30% of the pack. Tobacco Cessation Clinics have been set up by NGOs and currently do not offer nicotine replacement therapy. These initiatives, however, are considered grossly inadequate for the size of the population.

Appendix F: Project Schedules
(Year 1, First Term: August 01, 2008-January 31, 2009)

| Year 1 | Aug | September | | | | October | | | | November | | | | December | | | | January | | | | | | | | |
|--|-----|-----------|-----|-----|-----|---------|-----|-----|-----|----------|-----|-----|-----|----------|-----|-----|-----|---------|-----|-----|-----|--|--|--|--|--|
| Week | 4th | 1st | 2nd | 3rd | 4th | 1st | 2nd | 3rd | 4th | 1st | 2nd | 3rd | 4th | 1st | 2nd | 3rd | 4th | 1st | 2nd | 3rd | 4th | | | | | |
| Development of survey, sampling and research protocol | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample selection | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (a) Census | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (b) Wave 1 survey | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Translation to Bengali | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Programming | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Training manual | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Translation of training manual | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pilot | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Recruitment of interviewers | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Training of interviewers | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pretest of census | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pilot survey | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Workshop | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation for fieldwork | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Handing in survey materials to Bangladesh team | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Recruitment of interviewers | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Training of interviewers | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Census | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Enumeration | | | | | | | | | | | | | | | | | | | | | | | | | | |
| National Election | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Entry and cleaning of enumeration data | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample selection | | | | | | | | | | | | | | | | | | | | | | | | | | |

(Year 1, Second Term: February 01-July 31, 2009)

| | February | | | | March | | | | April | | | | May | | | | June | | | | July | | | | | | | |
|---|----------|---|---|---|-------|---|---|---|-------|---|---|---|-----|---|---|---|------|---|---|---|------|---|---|---|---|---|---|---|
| Week | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Census | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (a) Enumeration | █ | █ | █ | | | | | | | | | | | | | | | | | | | | | | | | | |
| (b) Data entry and cleaning | █ | █ | █ | █ | | | | | | | | | | | | | | | | | | | | | | | | |
| (c) Sample selection | | █ | █ | █ | █ | | | | | | | | | | | | | | | | | | | | | | | |
| (d) Data analysis | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | | | | | | | | | | | | | | | | | |
| (e) Determination of sampling weights | | | | | | | | | | | | | | | | | | | | | | | | █ | █ | █ | █ | |
| Sample survey: Wave I | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (a) Survey interviews | | | | █ | █ | █ | █ | █ | █ | █ | █ | █ | | | | | | | | | | | | | | | | |
| (b) Data entry | | | | | | | | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | | | | | | | | |
| (c) Data cleaning | | | | | | | | | | | | | | | | | | | | | | | | █ | █ | █ | █ | |
| Data transfer and analysis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (a) Sending data to DMC, University of Waterloo | | | | | | | | | | | | | | | | | | | | | | | | | | | █ | |
| (b) Data cleaning | | | | | | | | | | | | | | | | | | | | | | | | | | | █ | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Writing Technical Report 2 for IDRC | | | | | | | | | | | | | | | | | | | | | | | | | | | █ | |

(Year 2, First Term: August 01, 2009—January 31, 2010)

| | | August 2009 | | | | September 2009 | | | | October 2009 | | | | November 2009 | | | | December 2009 | | | | January 2010 | | | |
|--|-------------------|-------------|---|---|---|----------------|---|---|---|--------------|---|---|---|---------------|---|---|---|---------------|---|---|---|--------------|---|---|---|
| Project Activity | Week in the month | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Data management of Wave 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data checking | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | | | |
| Data cleaning | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | |
| Data analysis | | | | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Weight construction | | | | | | | | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Paper writing of findings of Wave 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Smoking prevalence paper | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Survey methods paper | | | | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | |
| Quit intentions paper | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | |
| Second hand smoking paper | | | | | | | | | | | | | | | | | | | | | | ■ | ■ | ■ | ■ |
| Capacity building | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selection of training participants | | | | | | | | | | | | | | | | | | ■ | ■ | ■ | ■ | | | | |
| 2-day training on psychosocial analyses | | | | | | | | | | | | | | | | | | | | | | | | | ■ |
| Dissemination of findings of Wave 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Workshop presentation | | | | | | | | | | | | | | | | | | | | | | | | | ■ |
| Press release and press conference | | | | | | | | | | | | | | | | | | | | | | | | | ■ |
| Television interviews | | | | | | | | | | | | | | | | | | | | | | | | | ■ |
| Development of Wave 2 Surveys | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation of National Report (Wave 1) | | | | | | | | | | | | | | | | | | | | | | ■ | ■ | ■ | ■ |
| Preparation of Technical Report 3 for IDRC | | | | | | | | | | | | | | | | | | | | | | ■ | ■ | ■ | ■ |

(Year 2, Second Term: February 01, 2010 — July 31, 2010)

| | | Feb 2010 | | | | Mar 2010 | | | | Apr 2010 | | | | May 2010 | | | | Jun 2010 | | | | Jul 2010 | | | |
|--|----------------------|----------|---|---|---|----------|---|---|---|----------|---|---|---|----------|---|---|---|----------|---|---|---|----------|---|---|---|
| Project Activity | Week in the month => | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Survey Development for Wave 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Finalize Four Surveys in English | | | | | | | | | | | | | | | | | | | | | | | | | |
| Survey Translation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wave 2 Field Work | | | | | | | | | | | | | | | | | | | | | | | | | |
| W2 Fieldwork Preparation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interviewer Training | | | | | | | | | | | | | | | | | | | | | | | | | |
| Survey Fieldwork | | | | | | | | | | | | | | | | | | | | | | | | | |
| Checking Questionnaire | | | | | | | | | | | | | | | | | | | | | | | | | |
| Data Entry | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissemination of Findings of Wave 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation of Summary Report | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation of National Report | | | | | | | | | | | | | | | | | | | | | | | | | |
| Working Paper Series on Taxation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Media Event and Press release | | | | | | | | | | | | | | | | | | | | | | | | | |
| Coverage on Print Media | | | | | | | | | | | | | | | | | | | | | | | | | |
| Coverage on Electronic Media | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation of Technical Report 4 for IDRC | | | | | | | | | | | | | | | | | | | | | | | | | |

(Year 3, First Term: August 01, 2010—January 31, 2011)

| Week | August | | | | September | | | | October | | | | November | | | | December | | | | January | | | |
|---|--------|---|---|---|-----------|---|---|---|---------|---|---|---|----------|---|---|---|----------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Data management | | | | | | | | | | | | | | | | | | | | | | | | |
| Data entry | | | | | | | | | | | | | | | | | | | | | | | | |
| Data checking | | | | | | | | | | | | | | | | | | | | | | | | |
| Data cleaning | | | | | | | | | | | | | | | | | | | | | | | | |
| Data analysis | | | | | | | | | | | | | | | | | | | | | | | | |
| Survey development for Wave 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Drafting questionnaires | | | | | | | | | | | | | | | | | | | | | | | | |
| Drafting other survey materials | | | | | | | | | | | | | | | | | | | | | | | | |
| Entry into Waterloo database | | | | | | | | | | | | | | | | | | | | | | | | |
| Paper writing using Wave 1 data on | | | | | | | | | | | | | | | | | | | | | | | | |
| Second hand smoking | | | | | | | | | | | | | | | | | | | | | | | | |
| Tobacco taxation | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacity building | | | | | | | | | | | | | | | | | | | | | | | | |
| Selection of training participants | | | | | | | | | | | | | | | | | | | | | | | | |
| Training | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissemination | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation of Bengali National Report | | | | | | | | | | | | | | | | | | | | | | | | |
| Paper submission for conference presentation | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation of Technical Report 5 for IDRC | | | | | | | | | | | | | | | | | | | | | | | | |

(Year 3, Second Term: February 28, 2011—July 31, 2011)

| | February | | | | March | | | | April | | | | May | | | | June | | | | July | | | |
|---|----------|---|---|---|-------|---|---|---|-------|---|---|---|-----|---|---|---|------|---|---|---|------|---|---|---|
| Week | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Data management | | | | | | | | | | | | | | | | | | | | | | | | |
| Data entry | | | | | | | | | | | | | | | | | | | | | | | | |
| Data checking | | | | | | | | | | | | | | | | | | | | | | | | |
| Data cleaning | | | | | | | | | | | | | | | | | | | | | | | | |
| Data analysis | | | | | | | | | | | | | | | | | | | | | | | | |
| Survey development for Wave 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Drafting questionnaires | | | | | | | | | | | | | | | | | | | | | | | | |
| Drafting other survey materials | | | | | | | | | | | | | | | | | | | | | | | | |
| Entry into Waterloo database | | | | | | | | | | | | | | | | | | | | | | | | |
| Policy reports, paper writing, and poster presentation | | | | | | | | | | | | | | | | | | | | | | | | |
| Warning labels (policy report) | | | | | | | | | | | | | | | | | | | | | | | | |
| Tax-free (policy report) | | | | | | | | | | | | | | | | | | | | | | | | |
| Tobacco taxation (working paper) | | | | | | | | | | | | | | | | | | | | | | | | |
| WCTOH poster drafts | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacity building | | | | | | | | | | | | | | | | | | | | | | | | |
| Selection of training participants | | | | | | | | | | | | | | | | | | | | | | | | |
| Training | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissemination | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation of Bengali National Report | | | | | | | | | | | | | | | | | | | | | | | | |
| Paper submission for conference presentation | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation of Technical Report 6 for IDRC | | | | | | | | | | | | | | | | | | | | | | | | |

(Year 3, Third Term: August 01, 2011—January 31, 2012)

| | August | | | | September | | | | October | | | | November | | | | December | | | | January | | | |
|--|--------|---|---|---|-----------|---|---|---|---------|---|---|---|----------|---|---|---|----------|---|---|---|---------|---|---|---|
| Week | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Survey development for Wave 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Developing questionnaires | | | | | | | | | | | | | | | | | | | | | | | | |
| Drafting other survey materials | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparing fieldwork materials (populated screeners, HH forms) | | | | | | | | | | | | | | | | | | | | | | | | |
| Translating questionnaires and survey materials | | | | | | | | | | | | | | | | | | | | | | | | |
| Wave 3 Fieldwork | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Paper/Report writing using Wave 1 and 2 data on | | | | | | | | | | | | | | | | | | | | | | | | |
| Prevalence of Tobacco Use | | | | | | | | | | | | | | | | | | | | | | | | |
| Factors Associated with Intentions to Quit Smoking | | | | | | | | | | | | | | | | | | | | | | | | |
| Prevalence and predictors of smokeless tobacco use in Bangladesh | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissemination | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissemination Workshop | | | | | | | | | | | | | | | | | | | | | | | | |
| Abstract submission for consideration in WCTOH conference | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparation of Technical Report for IDRC | | | | | | | | | | | | | | | | | | | | | | | | |

Appendix G: Areas Selected (National Sample)

| Division | District | Upazila/Thana | Selected village/ward | |
|-------------|-----------------|-------------------|----------------------------------|--------------------------------------|
| Barisal | Barguna | Amtali | Chhurikata | |
| | | Pathargata | Raihanpur | |
| | Barisal | Banaripara | Machhrang Chakhar | |
| | | Barisal Sadar | Baidya Para Hijaltala | |
| | | Bhola | Bhola Sadar | Nabipur Sundrkhali |
| | Chittagong | Rangamati | Belaichhari | Tinkania & Goain Chhari |
| | | Chittagong | Fatikchari | Ramgar Chabagan Fatehpur |
| Hat Hajari | | | Nehalpur Alampur | |
| Karnaphuli | | | Khoashnagar Charlaikha | |
| Mirsharai | | | Sonapahar Jamadargram | |
| Cox's Bazar | | | Teknaf | Puran Pollan Para Nazirpara |
| Noakhali | | Noakhali Sadar | Purba Fatehpur Jamalpur | |
| | | Senbagh | Chiladi Arjuntala | |
| | | | | |
| Dhaka | | Dhaka | Keraniganj | Hukka Patti Kaybarta Para |
| | | | Khilgaon Thana | Malibagh Bazarpara Natunbagh |
| | | | Lalbagh Thana | Azimpur Road Lalbagh |
| | | | Mohammadpur Thana | Shahjahan Road Lalmatia (Block-F) |
| | Sabujbagh Thana | | Sabujbagh Kusumbagh | |
| | Kishoreganj | Bhairab | Kalipur (Uttarpara) Chandpur | |
| | | Kishoreganj Sadar | Purba Katiar Char Auliar Para | |
| | Madaripur | Shib Char | Nalgora Baghmara | |
| | Mymensingh | Muktagachha | Lakshmikhola Nimuria | |
| | | Mymensingh Sadar | Natun Bazar Durgabari | |
| | Netrokona | Durgapur | Durgapur & Farang Para | |
| | Tangail | Kalihati | Haripur Ramdebpur | |
| | | Nagarpur | Chasha Bhadra | |

| Division | District | Upazila/Thana | Selected village/ward |
|-------------------|----------|----------------|-----------------------|
| Khulna | Jessore | Jessore Sadar | Sahajani |
| | | | Chanchra Roypara |
| | | Sharsha | Bijoy Nagar |
| | | | Mahisha |
| | Satkhira | Satkhira Sadar | Dighirpar |
| | | | Bhomra |
| | Khulna | Rupsha | Chaubaria |
| | | | Pithabhog |
| | Kushtia | Kushtia Sadar | Nehalpur |
| | | | Railway Colony |
| Rajshahi | Dinajpur | Phulbari | Radhanagar |
| | | | Chakchaka |
| | | Parbatipur | Shamsernagar |
| | | | Mujaffarnagar |
| | Pabna | Bhangura | Chhota Ramchandrapur |
| | | | Adarsha Gram |
| | | Faridpur | Bhabanipur |
| | | | Deobhog |
| | Rajshahi | Durgapur | Nishipara |
| | | | Salgharia |
| | | | Palashbari |
| | Rangpur | Tanor | Bel Pukur |
| | | | Kalma |
| | | Badarganj | Shaha Pur |
| Kismet Basantapur | | | |
| Rangpur Sadar | Pakpara | | |
| | Putimari | | |
| Sylhet | Habiganj | Nabiganj | Shibpasha |
| | | | Bhanudeb |
| | Sylhet | Fenchuganj | Ashighar |
| | | | Ghilachhara |
| Dhaka | Dhaka | Mirpur | Sarengbari |
| | | Motijhil | Kamlapur |
| | | Mohammadpur | Jeneva Camp |
| | | Gulshan | Koril |
| | | Lalbagh Thana | Kamrangirchar |

Appendix H: ITC Bangladesh Surveys Waves 1-4 (2010-2015) Tobacco Use Definitions

During Wave 1 of the ITC Bangladesh Survey, a household enumeration survey was conducted to estimate the prevalence of tobacco use in Bangladesh. This household enumeration survey was used as the sampling frame for the individual respondent surveys. In the enumeration survey, households were randomly sampled through a multi-stage sampling design. The head of the household or most knowledgeable informant was asked to identify tobacco use behaviours of all household members 15 years of age or older. For the individual level survey, respondents completed a screener survey to confirm tobacco use behaviour identified from the household enumeration survey. Individual respondents then received an appropriate survey based on whether they smoked cigarettes or bidis on at least a weekly basis. Respondents who used both cigarettes and bidis completed a longer version of the cigarette survey that included questions about bidi use. Non-smokers, who might use smokeless products, were directed to the non-smoker survey.

At Wave 2, re-contact respondents were again asked about their tobacco use behaviours using a screener survey, and then interviewed using the appropriate survey instrument. Quitters of all products were directed toward a quitter survey, while smokers were directed toward the appropriate survey (cigarette, bidi, or dual user). Non-smokers were directed toward the non-smoker survey, including respondents who did not smoke but used smokeless tobacco.

At Wave 2, new or replenishment respondents were recruited from households enumerated in Wave 1 that did not participate in Wave 1. These new respondents also completed a screener survey in order to determine their tobacco use behaviours and direct them toward the appropriate survey, either cigarette, bidi, dual, or non-smoker.

At Wave 3, smokeless user and mixed user (smokeless + smoked) surveys were added and the non-smoker survey was transformed into a non-tobacco user survey. Again, both re-contact and replenishment respondents first completed a screener survey to identify which type of product they used and to direct them toward the appropriate questionnaire. Therefore, at Waves 3 and 4, seven different survey instruments were used to collect data from the following user groups:

- cigarette smokers
- bidi smokers
- dual users who smoke both cigarettes and bidi
- smokeless tobacco users
- mixed users who smoke a combustible product and use smokeless tobacco
- quitters (former users of any product)
- non-users

The main criterion for inclusion as a tobacco user was at least weekly use of any product. Because respondents were initially identified using a household enumeration in Wave 1, there was some slippage between initial use as reported by the most knowledgeable informant and actual use as identified in the individual survey (i.e., some respondents were included who used a given tobacco product on a less than weekly basis. In general, there were not many of these respondents in any given wave). A detailed breakdown of the frequency of tobacco use in each wave is provided in Table 1.

Smoking Status at Waves 1 and 2

- **Exclusively cigarette:** Respondents who smoked cigarettes at least weekly and did not smoke bidi at all. As noted above, some less than weekly smokers were included.
- **Exclusively bidi:** Respondents who smoked bidi at least weekly and did not smoke cigarettes at all. As noted above, some less than weekly bidi smokers were included.

- **Dual user:** Respondents who smoked cigarettes and bidi at least weekly.
- **Predominantly bidi:** Respondents who smoked bidi at least weekly but also reporting smoking cigarettes, although it was not possible to determine their frequency of cigarette use. This smoking status category was only used in Wave 1.
- **Predominantly cigarette:** Respondents who smoked cigarettes at least weekly but also reporting smoking bidi, although it was not possible to determine frequency of bidi use. This smoking status category was only used in Wave 1.
- **Quitters:** This category was added at Wave 2. Respondents who smoked cigarettes and/or bidi at Wave 1 who reported quitting either product (or both, if a dual user at Wave 1) were classified as having quit.
- **Non-smoker:** Respondents who reported not using any smoked tobacco product at all. These respondents could have reported using smokeless products. There are questions in the non-smoker survey about smokeless use to identify which non-smokers reported using smokeless tobacco.

Tobacco Use Status at Waves 3 and 4

Beginning in Wave 3, additional smokeless and mixed user categories were added to identify tobacco use status. Cigarette, bidi, and dual use definitions are the same as those used at Waves 1 and 2. In addition, the following groups were added:

- **Smokeless:** Respondents who reported at least weekly smokeless use but no use of combustible products. Some less than weekly smokeless users were included.
- **Mixed user:** Respondents who reported at least weekly smokeless use and at least weekly use of one or more smoked products.
- **Quitter:** In order to be classified as a quitter, respondents had to report having quit using all products reported at the previous wave. If a respondent only used one product at the previous wave, that respondent had to report having quit using that product in the current wave.
- **Non-user:** To be classified as a non-user of tobacco, respondents could not report use of any tobacco product.

Tobacco Use by Wave

Table 1. Distribution of broad tobacco use category by frequency of product use, by Survey Wave (ITC Bangladesh Waves 1–4).

| | Frequency of use | | | | | Total |
|--------------------------|------------------|-----------|----------|--------------|-----------|-------|
| | Daily | Weekly | < Weekly | Does not use | Unknown | |
| | n (%) | n (%) | n (%) | n (%) | n (%) | N |
| Wave 1 | | | | | | |
| Exclusively cigarettes | 2337 (98.3) | 31 (1.3) | 7 (0.3) | – | 3 (0.1) | 2378 |
| Exclusively bidi | 272 (94.1) | 15 (5.2) | 1 (0.3) | – | 1 (0.3) | 289 |
| Dual user | | | | | | 303 |
| Cigarettes | 223 (73.6) | 46 (15.2) | 8 (2.6) | – | 26 (8.6) | |
| Bidi | 277 (91.4) | 22 (7.3) | 3 (1.0) | – | 1 (0.3) | |
| Predominantly cigarettes | | | | | | 15 |
| Cigarettes | 13 (86.7) | – | 2 (13.3) | – | – | |
| Bidi | – | – | – | – | 15 (100) | |
| Predominantly bidi | | | | | | 126 |
| Cigarettes | – | – | – | – | 126 (100) | |
| Bidi | 126 (100) | – | – | – | – | |
| Nonsmoker | – | – | – | – | – | 2660 |

| | Frequency of use | | | | | |
|------------------------|------------------|------------|----------|--------------|-----------|-------|
| | Daily | Weekly | < Weekly | Does not use | Unknown | Total |
| | n (%) | n (%) | n (%) | n (%) | n (%) | N |
| Wave 2 | | | | | | |
| Exclusively cigarettes | 2310 (98.8) | 12 (0.5) | 2 (0.1) | – | 13 (0.6) | 2337 |
| Exclusively bidi | 363 (98.6) | – | 2 (0.5) | – | 3 (0.8) | 368 |
| Dual user | | | | | | 277 |
| Cigarettes | 189 (68.2) | 42 (15.2) | 4 (1.4) | – | 42 (15.2) | |
| Bidi | 262 (94.6) | 10 (3.6) | 3 (1.1) | – | 2 (0.7) | |
| Quitter | – | – | – | – | – | 219 |
| Nonsmoker | – | – | – | – | – | 2594 |
| Wave 3 | | | | | | |
| Exclusively cigarettes | 1678 (1.7) | 10 (0.6) | 5 (0.3) | – | 30 (1.7) | 1723 |
| Exclusively bidi | 265 (99.3) | 1 (0.4) | 1 (0.4) | – | – | 267 |
| Dual user | | | | | | 207 |
| Cigarettes | 172 (83.1) | 30 (14.5) | 4 (1.9) | – | 1 (0.5) | |
| Bidi | 193 (93.2) | 12 (5.8) | 2 (1.0) | – | – | |
| Mixed user | | | | | | 297 |
| Cigarettes | 217 (73.1) | 16 (5.4) | 7 (2.4) | 45 (15.1) | 12 (4.0) | |
| Bidi | 106 (35.7) | 6 (2.0) | 10 (3.4) | 149 (50.2) | 29 (9.8) | |
| Smokeless | 202 (68.0) | 87 (29.3) | 2 (0.7) | – | 6 (2.0) | |
| Exclusively smokeless | 592 (75.8) | 146 (18.7) | 11 (1.4) | – | 32 (4.1) | 781 |
| Quitter | – | – | – | – | – | 242 |
| Non-user | – | – | – | – | – | 2005 |

| | Frequency of use | | | | | |
|------------------------|------------------|------------|------------|--------------|------------|-------|
| | Daily | Weekly | < Weekly | Does not use | Unknown | Total |
| | n (%) | n (%) | n (%) | n (%) | n (%) | N |
| Wave 4 | | | | | | |
| Exclusively cigarettes | 1258 (97.7) | 22 (1.7) | 5 (0.4) | – | 2 (0.2) | 1287 |
| Exclusively bidi | 192 (98.0) | 4 (2.0) | – | – | – | 196 |
| Dual user | | | | | | 144 |
| Cigarettes | 138 (95.8) | 5 (3.5) | 1 (0.7) | – | – | |
| Bidi | 129 (89.6) | 11 (7.6) | 3 (2.1) | – | 1 (0.7) | |
| Mixed user | | | | | | 253 |
| Cigarettes | 210 (83.0) | 6 (2.4) | 1 (0.4) | 36 (14.2) | – | |
| Bidi | 74 (29.2) | 4 (1.6) | 6 (2.4) | 143 (56.5) | 26 (10.3) | |
| Smokeless | 203 (80.2) | 39 (15.4) | 3 (1.2) | | 8 (3.2) | |
| Exclusively smokeless | 141 (23.1) | 213 (34.9) | 141 (23.1) | – | 115 (18.9) | 610 |
| Quitter | – | – | – | – | – | 321 |
| Non-user | – | – | – | – | – | 1431 |

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