

# Loneliness and Social Connections: A National Survey of Adults 45 and Older

Methodology Report



## ABOUT THIS SURVEY

Building on a previous study by AARP in 2010, *Loneliness and Social Connections: A National Survey of Adults 45 and Older* explores the relationship between loneliness and social connections, life experiences, health, and technology.

## STUDY DESIGN & DOCUMENTATION

The GfK Group (GfK, formerly Knowledge Networks) conducted the Loneliness and Social Connections survey on behalf of AARP Foundation. The survey was conducted using sample from KnowledgePanel®.

The target population consists of a national sample of non-institutionalized adults age 45 and above. Additionally, the national sample was augmented to achieve a minimum of 300 respondents who identify as LGBT.

To sample the population, GfK sampled households from its KnowledgePanel, a probability-based web panel designed to be representative of the United States. The survey consisted of the main survey with the study-eligible respondents. To qualify for the main survey, a panel member must have been at least 45 years of age.

The data collection field period was 6/5/2018 to 6/14/2018.

Participants completed the main survey in 25 minutes (median).

The number of respondents sampled and participating in the survey, and the survey completion rate are presented below.

N Sampled for Main Survey	N Completed Main Survey	Main Survey Compl. Rate
6,343	3,223	50.8%

Of the 3,223 cases completing the main survey, all cases were determined to be valid cases to be included in the final analyses.

## KNOWLEDGEPANEL® METHODOLOGY

KnowledgePanel® is the largest online panel that relies on probability-based sampling techniques for recruitment; hence, the largest national sampling frame from which fully representative samples can be generated to produce statistically valid inferences for study populations. KnowledgePanel provides samples with the highest level of representativeness available in online research for measurement of public opinions, attitudes, and behaviors. The panel was first developed in 1999 by Knowledge Networks, a GfK company. Panel members are randomly selected so that survey results can properly represent the U.S. population with a measurable level of accuracy, features that are not obtainable from non-probability panels (for comparisons of results from probability versus non-probability methods, see Yeager et al., 2011).

KnowledgePanel's recruitment process was originally based exclusively on a national Random Digit Dialing (RDD) sampling methodology. In order to improve the representation of the panel, GfK migrated to using an Address Based Sampling (ABS) methodology for selecting panel members in 2009. This probability-based sampling methodology improves population coverage, and provides a more effective sampling infrastructure for recruitment of hard-to-reach individuals, such as young adults and those from various minority groups. It should be noted that under the ABS recruitment, households without Internet connection are provided with a web-enabled device and free Internet service.

After initially accepting the invitation to join the panel, participants are asked to complete a short demographic survey (the initial *Core Profile Survey*); answers to which allow efficient panel sampling and weighting for future surveys. Completion of the core profile survey allows participants to become active panel members. As in the past, all respondents are provided the same privacy terms and confidentiality protections.

## **ABS Recruitment**

The DSF-based sampling frame used for address selection is enhanced with a series of refinements – such as the appendage of various ancillary data to each address – to facilitate complex stratification plans<sup>1</sup>. Taking advantage of such refinements, quarterly samples are selected using a disproportionate stratified sampling methodology across the following four strata:

1. Hispanic households with at least one 18 to 24 year-old
2. Remaining Hispanic households
3. Remaining households with at least one 18 to 24 year-old
4. All remaining households

Adults from sampled households are invited to join KnowledgePanel through a series of mailings, including an initial invitation letter, a reminder postcard, and a subsequent follow-up letter. Given that a subset of physical addresses can be matched to a corresponding landline telephone number, about 5 weeks after the initial mailing, telephone refusal-conversion calls are made to nonresponding households for which a telephone number is matched. Invited households can join the panel by:

- Completing and mailing back a paper form in a postage-paid envelope
- Calling a toll-free hotline phone number maintained by GfK
- Going to a designated GfK website and completing the recruitment form online

During the initial recruitment survey, attempts are made to recruit every household member who is at least 13 years of age to become an active member. For teenage household members, consent is secured from a parent or legal guardian, and no direct communication with teenagers is attempted prior to obtaining consent. While surveys can be conducted with teens directly, in most instances teen surveys are conducted by first selecting a sample of active members who are parents. This parent route alternative, while slightly more expensive, makes it possible to reach a more representative sample of teens.

## **Household Member Recruitment**

For all recruitment efforts, during the initial recruitment survey, all household members are enumerated. Following enumeration, attempts are made to recruit every household member who is at least 13 years old to participate in KnowledgePanel surveys. For household members aged 13 to 17, consent is collected from the parents or the legal guardian during the initial recruitment interview. If no consent is given, no further direct communication with the teenagers is attempted.

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<sup>1</sup> Fahimi, M. and D. Kulp (2009). "Address-Based Sampling – Alternatives for Surveys That Require Contacts with Representative Samples of Households." *Quirk's Marketing Research Review*, May 2009.

## Survey Sampling from KnowledgePanel

Once panel members are recruited and profiled by taking a Core Profile Survey, they become eligible for selection for client surveys. Generally, the specific survey samples represent an equal probability selection method (EPSEM) sample from the panel for general population surveys. Customized stratified random sampling based on profile data can also be carried out as required by the study design.

The general sampling rule is to assign no more than one survey per week to individual members. Allowing for rare exceptions during some weeks, this limits a member's total assignments per month to four or six surveys. In certain cases, a survey sample calls for pre-screening, that is, members are drawn from a subsample of the panel (such as females, Republicans, grocery shoppers, etc.). In such cases, care is taken to ensure that all subsequent survey samples drawn that week are selected in such a way as to result in a sample that remains representative of the panel distributions.

For this survey, a nationally representative sample of U.S. adults (18 and older) was selected.

## Survey Administration

Once assigned to a survey, members receive a notification email letting them know there is a new survey available for them to take. This email notification contains a link that sends them to the survey questionnaire. No login name or password is required. The field period depends on the client's needs and can range anywhere from a few hours to several weeks.

After three days, automatic email reminders are sent to all non-responding panel members in the sample. If email reminders do not generate a sufficient response, an automated telephone reminder call can be initiated. The usual protocol is to wait at least three to four days after the email reminder before calling. To assist panel members with their survey taking, each individual has a personalized "home page" that lists all the surveys that were assigned to that member and have yet to be completed.

GfK also operates an ongoing modest incentive program to encourage participation and create member loyalty. Members can enter special raffles or can be entered into special sweepstakes with both cash rewards and other prizes to be won.

The typical survey commitment for panel members is one survey per week or four per month with duration of 10 to 15 minutes per survey. In the case of longer surveys, an additional incentive is typically provided.

## Response Rates

As a member of the American Association of Public Opinion Researchers (AAPOR), GfK follows the AAPOR standards for response rate reporting. While the AAPOR standards were established for single survey administrations and not for multi-stage panel surveys; however, Callegaro and DiSogra (2008) have developed algorithms for calculations of response rates for KnowledgePanel surveys. Typically, completion rate for KnowledgePanel surveys is about 65% with possibility of minor variations due to survey length, topic, and other fielding characteristics. In contrast, virtually all surveys that employ non-probability online panels typically achieve completion rates that are in low single digits. This means aside from the fact that nonprobability panels are inherently not representative of any known populations, the effective size of KnowledgePanel ( $35,750 = 55,000 \times 0.65$ ) would be equivalent to a nonprobability panel with 1,787,500 members that on average secures completion rates close to 2%.

## Sample Weighting

As detailed above, significant resources and infrastructure are devoted to the recruitment process for the KnowledgePanel (KP) so that the active panel members can properly represent the adult population of the U.S. This representation is not only achieved with respect to a broad set of geodemographic indicators, but also hard-to-reach adults – such as those without internet access or Spanish language dominant Hispanics – are recruited in proper proportions as well. Consequently, the raw distribution of KP mirrors that of the US adults fairly closely, barring occasional disparities that may emerge for certain subgroups due to differential attrition.

In spite of the above, for selection of general population samples from KP a patented methodology has been developed that ensures all samples behave as EPSEM. Briefly, this methodology starts by weighting the pool of active members to the geodemographic benchmarks secured from the latest March supplement of the Current Population Survey (CPS) along several dimensions. Using the resulting weights as measure of size, in the next step a PPS (probability proportional

to size) procedure is used to select study specific samples. It is the application of this PPS methodology with the imposed size measures that produces fully self-weighting samples from KP, for which each sample member can carry a design weight of unity. Moreover, in instances where a study design requires any form of oversampling of certain subgroups, such departures from an EPSEM design are accounted for by adjusting the design weights in reference to the CPS benchmarks for the population of interest.

### **Study-Specific Post-Stratification Weights**

Once the study sample has been selected and the survey administered, and all the survey data are edited and made final, design weights are adjusted to account for any differential nonresponse that may have resulted during the field period. Depending on the specific target population for a given study, geodemographic distributions for the corresponding population are obtained from the CPS, the American Community Survey (ACS), or in certain instances from the weighted KP profile data. For this purpose an iterative proportional fitting (raking) procedure is used to produce the final weights. In the final step, calculated weights are examined to identify and, if necessary, trim outliers at the extreme upper and lower tails of the weight distribution. The resulting weights are then scaled to aggregate to the total sample size of all eligible respondents.

For this study, the following benchmark distributions of US Adults 45+ from the 2016 Current Population Survey (CPS) were used for the raking adjustment of weights:

#### **General Population (WEIGHT 1)**

- Gender (Male, Female)
- Age (45-49,50-59,60-69,70+)
- Race/Ethnicity (White, Black, Other, Hispanic, 2+ Races)
- Region (Northeast, Midwest, South, West)
- Metropolitan Status (Metro, Non-Metro)
- Education (Less than HS, HS, Some College, Bachelor or Higher)
- Household Income (Less than \$19,999, \$20,000-\$39,999, \$40,000 to \$74,999, \$75K to \$99,999, \$100K or more')
- ACSLang: 1='English Proficient Hispanic' 2='Bilingual Hispanic' 3='Spanish Proficient Hispanic' 4='NonHispanic'
- Hispanic origin (Mexican,Puerto Rican & Others,Non-Hispanic)

#### **LGBT (WEIGHT 2)**

- Gender (Male, Female) by Age (45-49, 50-59, 60-69, 70+)
- Race/Ethnicity (White/Non-Hispanic, Black/Non-Hispanic, Other or 2+ Races/Non-Hispanic, Hispanic)
- Census Region (Northeast, Midwest, South, West)
- Metropolitan Status (Metro, Non-Metro)
- Education (Less than High School, High School, Some College, Bachelor or higher)
- Household Income (Less than \$19,999, \$20,000-\$39,999, \$40,000 to \$74,999, \$75K to \$99,999, \$100K or more)
- Language Proficiency (English or Spanish Proficient Hispanic, Bilingual Hispanic, Non-Hispanic).

Design effect & MOE at 95:

General Population: DF: 1.1749; MOE: +/-1.9%

LGBT: DF: 1.5204 MOE: +/-6.54%

Range of the weights

Analysis Variable : weight1 (General Population)								
N	Minimum	Maximum	Mean	Median	Coeff of Variation	1st Pctl	99th Pctl	Sum
3020	0.213	4.639	1.000	0.886	41.831	0.309	2.637	3020.000

Analysis Variable : weight2 (LGBT)								
N	Minimum	Maximum	Mean	Median	Coeff of Variation	1st Pctl	99th Pctl	Sum
341	0.270	4.084	1.000	0.757	72.138	0.270	4.084	341.000

## FURTHER INFORMATION

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For media inquiries about this study, contact [media@aarp.org](mailto:media@aarp.org). For more information on social isolation among mid-life and older adults, contact Ryan Elza ([relza@aarp.org](mailto:relza@aarp.org)). For more information on the methodology or the survey, contact G. Oscar Anderson ([ganderson@aarp.org](mailto:ganderson@aarp.org)) or Colette E. Thayer, Ph.D. ([cthayer@aarp.org](mailto:cthayer@aarp.org)).