Background: The Osteopathic Survey of Health Care in America (OSTEOSURV) is a decennial national telephone survey. Its goals are to monitor longitudinal trends in awareness, beliefs, utilization, and patient satisfaction relating to osteopathic physicians and to assess beliefs and attitudes regarding contemporary health care issues in the United States. The questionnaire was validated during the administrations of OSTEOSURV-I and OSTEOSURV-II in 1998 and 2000, respectively. In OSTEOSURV 2010, the contemporary health care issues of interest are patient-centered care and the Patient Protection and Affordable Care Act of 2010.

Methods: The target population was household residents of the United States aged 18 years or older. A total of 10,308 random landline telephone numbers were dialed using a computer-assisted telephone interviewing system to acquire 1000 completed interviews between July 23, 2010, and October 1, 2010. The response, cooperation, and contact rates as defined by the American Association for Public Opinion Research were comparable to those of other national telephone surveys. The survey provides an estimated margin of error no greater than 3% to 4% for both general items and for those relating to the subset of respondents claiming to be aware of osteopathic physicians. Because respondents were older and more likely to be female than referents in the general population, the observed responses will be weighted by age and sex to reflect the US Census estimates for persons aged 18 years or older in 2010.

Discussion: OSTEOSURV 2010 was successfully fielded as the latest national telephone survey relevant to osteopathic medicine and contemporary US health care issues. Data analysis should yield important new findings relating to osteopathic physicians, patient-centered care, and the Patient Protection and Affordable Care Act that may not be readily observed through other national health care data sets. While underrepresented in this survey, which excluded cell phone–only participants, young adult respondents were reflective of their national age referents with regard to health insurance coverage and general health status. Thus, it appears likely that statistical weighting by age and sex of the OSTEOSURV 2010 data will minimize potential bias in estimates of health-related items. Rapidly evolving technology and sociocultural transitions will necessitate changes in the design of OSTEOSURV 2020.

J Am Osteopath Assoc. 2011;111(12):670-684

The Osteopathic Survey of Health Care in America (OSTEOSURV) is a decennial national telephone survey. Its main goals are to monitor longitudinal trends in awareness, beliefs, utilization, and satisfaction relating to osteopathic physicians and to assess beliefs and attitudes regarding contemporary health care issues in the general population of the United States. The previous administrations of OSTEOSURV-I in 1998 and OSTEOSURV-II in 2000 validated the OSTEOSURV questionnaire, including the core anchor items relating to osteopathic physicians and other survey domains. The Osteopathic Survey of Health Care in America complements the large national surveys that provide data sets for secondary analysis in the realm of health services and policy research. Two important advantages of these national surveys are that they are generally representative of the US population and that they are statistically powerful. For example, the National Ambulatory Medical Care Survey has been used to study the practice patterns of osteopathic physicians in delivering family and general medical care as well as preventive medicine services, managing low back pain, and providing medical care at academic health centers. However, there are often 2 major limitations of such national data sets. Most obviously, the research hypotheses are limited to those soluble with the data provided within the survey questionnaires or interviews. Secondly, because the data are frequently
collected through physician offices, hospitals, or third-party administrators, the patient perspectives of health care delivery are frequently lacking. The Osteopathic Survey of Health Care in America fills these voids by addressing osteopathic medicine and related contemporary health care issues and by asking patients about their beliefs, utilization, and satisfaction relating to health care.

The contemporary health care issues of interest in OSTEOSURV 2010 are beliefs about patient-centered care and the Patient Protection and Affordable Care Act of 2010 (PPACA). Patient-centered care was highlighted by the Institute of Medicine in 2001, wherein it recommended that health care should be patient centered, in addition to being safe, effective, timely, efficient, and equitable. Six commonly accepted dimensions of patient-centered care are the following: respect for patients’ values, preferences, and expressed needs; coordination and integration of care; information, communication, and education; physical comfort; emotional support (eg, relieving fear and anxiety); and involvement of family and friends.

The PPACA has been described as the most consequential social legislation of our generation, arguably transforming all aspects of health care in the United States by mandating minimum health insurance coverage, providing federal subsidies to qualified individuals to help offset the cost of such mandated coverage, imposing extensive new requirements on the health insurance industry, and placing additional regulations on the practice of medicine. Since its enactment on March 23, 2010, there has been much debate about the positive and negative implications of health care reform, including PPACA implementation and its potentially transformative effect on the US health care system.

Methods

Ethics Approval

The institutional review boards at the University of North Texas and the University of North Texas Health Science Center both approved OSTEOSURV 2010 prior to its administration.

Survey Questionnaire

The OSTEOSURV 2010 questionnaire (Appendix 1) was designed to be easily understood and completed by respondents having a basic knowledge of the English language. It includes 65 items within 6 domains (Table 1). Forty items had Likert-scale responses, 24 had categorical responses, and 1 item was open-ended. Five items were used to compute the Medical Outcomes Study Short Form-36 general health score. Screening items with branch points were used to acquire data on the subsets of respondents claiming either to be aware of or to have ever received health care from an osteopathic physician.

Sampling Frame

The target population for OSTEOSURV 2010 was household residents of the United States who were aged 18 years or older. Random digit dialing was used to generate the survey sample after identifying all landline telephone exchanges in the United States and determining the relevant proportional household estimates. Pre-survey letters were sent by the University of North Texas Survey Research Center to a subset of 5048 households identified using a reverse directory of listed telephone numbers. The intent of these letters was to increase participation by explaining the purpose of the survey and notifying recipients that a telephone interviewer would be calling in about 1 week. In addition, all eligible contacts were promised a $10 gift card redeemable through a national retailer as an incentive if they were to complete the telephone interview. Household residents without a landline (ie, those with only cell phones or no telephone service) were not included in the sampling frame. A total of 10,308 random numbers were dialed by interviewers using a computer-assisted telephone interviewing system.

Exclusion Criteria

The intent of OSTEOSURV 2010 was to survey adults using household landlines. Consequently, persons in business or government offices, group quarters, or other non-household settings were excluded from participation. Also excluded from the survey were persons who could not understand and respond in English and persons with physical or mental impairments that precluded participation in the telephone interview.

<table>
<thead>
<tr>
<th>Domain</th>
<th>No. of Items</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociodemographic characteristics</td>
<td>13</td>
<td>Categorical</td>
</tr>
<tr>
<td>General health status†</td>
<td>5</td>
<td>Likert scale (4), categorical (1)</td>
</tr>
<tr>
<td>Health care beliefs and utilization‡</td>
<td>15</td>
<td>Categorical (9), Likert scale (6)</td>
</tr>
<tr>
<td>Beliefs relating to patient satisfaction‡</td>
<td>11</td>
<td>Likert scale (9), categorical (1), open-ended (1)</td>
</tr>
<tr>
<td>Beliefs relating to patient-centered care</td>
<td>7</td>
<td>Likert scale</td>
</tr>
<tr>
<td>Beliefs relating to the PPACA</td>
<td>14</td>
<td>Likert scale</td>
</tr>
</tbody>
</table>

* Whenever more than 1 response option was used, the number of items having a given option are provided in parentheses.
† Based on the Medical Outcomes Study Short Form-36 Health Survey.10
‡ Includes core anchor items relating to osteopathic physicians.

Abbreviation: PPACA, Patient Protection and Affordable Care Act of 2010.

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Survey Flow
We determined the disposition of all randomly dialed numbers between July 23, 2010, and October 1, 2010 (Figure). A total of 5780 numbers were unreachable despite 8 call attempts (on the sixth call attempt, whenever possible, a voice mail message was left to explain the purpose of the call and to provide a toll-free number to complete the telephone interview). Among the 3451 contacts with confirmed eligibility, 1036 (30%) respondents participated in telephone interviews. However, only the 1000 respondents who completed the interview (ie, remained on the telephone until the final question, regardless of whether all preceding questions were answered) will be included in future OSTEOSURV 2010 analyses. The median time required by these respondents to complete the questionnaire was 16 minutes (interquartile range, 4 minutes).

American Association for Public Opinion Research Outcome Rates
The American Association for Public Opinion Research standard definitions and corresponding equations (Appendix 2) were used to compute the response, cooperation, and contact rates11 for OSTEOSURV 2010, using their Outcome Rate Calculator (version 3.1; American Association for Public Opinion Research, Deerfield, Illinois). Response rate 3, cooperation rate 3, and contact rate 2 were purposely selected to facilitate a comparison of OSTEOSURV with a variety of other national landline surveys conducted and reported by the Pew Research Center12 (Table 2).

Margin of Error
The 1000 respondents who completed interviews in OSTEOSURV 2010 provided a margin of error no greater than 3.1% at the 95% confidence level for items with no missing responses, and no greater than an estimated 3.3% at the 95% confidence level for items with missing responses. For items based only on the subset of respondents claiming to be aware of osteopathic physicians, the margin of error was estimated to be no greater than 4% at the 95% confidence level. For items based only on the subset of respondents claiming to have ever received health care from an osteopathic physician, the margin of error was estimated to be no greater than 7% at the 95% confidence level.

OSTEOSURV 2010 Respondents
We assessed the basic sociodemographic characteristics of the 1000 respondents who completed the OSTEOSURV 2010 telephone interview (Table 3). These respondents were older and more likely to be female than referents in the US general population.13 The modal age category of respondents was 55 to 64 years, and 58% were female, compared with the corresponding population parameters of 45 to 54 years of age and 51% female. Hispanics were underrepresented in our survey (5%), as compared with the general population (14%).

Figure. Flow diagram of the Osteopathic Survey of Health Care in America 2010.
Statistical Weighting
Statistical weighting of the OSTEOSURV 2010 data set was performed (Table 3). This involved weighting the observed responses by age and sex to reflect the US Census estimates for persons aged 18 years or older in 2010.13 Aside from the intended effects relating to age and sex, this statistical weighting modestly increased Hispanic representation in the survey (7%), with small or no changes in the remaining sociodemo- graphic characteristics.

Data Management and Analysis
Thus far, the OSTEOSURV 2010 data have been managed, analyzed, and statistically weighted with SPSS version 17.0.3 (IBM SPSS Statistics; Chicago, Illinois). Subsequent data management and analyses will be conducted at The Osteopathic Research Center using the relevant software and statistical techniques for the specific hypotheses to be studied.

Role of the Sponsor
The Osteopathic Survey of Health Care in America 2010 is supported by a grant from the Osteopathic Heritage Foundation (Columbus, Ohio). The sponsor provides financial support only and has no role in the design and conduct of the survey; the collection, management, analysis, and interpretation of the data; or the preparation, review, or approval of manuscripts for publication.

Discussion
The Osteopathic Survey of Health Care in America 2010 was successfully fielded as the latest in a series of decennial national telephone surveys relevant to osteopathic medicine and contemporary health care issues in the United States. Analyses of the data provided by the 1000 respondents who completed the interview should yield important new findings relating to osteopathic physicians, patient-centered care, and the PPACA that may not be readily observed through other national health care data sets.

Since our previous administrations of OSTEOSURV-I and OSTEOSURV-II, many more Americans have acquired household technologies, such as answering machines, voice mail, caller ID, and call blocking, that can be used to screen telephone calls and avoid participating in telephone surveys. However, research suggests that the effects of nonresponse bias are minimal despite decreasing response rates in telephone surveys over time.14 Although fielded 5 to 14 years later, the OSTEOSURV 2010 response rate was only slightly lower than the response rates typically reported in 80 random-digit dialing surveys conducted by another university-based survey research center between 2000 and 200415 and in 114 random-digit dialing surveys conducted by 14 major survey organizations servicing news media and government agencies between 1996 and 2005.16 Further, the response, cooperation, and contact rates for OSTEOSURV 2010 were comparable to those achieved in a variety of national landline surveys conducted by the Pew Research Center in 2007 and 2008.12

The exclusion of cell phone–only participants from OSTEOSURV 2010 may raise questions regarding the potential for biased results. About 18% of US households use cell phone–only telecommunications,13 and it is widely acknowledged that cell phone–only usage is most prevalent in young adults. Thus, the underrepresentation of young adults may be among the most problematic aspects of landline surveys. Only 3% and 8%, respectively, of OSTEOSURV 2010 respondents were in the 18- to 24-year-old and 25- to 34-year-old subgroups. As a historical frame of reference, 13% and 20%, respectively, of OSTEOSURV-I respondents were in the corresponding age subgroups. While exclusion of cell phone–only participants generally has not biased the overall findings of landline surveys, there is evidence of biased estimates for certain variables in young adults.17

Among persons aged 18 to 25 years, the differences between landline and cell phone–only respondents appear to be much more profound for technology usage, such as e-mailing (17% differential) and text messaging (31% differential), than for health-related issues, such as smoking (1% differential) and health insurance coverage (5% differential).17 It is quite possible that beliefs and attitudes relating to health care are not yet formulated and entrenched in young adults. Therefore, excluding cell phone–only participants (predominantly younger adults) from landline surveys relating to health care

### Table 2.
Comparison of AAPOR Outcome Rates Achieved by OSTEOSURV 2010 and the Pew Research Center in Conducting National Landline Surveys, by Year and Survey Topic

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>OSTEOSURV 2010</th>
<th>Pew Research Center Surveys&lt;sup&gt;12&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey Topic</td>
<td>Healthcare</td>
<td>Politics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Politics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Economy</td>
</tr>
<tr>
<td>Response rate 3, %</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Cooperation rate 3, %</td>
<td>29</td>
<td>27</td>
</tr>
<tr>
<td>Contact rate 2, %</td>
<td>81</td>
<td>84</td>
</tr>
</tbody>
</table>

<sup>12</sup>Equations for outcome rates are shown in Appendix 2.

<sup>13</sup>AAPOR, American Association for Public Opinion Research; OSTEOSURV 2010, Osteopathic Survey of Health Care in America 2010.
Table 3. Sociodemographic Characteristics of OSTEOSURV 2010 Respondents* (N=1000)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Unweighted, No. (%)</th>
<th>Weighted, † No. (%)</th>
<th>US Population, § %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age, y</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>26 (3)</td>
<td>130 (13)</td>
<td>13</td>
</tr>
<tr>
<td>25-34</td>
<td>78 (8)</td>
<td>177 (18)</td>
<td>18</td>
</tr>
<tr>
<td>35-44</td>
<td>133 (13)</td>
<td>175 (18)</td>
<td>18</td>
</tr>
<tr>
<td>45-54</td>
<td>219 (22)</td>
<td>190 (19)</td>
<td>19</td>
</tr>
<tr>
<td>55-64</td>
<td>268 (27)</td>
<td>154 (15)</td>
<td>15</td>
</tr>
<tr>
<td>65-74</td>
<td>160 (16)</td>
<td>91 (9)</td>
<td>9</td>
</tr>
<tr>
<td>≥75</td>
<td>113 (11)</td>
<td>80 (8)</td>
<td>8</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>579 (58)</td>
<td>513 (51)</td>
<td>51</td>
</tr>
<tr>
<td>Male</td>
<td>421 (42)</td>
<td>487 (49)</td>
<td>49</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>826 (83)</td>
<td>793 (79)</td>
<td>81</td>
</tr>
<tr>
<td>Black</td>
<td>95 (10)</td>
<td>103 (10)</td>
<td>12</td>
</tr>
<tr>
<td>Other (including ≥1 race)</td>
<td>79 (8)</td>
<td>104 (10)</td>
<td>7</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>47 (5)</td>
<td>74 (7)</td>
<td>14</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>953 (95)</td>
<td>926 (93)</td>
<td>86</td>
</tr>
<tr>
<td><strong>US Census Region</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>211 (21)</td>
<td>218 (22)</td>
<td>18</td>
</tr>
<tr>
<td>Midwest</td>
<td>265 (27)</td>
<td>272 (27)</td>
<td>22</td>
</tr>
<tr>
<td>South</td>
<td>340 (34)</td>
<td>330 (33)</td>
<td>37</td>
</tr>
<tr>
<td>West</td>
<td>182 (18)</td>
<td>172 (17)</td>
<td>23</td>
</tr>
<tr>
<td><strong>Residence</strong>§</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban (including suburban)</td>
<td>630 (65)</td>
<td>642 (67)</td>
<td>63</td>
</tr>
<tr>
<td>Rural</td>
<td>335 (35)</td>
<td>321 (33)</td>
<td>37</td>
</tr>
</tbody>
</table>

* Total numbers for each characteristic may not sum to 1000 because some respondents may have chosen not to respond or did not know the answer to a question in the survey. Percentages refer to non-missing responses and may not total 100 because of rounding.
† Weighted by age and sex to reflect the US Census estimates for persons aged 18 years or older in 2010.10 Such weighting increased the representation of respondents with missing values for US Census region and residence, thereby increasing the total number of missing responses for these characteristics by 6 and 2, respectively.
‡ Based on US Census estimates for persons aged 18 years or older in 2010, except for Census region and residence, which are based on the entire population in 2009.12
§ The Osteopathic Survey of Health Care in America 2010 (OSTEOSURV 2010) questionnaire did not define the meaning of “urban” or “rural.” The US population estimates for urban and rural are based on the percentages of persons residing within or outside of incorporated places, respectively.

May not materially affect the results. Although they were underrepresented in OSTEOSURV 2010, respondents in the 18- to 24-year-old subgroup were representative of their population age group with regard to health insurance coverage and general health status. We found that 69% in both the unweighted and weighted analyses for this age subgroup reported having health insurance. These findings are similar to those reported by comparably aged landline (67%) and cell phone-only (72%) respondents.17 The mean Medical Outcomes Study Short Form-36 general health scores of 18- to 24-year-old respondents in OSTEOSURV 2010 were 79 (95% confidence interval, 72-85) and 76 (95% confidence interval, 73-79) in the unweighted and weighted analyses, respectively, compared with the age-specific population norm of 77.10 The 25- to 34-year-old respondents in OSTEOSURV 2010 were similarly comparable in health status to their age-specific referents. Thus, it appears likely that statistical weighting by age and sex of the OSTEOSURV 2010 data will minimize potential bias in estimates of health-related items.

Hispanics have been substantially underrepresented in telephone surveys, in part because the interviews are usually conducted in English. The OSTEOSURV 2010 sample is not unlike that of an experimental study conducted in 2003, wherein Hispanics represented only 7% of the respondents, although they comprised 12% of the US population.14 To date, budgetary constraints have precluded administering OSTEOSURV in Spanish or using a dual-frame design to include cell phone-only respondents. Instead, statistical weighting based on the US Census estimates for age and sex in 2010 will be used to analyze the OSTEOSURV 2010 results. However, it is readily apparent that rapidly evolving technology and sociocultural transitions in the United States will necessitate changes in the methodology of OSTEOSURV 2020.

References
8. Gerteis M, Edgman-Levitan S, Daley J, Delbanco TL, eds. Through the


Appendix 1

The Osteopathic Survey of Health Care in America 2010 (OSTEOSURV 2010). Reprinted with permission from John C. Licciardone, DO, MS, MBA, and colleagues. The authors retain copyright of the OSTEOSURV family of surveys, including the current OSTEOSURV 2010 survey. This survey has been altered for graphic enhancement only. Abbreviations: NR/DK, no response/don’t know; UNT, University of North Texas; UNTHSC, University of North Texas Health Science Center.

HELLO

Hello, my name is ________. The University of North Texas Health Science Center and Survey Research Center are conducting a national survey regarding health care needs and opinions. People who answer the survey will be sent a $10 gift card. To begin, I would like to talk with the male age 18 or older in your household with the most recent birthday.

INTERVIEWER: IF A MALE AGE 18 OR OLDER IS NOT AVAILABLE, PLEASE ASK TO INTERVIEW A FEMALE AGE 18 OR OLDER WHO IS AVAILABLE.

(TO RESPONDENT) We (IF NEW RESPONDENT: the Survey Research Center of the University of North Texas and the Health Science Center) are conducting a survey that will inform policy makers about the health care needs and opinions of Americans. You are invited to participate in this research study. The information you provide is important to the success of the project. We appreciate you taking approximately 10-15 minutes to answer survey questions for us.

The benefit of this survey is for us to evaluate and report perceptions of health care in the United States. You may not receive any direct benefit from participating in this study.

Your participation is voluntary and you can stop the interview at any time during this phone call. You may also refuse to answer questions you are not comfortable with.

We intend to keep your responses confidential. There is only minimal risk to you because your name and address, which are obtained at the end of the interview for compensation purposes only, will be stored securely in a file separate from your responses to the survey.

This project has been reviewed and approved by the UNT and the UNTHSC Institutional Review Boards. If you have any questions regarding this research project you may call the Survey Research Center at 800-687-7055 or the Principal Investigator at 817-735-0515. If you have any questions about your rights as a research subject, you may contact the UNTHSC Institutional Review Board at 817-735-0409.

(continued)
### Appendix 1 (continued)

<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Q1</strong></td>
<td>(INTERVIEWER: PLEASE READ) I am going to read you a number of statements about different types of health care providers from whom you may receive health care. Which of the following best describes your main health care provider?</td>
</tr>
<tr>
<td>1.</td>
<td>Medical Doctor or MD</td>
</tr>
<tr>
<td>2.</td>
<td>Doctor of Osteopathic Medicine or DO</td>
</tr>
<tr>
<td>3.</td>
<td>Non-physician provider such as a physician assistant or nurse practitioner</td>
</tr>
<tr>
<td>4.</td>
<td>I do not have a main health care provider</td>
</tr>
<tr>
<td>9.</td>
<td>NR/DK</td>
</tr>
<tr>
<td>INTERVIEWER: PROBE UNTIL ONE OF THE ABOVE IS SELECTED</td>
<td></td>
</tr>
<tr>
<td>IF THE RESPONDENT NEEDS A DEFINITION OF ANY OF THE LISTED DOCTOR TYPES, RESPOND &quot;A TYPE OF DOCTOR IN THE UNITED STATES.&quot;</td>
<td></td>
</tr>
<tr>
<td>IF THEY ASK ABOUT A SECOND OR THIRD DOCTOR TYPE, RESPOND &quot;ANOTHER TYPE OF DOCTOR IN THE UNITED STATES.&quot;</td>
<td></td>
</tr>
</tbody>
</table>

**Q2A and B** Which of the following types of health care have you received from a Medical Doctor or MD?

- **Q2A** Primary care or routine check-ups
- **Q2B** Specialty care
  - 1. YES
  - 2. NO
  - 9. NR/DK

INTERVIEWER: IF THE RESPONDENT NEEDS A DEFINITION OF A MD (MEDICAL DOCTOR), RESPOND "A TYPE OF DOCTOR IN THE UNITED STATES."

**Q3** Most doctors in the United States are MDs. Have you heard of doctors known as DOs (also sometimes called doctors of osteopathic medicine, osteopathic physicians or osteopaths)?

- 1. YES
- 2. NO
- 9. NR/DK

(INTERVIEWER: IF ANSWER TO QUESTION 3 IS NO, SKIP TO QUESTION 8A)

INTERVIEWER: IF THE RESPONDENT NEEDS A DEFINITION OF A DO (DOCTOR OF OSTEOPATHIC MEDICINE, OSTEOPATHIC PHYSICIAN, OR OSTEOPATH), RESPOND "A TYPE OF DOCTOR IN THE UNITED STATES."

**Q4A** Have you ever received health care from a Doctor of Osteopathic Medicine or DO?

- 1. YES
- 2. NO
- 9. NR/DK

(INTERVIEWER: IF ANSWER TO QUESTION 4A IS NO, SKIP TO QUESTION 8A)

**Q4B through D** Which of the following types of health care have you ever received from a Doctor of Osteopathic Medicine or DO?

- **Q4B** Primary care or routine check-ups
- **Q4C** Manipulation of the musculoskeletal system
- **Q4D** Specialty care
  - 1. YES
  - 2. NO
  - 9. NR/DK

**Q4E** Are you currently receiving health care from a DO?

- 1. YES
- 2. NO
- 9. NR/DK
Appendix 1 (continued)

Q5
I am going to read you a number of statements regarding DOs. After I read each statement, tell me if you strongly agree, agree, are neutral, disagree, or strongly disagree with that statement.

DOs practice in my community.
1. STRONGLY AGREE
2. AGREE
3. NEUTRAL
4. DISAGREE
5. STRONGLY DISAGREE
9. NR/DK

Q6
The health care provided by DOs is similar to that provided by MDs.
1. STRONGLY AGREE
2. AGREE
3. NEUTRAL
4. DISAGREE
5. STRONGLY DISAGREE
9. NR/DK

Q7
The health care provided by DOs is similar to that provided by chiropractors.
1. STRONGLY AGREE
2. AGREE
3. NEUTRAL
4. DISAGREE
5. STRONGLY DISAGREE
9. NR/DK

INTERVIEWER: IF THE RESPONDENT NEEDS A DEFINITION OF A CHIROPRACTOR, RESPOND “A TYPE OF DOCTOR IN THE UNITED STATES.”

Q8A through C
Based on your personal experience, or on what you have heard from others, please tell me if you think that the health care offered by the following providers is excellent, good, fair, or poor.
Q8A MDs
Q8B DOs
Q8C Chiropractors
1. EXCELLENT
2. GOOD
3. FAIR
4. POOR
9. NR/DK

Q9A
Now, I am going to read you a number of statements about your main health care provider. Please tell me if you strongly agree, agree, are neutral, disagree, or strongly disagree with each statement.

My main health care provider is available nights and weekends.
1. STRONGLY AGREE
2. AGREE
3. NEUTRAL
4. DISAGREE
5. STRONGLY DISAGREE
9. NR/DK

Q9B
I can get an appointment to see my main health care provider in a reasonable amount of time.
1. STRONGLY AGREE
2. AGREE
3. NEUTRAL
4. DISAGREE
5. STRONGLY DISAGREE
9. NR/DK

(continued)
Appendix 1 (continued)

Q9C
I can travel to my main health care provider’s office in a reasonable amount of time.
   1. STRONGLY AGREE
   2. AGREE
   3. NEUTRAL
   4. DISAGREE
   5. STRONGLY DISAGREE
   9. NR/DK

Q9D
My main health care provider handles all aspects of my care.
   1. STRONGLY AGREE
   2. AGREE
   3. NEUTRAL
   4. DISAGREE
   5. STRONGLY DISAGREE
   9. NR/DK

Q9E
How many times during the past three months have you gone to the emergency room because your main health care provider was not available?
(CODE FOR OPEN-END RESPONSE)

Q9F
(INTerviewer: Please read)
This question deals with the amount of time your main health care provider spends with you during a typical office visit. Do not include time waiting at the office, in the waiting room or in the exam room for your provider to see you. Only include time spent with your main health care provider.

During a typical visit, which amount of time would you say your main health care provider spends with you?
   1. 10 minutes or less
   2. 11-15 minutes
   3. 16-20 minutes
   4. 21-25 minutes
   5. 26 minutes or more
   9. NR/DK

Q9G
(INTerviewer: Please read)
Next, I am going to read you a number of statements about health care providers. Please tell me if you strongly agree, agree, are neutral, disagree, or strongly disagree with each statement.

My main health care provider emphasizes wellness and prevention.
   1. STRONGLY AGREE
   2. AGREE
   3. NEUTRAL
   4. DISAGREE
   5. STRONGLY DISAGREE
   9. NR/DK

Q9H
My main health care provider advises me about my health.
   1. STRONGLY AGREE
   2. AGREE
   3. NEUTRAL
   4. DISAGREE
   5. STRONGLY DISAGREE
   9. NR/DK
Appendix 1 (continued)

Q9I
My main health care provider prescribes medications only when necessary.
   1. STRONGLY AGREE
   2. AGREE
   3. NEUTRAL
   4. DISAGREE
   5. STRONGLY DISAGREE
   9. NR/DK

Q9J
My main health care provider is respectful and courteous.
   1. STRONGLY AGREE
   2. AGREE
   3. NEUTRAL
   4. DISAGREE
   5. STRONGLY DISAGREE
   9. NR/DK

Q9K
Overall, I am satisfied with my main health care provider.
   1. STRONGLY AGREE
   2. AGREE
   3. NEUTRAL
   4. DISAGREE
   5. STRONGLY DISAGREE
   9. NR/DK

Q10 through 16
Please indicate whether you strongly agree, agree, are neutral, disagree, or strongly disagree with the following statements about the doctor who is now your main health care provider.
Q10   My main health care provider customizes my health care based on my needs and values
Q11 (IF NECESSARY: My main health care provider) shares knowledge and information freely with me when I visit
Q12 (IF NECESSARY: My main health care provider) considers the latest scientific evidence when making decisions on my health care
Q13 (IF NECESSARY: My main health care provider) has systems in place to ensure my safety as a patient
Q14 (IF NECESSARY: My main health care provider) understands the need to be completely open with me in providing health care
Q15 (IF NECESSARY: My main health care provider) works to decrease costs and waste in providing my health care
Q16 (IF NECESSARY: My main health care provider) cooperates with other doctors in providing my health care
   1. STRONGLY AGREE
   2. AGREE
   3. NEUTRAL
   4. DISAGREE
   5. STRONGLY DISAGREE

Q17A through D
Please tell me if the following statements are definitely true, mostly true, don't know, mostly false, or definitely false for you.
Q17A I seem to get sick a little easier than other people
Q17B I am as healthy as anybody I know
Q17C I expect my health to get worse
Q17D My health is excellent
   1. DEFINITELY TRUE
   2. MOSTLY TRUE
   3. DON'T KNOW
   4. MOSTLY FALSE
   5. DEFINITELY FALSE
   9. NR/DK

Q18
Would you describe your health as excellent, very good, good, fair, or poor?
   1. EXCELLENT
   2. VERY GOOD
   3. GOOD
   4. FAIR
   5. POOR
   9. NR/DK
Q19A
Do you have health insurance?
1. YES
2. NO
9. NR/DK

If NO, SKIP TO Q20A

Q19B
Which of the following best describes your main health insurance?
1. EMPLOYER-BASED INSURANCE
2. PRIVATE INSURANCE
3. MEDICARE
4. MEDICAID
5. OTHER: SPECIFY
9. NR/DK

Q20A
(INTEIVIEWER: PLEASE READ)
Congress recently passed a health care reform bill that was signed into law by the President. I am going to ask your opinion about your health care services and whether you think health care reform will greatly improve, somewhat improve, not have much impact on, somewhat worsen, or greatly worsen these services.

Considering the overall health care services you receive, do you think health care reform will:
1. GREATLY IMPROVE
2. SOMewhat IMPROVE
3. NOT HAVE MUCH IMPACT ON
4. SOMewhat WORSEN
5. GREATLY WORSEN THESE SERVICES
9. NR/DK

Q20B
How about wellness and preventive medicine services?
1. GREATLY IMPROVE
2. SOMewhat IMPROVE
3. NOT HAVE MUCH IMPACT ON
4. SOMewhat WORSEN
5. GREATLY WORSEN THESE SERVICES
9. NR/DK

Q20C
How about “high-tech” health care services that you receive?
1. GREATLY IMPROVE
2. SOMewhat IMPROVE
3. NOT HAVE MUCH IMPACT ON
4. SOMewhat WORSEN OR
5. GREATLY WORSEN THESE SERVICES
9. NR/DK

Q20D
How about access to affordable health care services?
1. GREATLY IMPROVE
2. SOMewhat IMPROVE
3. NOT HAVE MUCH IMPACT ON
4. SOMewhat WORSEN OR
5. GREATLY WORSEN ACCESS
9. NR/DK
### Appendix 1 (continued)

**Q20E**
How about your personal health?
1. GREATLY IMPROVE
2. SOMewhat IMPROVE
3. NOT HAVE MUCH IMPACT ON
4. SOMewhat WORSEN OR
5. GREATLY WORSEN MY PERSONAL HEALTH
9. NR/DK

**Q20F**
How about your ability to find or keep a good primary care physician?
1. GREATLY IMPROVE
2. SOMewhat IMPROVE
3. NOT HAVE MUCH IMPACT ON
4. SOMewhat WORSEN OR
5. GREATLY WORSEN MY ABILITY
9. NR/DK

**Q20G**
How about your ability to get health care in a reasonable amount of time?
1. GREATLY IMPROVE
2. SOMewhat IMPROVE
3. NOT HAVE MUCH IMPACT ON
4. SOMewhat WORSEN OR
5. GREATLY WORSEN MY ABILITY
9. NR/DK

**Q20H**
How about your ability to receive health care for major medical problems or surgery?
1. GREATLY IMPROVE
2. SOMewhat IMPROVE
3. NOT HAVE MUCH IMPACT ON
4. SOMewhat WORSEN OR
5. GREATLY WORSEN MY ABILITY
9. NR/DK

**Q20I**
How about your out-of-pocket costs for health care?
1. GREATLY DECREASE
2. SOMewhat DECREASE
3. NOT HAVE MUCH IMPACT ON
4. SOMewhat INCREASE
5. GREATLY INCREASE MY COSTS
9. NR/DK

**Q20J**
How about the costs you will incur for prescription drugs?
1. GREATLY DECREASE
2. SOMewhat DECREASE
3. NOT HAVE MUCH IMPACT ON
4. SOMewhat INCREASE
5. GREATLY INCREASE MY COSTS
9. NR/DK

**Q20K**
How about the costs that government will pay for health care?
1. GREATLY DECREASE
2. SOMewhat DECREASE
3. NOT HAVE MUCH IMPACT ON
4. SOMewhat INCREASE
5. GREATLY INCREASE THE GOVERNMENT'S COSTS
9. NR/DK

(continued)
BRIEF REPORT

Appendix 1 (continued)

Q21A through C
Do you think that the recent health care reform act will greatly improve, somewhat improve, not have much impact on, somewhat worsen, or greatly worsen the following?
Q21A The number of doctors available to provide health care in the future
Q21B The quality of health care provided in the future
Q21C The access to health insurance for people with pre-existing conditions
1. GREATLY IMPROVE
2. SOMewhat IMPROVE
3. NOT HAVE MUCH IMPACT ON
4. SOMewhat WORSEN
5. GREATLY WORSEN
9. NR/DK

Q22
Now for the last few questions, I would like to ask you several things about yourself so that we can develop a general profile of our sample.

Into which of the following age groups do you fall?
1. 18-24
2. 25-34
3. 35-44
4. 45-54
5. 55-64
6. 65-74
7. 75 or over
9. NR/DK

Q23
How many years of education have you completed?
1. LESS THAN 12
2. 12 - HIGH SCHOOL GRADUATION
3. 13 - 15, SOME COLLEGE
4. 16, COLLEGE GRADUATION
5. 17 OR MORE, GRADUATE SCHOOL/GRADUATE DEGREE
9. NR/DK

Q24
I am going to read several different income categories. Without telling me your exact income, into which category did your total household income for the past year fall?
1. $20,000 or less
2. $20,001 to $40,000
3. $40,001 to $60,000
4. $60,001 to $80,000
5. $80,001 to $100,000
6. $100,001 to $125,000
7. $125,001 to $150,000
8. Over $150,000
9. NR/DK

Q25A
Are you employed full-time, part-time, unemployed, or retired? Please select the one response that best describes your situation.
1. FULL-TIME
2. PART-TIME
3. UNEMPLOYED
4. RETIRED
9. NR/DK

Q25B
Are you a student?
1. FULL-TIME
2. PART-TIME
3. NO
9. NR/DK
Appendix 1 (continued)

**Q26**
Are you married, separated, divorced, widowed, or have you never been married?
1. MARRIED
2. SEPARATED
3. DIVORCED
4. WIDOWED
5. NEVER MARRIED
6. NR/DK

**Q27**
Would you describe the area in which you live as rural, suburban, or urban?
1. RURAL
2. SUBURBAN
3. URBAN
4. NR/DK

**Q28**
What is your state of residence?
1. ALABAMA 19. MAINE 37. OREGON
2. ALASKA 20. MARYLAND 38. PENNSYLVANIA
3. ARIZONA 21. MASSACHUSETTS 39. RHODE ISLAND
4. ARKANSAS 22. MICHIGAN 40. SOUTH CAROLINA
5. CALIFORNIA 23. MINNESOTA 41. SOUTH DAKOTA
6. COLORADO 24. MISSISSIPPI 42. TENNESSEE
7. CONNECTICUT 25. MISSOURI 43. TEXAS
8. DELAWARE 26. MONTANA 44. UTAH
9. FLORIDA 27. NEBRASKA 45. VERMONT
10. GEORGIA 28. NEVADA 46. VIRGINIA
11. HAWAII 29. NEW HAMPSHIRE 47. WASHINGTON
12. IDAHO 30. NEW JERSEY 48. WASHINGTON, D.C.
13. ILLINOIS 31. NEW MEXICO 49. WEST VIRGINIA
14. INDIANA 32. NEW YORK 50. WISCONSIN
15. IOWA 33. NORTH CAROLINA 51. WYOMING
16. KANSAS 34. NORTH DAKOTA 52. OTHER (SPECIFY) ______
17. KENTUCKY 35. OHIO 53. NR/DK
18. LOUISIANA 36. OKLAHOMA

**Q29A**
Are you of Hispanic or Latino(a) origin?
1. YES
2. NO
3. NR/DK

**Q29B**
Which of the following best describes you?
1. WHITE
2. BLACK
3. ASIAN/PACIFIC ISLANDER
4. AMERICAN INDIAN/NATIVE AMERICAN
5. OTHER (SPECIFY) ______
6. NR/DK

THANK
THANK YOU VERY MUCH FOR YOUR TIME AND COOPERATION.
“Press E to end the interview”

**Q30**
SEX
INTERVIEWER: RECORD SEX OF RESPONDENT
1. FEMALE
2. MALE
3. NR/DK
Equations for computing outcome rates from final disposition distributions based on standard definitions from the American Association for Public Opinion Research.\textsuperscript{11} **Abbreviations:** CON, contact rate; COOP, cooperation rate; e, estimated proportion of cases of unknown eligibility that are eligible; I, complete interview; NC, non-contact; O, other; P, partial interview; R, refusal and break-off; RR, response rate; UH, unknown if household/occupied; UO, unknown, other.

\begin{align*}
\text{Response Rates} \\
RR1 &= \frac{1}{(I + P) + (R + NC + O) + (UH + UO)} \\
RR2 &= \frac{(I + P)}{(I + P) + (R + NC + O) + (UH + UO)} \\
RR3 &= \frac{1}{(I + P) + (R + NC + O) + e(UH + UO)} \\
RR4 &= \frac{(I + P)}{(I + P) + (R + NC + O) + e(UH + UO)} \\
RR5 &= \frac{1}{(I + P) + (R + NC + O)} \\
RR6 &= \frac{(I + P)}{(I + P) + (R + NC + O)}
\end{align*}

\begin{align*}
\text{Cooperation Rates} \\
COOP1 &= \frac{1}{(I + P) + R + O} \\
COOP2 &= \frac{(I + P)}{(I + P) + R + O} \\
COOP3 &= \frac{1}{(I + P) + R} \\
COOP4 &= \frac{(I + P)}{(I + P) + R}
\end{align*}

\begin{align*}
\text{Contact Rates} \\
CON1 &= \frac{(I + P) + R + O}{(I + P) + R + O + NC + (UH + UO)} \\
CON2 &= \frac{(I + P) + R + O}{(I + P) + R + O + NC + e(UH + UO)} \\
CON3 &= \frac{(I + P) + R + O}{(I + P) + R + O + NC}
\end{align*}