Table of Contents

EXECUTIVE SUMMARY .................................................................................................................. i

INTRODUCTION ............................................................................................................................... 1

METHODOLOGY ............................................................................................................................... 1

DETAILED RESEARCH FINDINGS ................................................................................................. 2

HEALTH-RELATED QUALITY OF LIFE MEASURES ............................................................................ 2

Perceived Health Status .................................................................................................................. 2

Unhealthy Symptoms ..................................................................................................................... 3

Mental Health ................................................................................................................................ 4

Activity Impairment ......................................................................................................................... 5

Caregiver Responsibilities ............................................................................................................... 5

Access to Health Services .............................................................................................................. 6

RISK FACTORS CONTRIBUTING TO CHRONIC ILLNESS ............................................................... 7

Tobacco Use .................................................................................................................................... 8

Hypertension .................................................................................................................................... 8

High Cholesterol ............................................................................................................................ 9

Overweight and Obesity .................................................................................................................. 9

Alcohol Consumption and Binge Drinking .................................................................................... 11

HIV/AIDS Risky Behavior ............................................................................................................. 12

CHRONIC ILLNESS PREVALENCE ............................................................................................... 12

Heart Attack .................................................................................................................................... 13

Angina or Coronary Heart Disease ............................................................................................... 13

Stroke ............................................................................................................................................... 13

Diabetes .......................................................................................................................................... 13

Asthma ............................................................................................................................................ 15

Arthritis ........................................................................................................................................... 16

Prostate Cancer ............................................................................................................................. 17

PROTECTIVE FACTORS ..................................................................................................................... 17

Emotional Support ........................................................................................................................ 17

Sleep ................................................................................................................................................ 17

Physical Activity ............................................................................................................................ 17

Fruit and Vegetable Consumption ............................................................................................... 19

Immunizations ................................................................................................................................ 19

Colorectal Cancer Screening ....................................................................................................... 20

Blood Stool Test ............................................................................................................................ 20

Mammogram Screening ............................................................................................................... 21

Clinical Breast Exams ................................................................................................................... 21

Pap Screening .................................................................................................................................. 22

Digital Rectal Exam Screening ..................................................................................................... 23

Prostate-Specific Antigen Screening ........................................................................................... 23

HIV Screening ................................................................................................................................ 24

SUMMARY OF SELECT FINDINGS .............................................................................................. 24

LIMITATIONS .................................................................................................................................... 25

CONCLUSIONS ............................................................................................................................... 25

REFERENCES ...................................................................................................................................... 27
# Table of Contents (Continued)

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPENDIX A: Key Health Indicators Listing</td>
<td>35</td>
</tr>
<tr>
<td>APPENDIX B: Detailed Methodology</td>
<td>37</td>
</tr>
<tr>
<td>APPENDIX C: Sample Demographics</td>
<td>45</td>
</tr>
<tr>
<td>APPENDIX D: Advance Letter</td>
<td>51</td>
</tr>
<tr>
<td>APPENDIX E: Questionnaire</td>
<td>53</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

Since 1996, the DuPage County Health Department has conducted a Behavioral Risk Factor Survey (BRFS) to monitor health status, chronic disease prevalence, and lifestyle practices among the adult population in DuPage County. The BRFS provides DuPage County with valuable health data that enable the Health Department to effectively engage in strategic health improvement planning. The Health Department models its BRFS project after the Centers for Disease Control and Prevention’s (CDC) Behavioral Risk Factor Surveillance System. The Behavioral Risk Factor Surveillance System is a state-based program that has been used by the CDC and state health departments for over 25 years to assess health risk factors among adults 18 years of age and older.

The BRFS is designed to capture a wide range of health behaviors and practices, from basic preventive care, such as routine screening exams and immunizations, to lifestyle practices, such as tobacco and alcohol use. Optional modules are also available to examine topics such as women’s health, asthma history, mental illness and stigma, and diabetes.

In August 2010, the Health Department contracted with the Northern Illinois University Public Opinion Laboratory (POL) to complete DuPage County’s fourth BRFS. The Health Department selected POL to administer the 2010 DuPage BRFS due to POL’s extensive experience with the Illinois Behavioral Risk Factor Surveillance System. POL used a generally accepted survey technique (random-digit-dialing) to derive a sample of DuPage households with landline telephones. The telephone survey was administered between September 15, 2010 and December 6, 2010. POL’s team of trained interviewers successfully completed 1,101 interviews. POL applied the CDC’s weighting protocol to the 2010 DuPage sample, which allows findings to be compared to state and national BRFS data.

The 2010 survey findings reflect several positive trends regarding health-related quality of life measures and lifestyle practices. When asked about general health and overall satisfaction with life, three out of five DuPage County residents (60.6%) reported excellent or very good health and most DuPage County residents (96.4%) were very satisfied or satisfied with their lives. Regarding tobacco and alcohol, a decrease in use was observed. In 1996, 22.7% of adults in DuPage County were current smokers compared to 18.0% of adults in 2010. A decrease in the average number of alcoholic drinks per drinking occasion in the past 30 days also occurred. Between 1996 and 2010, the average number of drinks per occasion in the past 30 days decreased slightly from 2.4 drinks to 1.45 drinks.

In the area of preventive health practices, several positive trends surfaced. Women aged 40 years and older showed an increase in mammogram testing. In 1996, 81.3% of women in this age group had ever had a mammogram. By 2010, 92.5% of women 40 and older had ever had a mammogram. Overall, the number of DuPage County residents who had not received a flu shot in the past year declined from 1996 to 2010. In 1996, 81.7% of DuPage County residents had not received a flu shot in the past year; in 2000, 72.3% had not received a flu shot. Four-fifths (80.2%) of those in 2005 had not received a flu shot in the past year. This number dropped sharply to 63.2% in 2010. In 2005, 64.1% of adults with high blood pressure were taking medication for their high blood pressure. This rate increased to 78.5% in 2010.

Although positive health trends were identified in 2010, challenges still exist. Access to health services continues to be an area requiring attention from local public health partners. The percentage of DuPage County adults without healthcare coverage increased from 6.2% in 1996, to 7.3% in 2005 and to 11.4% in 2010. Similar to findings in 2005, 17% of DuPage County adults in 2010 reported that they did not have a personal doctor or healthcare
provider. Cost was reported to be a barrier to receiving healthcare for 6.5% of DuPage County adults in 1996 and increased to 9.6% of DuPage County adults in 2010.

DuPage County is not immune to the growing health concerns associated with obesity and the rise in chronic diseases. For example, based on Body Mass Index (BMI), 24.3% of DuPage adult residents were obese and 35.8% were considered overweight in 2010, which is comparable to the 2005 obesity and overweight findings. In 2005, 5.3% of adults had diabetes. By 2010, 6.8% of adults in DuPage County had diabetes. After a small decrease from 1996 to 2000, the percentage of DuPage County residents who had ever been told that they had high blood pressure increased in 2010. In 1996, 18.9% of residents had high blood pressure. This number increased to 26.1% in 2010. The percentage of DuPage County residents who had ever been told that they had high cholesterol also decreased from 1996 to 2000, and then increased substantially. In 1996, 21% of residents had high cholesterol. This number increased to 34.6% in 2010.

In order to sustain positive health trends and improve areas of concern, it is critical for the Health Department to work with its partners in the local public health system. Difficult economic times and state budget cuts continue to warrant strategic partnerships and innovative approaches to health improvement planning. Obesity prevention and access to health services are two priority areas currently being addressed in the Health Department’s 2015 Community Health Improvement Plan. The 2010 DuPage BRFs results reinforce the fact that these two health issues continue to demand systems, program and policy reform.

As the demographic landscape of DuPage County continues to change, the Health Department works to improve methods of data collection to capture health disparities among residents. Data collected by telephone surveys may have limitations in reaching a representative population. Moreover, with the growing number of DuPage residents living in poverty, it is critical that local public health system partners continue to address access to health services and disease management issues for the uninsured and underinsured. Data provided by the Behavioral Risk Factor Survey should not only inspire community partners to continue working to improve health and wellness issues, it also should empower DuPage County residents to take action in order to live long, healthy lives.

INTRODUCTION

Since 1996, the DuPage County Health Department has conducted a Behavioral Risk Factor Survey (BRFS) in DuPage County. The Health Department uses the BRFS to collect health related data for community health assessment and planning purposes. The Health Department models its survey after the Centers for Disease Control and Prevention’s (CDC) Behavioral Risk Factor Surveillance System. The Behavioral Risk Factor Surveillance System is a state-based program that has been used by the CDC and state health departments for over 25 years to assess health risk factors among adults 18 years of age and older. In 2010, the Health Department completed its fourth BRFS.

The purpose of the BRFS is to gain insight regarding health status and behaviors, as well as to identify the prevalence of risk factors and disease among DuPage County residents. Additionally, DuPage County BRFS data can be used to assess the prevalence of health behaviors that lead to disease, disability and premature death. Historical DuPage BRFS data provide baseline and comparative information to monitor progress towards meeting local population health goals. For example, the Health Department uses BRFS data to evaluate progress being made towards strategic health objectives outlined in its Community Health Improvement Plans (CHIP).

The DuPage County Health Department contracted with Northern Illinois University’s Public Opinion Laboratory (POL) to complete its 2010 BRFS. This report examines comparisons between 2010 DuPage County data and the most current Illinois BRFS data. In addition, temporal trend data have been analyzed. Comparisons of DuPage 2010 BRFS data are made to the Healthy People 2010 (HP2010) Final Review results. The HP2010 Final Review presents a quantitative end-of-decade assessment of progress in achieving the HP2010 objectives and goals over the course of the past decade. Lastly, HP2020 comparisons have been selected to highlight DuPage County health indicators in the context of the national health objectives that will span the next decade.

METHODOLOGY

Northern Illinois University’s Public Opinion Laboratory (POL) was responsible for assuring the 2010 DuPage County BRFS project followed the CDC’s Behavioral Risk Factor Surveillance System methodology. The Health Department’s 2010 BRFS was developed based on the CDC’s 2009 core questionnaire. Additional questions were selected from the CDC’s optional modules. Optional modules were chosen based on the Health Department’s desire to investigate specific health issues such as women’s health, cancer screenings, caregiver issues, and mental illness and stigma.

A sample of DuPage County residents was derived from a random-digit-dial sample of 30,400 DuPage County telephone numbers. Telephone numbers were reviewed to ensure they were working land-line phone numbers. Fax numbers, cellular phones, non-residential and non-working numbers were excluded. There were 11,610 telephone numbers that remained which were queued to be contacted by a POL interviewer. A total of 6,224 advance letters were sent. The advance letter can be found in Appendix D.

POL trained interviewers in BRFS protocol to ensure the standardized administration of the survey. Interviewers successfully completed 1,101 surveys between September 15, 2010 and December 6, 2010. Participants had the option to complete the survey in English or Spanish. On average, the telephone interview took 26 minutes to complete. The questionnaire used for this project can be found in Appendix E.

POL applied the weighting protocol used by the CDC for the Illinois BRFS to the 2010 DuPage sample. Six variables were used to weight the DuPage sample. These variables included age/gender, marital status, education, number of adults in household, race/ethnicity and presence of child in the household. The weights sum to 694,001 adults living...
in households in DuPage County, Illinois according to the 2006-2008 American Community Survey. POL used the 2006-2008 American Community Survey data because it was the most current demographic information available at the time of the 2010 DuPage County BRFS. In addition, the six variables used to weight the 2010 DuPage County sample were also included in the 2006-2008 American Community Survey. The detailed steps used to weight the 2010 DuPage sample can be found in Appendix B. The demographic characteristics of the 2010 DuPage sample can be found in Appendix C.

DETAILED RESEARCH FINDINGS

The 2010 DuPage County BRFS findings provide estimates of health status and behavioral practices of DuPage County residents. Detailed findings have been organized into the following categories: Health-Related Quality of Life Measures, Risk Factors, Chronic Disease Prevalence, and Protective Factors. In each of these areas, the 2010 DuPage County BRFS findings have been compared to 2010 Illinois BRFS data, when available. Due to the fact that certain questions are only asked during even or odd years for the Illinois BRFS, some 2010 DuPage BRFS findings were compared to 2009 Illinois BRFS data. Healthy People 2010 and Healthy People 2020 have been used to demonstrate how the health of DuPage residents compares to national health benchmarks. Moreover, HP2020 targets have been included as a measure to identify specific areas where health interventions are needed. A table has been included in Appendix A for easy reference and comparisons of key indicators from DuPage BRFS surveys from 1996 to 2010.

Health-Related Quality of Life Measures

The 2010 DuPage County survey began with the core BRFS questions that capture self-reported health status, which can be categorized as health-related quality of life measures. Healthy People 2020 identified the improvement of quality of life as one of four fundamental national health goals. Quality of life (QoL) is a broad multidimensional concept that usually includes subjective evaluations of both positive and negative aspects of life. Health-related quality of life (HRQoL) measures encompass those aspects of overall quality of life that can be clearly shown to affect health, including physical and mental perceptions, functional status, and social support. These measures supplement traditional public health measures of morbidity and mortality and provide insight to the relationship between HRQoL risk factors (e.g., obesity, physical inactivity, and smoking) and chronic illness (e.g., hypertension, diabetes, and arthritis). The following HRQoL indicators from the DuPage BRFS will be examined in this section: Perceived Health Status, Unhealthy Symptoms, Mental Health, Activity Impairment, Caregiver Responsibilities, and Access to Health Services.

Perceived Health Status

In 2010, the perceived health status of DuPage County residents was very positive, as illustrated in Figure 1. Only 10.4 percent of DuPage adults indicated that their health was fair to poor, compared to 15.5% of Illinois residents in 2010. DuPage women (12.3%) were more likely than men (8.3%) to report a fair or poor health status.
Figure 2 illustrates general satisfaction with life as reported by DuPage County residents. Only 3.5% of DuPage adults were dissatisfied or very dissatisfied with life. Women (4.7%) were more likely to report being dissatisfied or very dissatisfied with life than men (2.4%).

Unhealthy Symptoms

Any symptoms that interfere with activities of daily living negatively affect quality of life. Pain made it hard for DuPage adults to do usual activities an average of three (2.83) days in the past 30 days. One-third (31.0%) of DuPage residents confirmed that pain made it hard to do usual activities for an average of 9 days out of the last 30 days. The likelihood of having at least one day in the past 30 days where pain made it hard to do usual activities increased with age, from a low of 19.3% for those in their twenties to a high of 44.8% of those eighty years and older.

Worry and anxiety negatively impact quality of life, as well. Respondents were questioned about general worrying and worrying related specifically to financial issues. With respect to general worrying, DuPage adults felt worried, tense or anxious an average of 5.60 days in the past 30 days. Older adults were less likely than younger adults to report that they felt worried, tense, or anxious in the past 30 days. The percentage of those who worried decreased from more than three-quarters (78.1%) of individuals in their twenties, to 67.8% of those in their fifties, to 50.0% of adults in their seventies. Women (73.7%) were more likely than men (65.1%) to experience at least one day in
the past 30 days when they felt worried, tense, or anxious. Respondents were questioned about worrying related to the ability to pay for housing or nutritious food. Of those who owned or rented a place to live, 11.2% reported that they were always (8.1%) or usually (3.1%) worried about having enough money to pay their rent or mortgage. One out of five (20.3%) DuPage adults sometimes worried about having enough money to pay their rent or mortgage, while 68.5% rarely or never had this concern. With respect to worry related to the ability to pay for nutritious food, 8.3% of DuPage residents always or usually worried about this issue, while 12.6% sometimes worried, and 81.4% rarely or never worried. Women were much more likely than men (9.5% compared to 2.4%) to worry about having enough money to buy nutritious food.

**Mental Health**

Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with challenges. Mental health is an important indicator to consider because it involves an individual’s ability to maintain meaningful relationships, problem-solve, cope with life’s challenges, and engage in daily activities. To the extreme, mental disorders are health conditions that are characterized by alterations in thinking, mood, and/or behaviors that are associated with distress and/or impaired functioning. Evidence has shown that mental disorders, especially depressive disorders, are strongly related to the occurrence and course of many chronic diseases including diabetes, cancer, cardiovascular disease, asthma, obesity, and many risk behaviors for chronic disease such as physical inactivity, smoking, excessive drinking, and insufficient sleep.

Nearly 36% of DuPage residents experienced a minimum of one day in the past 30 days when their mental health was not good, compared to 39.1% of Illinois residents in 2010. This group of individuals experienced an average of 3.14 days in the past 30 days where mental health was not good. Women reported an average of 4.07 days in the past 30 days when their mental health was not good, compared to 2.18 days for men. Figure 4 shows the percentages of residents who experienced days when their mental health was not good.

![Figure 4: Number of Days in Past 30 Days Where Mental Health was Not Good](image)

The number of days in the past 30 days when DuPage residents reported their mental health was not good varied across age groups. DuPage adults in their twenties had the highest average number of days (4.44 days) in the past 30 days where mental health was not good. Other age groups had an average number of days when mental health was not good that ranged from 2.43 days to 3.33 days.

Depressive symptoms and anxiety can vary greatly among individuals. These symptoms can impact a person’s ability to engage in healthy activities such as physical exercise. The BRFS asked respondents to state the average number of days they felt sad, “blue”, or depressed in the past 30 days. DuPage residents indicated that they experienced these feelings an average of 2.96 days in the past 30 days. Two-fifths (41.4%) of men reported having felt sad, “blue”, or depressed on at least one day in the past 30, compared to 56.2% of women. One out of twenty (5.0%) adults reported that in the past 30 days they felt nervous all or most of the time, 2.0% of adults reported they felt hopeless all or most of the time in this time period, and 4.4% of adults stated that in the past 30 days they felt restless or fidgety all or most of the time. While 1.9% of DuPage residents felt so depressed that nothing could cheer them up most or all of the time, 6.9% of adults reported that in the past 30 days they felt like everything...
was an effort most or all of the time and 1.1% of adults indicated that, in the past 30 days, they felt worthless most or all of the time. Nearly one in ten DuPage County residents (9.7%) reported taking medications or receiving treatment for mental health or emotional problems at the time of the survey.

In the 30 days prior to the interview, 7.9% of DuPage County adults reported that they were kept from doing work or other usual activities as a result of poor mental health. On average, DuPage residents reported that their activities were restricted due to their mental health less than one (.65) day in the past 30 days.

**Activity Impairment**

As mentioned earlier, mental health plays a major role in the ability to maintain good physical health. Mental illnesses, such as depression and anxiety, can affect one’s ability to participate in health-promoting behaviors. In turn, problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person’s ability to participate in treatment and recovery. DuPage County residents reported that poor mental or physical health kept them from usual activities by an average of 1.87 days in the past 30 days.

As shown in Figure 5, 23% of residents indicated that poor health kept them from their usual activities for one or more days in the past 30 days. Those under 40 years of age experienced the fewest number of days (0.84 days) where poor health kept them from their usual activities. The highest number of days was found among the age groups 50 to 59 (3.39 days) and 80 and older (3.23 days). In DuPage County, the difference between women and men regarding the number of days poor health prevented usual activities in the past 30 days was slight, 2.0 days and 1.74 days, respectively.

**Caregiver Responsibilities**

DuPage County’s older adult population continues to increase. Between 1990 and 2010, the population segment age 65 and older increased over 56%, from 67,984 to 106,398. According to the Administration on Aging, the older adult population will burgeon between the years 2010 and 2030 when the “baby boom” generation reaches age 65. Caregivers and resources will be taxed by the rapid growth among older adults. Additionally, older adults are living longer than ever before, which increases the demand for elder care.

Providing personal care for another individual can be quite demanding for the caregiver. One-sixth (17.4%) of DuPage County adults indicated that they provided care for a friend or family member who had a health problem, long-term illness, or disability in the past 30 days. Women were more likely than men to provide personal care for another individual; 21.6% of women and 12.9% of men reported that they served as a caregiver to a friend or family member. Almost three-fifths (58.1%) have been caregivers for more than one year. On average, caregivers provided 21.10 hours of care per week.
The age distribution of caregivers is illustrated in Figure 6. Caregiving impacted residents across all age groups, with those in their sixties providing more care than other groups. Caregivers were asked questions about their relationship to the individual for whom they provided care, and the results are shown in Figure 7. Responses reflect that the majority of care was provided to a parent or a spouse.

**Health Problems of Cared-for Person**

Individuals in need of care suffered from a variety of health problems. The most frequently mentioned health problems were heart disease (11.3%), Alzheimer’s disease or dementia (9.7%), arthritis (5.6%), cancer (5.4%), and diabetes (5.0%). Additionally, one-half (50.7%) of the people receiving care experienced changes in thinking or remembering during the past 12 months.

![Figure 6: Age of Caregiver](image)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>10.1%</td>
</tr>
<tr>
<td>30-39</td>
<td>16.0%</td>
</tr>
<tr>
<td>40-49</td>
<td>19.9%</td>
</tr>
<tr>
<td>50-59</td>
<td>21.1%</td>
</tr>
<tr>
<td>60-69</td>
<td>24.5%</td>
</tr>
<tr>
<td>70-79</td>
<td>17.3%</td>
</tr>
<tr>
<td>80+</td>
<td>6.8%</td>
</tr>
</tbody>
</table>

![Figure 7: Relationship to Caregiver](image)

Most (45.8%) caregivers reported caring for individuals 70 years of age or older. Individuals between 60 and 69 years of age were the second most common group (17.1%) to receive support from a caregiver. The average age of the person being cared for was 64 years. Seven out of ten (69.2%) caregivers reported care for a female and 30.8% provided care for a male.

![Figure 8: Area Where Cared-For Person Needs Most Help](image)

Figure 8 displays the general categories where cared-for persons required the most help. Cared-for persons needed the most support with taking care of their homes or personal living spaces (34.2%) and transportation outside the home (20.7%).

When asked about the greatest difficulty as a caregiver, 26.4% indicated that caregiving creates stress. Caregivers also reported difficulties such as not having enough time for themselves (7.6%) or their own families (5.5%), financial burden (7.3%), and interference with work (4%).

**Access to Health Services**

Access to high quality healthcare services is an important determinant of individual health. Strong predictors of access to quality healthcare include having a higher income, health insurance, and a regular primary care provider. Measures of access to healthcare are an essential way to evaluate the quality of the healthcare system.
The HP2010 Access to Health Services indicator (objective 1-1) set the rate of persons with health insurance at 83% of the U.S. population, and this did not change over the decade. In 2010, 88.6% of DuPage County residents were insured, which means that approximately 78,218 DuPage County residents were uninsured. The proportion of insured residents in DuPage County was slightly above the Illinois rate of 86.9 percent in 2010. The HP2020 Leading Health Indicator for Access to Health Services sets the target for those with medical insurance at 100 percent of the U.S. population.

HP2010 set the proportion of persons with a source of ongoing healthcare (objective 1-4a) at 96% of the population. Over the decade (1998 to 2008), this rate declined by 1.1%. In DuPage County in 2010, 83.0% of adults had a personal doctor or healthcare provider compared to 84.3% of Illinois adults; neither met the national target. The HP2020 target has been revised based on baseline data collected in 2007. This data (AHS-3) shows that 76.3% of adults had a usual primary care provider. The new HP2020 target seeks a 10% improvement from baseline, and therefore is set at 83.9% of the U.S. population. DuPage comes very close to meeting the new HP2020 target.

While nearly one-quarter (24.1%) of men surveyed in DuPage County did not have a primary healthcare provider, only one in ten (10.3%) women reported the same in 2010. The proportion of persons with no usual primary care provider fluctuated by age group. Approximately 30% of those between the ages of 18 and 29 had no primary health care provider, followed by 22.3% of those in their thirties, 30.5% of those in their forties, and 13.1% of those in their fifties. The percentage with no primary care provider drops sharply for people in their sixties, for whom Medicare coverage is available.

Cost prevented 9.6% of DuPage adults from visiting a doctor in the past 12 months, which is lower than the Illinois rate of 13.3% in 2010. Additionally, DuPage women (13.4%) were more than twice as likely as men (5.7%) to indicate that cost prevented them from accessing healthcare in the past 12 months.

It is important to note that more than one-third (35.2%) of DuPage adults had not received a routine check-up for more than one year, which is similar to the proportion of adults statewide (36.4%) in 2010. An increase in age generally corresponded with an increase in the likelihood that a respondent reported having had a routine checkup in the past year. Between 55% and 70% of adults between the ages of 18 to 59 indicated that they had a checkup in the past year. For residents aged 60 and older, 82 percent had a checkup in the past year. In general, men (57.8%) were less likely than women (71.6%) to have had a routine checkup within the past year. Figure 9 illustrates the time since DuPage residents had their last routine checkup.

**Figure 9**

**Risk Factors Contributing to Chronic Illness**

The top modifiable risk factors that contribute to chronic disease are tobacco use, hypertension, high cholesterol, obesity, and excessive alcohol consumption. Addressing these risk factors can greatly reduce an individual’s likelihood of developing a chronic illness. Some individuals may be genetically predisposed to chronic diseases due to family history of heart disease, diabetes, or asthma. It is especially important for these individuals to monitor risk behaviors and adhere to recommendations for effective disease management. This section will present findings regarding the following risk factors: Tobacco Use, Hypertension, High Cholesterol, Overweight and Obesity, Alcohol Consumption and Binge Drinking, and HIV/AIDS Risky Behavior.
**Tobacco Use**

Tobacco use, in any form, is a behavior that can produce serious health problems. Smoking harms nearly every organ in the body and increases the risk of coronary heart disease, stroke, many cancers, and chronic obstructive lung disease.\(^{14}\)

Progress was seen for the HP2010 Leading Health Indicator on Tobacco Use. The percentage of adults aged 18 years and over who were current cigarette smokers (objective 27-1a) decreased by 12.5% between 1998 and 2008, from 24% to 21%, and moving toward the 2010 target of 12%.\(^{9}\) The percentage of current smokers in DuPage County was 18.0% in 2010, with 12.3% smoking every day and 5.7% smoking some days. The DuPage rate of current smokers in 2010 is higher than the national target. The end-of-decade assessment shows that 20.6% of U.S. adults aged 18 years and older were current cigarette smokers in 2008 (age adjusted to the year 2000 standard population).\(^{9}\) The HP2020 target for tobacco use remains unchanged at 12.0% of the U.S. population.

Two-fifths (41.1%) of adults in DuPage County had smoked more than 100 cigarettes during their lifetime. Use of smokeless tobacco products was minimal. Very few DuPage County adults (1.1%) used chew, snuff, or snus. Less than 1% (0.4%) reported using some form of smokeless tobacco every day, while 0.8% used it some days.

![Figure 10](image)

**Hypertension**

Hypertension, or high blood pressure, is a major health problem. Because it often has no warning signs or symptoms, many people may have hypertension without knowing it. Hypertension can be caused by hereditary factors or by modifiable lifestyle behaviors. Being overweight, heavy drinking, physical inactivity and a poor diet, especially diets with excessive salt intake, are risk factors that contribute to hypertension.\(^{16}\) If not properly managed, hypertension can cause tissue or organ damage and can lead to heart attack or stroke.\(^{17}\)
The HP2010 target for adults with high blood pressure (objective 12-9) was initially set at 16%. The end-of-decade assessment shows the prevalence of hypertension among persons aged 18 years and over increased by 20.0% between 1988–94 and 2005–08, from 25% to 30% (age adjusted), moving away from the 2010 revised target of 14%. The 2010 percentage of adults in DuPage County with high blood pressure was 26.1%. The HP2020 target has been revised based on baseline data collected in 2005-2008. This data shows that 29.9% of adults in the U.S. had high blood pressure. The new target seeks a 10% improvement from baseline, and therefore is set at 26.9% of the U.S. population. Based on the HP2020 target, DuPage County meets the national goal for 2020. This does not lessen the fact that approximately 181,000 DuPage County adults are living with hypertension.

In early adulthood, hypertension is more prevalent among men than women. In DuPage County, men were slightly more likely to have been diagnosed with high blood pressure by a doctor than women (27.4% versus 24.8%) in 2010. Research shows that hypertension prevalence increases over time and is more common in people ages 60 and older. However, in DuPage County, hypertension appears to be more prevalent at a much younger age. DuPage adults aged 50 to 59 years had the highest percentage of hypertension of all age groups, including those aged 60 years and older. Figure 12 highlights the prevalence of high blood pressure by age group.

For many, medication is an effective intervention to control hypertension. DuPage women were much more likely to use medication than men to manage hypertension (90% versus 68%). Four-fifths (78.5%) of DuPage adults who had ever been told that they had high blood pressure reported taking medication to address their hypertension compared to 82.4% of Illinois residents in 2010. This means that approximately 39,000 DuPage County residents are not treating their hypertension with medication. Residents who do not use medication to manage their hypertension are at higher risk for developing liver damage, heart attack, or stroke.

**High Cholesterol**

Cholesterol is a waxy, fat-like substance that the body needs to function properly. When too much cholesterol is in the blood, however, it can build up on the artery walls, which can lead to heart disease and stroke.

HP2010 did not include an objective on high total blood cholesterol as a Leading Health Indicator, but nevertheless tracked progress. Between 1988–94 and 2005–08, the proportion of persons aged 20 years and over with high blood cholesterol levels (objective 12-14) fell by 28.6%, from 21% to 15% (age adjusted), exceeding the 2010 target of 17%. In DuPage County, 34.6% of all adults had high blood cholesterol, compared to 38.2% of all Illinois adults in 2010. The DuPage County rate is not only nearly twice the national target, but increased dramatically while the national rate decreased. The HP2020 target has been revised based on baseline data collected in 2005-2008. This data show that 15.0% of adults had high cholesterol. The new target seeks a 10% improvement from baseline, and therefore is set at 13.5% of the U.S. population.
The distribution of DuPage residents with high blood cholesterol by age group is shown in Figure 13. Similar to hypertension, high blood cholesterol peaked for those aged 50-59. Men were more likely than women to have high blood cholesterol (34.4% and 29.2% respectively.) In 2010, nine out of ten DuPage County residents (93.2%) had ever had their blood cholesterol checked compared to 77.8% of Illinois adults. Additionally, a higher percentage of DuPage County residents had their cholesterol checked in the past year (66.4%) than the 2010 Illinois rate of 62.9%. Moreover, 89.3% of DuPage adults had their cholesterol checked within the past five years. Older adults were more likely to report having had a blood cholesterol check in the past year. Numbers rose to 89.6% of those in their seventies.

**Overweight and Obesity**

Body mass index (BMI) is a formula used to calculate a numeric value that identifies weight categories. Research has shown that as weight increases to reach the levels referred to as overweight and obese, the risks for the following conditions also increase.

- Coronary heart disease
- Type 2 diabetes
- Cancers (endometrial, breast, and colon)
- Hypertension (high blood pressure)
- Dyslipidemia (high total cholesterol or high levels of triglycerides)
- Stroke
- Liver and gallbladder disease
- Sleep apnea and respiratory problems
- Osteoarthritis (a degeneration of cartilage and its underlying bone within a joint)
- Gynecological problems (abnormal menses, infertility)

Obesity in the U.S. population has increased, moving away from Healthy People 2010 targets. Based on directly measured weight and height, between 1988–94 and 2005–08 the proportion of adults aged 20 years and over who were obese (objective 19-2) rose by 47.8%, from 23% to 34% (age adjusted), moving away from the 2010 target of 15%. Obesity continues to be a problem in the DuPage population. In 2010, 24.3 percent of DuPage County adults were obese or extremely obese, which greatly exceeds the national target. Figure 14 illustrates the proportion of DuPage residents in each BMI category. Based on baseline data collected in 2005-2008, the HP2020 objective related to obesity establishes a target of 10% improvement decreasing the proportion of adults who are obese from 34.0% to 30.6%.
Overweight and obesity rates among DuPage County adults steadily increased up to the age of 69. Nearly half (44.9%) of those in their twenties were overweight or obese in 2010, followed by 56.9% of those in their thirties, 57% of those in their forties, 69% in those in their fifties, and 76.6% of those in their sixties. The percent of overweight or obese individuals then dropped to 66.5% of those in their seventies, and 58.3% of those eighty or older. For Illinois adults, 34.5% were overweight and 28.7% of adults were considered obese or extremely obese in 2010.28

Men in DuPage County were much more likely to be overweight or obese than women in 2010. While 72.5% of men had a BMI which categorized them as either overweight or obese, about half (50.8%) of women were overweight or obese.

Alcohol Consumption and Binge Drinking

Excessive alcohol consumption can increase the risk of health problems. Drinking behavior among adults is typically categorized as heavy alcohol use or binge drinking. The Centers for Disease Control and Prevention defines heavy alcohol use as drinking more than two drinks per day on average for men or more than one drink per day on average for women.29 In 2002, the National Institute on Alcohol Abuse and Alcoholism revised the definition of binge drinking for women from drinking five or more alcoholic beverages at the same time or within a couple of hours of each other to four or more alcoholic beverages.9 For the Healthy People 2010, binge drinking for adults (objectives 26-11c) was tracked with the original definition for binge drinking. Healthy People 2020 will track binge drinking with the revised definition.

When looking at the overall alcohol consumption rate in DuPage County, more than three-fifths (64.2%) of residents had at least one alcoholic drink in the past 30 days in 2010. Based on this finding, alcohol consumption in DuPage County was higher than the Illinois rate (59.1%) in 2010.30

The use of alcohol was examined by age group and gender. Two-thirds of those in their twenties (68.0%) and thirties (66.7%) had at least one drink in the past 30 days. Nearly three-quarters (74.9%) of adults in their forties had consumed alcohol in the past 30 days. Alcohol use tapered off for subsequent age groups; only 55.4% of adults in their seventies and 47.2% of those eighty and older had consumed alcohol in the past 30 days. Seven out of ten (71.1%) men had consumed alcohol in the past 30 days, compared to 57.5% of women. Adults who drank at least one alcoholic drink in the past 30 days did so an average of 7.45 days per month. On average, over half of DuPage adults (52.4%) drank four or fewer times in the past 30 days. Of the adults in DuPage County who drink alcohol, 30.0% of these individuals had three or more drinks on occasions when they drank. Adults in their twenties had the highest average consumption per occasion, with 2.73 drinks per occasion. Other age groups had averages that remained below 2.5 drinks per occasion. Women had fewer drinks per occasion, with an average of 1.90 drinks, compared to men who averaged 2.58 drinks per occasion.

For DuPage residents who drank alcohol, frequency of drinking tended to vary with regard to age and gender. Residents in their twenties drank alcohol an average of 7.76 days in the past 30 days. The number of days residents drank in the past 30 days decreased to 5.48 days for individuals in their thirties. Drinking frequency increased to an average of 11.75 days per month among residents eighty or older. The number of days individuals drank alcohol in the past 30 days differed between DuPage men and women. Men averaged 8.48 days when they drank in the past 30 days, compared to 6.23 days for women.

Binge Drinking

Binge drinking increases an individual’s susceptibility to many harmful health conditions including unintentional injuries, violence, risky sexual behavior, and alcohol poisoning.31 Long-term health risks include the development of chronic diseases, neurological impairments, and social problems.29

Binge drinking is defined differently for men and women. For men, binge drinking is defined as drinking five or
more alcoholic drinks on a single occasion. For women, having four or more alcoholic drinks on a single occasion is considered binge drinking.29

When comparing the occurrence of binge drinking in DuPage County with the HP2010 objective for binge drinking, the DuPage rate of 19.6% of adults who engaged in binge drinking during the past 30 days is more than three times the HP2010 target of 6%.9 Additionally, the DuPage rate is also higher than the 2010 Illinois percentage of 17.8.32 The HP2020 target has been revised based on baseline data collected in 2008. This data show that 27% of adults aged 18 years and older engaged in binge drinking during the past 30 days in 2008.33 The new target seeks a 10% improvement from baseline, and therefore is set at 24.3% of the population. Although a target of 24.3% of the adult population who engage in binge drinking seems high, it is important to note that this indicator refers to binge drinking on any occasion during the previous 30 day period.

In 2010, 80.4% of the DuPage County population did not binge drink at all during the previous 30 day period, 10.3% binge drank once, and 4.9% binge drank on two or three occasions. Less than five percent (4.4%) binge drank between four and 30 times during the previous 30 day period.

In 2010, 1.5% of DuPage County adults indicated that they had participated in behavior which increased their risk of contracting HIV, such as use of intravenous drugs, prostitution, and unprotected anal sex. In 2010, 3.4% of adults in Illinois reported risky behavior for HIV.34 Younger DuPage adults were more likely to report having participated in risky behavior related to HIV; 2.3% of those in their twenties, and 3.6% of those 30 to 39 engaged in behavior that increased their risk for exposure to HIV. Less than one percent of all other age groups indicated behavior in the past 12 months that put them at risk for HIV.

**Chronic Illness Prevalence**

The prevalence of chronic conditions such as heart disease, stroke, and diabetes place an immense burden on the public health system. According to a preliminary National Vital Statistics Report regarding the leading causes of death in the United States in 2009, heart disease continues to be the leading cause of death among both men and women in the United States.35 Stroke and diabetes are also among the top 10 leading causes of death in the U.S.35 Addressing modifiable risk factors like high cholesterol, high blood pressure, smoking, obesity, and physical inactivity can reduce an individual’s risk of heart disease and stroke. In this section, the following chronic diseases are explored: Heart Attack, Angina or Coronary Heart Disease, Stroke, Diabetes, Asthma, Arthritis and Prostate Cancer. DuPage County BRFS data for these illnesses cannot be directly compared to HP2010 and HP2020 objectives due to the different approaches that were used to examine these health issues.
Heart Attack

A heart attack occurs when part of the heart muscle is damaged due to reduced blood flow. The main cause of a heart attack is coronary artery (heart) disease. In 2010, the proportion of DuPage County adults that had been told by a health professional they had a heart attack was 3.6%, which was comparable to the Illinois rate of 3.9%. There were no individuals in the survey sample between the ages of 18 and 29 that had ever been told they had a heart attack. A particularly steep increase in the number of adults who had ever been told they had a heart attack occurred between those in their sixties and those seventy and older, from 5.4% of those in their sixties to 13.4% of those in their seventies, and 17.0% of those eighty and older. Men (5.0%) were more than twice as likely as women (2.2%) to have had a heart attack.

Angina or Coronary Heart Disease

Angina is a type of chest pain that is caused when blood flow to the heart is reduced. Angina is a known symptom of coronary artery (heart) disease. The percentage of DuPage County adults that had been told by a health professional they had angina or coronary heart disease was 3.4%, compared to 3.9% of Illinois residents in 2010. There were no DuPage County residents younger than 50 years of age that had ever been told they had angina or coronary heart disease. 2.2% of those in their fifties, 10.8% of those in their sixties, 13.6% of those in their seventies, and 22.1% of those eighty and older reported having been told they had angina or coronary heart disease. Again, men were more likely than women to have angina or coronary heart disease, at 4.9% and 1.9% respectively.

Stroke

A stroke occurs when a clot blocks the supply of blood to a part of the brain or when a blood vessel bursts in the brain. In either of these cases, part of the brain becomes damaged. The percentage of DuPage County adults that had been told by a health professional that they had a stroke was 1.4%, compared to 2.6% of Illinois residents in 2010. Incidence of stroke remained under 1.0% for all age groups under sixty, then increased to 4.7% of those in their sixties, 3.9% of those in their seventies, and 10.4% of those eighty years of age or older.

Diabetes

Diabetes is a group of diseases characterized by high blood glucose levels that result from defects in the body's ability to produce and/or use insulin. In 2010, 6.8% of DuPage County adults, or 46,843 people, had ever been told by a doctor they have diabetes compared to 8.5% of Illinois adults the same year. Women (7.5%) were more likely to be diagnosed with diabetes than men (6.0%). Among DuPage adults who reported being diagnosed with diabetes, nine in ten (88.2%) had seen a doctor for diabetes in the past year. The percentage of those who have ever been diagnosed with diabetes increased with age. No one younger than 29 years of age in the survey sample had been diagnosed with diabetes. For DuPage adults over 30 years of age, diabetes prevalence increased slightly across age groups; 1.8% of those in their thirties, 3.4% of those in their forties, and 5.9% of those in their fifties reported that they had been diagnosed with diabetes. A marked increase occurred regarding the diagnosis of diabetes for those over the age of sixty; 18.8% of those in their sixties, 21.0% of those in their seventies, and 27.1% of those eighty and older had been diagnosed with diabetes. Respondents were asked the age at which they were first diagnosed with diabetes. Results are shown in Figure 16. On average, DuPage adults were 54 years old when they were first diagnosed with diabetes.
Among DuPage County adults who had been diagnosed with diabetes, 22.8% were currently taking insulin. Figure 17 shows the distribution of DuPage County residents currently taking insulin by age group. Women (26.7%) were more likely than men (17.7%) to report that they were currently taking insulin.

Nearly seven out of ten (69.3%) DuPage County adults with diabetes stated that they had taken a course in diabetes management, compared to 59.6% of Illinois adults in 2010.43 Younger diabetics were more likely than older diabetics to have taken a class in diabetes management; 85.9% of those in their forties had taken such a class compared to 69.7% of those in their fifties. Only 50.9% of individuals in their seventies had taken a course in diabetes management, which is striking given that this age group was most likely to take insulin to manage their diabetes.

Another critical factor in successfully managing diabetes is blood glucose monitoring. Blood glucose monitoring practices among DuPage County adults with diabetes were favorable. Most DuPage County adults diagnosed with diabetes (73.7%) checked their blood glucose at least once a day. Of this group, 46.0% checked their blood glucose levels more than once a day and 27.6% checked it once a day. Of adults with diabetes who did not check their blood glucose daily, 17.0% checked their blood glucose at least once a week, and 4.4% checked it at least once a month. Only 5.0% of adults with diabetes reported that they never checked their blood glucose.

An important preventive care activity for those with diabetes is to perform regular foot checks. Diabetes can restrict blood flow to the feet, causing sores not to heal properly or increasing susceptibility to nerve damage.44 Three-fifths (61.1%) of DuPage adults with diabetes performed a diabetic foot check one or more times per day. Nearly one-quarter (24.9%) performed a foot check at least once a week, and 5.9% performed one at least once a month. A little over seven percent (7.1%) of adults with diabetes never performed a diabetic food check. Women were more likely to do a daily foot check. While 67.3% of women performed a foot check at least once a day, 53.2% of men reported the same. Three-quarters (75.9%) of adults with diabetes had a health professional perform a diabetic foot check within the past 12 months. On average, adults with diabetes had a health professional perform a diabetic foot check 2.36 times in the past 12 months. Men (86.9%) were more likely than women (67.4%) to have had a diabetic foot check done by a health professional in the past 12 months.

On average, DuPage adults diagnosed with diabetes reported seeing a health professional for diabetes 3.7 times in the past 12 months. One out of nine adults (11.8%) had not seen a health care professional for diabetes in the past 12 months. Men were less likely to have seen a health professional in the past year for diabetes. In the
past year, 78.6% of men and 95.8% of women had seen a health professional at least once for their diabetes.

The A1C blood test is used to diagnose pre-diabetes and type I or II diabetes.\textsuperscript{45} This test is also used to monitor how well an individual manages his/her diabetes.\textsuperscript{45} According to experts at the Mayo Clinic, individuals with type II diabetes who do not require insulin should have the A1C checked two times each year. Those with type I diabetes should receive this test three to four times each year. Lastly, individuals with type II diabetes who have difficulty maintaining blood sugar levels or those taking insulin, should have their A1C checked at least four times each year.\textsuperscript{46}

DuPage County residents with diabetes had their A1C checked by a health professional an average of 2.93 times in the past 12 months, though 2.6% stated that their A1C had not been checked by a health professional in this time period. Men were less likely to have had their A1C checked by a health professional in the past 12 months. While 99.4% of women with diabetes had an A1C check in the past year, 94.8% of men had done so.

Annual eye exams are another important preventive practice for people who live with diabetes. Three-quarters (77.3%) of adults with diabetes reported that they had a thorough eye exam (an exam where their pupils were dilated) in the past 12 months. One-sixth (15.6%) of adults with diabetes reported that they had an eye exam within the past two years, while 7.1% of diabetics indicated that it had been two or more years ago since their last eye exam. More men (86.7%) than women (69.8%) had an eye exam in the past year. Of the approximately 46,843 DuPage residents with diabetes, 12,784 or 27.3% had been told by a doctor that they had retinopathy. Diabetic retinopathy is a condition of the eye that often begins with few symptoms and can lead to blindness.\textsuperscript{47} More men (30.0%) than women (25.2%) had been told that diabetes had affected their eyes.

Asthma

Asthma is a lung disease that makes it difficult for an individual to breathe due to inflamed or swollen airways. The airways of a person with asthma are extra sensitive to different “triggers” in the environment that irritate the airways further, causing them to swell more which restricts airflow. Factors like genetics, allergies, respiratory infections, air pollution, and other environmental irritants contribute to the development of asthma.\textsuperscript{48}

The percentage of DuPage County adults who reported that they had been told by a health professional that they have asthma was 11.3% in 2010. The prevalence of asthma in DuPage County was lower than the 2010 Illinois rate of 13.6%.\textsuperscript{49} For DuPage County adults who had been diagnosed with asthma, 61.1% (or 6.8% of all adults) still had asthma. On average, DuPage County adults were told by a health professional that they had asthma at approximately 23.91 years of age.

![Residents with Asthma by Age Group](chart)

Figure 18 shows that the highest incidence of asthma occurred among DuPage adults 30-39 years old. More women (13.5%) than men (9.1%) had been diagnosed with asthma. Women were also more likely to still have asthma; 68.1% of women still had asthma, compared with 50.6% of men.

Two-fifths (44.3%) of adults who still had asthma reported having an episode of asthma in the past year. Females with asthma were more likely than males to have experienced an asthma attack in the past year (55.0% and 22.6%, respectively). Of those reporting an asthma attack in the past 12 months, 43.2% had visited the emergency department or urgent care center because of asthma at
least once in the past 12 months, 58.5% had seen a health professional for urgent treatment for asthma at least once in the past 12 months, and 63.3% had seen a health professional for a routine checkup for asthma.

Roughly one-quarter (25.4%) of DuPage adults with asthma were unable to work or carry out usual activities at least one day in the past year because of asthma; the average number of days in the past 12 months where asthma interfered with an individual’s ability to work or carry out regular activities was 10.94 days.

As shown in Figure 19, three-fifths (57.1%) of those who have had an asthma attack in the past 12 months had taken prescription medication to prevent an asthma attack at least once in the past 30 days. One-quarter (27.7%) of this group used medication to prevent an asthma attack one to 14 days in the past 30 days, while 5.0% used medication 15 to 24 days, and 24.3% used medication 25 to 30 days in the past 30 days.

Two-fifths (40.0%) of DuPage adults with asthma used a prescription asthma inhaler to stop an asthma attack at least once in the past 30 days; almost twenty-nine percent (28.8%) reported use of an inhaler to stop an attack one to four times, 7.4% used an inhaler five to 14 times, less than one percent (0.5%) used it 15 to 29 times, 2.0% used an inhaler to stop an asthma attack 30 to 59 times, and 1.3% used it 60 to 99 times. The frequency that individuals in this group experienced asthma symptoms in the past 30 days is illustrated in Figure 20. The majority (48.9%) of individuals with asthma indicated that they experience asthma symptoms less than once per week.

Arthritis

Arthritis is typically described as pain, swelling, aching or stiffness around the joints, and is the most common cause of disability in the United States. In 2010, 23.5% of DuPage residents reported that they had ever been told by a health professional they had arthritis. The current prevalence of arthritis in DuPage County is slightly lower than the rate among adults in Illinois in 2009 (26.3%).

As shown in Figure 21, the prevalence of arthritis increased with age, from less than 11.0% of those younger than 40 to 13.3% of DuPage residents in their forties, 25.3% in their fifties, 24.6% in their sixties, to
26.6% for age seventy and above. One-fifth (20.2%) of men had been diagnosed with a form of arthritis, compared to more than one quarter of women (26.7%).

Among DuPage adults with arthritis, 39.6% reported that their usual activities were limited because of arthritis or joint symptoms. In comparison, 42.5% of adults in Illinois with arthritis were limited because of arthritis or joint symptoms in 2009.51 In DuPage County, women with arthritis were more limited because of their condition; 44.4% of women indicated that arthritis limited their ability to engage in usual activities, compared to 33.1% of men.

**Prostate Cancer**

Prostate cancer is the most common form of cancer diagnosed in men.52 The percentage of men 40 and older in DuPage County reported they had been told by a health professional they had prostate cancer was 3.2%, which is comparable to the 2010 Illinois rate of 3.9%.53 There were no cases in the surveyed sample where men younger than 50 years of age reported having prostate cancer. The highest incidence of men having been told they had prostate cancer occurred for those 80 years of age and older (18.0%).

**Emotional Support**

The majority of DuPage County adults (79%) always or nearly always received the emotional support they needed, a number similar to 2009 Illinois percentage of 78.2.56 In DuPage County, 16.2% of residents in 2010 sometimes or rarely received the emotional support they needed compared to 17.4% of Illinois adults in 2009.56 Among DuPage residents, 4.8% indicated that they never received the social or emotional support they needed, which is comparable to the 2009 Illinois rate of 4.4%.56

In general, the perception of never or rarely receiving emotional support as needed increased as age increased. While less than 1% (.7%) of those in their twenties reported never or rarely receiving emotional support as needed, the percentage increased to 9.8% of those in their fifties, and peaked at 13.6% for those in their eighties. Men were somewhat more likely to report never or rarely receiving emotional support as needed (7.8%) compared to women (6.1%).

**Sleep**

Sufficient sleep is increasingly being recognized as an essential aspect of health promotion and chronic disease prevention. Insufficient sleep is associated with a number of chronic diseases and conditions such as diabetes, cardiovascular disease, obesity, and depression. Notably, insufficient sleep is associated with the onset of these diseases and also poses important implications for their management and outcome.57

On average, the number of days in the past 30 days that DuPage adults reported not getting enough sleep was 7.95 days. Just under three-quarters (73.8%) of adults did not get enough sleep for at least one day in the past 30 days. Similar findings were observed for Illinois adults (73.0%) in 2009.56
Figure 22 shows that just over one-quarter (26.2%) of DuPage adults did not get enough sleep in the 30 days prior to the survey. Those in their thirties reported an average of 10.25 days where they did not get enough sleep. Adults 60 years of age and older reported fewer days where they did not get enough sleep (4.87 days). Women reported a slightly higher average of days they did not get enough sleep than men; 8.28 days and 7.61 days, respectively.

**Physical Activity**

Regular physical activity is essential to good health. It can help control weight, reduce cardiovascular disease and type 2 diabetes risk, reduce risk of some cancers, strengthen bones and muscles, improve mental health and mood, improve ability to do daily activities and prevent falls for older adults, and increase life span.58

Survey results show that 78.6% of DuPage adults participated in physical activity outside of work in the past month. This number compared favorably to 76.5% of Illinois adults in 2009.59 Physical activity tended to decrease with age. DuPage adults in their eighties were least likely to report physical activity, with 62.5% of this group participating in some physical activity in the last month. Men (82.6%) were more likely than women (74.7%) to participate in physical activities in the past 30 days.

Just over three-quarters (75.9%) of DuPage residents who worked had a job that involved mostly sitting or standing. Only 14.8% of adults reported that they had a job that required mostly walking, and nearly one in ten (9.3%) held a job that required mostly heavy labor or physically demanding work. In 2010, a higher percentage of DuPage County adults had a job that required mostly sitting or standing compared to Illinois adults (65.2%) in 2009.59 One-fifth (21.8%) of Illinois adults had a job that required mostly standing, and 13.0% had a job that required mostly heavy labor or physically demanding work.59

Outside of work, most (88.8%) DuPage adults engaged in moderate exercise for 10 minutes or more per week. Adults engaged in moderate exercise an average of 4.10 days per week in 2010. Adults in this group spent an average of spent 50.61 minutes per day of moderate exercise.

Respondents were asked about their participation in moderate physical activity such as brisk walking, bicycling, vacuuming, gardening, or anything else that caused some increase in breathing or heart rate for at least 10 minutes. Just over ninety percent of adults 20 to 29 (90.6%), 93.9% of those 30 to 39, and 91.1% of those 40 to 49 did moderate physical activity in a usual week. Physical activity declined slightly for those age fifty and older; 82.5% of those in their fifties, 86.4% of those in their sixties, 87.7% of those in their seventies, and 79.2% of those eighty and older reported doing moderate physical activity in an average week.

DuPage County residents were also asked about vigorous physical activity such as running, aerobics, heavy yard work, or anything else that caused a large increase in breathing or heart rate for at least 10 minutes. Slightly less than one-half (48.4%) of DuPage adults participated in vigorous exercise for 10 minutes or more per week. DuPage adults engaged in vigorous exercise an average of 3.03 days per week. On average, this group of adults spent 53.58 minutes per day doing vigorous exercise.

Vigorous physical activity also varied by age; 60.7% of those in their twenties, 56.4% of those in their thirties, 56.2% of those in their forties, 41.9% of those in their fifties, 37.9% of those in their sixties, 32.9% of those in their seventies, and 19.3% of those eighty and older.
had participated in vigorous physical activity within an average week. Men were more likely to do vigorous activity; 55.9% of men and 41.2% of women did vigorous physical activity within an average week.

**Fruit and Vegetable Consumption**

Good nutrition plays a vital role in health and disease prevention. Healthy diets rich in fruits and vegetables may reduce the risk of cancer and other chronic diseases. Fruits and vegetables also provide essential vitamins and minerals, fiber, and other substances that are important for good health. Most fruits and vegetables are naturally low in fat and calories and are filling, aiding in weight control.\(^6^0\) In 2010, 17.3% of DuPage adults consumed fruits and vegetables five or more times per day. Women (23.1%) were more likely than men (11.5%) to eat fruits and vegetables at least five times a day. The percentage of Illinois adults in 2009 who consumed fruits and vegetables five or more times per day was 22.6%.\(^6^1\)

**Immunizations**

According to the World Health Organization, immunizations have been one of the most effective tools for controlling and even eradicating infectious diseases.\(^6^2\) It is important that individuals at high risk of developing serious complications - young children, pregnant women, people with chronic health conditions like asthma, diabetes or heart and lung disease, and people 65 years and older – receive recommended vaccinations.\(^6^3\)

**Seasonal Influenza Vaccine**

Immunization is particularly important in the prevention of the seasonal influenza, or flu, which is a serious and contagious respiratory disease that can lead to hospitalization and even death. The CDC recommends a yearly flu vaccine as the first and most important step in protecting against flu viruses.\(^6^3\)

The percentage of DuPage adults who reported having received a seasonal influenza vaccine in the past 12 months was 36.7% in 2010, while 1.8% received the FluMist form of the influenza vaccine. Over one-third (38.3%) of all Illinois adults in 2010 had been vaccinated for the flu virus.\(^6^4\) Figure 23 shows the distribution of residents who received a flu shot in the past 12 months by age group.

![Figure 23](image)

Three out of ten (30.2%) DuPage adults under 65 years of age had a flu vaccine in the past 12 months. Of those 65 years of age and older, 72.3% had a flu vaccine within the past 12 months, a rate higher than that in Illinois in 2010, at 65.5%.\(^6^5\) DuPage women (43.0%) were more likely than men (30.2%) to receive the flu vaccine.

**H1N1 Vaccine**

![Figure 24](image)

Figure 24 shows the distribution of DuPage residents who received the H1N1 shot in the past 12 months by age group.
Overall, less than one-third (30.8) of adults received a H1N1 shot in the past 12 months and 2.7% received the FluMist in the past 12 months. Over one quarter (26.2%) of adults 65 years and older received the H1N1 immunization in the past 12 months and 2.2% of adults in the same age group received the H1N1 FluMist.

Unlike seasonal influenza vaccines, the 2009 pandemic vaccine protected against only one flu virus strain, the 2009 H1N1 virus. Since the pandemic 2009 H1N1 virus was found to have continued circulation among humans, it was recommended for inclusion in the 2010-2011 seasonal influenza vaccine. As a result, only one (seasonal) influenza vaccine was recommended in 2010-2011, unlike 2009-2010 when the pandemic H1N1 vaccine as well as the seasonal influenza vaccine were recommended.66

Pneumonia Vaccine

The Advisory Committee on Immunization Practices recommends that adults over 65 years of age receive one dose of the pneumonia vaccine in their lifetime. The pneumonia vaccine is only recommended for individuals between the ages of 19 and 64 who suffer from a chronic condition. For this younger population, a one-time revaccination is advised 5 years after the initial vaccination.67 The percentage of adults in DuPage County who had ever received a pneumonia vaccine was 26.0% in 2010. This percentage is comparable to the 2010 Illinois percentage of 26.2.64 Of DuPage adults 65 years or older, 66.2% had ever received a pneumonia vaccine, compared to 62% of Illinois adults in this age group in 2010.68

Tetanus Vaccine

An initial tetanus vaccine (Td) is recommended for adults 19 years of age and older followed by a booster shot every 10 years.67 The percentage of DuPage County adults who reported having a tetanus vaccine was 61.1% in 2010. Seven out of ten (71.3%) DuPage County adults who received a tetanus vaccine received their most recent tetanus vaccine in 2005 or later. Three out of ten (28.9%) DuPage County adults who received a tetanus vaccine in that time period reported that it contained the pertussis or whooping cough vaccine (Tdap). State and national BRFS data regarding prevalence rates for the tetanus vaccine are not available for comparison.

Health Screenings

Health screenings are very important preventive care practices. Preventive screenings for cancer and other diseases allow doctors to treat illnesses early. It is recommended that individuals with a multiple risk factors or a family history of chronic diseases should be screened regularly for illnesses.

Colorectal Cancer Screening

Of all the types of cancers affecting both men and women, colorectal cancer (cancer of the colon and rectum) is the second most deadly form of cancer in the United States.69 Colorectal cancer almost always develops from precancerous polyps (abnormal growths) in the colon or rectum. Screening tests, such as a colonoscopy, can find precancerous polyps so that they can be removed before they become cancerous. Screening tests can also find colorectal cancer early, when treatment works best.70 The Centers for Disease Control and Prevention recommends screening for colorectal cancer soon after turning 50, and additional screenings at regular intervals. People with a history of colorectal cancer, inflammatory bowel disease, or other genetic syndromes may need to be tested earlier than age 50 or more often than other people.70

The HP2010 objective for colorectal cancer screening was set at 50% of adults aged 50 years and older. According to Healthy People 2010 Final Review, the proportion of persons aged 50 years and over who had ever received a proctoscopy, colonoscopy, or sigmoidoscopy (objective 3-12b) increased by 48.6% between 1998 and 2008, from 37% to 55%, exceeding the Healthy People 2010 target of 50%.6 In DuPage County in 2010, 64.6% of adults ages 50 and over reported ever having a sigmoidoscopy or colonoscopy exam to check for signs of cancer or other health problems, compared to 61.7% of Illinois adults in the same age group.71 As was found nationally, DuPage rates are better than the national target. The HP2020 objective is more aggressive and limits the age group. For HP2020, the cancer topic area
grouped cancer screenings into one objective based on the latest screening guidelines for adults aged 50 to 75 years. Based on this change and 2008 data, the new target is set at 70.5% of U.S. adults aged 50 to 75 years.

Of the individuals that reported having either of the two colorectal cancer screenings mentioned in the survey, 91.9% indicated that they had a colonoscopy and 8.1% indicated that they had sigmoidoscopy. When looking at the time since DuPage residents had their last colorectal cancer screening, Figure 25 shows that three out of ten (31.8%) DuPage County adults had a colonoscopy or sigmoidoscopy in the previous three years; 11.3% had one within the past year, 8.3% within the past two years, 12.2% within the past three years, and 16.5% had a colonoscopy within the past five years. For the 50 years and older age group, 16.3% had not had a colonoscopy for five or more years. Over one-third (35.4%) of adults in this age group had never had a sigmoidoscopy or colonoscopy.

In 2010, the percentage of DuPage County adults 50 years or older who reported ever having a blood stool test using a home kit was 34.2%, which was comparable to the Illinois rate of 34.0% for the same age group. The percentage of adults in this age group who had a blood stool test using a home kit within the past year was 7.0%, 4.8% within the past two years, 3.0% within the past three years, 5.7% had a test within the past five years, and for 13.6% it had been five or more years since this test. Two-thirds (65.8%) of DuPage County adults in this age group reported that they never had a blood stool test using a home kit.

As expected, the use of the blood stool test increased with age. While only 13.4% of DuPage County adults in their forties had ever had a blood stool test, 23.9% of those in their fifties, 40.1% of those in their sixties, 47.0% of those in their seventies, and 49.7% of those eighty or older had ever had such a test.

### Blood Stool Test

The fecal occult blood test (FOBT) is a lab test used to check stool samples for hidden (occult) blood. Typically, occult blood is passed in such small amounts that it can be detected only through the chemicals used in a FOBT. Because occult blood may be the result of colon cancer or polyps in the colon, this test is another valuable detection tool. It is recommended that individuals 50 years of age or older who are at risk for colon cancer receive an FOBT annually.

### Mammogram Screening

A mammogram is the best diagnostic tool for the early detection of breast cancer. In some cases, a mammogram can detect breast cancer up to three years before it can be felt by a self-examination. When breast cancer is treated early, many women go on to live long and healthy lives. The National Cancer Institute recommends that women age 40 and older should have mammograms every 1 to 2 years.

The HP2010 target for mammogram screening was set at 40% of women aged 40 years and older. Nationally this target was not met; however, DuPage women were successful in meeting this goal. The end-of-decade assessment shows mammogram screenings (objective 3-13) did not change between 1998 (baseline) and 2008 (most recent data point); in both years, 67% of women aged 40 and over had received a mammogram within the past two years, below the Healthy People 2010 target of 70%. In DuPage County in 2010, 70.2% of women in all age groups received mammogram screenings. As mentioned above, all cancer screenings were grouped into one topic area for HP2020, which was revised based on the latest screening guidelines for women aged 50 to 74 years. In HP2020, mammogram screening is identified.
as breast cancer screening. The HP2020 target seeks a 10% improvement from the 2008 baseline of 73.7% and sets the new target at 81.1% percent of U.S. females aged 50 to 74 years.75

Figure 26 shows the time since last mammogram for all DuPage County women. Nearly one-third of women in DuPage County never had a mammogram. Older women were more likely to have had a mammogram within the past three years. Only one-quarter (25.6%) of women in their thirties had a mammogram in the past three years. Approximately eight in ten women over the age of 40 had a mammogram in the past three years, with the exception of women eighty and older, where 66.8% reported having a mammogram in the past three years. For women 40 years of age and older, 72.0% had a mammogram within the past two years. This number was comparable to the 2010 state percentage of 71.4%.76

**Clinical Breast Exams**

In addition to mammograms, a clinical breast exam is another important method used to screen for breast cancer. In 2010, 91.7% of women in DuPage County reported ever having a clinical breast exam and 83.9% had a clinical breast exam within the previous three years. The time since last clinical breast exam is illustrated in Figure 27.

**Pap Screening**

Cervical cancer is the easiest female cancer to prevent.77 The Pap test, which screens for cervical cancer, is one of the most reliable and effective cancer screening tests available.77 It looks for pre-cancer cell changes on the cervix that might become cervical cancer if they are not treated appropriately. The Centers for Disease Control and Prevention recommends that women should begin getting regular Pap tests at the age of 21, or within three years of the first time they have sex—whichever happens first.77

The HP2010 target for Pap testing was set at 97% of adult females. Nationally and locally this target was unmet, although progress has been made. Nationally, the proportion of women aged 18 years and over who had ever received a Pap test (objective 3-11a) increased by 1.1% between 1998 and 2008, from 92% to 93%, moving toward the Healthy People 2010 target of 97%.9 However, the proportion who had been tested within the past three years (objective 3-11b) declined by 3.8%, from 79% to 76%, over the same tracking period, moving away from the 2010 target of 90%.9 In DuPage County in 2010, 94.8% of adult females reported ever having a Pap test. The HP2020 target was revised based on baseline data collected in 2008 that...
shows 84.5% of women aged 21 to 65 years received a cervical cancer screening (age adjusted to the year 2000 standard population). The HP2020 objective for cervical cancer screening seeks a 10% improvement from the 2008 baseline and sets the new target at 93.0% of U.S. females aged 21 to 65 years.

Figure 28 shows the time since a woman’s last Pap test. Of all women, 17% had never had a Pap test or had not had a test for five or more years. Half of DuPage women (50.8%) received a pap test within the past year, which is much lower than the rate of women in Illinois in 2010 (73.8%) who received a pap test in the past year.78

**Digital Rectal Exam Screening**

A digital rectal exam (DRE) is a screening procedure that enables a doctor to check the prostate gland to detect abnormal enlargement or other signs of prostate cancer in men.79 While experts do not agree on the age at which men should begin receiving regular digital rectal exams, the American Urological Association Foundation recommends baseline screening at age 40.80 This exam is an essential part of early cancer detection and should be completed as part of a routine annual physical examination.79

The percentage of men in DuPage County 40 years of age or older reporting ever having had a digital rectal exam was 72.5% in 2010. The likelihood that men had ever received a digital rectal exam increased through the forties (54.1%) and fifties (76.7%) before stabilizing at 93.0% of men in their sixties and seventies before dropping to 86.8% for men eighty and older.

Of DuPage men aged 40 and older who had the DRE screening, a total of 57.7% had the screening in the past three years. Within the group of DuPage men who had been screened using the DRE in the past three years, 38.7% had a DRE screening within the past year, 9.4% had one within the past two years, and 9.6% had this screening within the past three years. While an additional 6.8% of men in this group reported that they had a digital rectal exam within the past five years, 8.0% indicated that it had been five or more years since their last digital rectal exam, and 27.5% of men in this age group never had a digital rectal exam. These data points are presented in Figure 29.

**Prostate-Specific Antigen Screening**

Prostate-specific antigen (PSA) is a substance produced by the prostate gland. The PSA level in a man’s blood is an important marker of many prostate diseases, including prostate cancer.81 Currently, Medicare provides coverage for an annual PSA test for all men age 50 and older.82 Recommendations about the age at which men should begin having the PSA screening are mixed. Medical experts tend to agree that men between the ages of 40 and 75, especially men at-risk for prostate cancer, should be encouraged to receive the PSA screening. Men over the age of 40 are encouraged to discuss the need for this particular screening with their doctors.81

In 2010, the percentage of adult men aged 40 and older in DuPage County that reported ever having a prostate-specific antigen (PSA) test was 64.8%, which is comparable to the Illinois rate of 62.8% of men over the
Two-fifths (40.1%) of men had a PSA test within the past year, an additional 11.6% had this test within the past two years, and 5.7% reported having this test within the past three years. Over one-third (35.2%) of DuPage County men in this age group had never had a PSA test.

In the survey sample, there were no men in their thirties who had ever had a PSA test. Older men in DuPage County were more likely to have a PSA test. While 45.3% of men in their forties had received this test, 94.6% of men in their seventies and 84.6% of men eighty and older had received a PSA test.

**HIV Screening**

It is important for all adults to know their HIV (human immunodeficiency virus) status in order to prevent the transmission of infections to others. HIV status is determined through blood testing. The Centers for Disease Control and Prevention recommends that everyone between the ages of 13 and 64 should be tested for HIV at least once. Those who are at an increased risk for HIV should be tested at least once a year. Among DuPage County adults in 2010, 27.7% indicated that they had ever been tested for HIV. Throughout Illinois, 33.8% had ever been tested for HIV in 2010.

**SUMMARY OF SELECT FINDINGS**

The BRFS is designed to assess health risk behaviors and disease prevalence among community residents. DuPage County has conducted this study every four to five years since 1996, allowing for comparisons over time. These comparisons enable identification of areas of improving or declining health status.

**Areas of Improvement**

- Current smoking has decreased from 22.7% in 1996 to 18.0% in 2010.
- The prevalence of adults experiencing asthma symptoms during the last year declined slightly from 4.7% in 1996 to 3.0% in 2010.
- Mammogram screenings for women age 40 and over have increased steadily from 81.3% in 1996, to 87% in 2005, to 92.5% in 2010.
- Immunization percentages increased. Pneumonia vaccination percentages increased from 14.8% in 1996 to 26% in 2010. Immunization for seasonal flu progressively increased from 18.3% in 1996, to 19.8% in 2005, to 36.8% in 2010.
- Alcohol consumption patterns showed decreases. Number of days per month when alcohol was consumed decreased from 7.8 in 1996 to 4.78 in 2010. Additionally, the average number of drinks per occasion declined from 2.4 in 1996 to 1.5 in 2010. Binge drinking percentages remained stable.

**Areas of Declining Health**

- Several health-related quality of life indicators show declining health status. Between 1996 and 2010, fair or poor perceived health status increased from 6.2%
to 10.4%, and the number days where physical health was not good increased from 2.2 to 3.43 out of the last 30 days. The number of days in the past 30 days where mental health was not good for DuPage adults increased from 2.1 days in 1996 to 3.14 days in 2010.

- Access to healthcare has declined. The percentage of DuPage adults who have no health coverage jumped from 6.2% in 1996 to 11.4% in 2010. As a consequence, those who could not afford a doctor visit increased from 6.5% in 1996 to 9.6% in 2010. Those who had no routine health care checkup in more than one year increased from 24.1% in 1996 to 35.2% in 2010.

- Risk factors for disease increased. Those who are obese or extremely obese jumped from 15.7% of adults in 2000 (baseline) to 24.3% in 2010. High blood pressure increased from 18.9% in 1996 to 26.1% in 2010. High-cholesterol increased significantly from 21.0% in 1996 to 36.4% in 2010.

- Chronic illness trends present mixed results. Prevalence of diabetes increased slightly, from 5.3% in 2005 to 6.8% in 2010, while prevalence of arthritis increased from 20.3% in 2005 to 23.5% in 2010. Other chronic illness prevalence (coronary heart disease and stroke) remained stable. No trend data was available for heart disease due to changes in questionnaire wording over time.

LIMITATIONS

The methodology, including the weighted analysis, used by POL in the 2010 DuPage County BRFS differs from the methodology applied to previously administered DuPage County BRFS studies. Comparison of the current results with previous surveys to determine statistically significant differences from confidence intervals should not be employed or should be interpreted with caution.

The results were not analyzed by race and ethnicity because of the small number of respondents sampled in the Hispanic, Black and Asian communities and selection bias that may have prevented more persons in those categories from participating in the 2010 DuPage County BRFS. This resulted in an underrepresentation of minority residents. Studies have shown that landline sample telephone surveys underrepresent racial or ethnic minorities such as Hispanics. When the number of respondents in a particular category for a question was less than 10, the results were either suppressed or combined with other categories. This was the case for those in the 18-19 year old age category and for all minority racial groups. Results from those respondents 18 or 19 years of age were combined with the 20-29 age group.

CONCLUSIONS

The 2010 survey findings confirmed positive health behaviors in several areas. Health-related quality of life measures and lifestyle practices have improved. Three out of five DuPage County residents perceive their health as excellent or very good and nearly all (96.4%) DuPage County residents were very satisfied or satisfied with their lives. Additionally, tobacco and certain alcohol use has decreased. The rate of current adult smokers decreased from 22.7% in 1996 to 18.0% in 2010. The average number of alcoholic drinks per drinking occasion in the past 30 days also decreased from 2.4 in 1996 to 1.45 in 2010.

In the area of preventive health practices, several positive trends are notable. Women 40 and older showed an increase in mammogram testing, from 81.3% in 1996 to 92.5% in 2010. Influenza immunization non-adherence decreased significantly from 81.7% in 1996 to 63.2% in 2010. Lastly, medication treatment for high blood pressure increased from 64.1% in 2005 to 78.5% in 2010.

Despite these encouraging health trends, significant issues continue to exist. In 2010, over 11% of DuPage County adults were without health insurance, 17% of adults lacked a primary care doctor, and over one-third of adults had not had a routine check-up in more than one year. Cost was reported to be a barrier to receiving healthcare for nearly 10% of DuPage County adults in 2010, which was similar to findings in 2005.

DuPage County continues to experience challenges around nutrition, obesity, and the rise in chronic
diseases. Few adults (17%) consume the recommended daily servings of adequate fruits and vegetables, and obesity rates continue to climb. Nearly one-quarter of the adult population in DuPage County is obese or extremely obese. Obesity is a known risk factor for chronic illness and directly contributes to the ever-increasing rates of high cholesterol and hypertension. High cholesterol affected nearly 35% of DuPage adults, more than double the national target, and known hypertension currently affects 26% of the DuPage population. Additionally, these diseases peak in DuPage residents a full decade earlier than is seen nationally. Both high cholesterol and hypertension were most prevalent among DuPage adults in their fifties; nationally these diseases peak for those aged 60 and older. The prevalence of diabetes has increased moderately, from 5.3% in 2005 to 6.8% in 2010.

The Health Department continues to monitor key health indicators and behavioral risk factors among DuPage County residents. Moreover, the Health Department is actively engaged in health improvement planning and has prioritized access to health services and obesity prevention as areas that require immediate action. The Health Department is not alone in its efforts to influence measurable change related to these health priorities. Data provided by the BRFS should not only inspire community partners to continue work to improve health and wellness issues, it should also empower DuPage County residents to take action in order to live long healthy lives.
REFERENCES


## APPENDIX A

### DuPage County Health Department

**BRFS Key Health Indicators Listing 1996, 2000, 2005, and 2010**

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</thead>
<tbody>
<tr>
<td><strong>1. Is there a doctor in your family?</strong></td>
<td>86.8%</td>
<td>85.6%</td>
<td>84.4%</td>
<td>83.2%</td>
<td>82.0%</td>
<td>80.8%</td>
<td>79.6%</td>
<td>78.4%</td>
<td>77.2%</td>
<td>76.0%</td>
<td>74.8%</td>
<td>73.6%</td>
<td>72.4%</td>
<td>71.2%</td>
<td>70.0%</td>
</tr>
<tr>
<td><strong>2. Asthma during the last 12 months</strong></td>
<td>15.8%</td>
<td>14.6%</td>
<td>13.4%</td>
<td>12.2%</td>
<td>11.0%</td>
<td>9.8%</td>
<td>8.6%</td>
<td>7.4%</td>
<td>6.2%</td>
<td>5.0%</td>
<td>3.8%</td>
<td>2.6%</td>
<td>1.4%</td>
<td>0.2%</td>
<td></td>
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<tr>
<td><strong>3. Have you been told you have diabetes?</strong></td>
<td>3.1%</td>
<td>2.9%</td>
<td>2.7%</td>
<td>2.4%</td>
<td>2.2%</td>
<td>2.0%</td>
<td>1.8%</td>
<td>1.6%</td>
<td>1.4%</td>
<td>1.2%</td>
<td>1.0%</td>
<td>0.8%</td>
<td>0.6%</td>
<td>0.4%</td>
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<tr>
<td><strong>4. Do you have high blood pressure?</strong></td>
<td>18.9%</td>
<td>18.1%</td>
<td>17.3%</td>
<td>16.5%</td>
<td>15.7%</td>
<td>14.9%</td>
<td>14.1%</td>
<td>13.3%</td>
<td>12.5%</td>
<td>11.7%</td>
<td>10.9%</td>
<td>10.1%</td>
<td>9.3%</td>
<td>8.5%</td>
<td></td>
</tr>
<tr>
<td><strong>5. Are you smoking?</strong></td>
<td>22.3%</td>
<td>21.5%</td>
<td>20.7%</td>
<td>20.0%</td>
<td>19.2%</td>
<td>18.4%</td>
<td>17.6%</td>
<td>16.8%</td>
<td>16.0%</td>
<td>15.2%</td>
<td>14.4%</td>
<td>13.6%</td>
<td>12.8%</td>
<td>12.0%</td>
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</tr>
</tbody>
</table>

**Note:** The table above provides a summary of key health indicators listed from 1996 to 2010. The data includes various health-related questions and their respective percentages for each year.
<table>
<thead>
<tr>
<th>Question Description</th>
<th>1996</th>
<th>2000</th>
<th>2005</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently Taking Medicine for High Blood Pressure</td>
<td>16.3%</td>
<td>7.2%</td>
<td>6.7%</td>
<td>4.7%</td>
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<tr>
<td>Cholesterol Ever Checked</td>
<td>78.6%</td>
<td>77.0%</td>
<td>82.7%</td>
<td>86.9%</td>
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<tr>
<td>Cholesterol Checked Within 5 Years</td>
<td>75.8%</td>
<td>74.2%</td>
<td>82.7%</td>
<td>89.3%</td>
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<td>Ever Told by Health Professional Cholesterol Was High</td>
<td>21.0%</td>
<td>19.5%</td>
<td>28.6%</td>
<td>34.6%</td>
</tr>
<tr>
<td>Ever told by a Doctor had Angina or Coronary Heart Disease</td>
<td>3.0%</td>
<td>1.9%</td>
<td>3.4%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Ever told by a Doctor had a Stroke</td>
<td>1.7%</td>
<td>0.9%</td>
<td>1.4%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Ever Had Clinical Breast Exam</td>
<td>91.8%</td>
<td>90.1%</td>
<td>92.5%</td>
<td>94.8%</td>
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<tr>
<td>Ever Had Pap Test</td>
<td>95.7%</td>
<td>92.5%</td>
<td>94.8%</td>
<td>94.8%</td>
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<tr>
<td>Ever Had Digital Rectal Exam</td>
<td>70.4%</td>
<td>72.5%</td>
<td>72.5%</td>
<td>72.5%</td>
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<tr>
<td>Ever Had Mammogram: All Women</td>
<td>47.8%</td>
<td>59.0%</td>
<td>61.7%</td>
<td>70.2%</td>
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<tr>
<td>Ever Had Mammogram: Women 40 Years of Age and Over</td>
<td>81.3%</td>
<td>82.1%</td>
<td>87.0%</td>
<td>92.5%</td>
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<tr>
<td>Ever Had Pap Test Within Previous 3 Years</td>
<td>84.4%</td>
<td>90.7%</td>
<td>83.8%</td>
<td>81.6%</td>
</tr>
<tr>
<td>Ever Had Pap Test</td>
<td>96.9%</td>
<td>94.7%</td>
<td>92.5%</td>
<td>94.8%</td>
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<tr>
<td>Ever Had Pap Test Within Previous 3 Years</td>
<td>94.4%</td>
<td>94.4%</td>
<td>94.4%</td>
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<tr>
<td>Days In The Past Month Any Alcohol Beverage Was Consumed</td>
<td>7.8%</td>
<td>7.4%</td>
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<tr>
<td>Days In The Past Month Any Alcohol Beverage Was Consumed</td>
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<td>94.7%</td>
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<td>Ever Had Pap Test Within Previous 3 Years</td>
<td>94.4%</td>
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<td>94.4%</td>
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* Indicates the survey question changed. As a result, historical comparisons cannot be made.
Questionnaire Development

The DuPage County study was designed to replicate the 2009 BRFS methodology used for the Illinois 2009 BRFS. Questions were selected from the 2009 BRFS core survey and optional modules. English and Spanish versions of the interview were administered.

The questionnaire contained 198 items including interviewer confirmations to ensure accurate data. The questionnaire was designed so that respondents were only asked the questions that pertained to them. For example, a respondent who indicated he/she has never smoked cigarettes would not be asked subsequent questions about cigarette usage.

Sample

The study called for a representative sample of DuPage County households. POL worked with Marketing Systems Group to obtain a random-digit-dial sample of 30,400 telephone numbers. Non-working numbers, non-residential numbers, cellular telephone numbers, and lines dedicated to a fax or modem were removed from the sample which resulted in a list of 11,601 landline telephone numbers. The remaining telephone numbers were divided into groups to improve sample management. This method allowed for the sample to be deployed gradually and created more control over call scheduling.

Advance Letter

When a residential address could be matched to a telephone number in the sample, an advance letter introducing the survey was sent. Advance letters were prepared in English, printed on NIU letterhead, and mailed in NIU envelopes. The text for the advance letter may be found in Appendix B. The advance letter invited respondents to participate in the 2010 DuPage County BRFS, and alerted them that an interviewer from NIU would call their household within the next several weeks to complete a survey. The letter also included a toll-free telephone number that respondents could call with questions or to schedule an interview at a time convenient for them. The letter was signed by both Maureen T. McHugh, the Executive Director of the DuPage County Health Department, and by Lorayn Olson, Director of the Public Opinion Laboratory.

A total of 6,224 advance letters were mailed. Letters were mailed in nine groups to ensure that they were received shortly before the household received the first telephone call; generally this was no more than one week before the household received the first telephone call. Approximately 12% of the letters were returned as undeliverable.

Interviewer Training

All interviewers were trained on project protocol. Training topics included: project background, establishing rapport with respondents, conversion methods to encourage respondents to complete the interview, and disposition coding. During the training, interviewers participated in mock interviewing activities in order to become familiar with the questions and survey length. This also allowed interviewers the opportunity to ask any questions about survey wording, response options, or the study in general. A project director was available to interviewers throughout the project period to provide technical assistance and answer questions.

Data Collection

Data collection began on September 15, 2010 and concluded on December 6, 2010. The Computer-Assisted Telephone Interviewing System (CATI) allowed interviewers to schedule appointments, set callback times, and to record notes in a comments area, which enabled other interviewers to make subsequent calls with as much information as possible. The project director used the system to manage the sample, establish project protocol, track productivity, and to record the disposition of each case. The CATI system allowed for skip patterns to
be implemented so only relevant questions were asked of respondents.

During the interviewing period, 56,462 total calls were made, yielding 1,101 completed surveys, of which 11 were conducted in Spanish. The average number of calls per completed interview was 47.1. The survey took an average of 25.9 minutes to complete.

Upon answering the telephone, individuals were asked to verify their telephone number and that a private residence had been reached. Then they were asked if their residence was located in DuPage County to ensure respondents lived within the defined geographic area.

Respondents were asked to identify the number of members of the household who were 18 years of age or older and to specify the number of male adults and female adults. Based on that information, the CATI system randomly selected an adult to participate in the survey. If the person who answered the initial call was selected to participate in the survey, the interview would begin immediately after that individual’s willingness to participate was confirmed. If someone other than the person who answered the call was selected for the survey, the interviewer would ask to speak with the appropriate household member.

**Calling Protocol**

Calling protocol consisted of households being called up to eight times unless the respondent requested an appointment or a callback. The calling activity was monitored on a daily basis to ensure that attempts were staggered by day of the week and time of day to accommodate respondent availability.

A toll-free telephone number was provided to potential survey participants to encourage individuals to call POL to schedule an interview. Individuals who were reluctant to take part in the study were offered the contact information for the POL project director and the Health Department project lead to verify the study and obtain additional information.

When interviews were terminated either through a polite refusal or hang up, the household was called again at a later date in an attempt to complete the interview. Telephone interviews were conducted in English and Spanish only. Households whose members spoke languages other than English or Spanish were not called again.

Each attempted contact or completed interview received a temporary disposition code to maintain real-time accuracy in the CATI system. On a daily basis, cases that had been attempted were reviewed for sample management purposes and to set cases with final disposition codes when applicable.

**Supplemental Effort**

In error, three modules were initially omitted from the CATI questionnaire: Module 2: Diabetes, Module 18: Caregiver, and Module 23: Social Context. This resulted in 380 interviews being completed without these modules being asked. On October 15th, these three modules were added to the primary survey instrument. All cases called on or after this date included the full questionnaire with all modules.

Additionally, a separate supplementary survey was programmed which contained only the three omitted modules. Beginning October 19th, all cases completed without the omitted modules were called back by the POL’s most experienced interviewers, and the previously selected respondent was asked to complete the modules. From October 19th to December 6th, the POL made 1,547 total calls to these cases that yielded 286 completed interviews. The average number of calls per completed interview was 5.41. The supplementary survey took an average of 5.3 minutes to complete.

**Response Rates**

Response rates are an important measure of overall survey quality. The following tables contain data that were used to calculate the 2010 DuPage County BRFS response rates.
Table 1. Number of Interviews by Interview Category

<table>
<thead>
<tr>
<th>Interview Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>I=Complete interviews</td>
<td>1,101</td>
</tr>
<tr>
<td>R=Refusal and break off</td>
<td>973</td>
</tr>
<tr>
<td>NC=Non-Contact</td>
<td>1,163</td>
</tr>
<tr>
<td>UH=Unknown household</td>
<td>5,134</td>
</tr>
<tr>
<td>UO=Unknown other</td>
<td>212</td>
</tr>
<tr>
<td>X=Ineligible household</td>
<td>332</td>
</tr>
<tr>
<td>Z=Non residential</td>
<td>21,485</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30,400</strong></td>
</tr>
</tbody>
</table>

Table 2. Final Disposition of Sample by Interview Category

<table>
<thead>
<tr>
<th>Interview Category</th>
<th>Number of Respondents</th>
<th>Final Disposition Category</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interview (Category 1)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete</td>
<td>1,101</td>
<td>I</td>
</tr>
<tr>
<td><strong>Eligible, non-interview (Category 2)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refusal</td>
<td>892</td>
<td>R</td>
</tr>
<tr>
<td>Respondent never available</td>
<td>805</td>
<td>NC</td>
</tr>
<tr>
<td>Household telephone answering device</td>
<td>358</td>
<td>NC</td>
</tr>
<tr>
<td>Physically or mentally unable/incompetent</td>
<td>37</td>
<td>R</td>
</tr>
<tr>
<td>Household-level language problem</td>
<td>9</td>
<td>R</td>
</tr>
<tr>
<td>Respondent language problem</td>
<td>27</td>
<td>R</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>8</td>
<td>R</td>
</tr>
<tr>
<td><strong>Unknown eligibility, non-interview (Category 3)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown if household</td>
<td>899</td>
<td>UH</td>
</tr>
<tr>
<td>Always busy</td>
<td>892</td>
<td>UH</td>
</tr>
<tr>
<td>No answer</td>
<td>1,714</td>
<td>UH</td>
</tr>
<tr>
<td>Answering machine don't know if household</td>
<td>1,511</td>
<td>UH</td>
</tr>
<tr>
<td>Never contacted</td>
<td>118</td>
<td>UH</td>
</tr>
<tr>
<td>Household, unknown if eligible respondent</td>
<td>212</td>
<td>UO</td>
</tr>
<tr>
<td><strong>Not eligible (Category 4)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household not in DuPage County</td>
<td>332</td>
<td>X</td>
</tr>
<tr>
<td>Fax/data line</td>
<td>1,432</td>
<td>Z</td>
</tr>
<tr>
<td>Non-working/disconnect</td>
<td>16,066</td>
<td>Z</td>
</tr>
<tr>
<td>Special technological circumstances</td>
<td>37</td>
<td>Z</td>
</tr>
<tr>
<td>Number changed</td>
<td>1</td>
<td>Z</td>
</tr>
<tr>
<td>Cell phone</td>
<td>147</td>
<td>Z</td>
</tr>
<tr>
<td>Nonresidence</td>
<td>944</td>
<td>Z</td>
</tr>
<tr>
<td>Business, government office, other organizations</td>
<td>2,858</td>
<td>Z</td>
</tr>
<tr>
<td><strong>Total phone numbers used</strong></td>
<td><strong>30,400</strong></td>
<td></td>
</tr>
</tbody>
</table>
Table 3. Completion Rates

<table>
<thead>
<tr>
<th>Completion Rate</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interview Completion Rate (ICR)</td>
<td>53.1%</td>
</tr>
<tr>
<td>Screener Completion Rate (SCR)</td>
<td>91.9%</td>
</tr>
<tr>
<td>Resolution Rate (RR)</td>
<td>82.4%</td>
</tr>
<tr>
<td>Overall Response Rate</td>
<td>40.2%</td>
</tr>
</tbody>
</table>

Table 1. Number of Interviews by Interview Category

Table 3 presents the interview completion rate, screener completion rate, resolution rate, and overall response rate. (See Table 2 for the final interviewer disposition per call.) Completion rates were calculated using the formulas below.

\[ I = 1,101 \]
\[ R = 973 \]
\[ X = 332 \]
\[ OU = 212 \]
\[ Z = 21,485 \]
\[ UH = 5,134 \]

**Interview Completion Rate:**
\[
\frac{I}{I+R} = \frac{1,101}{1,101+973} = 0.531
\]

**Screener Completion Rate:**
\[
\frac{I+R+X}{I+R+X+UO} = \frac{1,101+973+332}{1,101+973+332+212} = 0.919
\]

**Resolution Rate:**
\[
\frac{I+R+X+UO+Z}{I+R+X+UO+Z+UH} = \frac{1,101+973+332+212+21,485}{1,101+973+332+212+21,485+5,134} = 0.824
\]

**Overall Response Rate:**
\[
\frac{ICR \times SCR \times RR}{ICR \times (1 - SCR) \times (1 - RR)} = 0.531 \times 0.919 \times 0.824 = 0.402
\]

WEIGHTING METHODOLOGY

A final weight (DUPAGE_RAKED_WT) was assigned to each of the 1,101 adults who completed the interview. The weights sum to 694,001 adults living in households in DuPage County, Illinois according to the 2006-2008 American Community Survey. The calculation of the weights involved five steps.

**Step 1. Base Sampling Weight**

The list-assisted random-digit-dialing landline telephone sample for DuPage County, Illinois was divided into two strata based on whether the sample telephone number was a residential directory-listed number. For each stratum, the base sampling weight equaled the population count of telephone numbers divided by the number of sample telephone numbers in the released groups for the stratum. The population counts were:

**Listed Telephone Number Population Count:**
185,661

**Not Listed Telephone Number Population Count:**
926,630

The counts for sample telephone numbers in the released groups for each stratum were the following:

**Listed Telephone Number Sample Count:**
8,593

**Not Listed Telephone Number Population Count:**
21,807

This resulted in the following base sampling weights:

**Listed Telephone Number:**
21.6

**Not Listed Telephone Number:**
42.5
Step 2. Adjustment for Differential Stratum Response Rates

Telephone survey response rates are generally higher in the stratum consisting of directory-listed telephone numbers. This factor can skew the sample of completed interviews to adults living in households with listed telephone numbers relative to those living in households with telephone numbers that are not listed. Consequently, the American Association for Public Opinion Research’s (AAPOR) Response Rate #3 calculation was applied to each of the two sampling strata. This resulted in the following:

- **Listed Telephone Number Stratum:** 0.237
- **Not Listed Telephone Number Stratum:** 0.141

The households with completed adult interviews were grouped into the two sampling strata and their base sampling weight was divided by the response rate for their stratum. This adjusted for the differential response rates by stratum.

Step 3: Adjustment for Selection of One Adult from the Household

One adult was randomly selected from the household. The weight from Step 2 was multiplied by the number of adults in the household. The maximum number of adults was capped at four to avoid large adjustment factors at this step.

Step 4: Raking to Population Control Totals

A survey sample may cover segments of the target population in proportions that do not match the proportions of those segments in the actual target population. These differences may arise due to sampling fluctuations, nonresponse, or because the sample design was not able to cover the entire target population. In these situations, the sampling weights of the cases in the sample can be adjusted to the marginal totals of the weights on specific characteristics, referred to as control variables, to align with the corresponding totals for the population. This operation is known as raking ratio estimation, raking, or sample-balancing, and the population totals are usually referred to as control totals. Raking is most often used to reduce biases from nonresponse and non-coverage in sample surveys.¹

Raking usually proceeds with one variable at a time, applying a proportional adjustment to the weights of the cases that belong to the same category of the control variable. The initial design weights in the raking process are often equal to the inverse of the selection probabilities and may have undergone some adjustments for unit nonresponse and non-coverage. The weights from the raking process are used in estimation and analysis.

The adjustment to control totals is sometimes achieved by creating a cross-classification of the categorical control variables (e.g., age categories × gender × race × household-income categories) and then matching the total of the weights in each cell to the control total. This approach, however, can spread the sample thinly over a large number of adjustment cells. It also requires control totals for all cells of the cross-classification. Often this is not feasible (e.g., control totals may be available for age × gender × race but not when those cells are subdivided by household income). The use of raking with marginal control totals for single variables (i.e., each margin involves only one control variable) often avoids many of these difficulties.

In a simple two-variable example, the marginal totals in various categories for the two control variables are known from the entire population, but the joint distribution of

the two variables is known only from a sample. In the cross-classification of the sample, arranged in rows and columns, one might begin with the rows, taking each row in turn and multiplying each entry in the row by the ratio of the population total to the weighted sample total for that category so that the row totals of the adjusted data agree with the population totals for that variable. The weighted column totals of the adjusted data, however, may not yet agree with the population totals for the column variable. Thus the next step, taking each column in turn, multiplies each entry in the column by the ratio of the population total to the current total for that category. Now the weighted column totals of the adjusted data agree with the population totals for that variable, but the new weighted row totals may no longer match the corresponding population totals.

This process continues, alternating between the rows and the columns, and close agreement on both rows and columns is usually achieved after a small number of iterations. The result is a calculation for the population that reflects the relation of the two control variables in the sample. Raking can also adjust a set of data to control totals on three or more variables. In such situations the control totals often involve single variables, but they may involve two or more variables.

Ideally, one should rake on variables that exhibit an association with the key survey outcome variables and that are related to nonresponse and/or non-coverage. This strategy will reduce bias in the key outcome variables. In practice, other considerations may enter. A variable such as gender may not be strongly related to key outcome variables or to nonresponse, but raking on it may be desirable to preserve the “face validity” of the sample.

For this survey, six raking control variables were used:

1. **Age group by gender:**

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td>18-34</td>
</tr>
<tr>
<td>35-44</td>
<td>35-44</td>
</tr>
<tr>
<td>45-54</td>
<td>45-54</td>
</tr>
<tr>
<td>55-64</td>
<td>55-64</td>
</tr>
<tr>
<td>65-74</td>
<td>65-74</td>
</tr>
<tr>
<td>75+</td>
<td>75+</td>
</tr>
</tbody>
</table>

2. **Marital status:**
   Married; Never married or member of an unmarried couple; Widowed; or Divorced or separated.

3. **Education:**
   Less than high school or high school graduate; Some college; or College graduate.

4. **Number of adults in household:**
   1; 2; 3; or 4 or more.

5. **Race Ethnicity:**
   Hispanic or Black, non-Hispanic; White, non-Hispanic; or All other races, non-Hispanic or multiracial, non-Hispanic.

6. **Presence of one or more children in the household:**
   No or Yes.

The population control totals were obtained from the 2006-2008 American Community Survey Public Use Microdata Sample. These six variables are included in the survey questionnaire and are also included in the 2006-2008 American Community Survey data for Illinois. A SAS (statistical software) raking macro¹ was used to develop the raked weights for the 1,101 completed adult interviews. The weight from Step 3 was used as the input weight for the raking.

Step 5: Weight Trimming

During the raking process a weight trimming procedure was implemented. A reduction in the variability of the weights, as measured by the coefficient of variation of the weights, can be achieved by reducing a few large weight values and increasing a few low weight values. A weight-trimming procedure was therefore implemented during the raking iterative process in order to ensure that: 1) a limit was placed on high and low weight values in the final weights, 2) the convergence criteria were satisfied, and 3) the weights sum to the correct population total (694,001).

In the data set provided to DuPage County Health Department, the final weight per record is captured in a field called DUPAGE_RAKED_WT.
### APPENDIX C: SAMPLE DEMOGRAPHICS

#### Table 1. Demographic Characteristics of the Sample

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>Number of Respondents</th>
<th>Percent of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 to 20 years</td>
<td>13</td>
<td>1.2</td>
</tr>
<tr>
<td>21 to 24 years</td>
<td>23</td>
<td>2.1</td>
</tr>
<tr>
<td>25 to 29 years</td>
<td>28</td>
<td>2.5</td>
</tr>
<tr>
<td>30 to 34 years</td>
<td>47</td>
<td>4.3</td>
</tr>
<tr>
<td>35 to 39 years</td>
<td>61</td>
<td>5.5</td>
</tr>
<tr>
<td>40 to 44 years</td>
<td>91</td>
<td>8.3</td>
</tr>
<tr>
<td>45 to 49 years</td>
<td>101</td>
<td>9.2</td>
</tr>
<tr>
<td>50 to 54 years</td>
<td>128</td>
<td>11.6</td>
</tr>
<tr>
<td>55 to 59 years</td>
<td>134</td>
<td>12.2</td>
</tr>
<tr>
<td>60 to 64 years</td>
<td>121</td>
<td>11.0</td>
</tr>
<tr>
<td>65 to 69 years</td>
<td>89</td>
<td>8.1</td>
</tr>
<tr>
<td>70 to 74 years</td>
<td>92</td>
<td>8.4</td>
</tr>
<tr>
<td>75 to 79 years</td>
<td>62</td>
<td>5.6</td>
</tr>
<tr>
<td>80 years and older</td>
<td>103</td>
<td>9.4</td>
</tr>
<tr>
<td>Missing</td>
<td>8</td>
<td>.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,101</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sex</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>453</td>
<td>41.1</td>
</tr>
<tr>
<td>Female</td>
<td>648</td>
<td>58.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,101</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>985</td>
<td>89.5</td>
</tr>
<tr>
<td>Asian</td>
<td>64</td>
<td>5.8</td>
</tr>
<tr>
<td>Black</td>
<td>28</td>
<td>2.5</td>
</tr>
<tr>
<td>Native Hawaiian or other Pacific Islander</td>
<td>8</td>
<td>.7</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>6</td>
<td>.5</td>
</tr>
<tr>
<td>Missing</td>
<td>10</td>
<td>.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,101</strong></td>
<td><strong>99.9</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>44</td>
<td>4.0</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>1,057</td>
<td>96.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,101</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
### Table 1. Demographic Characteristics of the Sample (Continued)

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Number of Respondents</th>
<th>Percent of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never Married</td>
<td>138</td>
<td>12.5</td>
</tr>
<tr>
<td>Member of Unmarried Couple</td>
<td>19</td>
<td>1.7</td>
</tr>
<tr>
<td>Married</td>
<td>673</td>
<td>61.2</td>
</tr>
<tr>
<td>Divorced</td>
<td>120</td>
<td>10.9</td>
</tr>
<tr>
<td>Widowed</td>
<td>143</td>
<td>13.0</td>
</tr>
<tr>
<td>Separated</td>
<td>7</td>
<td>.6</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,101</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Children Present in Household</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>747</td>
<td>67.8</td>
</tr>
<tr>
<td>One</td>
<td>138</td>
<td>12.5</td>
</tr>
<tr>
<td>Two</td>
<td>146</td>
<td>13.3</td>
</tr>
<tr>
<td>Three</td>
<td>50</td>
<td>4.5</td>
</tr>
<tr>
<td>Four</td>
<td>15</td>
<td>1.4</td>
</tr>
<tr>
<td>Five</td>
<td>3</td>
<td>.3</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
<td>.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,101</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

| Mean number of children        | 1.86                  |                   |

<table>
<thead>
<tr>
<th>Education</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No school or only kindergarten</td>
<td>1</td>
<td>.1</td>
</tr>
<tr>
<td>1-8 grade</td>
<td>9</td>
<td>.8</td>
</tr>
<tr>
<td>9-11 grade</td>
<td>22</td>
<td>2.0</td>
</tr>
<tr>
<td>12 grade or GED</td>
<td>214</td>
<td>19.4</td>
</tr>
<tr>
<td>1-3 years college</td>
<td>268</td>
<td>24.3</td>
</tr>
<tr>
<td>4 years of college</td>
<td>587</td>
<td>53.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,101</strong></td>
<td><strong>99.9</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed for wages</td>
<td>482</td>
<td>43.8</td>
</tr>
<tr>
<td>Self-employed</td>
<td>79</td>
<td>7.2</td>
</tr>
<tr>
<td>Retired</td>
<td>314</td>
<td>28.5</td>
</tr>
<tr>
<td>Homemaker</td>
<td>102</td>
<td>9.3</td>
</tr>
<tr>
<td>Unable to work</td>
<td>27</td>
<td>2.5</td>
</tr>
<tr>
<td>Students</td>
<td>23</td>
<td>2.1</td>
</tr>
<tr>
<td>Unemployed for &lt; 1 year</td>
<td>28</td>
<td>2.5</td>
</tr>
<tr>
<td>Unemployed for &gt; 1 year</td>
<td>43</td>
<td>3.9</td>
</tr>
<tr>
<td>Missing</td>
<td>3</td>
<td>.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,101</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
### Table 1. Demographic Characteristics of the Sample (Continued)

<table>
<thead>
<tr>
<th>Income</th>
<th>Number of Respondents</th>
<th>Percent of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $10,000</td>
<td>7</td>
<td>.7</td>
</tr>
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<td>$20,000 to &lt; $25,000</td>
<td>68</td>
<td>6.8</td>
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<td>$25,000 to &lt; $35,000</td>
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<td>$75,000 or more</td>
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<td><strong>1,101</strong></td>
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### Table 2. DuPage Municipality, Number of Respondents, and Percent of Total

**City of Residence**

Survey respondents lived throughout DuPage County. Municipalities located partially in DuPage County are indicated by listing (part) after the municipality name.

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Number of Respondents</th>
<th>Percent of Total Interviews</th>
<th>2010 DuPage Population</th>
<th>Estimated Percent of Municipality Population Located in DuPage County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addison</td>
<td>23</td>
<td>2.1%</td>
<td>36,942</td>
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<tr>
<td>Aurora (part)</td>
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<td>25.0%</td>
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<td>Bartlett (part)</td>
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<td>.5%</td>
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<td>2.1%</td>
<td>22,018</td>
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</tr>
<tr>
<td>Bolingbrook (part)</td>
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<tr>
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<td>1.0%</td>
<td>6,719</td>
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<td>Clarendon Hills</td>
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<td>Darien</td>
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<td>Warrenville</td>
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<td>1.4%</td>
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<td>West Chicago</td>
<td>34</td>
<td>3.1%</td>
<td>27,086</td>
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</tbody>
</table>
Table 2. DuPage Municipality, Number of Respondents, and Percent of Total (Continued)

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Number of Respondents</th>
<th>Percent of Total Interviews</th>
<th>2010 DuPage Population</th>
<th>Estimated Percent of Municipality Population Located in DuPage County</th>
</tr>
</thead>
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<tr>
<td>Westmont</td>
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<td>3.4%</td>
<td>24,685</td>
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<tr>
<td>Wheaton</td>
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<td>7.9%</td>
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<td>1.3%</td>
<td>9,080</td>
<td>100%</td>
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<tr>
<td>Unincorporated DuPage</td>
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<td>.7%</td>
<td>----</td>
<td>----</td>
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<td>Missing</td>
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</tr>
<tr>
<td>Total</td>
<td>1,101</td>
<td>100.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX D: ADVANCE LETTER

Fall 2010

Dear Resident,

We are inviting you to participate in an important research project being conducted for the DuPage County Health Department. Information gathered through this research will be used to improve health services for DuPage County residents.

Your household was randomly selected to participate in this research. Within the next several weeks, an interviewer from the Northern Illinois University Public Opinion Laboratory will be calling you to conduct a telephone interview. While completion of the interview is completely voluntary, we hope that you will agree to participate in this important research.

Any information you provide will be kept strictly confidential and your answers will be combined with those of others. The information will be used for research and planning purposes only.

If you have any questions or would like to schedule an appointment for an interview, you may call the Northern Illinois University Public Opinion Laboratory at 1-800-874-1990.

We appreciate your taking the time to speak with us. Thank you for your valuable assistance.

Sincerely,

Maureen T. McHugh
Executive Director
DuPage County Health Department

Lorayn Olson, Ph. D.
Director
Public Opinion Laboratory
**IntroQst**
Hello, this is <INTERVIEWER NAME> from Northern Illinois University. I'm calling on behalf of the DuPage County Health Department. We are gathering information about the health of DuPage County residents. Your telephone number has been chosen randomly, and I would like to ask some questions about health and health practices.

Is this <PHONE NUMBER>?
1. Correct number (Proceed to next question)
2. Number is not the same

**WrongNum**
Thank you very much, but I seem to have dialed the wrong number. It's possible that your number may be called at a later time.

Disculpe; es probable que haya llamado a un número equivocado. Es posible que su número sea seleccionado en otra oportunidad. Gracias por su atención. Adiós.

Disposition as “wrong number”

**PrivRes**
Is this a private residence?
1. Yes, continue
2. No, Non-Residential

¿Es éste un domicilio particular?

If (answer = 1) skip to CntyQues

**NonRes**
Thank you very much, but we are only interviewing private residences.
Muchas gracias, pero por el momento solo estamos haciendo esta encuesta en domicilios particulares.

Disposition as “not a private residence”

CntyQues
Is your residence located in DuPage County?

1. YES
2. NO
7. DON'T KNOW/NOT SURE
9. REFUSED

¿Está su residencia localizada en DuPage County (el Condado de DuPage)?

If (answer = 1) skip to Adult

ByeGeo
Your household is not in the study area. Thank you for your time.

Su hogar no está localizado en el área del estudio. Gracias por su tiempo.

Disposition as “out of geography”

Adult
I need to randomly select one adult who lives in your household to be interviewed. How many members of your household, including yourself, are 18 years of age or older?

Para esta encuesta, necesito seleccionar al azar a un adulto que viva en su casa. ¿Cuántas personas de las que viven en su casa, incluido usted, tienen 18 años o más?

If (Adult=1) skip to OneAdult

Men
How many of these adults are men?

¿Cuántos de estos adultos son hombres?
Women
How many of these adults are women?

¿Cuántos de estos adultos son mujeres?

Selected
The person in your household I need to speak with is the <RANDOMLY SELECTED RESPONDENT>.

Are you the <RANDOMLY SELECTED RESPONDENT>?

1. YES
2. NO

El miembro de su familia con quien necesito hablar es <RANDOMLY SELECTED RESPONDENT>.

Si ’usted, <RANDOMLY SELECTED RESPONDENT>?

If (answer = 1) skip to Yourthe1
If (answer = 2) skip to GetNewAd

OneAdult
Are you the Adult?

1. YES AND THE RESPONDENT IS A MALE.
2. YES AND THE RESPONDENT IS A FEMALE.
3. NO

¿Es usted el adulto?

If (answer = 3) skip to AskGendr

AskGendr
Is the adult a man or a woman?

1. MALE
2. FEMALE

¿El adulto es un hombre o una mujer?
GetAdult
May I speak with him/her?

1. YES, ADULT IS COMING TO THE PHONE
2. NO, GO TO NEXT SCREEN AND PRESS F3 TO SCHEDULE A CALL-BACK

¿Podría hablar con él/ella?

Skip to NewAdult

Yourthe1
Then you are the person I need to speak with.

1. PERSON INTERESTED, CONTINUE
2. NO, GO TO NEXT SCREEN AND PRESS F3 TO SCHEDULE A CALL-BACK

En ese caso, usted es la persona con la que necesito hablar.

If (answer = 1) skip to IntroScr
If (answer = 2) skip to NewAdult

GetNewAd
May I speak with the <RANDOMLY SELECTED RESPONDENT>?

1. YES, SELECTED RESPONDENT IS COMING TO THE PHONE
2. NO, GO TO NEXT SCREEN AND PRESS F3 TO SCHEDULE A CALL-BACK

¿Podría hablar con <RANDOMLY SELECTED RESPONDENT>?

NewAdult
Hello, this is <INTERVIEWER NAME> from Northern Illinois University. I'm calling on behalf of the DuPage County Health Department. We are gathering information about the health of DuPage County residents. Your telephone number has been chosen randomly, and I would like to ask some questions about health and health practices.

Hola, soy <INTERVIEWER NAME> de Northern Illinois University. Estoy llamando de parte de DuPage County Health Department (el Departamento de Salud del Condado de DuPage). Estamos recopilando información sobre la salud de los residentes del Condado de DuPage. Su número de teléfono ha sido seleccionado al azar y quisiera hacerle unas preguntas acerca de la salud y comportamientos relacionados a la salud.
IntroScr
I will not ask for your last name, address, or other personal information that can identify you. If you are uncomfortable answering any question, just let me know. Any information you give me will be confidential. If you have any questions about this call, please call 630-221-7534.

No le preguntaremos su apellido, su dirección, u otra información personal con la cual se le pudiera identificar. Si usted se sintiera incómodo contestando alguna pregunta, déjeme saber. Cualquier información que usted nos proporcione será mantenida en confidencialidad. Si tiene algunas preguntas respecto a esto, por favor llame al 630-221-7534.
Core Sections

Section 1: Health Status

Q1.1. Would you say that in general your health is: excellent, very good, good, fair, or poor?

1. Excellent
2. Very good
3. Good
4. Fair
5. Poor
6. DON'T KNOW/NOT SURE
7. REFUSED

¿Diría usted que en general, su estado de salud es excelente, muy bueno, bueno, regular o malo?
Section 2: Healthy Days—Health-Related Quality of Life

Q2.1.
Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?

Con respecto a su salud física, lo que incluye tanto enfermedades como lesiones físicas, en los últimos 30 días, ¿durante cuántos días su salud física no fue buena?

Q2.2.
Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

Con respecto a su salud mental, que incluye estrés, depresión y problemas emocionales, en los últimos 30 días, ¿durante cuántos días su estado de salud mental no fue bueno?

If (Q2.1=0) and (Q2.2=0) skip to Q3.1

Q2.3.
During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

En los últimos 30 días, ¿durante cuántos días sintió que los problemas relacionados con su salud física o mental le impidieron realizar sus actividades cotidianas, tales como cuidados personales, trabajo o recreación?
Section 3: Health Care Access

Q3.1.
Do you have any kind of health care coverage, including health insurance, prepaid plan such as HMOs, or government plan such as Medicare?

PROMPT IF NEEDED: An HMO is a Health Maintenance Organization

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿Tiene algún tipo de cobertura médica, incluido seguro de salud, planes prepagados como los que brindan las HMO u otros planes gubernamentales como Medicare?

PROMPT IF NEEDED: HMO=organizaciones de atención médica administrada

Q3.2.
Do you have one person you think of as your personal doctor or health care provider?

PROMPT IF NEEDED: If 'no', ask 'Is there more than one or is there no person who you think of as your personal doctor or health care provider?'

1. Yes, only one
2. More than one
3. No
7. DON'T KNOW/NOT SURE
9. REFUSED

¿Hay alguna persona a la que usted considere su medico o proveedor de atencion medical de confianza?

PROMPT IF NEEDED: If ‘no’ ask: ‘¿Hay más de una o no hay ninguna persona a la que considere su médico o proveedor de atención médica personal?’
Q3.3.
Was there a time during the last 12 months when you needed to see a doctor, but could not because of the cost?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

En los últimos 12 meses, ¿hubo algún momento en que necesitó consultar a un médico pero no pudo hacerlo por razones económicas?

Q3.4.
About how long has it been since you last visited a doctor for a routine checkup? A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition.

1. Within past year (anytime less than 12 months ago)
2. Within past two years (1 year but less than 2 years ago)
3. Within past five years (2 years but less than 5 years ago)
4. 5 years or more
7. DON'T KNOW/NOT SURE
8. NEVER
9. REFUSED

¿Cuándo fue la última vez que fue al médico para hacerse un chequeo de rutina? Un chequeo de rutina es un examen físico general, que no se hace a consecuencia de una lesión, enfermedad o condición física específica.
Section 4: Sleep

The next question is about getting enough rest or sleep.

Q4.1.
During the past 30 days, for about how many days have you felt you did not get enough rest or sleep?

La pregunta siguiente es para saber si duerme o descansa lo suficiente.

En los últimos 30 días, ¿durante cuántos días sintió que no durmió o no descansó lo suficiente?
Section 5: Exercise

Q5.1.
During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

En el último mes, sin contar su trabajo diario, ¿realizó alguna actividad física o algún tipo de ejercicio como correr, caminar, calistenia, jugar al golf o labores de jardinería?
Section 6: Diabetes

Q6.1.
Have you EVER been told by a doctor that you have diabetes?

PROMPT IF NEEDED: IF ‘YES’ AND RESPONDENT IS FEMALE, ASK: “Was this only when you were pregnant?”

1. Yes
2. Yes, but female told only during pregnancy
3. No
4. No, pre-diabetes or borderline diabetes
7. DON’T KNOW/NOT SURE
9. REFUSED

If (Q6.1>1) skip to Q7.1

¿Alguna vez un médico le dijo que tiene diabetes?

PROMPT IF NEEDED: IF ‘YES’ AND RESPONDENT IS FEMALE, ASK “¿Esto fue únicamente durante el embarazo?”
Module 2: Diabetes

M2.1. How old were you when you were told you have diabetes?

¿A qué edad le dijeron que tenía diabetes?

M2.2. Are you now taking insulin?

1. Yes
2. No
9. REFUSED

¿Está tomando insulina?

M2.3. About how often do you check your blood for glucose or sugar? Include times when checked by a family member or friend, but do NOT include times when checked by a health professional.

Aproximadamente, ¿con qué frecuencia examina su nivel de glucosa o azúcar en la sangre? Incluya las veces en que lo examinó un familiar o un amigo, pero NO cuando lo examinó un profesional de la salud.

M2.4. About how often do you check your feet for any sores or irritations? Include times when checked by a family member or friend, but do NOT include times when checked by a health professional.

¿Con qué frecuencia se examina los pies para detector heridas o irritaciones? Incluya las veces en que lo examinó un familiar o un amigo, pero NO cuando lo examinó un profesional de la salud.

M2.5. About how many times in the past 12 months have you seen a doctor, nurse, or other health professional for your diabetes?

Aproximadamente, ¿cuántas veces en los últimos 12 meses consultó a un médico, una enfermera u otro profesional de la salud a causa de su diabetes?
M2.6.
A test for 'A one C' measures the average level of blood sugar over the past three months. About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for 'A one C'?

La prueba 'A one C' mide el nivel promedio de azúcar en la sangre durante los últimos tres meses. ¿Cuántas veces en los últimos 12 meses un médico, una enfermera u otro profesional de la salud le ha hecho una prueba 'A one C'?

If (M2.6=no feet) skip to M2.8

M2.7.
About how many times in the past 12 months has a health professional checked your feet for any sores or irritations?

¿Aproximadamente cuántas veces en los últimos 12 meses un profesional de la salud le ha examinado los pies para detectar heridas o irritaciones?

M2.8.
When was the last time you had an eye exam in which the pupils were dialated? This would have made you temporarily sensitive to bright light.

READ ONLY IF NECESSARY:
1. Within the past month (any time less than 1 month ago)
2. Within the past year (1 month but less than 12 months ago)
3. Within the past two years (1 year but less than 2 years ago)
4. 2 or more years ago
7. DON'T KNOW/NOT SURE
8. NEVER
9. REFUSED

¿Cuándo fue la última vez que le hicieron un examen de la vista en el que le dilataron las pupilas? Esto le habría ocasionado una sensibilidad temporal a la luz brillante.

M2.9.
Has a doctor ever told you that diabetes has affected your eyes or that you had retinopathy?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿Su médico le ha dicho en alguna ocasión que la diabetes le ha afectado los ojos o que ha tenido una retinopatía?
M2.10.
Have you ever taken a course or class in how to manage your diabetes yourself?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿Ha tomado alguna vez un curso o una clase sobre cómo controlar usted mismo su diabetes?
Section 7: Hypertension Awareness

Q7.1.
Have you EVER been told by a doctor, nurse, or other health professional that you have high blood pressure?

PROMPT IF NEEDED: IF ‘YES’ AND RESPONDENT IS FEMALE, ASK: "Was this only when you were pregnant?"

1. Yes
2. Yes, but female told only during pregnancy
3. No
4. Told borderline high or pre-hypertensive
7. DON'T KNOW/NOT SURE
9. REFUSED

¿ALGUNA VEZ le ha dicho un médico, una enfermera u otro profesional de la salud que tiene presión sanguínea alta (o hipertensión)?

PROMPT IF NEEDED: IF ‘YES’ AND RESPONDENT IS FEMALE, ASK: “¿Esto fue únicamente durante su embarazo?”

If (answer>1) skip to Q8.2

Q7.2.
Are you currently taking medicine for your high blood pressure?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿Toma actualmente algún medicamento para controlar la presión sanguínea alta?
Section 8: Cholesterol Awareness

Q8.2.
About how long has it been since you last had your blood cholesterol checked?

1. Within the past year (any time less than 12 months ago)
2. Within the past 2 years (1 year but less than 2 years ago)
3. Within the past 5 years (2 years but less than 5 years ago)
4. 5 or more years ago
5. Never had it checked
7. DON'T KNOW/NOT SURE
9. REFUSED

¿Cuánto hace aproximadamente que le analizaron el colesterol en la sangre?

Q8.3.
Have you EVER been told by a doctor, nurse, or other health professional that your blood cholesterol is high?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿ALGUNA VEZ le ha dicho un médico, una enfermera u otro profesional de la salud que su nivel de colesterol en la sangre es elevado?
Section 9: Cardiovascular Disease Prevalence

Now I would like to ask you some questions about cardiovascular disease.

Has a doctor, nurse, or other health professional ever told you that you had any of the following?

For each, please tell me "Yes," "No," or you're "Not sure."

Q9.1.
Ever told you had a heart attack, also called a myocardial infarction?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Ahora me gustaría hacerle algunas preguntas acerca de la enfermedad cardiovascular.

¿ALGUNA VEZ un médico, una enfermera u otro profesional de la salud le dijo que tenía alguna de las siguientes enfermedades?

En cada pregunta, responda 'Sí', 'No', o 'No estoy seguro'.

¿Alguna vez le dijeron que tuvo un ataque cardiaco, también llamado infarto de miocardio?

Q9.2.
Ever told you had angina or coronary heart disease?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿Alguna vez le dijeron que tuvo angina de pecho o enfermedad de las arterias coronarias?
Q9.3.
Ever told you had a stroke?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿Alguna vez le dijeron que tuvo un accidente cerebrovascular?
Section 10: Asthma

Q10.1.
Have you EVER been told by a doctor, nurse, or other health professional that you had asthma?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿Alguna vez un médico, una enfermera u otro profesional de la salud le dijo que tenía asma?

If (answer > 1) skip to Q11.1

Q10.2.
Do you still have asthma?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿Usted sigue teniendo asma?
Section 11: Tobacco Use

Q11.1.
Have you smoked at least 100 cigarettes in your entire life?

PROMPT IF NEEDED: "5 packs = 100 cigarettes"

1. Yes  
2. No  
7. DON'T KNOW  
9. REFUSED

¿Ha fumado al menos 100 cigarrillos en toda su vida?

PROMPT IF NEEDED “5 cajetillas = 100 cigarrillos”

If (answer>1) skip to Q11.5

Q11.2.
Do you now smoke cigarettes every day, some days, or not at all?

1. Every day  
2. Some days  
3. Not at all  
7. DON'T KNOW/NOT SURE  
9. REFUSED

Actualmente ¿fuma cigarrillos todos los días, algunos días o nunca?

If (answer>2) skip to Q11.5

Q11.3.
During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?

1. Yes  
2. No  
7. DON'T KNOW  
9. REFUSED

En los últimos 12 meses, ¿ha dejado de fumar durante un día o más debido a que estaba intentando dejar de fumar?
Q11.5.
Do you currently use chewing tobacco, snuff, or snus every day, some days, or not at all?

1. Every day
2. Some days
3. Not at all
7. DON'T KNOW/NOT SURE
9. REFUSED

PROMPT IF NEEDED: “Snus (Swedish for snuff) is a moist smokeless tobacco, usually sold in small pouches that are placed under the lip against the gum.”

¿En la actualidad usa tabaco para mascar, rapé o snus todos los días, algunos días o nunca?

PROMPT IF NEEDED: “El snus (que es el nombre en sueco del rapé) es un tabaco húmedo que no se fuma y que generalmente se vende en bolsitas que se colocan debajo del labio haciendo presión contra la encía.”
Section 12: Demographics

Q12.1.
What is your age?

¿Qué edad tiene?

Q12.2.
Are you Hispanic or Latino?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿Es usted hispano/a o latino/a?

Q12.3.
Which one or more of the following would you say is your race? Would you say: White, Black or African American, Asian, Native Hawaiian or Other Pacific Islander, American Indian, Alaska Native, or other?

1. White
2. Black or African American
3. Asian
4. Native Hawaiian or Other Pacific Islander
5. American Indian, Alaska Native
6. Other: (specify)
7. DON'T KNOW/NOT SURE
9. REFUSED

¿A cuál o cuáles de las siguientes razas o grupos étnicos diría usted que pertenece? Diría usted: Blanco, Negro o Afroamericano, Asiático, Nativo de Hawai o de otras Islas del Pacífico, Indio americano o nativo de Alaska o otro?

If (number of races selected = 1) skip to Q12.6
Q12.4. Which one of these groups would you say best represents your race?
1. White
2. Black or African American
3. Asian
4. Native Hawaiian or Other Pacific Islander
5. American Indian, Alaska Native
6. Other: (specify)
7. DON'T KNOW/NOT SURE
8. REFUSED

¿Cuáles de los siguientes grupos diría usted que es el más representativo de su raza?

Q12.6. Are you: married, divorced, widowed, separated, never married, or a member of an unmarried couple?
1. Married
2. Divorced
3. Widowed
4. Separated
5. Never married
6. A member of an unmarried couple
7. REFUSED

Es usted... casado, divorciado, viudo, separado, nunca se ha casado, o vive en pareja pero sin estar casado?

Q12.7. How many children less than 18 years of age live in your household?

¿Cuántos niños menores de 18 años viven con usted?
Q12.8.
What is the highest grade or year of school you completed?

1. Never attended school or only attended kindergarten
2. Grades 1 through 8 (Elementary)
3. Grades 9 through 11 (Some high school)
4. Grade 12 or GED (High school graduate)
5. College 1 year to 3 years (Some college or technical school)
6. College 4 years or more (College graduate)
9. REFUSED

¿Cuál es el nivel de educación más alto que ha alcanzado?

Q12.9.
Are you currently: employed for wages, self-employed, out of work for more than 1 year, out of work for less than 1 year, a homemaker, a student, retired, or unable to work?

11. Employed for wages
12. Self-employed
13. Out of work for more than 1 year
14. Out of work for less than 1 year
15. A Homemaker
16. A Student
17. Retired
18. Unable to work
99. REFUSED

Es usted actualmente: empleado asalariado, trabajador independiente, desempleado desde hace más de 1 año, desempleado desde hace menos de 1 año, se ocupa del hogar, estudiante, jubilado o está incapacitado para trabajar o no puede trabajar?
Q12.10.1. Is your annual household income from all sources:

Less than $25,000?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Tomando en cuenta todas las fuentes de ingresos, los ingresos anuales de todos los habitantes del hogar:

Menos de $25,000?

If (answer = 1) skip to Q12.10.2
If (answer = 2) skip to Q12.10.5
If (answer = 7) Income = don't know, skip to Q12.11
If (answer = 9) Income = refused, skip to Q12.11

Q12.10.2 Is your annual household income from all sources:

Less than $20,000?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Tomando en cuenta todas las fuentes de ingresos, los ingresos anuales de todos los habitantes del hogar:

Menos de $20,000?

If (answer = 2) Income = $20,000 to less than $25,000, skip to Q12.11
If (answer = 7) Income = don't know, skip to Q12.11
If (answer = 9) Income = refused, skip to Q12.11
**Q12.10.3**
Is your annual household income from all sources:

Less than $15,000?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

*Tomando en cuenta todas las fuentes de ingresos, los ingresos anuales de todos los habitantes del hogar:*

*Menos de $15,000?*

If (answer = 2) Income = $15,000 to less than $20,000, skip to Q12.11
If (answer = 7) Income = don't know, skip to Q12.11
If (answer = 9) Income = refused, skip to Q12.11

**Q12.10.4**
Is your annual household income from all sources:

Less than $10,000?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

*Tomando en cuenta todas las fuentes de ingresos, los ingresos anuales de todos los habitantes del hogar:*

*Menos de $10,000?*

If (answer = 1) Income = Less than $10,000, skip to Q12.11
If (answer = 2) Income = $10,000 to less than $15,000, skip to Q12.11
If (answer = 7) Income = don't know, skip to Q12.11
If (answer = 9) Income = refused, skip to Q12.11
Q12.10.5
Is your annual household income from all sources:

Less than $35,000?
1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Tomando en cuenta todas las fuentes de ingresos, los ingresos anuales de todos los habitantes del hogar:

Menos de $35,000?
If (answer = 1) Income = $25,000 to less than $35,000, skip to Q12.11
If (answer = 7) Income = don’t know, skip to Q12.11
If (answer = 9) Income = refused, skip to Q12.11

Q12.10.6
Is your annual household income from all sources:

Less than $50,000?
1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Tomando en cuenta todas las fuentes de ingresos, los ingresos anuales de todos los habitantes del hogar:

Menos de $50,000?
If (answer = 1) Income = $35,000 to less than $50,000, skip to Q12.11
If (answer = 7) Income = don’t know, skip to Q12.11
If (answer = 9) Income = refused, skip to Q12.11
Q12.10.7
Is your annual household income from all sources:

Less than $75,000?

1. Yes
2. No
7. DON’T KNOW
9. REFUSED

Tomando en cuenta todas las fuentes de ingresos, los ingresos anuales de todos los habitantes del hogar:

Menos de $75,000?

If (answer = 1) Income = $50,000 to less than $75,000
If (answer = 2) Income = $75,000 or more
If (answer = 7) Income = don’t know
If (answer = 9) Income = refused

Q12.11.
About how much do you weigh without shoes?

Aproximadamente, ¿cuánto pesa sin zapatos?

Q12.12.
About how tall are you without shoes?

Aproximadamente, ¿cuánto mide sin zapatos?

Q12.13.
How much did you weigh a year ago?

IF RESPONDENT IS FEMALE AND AGE IS LESS THAN 46, PROMPT: “If you were pregnant a year ago, how much did you weigh before your pregnancy?”

¿Cuánto pesaba hace un año?

IF RESPONDENT IS FEMALE AND AGE IS LESS THAN 46, PROMPT: “Si hace un año estaba embarazada, ¿cuánto pesaba antes del embarazo?”
Q12.15.
What city do you live in?

DO NOT READ
11. Addison
12. Aurora
13. Bartlett
14. Bensenville
15. Bloomingdale
16. Bolingbrook
17. Burr Ridge
18. Carol Stream
19. Clarendon Hills
20. Darien
21. Downers Grove
22. Elmhurst
23. Glen Ellyn
24. Glendale Heights
25. Hanover Park
26. Hinsdale
27. Itasca
28. Lemont
29. Lisle
30. Lombard
31. Medinah
32. Naperville
33. Oak Brook
34. Oak Brook Terrace
35. Roselle
36. Villa Park
37. Warrenville
38. West Chicago
39. Westmont
40. Wheaton
41. Willowbrook
42. Winfield
43. Wood Dale
44. Wood Ridge
45. OTHER: Specify
77. DON'T KNOW.NOT SURE
99. REFUSED

¿En qué ciudad vive usted?
Q12.16.
What is your ZIP Code where you live?

¿Cuál es el código postal de la localidad donde vive?

Q12.20.
INTERVIEWER: Indicate sex of respondent.

1. Male
2. Female

If respondent is male or age is greater than 54, skip to Q13.1

Q12.21.
To your knowledge, are you now pregnant?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Que usted sepa, ¿está embarazada?
Section 13: Caregiver Status

Q13.1.
People may provide regular care or assistance to a friend or family member who has a health problem, long-term illness, or disability.

During the past month, did you provide any such care or assistance to a friend or family member?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Hay personas que proporcionan en forma habitual cuidados o asistencia a un amigo o un familiar con problemas de salud, una enfermedad prolongada o una discapacidad. Durante el último mes, ¿proporcionó usted alguno de estos cuidados o asistencia a un amigo o a un familiar?
Section 14: Disability

Q14.2.
The following questions are about health problems or impairments you may have.

Do you now have any health problem that requires you to use special equipment such as a cane, a wheelchair, a special bed, or a special telephone?

PROMPT IF NEEDED: "Include occasional use or use in certain circumstances"

1. Yes
2. No
7. DON’T KNOW
9. REFUSED

Las preguntas siguientes se refieren a problemas de salud o limitaciones que pueda tener.

¿Tiene actualmente algún problema de salud que le obligue a usar algún tipo de equipo especial, como bastón, silla de ruedas, cama o teléfono especial?

PROMPT IF NEEDED: “Incluya el uso de equipo en forma esporádica o en ciertas circunstancias.”
Section 15: Alcohol Consumption

Q15.1. During the past 30 days, have you had at least one drink of any alcoholic beverage such as beer, wine, a malt beverage or liquor?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

En los últimos 30 días, ¿ha bebido al menos un trago de cualquier bebida alcohólica, como cerveza, vino, bebidas alcohólicas a base de malta o licores fuertes?

If (answer>1) skip to Q16a.1

Q15.2. During the past 30 days, how many days per week or per month did you have at least one drink of any alcoholic beverage?

En los últimos 30 días, ¿cuántos días por semana o por mes bebió al menos un trago de cualquier bebida alcohólica?

Q15.3. One drink is equivalent to a 12-ounce beer, a 5-ounce glass of wine, or a drink with one shot of liquor.

During the past 30 days, on the days when you drank, about how many drinks did you drink on the average?

PROMPT IF NEEDED: “A 40 ounce beer would count as 3 drinks, or a cocktail drink with 2 shots would count as 2 drinks.”

Un trago equivale a una cerveza de 12 onzas (350 cl), a una copa de vino de 5 onzas (150 cl) o a una medida de licor.

En los últimos 30 días, durante los días en que bebió, ¿aproximadamente cuántos tragos bebió en promedio?

PROMPT IF NEEDED: “Una cerveza de 40 onzas equivaldría a 3 tragos; un cóctel con dos medidas de alcohol equivaldría a 2 tragos.”
Q15.4.
Considering all types of alcoholic beverages, how many times during the past 30 days did you have <4/5> or more drinks on one occasion?

If male, show 5
If female, show 4

Tomando en cuenta todos los tipos de bebidas alcohólicas, ¿cuántas veces en los últimos 30 días bebió en una ocasión <4/5> tragos o más?
Section 16: Immunization

Q16a.1.
There are two types of H1N1 influenza vaccines. One is a shot in the arm and the other is a spray or mist in the nose.

During the past 12 months, have you had an H1N1 flu shot?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Hay dos tipos de vacunas contra la influenza o gripe H1N1. Una es la inyección en el brazo y la otra es un espray o rocío que se aplica en la nariz.

Durante los últimos 12 meses, ¿ha recibido usted una inyección contra la influenza o gripe H1N1?

Q16a.2.
During the past 12 months, have you had an H1N1 flu vaccine that was sprayed in your nose? The H1N1 flu vaccine sprayed in the nose is also called FluMist.

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Durante los últimos 12 meses, ¿ha recibido usted una vacuna contra la influenza o gripe H1N1 en forma de espray o rocío nasal? La vacuna contra la influenza (gripe) H1N1 que se rocía en la nariz también se llama FluMist.

Q16.1.
A flu shot is an influenza vaccine injected into your arm.

During the past 12 months, have you had a flu shot?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

La vacuna inyectable contra la influenza (gripe o flu, en inglés) se inyecta en el brazo. En los últimos 12 meses, ¿le han puesto la vacuna inyectable contra la influenza?
Q16.3.  
During the past 12 months, have you had a flu vaccine that was sprayed in your nose? The flu vaccine sprayed in the nose is also called FluMist.

1. Yes 
2. No 
7. DON'T KNOW 
9. REFUSED

En los últimos 12 meses, ¿ha recibido alguna vacuna contra la influenza que se administre con atomizador nasal? La vacuna contra la influenza que se administra con atomizador nasal se conoce también como FluMist.

Q16.5.  
A pneumonia shot or pneumococcal vaccine is usually only given once or twice in a person's lifetime and is different from the flu shot. Have you ever had a pneumonia shot?

1. Yes 
2. No 
7. DON'T KNOW 
9. REFUSED

Por lo general, la vacuna contra la neumonía o vacuna antineumocócica se administran solamente una o dos veces en la vida de una persona y es diferente a la vacuna inyectable contra la influenza. ¿Alguna vez le han puesto la vacuna contra la neumonía?
Section 17: Arthritis Burden

Q17.1. 
Next I will ask you about arthritis.

Have you EVER been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

PROMPT IF NEEDED: Arthritis diagnoses include:
- rheumatism, polymyalgia rheumatica
- osteoarthritis (not osteoporosis)
- tendonitis, bursitis, bunion, tennis elbow
- carpal tunnel syndrome, tarsal tunnel syndrome
- joint infection, Reiter's syndrome
- ankylosing spondylitis; spondylosis
- rotator cuff syndrome
- connective tissue disease, scleroderma, polymyositis, Raynaud's syndrome
- vasculitis (giant cell arteritis, Henoch-Schonlein purpura, Wegener's granulomatosis, polyarteritis nodosa)

Ahora le preguntaré sobre la artritis.

¿ALGUNA VEZ le ha dicho un médico u otro profesional de la salud que tiene algún tipo de artritis, artritis reumatoide, gota, lupus o fibromialgia?

PROMPT IF NEEDED: Arthritis diagnoses include:
- reumatismo, polimialgia reumática
- artrosis (no osteoporosis)
- tendinitis, bursitis, juanete, codo de tenista (epicondilitis)
- síndrome del túnel carpiano, síndrome del túnel tarsiano
- infección en las articulaciones, síndrome de Reiter
- espondilitis anquilosante; espondilosis
- síndrome del manguito de los rotadores
- enfermedad del tejido conjuntivo, escleroderma, polimiositis, síndrome de Raynaud
- vasculitis (arteritis de células gigantes, púrpura de Henoch-Schonlein, granulomatosis de Wegener, poliarteritis nodosa)

If (answer>1) skip to Q18.1
Q17.2.
Arthritis can cause symptoms like pain, aching, or stiffness in or around the joint.

Are you now limited in any way in any of your usual activities because of arthritis or joint symptoms?

1. Yes
2. No
7. DON’T KNOW
9. REFUSED

PROMPT IF NEEDED: If a respondent question arises about medication, reply: “Please answer the question based on your current experience, regardless of whether you are taking any medication or treatment.”

La artritis puede causar síntomas como dolor, molestias o rigidez en una articulación o alrededor de ella.

¿Enfrenta actualmente limitaciones en alguna de sus actividades cotidianas a causa de los síntomas de artritis o de afecciones en las articulaciones?

PROMPT IF NEEDED: If a respondent question arises about medication, reply: “Por favor, responda a la pregunta con base en su experiencia actual, sin considerar si está tomando algún medicamento o si sigue un tratamiento.”
Section 18: Fruits and Vegetables

These next questions are about the foods you usually eat or drink. Please tell me how often you eat or drink each one; for example, twice a week, three times a month, and so forth. Remember, I am only interested in the foods you eat. Include all foods you eat, both at home and away from home.

Q18.1.
How often do you drink fruit juices such as orange, grapefruit, or tomato?

Q18.2.
Not counting juice, how often do you eat fruit?

Q18.3.
How often do you eat green salad?

Q18.4.
How often do you eat potatoes, not including French fries, fried potatoes, or potato chips?

Q18.5.
How often do you eat carrots?
Q18.6.
Not counting carrots, potatoes, or salad, how many servings of vegetables do you usually eat?

PROMPT IF NEEDED: A serving of vegetables at both lunch and dinner would be two servings.

Sin contar las zanahorias, las papas o las ensaladas, ¿cuántas porciones de verduras come habitualmente?

PROMPT IF NEEDED: “Una porción de verduras en el almuerzo y otra en la cena equivalen a dos porciones.”
Section 19: Physical Activity

**WorkAct**

If (Q12.9>12) skip to 19.2

**Q19.1.**

When you are at work, which of the following best describes what you do?

Would you say: Mostly sitting or standing, mostly walking, or mostly heavy labor or physically demanding work?

PROMPT IF NEEDED: If respondent has multiple jobs, include all jobs.

1. Mostly sitting or standing
2. Mostly walking
3. Mostly heavy labor or physically demanding work
7. DON'T KNOW/NOT SURE
9. REFUSED

Cuando usted está en el trabajo, ¿cuál de las siguientes actividades corresponde más a lo que usted hace?

Diría usted que: ¿Está parado o sentado la mayor parte del tiempo, camina la mayor parte del tiempo, o es un trabajo pesado o que demanda mucho esfuerzo físico?

PROMPT IF NEEDED: Si la persona encuestada tiene más de un trabajo, incluya todos sus trabajos.
We are interested in two types of physical activity: vigorous and moderate. Vigorous activities cause large increases in breathing or heart rate while moderate activities cause small increases in breathing or heart rate.

**Q19.2.**
Now, thinking about the moderate physical activities you do in a usual week,

If (Q12.9<13) show “when you are not working”

do you do moderate activities for at least 10 minutes at a time, such as brisk walking, bicycling, vacuuming, gardening, or anything else that causes some increase in breathing or heart rate?

1. Yes
2. No
7. DON’T KNOW
9. REFUSED

Al pensar ahora en las actividades moderadas que realiza en una semana normal,

If (Q12.9<13) show “cuando no trabaja”

¿realiza actividades moderadas al menos durante 10 minutos seguidos? Esto puede incluir caminar en forma rápida, andar en bicicleta, pasar la aspiradora, realizar labores de jardinería o cualquier actividad que cause un aumento en la frecuencia cardiaca o la respiración.

If (answer>1) skip to Q19.5

**Q19.3.**
How many days per week do you do these moderate activities for at least 10 minutes at a time?

¿Cuántos días a la semana realiza estas actividades moderadas durante al menos 10 minutos seguidos?
Q19.4. On days when you do moderate activities for at least 10 minutes at a time, how much total time per day do you spend doing these activities?

En los días que realiza actividades moderadas durante al menos 10 minutos seguidos, ¿cuánto tiempo al día utiliza para estas actividades?

Q19.5. Now thinking about the vigorous physical activities you do in a usual week, if (Q12.9<13) show “when you are not working”

do you do vigorous activities for at least 10 minutes at a time, such as running, aerobics, heavy yard work, or anything else that causes large increases in breathing or heart rate?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Al pensar ahora en las actividades vigorosas que realiza en una semana normal, si (Q12.9<13) mostrar “cuando no trabaja”

¿realiza actividades vigorosas al menos durante 10 minutos seguidos? Esto puede incluir correr, ejercicios aeróbicos, labores pesadas de jardinería o cualquier actividad que cause un aumento en la frecuencia cardiaca o la respiración.

If (answer>1) skip to Q20.1

Q19.6. How many days per week do you do these vigorous activities for at least 10 minutes at a time?

¿Cuántos días a la semana realiza estas actividades vigorosas durante al menos 10 minutos seguidos?

Q19.7. On days when you do vigorous activities for at least 10 minutes at a time, how much total time per day do you spend doing these activities?

En los días que realiza actividades vigorosas durante al menos 10 minutos seguidos, ¿cuánto tiempo al día utiliza para estas actividades?
Q20.1.
The next few questions are about the national health problem of HIV, the virus that causes AIDS. Please remember that your answers are strictly confidential and that you don't have to answer every question if you don't want to. Although we will ask you about testing, we will not ask you about the results of any test you may have had.

Have you ever been tested for HIV? Do not count tests you may have had as part of a blood donation. Include testing fluid from your mouth.

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

If (answer>1) skip to Q20.5
Q20.3.
Where did you have your last HIV test— at the DuPage County Health Department, at private doctor or HMO office, at a counseling and testing site, at a hospital, at a clinic, in a jail or prison, at a drug treatment facility, at home, or somewhere else?

11. DuPage County Health Department
12. Private doctor or HMO office
13. Counseling and testing site
14. Hospital
15. Clinic
16. Jail or prison
17. Drug treatment facility
18. Home
19. Somewhere else
77. DON’T KNOW/NOT SURE
99. REFUSED

¿Dónde se hizo por última vez la prueba del VIH?— en el DuPage County Health Department <en el Departamento de Salud de DuPage County>, en el consultorio de un médico particular, en el consultorio de una HMO, en un centro de consejería y pruebas del VIH, en un hospital, en un centro de atención médica, en una cárcel o prisión, en una institución de tratamiento contra la drogadicción, en la casa o en cualquier otro sitio.
Q20.5.
I'm going to read you a list. When I'm done, please tell me if any of the situations apply to you. You do not need to tell me which one.

- You have used intravenous drugs in the past year.
- You have been treated for a sexually transmitted or venereal disease in the past year.
- You have given or received money or drugs in exchange for sex in the past year.
- You had anal sex without a condom in the past year.

Do any of these situations apply to you?
1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Voy a leerle una lista de situaciones. Cuando haya terminado, por favor dígame si alguna de esas situaciones tiene que ver con usted. No tiene que decirme qué situación es.

- En el último año ha consumido drogas intravenosas.
- En el último año ha recibido tratamiento por alguna enfermedad venérea o de transmisión sexual.
- En el último año ha dado o recibido dinero o drogas a cambio de relaciones sexuales.
- En el último año ha tenido relaciones sexuales anales sin usar un condón.

¿Alguna de estas situaciones tiene que ver con usted?
Section 21: Emotional Support and Life Satisfaction

The next two questions are about emotional support and your satisfaction with life.

**Q21.1.**
How often do you get the social and emotional support you need? Always, usually, sometimes, rarely, or never?

PROMPT IF NEEDED: If asked, say “Please include support from any source.”

1. Always
2. Usually
3. Sometimes
4. Rarely
5. Never
6. DON'T KNOW/NOT SURE
7. REFUSED

**Q21.2.**
In general, how satisfied are you with your life? Are you very satisfied, satisfied, dissatisfied, or very dissatisfied?

1. Very satisfied
2. Satisfied
3. Dissatisfied
4. Very dissatisfied
5. DON'T KNOW/NOT SURE
6. REFUSED

Las siguientes dos preguntas se refieren al apoyo emocional y al grado de satisfacción con respecto a su vida.

¿Con qué frecuencia obtiene el apoyo emocional y social que necesita? ¿Siempre, casi siempre, a veces, rara vez, o nunca?

PROMPT IF NEEDED: If asked, say “Por favor, incluya el apoyo que recibe de cualquier fuente.”

En términos generales, ¿qué tan satisfecho está con su vida? ¿Muy satisfecho, satisfecho, insatisfecho, o muy insatisfecho?
Transition to Modules

Trans
Finally, I have just a few questions left about some other health topics.
Optional Modules

Module 3: Healthy Days (Symptoms)

The next few questions are about health-related problems or symptoms.

M3.1
During the past 30 days, for about how many days did pain make it hard for you to do your usual activities, such as self-care, work, or recreation?

Las siguientes preguntas se refieren a problemas o síntomas relacionados con su estado de salud.

En los últimos 30 días, aproximadamente ¿durante cuántos días el dolor le dificultó realizar actividades cotidianas como el cuidado personal, el trabajo o la recreación?

M3.2.
During the past 30 days, for about how many days have you felt sad, blue, or depressed?

En los últimos 30 días, aproximadamente ¿durante cuántos días se sintió triste, melancólico o deprimido?

M3.3.
During the past 30 days, for about how many days have you felt worried, tense, or anxious?

En los últimos 30 días, aproximadamente ¿durante cuántos días se sintió preocupado, tenso o angustiado?

M3.4.
During the past 30 days, for about how many days have you felt very healthy and full of energy?

En los últimos 30 días, aproximadamente ¿durante cuántos días se sintió en excelente estado de salud y lleno de energía?
Module 9: Women’s Health

If male, skip to M10.1

The next questions are about breast and cervical cancer.

**M9.1.**
A mammogram is an x-ray of each breast to look for breast cancer. Have you ever had a mammogram?

1. Yes
2. No
7. DON’T KNOW
9. REFUSED

Las preguntas siguientes se refieren al cáncer de mama y al cáncer del cuello uterino.

La mamografía es una radiografía que se realiza en cada uno de los senos para detectar la existencia de un posible cáncer de mama. ¿Alguna vez se ha hecho una mamografía?

If (answer>1) skip to M9.3

**M9.2.**
How long has it been since you had your last mammogram?

1. Within the past year (anytime less than 12 months ago)
2. Within the past two years (1 year but less than 2 years ago)
3. Within the past three years (2 years but less than 3 years ago)
4. Within the past five years (3 years but less than 5 years ago)
5. 5 years or more
7. DON’T KNOW/NOT SURE
9. REFUSED

¿Cuándo fue la última vez que se hizo una mamografía?
M9.3.
A clinical breast exam is when a doctor, nurse, or other health professional feels
the breast for lumps. Have you ever had a clinical breast exam?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Un examen clínico de mama es cuando un médico, una enfermera u otro
profesional de la salud palpa los senos de una paciente para detectar la posible
existencia de bultos. ¿Alguna vez le han hecho un examen clínico de mama?

If (answer>1) skip to M9.5

M9.4.
How long has it been since your last breast exam?

1. Within the past year (anytime less than 12 months ago)
2. Within the past two years (1 year but less than 2 years ago)
3. Within the past three years (2 years but less than 3 years ago)
4. Within the past five years (3 years but less than 5 years ago)
5. 5 years or more
7. DON'T KNOW/NOT SURE
9. REFUSED

¿Cuándo fue la última vez que le hicieron un examen de mama?

M9.5.
A Pap test is a test for cancer of the cervix. Have you ever had a Pap test?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

El Papanicolau o 'Pap' es un examen para detectar la existencia de cáncer de
cuello uterino. ¿Alguna vez se ha hecho un Pap?

If (answer>1) skip to M9.7
M9.6. How long has it been since you had your last Pap test?

1. Within the past year (anytime less than 12 months ago)
2. Within the past two years (1 year but less than 2 years ago)
3. Within the past three years (2 years but less than 3 years ago)
4. Within the past five years (3 years but less than 5 years ago)
5. 5 years or more
7. DON’T KNOW/NOT SURE
9. REFUSED

¿Cuándo fue la última vez que le hicieron el Pap?

If (Q12.21=1), skip to M10.1

M9.7 Have you had a hysterectomy?

PROMPT IF NEEDED: A hysterectomy is an operation to remove the uterus (womb).

1. Yes
2. No
7. DON’T KNOW
9. REFUSED

¿Le han hecho una histerectomía?

PROMPT IF NEEDED: La histerectomía es una cirugía mediante la cual se extrae el útero (la matriz).

Skip to M11.1
Module 10: Prostate Cancer Screening

If (Q12.1<39) skip to M13.1

Now, I will ask you some questions about prostate cancer screening.

**M10.1.**
A Prostate-Specific Antigen test, also called a PSA test, is a blood test used to check men for prostate cancer. Have you ever had a PSA test?

1. Yes
2. No
7. DON’T KNOW
9. REFUSED

Ahora le haré algunas preguntas sobre los exámenes de detección del cáncer de próstata.

La prueba del antígeno prostático específico, llamada también prueba del PSA, por sus siglas en inglés, es un análisis de sangre que se usa para detectar el cáncer de próstata. ¿Alguna vez se ha hecho la prueba del PSA?

If (answer>1) skip to M10.3

**M10.2.**
How long has it been since you had your last PSA test?

1. Within the past year (anytime less than 12 months ago)
2. Within the past two years (1 year but less than 2 years ago)
3. Within the past three years (2 years but less than 3 years ago)
4. Within the past five years (3 years but less than 5 years ago)
5. 5 years or more
7. DON’T KNOW/NOT SURE
9. REFUSED

¿Cuándo fue la última vez que se hizo la prueba del PSA?
M10.3.  
A digital rectal exam is an exam in which a doctor, nurse, or other health professional places a gloved finger into the rectum to feel the size, shape, and hardness of the prostate gland. Have you ever had a digital rectal exam?

1. Yes  
2. No  
7. DON'T KNOW  
9. REFUSED  

El tacto rectal es un examen en el que un médico, un enfermero u otro profesional de la salud palpa el recto con el dedo enguantado para examinar el tamaño, la forma y la dureza de la glándula prostática. ¿Alguna vez le han hecho un tacto rectal?

If (answer>1) skip to M10.5  

M10.4.  
How long has it been since you had your last digital rectal exam?

1. Within the past year (anytime less than 12 months ago)  
2. Within the past two years (1 year but less than 2 years ago)  
3. Within the past three years (2 years but less than 3 years ago)  
4. Within the past five years (3 years but less than 5 years ago)  
5. 5 years or more  
7. DON'T KNOW/NOT SURE  
9. REFUSED  

¿Cuándo fue la última vez que le hicieron un tacto rectal?

M10.5.  
Have you ever been told by a doctor, nurse, or other health professional that you had prostate cancer?

1. Yes  
2. No  
7. DON'T KNOW  
9. REFUSED  

¿Alguna vez un médico, un enfermero u otro profesional de la salud le dijo que tiene cáncer de próstata?

If (age<49) skip to M13.1
Module 11: Colorectal Cancer Screening

**M11.1.**
A blood stool test is a test that may use a special kit at home to determine whether the stool contains blood. Have you ever had this test using a home kit?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

La prueba de sangre en las heces se puede hacer en casa con un kit especial para detectar la presencia de sangre en las heces. ¿Alguna vez se ha hecho esta prueba con un kit de uso en el hogar?

If (answer>1) skip to M11.3

**M11.2.**
How long has it been since you had your last blood stool test?

1. Within the past year (anytime less than 12 months ago)
2. Within the past two years (1 year but less than 2 years ago)
3. Within the past three years (2 years but less than 3 years ago)
4. Within the past five years (3 years but less than 5 years ago)
5. 5 years or more
7. DON'T KNOW/NOT SURE
9. REFUSED

¿Cuándo fue la última vez que se hizo una prueba de sangre en las heces con un kit de uso en el hogar?
M11.3.
Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?

1. Yes
2. No
7. DON’T KNOW
9. REFUSED

La sigmoidoscopia y la colonoscopia son exámenes en los que se inserta un tubo en el recto para visualizar el colon a fin de detectar señales de cáncer u otros problemas de salud. ¿Alguna vez se ha hecho uno de estos exámenes?

If (answer>1) skip to M13.1

M11.4.
For a SIGMOIDOSCOPY, a flexible tube is inserted into the rectum to look for problems. A COLONOSCOPY is similar, but uses a longer tube, and you are usually given medication through a needle in your arm to make you sleepy and told to have someone else drive you home after the test. Was your MOST RECENT exam a sigmoidoscopy or a colonoscopy?

1. Sigmoidoscopy
2. Colonoscopy
7. DON’T KNOW/NOT SURE
9. REFUSED

Para realizar la SIGMOIDOSCOPIA, se inserta un tubo flexible en el recto para detectar posibles problemas. La COLONOSCOPIA es un examen similar, pero se utiliza un tubo más largo. Por lo general, se le inyecta un medicamento en el brazo para que se duerma. Además, se le pide que vaya a hacerse el examen acompañado de alguien que pueda llevarlo a la casa después del procedimiento. ¿El ÚLTIMO examen que se hizo fue una sigmoidoscopia o una colonoscopia?
M11.5.
How long has it been since you had your last sigmoidoscopy or colonoscopy?

1. Within the past year (anytime less than 12 months ago)
2. Within the past two years (1 year but less than 2 years ago)
3. Within the past three years (2 years but less than 3 years ago)
4. Within the past five years (3 years but less than 5 years ago)
5. 5 years or more

7. DON'T KNOW/NOT SURE
9. REFUSED

¿Cuándo fue la última vez que se hizo una sigmoidoscopia o una colonoscopia?
Module 13: Adult Asthma History

If (ASTHMA>1) skip to M15.1

Previously, you said you were told by a doctor, nurse, or other health professional that you had asthma.

M13.1.
How old were you when you were first told by a doctor, nurse, or other health professional that you had asthma?

Usted señaló anteriormente que un médico, una enfermera u otro profesional de la salud le dijo que tenía asma.

¿Qué edad tenía usted cuando un médico, una enfermera u otro profesional de la salud le dijo por primera vez que tenía asma?

If (ASTHNOW>1) skip to M15.1

M13.2.
During the past 12 months, have you had an episode of asthma or an asthma attack?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿En los últimos 12 meses, ha tenido algún episodio o ataque de asma?

If (answer>1) skip to M13.5

M13.3.
During the past 12 months, how many times did you visit an emergency room or urgent care center because of your asthma?

En los últimos 12 meses, ¿cuántas veces acudió a una sala de urgencias o a un centro de atención de urgencias debido al asma?
M13.4.
If AA3>0, show: “Besides those emergency room or urgent care center visits,”

During the past 12 months, how many times did you see a doctor, nurse, or other health professional for urgent treatment of asthma symptoms?

If AA3>0, show: “Además de esas visitas a la sala de urgencias o a un centro de atención de urgencias”

En los últimos 12 meses, ¿cuántas veces acudió de urgencia a un médico, una enfermera u otro profesional de la salud al agravarse los síntomas del asma?

M13.5.
During the past 12 months, how many times did you see a doctor, nurse, or other health professional for a routine checkup for your asthma?

En los últimos 12 meses, ¿cuántas veces acudió una enfermera u otro profesional de la salud para un chequeo habitual del asma?

M13.6.
During the past 12 months, how many days were you unable to work or carry out your usual activities because of your asthma?

En los últimos 12 meses, ¿cuántos días no pudo trabajar o realizar sus actividades cotidianas debido al asma?
M13.7.
Symptoms of asthma include cough, wheezing, shortness of breath, chest tightness, and phlegm production when you don't have a cold or respiratory infection. During the past 30 days, how often did you have any symptoms of asthma? Would you say not at any time; less than once a week; once or twice a week; more than 2 times a week, but not every day; every day but not all the time; or every day, all the time?

1. Less than once a week
2. Once or twice a week
3. More than 2 times a week, but not every day
4. Every day, but not all the time
5. Every day, all the time
6. DON'T KNOW/NOT SURE
7. Not at any time
8. REFUSED

Los síntomas del asma incluyen tos, sibilancia, dificultad para respirar, presión en el pecho y flemas sin que usted tenga un resfriado o una infección respiratoria. En los últimos 30 días, ¿con qué frecuencia tuvo algún síntoma de asma? Diría usted que en ningún momento; menos de una vez por semana; una o dos veces por semana; más de 2 veces por semana, pero no todos los días; todos los días, pero no todo el tiempo; o todos los días, todo el tiempo.

If (answer=8) skip to M13.9

M13.8.
During the past 30 days, how many days did symptoms of asthma make it difficult for you to stay asleep?

1. 1 or 2
2. 3 to 4
3. 5
4. 6-10
5. More than 10
6. DON'T KNOW/NOT SURE
7. None
8. REFUSED

En los últimos 30 días, ¿durante cuántos días los síntomas del asma le dificultaron o le impidieron dormir?
M13.9.
During the past 30 days, how many days did you take a prescription asthma medication to PREVENT an astham attack from occurring?

Was it never, 1 to 14 days, 15 to 24 days, or 25 to 30 days?

1. 1 to 14
2. 15 to 24
3. 25 to 30
7. DON'T KNOW/NOT SURE
8. Never
9. REFUSED

En los últimos 30 días, ¿durante cuántos días tomó un medicamento recetado para EVITAR un ataque de asma?

¿Nunca, de 1 a 14 días, de 15 a 24 días, o de 25 a 30 días?

M13.10.
During the past 30 days, how often did you use a prescription asthma inhaler DURING AN ASTHMA ATTACK to stop it?

PROMPT IF NEEDED: How often (number of times) does NOT equal number of puffs. Two to three puffs are usually taken each time the inhaler is used.

11. 1 to 4 times (in the past 30 days)
12. 5 to 14 times (in the past 30 days)
13. 15 to 29 times (in the past 30 days)
14. 30 to 59 times (in the past 30 days)
15. 60 to 99 times (in the past 30 days)
16. 100 or more times (in the past 30 days)
77. DON'T KNOW/NOT SURE
88. NEVER (include no attack in past 30 days)
99. REFUSED

En los últimos 30 días, ¿con qué frecuencia utilizó un inhalador recetado para contener UN ATAQUE DE ASMA?

PROMPT IF NEEDED: La frecuencia (cantidad de veces) NO significa la cantidad de inhalaciones (descargas). En general, cada vez que se utiliza el inhalador se realizan dos o tres descargas.
Module 15: Tetanus Diphtheria (Adults)

Next, I will ask you about the tetanus diphtheria vaccination.

M15.1.
Have you received a tetanus shot in the past 10 years?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Ahora le voy a preguntar sobre la vacuna contra el tétanos y la difteria.

¿En los últimos 10 años le han puesto la vacuna contra el tétanos?

If (answer>1) skip to M21.1

M15.2.
Was your most recent tetanus shot given in 2005 or later?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿Su más reciente vacuna contra el tétanos la recibió en el 2005 o después?

If (answer>1) skip to M21.1

M15.3.
There are currently two types of tetanus shots available for adults. One contains the tetanus diphtheria vaccine. The other type contains tetanus diphtheria and pertussis or whooping cough vaccine. Did your doctor say your recent tetanus shot included the pertussis or whooping cough vaccine?

1. Yes (included pertussis)
2. No (did not include pertussis)
7. DON'T KNOW/NOT SURE
9. REFUSED

Actualmente existen dos tipos de vacuna para adultos contra el tétanos. Uno contiene la vacuna contra el tétanos y la difteria. El otro contiene la vacuna contra el tétanos, la difteria y la tos ferina. ¿Le dijo su médico si su vacuna reciente contra el tétanos incluía la vacuna contra la tos ferina?
Module 18: Caregiver

If (Q13.1>1) skip to M21.1

Previously, you said that you provide care to a friend or family member.

**M18.1.**
What age is the person to whom you are providing care?

**INTERVIEWER:** If more than one person, ask: "What is the age of the person to whom you are giving the most care?"

_Usted señaló anteriormente que proporciona cuidados a un amigo o un familiar._

¿Qué edad tiene la persona que está bajo su cuidado?

"**INTERVIEWER:** If more than one person, ask: ‘¿qué edad tiene la persona a la que usted cuida más?’"

The remainder of these questions will be about the person to whom you are giving the most care.

**M18.2.**
Is this person male or female?
1. Male
2. Female
9. REFUSED

_El resto de estas preguntas se referirá a la persona que usted cuida más._

¿Esta persona es hombre o mujer?
M18.3.
What is this person's relationship to you? For example, is (he/she) your (father/mother) or (son/daughter)?

11. Parent
12. Parent-in-law
13. Child
14. Spouse
15. Sibling
16. Grandparent
17. Grandchild
18. Other relative
19. Non-relative

77. DON'T KNOW/NOT SURE
99. REFUSED

¿Cuál es el parentesco? ¿Por ejemplo, si la persona es su (padre/madre) o (hijo/hija)?

M18.4.
For how long have you provided care for your (answer to M18.3)?

¿Desde hace cuánto tiempo ha cuidado a su (answer to M18.3)?
M18.6.
In which of the following areas does the person you care for most need your help? Is it taking care of himself/herself, such as eating, dressing, or bathing; taking care of his/her residence or personal living spaces, such as cleaning, managing money, or preparing meals; communicating with others; learning or remembering; seeing or hearing; moving around within the home; transportation outside of the home; getting along with people; or relieving or decreasing anxiety or depression?

11. Taking care of self
12. Taking care of residence
13. Communicating
14. Learning or remembering
15. Seeing or hearing
16. Moving around within home
17. Transportation outside home
18. Getting along with people
19. Relieving/decreasing anxiety/depression
77. DON’T KNOW/NOT SURE
99. REFUSED

¿En cuáles de las siguientes áreas necesita más de su ayuda la persona bajo su cuidado? Cuidar de sí misma, como comer, vestirse o bañarse; cuidar de su casa o de los espacios que habita, como limpiar, administrar las finanzas o preparar las comidas; comunicarse con los demás; aprender o recordar; ver u oir; movilizarse en la casa; trasladarse a otros lugares fuera de la casa; relacionarse con otras personas; o aliviar o disminuir la ansiedad o la depresión.

M18.7.
In an average week, how many hours do you provide care for your (answer to M18.3) because of (his/her) health problem, long term illness, or disability?

En una semana normal, ¿durante cuántas horas cuida de su (answer to M18.3) debido a su problema de salud, enfermedad prolongada o discapacidad?
I am going to read a list of difficulties you may have faced as a caregiver. Please indicate which of the following is the greatest difficulty you have faced as a caregiver. Is it that it creates a financial burden, doesn't leave enough time for yourself, doesn't leave enough time for your family, interferes with your work, creates stress, creates or aggravates health problems, affects family relationships, another difficulty, or is there no difficulty?

11. Creates financial burden
12. Doesn't leave enough time for self
13. Doesn't leave enough time for family
14. Interferes with work
15. Creates stress
16. Creates or aggravates health problems
17. Affects family relationships
18. Other difficulty
77. DON'T KNOW/NOT SURE
88. No difficulty
99. REFUSED

Le voy a leer una lista de problemas que usted posiblemente ha enfrentado al cuidar de otra persona. Por favor, indique cuál es el problema principal que ha enfrentado en esta tarea. ¿Representa una carga financiera, no le deja suficiente tiempo para usted, no le deja suficiente tiempo para su familia, interfiere con su trabajo, origina estrés, causa o empeora problemas de salud, afecta las relaciones familiares, otra dificultad, o no representa una dificultad?

M18.9.
During the past year, has the person you care for experienced changes in thinking or remembering?

READ ONLY IF NEEDED: 'Had more difficulty remembering people, places, or things, or understanding or making decisions as easily as they once did.'

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

Durante el último año, ¿la persona que usted cuida ha presentado cambios en la memoria o en la manera en que razona?

READ ONLY IF NEEDED: 'Tiene más dificultad para recordar personas, lugares cosas, o no tiene la misma facilidad que antes para comprender o tomar decisions.'
Module 21: Mental Illness and Stigma

Now I am going to ask you some questions about how you have been feeling during the *past 30 days.*

**M21.1.**
About how often during the past 30 days did you feel *nervous*—would you say *all* of the time, *most* of the time, *some* of the time, a *little* of the time, or *none* of the time.

1. All
2. Most
3. Some
4. A little
5. None
6. DON'T KNOW/NOT SURE
7. REFUSED

Ahora le voy a hacer algunas preguntas sobre cómo se ha sentido en los últimos 30 días.

En los últimos 30 días, ¿con qué frecuencia se sintió nervioso, diría usted que todo el tiempo, casi todo el tiempo, algunas veces, pocas veces o ninguna vez?

**M21.2.**
During the past 30 days, about how often did you feel *hopeless*—would you say *all* of the time, *most* of the time, *some* of the time, a *little* of the time, or *none* of the time.

1. All
2. Most
3. Some
4. A little
5. None
6. DON'T KNOW/NOT SURE
7. REFUSED

En los últimos 30 días, ¿con qué frecuencia se sintió desesperanzado, diría usted que todo el tiempo, casi todo el tiempo, algunas veces, pocas veces o ninguna vez?
M21.3.
During the past 30 days, about how often did you feel *restless or fidgety*?

READ IF NECESSARY: *All,* *most,* *some,* *a little,* or *none* of the time?

1. All  
2. Most  
3. Some  
4. A little  
5. None  
7. DON'T KNOW/NOT SURE  
9. REFUSED

En los últimos 30 días, ¿con qué frecuencia se sintió agitado o inquieto?

READ IF NECESSARY: ¿Todo el tiempo, casi todo el tiempo, algunas veces, pocas veces o ninguna vez?

M21.4.
During the past 30 days, about how often did you feel *so depressed* that nothing could cheer you up?

READ IF NECESSARY: *All,* *most,* *some,* *a little,* or *none* of the time?

1. All  
2. Most  
3. Some  
4. A little  
5. None  
7. DON'T KNOW/NOT SURE  
9. REFUSED

En los últimos 30 días, ¿con qué frecuencia se sintió tan deprimido que nada lo animaba?

READ IF NECESSARY: ¿Todo el tiempo, casi todo el tiempo, algunas veces, pocas veces o ninguna vez?
M21.5.
During the past 30 days, about how often did you feel that *everything was an effort*?

READ IF NECESSARY: *All,* *most,* *some,* a *little,* or *none* of the time?

1. All
2. Most
3. Some
4. A little
5. None
7. DON'T KNOW/NOT SURE
9. REFUSED

En los últimos 30 días, ¿con qué frecuencia sintió que todo le costaba trabajo?

READ IF NECESSARY: ¿Todo el tiempo, casi todo el tiempo, algunas veces, pocas veces o ninguna vez?

M21.6.
During the past 30 days, about how often did you feel *worthless*?

READ IF NECESSARY: *All,* *most,* *some,* a *little,* or *none* of the time?

1. All
2. Most
3. Some
4. A little
5. None
7. DON'T KNOW/NOT SURE
9. REFUSED

En los últimos 30 días, ¿con qué frecuencia se sintió inútil?

READ IF NECESSARY: ¿Todo el tiempo, casi todo el tiempo, algunas veces, pocas veces o ninguna vez?
The next question asks if any type of mental health condition or emotional problem has recently kept you from doing your work or other usual activities.

**M21.7.**
During the past 30 days, for how many days did a mental health condition or emotional problem *keep you from doing* your work or other usual activities?

PROMPT IF NEEDED: If asked, 'usual activities' includes housework, self-care, caregiving, volunteer work, attending school, studies, or recreation.

La pregunta siguiente se refiere a si algún tipo de afección mental o de problema emocional ha impedido que usted trabajé o realice sus actividades cotidianas.

En los últimos 30 días, ¿aproximadamente cuántos días no pudo trabajar o realizar otras actividades cotidianas debido a una afección mental o a un problema emocional?

PROMPT IF NEEDED: Si le preguntan, las 'actividades cotidianas' incluyen quehaceres de la casa, cuidados personales, cuidados de otras personas, voluntariado, asistencia a la escuela, estudio o actividades de recreación.

**M21.8.**
Are you now taking medicine or receiving treatment from a doctor or other health professional for any type of mental health condition or emotional problem?

1. Yes
2. No
7. DON'T KNOW
9. REFUSED

¿Está tomando actualmente medicamentos o recibiendo tratamiento de un médico u otro profesional de la salud para algún tipo de afección mental o problema emocional?
These next questions ask about people's attitudes toward mental illness and its treatment. How much do you *agree* or *disagree* with these statements about mental illness...

**M21.9.**
Treatment can help people with mental illness lead normal lives. Do you strongly agree, slightly agree, slightly disagree, or strongly disagree?

PROMPT IF NEEDED: If asked for the purpose of this question, say: “answers to these questions will be used to help understand public attitudes about mental illness and its treatment and to help guide health education programs.”

1. Strongly agree
2. Slightly agree
3. Neither agree nor disagree
4. Slightly disagree
5. Strongly disagree
7. DON'T KNOW/NOT SURE
9. REFUSED

Las preguntas siguientes se refieren a las actitudes de las personas hacia las enfermedades mentales y su tratamiento. Diga qué tanto está de acuerdo o en desacuerdo con las siguientes declaraciones sobre las personas con enfermedades mentales...

El tratamiento puede ayudar a que las personas con enfermedades mentales lleven una vida normal. ¿Usted está muy de acuerdo, ligeramente de acuerdo, ligeramente en desacuerdo o muy en desacuerdo?

PROMPT IF NEEDED: If asked for the purpose of this question, say: 'las respuestas a estas preguntas las utilizarán los planificadores de los cuidados de la salud para ayudar a comprender las actitudes de la gente hacia las enfermedades mentales y su tratamiento y a guiar los programas de educación en salud.'
M21.20.
People are generally caring and sympathetic to people with mental illness. Do you strongly agree, slightly agree, slightly disagree, or strongly disagree?

PROMPT IF NEEDED: If asked for the purpose of this question, say: “answers to these questions will be used to help understand public attitudes about mental illness and its treatment and to help guide health education programs.”

1. Strongly agree
2. Slightly agree
3. Neither agree nor disagree
4. Slightly disagree
5. Strongly disagree
6. DON'T KNOW/NOT SURE
7. REFUSED

La gente en general se preocupa por las personas con enfermedades mentales y se muestra comprensiva con ellas. ¿Usted está muy de acuerdo, ligeramente de acuerdo, ligeramente en desacuerdo o muy en desacuerdo?

PROMPT IF NEEDED: If asked for the purpose of this question, say: 'las respuestas a estas preguntas las utilizarán los planificadores de los cuidados de la salud para ayudar a comprender las actitudes de la gente hacia las enfermedades mentales y su tratamiento y a guiar los programas de educación en salud.'
Module 23: Social Context

There are many different factors that can affect a person’s health. I'm going to ask you about several factors that can affect a person's health.

**M23.1.**
Do you own or rent your home?

PROMPT IF NEEDED: 'Other arrangement' may include group home or staying with friends or family without paying rent.

1. Own
2. Rent
3. Other arrangement
7. DON'T KNOW/NOT SURE
9. REFUSED

Hay muchos factores que pueden afectar la salud de una persona. Le voy a preguntar sobre varios factores que pueden afectar la salud de una persona.

¿Su casa es propia o rentada?

PROMPT IF NEEDED: 'Otra situación' puede incluir habitar una casa en forma grupal o vivir con amigos o familiares sin pagar renta.

If (answer>2) skip to M23.3
M23.2. How often in the past 12 months would you say you were worried or stressed about having enough money to pay your (rent/mortgage)?

Would you say you were worried or stressed always, usually, sometimes, rarely, or never?

1. Always
2. Usually
3. Sometimes
4. Rarely
5. Never
7. DON'T KNOW/NOT SURE
8. NOT APPLICABLE
9. REFUSED

En los últimos 12 meses, ¿con qué frecuencia diría usted que estuvo preocupado o estresado sobre si tendría dinero suficiente para pagar (la renta/la hipoteca)?

¿Diría que estuvo preocupado o estresado siempre, casi siempre, a veces, rara vez, o nunca?
M23.3.
How often in the past 12 months would you say you were worried or stressed about having enough money to buy nutritious meals?

Would you say you were worried or stressed always, usually, sometimes, rarely, or never?

1. Always
2. Usually
3. Sometimes
4. Rarely
5. Never
6. DON'T KNOW/NOT SURE
7. NOT APPLICABLE
8. REFUSED

En los últimos 12 meses, ¿con qué frecuencia diría usted que estuvo preocupado o estresado sobre si tendría dinero suficiente para comprar alimentos nutritivos? ¿Diría que estuvo preocupado o estresado siempre, casi siempre, a veces, rara vez, o nunca?

If (employ=13 or employ=14 or employ=17) skip to M23.6
If (employ=15 or employ=16 or employ=18) skip to M23.7
If (employ=99) skip to M23.8
M23.4.
At your main job or business, how are you generally paid for the work you do?

Are you paid by salary, paid by the hour, paid by the job or task like commission or piecework, or paid some other way?

INTERVIEWER: If paid multiple ways at their main job, select option 4 (paid some other way.)

1. Paid by salary
2. Paid by the hour
3. Paid by the job/task
4. Paid some other way
7. DON'T KNOW/NOT SURE
9. REFUSED

En su empleo o negocio principal, ¿cómo le pagan por su trabajo? ¿Con un salario, por hora, por trabajo o tarea (p.ej., comisión, por proyecto o pieza), o de otra manera?

INTERVIEWER: si le pagan de varias maneras por su empleo principal, seleccione la opción 4 (de otra manera.)

M23.5.
About how many hours do you work per week at all of your jobs and businesses combined?

¿Aproximadamente cuántas horas trabaja a la semana contando todos sus empleos o negocios?

Skip to M23.8
M23.6.
Thinking about the last time you worked, at your main job or business, how were you generally paid for the work you did?

Were you paid by salary, paid by the hour, paid by the job or task like commission or piecework, or paid some other way?

INTERVIEWER: If paid multiple ways at their main job, select option 4 (paid some other way.)

1. Paid by salary
2. Paid by the hour
3. Paid by the job/task
4. Paid some other way
7. DON'T KNOW/NOT SURE
9. REFUSED

Recuerde la última vez que trabajó en su empleo o negocio principal, ¿cómo le remuneraron su trabajo? ¿Con un salario, por hora, por trabajo o tarea (p.ej., comisión, por proyecto o pieza), o de otra manera?

INTERVIEWER: si le pagan de varias maneras por su empleo principal, seleccione la opción 4 (de otra manera.)

M23.7.
Thinking about the last time you worked, about how many hours did you work per week at all of your jobs and businesses combined?

Recuerde la última vez que trabajó, ¿aproximadamente cuántas horas trabajó por semana en todos sus trabajos o negocios juntos?

M23.8
Did you vote in the last presidential election? The November 2008 election between Barack Obama and John McCain?

1. Yes
2. No
7. DON'T KNOW/NOT SURE
8. NOT APPLICABLE (Did not register, not US citizen, not eligible to vote)
9. REFUSED

Closing Statement

That is my last question. Everyone’s answers will be combined to give us information about the health practices of people in DuPage County. Thank you very much for your time and cooperation.

Esa fue mi última pregunta. Todas las respuestas serán combinadas con las de los otros participantes para darnos información respecto a los comportamientos relacionados a la salud de las personas en DuPage County. Muchas gracias por su tiempo y cooperación.
Interviewer Information

Information available to interviewers from all screens

Intro

Hello, this is INTERVIEWER NAME from Northern Illinois University. I'm calling on behalf of the DuPage County Health Department. We are gathering information about the health of DuPage County residents. Your telephone number has been chosen randomly, and I would like to ask some questions about health and health practices.

Answering Machine Message: Hello, this is <INTERVIEWER NAME> calling from Northern Illinois University. We are contacting your household for the DuPage County Health Department to ask questions about health and health practices. You may contact us at 1-800-874-1990. Thank you.

Sponsor: DuPage County Health Department
Study Director: Julie Gommel Bailey
e-mail: juliebailey@niu.edu
phone: 815.753.6538

DuPage County Health Department contact:
Peggy Iverson
phone: 630.221.7534