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**New York City Department of Health and Mental Hygiene**

***World Trade Center Health Registry  
Wave 4 Survey (2015–2016): Core & Asthma***

WORLD  
TRADE  
CENTER  

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HEALTH REGISTRY

**Data File User's Manual**

*October 2016*



THE NEW YORK CITY DEPARTMENT  
of HEALTH and MENTAL HYGIENE

WORLD TRADE CENTER HEALTH REGISTRY  
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<sup>1</sup> RTI International is a registered trademark and a trade name of Research Triangle Institute.

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## Chapter 1: Introduction

### 1. Overview

#### 1.1 Overview of the World Trade Center Health Registry

Immediately following the World Trade Center (WTC) terrorist attacks of September 11, 2001, the New York City Department of Health and Mental Hygiene (NYC DOHMH) and other environmental health experts became concerned about potential health effects of the disaster on the exposed populations. It was not immediately known what environmental toxins were released from the collapsed buildings and ensuing fires, or how such toxins or irritants would affect the short- and long-term health of residents, school children and staff, building workers and passersby in the vicinity, and first responders, including rescue/recovery workers and volunteers. There was also concern about the mental health effects of the disaster on both the affected population in lower Manhattan and those responding to the disaster. Additionally, the injuries suffered by survivors and responders were an important concern.

The World Trade Center Health Registry (WTCHR) was launched as a joint effort of the NYC DOHMH and the federal Agency for Toxic Substances and Disease Registry. Since April 2009, WTCHR activities, including this Wave 4 Survey, have been supported by the National Institute for Occupational Safety and Health.

The WTCHR's mission is to:

Identify and track the long-term physical and mental health effects of 9/11.

Share findings and recommendations with enrollees, others affected, the public, and policymakers.

Respond to health concerns and assess gaps in care for 9/11-related health problems.

Offer guidance to public health professionals in planning for potential future emergencies.

The initial enrollment phase (Wave 1 Survey) was completed in November 2004 with 71,431 persons enrolling and completing a 30-minute interview over the telephone (~94.5%) or in person (~5.5%). Eligibility at the Wave 1 Survey was defined according to specific criteria. Individuals could be eligible for one or more of the following four eligibility groups:

**Workers and volunteers** involved in rescue, recovery, cleanup, or other activities for at least one shift at the WTC site anytime from September 11, 2001, through June 30, 2002, or in debris handling at the Staten Island Landfill or on the barges transporting debris, anytime from September 12, 2001, through June 30, 2002;

**Residents** at addresses located south of Canal Street on September 11, 2001;

**Students and school staff** enrolled/employed in schools or day cares south of Canal Street on September 11, 2001; and



**Building occupants, people in transit, and pedestrians**, including employees, visitors, and passersby present south of Chambers Street between the time of the first plane impact and noon on September 11, 2001.

Note that residents, and students and school staff, did not need to be present in lower Manhattan on September 11, 2001. A second survey, the Wave 2 Survey, was completed in 2006–2007. A total of 47,624 enrollees (46,602 adults and 1,022 children) completed the Wave 2 Survey. A total of 43,712 enrollees (43,134 adults and 578 adolescents) completed the Wave 3 Survey.

## 1.2 Objectives and Design of the Wave 4 Health Survey

The overall objective for the Wave 4 Health Survey was to collect updated physical and mental health information for monitoring the health status of the WTCHR enrollees 14 years after 9/11. The Wave 4 Health Survey consisted of two surveys: the Wave 4 Core Survey and the Wave 4 Asthma Survey.

### *Wave 4 Core Survey*

The frame for the Wave 4 Health Survey included all persons who enrolled in the WTCHR at Wave 1 (excluding deceased and withdrawals) and any “new” adults who were enrolled in the Registry as children by a parent or guardian and who had reached 18 years of age as of April 1, 2015.

The 67,503 eligible enrollees for the Wave 4 Core Survey did not include enrollees who were deceased or who withdrew from all Registry activities prior to launch. Also, 800 enrollees who were under 18 years of age at the start of the Wave 4 Survey in April 2015 and persons not enrolled in the Registry were not included.

Data collection for the Wave 4 Core Survey began on March 20, 2015, with e-mail invitations to complete a web survey. Paper surveys were mailed to enrollees without e-mail addresses starting on April 13, 2015. Data collection across both modes continued through January 31, 2016.

Many of the Wave 4 Core Survey questions were similar to questions asked in the Wave 1, 2, and 3 Surveys while some new questions were added (e.g., history of cancer of family members). See *Appendix A* for more details. The Core Survey can be found in *Appendix B*.

### *Wave 4 Asthma Survey*

The frame for the Wave 4 Asthma Survey included 14,983 eligible enrollees who indicated that they had been diagnosed with asthma in any of the three prior wave surveys.

Data collection for the Wave 4 Asthma Survey began on September 3, 2015, with paper surveys and e-mail invitations (if applicable) sent out to eligible enrollees. Data collection across both modes continued through March 20, 2016. The Asthma Survey can be found in *Appendix B*.

### 1.3 Overview of Wave 4 Health Survey Data File User's Manual

This manual provides documentation to familiarize data users with the design, methodology, data collection, and data processing of the WTCHR Wave 4 Health Survey, starting with **Chapter 2**, which summarizes the instrument development process and content. **Chapter 3** details the pre–data collection activities. **Chapter 4** covers the methods used to collect data from enrollees. **Chapter 5** describes how data were processed. **Chapter 6** describes the results of the data collection. **Chapter 7** details the post-survey activities, and **Chapter 8** guides data users through key elements of using the data file. **Appendix A** provides a comparison of questionnaire content across the Wave 1–Wave 4 Surveys. **Appendix B** provides the Wave 4 Core and Asthma questionnaires, and **Appendix C** provides the Wave 4 Core and Asthma Survey codebooks.

Implementation of the Wave 4 Health Survey was a collaboration between NYC DOHMH and RTI International, via a contract from NYC DOHMH to RTI. For the remainder of this document, Wave 4 eligible adult enrollees will simply be referred to as *enrollees*.

## Chapter 2: Instrumentation

### 2. Instrumentation

#### 2.1 Instrument Development

The questionnaire for the Wave 4 Core Survey was designed to collect data on the physical and mental health status of enrollees and their demographic information and e-mail address. The questionnaire for the Wave 4 Asthma Survey was designed to collect data on the 14,983 enrollees who reported asthma in any of the three prior surveys. Content for both surveys was developed in-house at NYC DOHMH and included consultation with the Registry's scientific, community and labor advisors, including advisors from the World Trade Center Health Program clinics.

Two modes of self-administration were offered for the Core and Asthma Surveys: a web survey and a mailed paper form. The web survey included a consent screen, as required per RTI's Institutional Review Board.

The Wave 4 questionnaires were finalized through an iterative process in which revisions were made as a result of a formal questionnaire appraisal and cognitive interviewing. The final Wave 4 Core and Asthma questionnaires are in *Appendix B*.

##### 2.1.1 Questionnaire Appraisal

RTI survey methodologists used RTI's Question Appraisal System (QAS) to evaluate potential problems with the WTCHR Wave 4 questionnaires. The QAS is a structured, standardized instrument review methodology that assists a survey design expert in evaluating questions relative to the tasks they require of enrollees, specifically with regard to how enrollees understand and react to survey questions. The QAS allows the reviewer to evaluate the structure and effectiveness of the questionnaire form itself. It is a coding system (i.e., item taxonomy) that describes the cognitive demands of the questionnaire and documents the question features that are likely to lead to response error. These potential errors include errors related to comprehension, task definition, information retrieval, judgment, and response generation (Willis and Lessler, 1999). The QAS also anticipates errors in translation and cross-cultural administration of a question (Dean et al., 2007).

###### 2.1.1.1 Core Survey

The QAS of the Wave 4 Core Survey was conducted in September and October 2014. The questionnaire was revised based on the QAS findings. The questionnaire was then formatted as a self-administered paper instrument to be used in the cognitive interviews.

###### 2.1.1.2 Asthma Survey

The QAS of the Wave 4 Asthma Survey was conducted in November 2014. Compared to the Core Survey, the Asthma Survey QAS process was accelerated because the survey is considerably shorter. The questionnaire was revised based on the QAS findings. The questionnaire was then formatted as a self-administered paper instrument to be used in the cognitive interviews.

## 2.1.2 Cognitive Interviews

The instrumentation process included cognitive interview pilot tests of the WTCHR Wave 4 draft Core and Asthma questionnaires. Cognitive interviewing is a pretest methodology that makes use of *think-aloud interviewing* and other question-probing techniques. A think-aloud interview is one in which the enrollee is instructed to tell the interviewer everything he or she is thinking about while answering a survey question. Think-aloud techniques are supplemented with *concurrent* (during the interview) or *retrospective* (in a debriefing interview after completing the survey) *probes*. Cognitive interviewing provides detailed information on questionnaire design issues such as the degree to which questions are comprehended, memory search strategies used, the ability of enrollees to make calculations and judgments, sensitivity and social desirability bias associated with questions, and the coverage of the response domain by the response options provided.

### 2.1.2.1 Core Survey

In preparation for the cognitive interviews used to assess the Wave 4 Core Survey, WTCHR staff selected and recruited enrollees to participate in cognitive interviews. The goal was to conduct at least 12 interviews with the following breakdown of individuals:

Participant Type	Goal	Actual
Wave 1 only*	3	3
New adults	2	2
Rescue and recovery workers	4	3
Area workers	1	1
Residents	2	2
<b>Total</b>	<b>12</b>	<b>11</b>

\*Enrollees who completed only this initial survey in 2003-2004

Because of a late cancellation, a total of 11 interviews were conducted. Hence all but one of the goals were met. Each cognitive interview was conducted by one of two survey methodologists from RTI. The interviews were conducted in English between October 27 and October 29, 2014. The interviews took place at the WTCHR's office in Long Island City, NY. During the interviews participants completed a paper version of the survey and the interviewers asked scripted and spontaneous probes. In six interviews, probing was done concurrently as participants answered the questions, and in five interviews it was done retrospectively after participants completed the survey. Interviews lasted about 90 minutes each and participants were given a \$50 gift card as a token of appreciation for their time.

Findings from the cognitive interviews were reported in a summary report. The report outlined problems detected during the interviews and provided actionable recommendations to improve the survey. The Core Survey was revised according to this feedback and finalized; the formatted questionnaire was updated accordingly.

### 2.1.2.2 Asthma Survey

In preparation for the cognitive interviews used to assess the Wave 4 Asthma Survey, WTCHR staff selected enrollees to participate in cognitive interviews. The goal was to conduct up to 10 interviews with the following breakdown of individuals:

<b>Participant Type</b>	<b>Goal</b>	<b>Actual</b>
Lower education (high school or below)	3	2
Rescue and recovery workers	3	3
Lower Manhattan area workers	2	2
Lower Manhattan residents	2	1
<b>Total</b>	<b>10</b>	<b>8</b>

Two participants canceled their interviews, so a total of eight enrollees participated in the interviews. The cognitive interviews were conducted in English on December 10 and 11, 2014, by a survey methodologist from RTI. The interviews took place at the WTCHR's office in Long Island City, NY. During the interviews participants completed a paper version of the survey and the interviewer asked scripted and spontaneous probes. Interviews lasted about 45 minutes each and participants were given a \$50 gift card as a token of appreciation for their time.

Findings from the cognitive interviews were reported in a summary report. The report outlined problems detected during the interviews and provided actionable recommendations to improve the survey. The Asthma Survey was revised according to this feedback and finalized; the formatted questionnaire was updated accordingly.

### **2.1.3 Translation of WTCHR Instruments**

The Wave 4 Core and Asthma questionnaires were translated into Chinese and Spanish by NYC DOHMH designated professional translation services and approved by bilingual WTCHR staff who are native speakers of each target language. The paper surveys were available to enrollees in English, Spanish, and Chinese while the web surveys were available in English only.

### **2.1.4 TeleForm**

RTI created the Core and Asthma paper questionnaires as scannable forms using TeleForm. The scannable forms were used to increase cost-effectiveness and to improve data quality by allowing for data capture through optical scanning. This eliminated the potential for errors associated with manual data entry processes.

Data capture from paper surveys using TeleForm was completed in two phases: (1) NYC DOHMH received and processed the paper surveys, scanned them into TeleForm, and sent the resulting Tagged Image File Format (TIFF) images of paper surveys to RTI; and (2) RTI conducted verification of flagged surveys.

*Processing of paper surveys at NYC DOHMH included the following steps:*

1. Bar code scanning of ID numbers on paper surveys received to capture date of arrival.
2. Separating surveys by language.
3. Batching language-specific surveys into groups of ten and assigning a batch tracking number.
4. Sending blank surveys and surveys with comments to staff for review and follow-up with enrollees.

5. Using a high-quality cutting machine, cutting each batch of surveys to remove the left side of the surveys where they were bound into booklets to create a batch of single pages to be scanned. Bar codes with individual enrollee identification numbers were printed on each survey page so each survey page could be assigned to an individual enrollee, in case the stack of single pages were shuffled.
6. Scanning batches of surveys in TeleForm and confirming that the appropriate number of TIFF images were captured for each batch (**Core Survey**: 140 images per batch, 14 pages for each of the 10 surveys; **Asthma Survey**: 60 images per batch, 6 pages for each of the 10 surveys).
7. Transferring to RTI daily batches of TIFF image files along with a catalog that lists the batch numbers and the survey ID numbers included in each batch.
8. Translating Spanish and Chinese paper survey open-ended responses into English, cataloging these translations and transferring these files to RTI.

Surveys were carefully stored in secure locked cabinets and batches were carefully tracked. Combining the Core and Asthma Survey batches, NYC DOHMH processed over 4,500 batches. Each batch took approximately 20-30 minutes to process through steps #1-6 above.

*Processing of paper surveys at RTI included the following steps:*

1. TeleForm captures data on the paper survey forms and flags data with potential problems (e.g., marks that were too light or obscured, or multiple responses to a single response question). RTI staff ran the TIFF files, received from NYC DOHMH, through the Wave 4 project-specific Core or Asthma TeleForm template, to identify flagged data fields for verification.
2. Trained RTI staff, “verifiers”, reviewed each of the flagged data fields and entered corrections into a verification log. RTI supervisors conducted quality control on ~10% of the flagged data to ensure verification rules were being applied consistently.
3. Creating a pdf for each survey ID.
4. Sending these pdfs along with raw and post-verification datasets and the verification log to NYC DOHMH weekly.

### **2.1.5 Web Survey/Mobile Device Design**

The Wave 4 Core and Asthma web surveys were programmed using Hatteras, RTI's web survey platform. The web surveys were accessible by standard desktop computers using MS Windows or Apple MAC operating systems and also via mobile devices.

Hatteras supports the majority of mobile device platforms. Hatteras adapts page layout, navigation controls, and page content differently and appropriately for different screen resolutions supported by various mobile devices.

The Hatteras survey engine also implemented custom code to detect and display grid questions based on the width of the enrollee's device. Large screens were presented with the standard grid format, but because this format does not display properly on small screens, grids were modified for small screens. When viewed on small screens, grids were presented in a "stacked" format that displays the response options below every item.

The web surveys were hosted on RTI's servers, hence prior to launch the NYC DOHMH's Division of Informatics Information Technology and Telecommunications (DIITT) conducted extensive security and functionality testing. In addition, RTI and NYC DOHMH staff conducted multiple rounds of testing both web surveys.

## **Chapter 3: Pre-Data Collection Activities**

### **3. Pre-Data Collection Activities**

#### **3.1 Panel Maintenance**

Before the launch of Wave 4, the Registry sent letters to enrollees who had no email address or an invalid email address asking them to provide an email address. The Registry also sent targeted Wave 4 pre-notification letters to enrollees who only completed a Wave 1 survey during the Registry's inception and those who completed their Wave 3 survey via our CATI (Computer Assisted Telephone Interview) mode. The goal was to convince enrollees who only completed a Wave 1 survey to complete the Wave 4 survey and to inform those who completed Wave 3 via CATI that the CATI mode would not be offered for the Wave 4 survey.

The Registry also sent an annual card to all enrollees with a known mailing address. This card served two purposes: it thanked enrollees for their continued participation in the WTCHR and it requested updated contact information.

On an ongoing basis, Registry communications encouraged enrollees to update their contact information using mail, e-mail, web, telephone, or fax.

All Registry mass communications, including the Wave 4 mailed paper surveys and postcard reminders, as well as email invitations for the web surveys and email reminders, were sent out by Vanguard, a NYC DOHMH vendor under the close oversight of senior Panel Maintenance staff. Registry Panel Maintenance staff conducted quality control checks prior to the mailing of every batch of paper surveys.

#### **3.2 Pre-field Tracing**

Tracing of enrollees with invalid mailing addresses began in March 2014 and continued through January 2015. This type of tracing focused on using a private search engine created by Accurant, called LexisNexis. LexisNexis has access to information from consumer credit bureaus, Directory Assistance, reverse directories, other consumer and proprietary databases. NYC DOHMH Panel Maintenance Unit (PM) team members used LexisNexis to do individual searches for enrollees in tracing to update their contact information. PM was able to obtain updated contact information for 65% of the enrollees traced.

#### **3.3 Notification Letters & Emails**

Prior to the launch of the Wave 4 survey, Registry staff sent all adult enrollees a Summary of their Rights as participants in the Registry and a letter from NYC's Mayor Bill de Blasio that encouraged enrollees to complete their Wave 4 survey.

All enrollees who provided an e-mail address to the Registry were initially selected to receive a web survey; all other adult enrollees were initially sent a paper survey. All enrollees selected for the web survey sample were sent an e-mail invitation that provided information on the purpose, goals, and NYC DOHMH sponsorship of the WTCHR. The invitation included a personalized web link and



access code for each enrollee to access their Wave 4 web survey. Additional contact information was provided for both Registry staff and RTI help desk technical support.

Similarly, all enrollees selected for the paper sample were mailed a paper survey along with a cover letter that explained the purpose, goals, and NYC DOHMH sponsorship of the WTCHR. Additional contact information to reach Registry staff was provided.

## Chapter 4: Data Collection Activities

### 4. Data Collection Activities

#### 4.1 Interviewing Methods

Wave 4 Core Survey began on March 20, 2015, and continued through January 31, 2016. The Wave 4 Asthma Survey began on September 3, 2015, and continued through March 20, 2016. For both surveys, data were collected through two modes, web and paper. Of the 36,348<sup>1</sup> full and partially completed Wave 4 Core Survey interviews, 18,356 or 50% were completed by web and 18,042 or 50% were completed by paper. Of the 8,482 full and partially completed Wave 4 Asthma Surveys, 4,653 or 55% were completed by web and 3,829 or 45% were completed by paper.

##### 4.1.1 Web Interviewing (Core and Asthma)

The web interview was the first mode of data collection made available to enrollees. For the Core Survey, web interviewing began in March 2015 and continued through January 2016. For the Asthma Survey, web interviewing began in September 2015 and continued through March 2016. Enrollees were selected to be a part of the web sample if an e-mail address was on file in the enrollee's contact information.

For the Core Survey, e-mail invitations were released to enrollees in three groups at the beginning of web data collection. **Table 1** displays information on the number of cases and approximate release dates for the web interviewing effort for the Core Survey. Group A and Group B of the web release included a small proportion of the web sample to test web instrument load. Group C cases were released in batches to ensure that maximum load capacity was not reached on a given day.

**Table 1: Initial Web Interview Sample Release for Core Survey**

Release Group	Total Number of Cases Released	Approximate Dates of Release
Group A	6	3/20/2015
Group B	200	3/30/2015
Group C	50,203	4/13/2015
<b>Total</b>	<b>50,409</b>	

For the Asthma Survey, e-mail invitations were also released to enrollees in three groups at the beginning of web data collection. **Table 2** displays information on the number of cases and approximate release dates for the web interviewing effort for the Asthma Survey. Group A and Group B of the web release included a small proportion of the web sample to test web instrument load. Group C cases were released in batches to ensure that maximum load capacity was not reached on a given day.

<sup>1</sup> The count of completed Core Surveys shown in this text (n=36,348) includes 516 fewer surveys than the count of 36,864 surveys that is included in the Core Survey Codebook (*Appendix C*). The 36,348 surveys reflect surveys that meet the requirement for completion - at least 50% of key items completed, and are used for response rate calculation. The higher count shown in the Core Survey Codebook includes all returned surveys, including those 516 surveys assessed to be "incomplete".

**Table 2: Initial Web Interview Sample Release for Asthma Survey**

Release Group	Total Number of Cases Released	Approximate Dates of Release
Group A	1	9/3/2015
Group B	200	9/8/2015
Group C	9,666	9/17/2015
<b>Total</b>	<b>9,867</b>	

During the course of Wave 4 data collection, if an e-mail address was identified through tracing efforts or telephone contact and the enrollee had not yet completed the Wave 4 Survey, the enrollee was added to the web interviewing sample and was included in the e-mail reminders sent to the enrollees in this group who had not yet completed a Wave 4 Survey (via any mode). The e-mail reminders also included a personalized web link and access code for each enrollee, the same as the e-mail invitations.

Enrollees also received an e-mail invitation or reminder upon request, including those reached through a mailed paper questionnaire. At the beginning of each web interview, enrollees were provided with informed consent information and were asked to confirm their year of birth, prior to starting the interview. If the year of birth provided by the enrollee did not match the year of birth in the WTCHR's records, the enrollee was prohibited from beginning the web survey and was instructed to contact WTCHR staff.

#### 4.1.2 Paper Interviewing (Core and Asthma)

Paper interviewing attempts began shortly after the release of the web interview. For the Core Survey, questionnaires were mailed to enrollees beginning in April 2015 and continuing through January 2016. For the Asthma Survey, questionnaires were mailed to enrollees beginning in September 2015 and continuing through March 2016.

The paper questionnaire was sent with a business reply envelope for the enrollee to use to return a completed survey. Initial paper questionnaire mailings were sent to enrollees who did not have an e-mail address on file and, therefore, had not received an e-mail invitation. Other groups of enrollees eventually also received the paper questionnaire including enrollees with an international address, enrollees selected for a web interview who proved to have an invalid e-mail address, enrollees selected for a web interview who requested a paper survey, and enrollees who did not complete the web interview after a given amount of time.

**Table 3** displays information on the types of cases that were mailed a paper questionnaire, number of cases, and approximate release dates for the Core Survey. **Table 4** displays information on the types of cases that were mailed a paper questionnaire, number of cases, and approximate release dates for the Asthma Survey.

**Table 3: Initial Paper Questionnaire Mailings for the Core Survey**

Mailing Groups	Total Number of Initial Paper Questionnaires Mailed	Approximate Dates of Release
<b>Core Survey Mailing #1—English-speaking enrollees who did not have an e-mail address on file</b>	14,326	4/13/2015

Mailing Groups	Total Number of Initial Paper Questionnaires Mailed	Approximate Dates of Release
<b>Core Survey Mailing #1</b> —Spanish-speaking enrollees who did not have an e-mail address on file	1,173	4/23/2015
<b>Core Survey Mailing #1</b> —Chinese-speaking enrollees who did not have an e-mail address on file	1,274	5/22/2015
<b>Core Survey Mailing #2</b> —All languages, including enrollees in the web sample who had not yet responded	54,523	6/15/2015
<b>Core Survey Mailing #2b</b> —All languages, including enrollees with surveys returned with a forwarding address and paper survey requests from the web mode	341	7/30/2015
<b>Core Survey Mailing #2c</b> —All languages, including enrollees with surveys returned with a forwarding address and paper survey requests from the web mode	335	9/1/2015
<b>Core Survey Mailing #3</b> —All languages, including enrollees in the web sample who had not yet responded	35,449	9/30/2015
<b>Core Survey Mailing #3a</b> —All languages, including enrollees with surveys returned with a forwarding address and paper survey requests from the web mode	436	11/30/2015
<b>Core Survey Mailing #4</b> —All languages, including enrollees in the web sample who had not yet responded	19,263	1/11/2016
<b>Total</b>	<b>127,120</b>	

Table 4: Initial Paper Questionnaire Mailings for the Asthma Survey

Mailing Groups	Total Number of Initial Paper Questionnaires Mailed	Approximate Dates of Release
<b>Asthma Survey Mailing #1</b> —All languages, sent to enrollees who did not have an e-mail address on file	4,782	9/17/2015
<b>Asthma Survey Mailing #1a</b> —All languages, including enrollees with surveys returned with a forwarding address and paper survey requests from the web mode	88	10/29/2015
<b>Asthma Survey Mailing #2</b> —All languages, including enrollees in the web sample who had not yet responded	10,018	11/17/2015
<b>Asthma Survey Mailing #2a</b> —All languages, including enrollees with surveys returned with a forwarding address and paper survey requests from the web mode	75	1/8/2016
<b>Asthma Survey Mailing #3</b> —All languages, including enrollees in the web sample who had not yet responded	6,857	2/26/2016
<b>Total</b>	<b>21,820</b>	

During the course of Wave 4 data collection, if an updated address was identified through tracing efforts or telephone contact and the enrollee had not yet completed the Wave 4 Survey, the enrollee was added to the paper interviewing sample and sent a questionnaire in the next batch of paper surveys mailed out. If a paper questionnaire had previously been mailed to the enrollee, a new questionnaire was mailed to the new address. Enrollees also received a paper questionnaire upon request, including those reached through an email sent with a personalized link to a web survey.

A cover letter was included with each paper questionnaire providing instructions and information for the enrollee. Enrollee consent for the paper mode was implied in the return of the paper questionnaire.

## 4.2 Proxy Interviews

Proxy interviews were conducted if the eligible enrollee was (1) mentally incompetent, or (2) seriously physically disabled. In these instances, a legal guardian, family member, or another knowledgeable person provided consent and completed the interview on behalf of the enrollee. Enrollees who were on active military duty, incarcerated, had a language barrier, had difficulty reading, or out of the country for the duration of the data collection period were not actively pursued.

**Table 5** displays the number of interviews completed by a proxy for both mode types and by the reasons a proxy was needed to complete the interview for the Core Survey. Out of full and partially completed interviews, 758<sup>2</sup> interviews were completed by a proxy across both mode types for the Core Survey. For the paper interview, some of the reasons noted for a proxy included a language barrier, the survey was too difficult for the enrollee to read, or the enrollee was out of the country.

**Table 5: Proxy Interviews by Mode and by Reason for Proxy for the Core Survey**

Reason for Proxy	Number of Proxy Completed Interviews	
	Web	Paper
Enrollee has a physical or mental disability	21	126
Enrollee has a language barrier	6	50
Survey was too difficult for the enrollee to read	4	63
Other reason	72	416
<b>Total</b>	<b>103</b>	<b>655</b>

## 4.3 Languages of Administration

Because of the prevalence of persons enrolled in the WTCHR who speak Spanish, Mandarin or Cantonese, paper surveys were translated into Spanish and Chinese, and enrollees who indicated their preference (in the previous Wave 1, Wave 2, or Wave 3 Surveys, or via personal communications with the WTCHR) for a Spanish or Chinese survey were sent a paper survey in their preferred language. The web survey was only available in English.

**Table 6** displays the number of full and partially completed interviews in each language for both the Core Survey and the Asthma Survey, including proxy interviews, based on the language identified at the beginning of each interview, and how English, Spanish, and Chinese are distributed by paper survey.

<sup>2</sup>This number includes enrollees who themselves provided an answer to "Reason for Proxy".

**Table 6: Completed Interviews by Language by Paper Survey<sup>4</sup>**

<b>Total Interviews Completed in:</b>	<b>Paper – Core Survey</b>	<b>Paper – Asthma Survey</b>
English	17,705	3,704
Spanish	185	66
Chinese	152	59
<b>Total</b>	<b>18,042</b>	<b>3,829</b>

## 4.4 Methods for Increasing Response Rates

### 4.4.1 Tracing

During data collection, Panel Maintenance staff traced enrollees added to the tracing queue as well as non-responders to the Wave 4 survey(s) who had completed at least two prior wave surveys.

### 4.4.2 Reminder Postcards, E-mails, & Surveys

For enrollees selected for the web interview mode, reminders to complete the web interview were sent periodically through both e-mail and postal mail. Up to 19 web interview reminder emails, 6 postcard reminders, and 2 paper questionnaires were sent to enrollees selected for the Core Survey web interview, and up to 10 web interview reminder emails, 2 postcard reminders, and 2 paper questionnaires were sent to enrollees selected for the Asthma Survey web interview.

For enrollees selected for the paper interview mode, postcard reminders and subsequent paper questionnaires were sent periodically to enrollees through postal mail. Up to six postcard reminders and up to two additional paper questionnaires were sent to enrollees selected for the Core Survey paper interview. Up to two postcard reminders and up to two additional paper questionnaires were sent to enrollees for the Asthma Survey paper interview.

Paper questionnaires were also provided to enrollees on an ad-hoc basis to enrollees who requested a resend of their paper survey in between bulk paper survey mailings.

### 4.4.3 Outreach Methods for WTCHR

#### 4.4.3.1 Door-to-Door Outreach

From September 21, 2015, through December 31, 2015, door-to-door outreach was conducted in lower Manhattan, Staten Island, Queens, Bronx, and Brooklyn to attempt to reach 6,745 enrollees who had not yet completed their Wave 4 survey(s). RTI staff conducted the outreach work in English, Spanish, Mandarin and Cantonese by speaking directly with enrollees and providing language-specific survey reminder flyers for enrollees or by slipping flyers under the doors of the homes of enrollees who were not home. These efforts resulted in approximately 913 face-to-face meetings and the distribution of approximately 3,677 flyers. NYC DOHMH staff assisted in gaining access for RTI staff in buildings with controlled access.

#### 4.4.3.2 Reminder Phone Calls

Reminder phone calls commenced in July 2015, approximately 3 months after the Core Survey launched. There were two complementary objectives for reminder calls: 1) increase response rates

<sup>4</sup> The table only displays numbers for paper survey mode since web survey was only offered in English.

from sub groups that typically have lower response rates, such as non-English language speaking enrollees (Spanish, Mandarin and Cantonese); and 2) to ensure longitudinal data from highly engaged enrollees, defined as those enrollees who had completed all 3 prior survey waves.

Native language speakers from the Registry contacted all Spanish, Mandarin and Cantonese language speaking non-respondents to encourage them to complete their surveys. This was completed in about a month's time.

Eight Registry staff members attempted to reach by telephone the approximately 11,000 enrollees who had previously completed all 3 survey waves. Staff recorded their interactions on a spreadsheet that tracked if they made contact with an enrollee, left a message, or were not able to reach them. Staff utilized all available numbers, for up to 3 call attempts per enrollee before moving to the next enrollee. Calls to this group took approximately 6 months.

Lower Manhattan residents typically respond to the Registry's follow-up health survey at a lower rate and can be difficult to reach. To increase their participation in the survey, the NYC DOHMH call center called a sample of approximately 1,200 enrollees, who currently reside in lower Manhattan, to encourage them to complete their Wave 4 survey. Each lower Manhattan resident was called once.

#### **4.4.3.3 Motivational Videos Dissemination**

The Registry started writing scripts and shooting motivational videos about 3 months before the Core Survey launched. The goal was to employ a new marketing strategy to increase response rates, particularly among the young adults and foreign language speakers (Mandarin, Cantonese, and Spanish).

The motivational videos were split into two categories: Videos by Registry staff and Testimonials by Registry enrollees.

Several Registry staff members (English, Spanish, Cantonese and Mandarin) including the Director, Dr. Farfel, participated in videos to encourage survey completion, with brief explanations why enrollees' survey responses were important. The key here was to demystify the Registry by connecting actual researchers to the enrollees. The videos were shot, edited, and reviewed by NYC DOHMH Communications before dissemination.

Four Registry staff members were involved in recruiting 9 enrollees to do testimonials. It was critical to select enrollees who represented all the groups found in the Registry. We were successful in recruiting young adults and adults, Spanish speakers, Cantonese and Mandarin speakers, and Registry staff members who were also enrollees.

The videos were disseminated via email over a couple of months and the motivational videos remain posted on the Registry website.

#### **4.4.4 Incentives for the Core Survey and Asthma Survey**

One of the survey design features that may have great potential for maximizing response, and thereby potentially reducing non-response bias, is to offer survey incentives. In the Wave 4 Core Survey, we offered a small incentive (\$10 per completed, returned survey) to all non-respondents beginning August 27, 2015, 5 months after the survey launch as a response enhancement activity. After the incentive was offered, then everyone who completed and returned the survey after that time was

mailed a \$10 bill to thank the enrollee for their time along with a thank you letter. For the Asthma Survey, the incentive of \$10 was offered for the entire data collection period.

Starting on September 14, 2015, weekly thank you mailings with the incentive enclosed were sent to enrollees who had completed the Core or Asthma Surveys. From an address file that NYC DOHMH provided each week, RTI staff cleaned the addresses (e.g., changed the text from all caps to proper case, dropped extra digits in zip codes) and completed processing, printing, and mailing.

RTI staff tracked the numbers of incentive mailings going out and those coming back in the form of undeliverables and reported these numbers to NYC DOHMH on a weekly basis. Any items that were returned as undeliverable with new forwarding address information provided from the Post Office were also tracked and remailed weekly as they came in. The address updates were provided to NYC DOHMH.



## Chapter 5: Data Preparation and Processing

### 5. Data Processing of Enrollee Interviews

#### 5.1 Data File Preparation for Core & Asthma Surveys

Enrollee interviews were collected using a combination of two modes: (1) web interview programmed using Microsoft .Net technology and stored in a Microsoft SQL Server database; and (2) paper survey created using TeleForm software that could be scanned to capture data. Paper surveys were scanned by NYC DOHMH and delivered to RTI weekly as digital image files. RTI retrieved the images and log from a project-specific secured FTP site and imported the log into a control system used to monitor the stages of the image processes. Images were imported into TeleForm where they were evaluated and verified. Verified raw data was exported to a comma-delimited file, and PDFs of each survey were created. The raw data file was moved to a secure RTI location in preparation for data cleaning.

For paper interviews in Spanish and Chinese, responses to open-ended or “other, specify” questions were translated by NYC DOHMH and transmitted to RTI to be merged into the clean dataset. Correction files from verification and subsequent QC were added by the cleaning programs. Cleaning processes are described in greater detail below. After data were cleaned, the raw and cleaned datasets were compressed and encrypted with the image PDFs in preparation for data delivery via secure FTP. Data from web and paper surveys were delivered to NYC DOHMH on a weekly basis with separate raw and clean datasets for Core and Asthma Surveys.

At the end of data collection, interview data from both survey modes were combined into a single database for each survey. Two additional modifications to the combined data file took place at this step:

1. Addition of Phase 2 variables (See Section 5.2.3)
2. Preliminary cleaned data values were included with a suffix “\_prelim” and final cleaned values were written back to the original variable names. See Section 5.2 for more details on cleaning.

The combined files that were prepared for Core and Asthma data served as the basis for codebook generation (See Chapter 8). Combined files were delivered to NYC DOHMH as a preliminary version for review and again as a final version at the end of the study.

#### 5.2 Data Quality Control

Concurrent with the periodic data deliveries and after the completion of data collection, a number of quality control activities were performed on the data. These activities included a review of response frequencies for each variable in both surveys and the monitoring of daily reports that reflected and updated the progress of data collection.

##### 5.2.1 Phase 1 Data Editing for Core & Asthma Surveys

The Core and Asthma web surveys were programmed to route the path through the interview based, as appropriate, on prior responses within the survey, and thereby skip questions that should not have been asked of an enrollee. Additionally, the web surveys were programmed with logical consistency and

range checks. To verify the accuracy of the data collected by the programmed instrument and to detect any data anomalies, NYC DOHMH and RTI data analysts scrutinized data for anomalies. Any anomalies detected were reviewed and reconciled as a part of ongoing quality control.

Wave 4 Core and Asthma survey-specific data quality checks were incorporated into the paper survey TeleForm programs (e.g., range and date checks) and responses outside of these checks were highlighted by TeleForm. Each survey was reviewed individually by a verifier who checked all highlighted and other key fields and made corrections. A second review of at least 10% of the surveys was conducted by a senior QC staff person, and final corrections were made if needed.

All fields flagged to be verified were logged into Too Many Marks (TMM), Unrecognizable Character, and Verification logs. The TMM log contained all questions where multiple responses were recorded or detected for a single response question. The Unrecognizable Character log contained a record of each response unrecognizable by the verifier. The Verification log contained all fields flagged by TeleForm to be verified including TMM and unrecognizable characters. The TMM and Unrecognizable Character logs were used during data cleaning.

## **5.2.2 Data Review**

### **5.2.2.1 Core Survey**

Review of web questionnaire variable frequencies was conducted to ensure that skip patterns were implemented correctly and to identify any questions that contained high item nonresponse rates. Questionnaire items that contained open-ended or “other, specify” verbatim fields were also reviewed for completeness and accuracy in coding. Additionally, any items that were flagged by the data editing system were reviewed so that feedback could be provided to data collection staff as necessary.

Similarly, review of data from paper questionnaires was conducted to ensure that skip patterns were implemented correctly and to identify questions that contained high item nonresponse rates. Frequency checks were run on all fields, and anomalies were checked, including all questionnaires with high proportions of blank responses. Questionnaires were also examined to identify marks that were not usually captured by TeleForm (e.g., check marks, lines drawn through several answers). In these cases, questionnaire data were typically entered by hand.

In addition, NYC DOHMH and RTI conducted an in-depth review of the definition and implementation of editing rules for the paper survey and their effectiveness in producing a high-quality clean dataset for analysis. This in-depth review consisted of the following steps:

- Review of editing rules

- Review of the SAS program that implements the rules and associated logs

- Review of data frequencies for each rule

- Review of individual cases for each rule and comparison with scanned originals as needed

- Summary of recommendations for discussion by the joint NYC DOHMH-RTI team

Based on the review and discussion, editing rules and programs were fine-tuned to represent the probable intent of the enrollee, even when response data showed lack of internal consistency or adherence to skip logic.

### 5.2.2.2 Asthma Survey

As described for the Core Survey, RTI conducted an in-depth review of the definition and implementation of editing rules for data from the paper Asthma Survey.

### 5.2.3 Phase 2 Data Editing for Core and Asthma Surveys

Review of variables “other, specify” text were conducted by RTI in Phase 2 of the Data Editing process. New variables were created to code the “other, specify” text. For the Core Survey, coding was conducted for “other, specify” responses in Q30 (health conditions) and Q40 through Q44 (cancer questions), and for the Asthma Survey, coding was conducted for “other, specify” responses in Q15 (asthma medications) and Q36 (asthma triggers). Each case with “other, specify” text was reviewed, and the text was categorized into values that were developed for each question in collaboration with NYC DOHMH.

During Phase 2 editing, RTI also applied data corrections that were provided by enrollees either through calls to the RTI help desk or to NYC DOHMH directly.

### 5.2.4 De-duplication of Multiple Completed Interviews

#### 5.2.4.1 Core Survey

A major concern of working with multiple data collection modes is the potential for duplication of interview data because the enrollee may complete the survey in more than one mode. For instance, a person may have started the web interview and decided later to fill out a paper survey and returned the paper questionnaire to the NYC DOHMH. Because some data in the web interview were already collected, a protocol was needed to determine which interview data to keep at the end of data collection. Another potential source of error arises when a non-enrollee (e.g., a member of the enrollee’s household) completes and returns a survey, and the enrollee does too. In these cases, the two surveys may initially appear as “duplicate” surveys returned by the same enrollee. Alternatively, two enrollees within a household may each complete the other’s paper survey by mistake. The following protocol was implemented by NYC DOHMH:

Checks were built into each survey mode to reduce the likelihood of a survey being completed by a non-enrollee or by another enrollee within the same household. Web surveys required a year of birth verification prior to initiation of the survey. The full name of an enrollee was printed on the paper survey.

First, SAS was used to identify surveys that potentially belonged to a non-enrollee or another enrollee (e.g., a Wave 4 Survey contained name, gender, year of birth, and/or last 4-digits of Social Security number that was discordant with information that we had in our database for the enrollee). A total of 1,400 surveys were identified as having at least 1 piece of discordant information, with 27 of these surveys being completed by a non-enrollee and 14 being completed by an enrollee other than the enrollee specified by the ID number associated with the survey. The 27 non-enrollee surveys were removed from the completed survey data file, and the 14 surveys were reassigned to the correct enrollee ID.

Second, duplicate surveys were identified and rules were developed. If two (or more) paper surveys were returned for the same enrollee, the first paper survey to arrive at NYC DOHMH was used.

If duplicated surveys were completed for the same enrollee using different survey modes (web and paper), a definition of completeness was used to determine which survey to include in the data file. Completeness was operationalized by the percentage of selected questions answered (excluding skip questions). If the survey contained at least 80% of the selected questions answered, it was defined as a complete survey; if the survey contained between 50% and 79%, it was defined as partially complete; and if the survey contained less than 50% of the selected questions answered, it was defined as incomplete.

If the duplicated surveys all had the same level of completeness, the survey with the earliest date was used.

If the duplicated surveys contained different levels of completeness, the survey with the most complete data was used.

#### **5.2.4.2 Asthma Survey**

A similar protocol was used to identify and remove duplicated surveys from the Asthma Survey. There were 195 surveys removed for the following reasons:

Two surveys were removed because they were filled out by non-enrollees.

If two or more surveys were received from the same enrollee, the survey with the earliest survey completion date was kept. This resulted in an additional 193 surveys removed from the Asthma data set.

In addition, two surveys that were filled out by an enrollee using the wrong ID were reassigned to the correct enrollee ID.

## Chapter 6: Data Collection Results

### 6. Data Collection Results

#### 6.1 Summary of Outcome Rates (Core Survey)

The standards for calculating outcome rates are provided by the American Association for Public Opinion Research (AAPOR, 2015). A total of 67,503 enrollees were eligible for the Wave 4 Core Survey, including *new adult* enrollees who were under age 18 at the time of enrollment into the Registry. Those ineligible for the Wave 4 Core Survey were adult enrollees who were deceased or who withdrew from all Registry activities or only from future Registry surveys, prior to the launch of the Wave 4 Core Survey in March 2015. Also ineligible for the Wave 4 Core Survey were the 800 enrollees who were under 18 years of age as of April 1, 2015 and persons not enrolled in the Registry. The main outcome rates calculated for the Wave 4 Core and Asthma Surveys are the contact, cooperation, and response rates.

The **contact rate** measures the proportion of all cases in which an eligible member of the sample was reached by the survey. AAPOR offers three alternative contact rate definitions to fit different survey scenarios. Contact Rate 3 (CON3) does not regard ineligibles in its calculation and because all enrollees included in the Wave 4 study are eligible, this rate was selected for this report. The contact rate is equal to the total eligible enrollees contacted divided by all eligible enrollees. Note that O (Other) here, and in subsequent rates, includes both Other, contacted non-interview (OC) and Other non-interview, contact probable (OP):

$$\text{CON3} = \frac{(I + P) + R + O}{(I + P) + R + O + \text{NC}}$$

where:

I	=	Complete interview
P	=	Partial interview
R	=	Refusal, break-off, and incomplete interview
NC	=	Non-contact
O	=	Other

The **cooperation rate** is the proportion of all cases contacted who were interviewed. The denominator for the cooperation rate is equal to the numerator of the contact rate—the total number of eligible enrollees contacted, or in the case of Wave 4, the total number of eligible enrollees definitively or probably contacted. AAPOR Cooperation Rate 2 (COOP2) includes partial completes in the numerator and Others in the denominator.

$$\text{COOP2} = \frac{(I + P)}{(I + P) + R + O}$$

A **contact rate** measures the proportion of all cases in which an eligible enrollee was reached for the survey. The **response rate** is the number of completed and partial interviews divided by the eligible

sample. Its value is equal to the product of the contact and cooperation rates, which, for the Registry, is equivalent to AAPOR Response Rate 6:

$$RR6 = \frac{(I + P)}{(I + P) + (R + NC + O)}$$

Overall, 66,745 (98.9%) of the 67,503 eligible Wave 4 enrollees were definitely or probably contacted during the Wave 4 Core Survey data collection period. A total of 36,348 agreed to participate and completed the interview. **Table 7a** provides a breakdown of enrollees by sample type<sup>5</sup> (responders, such as rescue and recovery workers, and survivors, such as residents, building occupants/passersby) and their contact, cooperation, and response rates for the Wave 4 Core Survey. Outcome rates are also displayed by enrollee age group and gender.

**Table 7a: Wave 4 Core Survey Outcome Rates**

	Enrollees	Outcome Rates (%)		
		Contact	Cooperation	Response
<b>All Enrollees</b>	67,503	98.9	54.5	53.8
<b>By eligibility group<sup>1</sup></b>				
Responders	29,578	99.0	57.3	56.7
Survivors	37,925	98.8	52.2	51.6
-Residents	11,597	97.8	46.3	45.3
-Students & school staff	969	98.3	52.7	51.8
-Occupants & passersby	25,359	99.2	54.9	54.5
<b>By age on 9/11/2001<sup>2</sup></b>				
8–17	1,828	96.8	39.5	38.2
18–24	4,308	98.1	41.4	40.6
25–44	35,905	99.2	51.7	51.3
45–64	22,188	99.0	64.2	63.5
65+	1,743	97.1	50.0	48.5
<b>By gender</b>				
Male	40,545	98.9	54.8	54.2
Female	26,957	98.8	53.9	53.3

<sup>1</sup>As during prior waves, enrollees who belonged to more than one eligibility group were classified into a single eligibility group reflecting their greatest potential for exposure. See Murphy (2006) for more information on the eligibility group hierarchy.

<sup>2</sup>Some Wave 4 eligible enrollees are missing Date of Birth and/or were younger than 8 on 9/11. One enrollee was missing gender.

## 6.2 Summary of Outcome Rates (Asthma Survey)

A total of 14,983 enrollees were eligible for the Wave 4 Asthma Survey, including *new adult* enrollees who were under age 18 at the time of enrollment into the Registry. Those ineligible for the Wave 4 Asthma Survey are adult enrollees who did not indicate in prior waves that they had been diagnosed with asthma and those who were not eligible for the Wave 4 Core Survey (see criteria above). The contact, cooperation, and response rates were calculated the same way for the Wave 4 Asthma Survey as for the Wave 4 Core Survey, as described above.

Overall, 14,840 enrollees were definitely or probably contacted during the Wave 4 Asthma Survey data collection period. A total of 8,482 agreed to participate and completed the interview. **Table 7b** provides

<sup>5</sup> As during prior waves, enrollees were classified into a single eligibility group reflecting their greatest potential for exposure. See Murphy (2006) for more information on the eligibility group hierarchy.

a breakdown of enrollees by sample type (responders such as rescue and recovery workers and survivors such as residents, building occupants/passersby) and their contact, cooperation, and response rates for the Wave 4 Asthma Survey. Outcome rates are also displayed by enrollee age group and gender.

**Table 7b: Wave 4 Asthma Survey Outcome Rates**

	Enrollees	Outcome Rates (%)		
		Contact	Cooperation	Response
<b>All Enrollees</b>	14,983	99.0	57.1	56.6
<b>By eligibility group<sup>1</sup></b>				
Responders	6,810	99.2	59.6	59.1
Survivors	8,173	98.9	55.0	54.4
-Residents	2,441	97.9	49.1	48.1
-Students & school staff	227	97.8	57.2	55.9
-Occupants & passersby	5,505	99.4	57.5	57.2
<b>By age on 9/11/2001<sup>2</sup></b>				
8–17	440	97.3	44.9	43.6
18–24	1,003	98.1	44.9	44.1
25–44	8,090	99.4	55.5	55.2
45–64	4,883	99.1	64.6	64.0
65+	307	96.4	53.0	51.1
<b>By gender</b>				
Male	8,129	99.1	57.0	56.4
Female	6,854	99.0	57.3	56.8

<sup>1</sup>As during prior waves, enrollees who belonged to more than one eligibility group were classified into a single eligibility group reflecting their greatest potential for exposure. See Murphy (2006) for more information on the eligibility group hierarchy.

<sup>2</sup>Some Wave 4 Asthma Survey eligible enrollees are missing Date of Birth and/or were younger than 8 on 9/11.

### 6.3 Outcomes by Survey Mode

*Tables 8a and 8b* present the number of completed interviews by mode for the Wave 4 Core and Asthma Surveys.

**Table 8a: Completed Interviews by Mode (Core Survey)**

Wave 4 Mode of Completion	Total Responders	Percent of all Responders
Web	18,335	50.4
Mail	18,013	49.6

**Table 8b: Completed Interviews by Mode (Asthma Survey)**

Wave 4 Mode of Completion	Total Responders	Percent of all Responders
Web	4,653	54.9
Mail	3,829	45.1

## Chapter 7: Post-Survey Activities

After an enrollee completed his/her Wave 4 Core Survey, Registry staff sent thank you letters via mail to enrollees who completed their survey via paper, and sent thank you letters via e-mail to enrollees who completed their surveys on the web for all surveys returned before the incentive was offered for the Core Survey on August 27, 2015. Once the incentive was offered for the Core Survey, and for all Asthma Survey respondents, RTI staff mailed thank you letters with a \$10 bill to all enrollees who completed a survey (See Section 4.4.4).

Throughout data collection, the Registry's Treatment Referral Program (TRP) provided appropriate, comprehensive, and timely follow-up to address health problems, concerns, and questions reported as comments by enrollees completing the Wave 4 Surveys. TRP staff also followed up with enrollees who experienced emotional distress during Wave 4 and contacted the Registry or who indicated a need for assistance on their paper or web survey. Follow-up included a personalized letter listing resources such as LifeNet, or a phone call to assist the enrollee with accessing care through the WTC Health Program (WTC HP).

The TRP plans to conduct personalized outreach to enrollees who are likely eligible for and currently not in care at the WTC HP. Enrollees will receive a phone call to assess their interest and eligibility, and enrollees will be able to request a WTC HP application to be sent by mail or by email. TRP staff will contact those enrollees two weeks later to offer assistance with the application. Follow-up contact will continue every two-to-four weeks until the enrollee reports that the application has been submitted or reports that follow up is no longer desired. TRP staff will conduct a final outreach call to enrollees approximately six months after they have submitted an application. The purpose of the six-month follow up call is to determine if the enrollee has been accepted into the WTC HP, to evaluate the enrollee's satisfaction with TRP and the WTC HP, and to offer additional assistance if needed.



## Chapter 8: Data File Contents

### 8. Guide to Data File Codebooks

The WTCHR Wave 4 Core Survey and Asthma Survey codebooks include data collected from web and paper modes of data collection. The data files for both surveys were created with SAS analytic software.

#### 8.1 Guide to Hardcopy Codebooks

The codebooks in *Appendix C* supply a comprehensive description of the WTCHR Wave 4 data files. For each variable in the WTCHR Wave 4 Core and Asthma data files—excluding identifying and contact information—the codebooks provide a summary of the survey variables, including a brief description, the responses for each question, and their frequency and percent.

While some variables have been assigned special reserve codes to indicate the reason for missing responses, these codes have all been collapsed into one category labelled “Missing” showing the combined frequency and percent in the codebook. Descriptions for the special reserve codes are below:

*Invalid Data:* Data for the item are invalid (e.g., multiple answers for single question answers on paper survey).

*Out of Range:* Data for the item are out of range (e.g., diagnosis year is earlier than birth year).

*Unrecognized Character:* Data for the item could not be interpreted by TeleForm software or verifiers.

*Special Missing:* Exact value or category cannot be determined.

*Birth Year Mismatch:* Birth year in the data does not match the preloaded birth year.

*Missing Data:* Data for the item are missing.

*Skip Pattern:* Data for the item are missing due to a skip pattern.

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## References

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**Appendix A:**  
**Wave 1–Wave 4 Health Survey Questionnaire Topic Matrix**

## WTC Health Registry Snapshot of Adult Survey Topics by Wave

Wave 1: 2003-04

Wave 2: 2006-07

Wave 3: 2011-12

Wave 4: 2015-16

Topics	Contents	Wave 1	Wave 2	Wave 3	Wave 4	
<b>A. Demographics and quality of life</b>	Name	x	x	x	R	
	Gender	x	x	x	x	
	Date of birth	x	x	x	x	
	Current age (*age was calculated from DOB)	x	x	R*	x*	
	SSN	x	x	x	x	
	Number of household members				NEW	
	Current employment status	x	x	x	R	
	Marital status	x	x	x	x	
	Pregnancy status (females)				NEW	
	Vital status of enrollee	x		x	R	
	Ethnicity/race	x				
	Household income	x		x	R	
	Education	x			R	
	Residence on 9/11/2001	x				
	Eligibility group	x				
	Quality of physical/mental health in last 30 days			x	x	
	Pre-9/11 & current disabilities/medical conditions		x			
	Height and weight			x	R	
	Exercise			x		
Cognitive function			x	R		
<b>B. Physical health symptoms</b>	Eye irritation	x				
	Hearing problem or loss	x	x			
	Throat irritation/sore throat	x	x			
	Hoarseness or loss of voice	x	x			
	Persistent cough	x	x	x	R	
	Shortness of breath	x	x	x	R	
	Wheezing	x	x	x	R	
	Phlegm				NEW	
	Skin rash or irritation	x	x			
	Frequent severe headaches	x	x	R		
	Heartburn, indigestion, or acid reflux	x	x	R	R	
	<b>C. Medically diagnosed physical conditions including medications and hospitalization</b>	Hypertension or high blood pressure	x	x	x	R
		Angina	x	x	x	R
Heart attack or myocardial infarction		x	x	x	R	
Other (coronary) heart disease		x	x	x	R	
Stroke		x	x	x	R	
Diabetes		x	x	x	R	
Hay fever or allergic rhinitis			x			
Asthma		x	x	x	R	
Asthma control				x		
Chronic bronchitis/COPD			x	x	R	
Emphysema		x	x	x	R	
Reactive airways disease syndrome/RADS			x	x	R	
Sarcoidosis			x	x	R	
Cancer		x	x	R	R	
Cancer – family history					NEW	
Cancer screening					NEW	

Topics	Contents	Wave 1	Wave 2	Wave 3	Wave 4
	Pulmonary fibrosis			x	R
	Asbestosis			x	R
	High cholesterol			x	R
	Gastroesophageal reflux disease (GERD)			x	R
	Sleep apnea			x	R
	Multiple sclerosis (MS), amyotrophic lateral sclerosis (ALS)			x	R
	Thyroid disease			x	R
	Peripheral neuropathy				NEW
	Rheumatoid arthritis			x	R
	Other autoimmune disorders (e.g., lupus, scleroderma, polymyositis)			x	R
	Menarche / menopause			x	
D. Injuries on 9/11		x			
E. Access to health care					
	Unmet health care needs		x	x	R
	Health care access and utilization		x	R	R
	9/11-related health services utilization		x	R	R
	Health insurance coverage			x	R
	Usual health care provider			x	x
F. Mental Health symptoms					
	PTSD Checklist	x	x	x	R
	Functional status			x	R
	Nonspecific psychological distress (Kessler 6 Scale)	x	x	x	R
	Current depression assessment			x	x
	Generalized anxiety disorder			x	
G. Diagnosed mental health conditions					
	Depression	x	x	x	R
	PTSD, Anxiety disorder		x	x	R
	Alcohol dependence			x	x
	Mental health medication/treatment		x	R	R
	History of traumatic stress, traumatic life events			x	R
	Social support		x	R	R
H. Tobacco & Alcohol use			x	x	R
I. Prescription pain relievers					NEW
J. Self-efficacy					NEW
K. 9/11 exposures					
	Exposure details	x	x		
	Dust and debris cloud experience, location, time, evacuation, home or workplace condition, cleaning	x	R		
	Witnessing events	x	R		
L. 9/11 related loss					
M. Union membership					
			x		

x: item is in the survey  
 NEW: item is new to Wave 4  
 R: revised or expanded from previous Wave

**Appendix B:**  
**Wave 4 Core & Asthma Questionnaires**

WORLD TRADE CENTER HEALTH REGISTRY  
2015 HEALTH SURVEY



INSTRUCTIONS:

- Please fill in circles completely using a black or blue ink pen. → Example:  ●
- Written answers should be printed in capital letters. → Example: 

J	A	1	2
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1. Please enter today's date:

		/			/				
(Month)		(Day)		(Year)					

2. Are you the enrollee named on Page 1 of the survey?

- Yes → Go to Question 5
- No, but I am completing this survey for the enrollee

As you complete the survey for the enrollee, please provide the responses that fit best for the enrollee. The words "you" and "your" refer to the enrollee.

3. What prevented the enrollee from completing the survey?

- A physical or mental disability
  - A language barrier
  - The survey was too difficult for the person to read
  - Other reason, please specify: \_\_\_\_\_
- Go to Question 5

- The enrollee is deceased

4. If the enrollee has died, please accept our condolences. Complete only the date and place of death below and mail back the survey or call us at 866-692-9827.

Date of death:

		/			/				
(Month)		(Day)		(Year)					

Place of death:

U.S. State: \_\_\_\_\_  
or  
Country (if outside of U.S.): \_\_\_\_\_

5. What is your date of birth?

		/			/				
(Month)		(Day)		(Year)					

6. What is your sex?

- Male → Go to Question 8
- Female

7. Are you currently pregnant?

- Yes
- No
- Don't know

8. What is your current marital status?

- Never married
- Married
- Not married, living with a partner
- Widowed
- Divorced or separated

Please continue to Question 9 on the next page.

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9. How many people live in your household, including you?

people

10. Which of the following describe your current employment status? *Select all that apply.*

- Employed full-time
- Employed part-time
- Self-employed
- On maternity or parental leave
- Looking for work
- Unemployed for less than 1 year
- Unemployed for 1 year or more
- Unable to work because of health
- Homemaker
- Student
- Retired

11. What is the highest level of education you completed?

- Never attended school
- Kindergarten through Grade 8
- Grades 9 through 11
- Grade 12 or GED
- Some college, Associate's Degree, or Technical Degree
- Bachelor's Degree
- Postgraduate Degree

12. What was your total household income in 2014 before taxes?

- Less than \$25,000
- \$25,000 - \$49,999
- \$50,000 - \$74,999
- \$75,000 - \$99,999
- \$100,000 - \$149,999
- \$150,000 or more

13. In general, how satisfied are you with your life?

- Very satisfied
- Satisfied
- Dissatisfied
- Very dissatisfied

14. In general, would you say that your health is:

- Excellent
- Very good
- Good
- Fair
- Poor

15. For questions 15a-c, please provide answers based on the last 30 days.

a. Thinking about your physical health, which includes physical illness and injury, for how many days during the last 30 days was your physical health not good?

days

b. Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the last 30 days was your mental health not good?

days

c. For how many days did poor physical or mental health keep you from doing your usual activities during the last 30 days?

days

16. What is your height (without shoes)?

feet  inches

17. What is your current weight?

pounds

18. In general, how physically active are you?

- Very active
- Somewhat active
- Not very active
- Not active at all

19. During the last 7 days, how often have you had trouble remembering where you put things, like your keys or wallet?

- Never
- Rarely
- Sometimes
- Often
- Very often

20. During the last 12 months, have you experienced confusion or memory loss, other than occasionally forgetting the name of someone you recently met?

- Yes
- No → Go to Question 23





2015 HEALTH SURVEY

21. During the **last 12 months**, as a result of confusion or memory loss, how often have you given up day-to-day household activities or chores you used to do, such as cooking, cleaning, taking medications, driving, or paying bills?

- Never
- Rarely
- Sometimes
- Usually
- Always

22. During the **last 12 months**, has your confusion or memory loss happened more often or gotten worse?

- Yes
- No

23. The next questions ask about symptoms when you did **not** have a cold, the flu, or seasonal allergies.

a. In the **last 30 days**, which of the following symptoms have you experienced? *Select all that apply.*

- Shortness of breath  
↳ On how many days?   days
- Wheezing  
↳ On how many days?   days
- Persistent cough  
↳ On how many days?   days
- None of the above → *Go to Question 24*

b. In the **last 30 days**, how many days have you experienced at least one of the symptoms above?

days

c. In the **last 30 days**, have you been awakened during the night by a cough, wheezing, or shortness of breath when you did **not** have a cold, the flu, or seasonal allergies?

- Yes
- No

24. In the **last 30 days**, have you used an inhaler prescribed by a doctor for any breathing problem?

- Yes
- No

25. Do you **ever** cough up any "stuff," such as mucus or phlegm?

- Yes, every day
- Yes, most days a week
- Yes, a few days a month
- Only with occasional colds or chest infections
- No, never

26. During the **last 12 months**, how often have you experienced heartburn or acid reflux?

- Never → *Go to Question 30*
- Less than once a month
- About once a month
- About once a week
- At least twice a week

27. In the **last 12 months**, have you seen a doctor or other health professional for heartburn or acid reflux?

- Yes
- No

28. In the **last 30 days**, have you experienced heartburn or acid reflux? If yes, indicate the number of days.

- Yes  
↳ On how many days?   days
- No

29. In the **last 30 days**, have you taken any medications for heartburn or acid reflux?

- Yes
- No

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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WTC HEALTH REGISTRY

30. Have you ever been told by a doctor or other health professional that you had any of these conditions? If yes, please provide the year you were first told you had that condition.

	No	Yes	Year first told
a. Hypertension, or high blood pressure	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
b. High cholesterol	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
c. Angina, or angina pectoris	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
d. Heart attack, or myocardial infarction	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
e. Coronary heart disease	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
f. Stroke	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
g. Diabetes, or sugar diabetes	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
h. Asthma	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
i. Chronic bronchitis	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
j. Emphysema, or COPD	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
k. Reactive airways dysfunction syndrome, or RADS	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
l. Sarcoidosis	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
m. Pulmonary fibrosis	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
n. Asbestosis	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
o. Sleep apnea, or obstructive sleep apnea	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
p. Gastroesophageal reflux disease, or GERD	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
q. Thyroid disease	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
r. Peripheral neuropathy	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
s. Rheumatoid arthritis	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
t. Other auto-immune disorders (e.g., lupus, MS, ALS, scleroderma, or polymyositis)	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
u. *Other disease (excluding cancer), Please specify: _____	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>
v. *Other disease (excluding cancer), Please specify: _____	<input type="radio"/>	<input type="radio"/> →	<input type="text"/>

\*Note: Cancer is covered later in this survey.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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31. **Answer only if you are male:** In the last 12 months, did you have a PSA test? A PSA test is a blood test to detect prostate cancer. It is also called a prostate-specific antigen test.

- Yes
- No → Go to Question 35

32. **Answer only if you are male:** What was the main reason you had your most recent PSA test?

- Part of a routine exam
- Because of a problem
- Other reason

33. **Answer only if you are female:** In the last 12 months, did you have a mammogram?

- Yes
- No → Go to Question 35

34. **Answer only if you are female:** What was the main reason you had your most recent mammogram?

- Part of a routine exam
- Because of a problem
- Other reason

35. In the last 12 months, did you have a colonoscopy or sigmoidoscopy?

- Yes
- No → Go to Question 37

36. What was the main reason you had your most recent colonoscopy or sigmoidoscopy?

- Part of a routine exam
- Because of a problem
- Other reason

37. In the last 12 months, did you have a CAT scan or CT scan of your chest or lungs?

- Yes
- No → Go to Question 39

38. What was the main reason you had your most recent CAT scan or CT scan of your chest or lungs?

- Part of a routine exam
- Because of a problem
- Other reason

39. Have you ever been told by a doctor or other health professional that you had any type of cancer?

- Yes
- No → Go to Question 41

40. Please select the type(s) of cancer you have had and provide your age (in years) at the time of diagnosis:

- Breast  
↳ Diagnosed at age:
- Colon  
↳ Diagnosed at age:
- Lung  
↳ Diagnosed at age:
- Prostate  
↳ Diagnosed at age:
- Thyroid  
↳ Diagnosed at age:
- Leukemia, Hodgkin's disease, non-Hodgkin's or other lymphoma or multiple myeloma  
↳ Diagnosed at age:
- Malignant melanoma  
↳ Diagnosed at age:
- Skin cancer other than melanoma (e.g., Basal or squamous cell)  
↳ Diagnosed at age:
- Other cancer 1: \_\_\_\_\_  
↳ Diagnosed at age:
- Other cancer 2: \_\_\_\_\_  
↳ Diagnosed at age:

41. Has your biological father ever had cancer?

- Yes  
↳ Type(s) of cancer:
  - Colon
  - Prostate
  - Other: \_\_\_\_\_
- No
- Don't know

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42. Has your **biological mother** ever had cancer?

- Yes  
 ↳ Type(s) of cancer:  
 Breast  
 Colon  
 Other: \_\_\_\_\_
- No  
 Don't know

43. Do you have any **biological brothers/sisters** who have ever had cancer? Include half-brothers/sisters but **not** step-brothers/sisters.

- Yes  
 ↳ Type(s) of cancer:  
 Breast  
 Colon  
 Prostate  
 Other: \_\_\_\_\_
- No  
 Don't know

44. Not counting your biological parents and brothers/sisters, do you have any **other blood relatives** who have ever had cancer?

- Yes  
 ↳ Type(s) of cancer:  
 Breast  
 Colon  
 Prostate  
 Other: \_\_\_\_\_
- No  
 Don't know

45. During the **last 12 months**, were you without health insurance at any point?

- Yes  
 No → Go to Question 47

46. Do you currently have any health insurance, including private health insurance, HMO, managed care, or a government plan such as Medicare or Medicaid?

- Yes  
 No

47. Do you have at least one person or location you think of as your personal doctor or health care provider?

- Yes  
 No

48. When did you last visit a doctor for a **routine check-up** that was not for a specific injury, illness, or condition?

- Within the last 12 months  
 Over a year ago but less than 2 years ago  
 2 or more years ago but less than 5 years ago  
 5 or more years ago  
 Never in my life

49. During the **last 12 months**, was there a time when you needed care from a medical professional for physical health problems, other than a routine physical exam?

- Yes  
 No → Go to Question 51

50. Did you receive the physical health care you needed?

- Yes  
 No

51. During the **last 12 months**, was there a time when you needed mental health care or counseling?

- Yes  
 No → Go to Question 53

52. Did you receive the mental health care or counseling you needed?

- Yes  
 No

53. Have you **ever** received services from any of the World Trade Center Health Program clinics listed below?

- Yes  
 No  
 Don't Know

- FDNY WTC Clinic
- Mount Sinai - Icahn School of Medicine
- NYU School of Medicine at NYU/Bellevue
- Queens College/North Shore-LIJ Health System
- Rutgers University Robert Wood Johnson Medical School (formerly UMDNJ)
- SUNY- Stony Brook – (in Nassau & Suffolk Counties, and formerly in Brooklyn)
- The WTC Environmental Health Center - at Bellevue Hospital, Elmhurst Hospital and Gouverneur Healthcare Services
- The Nationwide Provider Network (formerly the National Responder Program)

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**54. In the last 30 days, how much have you been bothered by the following problems?**

	Not at all	A little bit	Moderately	Quite a bit	Extremely
a. Repeated, disturbing memories, thoughts, or images of the events of 9/11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Repeated, disturbing dreams of the events of 9/11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Suddenly acting or feeling as if the events of 9/11 were happening again (as if you were reliving it)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Feeling very upset when something reminded you of the events of 9/11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of the events of 9/11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Avoiding thinking about or talking about the events of 9/11 or avoiding having feelings related to it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Avoiding activities or situations because they remind you of the events of 9/11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Trouble remembering the important parts of the events of 9/11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Loss of interest in activities that you used to enjoy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Feeling distant or cut off from other people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Feeling emotionally numb or being unable to have loving feelings for those close to you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Feeling as if your future will somehow be cut short	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Trouble falling or staying asleep	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Feeling irritable or having angry outbursts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Having difficulty concentrating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Being "super alert" or watchful or on guard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Feeling jumpy or easily startled	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**If you answered "Not at all" to all of the questions above (Question 54a-q) → Go to Question 56**

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55. Thinking about the problems in the previous question:

a. How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all
- Somewhat difficult
- Very difficult
- Extremely difficult

b. During the last 12 months, have you experienced any of these problems continuously for longer than 1 month?

- Yes
- No

c. During the last 12 months when you were having some of these problems, did you drink alcohol to improve your mood or to make yourself feel better?

- Yes
- No

56. Over the last 2 weeks, how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days	Nearly every day
a. Little interest or pleasure in doing things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Feeling down, depressed, or hopeless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Trouble falling or staying asleep, or sleeping too much	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Feeling tired or having little energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Poor appetite or overeating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Feeling bad about yourself, or that you are a failure or have let yourself or your family down	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Trouble concentrating on things, such as reading the newspaper or watching television	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Moving or speaking so slowly that other people could have noticed? Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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57. During the last 30 days, about how often did you feel:

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
a. So sad that nothing could cheer you up?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Nervous?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Restless or fidgety?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Hopeless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. That everything was an effort?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Worthless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

58. Which of the following conditions have you ever been told by a doctor or other health professional that you have? *Select all that apply.*

- Depression  
↳ In what year were you first told?
- Post-traumatic stress disorder (PTSD)  
↳ In what year were you first told?
- An anxiety disorder, other than PTSD  
↳ In what year were you first told?
- Other mental health problems, including problems with your nerves or emotions  
↳ In what year were you first told?
- Problems with your use of alcohol or drugs  
↳ In what year were you first told?
- None of the above

59. During the last 12 months, for which of the following conditions have you seen a doctor or other health professional? *Select all that apply.*

- Depression
- PTSD
- An anxiety disorder, other than PTSD
- Other mental health problems, including problems with your nerves or emotions
- Problems with your use of alcohol or drugs
- None of the above

60. During the last 12 months, for which of the following conditions have you taken any prescription medication? *Select all that apply.*

- Depression
- PTSD
- An anxiety disorder, other than PTSD
- Other mental health problems, including problems with your nerves or emotions
- Problems with your use of alcohol or drugs
- None of the above

61. The next several questions are about counseling or therapy you may have received for any of the conditions listed in the previous question.

a. Have you ever had a session of counseling or therapy lasting 30 minutes or longer? Please do not include visits that were for medication only.

- Yes
- No → Go to Question 64



b. How old were you the first time you had a session of counseling or therapy?

years old

c. **Since 9/11**, have you had at least one session of counseling or therapy?

- Yes  
 No → Go to Question 64

62. The next several questions are about counseling or therapy you have received **since 9/11**.

a. For which of the following have you received counseling or therapy **since 9/11**? *Select all that apply.*

- Depression
- PTSD
- An anxiety disorder, other than PTSD
- Other mental health problems, including problems with your nerves or emotions
- Problems with your use of alcohol or drugs
- None of the above

b. **Since 9/11**, which of the following professionals have you seen for counseling or therapy? *Select all that apply.*

- Psychiatrist
- Psychologist
- Other mental health professional, such as a social worker, counselor, psychotherapist, or mental health nurse
- General practitioner, family doctor, or other medical doctor
- Nurse, occupational therapist, or other health professional
- Religious or spiritual advisor, such as a minister, priest, or rabbi
- Any other practitioner

c. When was the **most recent** time you received counseling or therapy?

- Less than 4 months ago
- At least 4 months ago but less than 1 year ago
- 1 to 2 years ago → Go to Question 64
- More than 2 years ago  
↳ Go to Question 64

63. The next several questions are about counseling or therapy you have received in the **last 12 months**.

a. For which of the following have you received counseling or therapy in the **last 12 months**? *Select all that apply.*

- Depression
- PTSD
- An anxiety disorder, other than PTSD
- Other mental health problems, including problems with your nerves or emotions
- Problems with your use of alcohol or drugs
- None of the above

b. During the **last 12 months**, how often did you have counseling or therapy sessions?

- More than once a week
- Once a week
- Two to three times a month
- Once a month
- Less than once a month

c. How helpful would you say the counseling or therapy you have received in the **last 12 months** has been?

- Very helpful
- Somewhat helpful
- Slightly helpful
- Not at all helpful

64. The next questions ask about events you may have experienced **since 9/11**. We know that these may be sensitive topics and we appreciate your responses.

**Since 9/11**, has your life been threatened by any of the following situations? Answer "Yes" only if you thought you would be (or were) physically harmed. *Select all that apply.*

a. A disaster, either natural or human-made

- Yes, in the last 12 months
- Yes, more than 12 months ago
- No

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**b. A serious accident, including a car accident, an accident at work, or another type of accident**

- Yes, in the last 12 months
- Yes, more than 12 months ago
- No

**c. An attack with a gun, knife, or some other weapon**

- Yes, in the last 12 months
- Yes, more than 12 months ago
- No

**d. An attack without a weapon, but with the intent to kill or seriously injure you**

- Yes, in the last 12 months
- Yes, more than 12 months ago
- No

**e. A situation in which someone used physical force or threat of force to make you have some type of unwanted sexual contact**

- Yes, in the last 12 months
- Yes, more than 12 months ago
- No

**f. Any other situation in which you were seriously injured or feared you might be killed or seriously injured**

- Yes, in the last 12 months
- Yes, more than 12 months ago
- No

**g. A situation in which you saw someone seriously injured or violently killed**

- Yes, in the last 12 months
- Yes, more than 12 months ago
- No

**h. A life-threatening illness**

- Yes, in the last 12 months
- Yes, more than 12 months ago
- No

**65. During the last 12 months, which of the following situations have you experienced? Select all that apply.**

- Could not pay for food, housing, or other basic necessities for a period of 3 months or longer
- Serious problems at work or lost a job
- Serious family problems involving your spouse, child, or parents
- Took care of a close family member or friend with a serious or life-threatening illness
- Serious legal problems
- The death of a spouse or partner, close family member, or friend
- None of the above

**66. Have you smoked at least 100 cigarettes in your entire life?**

- Yes
- No → Go to Question 71

**67. Do you now smoke cigarettes every day, some days or not at all?**

- Every day → Go to Question 69
- Some days → Go to Question 69
- Not at all

**68. In what month and year did you last smoke a cigarette, even one or two puffs?**

/     → Go to Question 71  
 (Month) (Year)

**69. On average, how many cigarettes do you smoke per day?**

cigarettes

**70. How soon after waking do you smoke your first cigarette?**

- Within 5 minutes
- 5 to 30 minutes
- 31 to 60 minutes
- More than 60 minutes



71. The next questions are about drinks of alcoholic beverages. By a “drink,” we mean a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it. We are not asking about times when you only had a sip or two from a drink.

a. Have you ever – even once – had a drink of any type of alcoholic beverage? Do not include times when you only had a sip or two.

- Yes
- No → Go to Question 72

b. How long has it been since you last drank an alcoholic beverage?

- Within the last 30 days
- More than 30 days ago but within the last 12 months → Go to Question 72
- More than 12 months ago  
↳ Go to Question 72

c. During the last 30 days, how many days did you have at least 1 drink of any alcoholic beverage?

days

d. On the days when you drank, about how many drinks did you drink on average?

drinks

e. In the last 30 days, what is the maximum number of drinks you have consumed on one single occasion?

drinks

f. **Answer only if you are male:** Considering all types of alcoholic beverages, how many times during the last 30 days did you have 5 or more drinks on one occasion?

times

g. **Answer only if you are female:** Considering all types of alcoholic beverages, how many times during the last 30 days did you have 4 or more drinks on one occasion?

times

72. For the next few questions, please think about prescription pain relievers such as Oxycodone (e.g., Percocet, Endocet, OxyContin) or Hydrocodone (e.g., Vicodin, Norco, Lortab). Do not include “over the counter” medications.

a. During the last 12 months, has a doctor or other health professional given you a prescription for a pain reliever?

- Yes
- No → Go to Question 72d

b. When was the most recent time you took the pain reliever that you were prescribed?

- Within the last 30 days
- More than 30 days ago
- Never – I did not take the pain reliever  
↳ Go to Question 72d

c. Have you ever – even once – taken more of the pain reliever than you were prescribed? This includes taking a higher dosage or taking it more often than directed.

- Yes, within the last 30 days
- Yes, more than 30 days ago but within the last 12 months
- No

d. During the last 12 months, have you ever – even once – taken a prescription pain reliever that was not prescribed to you?

- Yes, within the last 30 days
- Yes, more than 30 days ago but within the last 12 months
- No

73. Have you ever stayed overnight or longer at a hospital, rehabilitation facility, or mental health center so you could receive treatment or counseling for alcohol or drug use?

- Yes, before 9/11
- Yes, after 9/11
- Yes, both before and after 9/11
- No

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74. Following is a list of statements. For each statement, please indicate to what extent it is true or not true about you.

a. It is easy for me to stick to my aims and accomplish my goals.

- Not at all true
- Hardly true
- Moderately true
- Exactly true

b. I am confident that I could deal efficiently with unexpected events.

- Not at all true
- Hardly true
- Moderately true
- Exactly true

c. Thanks to my resourcefulness, I know how to handle unforeseen situations.

- Not at all true
- Hardly true
- Moderately true
- Exactly true

d. I can remain calm when facing difficulties because I can rely on my coping abilities.

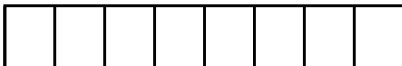
- Not at all true
- Hardly true
- Moderately true
- Exactly true

e. No matter what comes my way, I'm usually able to handle it.

- Not at all true
- Hardly true
- Moderately true
- Exactly true

75. How often is someone available:

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
a. To take you to the doctor if you need to go?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. To have a good time with?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. To hug you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. To prepare your meals if you are unable to do it yourself?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. To understand your problems?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



76. In the last 30 days, have you visited, talked, or emailed with friends at least twice?

- Yes
- No

77. In the last 30 days, have you attended a religious service at least twice?

- Yes
- No

78. In the last 30 days, have you been actively involved in a volunteer organization or club?

- Yes
- No

79. About how many close friends or relatives do you have now? Include people you feel at ease with and can talk with about what is on your mind.

close friends or relatives

The following information is requested from you to properly keep track of who is enrolled in the Registry. This information will remain strictly confidential. If you would like to provide us with your full Social Security number, please call us at 866-692-9827.

80. What are the last 4 digits of your Social Security Number?

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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81. What is your current email address?

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**Thank you for helping us learn about the long-term health effects of 9/11.**  
**We appreciate your input and will keep your answers confidential.**  
This is the end of the survey.

**Please place the completed survey in the envelope provided.**  
**If the envelope was not included or was lost, call us at 866-692-9827.**

Visit [nyc.gov/9-11healthinfo](http://nyc.gov/9-11healthinfo) for the latest information on 9/11-related research and services.

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WORLD TRADE CENTER HEALTH REGISTRY  
2015 ASTHMA SURVEY



INSTRUCTIONS:

- Please fill in circles completely using a black or blue ink pen. → Example:
- Written answers should be printed in capital letters. → Example: 

J	A	1	2
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1. Please enter today's date:

		/			/					
(Month)			(Day)			(Year)				

2. What is your date of birth?

		/			/					
(Month)			(Day)			(Year)				

3. What is your sex?

- Male
- Female

4. Have you ever been told by a doctor or other health professional that you had asthma?

- Yes
- No

→ This survey is for people who have asthma. If you have never been told by a doctor or other health professional that you had asthma, the rest of the survey does not apply to you. Please stop here and return the survey in the provided envelope.

5. In what year were you first told by a doctor or other health professional that you had asthma?

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6. For pulmonary function tests (or spirometry), you breathe into a mouthpiece connected to a machine that measures how much air you breathe out, and how quickly.

Have you ever had pulmonary function testing (or spirometry)?

- Yes
- No

7. In the past 4 weeks, how much of the time did your asthma keep you from getting as much done at work, school, or at home?

- All of the time
- Most of the time
- Some of the time
- A little of the time
- None of the time

8. During the past 4 weeks, how often have you had shortness of breath?

- More than once a day
- Once a day
- 3 to 6 times a week
- Once or twice a week
- Not at all

9. During the past 4 weeks, how often did your asthma symptoms (wheezing, coughing, shortness of breath, chest tightness or pain) wake you up at night or earlier than usual in the morning?

- 4 or more nights a week
- 2 or 3 nights a week
- Once a week
- Once or twice
- Not at all

10. During the past 4 weeks, how often have you used your rescue inhaler or nebulizer medication (such as Albuterol, Ventolin, Proventil, or Maxair)?

- 3 or more times per day
- 1 or 2 times per day
- 2 or 3 times per week
- Once a week or less
- Not at all

11. How would you rate your asthma control during the past 4 weeks?

- Not controlled at all
- Poorly controlled
- Somewhat controlled
- Well controlled
- Completely controlled

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12. Have you ever used a prescription inhaler?

- Yes
- No → Go to Question 15
- Don't know → Go to Question 15

13. Did a doctor or other health professional ever show you how to use the inhaler?

- Yes
- No
- Don't know

14. Did a doctor or other health professional ever watch you use the inhaler?

- Yes
- No
- Don't know

15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take any of the following medications for long-term asthma control?  
*Select all that apply.*

Medication	Brand or other names
<input type="radio"/> Beclomethasone	Beclovent, Vanceril, Qvar
<input type="radio"/> Budesonide	Pulmicort
<input type="radio"/> Budesonide/Formoterol	Symbicort
<input type="radio"/> Ciclesonide	Alvesco
<input type="radio"/> Flunisolide	Aerobid, Aerospan
<input type="radio"/> Fluticasone	Flovent, Arnuity Ellipta
<input type="radio"/> Fluticasone/Salmeterol	Advair
<input type="radio"/> Mometasone	Asmanex
<input type="radio"/> Mometasone/Formoterol	Dulera
<input type="radio"/> Omalizumab	Xolair
<input type="radio"/> Triamcinolone	Azmacort
<input type="radio"/> Salmeterol	Serevent
<input type="radio"/> Tiotropium	Spiriva
<input type="radio"/> Montelukast	Singulair
<input type="radio"/> Zafirlukast	Accolate
<input type="radio"/> Other, specify: _____	
<input type="radio"/> Other, specify: _____	
<input type="radio"/> None of the above	→ Go to Question 24



For questions 16-23, please think about the long-term asthma control medication(s) you selected in the previous question.

16. Do you sometimes forget to take your long-term asthma control medication(s)?

- Yes
- No

17. Over the past two weeks, were there any days when you did not take your long-term asthma control medication(s)?

- Yes
- No

18. Have you ever cut back or stopped taking your long-term asthma control medication(s) without telling your doctor because you felt worse when you took it?

- Yes
- No

19. When you travel or leave home, do you sometimes forget to bring along your long-term asthma control medication(s)?

- Yes
- No

20. Did you take all your long-term asthma control medication(s) yesterday?

- Yes
- No

21. When you feel like your asthma is under control, do you sometimes stop taking your long-term asthma control medication(s)?

- Yes
- No

22. Taking medication every day is a real inconvenience for some people. Do you ever feel hassled about sticking to your long-term asthma medication(s)?

- Yes
- No

23. How often do you have difficulty remembering to take all your long-term asthma control medication(s)?

- Never/rarely
- Once in a while
- Sometimes
- Usually
- All the time

24. A course of steroids may be prescribed to treat uncontrolled asthma for a short period of time. These steroids are taken by mouth (pills) or injection and may include Prednisone, Medrol, and others. A typical course of these steroids could be as short as 3-4 days or as long as 2-3 weeks.

In the past 12 months, how many courses of oral or injection steroids have you taken for asthma? (Do not include inhaled steroids listed in Question 15.)

- 0
- 1-3
- 4-6
- 7-9

→ Go to Question 26

- 10 or more

→ Go to Question 26

25. In the last 12 months, did you take oral or injection steroids for asthma every day?

- Yes
- No

26. In the past 4 weeks, were you able to get all of your asthma medication(s)?

Yes → Go to Question 28

- No

27. In the past 4 weeks, which of the following problems prevented you from getting your asthma medication(s)? *Select all that apply.*

- It cost too much
- The pharmacy did not carry it
- I didn't think medication could help
- My health insurance did not cover it
- The WTC Health Program did not cover it
- I did not have health insurance
- I could not afford a doctor's visit
- I preferred to manage my asthma myself
- I did not have time to go to a pharmacy
- Other, please specify:

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28. During the past 12 months, have you had an asthma attack?

- Yes
- No

29. During the past 12 months, how many times did you visit an emergency room or urgent care center because of asthma?

times

30. During the past 12 months, were you ever hospitalized overnight for asthma?

- Yes
- No

31. During the past 12 months, besides emergency room or urgent care center visits, how many visits did you make to a doctor, nurse, or other health professional for worsening asthma symptoms?

visits

32. An asthma action plan, or asthma management plan, is a form with instructions about when to change the amount or type of medicine, when to call the doctor for advice, and when to go to the emergency room.

Has a doctor or other health professional ever given you an asthma action plan?

- Yes
- No → *Go to Question 34*
- Don't know → *Go to Question 34*

33. When your asthma gets worse, how much of the time do you use your action plan to help you decide what to do?

- All of the time
- Most of the time
- Some of the time
- Occasionally
- Never

34. How confident are you in your ability to control your asthma?

- Not confident at all
- A little confident
- Somewhat confident
- Confident
- Very confident

*Please continue to Question 35 on the next page.*

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35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms.

	Never	Rarely	Sometimes	Most of the time	Always
a. Having a cold	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Cigarette smoke	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Running	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Being angry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Pollen from trees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Feeling alone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Exhaust fumes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Bicycle riding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Stress at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Certain intensive odors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Pollen from grass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Feeling tense	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Climbing flights of stairs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Depressed mood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Smell of paint	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Sport activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Perfumes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Arguments with people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. Flu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
t. Sinus problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
u. Being excited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
v. Intense worries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
w. Feeling unhappy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
x. Animal hair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
y. Overexertion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
z. Viruses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
aa. Feeling weak	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
bb. Pollen from weeds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
cc. Feathers from birds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
dd. Sprays	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ee. Cats	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ff. House dust	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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WTC HEALTH REGISTRY

36. Please list up to six of the strongest triggers of your asthma below, and indicate how much each trigger affects your daily life. You may include triggers listed in Question 35, or others.

My strongest triggers:	This trigger affects my daily life...				
	Not at all	Slightly	Moderately	Very much	Completely
1) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Thank you for helping us learn about the long-term health effects of 9/11.**  
**We appreciate your input and will keep your answers confidential.**  
This is the end of the survey.

**Please place the completed survey in the envelope provided.**  
**If the envelope was not included or was lost, call us at 866-692-9827.**

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**Appendix C:**  
**Wave 4 Core & Asthma Codebooks**

***World Trade Center Health Registry Data Set  
2015 Health Survey (Core)***

***Number of Observations: 36864    Number of Variables: 305  
Organization of file: One record per enrollee identification number***

***Note: 'Missing' category includes all values that are not available for any of the following reasons:***

**Categories assigned to 'Missing'**

Data for the item are invalid (e.g., multiple answers for single question answers on paper surveys).

Data for the items are out of range (e.g., diagnosis year is earlier than birth year).

Data for the item could not be interpreted by TeleForm software or verifiers.

Exact value or category cannot be determined.

Birth year in the data does not match the preloaded birth year.

Data for the item are missing.

Data for the item are missing due to a skip pattern

***Data set created by: Core\_combined\_w4\_v2.sas***

***Codebook created by: Core\_2column\_codebook\_v4.sas***

**CASEID\_W4**

Value	Label	Frequency	Percent
	Data present	36864	100.00

**Q2. Are you the enrollee whose name appears on the email invitation to complete this survey or named on Page 1 of the paper survey?****ENROLLEE\_W4**

Value	Label	Frequency	Percent
	Missing	789	2.14
1	Yes	35764	97.02
2	No - proxy for live enrollee	295	0.80
3	No - proxy for deceased enrollee	16	0.04

**Q3. As you complete the survey for the enrollee, please provide responses that fit best for the enrollee. What prevented the enrollee from completing the survey?****PROXY\_WHY\_W4**

Value	Label	Frequency	Percent
	Missing	36090	97.90
1	A physical or mental disability	147	0.40
2	A language barrier	56	0.15
3	The survey was too difficult for the person to read	67	0.18
4	Other reason	488	1.32
5	The enrollee is deceased	16	0.04

**Q6. What is your sex?****GENDER**

Value	Label	Frequency	Percent
	Missing	1	0.00
F	Female	14564	39.51
M	Male	22299	60.49

**Q7. Are you currently pregnant?****CURR\_PREGNANT\_W4**

Value	Label	Frequency	Percent
	Missing	20310	55.09
1	Yes	112	0.30
2	No	16387	44.45
3	Don't Know	55	0.15

**Q8. What is your current marital status?****MAR\_STATUS\_W4**

Value	Label	Frequency	Percent
	Missing	727	1.97

**Q8. What is your current marital status?****MAR\_STATUS\_W4**

Value	Label	Frequency	Percent
1	Never married	5245	14.23
2	Married	23238	63.04
3	Not married, living with a partner	1378	3.74
4	Widowed	1390	3.77
5	Divorced or separated	4886	13.25

**Q9. How many people live in your household, including you?****SIZE\_HOUSEHOLD\_W4**

Value	Label	Frequency	Percent
	Missing	863	2.34
1-99	Valid range	36001	97.66

**Q10. Which of the following describe your current employment status?: Employed full-time****EMPLOY\_FULL\_W4**

Value	Label	Frequency	Percent
0	Not Selected	18354	49.79
1	Selected	18510	50.21

**Q10. Which of the following describe your current employment status?: Employed part-time****EMPLOY\_PART\_W4**

Value	Label	Frequency	Percent
0	Not Selected	34447	93.44
1	Selected	2417	6.56

**Q10. Which of the following describe your current employment status?: Self-employed****SELFEMPLOYED\_W4**

Value	Label	Frequency	Percent
0	Not Selected	33983	92.18
1	Selected	2881	7.82

**Q10. Which of the following describe your current employment status?: On maternity or parental leave****LEAVE\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36810	99.85
1	Selected	54	0.15

**Q10. Which of the following describe your current employment status?: Looking for work****LOOK\_WORK\_W4**

Value	Label	Frequency	Percent
0	Not Selected	35719	96.89
1	Selected	1145	3.11

**Q10. Which of the following describe your current employment status?: Unemployed for less than 1 year**  
NOT\_EMPLOY\_LTYR\_W4

Value	Label	Frequency	Percent
0	Not Selected	36335	98.56
1	Selected	529	1.44

**Q10. Which of the following describe your current employment status?: Unemployed for 1 year or more**  
NOT\_EMPLOY\_1YR\_W4

Value	Label	Frequency	Percent
0	Not Selected	35961	97.55
1	Selected	903	2.45

**Q10. Which of the following describe your current employment status?: Unable to work because of health**  
NOT\_EMPLOY\_HLTH\_W4

Value	Label	Frequency	Percent
0	Not Selected	34589	93.83
1	Selected	2275	6.17

**Q10. Which of the following describe your current employment status?: Homemaker**  
HOMEMAKER\_W4

Value	Label	Frequency	Percent
0	Not Selected	35952	97.53
1	Selected	912	2.47

**Q10. Which of the following describe your current employment status?: Student**  
STUDENT\_W4

Value	Label	Frequency	Percent
0	Not Selected	36290	98.44
1	Selected	574	1.56

**Q10. Which of the following describe your current employment status?: Retired**  
RETIRED\_W4

Value	Label	Frequency	Percent
0	Not Selected	26787	72.66
1	Selected	10077	27.34

**Q11. What is the highest level of education you completed?**  
EDUCATION\_W4

Value	Label	Frequency	Percent
	Missing	638	1.73
1	Never attended school	37	0.10
2	Kindergarten through Grade 8	324	0.88
3	Grades 9 through 11	746	2.02
4	Grade 12 or GED	4758	12.91
5	Some college, Associate's Degree, or Technical Degree	10592	28.73

**Q11. What is the highest level of education you completed?**  
EDUCATION\_W4

Value	Label	Frequency	Percent
6	Bachelor's Degree	10460	28.37
7	Postgraduate Degree	9309	25.25

**Q12. What was your total household income in 2014 before taxes?**  
INCOME\_W4

Value	Label	Frequency	Percent
	Missing	2648	7.18
1	Less than \$25,000	3074	8.34
2	\$25,000 - \$49,999	4199	11.39
3	\$50,000 - \$74,999	5111	13.86
4	\$75,000 - \$99,999	4960	13.45
5	\$100,000 - \$149,999	7686	20.85
6	\$150,000 or more	9186	24.92

**Q13. In general, how satisfied are you with your life?**  
GENSATISFIED\_W4

Value	Label	Frequency	Percent
	Missing	806	2.19
1	Very satisfied	9939	26.96
2	Satisfied	20529	55.69
3	Dissatisfied	4667	12.66
4	Very dissatisfied	923	2.50

**Q14. In general, would you say that your health is:**  
GENHLTH\_W4

Value	Label	Frequency	Percent
	Missing	712	1.93
1	Excellent	3236	8.78
2	Very good	10133	27.49
3	Good	13294	36.06
4	Fair	7485	20.30
5	Poor	2004	5.44

**Q15a. Thinking about your physical health, which includes physical illness and injury, for how many days during the last 30 days was your physical health not good?**  
PHYSHLTH\_W4

Value	Label	Frequency	Percent
	Missing	1496	4.06
0	0 days	13075	35.47
1-30	1-30 days	22293	60.47

**Q15b. Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the last 30 days was your mental health not good?**  
MENTHLTH\_W4

Value	Label	Frequency	Percent
	Missing	1663	4.51
0	0 days	13731	37.25
1-30	1-30 days	21470	58.24

**Q15c. For how many days did poor physical or mental health keep you from doing your usual activities during the last 30 days?**  
POORHLTH\_W4

Value	Label	Frequency	Percent
	Missing	1888	5.12
0	0 days	18224	49.44
1-30	1-30 days	16752	45.44

**Q16. What is your height (without shoes)? (Height in inches constructed from Height\_feet and height\_inches)**  
HEIGHT\_W4

Value	Label	Frequency	Percent
	Missing	968	2.63
36-95	Valid range	35896	97.37

**Q17. What is your current weight (in pounds)?**  
WEIGHT\_W4

Value	Label	Frequency	Percent
	Missing	1026	2.78
50-600	Valid range	35838	97.22

**Q18. In general, how physically active are you?**  
PHYS\_ACTIVE\_W4

Value	Label	Frequency	Percent
	Missing	772	2.09
1	Very active	7142	19.37
2	Somewhat active	19156	51.96
3	Not very active	8469	22.97
4	Not active at all	1325	3.59

**Q19. During the last 7 days, how often have you had trouble remembering where you put things, like your keys or wallet?**  
REMEMBER\_7D\_W4

Value	Label	Frequency	Percent
	Missing	705	1.91
1	Never	6725	18.24
2	Rarely	11448	31.05
3	Sometimes	13485	36.58
4	Often	3313	8.99
5	Very often	1188	3.22

**Q20. During the last 12 months, have you experienced confusion or memory loss, other than occasionally forgetting the name of someone you recently met?**

MEMORY\_12M\_W4

Value	Label	Frequency	Percent
	Missing	724	1.96
1	Yes	13130	35.62
2	No	23010	62.42

**Q21. During the last 12 months, as a result of confusion or memory loss, how often have you given up day-to-day household activities or chores you used to do, such as cooking, cleaning, taking medications, driving or paying bills?**

MEMORY\_NOCHORES\_12M\_W4

Value	Label	Frequency	Percent
	Missing	22220	60.28
1	Never	6263	16.99
2	Rarely	3014	8.18
3	Sometimes	4128	11.20
4	Usually	912	2.47
5	Always	327	0.89

**Q22. During the last 12 months, has your confusion or memory loss happened more often or gotten worse?**

MEMORY\_WORSE\_12M\_W4

Value	Label	Frequency	Percent
	Missing	22579	61.25
1	Yes	5660	15.35
2	No	8625	23.40

**Q23a. In the last 30 days, which of the following symptoms have you experienced?: Shortness of breath**

BRTHESS\_NOFLU\_30D\_W4

Value	Label	Frequency	Percent
0	Not Selected	27509	74.62
1	Selected	9355	25.38

**Q23a. In the last 30 days, which of the following symptoms have you experienced?: Wheezing**

WHEEZE\_NOFLU\_30D\_W4

Value	Label	Frequency	Percent
0	Not Selected	31581	85.67
1	Selected	5283	14.33

**Q23a. In the last 30 days, which of the following symptoms have you experienced?: Persistent cough**

COUGH\_NOFLU\_30D\_W4

Value	Label	Frequency	Percent
	Missing	1	0.00
0	Not Selected	30644	83.13
1	Selected	6219	16.87

**Q23a. In the last 30 days, which of the following symptoms have you experienced?: None of the above**  
NONE\_NOFLU\_30D\_W4

Value	Label	Frequency	Percent
0	Not Selected	18245	49.49
1	Selected	18619	50.51

**Q23a1. In the last 30 days, on how many days did you experience shortness of breath when you did not have a cold, the flu, or seasonal allergies?**

BRTHLESS\_NOFLU\_30D\_NDAYS\_W4

Value	Label	Frequency	Percent
	Missing	22844	61.97
	Data present	14020	38.03

**Q23a2. In the last 30 days, on how many days did you experience wheezing when you did not have a cold, the flu, or seasonal allergies?**  
WHEEZE\_NOFLU\_30D\_NDAYS\_W4

Value	Label	Frequency	Percent
	Missing	26732	72.52
	Data present	10132	27.48

**Q23a3. In the last 30 days, on how many days did you experience persistent cough when you did not have a cold, the flu, or seasonal allergies?**

COUGH\_NOFLU\_30D\_NDAYS\_W4

Value	Label	Frequency	Percent
	Missing	25739	69.82
	Data present	11125	30.18

**Q23b. In the last 30 days, how many days have you experienced at least one of the following symptoms: shortness of breath, wheezing, or persistent cough?**

LRS\_GE1\_NOFLU\_30D\_NDAYS\_W4

Value	Label	Frequency	Percent
	Missing	19739	53.55
	Data present	17125	46.45

**Q23c. In the last 30 days, have you been awakened during the night by a cough, wheezing, or shortness of breath when you did not have a cold, the flu, or seasonal allergies?**

COUGH\_AWAKE\_30D\_W4

Value	Label	Frequency	Percent
	Missing	18346	49.77
1	Yes	8358	22.67
2	No	10160	27.56

**Q24. In the last 30 days, have you used an inhaler prescribed by a doctor for any breathing problem?**

INHALER\_30D\_W4

Value	Label	Frequency	Percent
	Missing	798	2.16
1	Yes	6361	17.26
2	No	29705	80.58

**Q25. Do you ever cough up any "stuff," such as mucus or phlegm?**  
COUGH\_PHLEGM\_EVER\_W4

Value	Label	Frequency	Percent
	Missing	897	2.43
1	Yes, every day	2749	7.46
2	Yes, most days a week	3279	8.89
3	Yes, a few days a month	6266	17.00
4	Only with occasional colds or chest infections	16618	45.08
5	No, never	7055	19.14

**Q26. During the last 12 months, how often have you experienced heartburn or acid reflux?**

HTBURN\_12M\_FREQ\_W4

Value	Label	Frequency	Percent
	Missing	1072	2.91
1	Never	10178	27.61
2	Less than once a month	8085	21.93
3	About once a month	5726	15.53
4	About once a week	5021	13.62
5	At least twice a week	6782	18.40

**Q27. In the last 12 months, have you seen a doctor or other health professional for heartburn or acid reflux?**

HTBURN\_12M\_MD\_W4

Value	Label	Frequency	Percent
	Missing	9820	26.64
1	Yes	8371	22.71
2	No	18673	50.65

**Q28. In the last 30 days, have you experienced heartburn or acid reflux?**

HTBURN\_30D\_W4

Value	Label	Frequency	Percent
	Missing	10125	27.47
1	Yes	18717	50.77
2	No	8022	21.76

**Q28a. In the last 30 days, on how many days have you experienced heartburn or acid reflux?**

HTBURN\_30D\_NDAYS\_W4

Value	Label	Frequency	Percent
	Missing	18516	50.23
1-30	1-30 days	18348	49.77

**Q29. In the last 30 days, have you taken any medications for heartburn or acid reflux?**

HTBURN\_30D\_MEDS\_W4

Value	Label	Frequency	Percent
	Missing	9975	27.06
1	Yes	13529	36.70
2	No	13360	36.24



**Q30a. Have you ever been told by a doctor or other health professional that you have hypertension, or high blood pressure?**  
HYPERTENSION\_W4

Value	Label	Frequency	Percent
	Missing	1797	4.87
1	Yes	14388	39.03
2	No	20679	56.10

**Q30b. Have you ever been told by a doctor or other health professional that you have high cholesterol?**  
CHOLESTEROL\_W4

Value	Label	Frequency	Percent
	Missing	1916	5.20
1	Yes	16544	44.88
2	No	18404	49.92

**Q30c. Have you ever been told by a doctor or other health professional that you have angina, or angina pectoris?**  
ANGINA\_W4

Value	Label	Frequency	Percent
	Missing	3334	9.04
1	Yes	1086	2.95
2	No	32444	88.01

**Q30d. Have you ever been told by a doctor or other health professional that you have heart attack, or myocardial infarction?**  
HEART\_ATTACK\_W4

Value	Label	Frequency	Percent
	Missing	3067	8.32
1	Yes	1339	3.63
2	No	32458	88.05

**Q30e. Have you ever been told by a doctor or other health professional that you have coronary heart disease?**  
CHD\_W4

Value	Label	Frequency	Percent
	Missing	3023	8.20
1	Yes	2067	5.61
2	No	31774	86.19

**Q30f. Have you ever been told by a doctor or other health professional that you have stroke?**  
STROKE\_W4

Value	Label	Frequency	Percent
	Missing	3097	8.40
1	Yes	855	2.32
2	No	32912	89.28

**Q30g. Have you ever been told by a doctor or other health professional that you have diabetes, or sugar diabetes?**  
DIABETES\_W4

Value	Label	Frequency	Percent
	Missing	2707	7.34
1	Yes	4659	12.64
2	No	29498	80.02

**Q30h. Have you ever been told by a doctor or other health professional that you have asthma?**  
ASTHMA\_W4

Value	Label	Frequency	Percent
	Missing	2701	7.33
1	Yes	7224	19.60
2	No	26939	73.08

**Q30i. Have you ever been told by a doctor or other health professional that you have chronic bronchitis?**  
CHBRONCH\_W4

Value	Label	Frequency	Percent
	Missing	3008	8.16
1	Yes	3939	10.69
2	No	29917	81.16

**Q30j. Have you ever been told by a doctor or other health professional that you have emphysema, or COPD?**  
EMPHYS\_COPD\_W4

Value	Label	Frequency	Percent
	Missing	3134	8.50
1	Yes	2075	5.63
2	No	31655	85.87

**Q30k. Have you ever been told by a doctor or other health professional that you have reactive airways dysfunction syndrome, or RADS?**  
RADS\_W4

Value	Label	Frequency	Percent
	Missing	3264	8.85
1	Yes	1692	4.59
2	No	31908	86.56

**Q30l. Have you ever been told by a doctor or other health professional that you have sarcoidosis?**  
SARCOIDOSIS\_W4

Value	Label	Frequency	Percent
	Missing	3364	9.13
1	Yes	492	1.33
2	No	33008	89.54

**Q30m. Have you ever been told by a doctor or other health professional that you have pulmonary fibrosis?**

**PULMONARY\_FIBROSIS\_W4**

Value	Label	Frequency	Percent
	Missing	3318	9.00
1	Yes	444	1.20
2	No	33102	89.79

**Q30n. Have you ever been told by a doctor or other health professional that you have asbestosis?**

**ASBESTOSIS\_W4**

Value	Label	Frequency	Percent
	Missing	3448	9.35
1	Yes	352	0.95
2	No	33064	89.69

**Q30o. Have you ever been told by a doctor or other health professional that you have sleep apnea, or obstructive sleep apnea?**

**SLEEP\_APNEA\_W4**

Value	Label	Frequency	Percent
	Missing	2964	8.04
1	Yes	6656	18.06
2	No	27244	73.90

**Q30p. Have you ever been told by a doctor or other health professional that you have gastroesophageal reflux disease, or GERD?**

**GERD\_W4**

Value	Label	Frequency	Percent
	Missing	2750	7.46
1	Yes	8526	23.13
2	No	25588	69.41

**Q30q. Have you ever been told by a doctor or other health professional that you have thyroid disease?**

**THYROID\_W4**

Value	Label	Frequency	Percent
	Missing	3013	8.17
1	Yes	3670	9.96
2	No	30181	81.87

**Q30r. Have you ever been told by a doctor or other health professional that you have peripheral neuropathy?**

**PERIPH\_NEURO\_P\_W4**

Value	Label	Frequency	Percent
	Missing	3490	9.47
1	Yes	1535	4.16
2	No	31839	86.37

**Q30s. Have you ever been told by a doctor or other health professional that you have rheumatoid arthritis?**

**RHEUM\_ARTH\_W4**

Value	Label	Frequency	Percent
	Missing	3316	9.00
1	Yes	3071	8.33
2	No	30477	82.67

**Q30t. Have you ever been told by a doctor or other health professional that you have other auto-immune disorders (e.g., lupus, MS, ALS, scleroderma, or polymyositis)?**

**OTHER\_AUTOIMM\_W4**

Value	Label	Frequency	Percent
	Missing	3477	9.43
1	Yes	1382	3.75
2	No	32005	86.82

**Q30u. Have you ever been told by a doctor or other health professional that you had any other disease #1 (excluding cancer)?**

**OTHER\_DIS1\_W4**

Value	Label	Frequency	Percent
	Missing	4617	12.52
1	Yes	5465	14.82
2	No	26782	72.65

**Q30v. Have you ever been told by a doctor or other health professional that you had any other disease #2 (excluding cancer)?**

**OTHER\_DIS2\_W4**

Value	Label	Frequency	Percent
	Missing	6591	17.88
1	Yes	2507	6.80
2	No	27766	75.32

**Q30\_Oth1. Specify the other disease. (Note: Cancer is covered later in this survey.) Enter only one disease. Type your answer in the space below.**

**OTHER\_DIS1\_SPECIFY\_W4**

Value	Label	Frequency	Percent
	Data present	5196	14.10
	Missing	31668	85.90

**Q30\_Oth2. Specify the other disease. (Note: Cancer is covered later in this survey.) Enter only one disease. Type your answer in the space below.**

**OTHER\_DIS2\_SPECIFY\_W4**

Value	Label	Frequency	Percent
	Data present	2228	6.04
	Missing	34636	93.96

**Q30a. In what year were you first told by a doctor or other health professional that you had hypertension, or high blood pressure?**

**HYPERTENSION\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	23799	64.56
1900-2016	Valid range	13065	35.44

**Q30b. In what year were you first told by a doctor or other health professional that you had high cholesterol?**

**CHOLESTEROL\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	21892	59.39
1900-2016	Valid range	14972	40.61

**Q30c. In what year were you first told by a doctor or other health professional that you had angina, or angina pectoris?**

**ANGINA\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	36019	97.71
1900-2016	Valid range	845	2.29

**Q30d. In what year were you first told by a doctor or other health professional that you had a heart attack, or myocardial infarction?**

**HEART\_ATTACK\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	35726	96.91
1900-2016	Valid range	1138	3.09

**Q30e. In what year were you first told by a doctor or other health professional that you had coronary heart disease?**

**CHD\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	35059	95.10
1900-2016	Valid range	1805	4.90

**Q30f. In what year were you first told by a doctor or other health professional that you had a stroke?**

**STROKE\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	36192	98.18
1900-2016	Valid range	672	1.82

**Q30g. In what year were you first told by a doctor or other health professional that you had diabetes, or sugar diabetes?**

**DIABETES\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	32718	88.75
1900-2016	Valid range	4146	11.25

**Q30h. In what year were you first told by a doctor or other health professional that you had asthma?**

**ASTHMA\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	30385	82.42
1900-2016	Valid range	6479	17.58

**Q30i. In what year were you first told by a doctor or other health professional that you had chronic bronchitis?**

**CHBRONCH\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	33494	90.86
1900-2016	Valid range	3370	9.14

**Q30j. In what year were you first told by a doctor or other health professional that you had emphysema, or COPD?**

**EMPHYS\_COPD\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	35096	95.20
1900-2016	Valid range	1768	4.80

**Q30k. In what year were you first told by a doctor or other health professional that you had reactive airways dysfunction syndrome, or RADS?**

**RADS\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	35444	96.15
1900-2016	Valid range	1420	3.85

**Q30l. In what year were you first told by a doctor or other health professional that you had sarcoidosis?**

**SARCOIDOSIS\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	36531	99.10
1900-2016	Valid range	333	0.90

**Q30m. In what year were you first told by a doctor or other health professional that you had pulmonary fibrosis?**

**PULMONARY\_FIBROSIS\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	36593	99.26
1900-2016	Valid range	271	0.74

**Q30n. In what year were you first told by a doctor or other health professional that you had asbestosis?**

**ASBESTOSIS\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	36684	99.51
1900-2016	Valid range	180	0.49

**Q30o. In what year were you first told by a doctor or other health professional that you had sleep apnea, or obstructive sleep apnea?**  
SLEEP\_APNEA\_YR\_W4

Value	Label	Frequency	Percent
	Missing	30921	83.88
1900-2016	Valid range	5943	16.12

**Q30p. In what year were you first told by a doctor or other health professional that you had gastroesophageal reflux disease, or GERD?**  
GERD\_YR\_W4

Value	Label	Frequency	Percent
	Missing	29284	79.44
1900-2016	Valid range	7580	20.56

**Q30q. In what year were you first told by a doctor or other health professional that you had thyroid disease?**  
THYROID\_YR\_W4

Value	Label	Frequency	Percent
	Missing	33599	91.14
1900-2016	Valid range	3265	8.86

**Q30r. In what year were you first told by a doctor or other health professional that you had peripheral neuropathy?**  
PERIPH\_NEUROP\_YR\_W4

Value	Label	Frequency	Percent
	Missing	35594	96.55
1900-2016	Valid range	1270	3.45

**Q30s. In what year were you first told by a doctor or other health professional that you had rheumatoid arthritis?**  
RHEUM\_ARTH\_YR\_W4

Value	Label	Frequency	Percent
	Missing	34357	93.20
1900-2016	Valid range	2507	6.80

**Q30t. In what year were you first told by a doctor or other health professional that you had other auto-immune disorders (e.g., lupus, MS, ALS, scleroderma, or polymyositis)?**  
OTHER\_AUTOIMM\_YR\_W4

Value	Label	Frequency	Percent
	Missing	35700	96.84
1900-2016	Valid range	1164	3.16

**Q30u. In what year were you first told by a doctor or other health professional that you had any other disease #1 (excluding cancer)?**  
OTHER\_DIS1\_YR\_W4

Value	Label	Frequency	Percent
	Missing	31998	86.80
1900-2016	Valid range	4866	13.20

**Q30v. In what year were you first told by a doctor or other health professional that you had any other disease #2 (excluding cancer)?**  
OTHER\_DIS2\_YR\_W4

Value	Label	Frequency	Percent
	Missing	34841	94.51
1900-2016	Valid range	2023	5.49

**Q31. (Answer only if you are male:) In the last 12 months, did you have a PSA test? A PSA test is a blood test to detect prostate cancer. It is also called a prostate-specific antigen test.**  
PSA\_TEST\_12M\_W4

Value	Label	Frequency	Percent
	Missing	15031	40.77
1	Yes	10825	29.36
2	No	11008	29.86

**Q32. What was the main reason you had your most recent PSA test?**  
PSA\_TEST\_REASON\_W4

Value	Label	Frequency	Percent
	Missing	26204	71.08
1	Part of a routine exam	8912	24.18
2	Because of a problem	1357	3.68
3	Other reason	391	1.06

**Q33. (Answer only if you are female:) In the last 12 months, did you have a mammogram?**  
MAMMOGRAM\_12M\_W4

Value	Label	Frequency	Percent
	Missing	22846	61.97
1	Yes	8740	23.71
2	No	5278	14.32

**Q34. What was the main reason you had your most recent mammogram?**  
MAMMOGRAM\_REASON\_W4

Value	Label	Frequency	Percent
	Missing	28132	76.31
1	Part of a routine exam	7936	21.53
2	Because of a problem	562	1.52
3	Other reason	234	0.63

**Q35. In the last 12 months, did you have a colonoscopy or sigmoidoscopy?**  
COLONOSCOPY\_12M\_W4

Value	Label	Frequency	Percent
	Missing	1208	3.28
1	Yes	7733	20.98
2	No	27923	75.75

**Q36. What was the main reason you had your most recent colonoscopy or sigmoidoscopy?**

**COLONOSCOPY\_REASON\_W4**

Value	Label	Frequency	Percent
	Missing	28910	78.42
1	Part of a routine exam	5904	16.02
2	Because of a problem	1686	4.57
3	Other reason	364	0.99

**Q37. In the last 12 months, did you have a CAT scan or CT scan of your chest or lungs?**

**CATSCAN\_CHEST\_12M\_W4**

Value	Label	Frequency	Percent
	Missing	1314	3.56
1	Yes	6664	18.08
2	No	28886	78.36

**Q38. What was the main reason you had your most recent CAT scan or CT scan of your chest or lungs?**

**CATSCAN\_CHEST\_REASON\_W4**

Value	Label	Frequency	Percent
	Missing	30175	81.85
1	Part of a routine exam	2457	6.67
2	Because of a problem	3544	9.61
3	Other reason	688	1.87

**Q39. Have you ever been told by a doctor or other health professional that you had any type of cancer?**

**CANCER\_W4**

Value	Label	Frequency	Percent
	Missing	995	2.70
1	Yes	5793	15.71
2	No	30076	81.59

**Q40a. Please select the type(s) of cancer you have had: Breast**

**CANCER\_BREAST\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36110	97.95
1	Selected	754	2.05

**Q40b. Please select the type(s) of cancer you have had: Colon**

**CANCER\_COLON\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36614	99.32
1	Selected	250	0.68

**Q40c. Please select the type(s) of cancer you have had: Lung**

**CANCER\_LUNG\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36689	99.53
1	Selected	175	0.47

**Q40d. Please select the type(s) of cancer you have had: Prostate**

**CANCER\_PROSTATE\_W4**

Value	Label	Frequency	Percent
0	Not Selected	35954	97.53
1	Selected	910	2.47

**Q40e. Please select the type(s) of cancer you have had: Thyroid**

**CANCER\_THYROID\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36567	99.19
1	Selected	297	0.81

**Q40f. Please select the type(s) of cancer you have had: Leukemia, Hodgkin's disease, non-Hodgkin's or other lymphoma or multiple myeloma**

**CANCER\_LEUKEMIA\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36498	99.01
1	Selected	366	0.99

**Q40g. Please select the type(s) of cancer you have had: Malignant melanoma**

**CANCER\_MELANOMA\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36353	98.61
1	Selected	511	1.39

**Q40h. Please select the type(s) of cancer you have had: Skin cancer other than melanoma (e.g., Basal or squamous cell)**

**CANCER\_SKIN\_W4**

Value	Label	Frequency	Percent
	Missing	1	0.00
0	Not Selected	34534	93.68
1	Selected	2329	6.32

**Q40i. Please select the type(s) of cancer you have had: Other cancer 1**

**CANCER\_OTHER1\_W4**

Value	Label	Frequency	Percent
0	Not Selected	35689	96.81
1	Selected	1175	3.19

**Q40j. Please select the type(s) of cancer you have had: Other cancer 2**

**CANCER\_OTHER2\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36766	99.73
1	Selected	98	0.27

**Q40j. Specify the other type of cancer you had. Enter only one type. Type your answer in the space below.**

**CANCER\_OTHER1\_SPECIFY\_W4**

Value	Label	Frequency	Percent
	Missing	35764	97.02
	Data present	1100	2.98

**Q40j. Specify the other type of cancer you had. Enter only one type. Type your answer in the space below.**

**CANCER\_OTHER2\_SPECIFY\_W4**

Value	Label	Frequency	Percent
	Missing	36786	99.79
	Data present	78	0.21

**Q40a. What was your age (in years) at the time you were diagnosed with breast cancer?**

**CANCER\_BREAST\_AGE\_W4**

Value	Label	Frequency	Percent
	Missing	36122	97.99
	Data present	742	2.01

**Q40b. What was your age (in years) at the time you were diagnosed with colon cancer?**

**CANCER\_COLON\_AGE\_W4**

Value	Label	Frequency	Percent
	Missing	36624	99.35
	Data present	240	0.65

**Q40c. What was your age (in years) at the time you were diagnosed with lung cancer?**

**CANCER\_LUNG\_AGE\_W4**

Value	Label	Frequency	Percent
	Missing	36691	99.53
	Data present	173	0.47

**Q40d. What was your age (in years) at the time you were diagnosed with prostate cancer?**

**CANCER\_PROSTATE\_AGE\_W4**

Value	Label	Frequency	Percent
	Missing	35979	97.60
	Data present	885	2.40

**Q40e. What was your age (in years) at the time you were diagnosed with thyroid cancer?**

**CANCER\_THYROID\_AGE\_W4**

Value	Label	Frequency	Percent
	Missing	36578	99.22
	Data present	286	0.78

**Q40f. What was your age (in years) at the time you were diagnosed with leukemia, Hodgkin's disease, non-Hodgkin's or other lymphoma or multiple myeloma?**

**CANCER\_LEUKEMIA\_AGE\_W4**

Value	Label	Frequency	Percent
	Missing	36510	99.04
	Data present	354	0.96

**Q40g. What was your age (in years) at the time you were diagnosed with malignant melanoma?**

**CANCER\_MELANOMA\_AGE\_W4**

Value	Label	Frequency	Percent
	Missing	36369	98.66
	Data present	495	1.34

**Q40h. What was your age (in years) at the time you were diagnosed with skin cancer other than melanoma (e.g., Basal or squamous cell)?**

**CANCER\_SKIN\_AGE\_W4**

Value	Label	Frequency	Percent
	Missing	34630	93.94
	Data present	2234	6.06

**Q40i. What was your age (in years) at the time you were diagnosed with the following type of cancer: [other\_canc1\_specify]?**

**CANCER\_OTHER1\_AGE\_W4**

Value	Label	Frequency	Percent
	Missing	35755	96.99
	Data present	1109	3.01

**Q40j. What was your age (in years) at the time you were diagnosed with the following type of cancer: [other\_canc2\_specify]?**

**CANCER\_OTHER2\_AGE\_W4**

Value	Label	Frequency	Percent
	Missing	36784	99.78
	Data present	80	0.22

**Q41. Has your biological father ever had cancer?**

**CANCER\_FATHER\_W4**

Value	Label	Frequency	Percent
	Missing	1159	3.14
1	Yes	10784	29.25
2	No	21617	58.64
3	Don't Know	3304	8.96

**Q41a. Select the type(s) of cancer your biological father has had: Colon**

**CANCER\_FATHER\_COLON\_W4**

Value	Label	Frequency	Percent
	Missing	11	0.03
0	Not Selected	35404	96.04
1	Selected	1449	3.93

**Q41a. Select the type(s) of cancer your biological father has had: Prostate**

**CANCER\_FATHER\_PROSTATE\_W4**

Value	Label	Frequency	Percent
	Missing	11	0.03
0	Not Selected	33564	91.05
1	Selected	3289	8.92

**Q41a. Select the type(s) of cancer your biological father has had:  
Other**

**CANCER\_FATHER\_OTHER\_W4**

Value	Label	Frequency	Percent
	Missing	12	0.03
0	Not Selected	29950	81.24
1	Selected	6902	18.72

**Q41\_Oth. Specify the other type of cancer your biological father has had. Type your answer in the space below.**

**CANCER\_FATHER\_SPECIFY\_W4**

Value	Label	Frequency	Percent
	Data present	6725	18.24
	Missing	30139	81.76

**Q42. Has your biological mother ever had cancer?**

**CANCER\_MOTHER\_W4**

Value	Label	Frequency	Percent
	Missing	862	2.34
1	Yes	10253	27.81
2	No	24039	65.21
3	Don't Know	1710	4.64

**Q42a. Select the type(s) of cancer your biological mother has had:**

**Breast**

**CANCER\_MOTHER\_BREAST\_W4**

Value	Label	Frequency	Percent
	Missing	6	0.02
0	Not Selected	33280	90.28
1	Selected	3578	9.71

**Q42a. Select the type(s) of cancer your biological mother has had:**

**Colon**

**CANCER\_MOTHER\_COLON\_W4**

Value	Label	Frequency	Percent
	Missing	6	0.02
0	Not Selected	35728	96.92
1	Selected	1130	3.07

**Q42a. Select the type(s) of cancer your biological mother has had:**

**Other**

**CANCER\_MOTHER\_OTHER\_W4**

Value	Label	Frequency	Percent
	Missing	6	0.02
0	Not Selected	30611	83.04
1	Selected	6247	16.95

**Q42a. Specify the other type of cancer your biological mother has had. Type your answer in the space below.**

**CANCER\_MOTHER\_SPECIFY\_W4**

Value	Label	Frequency	Percent
	Data present	6001	16.28

**Q42a. Specify the other type of cancer your biological mother has had. Type your answer in the space below.**

**CANCER\_MOTHER\_SPECIFY\_W4**

Value	Label	Frequency	Percent
	Missing	30863	83.72

**Q43. Do you have any biological brothers/sisters who have ever had cancer? Include half-brothers/sisters but not step-brothers/sisters.**

**CANCER\_SIB\_W4**

Value	Label	Frequency	Percent
	Missing	939	2.55
1	Yes	6571	17.82
2	No	27665	75.05
3	Don't Know	1689	4.58

**Q43a. Select the type(s) of cancer your biological brothers/sisters have had: Breast**

**CANCER\_SIB\_BREAST\_W4**

Value	Label	Frequency	Percent
	Missing	2	0.01
0	Not Selected	35111	95.24
1	Selected	1751	4.75

**Q43a. Select the type(s) of cancer your biological brothers/sisters have had: Colon**

**CANCER\_SIB\_COLON\_W4**

Value	Label	Frequency	Percent
	Missing	2	0.01
0	Not Selected	36217	98.24
1	Selected	645	1.75

**Q43a. Select the type(s) of cancer your biological brothers/sisters have had: Prostate**

**CANCER\_SIB\_PROSTATE\_W4**

Value	Label	Frequency	Percent
	Missing	2	0.01
0	Not Selected	36089	97.90
1	Selected	773	2.10

**Q43a. Select the type(s) of cancer your biological brothers/sisters have had: Other**

**CANCER\_SIB\_OTHER\_W4**

Value	Label	Frequency	Percent
	Missing	2	0.01
0	Not Selected	32895	89.23
1	Selected	3967	10.76

**Q43a. Specify the other type of cancer your biological brothers/sisters have had. Type your answer in the space below.**

**CANCER\_SIB\_SPECIFY\_W4**

Value	Label	Frequency	Percent
	Data present	3799	10.31
	Missing	33065	89.69

**Q44. Not counting your biological parents and brothers/sisters, do you have any other blood relatives who have ever had cancer?**

**CANCER\_OTHER\_REL\_W4**

Value	Label	Frequency	Percent
	Missing	1327	3.60
1	Yes	17630	47.82
2	No	11344	30.77
3	Don't Know	6563	17.80

**Q44a. Select the type(s) of cancer your other blood relatives have had: Breast**

**CANCER\_OTHER\_REL\_BREAST\_W4**

Value	Label	Frequency	Percent
	Missing	3	0.01
0	Not Selected	30445	82.59
1	Selected	6416	17.40

**Q44a. Select the type(s) of cancer your other blood relatives have had: Colon**

**CANCER\_OTHER\_REL\_COLON\_W4**

Value	Label	Frequency	Percent
	Missing	3	0.01
0	Not Selected	33356	90.48
1	Selected	3505	9.51

**Q44a. Select the type(s) of cancer your other blood relatives have had: Prostate**

**CANCER\_OTHER\_REL\_PROSTATE\_W4**

Value	Label	Frequency	Percent
	Missing	3	0.01
0	Not Selected	34161	92.67
1	Selected	2700	7.32

**Q44a. Select the type(s) of cancer your other blood relatives have had: Other**

**CANCER\_OTHER\_REL\_OTHER\_W4**

Value	Label	Frequency	Percent
	Missing	3	0.01
0	Not Selected	26601	72.16
1	Selected	10260	27.83

**Q44a. Specify the other type of cancer your other blood relatives have had. Type your answer in the space below.**

**CANCER\_OTHER\_REL\_SPECIFY\_W4**

Value	Label	Frequency	Percent
	Data present	9716	26.36
	Missing	27148	73.64

**Q45. During the last 12 months, were you without health insurance at any point?**

**HEALTHCARE\_NOINSUR\_12M\_W4**

Value	Label	Frequency	Percent
	Missing	846	2.29
1	Yes	2110	5.72
2	No	33908	91.98

**Q46. Do you currently have any health insurance, including private health insurance, HMO, managed care, or a government plan such as Medicare or Medicaid?**

**HEALTHCARE\_INSURANCE\_W4**

Value	Label	Frequency	Percent
	Missing	30962	83.99
1	Yes	4973	13.49
2	No	929	2.52

**Q47. Do you have at least one person or location you think of as your personal doctor or health care provider?**

**HEALTHCARE\_PROVIDER\_W4**

Value	Label	Frequency	Percent
	Missing	971	2.63
1	Yes	33047	89.65
2	No	2846	7.72

**Q48. When did you last visit a doctor for a routine check-up that was not for a specific injury, illness, or condition?**

**CHECKUP\_W4**

Value	Label	Frequency	Percent
	Missing	858	2.33
1	Within the last 12 months	27222	73.84
2	Over a year ago but less than 2 years ago	4811	13.05
3	2 or more years ago but less than 5 years ago	2387	6.48
4	5 or more years ago	1309	3.55
5	Never in my life	277	0.75

**Q49. During the last 12 months, was there a time when you needed care from a medical professional for physical health problems, other than a routine physical exam?**

**CARE\_NEED\_PHYS\_12M\_W4**

Value	Label	Frequency	Percent
	Missing	908	2.46
1	Yes	23483	63.70
2	No	12473	33.84



**Q50. Did you receive the physical health care you needed?**  
CARE\_RECEIVED\_PHYS\_12M\_W4

Value	Label	Frequency	Percent
	Missing	13661	37.06
1	Yes	22226	60.29
2	No	977	2.65

**Q51. During the last 12 months, was there a time when you needed mental health care or counseling?**  
CARE\_NEED\_MH\_12M\_W4

Value	Label	Frequency	Percent
	Missing	1003	2.72
1	Yes	8220	22.30
2	No	27641	74.98

**Q52. Did you receive the mental health care or counseling you needed?**  
CARE\_RECEIVED\_MH\_12M\_W4

Value	Label	Frequency	Percent
	Missing	27879	75.63
1	Yes	5574	15.12
2	No	3411	9.25

**Q53. Have you ever received services from any of the World Trade Center Health Program clinics listed below? (See list in survey instrument.)**  
WTCPROG\_SERVICES\_W4

Value	Label	Frequency	Percent
	Missing	885	2.40
1	Yes	7462	20.24
2	No	27487	74.56
3	Don't Know	1030	2.79

**Q54a. In the last 30 days, how much have you been bothered by the following problem: Repeated, disturbing memories, thoughts, or images of the events of 9/11?**  
MEMORIES\_W4

Value	Label	Frequency	Percent
	Missing	887	2.41
1	Not at all	17758	48.17
2	A little bit	11613	31.50
3	Moderately	4300	11.66
4	Quite a bit	1809	4.91
5	Extremely	497	1.35

**Q54b. In the last 30 days, how much have you been bothered by the following problem: Repeated, disturbing dreams of the events of 9/11?**  
DREAMS\_W4

Value	Label	Frequency	Percent
	Missing	959	2.60
1	Not at all	26471	71.81

**Q54b. In the last 30 days, how much have you been bothered by the following problem: Repeated, disturbing dreams of the events of 9/11?**  
DREAMS\_W4

Value	Label	Frequency	Percent
2	A little bit	5832	15.82
3	Moderately	2234	6.06
4	Quite a bit	1033	2.80
5	Extremely	335	0.91

**Q54c. In the last 30 days, how much have you been bothered by the following problem: Suddenly acting or feeling as if the events of 9/11 were happening again (as if you were reliving it)?**  
RELIVE\_W4

Value	Label	Frequency	Percent
	Missing	1058	2.87
1	Not at all	27482	74.55
2	A little bit	5093	13.82
3	Moderately	1925	5.22
4	Quite a bit	958	2.60
5	Extremely	348	0.94

**Q54d. In the last 30 days, how much have you been bothered by the following problem: Feeling very upset when something reminded you of the events of 9/11?**  
UPSET\_REMIND\_W4

Value	Label	Frequency	Percent
	Missing	967	2.62
1	Not at all	13475	36.55
2	A little bit	12045	32.67
3	Moderately	5425	14.72
4	Quite a bit	3299	8.95
5	Extremely	1653	4.48

**Q54e. In the last 30 days, how much have you been bothered by the following problem: Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of the events of 9/11?**  
PHYSICAL\_REMIND\_W4

Value	Label	Frequency	Percent
	Missing	941	2.55
1	Not at all	23798	64.56
2	A little bit	6628	17.98
3	Moderately	2974	8.07
4	Quite a bit	1693	4.59
5	Extremely	830	2.25

**Q54f. In the last 30 days, how much have you been bothered by the following problem: Avoiding thinking about or talking about the events of 9/11 or avoiding having feelings related to it?**  
AVOID\_THINK\_W4

Value	Label	Frequency	Percent
	Missing	940	2.55
1	Not at all	18548	50.31

**Q54f. In the last 30 days, how much have you been bothered by the following problem: Avoiding thinking about or talking about the events of 9/11 or avoiding having feelings related to it?**

**AVOID\_THINK\_W4**

Value	Label	Frequency	Percent
2	A little bit	8145	22.09
3	Moderately	4089	11.09
4	Quite a bit	3275	8.88
5	Extremely	1867	5.06

**Q54g. In the last 30 days, how much have you been bothered by the following problem: Avoiding activities or situations because they remind you of the events of 9/11?**

**AVOID\_ACTIVITIES\_W4**

Value	Label	Frequency	Percent
	Missing	984	2.67
1	Not at all	23000	62.39
2	A little bit	6044	16.40
3	Moderately	3011	8.17
4	Quite a bit	2383	6.46
5	Extremely	1442	3.91

**Q54h. In the last 30 days, how much have you been bothered by the following problem: Trouble remembering the important parts of the events of 9/11?**

**TROUBLE\_REMEMBER\_W4**

Value	Label	Frequency	Percent
	Missing	1008	2.73
1	Not at all	28678	77.79
2	A little bit	3855	10.46
3	Moderately	1896	5.14
4	Quite a bit	988	2.68
5	Extremely	439	1.19

**Q54i. In the last 30 days, how much have you been bothered by the following problem: Loss of interest in activities that you used to enjoy?**

**LOSS\_INTEREST\_W4**

Value	Label	Frequency	Percent
	Missing	1027	2.79
1	Not at all	22564	61.21
2	A little bit	6765	18.35
3	Moderately	3277	8.89
4	Quite a bit	2173	5.89
5	Extremely	1058	2.87

**Q54j. In the last 30 days, how much have you been bothered by the following problem: Feeling distant or cut off from other people?**

**FEELING\_DISTANT\_W4**

Value	Label	Frequency	Percent
	Missing	1008	2.73
1	Not at all	21473	58.25
2	A little bit	7483	20.30

**Q54j. In the last 30 days, how much have you been bothered by the following problem: Feeling distant or cut off from other people?**

**FEELING\_DISTANT\_W4**

Value	Label	Frequency	Percent
3	Moderately	3394	9.21
4	Quite a bit	2342	6.35
5	Extremely	1164	3.16

**Q54k. In the last 30 days, how much have you been bothered by the following problem: Feeling emotionally numb or being unable to have loving feelings for those close to you?**

**FEEL\_NUMB\_W4**

Value	Label	Frequency	Percent
	Missing	1004	2.72
1	Not at all	24946	67.67
2	A little bit	5736	15.56
3	Moderately	2614	7.09
4	Quite a bit	1779	4.83
5	Extremely	785	2.13

**Q54l. In the last 30 days, how much have you been bothered by the following problem: Feeling as if your future will somehow be cut short?**

**CUT\_SHORT\_W4**

Value	Label	Frequency	Percent
	Missing	1046	2.84
1	Not at all	20926	56.77
2	A little bit	7138	19.36
3	Moderately	3459	9.38
4	Quite a bit	2674	7.25
5	Extremely	1621	4.40

**Q54m. In the last 30 days, how much have you been bothered by the following problem: Trouble falling or staying asleep?**

**TROUBLE\_SLEEP\_W4**

Value	Label	Frequency	Percent
	Missing	1065	2.89
1	Not at all	14404	39.07
2	A little bit	8988	24.38
3	Moderately	5231	14.19
4	Quite a bit	4433	12.03
5	Extremely	2743	7.44

**Q54n. In the last 30 days, how much have you been bothered by the following problem: Feeling irritable or having angry outbursts?**

**FEEL\_ANGRY\_W4**

Value	Label	Frequency	Percent
	Missing	1058	2.87
1	Not at all	17815	48.33
2	A little bit	9906	26.87
3	Moderately	4390	11.91
4	Quite a bit	2576	6.99

**Q54n. In the last 30 days, how much have you been bothered by the following problem: Feeling irritable or having angry outbursts?**

**FEEL\_ANGRY\_W4**

Value	Label	Frequency	Percent
5	Extremely	1119	3.04

**Q54o. In the last 30 days, how much have you been bothered by the following problem: Having difficulty concentrating?**

**CONCENTRATING\_W4**

Value	Label	Frequency	Percent
	Missing	1114	3.02
1	Not at all	16737	45.40
2	A little bit	10452	28.35
3	Moderately	4521	12.26
4	Quite a bit	2739	7.43
5	Extremely	1301	3.53

**Q54p. In the last 30 days, how much have you been bothered by the following problem: Being "super alert" or watchful or on guard?**

**SUPERALERT\_W4**

Value	Label	Frequency	Percent
	Missing	1000	2.71
1	Not at all	17853	48.43
2	A little bit	7826	21.23
3	Moderately	4406	11.95
4	Quite a bit	3410	9.25
5	Extremely	2369	6.43

**Q54q. In the last 30 days, how much have you been bothered by the following problem: Feeling jumpy or easily startled?**

**JUMPY\_W4**

Value	Label	Frequency	Percent
	Missing	952	2.58
1	Not at all	20587	55.85
2	A little bit	7741	21.00
3	Moderately	3608	9.79
4	Quite a bit	2499	6.78
5	Extremely	1477	4.01

**Q55a. How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?**

**PCL\_PROBS\_WORKHOME\_W4**

Value	Label	Frequency	Percent
	Missing	6085	16.51
1	Not difficult at all	18544	50.30
2	Somewhat difficult	10027	27.20
3	Very difficult	1565	4.25
4	Extremely difficult	643	1.74

**Q55b. During the last 12 months, have you experienced any of these problems continuously for longer than 1 month?**

**PCL\_PROBS\_1MO\_W4**

Value	Label	Frequency	Percent
	Missing	6213	16.85
1	Yes	9288	25.20
2	No	21363	57.95

**Q55c. During the last 12 months when you were having some of these problems, did you drink alcohol to improve your mood or to make yourself feel better?**

**PCL\_PROBS\_ALCOHOL\_12M\_W4**

Value	Label	Frequency	Percent
	Missing	6139	16.65
1	Yes	6346	17.21
2	No	24379	66.13

**Q56a. Over the last 2 weeks, how often have you been bothered by the following problem: Little interest or pleasure in doing things?**

**PHQ8\_LITTLE\_INTEREST\_W4**

Value	Label	Frequency	Percent
	Missing	1238	3.36
1	Not at all	23194	62.92
2	Several days	8797	23.86
3	More than half the days	2253	6.11
4	Nearly every day	1382	3.75

**Q56b. Over the last 2 weeks, how often have you been bothered by the following problem: Feeling down, depressed, or hopeless?**

**PHQ8\_FEEL\_DOWN\_W4**

Value	Label	Frequency	Percent
	Missing	1277	3.46
1	Not at all	21430	58.13
2	Several days	10393	28.19
3	More than half the days	2323	6.30
4	Nearly every day	1441	3.91

**Q56c. Over the last 2 weeks, how often have you been bothered by the following problem: Trouble falling or staying asleep, or sleeping too much?**

**PHQ8\_TROUBLE\_SLEEP\_W4**

Value	Label	Frequency	Percent
	Missing	1305	3.54
1	Not at all	16072	43.60
2	Several days	11758	31.90
3	More than half the days	4023	10.91
4	Nearly every day	3706	10.05

**Q56d. Over the last 2 weeks, how often have you been bothered by the following problem: Feeling tired or having little energy?**

**PHQ8\_FEEL\_TIRED\_W4**

Value	Label	Frequency	Percent
	Missing	1203	3.26
1	Not at all	13842	37.55
2	Several days	14053	38.12
3	More than half the days	4426	12.01
4	Nearly every day	3340	9.06

**Q56e. Over the last 2 weeks, how often have you been bothered by the following problem: Poor appetite or overeating?**

**PHQ8\_POOR\_APP\_W4**

Value	Label	Frequency	Percent
	Missing	1333	3.62
1	Not at all	21458	58.21
2	Several days	8605	23.34
3	More than half the days	3317	9.00
4	Nearly every day	2151	5.83

**Q56f. Over the last 2 weeks, how often have you been bothered by the following problem: Feeling bad about yourself, or that you are a failure or have let yourself or your family down?**

**PHQ8\_FEEL\_BAD\_W4**

Value	Label	Frequency	Percent
	Missing	1213	3.29
1	Not at all	23626	64.09
2	Several days	7412	20.11
3	More than half the days	2652	7.19
4	Nearly every day	1961	5.32

**Q56g. Over the last 2 weeks, how often have you been bothered by the following problem: Trouble concentrating on things, such as reading the newspaper or watching television?**

**PHQ8\_TROUBLE\_CONC\_W4**

Value	Label	Frequency	Percent
	Missing	1146	3.11
1	Not at all	23383	63.43
2	Several days	8094	21.96
3	More than half the days	2575	6.99
4	Nearly every day	1666	4.52

**Q56h. Over the last 2 weeks, how often have you been bothered by the following problem: Moving or speaking so slowly that other people could have noticed or being so fidgety or restless that you have been moving around a lot more than usual?**

**PHQ8\_MOVE\_SLOWLY\_W4**

Value	Label	Frequency	Percent
	Missing	1187	3.22
1	Not at all	29306	79.50
2	Several days	4062	11.02

**Q56h. Over the last 2 weeks, how often have you been bothered by the following problem: Moving or speaking so slowly that other people could have noticed or being so fidgety or restless that you have been moving around a lot more than usual?**

**PHQ8\_MOVE\_SLOWLY\_W4**

Value	Label	Frequency	Percent
3	More than half the days	1452	3.94
4	Nearly every day	857	2.32

**Q57a. During the last 30 days, about how often did you feel: So sad that nothing could cheer you up?**

**SAD\_W4**

Value	Label	Frequency	Percent
	Missing	1072	2.91
1	None of the time	24076	65.31
2	A little of the time	6852	18.59
3	Some of the time	3301	8.95
4	Most of the time	1250	3.39
5	All of the time	313	0.85

**Q57b. During the last 30 days, about how often did you feel nervous?**

**NERVOUS\_W4**

Value	Label	Frequency	Percent
	Missing	1139	3.09
1	None of the time	18768	50.91
2	A little of the time	9976	27.06
3	Some of the time	4470	12.13
4	Most of the time	1862	5.05
5	All of the time	649	1.76

**Q57c. During the last 30 days, about how often did you feel restless or fidgety?**

**RESTLESS\_W4**

Value	Label	Frequency	Percent
	Missing	1212	3.29
1	None of the time	20297	55.06
2	A little of the time	8994	24.40
3	Some of the time	4107	11.14
4	Most of the time	1665	4.52
5	All of the time	589	1.60

**Q57d. During the last 30 days, about how often did you feel hopeless?**

**HOPELESS\_W4**

Value	Label	Frequency	Percent
	Missing	1233	3.34
1	None of the time	25025	67.88
2	A little of the time	5736	15.56
3	Some of the time	2911	7.90
4	Most of the time	1312	3.56
5	All of the time	647	1.76

**Q57e. During the last 30 days, about how often did you feel that everything was an effort?**

**LETHARGIC\_W4**

Value	Label	Frequency	Percent
	Missing	1192	3.23
1	None of the time	20348	55.20
2	A little of the time	8249	22.38
3	Some of the time	3816	10.35
4	Most of the time	2208	5.99
5	All of the time	1051	2.85

**Q57f. During the last 30 days, about how often did you feel worthless?**

**WORTHLESS\_W4**

Value	Label	Frequency	Percent
	Missing	1164	3.16
1	None of the time	26938	73.07
2	A little of the time	4545	12.33
3	Some of the time	2388	6.48
4	Most of the time	1112	3.02
5	All of the time	717	1.94

**Q58. Have you ever been told by a doctor or other health professional that you have depression?**

**DEPRESSION\_W4**

Value	Label	Frequency	Percent
0	Not Selected	29220	79.26
1	Selected	7644	20.74

**Q58. Have you ever been told by a doctor or other health professional that you have Post-traumatic stress disorder (PTSD)?**

**PTSD\_W4**

Value	Label	Frequency	Percent
0	Not Selected	30971	84.01
1	Selected	5893	15.99

**Q58. Have you ever been told by a doctor or other health professional that you have an anxiety disorder, other than PTSD?**

**ANXIETY\_W4**

Value	Label	Frequency	Percent
0	Not Selected	32115	87.12
1	Selected	4749	12.88

**Q58. Have you ever been told by a doctor or other health professional that you have other mental health problems, including problems with your nerves or emotions?**

**NERVES\_W4**

Value	Label	Frequency	Percent
0	Not Selected	34207	92.79
1	Selected	2657	7.21

**Q58. Have you ever been told by a doctor or other health professional that you have problems with your use of alcohol or drugs?**

**ALCOHOL\_DRUGS\_W4**

Value	Label	Frequency	Percent
0	Not Selected	35235	95.58
1	Selected	1629	4.42

**Q58. Have you ever been told by a doctor or other health professional that you have none of the above?**

**MH\_DX\_NONE\_W4**

Value	Label	Frequency	Percent
0	Not Selected	11935	32.38
1	Selected	24929	67.62

**Q58a. In what year were you first told by a doctor or other health professional that you have depression?**

**DEPRESSION\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	29728	80.64
1900-2016	Valid range	7136	19.36

**Q58b. In what year were you first told by a doctor or other health professional that you have post-traumatic stress disorder (PTSD)?**

**PTSD\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	31293	84.89
1900-2016	Valid range	5571	15.11

**Q58c. In what year were you first told by a doctor or other health professional that you have an anxiety disorder, other than PTSD?**

**ANXIETY\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	32466	88.07
1900-2016	Valid range	4398	11.93

**Q58d. In what year were you first told by a doctor or other health professional that you have other mental health problems, including problems with your nerves or emotions?**

**NERVES\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	34436	93.41
1900-2016	Valid range	2428	6.59

**Q58e. In what year were you first told by a doctor or other health professional that you have problems with your use of alcohol or drugs?**

**ALCOHOL\_DRUGS\_YR\_W4**

Value	Label	Frequency	Percent
	Missing	35375	95.96
1900-2016	Valid range	1489	4.04

**Q59. During the last 12 months, have you seen a doctor or other health professional for depression?**

**DEPRESSION\_12M\_MD\_W4**

Value	Label	Frequency	Percent
0	Not Selected	32592	88.41
1	Selected	4272	11.59

**Q59. During the last 12 months, have you seen a doctor or other health professional for PTSD?**

**PTSD\_12M\_MD\_W4**

Value	Label	Frequency	Percent
0	Not Selected	34450	93.45
1	Selected	2414	6.55

**Q59. During the last 12 months, have you seen a doctor or other health professional for an anxiety disorder, other than PTSD?**

**ANXIETY\_12M\_MD\_W4**

Value	Label	Frequency	Percent
0	Not Selected	33882	91.91
1	Selected	2982	8.09

**Q59. During the last 12 months, have you seen a doctor or other health professional for other mental health problems, including problems with your nerves or emotions?**

**NERVES\_12M\_MD\_W4**

Value	Label	Frequency	Percent
0	Not Selected	34616	93.90
1	Selected	2248	6.10

**Q59. During the last 12 months, have you seen a doctor or other health professional for problems with your use of alcohol or drugs?**

**ALC\_DRUGS\_12M\_MD\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36372	98.67
1	Selected	492	1.33

**Q59. During the last 12 months, have you seen a doctor or other health professional for none of the above mentioned problems?**

**MH\_MD\_NONE\_W4**

Value	Label	Frequency	Percent
0	Not Selected	6780	18.39
1	Selected	30084	81.61

**Q60. During the last 12 months, have you taken any prescription medication for depression?**

**DEPRESSION\_12M\_RX\_W4**

Value	Label	Frequency	Percent
0	Not Selected	32849	89.11
1	Selected	4015	10.89

**Q60. During the last 12 months, have you taken any prescription medication for PTSD?**

**PTSD\_12M\_RX\_W4**

Value	Label	Frequency	Percent
0	Not Selected	35271	95.68
1	Selected	1593	4.32

**Q60. During the last 12 months, have you taken any prescription medication for an anxiety disorder, other than PTSD?**

**ANXIETY\_12M\_RX\_W4**

Value	Label	Frequency	Percent
0	Not Selected	33768	91.60
1	Selected	3096	8.40

**Q60. During the last 12 months, have you taken any prescription medication for other mental health problems, including problems with your nerves or emotions?**

**NERVES\_12M\_RX\_W4**

Value	Label	Frequency	Percent
0	Not Selected	35408	96.05
1	Selected	1456	3.95

**Q60. During the last 12 months, have you taken any prescription medication for problems with your use of alcohol or drugs?**

**ALC\_DRUGS\_12M\_RX\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36639	99.39
1	Selected	225	0.61

**Q60. During the last 12 months, have you taken any prescription medication for none of the above?**

**MH\_RX\_NONE\_W4**

Value	Label	Frequency	Percent
0	Not Selected	6193	16.80
1	Selected	30671	83.20

**Q61a. Have you ever had a session of counseling or therapy lasting 30 minutes or longer? Please do not include visits that were for medication only.**

**COUNSEL\_EVER\_W4**

Value	Label	Frequency	Percent
	Missing	1461	3.96
1	Yes	13926	37.78
2	No	21477	58.26

**Q61b. How old were you (in years) the first time you had a session of counseling or therapy?**

**COUNSEL\_AGE\_W4**

Value	Label	Frequency	Percent
	Missing	22851	61.99
	Data present	14013	38.01

**Q61c. Since 9/11, have you had at least one session of counseling or therapy?**

**COUNSEL\_POST911\_W4**

Value	Label	Frequency	Percent
	Missing	19597	53.16
1	Yes	13193	35.79
2	No	4074	11.05

**Q62a. For which of the following have you received counseling or therapy since 9/11?: For Depression**

**COUNSEL\_POST911\_DEPRESSION\_W4**

Value	Label	Frequency	Percent
0	Not Selected	30440	82.57
1	Selected	6424	17.43

**Q62a. For which of the following have you received counseling or therapy since 9/11?: For PTSD**

**COUNSEL\_POST911\_PTSD\_W4**

Value	Label	Frequency	Percent
0	Not Selected	32094	87.06
1	Selected	4770	12.94

**Q62a. For which of the following have you received counseling or therapy since 9/11?: An anxiety disorder, other than PTSD**

**COUNSEL\_POST911\_ANXIETY\_W4**

Value	Label	Frequency	Percent
0	Not Selected	32871	89.17
1	Selected	3993	10.83

**Q62a. For which of the following have you received counseling or therapy since 9/11?: Other mental health problems, including problems with your nerves or emotions**

**COUNSEL\_POST911\_NERVES\_W4**

Value	Label	Frequency	Percent
0	Not Selected	33090	89.76
1	Selected	3774	10.24

**Q62a. For which of the following have you received counseling or therapy since 9/11?: Problems with your use of alcohol or drugs**

**COUNSEL\_POST911\_ALC\_DRUGS\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36031	97.74
1	Selected	833	2.26

**Q62a. For which of the following have you received counseling or therapy since 9/11?: None of the above**

**COUNSEL\_POST911\_NONE\_W4**

Value	Label	Frequency	Percent
0	Not Selected	10344	28.06
1	Selected	26520	71.94

**Q62b. Since 9/11, have you seen the following professional for counseling or therapy?: Psychiatrist**

**COUNSEL\_POST911\_PSYCHIATRIST\_W4**

Value	Label	Frequency	Percent
0	Not Selected	31464	85.35
1	Selected	5400	14.65

**Q62b. Since 9/11, have you seen the following professional for counseling or therapy?: Psychologist**

**COUNSEL\_POST911\_PSYCHOLOGIST\_W4**

Value	Label	Frequency	Percent
0	Not Selected	30143	81.77
1	Selected	6721	18.23

**Q62b. Since 9/11, have you seen the following professionals for counseling or therapy?: Other mental health professional, such as a social worker, counselor, psychotherapist, or mental health nurse**

**COUNSEL\_POST911\_OTHER\_MHPROF\_W4**

Value	Label	Frequency	Percent
0	Not Selected	30501	82.74
1	Selected	6363	17.26

**Q62b. Since 9/11, have you seen the following professionals for counseling or therapy?: General practitioner, family doctor, or other medical doctor**

**COUNSEL\_POST911\_MD\_W4**

Value	Label	Frequency	Percent
0	Not Selected	33780	91.63
1	Selected	3084	8.37

**Q62b. Since 9/11, have you seen the following professionals for counseling or therapy?: Nurse, occupational therapist, or other health professional**

**COUNSEL\_POST911\_OTHER\_PROF\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36137	98.03
1	Selected	727	1.97

**Q62b. Since 9/11, have you seen the following professionals for counseling or therapy?: Religious or spiritual advisor, such as a minister, priest, or rabbi**

**COUNSEL\_POST911\_RELIGIOUS\_W4**

Value	Label	Frequency	Percent
0	Not Selected	34771	94.32
1	Selected	2093	5.68

**Q62b. Since 9/11, have you seen any other practitioner for counseling or therapy?**

**COUNSEL\_POST911\_OTHER\_PRAC\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36230	98.28
1	Selected	634	1.72

**Q62c. When was the most recent time you received counseling or therapy?**

**COUNSEL\_POST911\_MOST\_RECENT\_W4**

Value	Label	Frequency	Percent
	Missing	24099	65.37
1	Less than 4 months ago	4278	11.60
2	At least 4 months ago but less than 1 year ago	1153	3.13
3	1 to 2 years ago	1616	4.38
4	More than 2 years ago	5718	15.51

**Q63a. Have you received counseling or therapy in the last 12 months?: For Depression**

**COUNSEL\_12M\_DEPRESSION\_W4**

Value	Label	Frequency	Percent
0	Not Selected	33657	91.30
1	Selected	3207	8.70

**Q63a. Have you received counseling or therapy in the last 12 months?: For PTSD**

**COUNSEL\_12M\_PTSD\_W4**

Value	Label	Frequency	Percent
0	Not Selected	34866	94.58
1	Selected	1998	5.42

**Q63a. Have you received counseling or therapy in the last 12 months for an anxiety disorder, other than PTSD?**

**COUNSEL\_12M\_ANXIETY\_W4**

Value	Label	Frequency	Percent
0	Not Selected	34661	94.02
1	Selected	2203	5.98

**Q63a. Have you received counseling or therapy in the last 12 months for other mental health problems, including problems with your nerves or emotions?**

**COUNSEL\_12M\_NERVES\_W4**

Value	Label	Frequency	Percent
0	Not Selected	34843	94.52
1	Selected	2021	5.48

**Q63a. Have you received counseling or therapy in the last 12 months for problems with your use of alcohol or drugs?**

**COUNSEL\_12M\_ALC\_DRUGS\_W4**

Value	Label	Frequency	Percent
0	Not Selected	36516	99.06
1	Selected	348	0.94

**Q63a. Have you received counseling or therapy in the last 12 months for none of the above?**

**COUNSEL\_12M\_NONE\_W4**

Value	Label	Frequency	Percent
0	Not Selected	4904	13.30
1	Selected	31960	86.70

**Q63b. During the last 12 months, how often did you have counseling or therapy sessions?**

**COUNSEL\_12M\_FREQ\_W4**

Value	Label	Frequency	Percent
	Missing	30969	84.01
1	More than once a week	314	0.85
2	Once a week	1823	4.95
3	Two to three times a month	1301	3.53
4	Once a month	928	2.52
5	Less than once a month	1529	4.15

**Q63c. How helpful would you say the counseling or therapy you have received in the last 12 months has been?**

**COUNSEL\_12M\_HELPFUL\_W4**

Value	Label	Frequency	Percent
	Missing	30962	83.99
1	Very helpful	2300	6.24
2	Somewhat helpful	2143	5.81
3	Slightly helpful	997	2.70
4	Not at all helpful	462	1.25

**Q64a. Since 9/11, has your life been threatened by a disaster, either natural or human-made? Yes, in the last 12 months**

**THREAT\_DISASTER\_POST911\_LE12M\_W4**

Value	Label	Frequency	Percent
0	Not Selected	34867	94.58
1	Selected	1997	5.42

**Q64a. Since 9/11, has your life been threatened by a disaster, either natural or human-made? Yes, more than 12 months ago**

**THREAT\_DISASTER\_POST911\_GT12M\_W4**

Value	Label	Frequency	Percent
0	Not Selected	31614	85.76
1	Selected	5250	14.24

**Q64a. Since 9/11, has your life been threatened by a disaster, either natural or human-made? No**

**THREAT\_DISASTER\_POST911\_NONE\_W4**

Value	Label	Frequency	Percent
0	Not Selected	7037	19.09
1	Selected	29827	80.91

**Q64b. Since 9/11, has your life been threatened by a serious accident, including a car accident, an accident at work, or another type of accident?: Yes, in the last 12 months**

**THREAT\_ACCIDENT\_POST911\_LE12M\_W4**

Value	Label	Frequency	Percent
0	Not Selected	34968	94.86
1	Selected	1896	5.14



Q64b. Since 9/11, has your life been threatened by a serious accident, including a car accident, an accident at work, or another type of accident?: Yes, more than 12 months ago

THREAT\_ACCIDENT\_POST911\_GT12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	33520	90.93
1	Selected	3344	9.07

Q64b. Since 9/11, has your life been threatened by a serious accident, including a car accident, an accident at work, or another type of accident?: No

THREAT\_ACCIDENT\_POST911\_NONE\_W4

Value	Label	Frequency	Percent
0	Not Selected	5114	13.87
1	Selected	31750	86.13

Q64c. Since 9/11, has your life been threatened by an attack with a gun, knife, or some other weapon? Yes, in the last 12 months

THREAT\_WEAPON\_POST911\_LE12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	36301	98.47
1	Selected	563	1.53

Q64c. Since 9/11, has your life been threatened by an attack with a gun, knife, or some other weapon? Yes, more than 12 months ago

THREAT\_WEAPON\_POST911\_GT12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	35718	96.89
1	Selected	1146	3.11

Q64c. Since 9/11, has your life been threatened by an attack with a gun, knife, or some other weapon? No

THREAT\_WEAPON\_POST911\_NONE\_W4

Value	Label	Frequency	Percent
0	Not Selected	1669	4.53
1	Selected	35195	95.47

Q64d. Since 9/11, has your life been threatened by an attack without a weapon, but with the intent to kill or seriously injure you?: Yes, in the last 12 months

THREAT\_NOWEAPON\_POST911\_LE12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	36193	98.18
1	Selected	671	1.82

Q64d. Since 9/11, has your life been threatened by an attack without a weapon, but with the intent to kill or seriously injure you?: Yes, more than 12 months ago

THREAT\_NOWEAPON\_POST911\_GT12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	35684	96.80
1	Selected	1180	3.20

Q64d. Since 9/11, has your life been threatened by an attack without a weapon, but with the intent to kill or seriously injure you?: No

THREAT\_NOWEAPON\_POST911\_NONE\_W4

Value	Label	Frequency	Percent
0	Not Selected	1796	4.87
1	Selected	35068	95.13

Q64e. Since 9/11, has your life been threatened by a situation in which someone used physical force or threat of force to make you have some type of unwanted sexual contact?: Yes, in last 12 months

THREAT\_SEXUAL\_POST911\_LE12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	36710	99.58
1	Selected	154	0.42

Q64e. Since 9/11, has your life been threatened by a situation in which someone used physical force or threat of force to make you have some type of unwanted sexual contact?: Yes, 12 or more months ago

THREAT\_SEXUAL\_POST911\_GT12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	36518	99.06
1	Selected	346	0.94

Q64e. Since 9/11, has your life been threatened by a situation in which someone used physical force or threat of force to make you have some type of unwanted sexual contact?: No

THREAT\_SEXUAL\_POST911\_NONE\_W4

Value	Label	Frequency	Percent
0	Not Selected	488	1.32
1	Selected	36376	98.68

Q64f. Since 9/11, has your life been threatened by any other situation in which you were seriously injured or feared you might be killed or seriously injured?: Yes, in last 12 months

THREAT\_OTHER\_POST911\_LE12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	35710	96.87
1	Selected	1154	3.13

Q64f. Since 9/11, has your life been threatened by any other situation in which you were seriously injured or feared you might be killed or seriously injured?: Yes, 12 or more months ago

THREAT\_OTHER\_POST911\_GT12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	34561	93.75
1	Selected	2303	6.25

Q64f. Since 9/11, has your life been threatened by any other situation in which you were seriously injured or feared you might be killed or seriously injured?: No

THREAT\_OTHER\_POST911\_NONE\_W4

Value	Label	Frequency	Percent
0	Not Selected	3356	9.10
1	Selected	33508	90.90

Q64g. Since 9/11, has your life been threatened by a situation in which you saw someone seriously injured or violently killed?: Yes, in the last 12 months

THREAT\_WITNESS\_POST911\_LE12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	35748	96.97
1	Selected	1116	3.03

Q64g. Since 9/11, has your life been threatened by a situation in which you saw someone seriously injured or violently killed?: Yes, more than 12 months ago

THREAT\_WITNESS\_POST911\_GT12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	35154	95.36
1	Selected	1710	4.64

Q64g. Since 9/11, has your life been threatened by a situation in which you saw someone seriously injured or violently killed?: No

THREAT\_WITNESS\_POST911\_NONE\_W4

Value	Label	Frequency	Percent
0	Not Selected	2753	7.47
1	Selected	34111	92.53

Q64h. Since 9/11, has your life been threatened by a life-threatening illness?: Yes, in the last 12 months

THREAT\_ILLNESS\_POST911\_LE12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	34754	94.28
1	Selected	2110	5.72

Q64h. Since 9/11, has your life been threatened by a life-threatening illness?: Yes, more than 12 months ago

THREAT\_ILLNESS\_POST911\_GT12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	33850	91.82
1	Selected	3014	8.18

Q64h. Since 9/11, has your life been threatened by a life-threatening illness?: No

THREAT\_ILLNESS\_POST911\_NONE\_W4

Value	Label	Frequency	Percent
	Missing	1	0.00
0	Not Selected	4963	13.46
1	Selected	31900	86.53

Q65. During the last 12 months, which of the following situations have you experienced?: Could not pay for food, housing, or other basic necessities for a period of 3 months or longer

NOPAY\_NECESS\_12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	35238	95.59
1	Selected	1626	4.41

Q65. During the last 12 months, which of the following situations have you experienced?: Serious problems at work or lost a job

LOSE\_JOB\_12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	33642	91.26
1	Selected	3222	8.74

Q65. During the last 12 months, which of the following situations have you experienced?: Serious family problems involving your spouse, child, or parents

FAMILY\_PROB\_12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	31090	84.34
1	Selected	5774	15.66

Q65. During the last 12 months, which of the following situations have you experienced?: Took care of a close family member or friend with a serious or life-threatening illness

CARE\_FAMILY\_12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	32230	87.43
1	Selected	4634	12.57

Q65. During the last 12 months, which of the following situations have you experienced?: Serious legal problems

LEGAL\_PROB\_12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	35455	96.18
1	Selected	1409	3.82

Q65. During the last 12 months, which of the following situations have you experienced?: The death of a spouse or partner, close family member, or friend

DEATH\_CLOSE\_12M\_W4

Value	Label	Frequency	Percent
0	Not Selected	30838	83.65
1	Selected	6026	16.35

Q65. During the last 12 months, which of the following situations have you experienced?: None of the above

ADVERSE\_SITUA\_12M\_NONE\_W4

Value	Label	Frequency	Percent
0	Not Selected	14316	38.83
1	Selected	22548	61.17

Q66. Have you smoked at least 100 cigarettes in your entire life?

SMOKE\_LIFETIME\_100\_W4

Value	Label	Frequency	Percent
	Missing	1186	3.22
1	Yes	13641	37.00
2	No	22037	59.78

**Q67. Do you now smoke cigarettes every day, some days or not at all?**  
SMOKE\_NOW\_W4

Value	Label	Frequency	Percent
	Missing	20807	56.44
1	Every day	1780	4.83
2	Some days	1187	3.22
3	Not at all	13090	35.51

**Q68. In what month and year did you last smoke a cigarette, even one or two puffs? Enter Month**  
SMOKE\_LAST\_MM\_W4

Value	Label	Frequency	Percent
	Missing	27149	73.65
1	January	1629	4.42
2	February	571	1.55
3	March	636	1.73
4	April	722	1.96
5	May	749	2.03
6	June	1165	3.16
7	July	704	1.91
8	August	667	1.81
9	September	828	2.25
10	October	668	1.81
11	November	513	1.39
12	December	863	2.34

**Q68. In what month and year did you last smoke a cigarette, even one or two puffs? Enter Year**  
SMOKE\_LAST\_YR\_W4

Value	Label	Frequency	Percent
	Missing	25707	69.73
	Data present	11157	30.27

**Q69. On average, how many cigarettes do you smoke per day?**  
SMOKE\_PERDAY\_W4

Value	Label	Frequency	Percent
	Missing	32084	87.03
0-120	Valid range	4780	12.97

**Q70. How soon after waking do you smoke your first cigarette?**  
SMOKE\_FIRSTCIG\_W4

Value	Label	Frequency	Percent
	Missing	33788	91.66
1	Within 5 minutes	389	1.06
2	5 to 30 minutes	899	2.44
3	31 to 60 minutes	541	1.47
4	More than 60 minutes	1247	3.38

**Q71a. Have you ever – even once – had a drink of any type of alcoholic beverage? Do not include times when you only had a sip or two.**

ALCOHOL\_DRINK\_EVER\_W4

Value	Label	Frequency	Percent
	Missing	1183	3.21
1	Yes	31982	86.76
2	No	3699	10.03

**Q71b. How long has it been since you last drank an alcoholic beverage?**

ALCOHOL\_DRINK\_LAST\_W4

Value	Label	Frequency	Percent
	Missing	5202	14.11
1	Within the last 30 days	23821	64.62
2	More than 30 days ago but within the last 12 months	3876	10.51
3	More than 12 months ago	3965	10.76

**Q71c. During the last 30 days, how many days did you have at least 1 drink of any alcoholic beverage?**

ALC\_30D\_NDAYS\_W4

Value	Label	Frequency	Percent
	Missing	12960	35.16
1-30	1-30 days	23904	64.84

**Q71d. On the days when you drank, about how many drinks did you drink on average?**

ALC\_NDRINKS\_W4

Value	Label	Frequency	Percent
	Missing	12156	32.98
0-99	Valid range	24708	67.02

**Q71e. In the last 30 days, what is the maximum number of drinks you have consumed on one single occasion?**

ALC\_NDRINKS\_MAX\_W4

Value	Label	Frequency	Percent
	Missing	12163	32.99
0-99	Valid range	24701	67.01

**Q71f. (Answer only if you are male:) Considering all types of alcoholic beverages, how many times during the last 30 days did you have 5 or more drinks on one occasion?**

ALC\_DRINK\_GE5\_NTIMES\_W4

Value	Label	Frequency	Percent
	Missing	21192	57.49
0-99	Valid range	15672	42.51

**Q71g. (Answer only if you are female:) Considering all types of alcoholic beverages, how many times during the last 30 days did you have 4 or more drinks on one occasion?**

ALC\_DRINK\_GE4\_NTIMES\_W4

Value	Label	Frequency	Percent
	Missing	27702	75.15
0-99	Valid range	9162	24.85

For the next few questions, please think about prescription pain relievers such as Oxycodone (e.g., Percocet, Endocet, OxyContin) or Hydrocodone (e.g., Vicodin, Norco, Lortab). Do not include “over the counter” medications.

**Q72a. During the last 12 months, has a doctor or other health professional given you a prescription for a pain reliever?**  
RX\_PAIN\_12M\_W4

Value	Label	Frequency	Percent
	Missing	1232	3.34
1	Yes	10262	27.84
2	No	25370	68.82

**Q72b. When was the most recent time you took the pain reliever that you were prescribed?**  
RX\_PAIN\_RECENT\_W4

Value	Label	Frequency	Percent
	Missing	24849	67.41
1	Within the last 30 days	4167	11.30
2	More than 30 days ago	5181	14.05
3	Never – I did not take the pain reliever	2667	7.23

**Q72c. Have you ever – even once – taken more of the pain reliever than you were prescribed? This includes taking a higher dosage or taking it more often than directed.**  
RX\_PAIN\_MORE\_W4

Value	Label	Frequency	Percent
	Missing	25779	69.93
1	Yes, within the last 30 days	606	1.64
2	Yes, more than 30 days ago but within the last 12 months	782	2.12
3	No	9697	26.30

**Q72d. During the last 12 months, have you ever – even once – taken a prescription pain reliever that was not prescribed to you?**  
RX\_PAIN\_FOR\_OTHER\_W4

Value	Label	Frequency	Percent
	Missing	1527	4.14
1	Yes, within the last 30 days	841	2.28
2	Yes, more than 30 days ago but within the last 12 months	991	2.69
3	No	33505	90.89

**Q73. Have you ever stayed overnight or longer at a hospital, rehabilitation facility, or mental health center so you could receive treatment or counseling for alcohol or drug use?**  
ALC\_DRUG\_HOSP\_OVERNIGHT\_W4

Value	Label	Frequency	Percent
	Missing	1382	3.75
1	Yes, before 9/11	421	1.14
2	Yes, after 9/11	694	1.88

**Q73. Have you ever stayed overnight or longer at a hospital, rehabilitation facility, or mental health center so you could receive treatment or counseling for alcohol or drug use?**

Value	Label	Frequency	Percent
3	Yes, both before and after 9/11	171	0.46
4	No	34196	92.76

**Q74a. It is easy for me to stick to my aims and accomplish my goals.**  
SELFEFF\_ACCOMPLISH\_W4

Value	Label	Frequency	Percent
	Missing	1312	3.56
1	Not at all true	1336	3.62
2	Hardly true	3020	8.19
3	Moderately true	19985	54.21
4	Exactly true	11211	30.41

**Q74b. I am confident that I could deal efficiently with unexpected events.**  
SELFEFF\_EFFICIENT\_W4

Value	Label	Frequency	Percent
	Missing	1372	3.72
1	Not at all true	1019	2.76
2	Hardly true	2268	6.15
3	Moderately true	17684	47.97
4	Exactly true	14521	39.39

**Q74c. Thanks to my resourcefulness, I know how to handle unforeseen situations.**  
SELFEFF\_RESOURCEFUL\_W4

Value	Label	Frequency	Percent
	Missing	1499	4.07
1	Not at all true	838	2.27
2	Hardly true	2102	5.70
3	Moderately true	18220	49.42
4	Exactly true	14205	38.53

**Q74d. I can remain calm when facing difficulties because I can rely on my coping abilities.**  
SELFEFF\_COPING\_W4

Value	Label	Frequency	Percent
	Missing	1517	4.12
1	Not at all true	1047	2.84
2	Hardly true	2879	7.81
3	Moderately true	17687	47.98
4	Exactly true	13734	37.26

**Q74e. No matter what comes my way, I am usually able to handle it.**  
SELFEFF\_HANDLE\_W4

Value	Label	Frequency	Percent
	Missing	1655	4.49

**Q74e. No matter what comes my way, I am usually able to handle it.**  
SELFEFF\_HANDLE\_W4

Value	Label	Frequency	Percent
1	Not at all true	760	2.06
2	Hardly true	2167	5.88
3	Moderately true	18052	48.97
4	Exactly true	14230	38.60

**Q75a. How often is someone available: To take you to the doctor if you need to go?**  
SOCSUPP\_DOCTOR\_W4

Value	Label	Frequency	Percent
	Missing	1245	3.38
1	None of the time	2909	7.89
2	A little of the time	3362	9.12
3	Some of the time	4469	12.12
4	Most of the time	10600	28.75
5	All of the time	14279	38.73

**Q75b. How often is someone available: To have a good time with?**  
SOCSUPP\_GOODTIME\_W4

Value	Label	Frequency	Percent
	Missing	1281	3.47
1	None of the time	1003	2.72
2	A little of the time	3754	10.18
3	Some of the time	7040	19.10
4	Most of the time	11749	31.87
5	All of the time	12037	32.65

**Q75c. How often is someone available: To hug you?**  
SOCSUPP\_HUG\_W4

Value	Label	Frequency	Percent
	Missing	1375	3.73
1	None of the time	1982	5.38
2	A little of the time	3786	10.27
3	Some of the time	5057	13.72
4	Most of the time	9396	25.49
5	All of the time	15268	41.42

**Q75d. How often is someone available: To prepare your meals if you are unable to do it yourself?**  
SOCSUPP\_MEALS\_W4

Value	Label	Frequency	Percent
	Missing	1290	3.50
1	None of the time	3561	9.66
2	A little of the time	3282	8.90
3	Some of the time	4391	11.91
4	Most of the time	9482	25.72
5	All of the time	14858	40.30

**Q75e. How often is someone available: To understand your problems?**  
SOCSUPP\_PROBS\_W4

Value	Label	Frequency	Percent
	Missing	1303	3.53
1	None of the time	2232	6.05
2	A little of the time	4403	11.94
3	Some of the time	6573	17.83
4	Most of the time	10300	27.94
5	All of the time	12053	32.70

**Q76. In the last 30 days, have you visited, talked, or emailed with friends at least twice?**  
SOCSUPP\_COMMUNICATE\_W4

Value	Label	Frequency	Percent
	Missing	1030	2.79
1	Yes	33276	90.27
2	No	2558	6.94

**Q77. In the last 30 days, have you attended a religious service at least twice?**  
SOCSUPP\_RELIGIOUS\_W4

Value	Label	Frequency	Percent
	Missing	1169	3.17
1	Yes	13744	37.28
2	No	21951	59.55

**Q78. In the last 30 days, have you been actively involved in a volunteer organization or club?**  
SOCSUPP\_CLUB\_W4

Value	Label	Frequency	Percent
	Missing	1179	3.20
1	Yes	12500	33.91
2	No	23185	62.89

**Q79. About how many close friends or relatives do you have now? Include people you feel at ease with and can talk with about what is on your mind.**

Value	Label	Frequency	Percent
	Missing	1781	4.83
0-99	Valid range	35083	95.17

**Mode of survey**  
USERMODE\_W4

Value	Label	Frequency	Percent
TFORM	Teleform (Paper)	18147	49.23
WEB	Web	18717	50.77

**Age group at interview****AGE\_INTGRP\_W4**

<b>Value</b>	<b>Label</b>	<b>Frequency</b>	<b>Percent</b>
	Missing	19	0.05
2	18-24	319	0.87
3	25-44	5976	16.21
4	45-64	21937	59.51
5	>=65	8613	23.36

**Age group on 9/11****AGE\_9/11GRP**

<b>Value</b>	<b>Label</b>	<b>Frequency</b>	<b>Percent</b>
	Missing	19	0.05
1	<18	885	2.40
3	18-24	1776	4.82
4	25-44	18840	51.11
5	45-64	14453	39.21
6	>=65	891	2.42

**Language of interview****LANGUAGE\_W4**

<b>Value</b>	<b>Label</b>	<b>Frequency</b>	<b>Percent</b>
C	Chinese	154	0.42
E	English	36523	99.07
S	Spanish	187	0.51

***World Trade Center Health Registry Data Set  
2015 Health Survey (Asthma)***

***Number of Observations: 8482    Number of Variables: 118  
Organization of file: One record per enrollee identification number***

***Note: 'Missing' category includes all values that are not available for any of the following reasons:***

**Categories assigned to 'Missing'**

Data for the item are invalid (e.g., multiple answers for single question answers on paper surveys).

Data for the items are out of range (e.g., diagnosis year is earlier than birth year).

Data for the item could not be interpreted by TeleForm software or verifiers.

Exact value or category cannot be determined.

Birth year in the data does not match the preloaded birth year.

Data for the item are missing.

Data for the item are missing due to a skip pattern.

***Data set created by: Asthma\_combined\_w4.sas***

***Codebook created by: Asthma\_2column\_codebook\_v1.sas***

CaseID	CASEID	Value	Label	Frequency	Percent
			Data present	8482	100.00

**Q3. What is your sex?**  
GENDER

Value	Label	Frequency	Percent
F	Female	3898	45.96
M	Male	4584	54.04

**Q4. Have you ever been told by a doctor or other health professional that you had asthma?**  
AS\_MDDX\_EVER\_W4

Value	Label	Frequency	Percent
	Missing	97	1.14
1	Yes	7129	84.05
2	No	1256	14.81

**Q5. In what year were you first told by a doctor or other health professional that you had asthma?**  
AS\_DX\_YR\_W4

Value	Label	Frequency	Percent
	Missing	1805	21.28
1900-2016	Valid range	6677	78.72

**Q6. For pulmonary function tests (or spirometry), you breathe into a mouthpiece connected to a machine that measures how much air you breathe out, and how quickly. Have you ever had pulmonary function testing (or spirometry)?**  
AS\_PFT\_EVER\_W4

Value	Label	Frequency	Percent
	Missing	1242	14.64
1	Yes	6320	74.51
2	No	920	10.85

**Q7. In the past 4 weeks, how much of the time did your asthma keep you from getting as much done at work, school, or at home?**  
AS\_ACT\_IMPAIR\_W4

Value	Label	Frequency	Percent
	Missing	1254	14.78
1	All of the time	167	1.97
2	Most of the time	496	5.85
3	Some of the time	1494	17.61
4	A little of the time	1536	18.11
5	None of the time	3535	41.68

**Q8. During the past 4 weeks, how often have you had shortness of breath?**  
AS\_ACT\_BREATHLESS\_W4

Value	Label	Frequency	Percent
	Missing	1263	14.89

**Q8. During the past 4 weeks, how often have you had shortness of breath?**  
AS\_ACT\_BREATHLESS\_W4

Value	Label	Frequency	Percent
1	More than once a day	1105	13.03
2	Once a day	525	6.19
3	3 to 6 times a week	945	11.14
4	Once or twice a week	2369	27.93
5	Not at all	2275	26.82

**Q9. During the past 4 weeks, how often did your asthma symptoms (wheezing, coughing, shortness of breath, chest tightness or pain) wake you up at night or earlier than usual in the morning?**  
AS\_ACT\_AWAKEN\_W4

Value	Label	Frequency	Percent
	Missing	1261	14.87
1	4 or more nights a week	802	9.46
2	2 or 3 nights a week	1136	13.39
3	Once a week	464	5.47
4	Once or twice	1569	18.50
5	Not at all	3250	38.32

**Q10. During the past 4 weeks, how often have you used your rescue inhaler or nebulizer medication (such as Albuterol, Ventolin, Proventil, or Maxair)?**  
AS\_ACT\_MEDS\_W4

Value	Label	Frequency	Percent
	Missing	1299	15.31
1	3 or more times per day	436	5.14
2	1 or 2 times per day	1066	12.57
3	2 or 3 times per week	1047	12.34
4	Once a week or less	1296	15.28
5	Not at all	3338	39.35

**Q11. How would you rate your asthma control during the past 4 weeks?**  
AS\_ACT\_CONTROL\_W4

Value	Label	Frequency	Percent
	Missing	1310	15.44
1	Not controlled at all	135	1.59
2	Poorly controlled	439	5.18
3	Somewhat controlled	1974	23.27
4	Well controlled	2275	26.82
5	Completely controlled	2349	27.69

**Q12. Have you ever used a prescription inhaler?**  
AS\_RX\_INH\_EVER\_W4

Value	Label	Frequency	Percent
	Missing	1239	14.61
1	Yes	6596	77.76
2	No	560	6.60



Q12. Have you ever used a prescription inhaler?

AS\_RX\_INH\_EVER\_W4

Value	Label	Frequency	Percent
3	Don't Know	87	1.03

Q13. Did a doctor or other health professional ever show you how to use the inhaler?

AS\_INH\_SHOW\_W4

Value	Label	Frequency	Percent
	Missing	1840	21.69
1	Yes	6188	72.95
2	No	337	3.97
3	Don't Know	117	1.38

Q14. Did a doctor or other health professional ever watch you use the inhaler?

AS\_INH\_WATCH\_W4

Value	Label	Frequency	Percent
	Missing	1868	22.02
1	Yes	4449	52.45
2	No	1660	19.57
3	Don't Know	505	5.95

Q15. During the past 4 weeks, according to instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Beclomethasone (Beclivent, Vanceril, Qvar)

AS\_MEDS\_L4WKS\_BECLOVENT\_W4

Value	Label	Frequency	Percent
0	Not Selected	8322	98.11
1	Selected	160	1.89

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Budesonide (Pulmicort)

AS\_MEDS\_L4WKS\_PULMICORT\_W4

Value	Label	Frequency	Percent
0	Not Selected	8156	96.16
1	Selected	326	3.84

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Budesonide/Formoterol (Symbicort)

AS\_MEDS\_L4WKS\_SYMBICORT\_W4

Value	Label	Frequency	Percent
0	Not Selected	7810	92.08
1	Selected	672	7.92

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Ciclesonide (Alvesco)

AS\_MEDS\_L4WKS\_ALVESCO\_W4

Value	Label	Frequency	Percent
0	Not Selected	8449	99.61

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Ciclesonide (Alvesco)

AS\_MEDS\_L4WKS\_ALVESCO\_W4

Value	Label	Frequency	Percent
1	Selected	33	0.39

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Flunisolide (Aerobid, Aerospan)

AS\_MEDS\_L4WKS\_AEROBID\_W4

Value	Label	Frequency	Percent
0	Not Selected	8406	99.10
1	Selected	76	0.90

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Fluticasone (Flovent, Arnuity Ellipta)

AS\_MEDS\_L4WKS\_FLOVENT\_W4

Value	Label	Frequency	Percent
0	Not Selected	7757	91.45
1	Selected	725	8.55

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Fluticasone/Salmeterol (Advair)

AS\_MEDS\_L4WKS\_ADVAIR\_W4

Value	Label	Frequency	Percent
0	Not Selected	6992	82.43
1	Selected	1490	17.57

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Mometasone (Asmanex)

AS\_MEDS\_L4WKS\_ASMANEX\_W4

Value	Label	Frequency	Percent
0	Not Selected	8331	98.22
1	Selected	151	1.78

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Mometasone/Formoterol (Dulera)

AS\_MEDS\_L4WKS\_DULERA\_W4

Value	Label	Frequency	Percent
0	Not Selected	8329	98.20
1	Selected	153	1.80

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Omalizumab (Xolair)

AS\_MEDS\_L4WKS\_XOLAIR\_W4

Value	Label	Frequency	Percent
0	Not Selected	8436	99.46

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Omalizumab (Xolair)

AS\_MEDS\_L4WKS\_XOLAIR\_W4

Value	Label	Frequency	Percent
1	Selected	46	0.54

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Triamcinolone (Azmacort)

AS\_MEDS\_L4WKS\_AZMACORT\_W4

Value	Label	Frequency	Percent
0	Not Selected	8413	99.19
1	Selected	69	0.81

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Salmeterol (Serevent)

AS\_MEDS\_L4WKS\_SEREVENT\_W4

Value	Label	Frequency	Percent
0	Not Selected	8436	99.46
1	Selected	46	0.54

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Tiotropium (Spiriva)

AS\_MEDS\_L4WKS\_SPIRIVA\_W4

Value	Label	Frequency	Percent
0	Not Selected	8128	95.83
1	Selected	354	4.17

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Montelukast (Singulair)

AS\_MEDS\_L4WKS\_SINGULAIR\_W4

Value	Label	Frequency	Percent
0	Not Selected	7195	84.83
1	Selected	1287	15.17

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, were you supposed to take the following medication for long-term asthma control?: Zafirlukast (Accolate)

AS\_MEDS\_L4WKS\_ACCOLATE\_W4

Value	Label	Frequency	Percent
0	Not Selected	8468	99.83
1	Selected	14	0.17

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, did you take any other medication for long-term asthma control? (1st other med)

AS\_MEDS\_L4WKS\_OTHER1\_W4

Value	Label	Frequency	Percent
0	Not Selected	7395	87.18
1	Selected	1087	12.82

Q15. During the past 4 weeks, according to the instructions of a doctor or other health professional, did you take any other medication for long-term asthma control? (2nd other med)

AS\_MEDS\_L4WKS\_OTHER2\_W4

Value	Label	Frequency	Percent
0	Not Selected	8202	96.70
1	Selected	280	3.30

Q15. During the past 4 weeks, did not take any of the above medications.

AS\_MEDS\_L4WKS\_NONE\_W4

Value	Label	Frequency	Percent
0	Not Selected	3726	43.93
1	Selected	4756	56.07

Q15\_Oth1. Specify the other medication for long-term asthma control. Enter only one medication (#1)

AS\_MEDS\_L4WKS\_OTHER1\_SPECIFY\_W4

Value	Label	Frequency	Percent
	Data present	1069	12.60
	Missing	7413	87.40

Q15\_Oth2. Specify the other medication for long-term asthma control. Enter only one medication (#2)

AS\_MEDS\_L4WKS\_OTHER2\_SPECIFY\_W4

Value	Label	Frequency	Percent
	Missing	8217	96.88
	Data present	265	3.12

Q16. Do you sometimes forget to take your long-term asthma control medication(s)?

AS\_MMAS\_FORGET\_W4

Value	Label	Frequency	Percent
	Missing	4522	53.31
1	Yes	1626	19.17
2	No	2334	27.52

Q17. Over the past two weeks, were there any days when you did not take your long-term asthma control medication(s)?

AS\_MMAS\_NOTAKE\_L2WKS\_W4

Value	Label	Frequency	Percent
	Missing	4572	53.90
1	Yes	1587	18.71
2	No	2323	27.39

Q18. Have you ever cut back or stopped taking your long-term asthma control medication(s) without telling your doctor because you felt worse when you took it?

AS\_MMAS\_NOTAKE\_WORSE\_W4

Value	Label	Frequency	Percent
	Missing	4574	53.93
1	Yes	643	7.58
2	No	3265	38.49

**Q19. When you travel or leave home, do you sometimes forget to bring along your long-term asthma control medication(s)?**

AS\_MMAS\_FORGET\_LVHOME\_W4

Value	Label	Frequency	Percent
	Missing	4578	53.97
1	Yes	958	11.29
2	No	2946	34.73

**Q20. Did you take all your long-term asthma control medication(s) yesterday?**

AS\_MMAS\_YESTERDAY\_W4

Value	Label	Frequency	Percent
	Missing	4591	54.13
1	Yes	2787	32.86
2	No	1104	13.02

**Q21. When you feel like your asthma is under control, do you sometimes stop taking your long-term asthma control medication(s)?**

AS\_MMAS\_NOTAKE\_CONTROL\_W4

Value	Label	Frequency	Percent
	Missing	4600	54.23
1	Yes	1717	20.24
2	No	2165	25.52

**Q22. Taking medication every day is a real inconvenience for some people. Do you ever feel hassled about sticking to your long-term asthma medication(s)?**

AS\_MMAS\_HASSLE\_W4

Value	Label	Frequency	Percent
	Missing	4589	54.10
1	Yes	1690	19.92
2	No	2203	25.97

**Q23. How often do you have difficulty remembering to take all your long-term asthma control medication(s)?**

AS\_MMAS\_TRBL\_REMEMBER\_W4

Value	Label	Frequency	Percent
	Missing	4587	54.08
1	Never/rarely	1952	23.01
2	Once in a while	1037	12.23
3	Sometimes	628	7.40
4	Usually	177	2.09
5	All the time	101	1.19

**Q24. In the past 12 months, how many courses of oral or injection steroids have you taken for asthma? (Do not include inhaled steroids listed in Question 15.)**

AS\_STEROIDS\_NCOURSES\_L12M\_W4

Value	Label	Frequency	Percent
	Missing	1610	18.98
1	0	4840	57.06
2	1-3	1181	13.92
3	4-6	188	2.22

**Q24. In the past 12 months, how many courses of oral or injection steroids have you taken for asthma? (Do not include inhaled steroids listed in Question 15.)**

AS\_STEROIDS\_NCOURSES\_L12M\_W4

Value	Label	Frequency	Percent
4	7-9	49	0.58
5	10 or more	290	3.42
6	Don't Know	324	3.82

**Q25. In the last 12 months, did you take oral or injection steroids for asthma every day?**

AS\_STEROIDS\_EVERYDAY\_L12M\_W4

Value	Label	Frequency	Percent
	Missing	6949	81.93
1	Yes	248	2.92
2	No	1285	15.15

**Q26. In the past 4 weeks, were you able to get all of your asthma medication(s)?**

AS\_MEDS\_GETALL\_L4WKS\_W4

Value	Label	Frequency	Percent
	Missing	1803	21.26
1	Yes	5057	59.62
2	No	1622	19.12

**Q27. In the past 4 weeks, did the following problem prevent you from getting your asthma medication(s)?: It cost too much**

AS\_NOMEDS\_COST\_W4

Value	Label	Frequency	Percent
0	Not Selected	8200	96.68
1	Selected	282	3.32

**Q27. In the past 4 weeks, did the following problem prevent you from getting your asthma medication(s)?: The pharmacy did not carry it.**

AS\_NOMEDS\_PHARM\_W4

Value	Label	Frequency	Percent
0	Not Selected	8458	99.72
1	Selected	24	0.28

**Q27. In the past 4 weeks, did the following problem prevent you from getting your asthma medication(s)?: I didn't think medication could help.**

AS\_NOMEDS\_WONTHELP\_W4

Value	Label	Frequency	Percent
0	Not Selected	8424	99.32
1	Selected	58	0.68

**Q27. In the past 4 weeks, did the following problem prevent you from getting your asthma medication(s)?: My health insurance did not cover it.**

AS\_NOMEDS\_NOTCOVER\_INSUR\_W4

Value	Label	Frequency	Percent
0	Not Selected	8376	98.75
1	Selected	106	1.25

Q27. In the past 4 weeks, did the following problem prevent you from getting your asthma medication(s)?: The WTC Health Program did not cover it.

AS\_NOMEDS\_NOTCOVER\_WTCP\_W4

Value	Label	Frequency	Percent
0	Not Selected	8411	99.16
1	Selected	71	0.84

Q27. In the past 4 weeks, did the following problem prevent you from getting your asthma medication(s)?: I did not have health insurance.

AS\_NOMEDS\_NOINSUR\_W4

Value	Label	Frequency	Percent
0	Not Selected	8411	99.16
1	Selected	71	0.84

Q27. In the past 4 weeks, did the following problem prevent you from getting your asthma medication(s)?: I could not afford a doctor's visit.

AS\_NOMEDS\_AFFORDMD\_W4

Value	Label	Frequency	Percent
0	Not Selected	8389	98.90
1	Selected	93	1.10

Q27. In the past 4 weeks, did the following problem prevent you from getting your asthma medication(s)?: I preferred to manage my asthma myself.

AS\_NOMEDS\_SELFMANAGE\_W4

Value	Label	Frequency	Percent
0	Not Selected	8158	96.18
1	Selected	324	3.82

Q27. In the past 4 weeks, did the following problem prevent you from getting your asthma medication(s)?: I did not have time to go to a pharmacy.

AS\_NOMEDS\_TIMEPHARM\_W4

Value	Label	Frequency	Percent
0	Not Selected	8436	99.46
1	Selected	46	0.54

Q27. In the past 4 weeks, did the following problem prevent you from getting your asthma medication(s)?: Other, please specify.

AS\_NOMEDS\_OTHER\_W4

Value	Label	Frequency	Percent
0	Not Selected	7808	92.05
1	Selected	674	7.95

Q27. Oth1. Specify the other problem(s) that prevented you from getting your asthma medication(s)

AS\_NOMEDS\_OTHER\_SPECIFY\_W4

Value	Label	Frequency	Percent
	Data present	816	9.62
	Missing	7666	90.38

Q28. During the past 12 months, have you had an asthma attack?

AS\_ATTACK\_L12M\_W4

Value	Label	Frequency	Percent
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Q28. During the past 12 months, have you had an asthma attack?

AS\_ATTACK\_L12M\_W4

Value	Label	Frequency	Percent
	Missing	1367	16.12
1	Yes	3074	36.24
2	No	4041	47.64

Q29. During the past 12 months, how many times did you visit an emergency room or urgent care center because of asthma?

AS\_ERVISITS\_L12M\_W4

Value	Label	Frequency	Percent
	Missing	1576	18.58
0-99	Valid range	6906	81.42

Q30. During the past 12 months, were you ever hospitalized overnight for asthma?

AS\_HOSP\_L12M\_W4

Value	Label	Frequency	Percent
	Missing	1333	15.72
1	Yes	163	1.92
2	No	6986	82.36

Q31. During the past 12 months, besides emergency room or urgent care center visits, how many visits did you make to a doctor, nurse, or other health professional for worsening asthma symptoms?

AS\_MDVISITS\_L12M\_W4

Value	Label	Frequency	Percent
	Missing	1578	18.60
0-99	Valid range	6904	81.40

Q32. An asthma action plan, or asthma management plan, is a form with instructions about when to change the amount or type of medicine, when to call the doctor for advice, when to go to the emergency room. Has a doctor/other health professional ever given you an asthma action?

AS\_ACTIONPLAN\_EVER\_W4

Value	Label	Frequency	Percent
	Missing	1351	15.93
1	Yes	1833	21.61
2	No	4471	52.71
3	Don't Know	827	9.75

Q33. When your asthma gets worse, how much of the time do you use your action plan to help you decide what to do?

AS\_ACTIONPLAN\_DECISION\_W4

Value	Label	Frequency	Percent
	Missing	6418	75.67
1	All of the time	697	8.22
2	Most of the time	437	5.15
3	Some of the time	220	2.59
4	Occasionally	234	2.76
5	Never	476	5.61

**Q34. How confident are you in your ability to control your asthma?**  
AS\_CONTROL\_CONF\_W4

Value	Label	Frequency	Percent
	Missing	1398	16.48
1	Not confident at all	188	2.22
2	A little confident	470	5.54
3	Somewhat confident	1557	18.36
4	Confident	2132	25.14
5	Very confident	2737	32.27

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Having a cold**  
AS\_TRIG\_COLD\_W4

Value	Label	Frequency	Percent
	Missing	1606	18.93
1	Never	984	11.60
2	Rarely	931	10.98
3	Sometimes	2618	30.87
4	Most of the time	1443	17.01
5	Always	900	10.61

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Cigarette smoke**  
AS\_TRIG\_SMOKE\_W4

Value	Label	Frequency	Percent
	Missing	1970	23.23
1	Never	2231	26.30
2	Rarely	866	10.21
3	Sometimes	1608	18.96
4	Most of the time	956	11.27
5	Always	851	10.03

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Running**  
AS\_TRIG\_RUN\_W4

Value	Label	Frequency	Percent
	Missing	1852	21.83
1	Never	1427	16.82
2	Rarely	1042	12.28
3	Sometimes	2086	24.59
4	Most of the time	1107	13.05
5	Always	968	11.41

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Being angry**  
AS\_TRIG\_ANGRY\_W4

Value	Label	Frequency	Percent
	Missing	1927	22.72

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Being angry**  
AS\_TRIG\_ANGRY\_W4

Value	Label	Frequency	Percent
1	Never	3565	42.03
2	Rarely	1269	14.96
3	Sometimes	1215	14.32
4	Most of the time	343	4.04
5	Always	163	1.92

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Pollen from trees**  
AS\_TRIG\_POLLEN\_TREE\_W4

Value	Label	Frequency	Percent
	Missing	1657	19.54
1	Never	1276	15.04
2	Rarely	1025	12.08
3	Sometimes	2468	29.10
4	Most of the time	1299	15.31
5	Always	757	8.92

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Feeling alone**  
AS\_TRIG\_ALONE\_W4

Value	Label	Frequency	Percent
	Missing	1899	22.39
1	Never	5224	61.59
2	Rarely	778	9.17
3	Sometimes	422	4.98
4	Most of the time	101	1.19
5	Always	58	0.68

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Exhaust fumes**  
AS\_TRIG\_EXHAUST\_W4

Value	Label	Frequency	Percent
	Missing	1767	20.83
1	Never	2162	25.49
2	Rarely	1202	14.17
3	Sometimes	1870	22.05
4	Most of the time	802	9.46
5	Always	679	8.01

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Bicycle riding**  
AS\_TRIG\_BIKE\_W4

Value	Label	Frequency	Percent
	Missing	2084	24.57

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Bicycle riding**  
AS\_TRIG\_BIKE\_W4

Value	Label	Frequency	Percent
1	Never	3193	37.64
2	Rarely	1225	14.44
3	Sometimes	1319	15.55
4	Most of the time	373	4.40
5	Always	288	3.40

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Stress at home**  
AS\_TRIG\_STRESS\_W4

Value	Label	Frequency	Percent
	Missing	1827	21.54
1	Never	3675	43.33
2	Rarely	1246	14.69
3	Sometimes	1256	14.81
4	Most of the time	335	3.95
5	Always	143	1.69

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Certain intensive odors**  
AS\_TRIG\_ODOR\_W4

Value	Label	Frequency	Percent
	Missing	1760	20.75
1	Never	2176	25.65
2	Rarely	1004	11.84
3	Sometimes	1958	23.08
4	Most of the time	916	10.80
5	Always	668	7.88

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: pollen from grass**  
AS\_TRIG\_POLLEN\_GRASS\_W4

Value	Label	Frequency	Percent
	Missing	1752	20.66
1	Never	1623	19.13
2	Rarely	1104	13.02
3	Sometimes	2294	27.05
4	Most of the time	1015	11.97
5	Always	694	8.18

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Feeling tense**  
AS\_TRIG\_TENSE\_W4

Value	Label	Frequency	Percent
	Missing	1906	22.47

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Feeling tense**  
AS\_TRIG\_TENSE\_W4

Value	Label	Frequency	Percent
1	Never	3866	45.58
2	Rarely	1153	13.59
3	Sometimes	1127	13.29
4	Most of the time	299	3.53
5	Always	131	1.54

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Climbing flights of stairs**  
AS\_TRIG\_STAIRS\_W4

Value	Label	Frequency	Percent
	Missing	1680	19.81
1	Never	1721	20.29
2	Rarely	1164	13.72
3	Sometimes	2101	24.77
4	Most of the time	1000	11.79
5	Always	816	9.62

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Depressed mood**  
AS\_TRIG\_DEPRESSED\_W4

Value	Label	Frequency	Percent
	Missing	1909	22.51
1	Never	4586	54.07
2	Rarely	1064	12.54
3	Sometimes	665	7.84
4	Most of the time	178	2.10
5	Always	80	0.94

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Smell of paint**  
AS\_TRIG\_PAINT\_W4

Value	Label	Frequency	Percent
	Missing	1776	20.94
1	Never	2857	33.68
2	Rarely	1313	15.48
3	Sometimes	1467	17.30
4	Most of the time	559	6.59
5	Always	510	6.01

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Sport activities**  
AS\_TRIG\_SPORTS\_W4

Value	Label	Frequency	Percent
	Missing	1912	22.54

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Sport activities**

AS\_TRIG\_SPORTS\_W4

Value	Label	Frequency	Percent
1	Never	1838	21.67
2	Rarely	1205	14.21
3	Sometimes	2093	24.68
4	Most of the time	803	9.47
5	Always	631	7.44

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Perfumes**

AS\_TRIG\_PERFUME\_W4

Value	Label	Frequency	Percent
	Missing	1779	20.97
1	Never	2423	28.57
2	Rarely	1248	14.71
3	Sometimes	1809	21.33
4	Most of the time	699	8.24
5	Always	524	6.18

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Arguments with people**

AS\_TRIG\_ARGUE\_W4

Value	Label	Frequency	Percent
	Missing	1872	22.07
1	Never	4224	49.80
2	Rarely	1128	13.30
3	Sometimes	847	9.99
4	Most of the time	271	3.20
5	Always	140	1.65

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Flu**

AS\_TRIG\_FLU\_W4

Value	Label	Frequency	Percent
	Missing	1779	20.97
1	Never	1747	20.60
2	Rarely	926	10.92
3	Sometimes	1856	21.88
4	Most of the time	1165	13.73
5	Always	1009	11.90

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Sinus problems**

AS\_TRIG\_SINUS\_W4

Value	Label	Frequency	Percent
	Missing	1704	20.09

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Sinus problems**

AS\_TRIG\_SINUS\_W4

Value	Label	Frequency	Percent
1	Never	1435	16.92
2	Rarely	943	11.12
3	Sometimes	2158	25.44
4	Most of the time	1349	15.90
5	Always	893	10.53

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Being excited**

AS\_TRIG\_EXCITED\_W4

Value	Label	Frequency	Percent
	Missing	1858	21.91
1	Never	4006	47.23
2	Rarely	1219	14.37
3	Sometimes	974	11.48
4	Most of the time	280	3.30
5	Always	145	1.71

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Intense worries**

AS\_TRIG\_WORRIES\_W4

Value	Label	Frequency	Percent
	Missing	1868	22.02
1	Never	4306	50.77
2	Rarely	1082	12.76
3	Sometimes	844	9.95
4	Most of the time	263	3.10
5	Always	119	1.40

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Feeling unhappy**

AS\_TRIG\_UNHAPPY\_W4

Value	Label	Frequency	Percent
	Missing	1888	22.26
1	Never	4783	56.39
2	Rarely	1022	12.05
3	Sometimes	562	6.63
4	Most of the time	155	1.83
5	Always	72	0.85

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Animal hair**

AS\_TRIG\_ANIMALHAIR\_W4

Value	Label	Frequency	Percent
	Missing	1798	21.20

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Animal hair**

AS\_TRIG\_ANIMALHAIR\_W4

Value	Label	Frequency	Percent
1	Never	2253	26.56
2	Rarely	1202	14.17
3	Sometimes	1827	21.54
4	Most of the time	803	9.47
5	Always	599	7.06

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Overexertion**

AS\_TRIG\_OVEREXERT\_W4

Value	Label	Frequency	Percent
	Missing	1785	21.04
1	Never	1989	23.45
2	Rarely	1024	12.07
3	Sometimes	1944	22.92
4	Most of the time	992	11.70
5	Always	748	8.82

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Viruses**

AS\_TRIG\_VIRUS\_W4

Value	Label	Frequency	Percent
	Missing	1894	22.33
1	Never	2075	24.46
2	Rarely	1065	12.56
3	Sometimes	1984	23.39
4	Most of the time	881	10.39
5	Always	583	6.87

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Feeling weak**

AS\_TRIG\_WEAK\_W4

Value	Label	Frequency	Percent
	Missing	1904	22.45
1	Never	3650	43.03
2	Rarely	1214	14.31
3	Sometimes	1140	13.44
4	Most of the time	369	4.35
5	Always	205	2.42

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Pollen from weeds**

AS\_TRIG\_POLLEN\_WEED\_W4

Value	Label	Frequency	Percent
	Missing	1719	20.27

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Pollen from weeds**

AS\_TRIG\_POLLEN\_WEED\_W4

Value	Label	Frequency	Percent
1	Never	1614	19.03
2	Rarely	1053	12.41
3	Sometimes	2211	26.07
4	Most of the time	1071	12.63
5	Always	814	9.60

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Feathers from birds**

AS\_TRIG\_FEATHERS\_W4

Value	Label	Frequency	Percent
	Missing	1926	22.71
1	Never	3366	39.68
2	Rarely	1289	15.20
3	Sometimes	1083	12.77
4	Most of the time	440	5.19
5	Always	378	4.46

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Sprays**

AS\_TRIG\_SPRAYS\_W4

Value	Label	Frequency	Percent
	Missing	1786	21.06
1	Never	2264	26.69
2	Rarely	1088	12.83
3	Sometimes	1913	22.55
4	Most of the time	832	9.81
5	Always	599	7.06

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: Cats**

AS\_TRIG\_CATS\_W4

Value	Label	Frequency	Percent
	Missing	1779	20.97
1	Never	2428	28.63
2	Rarely	1024	12.07
3	Sometimes	1312	15.47
4	Most of the time	873	10.29
5	Always	1066	12.57

**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: House dust**

AS\_TRIG\_DUST\_W4

Value	Label	Frequency	Percent
	Missing	1627	19.18



**Q35. There are many different causes, or triggers, for asthma symptoms. Please indicate how often each of the following situations triggers your asthma symptoms: House dust**

AS\_TRIG\_DUST\_W4

Value	Label	Frequency	Percent
1	Never	1557	18.36
2	Rarely	1138	13.42
3	Sometimes	2138	25.21
4	Most of the time	1175	13.85
5	Always	847	9.99

**Q36. Please list up to six of the strongest triggers of your asthma below. You may include triggers listed in Question 35, or others. (1st listed)**

AS\_STRONGEST\_TRIG1\_W4

Value	Label	Frequency	Percent
	Data present	6626	78.12
	Missing	1856	21.88

**Q36. Please list up to six of the strongest triggers of your asthma below. You may include triggers listed in Question 35, or others. (2nd listed)**

AS\_STRONGEST\_TRIG2\_W4

Value	Label	Frequency	Percent
	Data present	6008	70.83
	Missing	2474	29.17

**Q36. Please list up to six of the strongest triggers of your asthma below. You may include triggers listed in Question 35, or others. (3rd listed)**

AS\_STRONGEST\_TRIG3\_W4

Value	Label	Frequency	Percent
	Data present	5310	62.60
	Missing	3172	37.40

**Q36. Please list up to six of the strongest triggers of your asthma below. You may include triggers listed in Question 35, or others. (4th listed)**

AS\_STRONGEST\_TRIG4\_W4

Value	Label	Frequency	Percent
	Data present	4382	51.66
	Missing	4100	48.34

**Q36. Please list up to six of the strongest triggers of your asthma below. You may include triggers listed in Question 35, or others. (5th listed)**

AS\_STRONGEST\_TRIG5\_W4

Value	Label	Frequency	Percent
	Data present	3592	42.35
	Missing	4890	57.65

**Q36. Please list up to six of the strongest triggers of your asthma below. You may include triggers listed in Question 35, or others. (6th listed)**

AS\_STRONGEST\_TRIG6\_W4

Value	Label	Frequency	Percent
	Data present	3073	36.23
	Missing	5409	63.77

**Asthma Strongest Trigger 1**

AS\_STRONGEST\_TRIG1\_TEXT\_W4

Value	Label	Frequency	Percent
	Missing	1843	21.73
1	Psychological	174	2.05
2	Allergens (animal)	737	8.69
3	Allergens (pollen)	562	6.63
4	Allergens (general)	688	8.11
5	Exercise	1148	13.53
6	Air Pollution/ Irritants	1212	14.29
7	Infection	1068	12.59
8	Medications	3	0.04
9	Air Temperature	386	4.55
10	Other	632	7.45
11	Allergens (food)	29	0.34

**Asthma Strongest Trigger 2**

AS\_STRONGEST\_TRIG2\_TEXT\_W4

Value	Label	Frequency	Percent
	Missing	2443	28.80
1	Psychological	202	2.38
2	Allergens (animal)	639	7.53
3	Allergens (pollen)	699	8.24
4	Allergens (general)	775	9.14
5	Exercise	967	11.40
6	Air Pollution/ Irritants	1187	13.99
7	Infection	730	8.61
8	Medications	3	0.04
9	Air Temperature	292	3.44
10	Other	516	6.08
11	Allergens (food)	29	0.34

**Asthma Strongest Trigger 3**

AS\_STRONGEST\_TRIG3\_TEXT\_W4

Value	Label	Frequency	Percent
	Missing	3158	37.23
1	Psychological	231	2.72
2	Allergens (animal)	438	5.16
3	Allergens (pollen)	577	6.80

**Asthma Strongest Trigger 3**  
AS\_STRONGEST\_TRIG3\_TEXT\_W4

Value	Label	Frequency	Percent
4	Allergens (general)	673	7.93
5	Exercise	825	9.73
6	Air Pollution/ Irritants	1208	14.24
7	Infection	589	6.94
8	Medications	3	0.04
9	Air Temperature	241	2.84
10	Other	514	6.06
11	Allergens (food)	25	0.29

**Asthma Strongest Trigger 4**  
AS\_STRONGEST\_TRIG4\_TEXT\_W4

Value	Label	Frequency	Percent
	Missing	4069	47.97
1	Psychological	218	2.57
2	Allergens (animal)	302	3.56
3	Allergens (pollen)	409	4.82
4	Allergens (general)	602	7.10
5	Exercise	664	7.83
6	Air Pollution/ Irritants	1004	11.84
7	Infection	514	6.06
8	Medications	2	0.02
9	Air Temperature	196	2.31
10	Other	469	5.53
11	Allergens (food)	33	0.39

**Asthma Strongest Trigger 5**  
AS\_STRONGEST\_TRIG5\_TEXT\_W4

Value	Label	Frequency	Percent
	Missing	4855	57.24
1	Psychological	202	2.38
2	Allergens (animal)	241	2.84
3	Allergens (pollen)	286	3.37
4	Allergens (general)	459	5.41
5	Exercise	517	6.10
6	Air Pollution/ Irritants	866	10.21
7	Infection	435	5.13
8	Medications	4	0.05
9	Air Temperature	143	1.69
10	Other	443	5.22
11	Allergens (food)	31	0.37

**Asthma Strongest Trigger 6**  
AS\_STRONGEST\_TRIG6\_TEXT\_W4

Value	Label	Frequency	Percent
	Missing	5403	63.70
1	Psychological	215	2.53

**Asthma Strongest Trigger 6**  
AS\_STRONGEST\_TRIG6\_TEXT\_W4

Value	Label	Frequency	Percent
2	Allergens (animal)	189	2.23
3	Allergens (pollen)	203	2.39
4	Allergens (general)	401	4.73
5	Exercise	412	4.86
6	Air Pollution/ Irritants	712	8.39
7	Infection	326	3.84
8	Medications	4	0.05
9	Air Temperature	126	1.49
10	Other	447	5.27
11	Allergens (food)	44	0.52

**Q36a. How much does this trigger (1st listed) affect your daily life?**  
AS\_TRIG1\_AFFECTSLIFE\_W4

Value	Label	Frequency	Percent
	Missing	1936	22.82
1	Not at All	649	7.65
2	Slightly	1346	15.87
3	Moderately	1554	18.32
4	Very much	2017	23.78
5	Completely	980	11.55

**Q36b. How much does this trigger (2nd listed) affect your daily life?**  
AS\_TRIG2\_AFFECTSLIFE\_W4

Value	Label	Frequency	Percent
	Missing	2566	30.25
1	Not at All	395	4.66
2	Slightly	1280	15.09
3	Moderately	1601	18.88
4	Very much	1814	21.39
5	Completely	826	9.74

**Q36c. How much does this trigger (3rd listed) affect your daily life?**  
AS\_TRIG3\_AFFECTSLIFE\_W4

Value	Label	Frequency	Percent
	Missing	3251	38.33
1	Not at All	313	3.69
2	Slightly	1080	12.73
3	Moderately	1491	17.58
4	Very much	1629	19.21
5	Completely	718	8.46

**Q36d. How much does this trigger (4th listed) affect your daily life?**  
AS\_TRIG4\_AFFECTSLIFE\_W4

Value	Label	Frequency	Percent
	Missing	4172	49.19
1	Not at All	231	2.72

## Q36d. How much does this trigger (4th listed) affect your daily life?

AS\_TRIG4\_AFFECTSLIFE\_W4

Value	Label	Frequency	Percent
2	Slightly	828	9.76
3	Moderately	1226	14.45
4	Very much	1357	16.00
5	Completely	668	7.88

## Q36e. How much does this trigger (5th listed) affect your daily life?

AS\_TRIG5\_AFFECTSLIFE\_W4

Value	Label	Frequency	Percent
	Missing	4970	58.59
1	Not at All	183	2.16
2	Slightly	641	7.56
3	Moderately	978	11.53
4	Very much	1150	13.56
5	Completely	560	6.60

## Q36f. How much does this trigger (6th listed) affect your daily life?

AS\_TRIG6\_AFFECTSLIFE\_W4

Value	Label	Frequency	Percent
	Missing	5480	64.61
1	Not at All	164	1.93
2	Slightly	555	6.54
3	Moderately	789	9.30
4	Very much	943	11.12
5	Completely	551	6.50

## Language of interview

AS\_LANGUAGE\_W4

Value	Label	Frequency	Percent
C	Chinese	59	0.70
E	English	8357	98.53
S	Spanish	66	0.78

## Mode of survey administration

AS\_USERMODE\_W4

Value	Label	Frequency	Percent
TFORM	Teleform (Paper)	3829	45.14
WEB	Web	4653	54.86

## Age group at asthma interview

AS\_AGE\_INTGRP\_W4

Value	Label	Frequency	Percent
	Missing	3	0.04
2	18-24	80	0.94
3	25-44	1427	16.82
4	45-64	5217	61.51
5	>=65	1755	20.69

## Age group on 911

AGE\_911GRP

Value	Label	Frequency	Percent
	Missing	3	0.04
1	<18	223	2.63
2	18-24	442	5.21
3	25-44	4492	52.96
4	45-64	3162	37.28
5	>=65	160	1.89