

HHS/OS/ASPE
SUPPORTING STATEMENT FOR
OMB INFORMATION COLLECTION REQUEST

Part B

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Survey on Long-Term Care Awareness and Planning

Supported by:

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SECTION B - COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

B.1 Respondent Universe

The respondent universe for this exploratory research study is men and women living in the United States aged 40–70. In 2011, there were 114 million noninstitutionalized U.S. adults in this age group (U.S. Census Bureau, 2012). The sample for this survey will consist of 23,077 adults aged 40 to 70, randomly drawn from the KnowledgePanel (KP), an Internet panel maintained by GfK. Assuming a 65 percent response/cooperation rate, 15,000 completed surveys are expected. This sample will be larger than all but a small handful of federal surveys.

As of 2013, KP consists of more than 29,616 English-speaking participants aged 40–70 who complete a few surveys per month. KP is constructed by combining probability-based random digit dialing and address-based sampling. It does not require Internet access or computing hardware at the time of sampling to participate. Households without Internet access or computers are provided Internet connectivity and personal computers at no charge. GfK’s panel closely resembles the U.S. population in terms of age, race, Hispanic ethnicity, geographical region, employment status, income, and other demographic elements. GfK maintains basic demographic data on this population and, for this study, will limit survey invitations to persons aged 40–70. Panel demographic information will be used by GfK to generate survey weights and adjustments for nonresponse.

While a 65 percent response rate is high in the current survey environment, GfK has regularly met or exceeded that standard in many of its studies. **Table B.1-1** provides selected study-specific completion rates from studies fielded by GfK.

Table B.1-1. Completion Rates for Prior OMB-approved GfK Custom Research, LLC Studies

GfK Custom Research, LLC	Year	Assigned	Completes	Completion Rate
Prescription Meds 2002	2002	5,820	5,233	90%
2005 Cancer Survey: General Population and Survivors	2005	3,473	2,841	82%
Smoking Ad Survey 2006	2006	8,541	7,610	89%
MA Cancer Communication	2006	686	558	81%

(continued)

Table B.1-1. Completion Rates for Prior OMB Approved GfK Custom Research, LLC Studies (continued)

GfK Custom Research, LLC	Year	Assigned	Completes	Completion Rate
National Seafood Consumption Survey	2006	31,971	26,967	84%
Chronic Opioid Survey Wave 2	2007	1,430	1,144	80%
Retirement Perspective Survey 2007	2007	3,118	2,666	86%
Societal Implications of Individual Differences in Response	2009	4,413	3,559	81%
CA Long-Term Care Survey	2010	1,454	1,218	84%
Follow-up Weight & Diet 2010	2010	910	752	83%

Source: GfK Custom Research, LLC.

A sample size of 15,000 is more than sufficient to detect meaningful differences between subgroup proportions. For example, this survey collects data on several variables with two possible outcomes, such as whether respondents consider themselves to be in excellent health given their age. An analyst may be interested in whether two groups differ in their responses. Assuming 7,500 members of group 1 and 7,500 members of group 2 in the sample, if the difference between the two proportions in the population is 5 percentage points or more, a statistically significant difference between the two proportions will be detected more than 99% of the time. Even if the difference is only 3 percentage points, a statistically significant difference will be detected over 95% of the time. **Table B.1-2** shows some possibilities for the two proportions and the power with which a statistically significant difference will be detected. Given a constant absolute difference $|p_1 - p_2|$, the most difficult differences to detect are those where p_1 and p_2 are near 0.5.

Table B.1-2. Power Table for Test of Equal Proportions ($\alpha = 0.05$), Given Subgroup Sample Sizes of 7,500*

If the population proportion for subgroup 1 is and the population proportion for subgroup 2 is then the power to detect a statistically significant difference is ...
any proportion p_1	$p_1 \pm 0.05$	> 99.9%
0.485	0.515	95.5%
any proportion p_1	$p_1 \pm 0.03$	$\geq 95.5\%$
0.49	0.51	68.2%
0.39	0.41	70.0%

0.29	0.31	75.7%
0.19	0.21	86.0%
0.09	0.11	98.2%

*Assumes simple random sampling. Test is two-sided.

Power calculations for DCE estimates vary by a number of factors (Bridges et al., 2011; Orme, 2009), including the number of tasks shown to each respondent (t), the number of alternatives shown in the task (a), the maximum number of attribute levels among the insurance domains (c), and whether a linear main-effects design is estimated or a design with partial or complete interactions (ChoiceMetrics, 2012; Flynn, 2010; Orme, 2009). Of the two separate DCE components, the first is more data intensive and requires a larger sample than the second, so if the first set is sufficiently powered, the second will also be powered.

In the first DCE component with three alternatives (two insurance plans plus a “no insurance” choice), we will set $a=3$ for paired comparisons and will collect eight tasks per respondent ($t = 8$). Two of these eight tasks will serve as data quality, robustness, and validity checks and cannot be counted in the statistical power estimates, so we use $t = 6$ in what follows (Louivere et al., 2000). The maximum number of attribute levels for any of the domains is $c = 4$. Orme (2009) shows that a robust, powered DCE study requires a sample size n such that $(nta/c) \geq 500$ for a main-effects design or $(nta/c^2) \geq 500$ for a fully interacted model. Thus, n must be ≥ 111 for a main-effects design or ≥ 444 for a fully interacted design. However, as discussed elsewhere in this application, we anticipate a sample size of $n = 15,000$ so our DCE will have more than adequate power. Further, Yang et al. (2010) showed that the Orme rule was conservative in 26 of 28 studies examined.

B.2 Procedures for the Collection of Information

This is a one-time data collection; respondents will not be recontacted for this study. Sample respondents will receive an e-mail invitation to complete a web-based survey. Interested participants will self-administer the web-based instrument at their convenience in their own homes or elsewhere, which will take approximately 45 minutes. To encourage participation, a small incentive of 10,000 KP “points” (equivalent to about \$10.00) will be provided to respondents. Two e-mail reminders will be sent to nonrespondents to encourage them to complete the survey.

GfK performs several internal quality assurance tasks to ensure proper coding of the survey and data reliability. The questionnaire programming code is first tested and reviewed by a GfK project manager. Following that review, the programming code is rigorously examined through a data correspondence check to verify 100 percent input/output correspondence. Next, RTI and ASPE will review the survey instrument in an online format to ensure proper presentation and programming.

Following that review, GfK will conduct a pre-test with 25 respondents to make sure that the survey is working properly “in the real world.” Once all identified problems have been resolved, GfK will begin fielding the questionnaire with a “soft start” in which approximately 80 survey invitations will be sent to obtain roughly 50 completed observations. (Note: These soft start surveys are included as completes.) Immediately after the soft start is completed, GfK will send an encrypted, de-identified data file to RTI for preliminary analysis as a further quality control check. Any issues identified by ASPE or RTI will be addressed before GfK begins the full fielding.

Participants are permitted to complete the survey only once, with each respondent having a unique code. Survey invitations will be sent by GfK to a sample of U.S. adults aged 40–70 from its standing panel. A respondent’s initial log-in directs the user to an IRB-approved online consent form, which provides general information about the study and any possible risks. To participate in the study, respondents must click a box to indicate that they have read the informed consent and that they voluntarily consent to participate in the study.

Consenting participants will begin the survey on a short introduction page, and then proceed through several distinct sections of the survey about long-term care, health status, demographics, personal characteristics, assets and income, and insurance. Next, to measure preference for long-term care insurance policies, the survey will present a series of DCEs or stated preference comparisons. The first main set of DCE questions asks the respondent to select the more preferred of two hypothetical insurance plans or no insurance plan; the second set asks respondents to select which of two plans without an opt-out alternative and use fewer attributes. The DCE questions have been designed following methods recommended in Flynn et al. (2010), Hauber et al. (2010), Bijlenga et al. (2009), and Ratcliffe et al. (2009). The actual plan

comparisons that a respondent sees will be randomly drawn for each respondent from a *D*-efficient, fractional factorial, orthogonal design based on Johnson et al. (2007).

After data collection is complete, the final data file is generated following strict quality control procedures at GfK, review by multiple supervisors, and random checking on a case level to ensure proper merging and formatting. Again, GfK will de-identify and encrypt the data before final delivery to RTI.

B.3 Methods for Maximizing Response Rates

The survey and the data collection methods have been designed by ASPE, RTI, and GfK to maximize response to this web-based survey and to minimize nonresponse bias. We anticipate that we will obtain a 65 percent response rate for this study. In most studies, GfK's Internet panel has achieved this or higher response rates.

Methods to Reduce Nonresponse Bias

The following steps have been undertaken in the questionnaire design to minimize nonresponse bias and to ensure adequate response rates:

- *Review and cognitive testing.* The survey has been carefully designed and tested to ensure the best possible respondent experience. ASPE, a TEP, and the research team have extensively reviewed the questionnaire to ensure that it is understandable and obtains the desired information.
- *Sensitivity to human subjects and topic.* There may be certain questions that may be viewed as sensitive by respondents, particularly those related to disability, health conditions, and income and assets. These variables are all critical to the study. Disability and health conditions are important predictors of the use of long-term care services and private insurance medical underwriting typically exclude people with cognitive and physical impairments and with certain medical conditions. Likewise, income and assets are important predictors of the purchase of long-term care insurance and of the use of home care, nursing home care, and assisted living. These questions were extensively vetted by all parties participating in the questionnaire development process to ensure the analytic value of each item. Information from these sensitive questions will be used to characterize study participants and to help us better understand respondents' level of long-term care awareness and planning and their preferences for long-term care insurance.
- *Limited length.* The research team has scrutinized all items and shortened the survey to the minimum length possible to reduce respondent burden and maximize response and completion rates. We anticipate that the questionnaire will take approximately 45 minutes to complete.

- *Modest incentives.* KP participants routinely receive points for participating in surveys that can be exchanged for merchandise. GfK intends to provide participants 10,000 points (roughly equivalent to \$10.00) for participation in this survey.
- *Reminders.* Two e-mail reminders will be sent to nonrespondents to encourage them to complete the survey.
- *Toll-free numbers.* GfK will provide toll-free telephone numbers in the survey invitation and welcome screen for potential or enrolled respondents to call with any questions or concerns about any aspect of the study. RTI will also provide a toll-free telephone number for participants who have any questions about the study or their rights as a study participant.

Methods to Detect and Report on Nonresponse Bias

To assess nonresponse bias, GfK will compare respondents from this study to nonrespondents using key variables from the frame, such as age, race, region, and marital status. In addition, respondents will be benchmarked against sociodemographic characteristics of the population from standard surveys, such as the Health and Retirement Study and the Current Population Survey. A limitation of this approach is that the other surveys will be from different time periods and will have used other modes of data collection. As a result, data differences observed from our study and those could be the result of changes over time or mode differences (Dennis, 2010). GfK will use these results in post-data collection weighting.

B.4 Testing Procedures and Methods

As discussed previously, we obtained feedback on the questionnaire by members of a TEP and the members of a parallel ASPE contract on long-term care insurance. In addition, we then conducted two rounds of cognitive interviews (nine persons each in Washington, DC, and the Durham/Raleigh, North Carolina, area) and have made changes based on the testing. As mentioned, many of the questions being asked have been used in other surveys of long-term care awareness and planning.

In addition, GfK will pretest the questionnaire by administering the instrument to 25 panel members from the study population. Because the instrument has already undergone cognitive testing, the primary purpose of the pretest is to ensure that the skip logic is correct and that the questionnaire has been properly programmed.

B.5 Name of Contractor Responsible for Collection and Analysis and Other Individuals Consulted Regarding Method and Design

The contractor principally responsible for study design, questionnaire development, data analysis and report writing is:

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