

Seniors' Choice of Online vs. Print Response in the 2011 Member Health Survey¹

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Background

Every three years beginning in 1993, the Division of Research in Kaiser Permanente's Northern California region (KPNC) has used a self-administered questionnaire to survey a stratified random sample of adult health plan members to profile the demographic and health-related characteristics of the adult membership (www.memberhealthsurvey.kaiser.org). The 2011 KPNC adult Member Health Survey (MHS2011) was sent to a random sample of 44,000 adult health plan members aged 20 and over beginning in mid-April 2011. Sample selection was stratified by gender x five age groups (20-44, 45-64, 65-74, 75-79, 80+) x 19 medical center service populations (MCSPs), with resultant oversampling of seniors and smaller MCSPs. Members whose preferred spoken or written language was designated as a language other than English were excluded from the sampling process.

The survey questionnaire was offered in print and online versions. The target sample was sent up to three survey packets over a five-month period containing a cover letter which provided the url for completing the survey online, the questionnaire, and a pre-paid return reply envelope. In addition, shortly after each mailing, the 66% of target members who had a registered kp.org email address and had not indicated that they did not want to be contacted for surveys by email ("email eligible") were sent an email that contained a hyperlink that placed them in a personalized online questionnaire and a url link to the survey Home Page (www.dor.kaiser.org/studies/mhs2011/) from which they could enter their personalized questionnaire after entering their Study ID and Passcode. In some cases, due to the slowness of nonprofit mail, the emails arrived before the print materials. To validate the source of the email, the print letter stated that people who had registered email addresses with kp.org would receive an email containing a link to the survey and also provided the url of the MHS2011 Home Page for those who would not be receiving an email, and the email referred to the print letter that was sent and contained a hyperlink to a generic version of this letter (see Appendix for sample of the email).

The focus of this brief report is on participation rates of seniors in the sample and their choice of participation modality. The overall response rate among seniors was 68.7%. The youngest senior group (aged 65-69) had a significantly lower response rate than the older three groups (70-74, 75-79, and ≥80), 61.7% vs. 69.7%, 72.1%, and 70.9%, respectively. Response rates among seniors did not significantly differ by gender within age groups.

To enable examination of how educational attainment and race-ethnicity affected email eligibility and preference for print vs. online survey questionnaire completion, we matched the seniors in the sample against demographic data in a 1st quarter 2011 adult member dataset with information derived from HealthConnect and a wide variety of survey sources. Using this source, it was possible to match all but 1% of seniors in the beginning sample to a race-ethnicity and 74% to level of education. Matches were higher among survey respondents: 99.5% for race-ethnicity and 91% for education.

¹ This brief report can be cited as:

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This brief report on our experience with offering seniors an online option for completing a health survey covers:

- the percentages of the sample, by age group, who were eligible to receive an emailed link to the online survey and demographic factors associated with email eligibility
- demographic comparison of seniors eligible to receive the email vs. ineligible
- which version of the survey (print or online) senior participants chose to complete and how this varied by age cohort
- the percentages of seniors who used the hyperlink to their personalized online survey vs. entered the online survey from the Survey Home Page reached by a url

Results

Email Eligibility

Table 1 shows the percentages of the survey sample that were email eligible by age group and gender. Email eligibility statistics for younger and middle aged adults are included as a comparison reference for that for seniors. While there were significant gender differences within age groups for those < 65, there were no significant gender differences among those aged ≥ 65. However, among those aged ≥ 65, the percentages eligible to receive email significantly dropped in each 5-year age cohort, whereas percentages were fairly stable across the < 65 age groups. Email eligibility for the 65-69 year olds was not significantly different from those < 65.

Table 1. Percentages of 2011 Kaiser Permanente Member Health Survey Sample Who Were Emailed Links to the Online Survey

Age Group	All		Men		Women	
	%	(N)	%	(N)	%	(N)
All 20-64 yr	63.3	33,421	58.6	17,640	68.4 [†]	15,781
20-34 yr	61.8	10,900	55.5 ^{†*}	5,549	71.7 [†]	5,351
35-44 yr	65.0 ^{†*}	9,151	59.3	4,944	71.7 [†]	4,207
45-54 yr	62.9	6,803	58.6	3,667	66.8 [†]	3,136
55-64 yr	63.5	6,567	61.7	3,480	65.6 [†]	3,087
All ≥ 65 yr	51.7	9,796	53.0	4,899	50.3	4,897
65-69 yr	62.5	2,652	62.8	1,295	62.3	1,357
70-74 yr	53.5 [*]	1,881	55.6 [*]	972	51.1 [*]	909
75-79 yr	47.7 [*]	3,770	49.3 [*]	1,887	46.2 [*]	1,883
≥ 80 yr	40.1 [*]	1,493	38.4 [*]	745	34.7 [*]	748

N = base denominator for that age group

[†] Significantly differs from other age groups at p<.05

^{*} Significantly differs by gender within age group at p<.05

Among seniors, email eligibility rose significantly with each higher level of educational attainment: 33.4% of those who had not completed high school, 44.0% of high school graduates, 55.9% of those with some college, and 64.8% of college graduates. These differences by level of education remained highly significant in multiple logistic regression models with age group, gender, and race-ethnicity as covariates.

Race-ethnicity was also significantly associated with email eligibility. NonHispanic White, Chinese, and Japanese seniors were significantly more likely (p<.0001) to be email eligible than

Black, Latino, and Filipino seniors (56.6%, 57.0%, 53.4% vs. 33.9%, 37.8%, and 43.8%, respectively), even after controlling for age and gender and age, gender, and education in multiple logistic regression models.

Preference for Print vs. Online Questionnaire

Table 2 shows the percentages of seniors who chose to complete the survey online, overall and by whether they were sent an email that provided links to the personalized survey and survey home page or would have had to manually enter the url taken from the print letter. Participation by online survey significantly declined as age increased, and this was true for both men and

Table 2. Percentage of Senior Respondents Who Completed the Survey Online

Age Group	All Respondents		Those Sent Emails		Those Not Sent Emails	
	%	(n / N)	%	(n / N)	%	(n / N)
All ≥ 65	8.2	(551/6726)	14.2	(527/3720)	0.8	(24/3006)
65-69	13.6	(222/1637)	19.1	(216/1111)	1.9	(10/ 526)
70-74	10.2 *	(134/1312)	17.1	(130/ 760)	0.7	(4/ 552)
75-79	5.8 *	(158/2719)	10.8 *	(151/1400)	0.5	(7/1319)
≥ 80	3.5 *	(37/1058)	7.6 *	(34/ 449)	0.5	(3/ 609)
By Sex						
65-69						
Men	16.6	(130/784)	23.6	(125/530)	1.9	(5/254)
Women	10.8 †	(92/853)	15.0 †	(871/581)	1.8	(5/272)
70-74						
Men	12.4	(83/668)	20.5	(82/399)	0.4	(1/269)
Women	7.9	(51/644)	13.3	(48/361)	1.1	(3/283)
75-79						
Men	7.2 *	(98/1356)	12.7	(92/723)	0.9	(6/633)
Women	4.4 *†	(60/1353)	8.7	(59/677)	0.1	(1/686)
≥ 80						
Men	3.7 *	(17/512)	7.8	(19/244)	0.3	(1/302)
Women	3.3 *	(20/546)	7.3	(15/205)	0.6	(2/307)
By Education						
< 12 th Grade	1.5 †	(9/593)	4.1 †	(8./193)	0.2	(1/420)
High School Grad	4.6 †	(66/1426)	9.8 †	(63/640)	0.4	(3/786)
Some College	9.2 †	(137/1482)	15.6 †	(131/842)	0.9	(6/640)
College Graduate	11.3	(301/2652)	16.5	(288/1739)	1.4	(13/1913)

n= number of respondents; N=base denominator

* Significantly differs from next higher age group at p<.05

† Significantly differs by gender within age group at p<.05

‡ Significantly differs from next higher level of education at p<.05

women. Online participation significantly increased with each higher level of educational attainment, but did not significantly differ between those with some college and those who were college graduates. Online participation was significantly higher among those who were sent the email than those who were not, but in light of the fact that the health plan had been making a big push to get members to register their email address with kp.org for secure communications and viewing, it is likely that a very large percentage of those without a registered email address do not feel comfortable interacting through the Internet.

Of the seniors who were sent the email and completed the survey online, approximately 58% chose to enter the survey using the hyperlink, with the rest entering from the survey Home Page. Seniors in the two older groups were significantly more likely to enter using the hyperlink than the two younger groups (68.1% vs. 56.7%, $p < .05$). We do not know why some people chose to enter through the Home Page versus using the hyperlink. We suspect that some people did not recognize the hyperlink for what it was and thus did not know to click on it, but we also know that many seniors have a policy of not clicking on links to unknown websites and thus might have felt more comfortable using the url that directed them to the Division of Research website.

How Conducting the Survey Only Online Would Have Affected the Senior Respondent Sample

Table 3 shows a comparison of the demographics of the starting senior sample with the final senior respondent sample. Due to the high response rate (nearly 70%) and relatively small differences in response by age, the age distribution of the starting and final samples are essentially the same. However, had the survey only been conducted online, the resultant sample, in addition to being significantly smaller, would have been significantly younger, better educated, and less representative of the race-ethnic distribution of the population.

Summary

In the 2011 Member Health Survey, members were given the choice of completing a print questionnaire or the online survey form. While the survey contact letter contained the url that could be used to reach the survey Home Page from which the online questionnaire could be entered, members for whom an email address was available were also sent an email containing a hyperlink into the survey or a url that could be used to link to the Home Page or copy into their browser. Only slightly over half of the seniors in the survey sample were eligible to be sent this email with a link to the online survey, with significantly higher percentages of “younger” seniors than “older seniors” being email eligible. Given the choice of completing the health questionnaire using the print questionnaire or online, less than 10% of seniors who responded chose to complete it online. While approximately 15% of senior respondents who were sent the email completed the survey online, less than 1% of senior respondents (2% of those aged 65-69) who were not sent the email chose to type in the url to do so. Online completion rates were highest among men aged 65-74 and among those who had attended at least some college.

The results of this pattern of response suggest that given the choice between completing a survey or form in print versus online form, most seniors, and especially seniors over the age of 74, would prefer to provide their information in print versus online form, even when completing the survey online is made easier by sending an email with a link to the online survey. One caveat is that we gave seniors the choice of response modality upfront. If the choice for providing information was a phone interview vs. online form or if an email containing a link to an online form was sent and the senior had to request a print version of the form, more seniors may opt to complete the form online. Conversely, more seniors might choose not to participate at all if they are not offered a print version of the form at an early stage.

Table 3. Comparison of Demographics of Starting Senior Sample with Final Senior Respondent Sample

Characteristics of Sample	Starting Sample			Respondent Sample		
	Starting Sample (N=9796) %	Email Eligible (N=3956) %	Not Email Eligible (N=3295) %	Final Sample (N=6726)	Completed Online (n=551) %	Completed Print Form (N=6175) %
Age						
65-69	27.1	32.7	21.0	24.3	40.3	22.9
70-74	19.2	19.9	18.5	19.5	24.3	19.1
75-79	38.5	35.6	41.6	40.4	28.7	41.5
80+	15.2	11.8	18.9	15.7	6.7	16.5
Mean age (std)	74.4 (6.3)	73.3 (6.1)	75.2 (6.3)	74.6 (6.1)	71.5 (5.5)	74.8 (6.0)
Education						
< 12 th Grade	10.5	6.5	15.4	9.6	1.7	10.4
High School Grad	22.7	18.3	28.0	23.2	12.9	24.1
Some College	24.9	25.5	24.2	24.1	26.7	23.9
College Graduate	41.9	49.7	32.4	43.1	58.7	41.7
Race/Ethnicity						
White nonHisp.	68.4	74.7	61.8	72.0	82.4	71.0
Black	9.0	5.9	12.4	7.6	4.6	7.9
Latino/Hispanic	8.3	6.0	10.7	7.3	4.7	7.5
Chinese	3.3	3.7	2.8	3.1	1.8	3.2
Filipino	4.8	4.0	5.6	4.1	1.3	4.3
Japanese	1.5	1.6	1.5	1.6	0.9	1.7
Other Asian	2.3	1.8	2.8	1.9	2.5	1.9
Other	2.4	2.3	2.4	2.4	1.8	2.5

APPENDIX: 2011 Member Health Survey Email

NOTE: All words/phrases/urls in blue or purple were hyperlinks.

Subject: Invitation: Participate in the KP Division of Research 2011 Member Health Survey

Dear [First Name Last Name],

About a week ago we sent a [letter](#) to your home asking you to participate in Kaiser Permanente's **2011 Member Health Survey**. If you have already sent in your completed questionnaire, thank you very much; you can ignore this email.

The [Member Health Surveys Project](#), initiated in 1993 by Nancy Gordon, ScD, a research scientist with Kaiser Permanente Division of Research in Oakland, CA is done every 3 years and helps Kaiser Permanente to:

- Plan services to meet the health-related needs of our adult membership.
- Evaluate use of and interest in a variety of health information and health improvement services.
- Conduct research to improve the health of our members and the communities we serve.

Your participation is very important, even if you are healthy and rarely use medical care.

And, because you were specially selected for this survey based on your age, sex and the medical facility you generally go to, this survey must be filled out only by or for you.

This email contains a link that will take you to your [personalized online survey](#) on the Kaiser Permanente Division of Research secure website (Note: You will be asked to enter the last 4 numbers in your Kaiser Permanente Medical Record Number to verify your identity.) If you would prefer, you can also enter the online survey by going to www.dor.kaiser.org/studies/mhs2011/ and typing in the Study ID and Passcode found on the letter and questionnaire we sent you, or you can complete the print version of the questionnaire that we sent to you.

You will be entered into a drawing for one of 100 \$50 gift certificates when we receive your completed questionnaire online or by mail.

If you have difficulty opening the form using the link above or prefer, you may copy and paste the following link into your browser:

https://www.research.kaiser.org/Collector/Survey.ashx?Name=MHS2011&LoginId=11111111_%7e_1111

The online survey is best viewed using Internet Explorer or Mozilla Firefox.

Your answers are confidential and will only be used for research purposes. Your name will not appear in any report, nor will your answers become part of your medical record, shared with your doctor, or released outside the Division of Research in a way that identifies you. Your answers may be combined with other Kaiser Permanente information about your health and health care.

For more information about this survey, see [Questions and Answers](#). If you still have questions about the survey or how to complete it, or if you have difficulty opening the form, please call toll-free **(800) 723-8055 (choose Member Health Surveys)** or email us at dor.mhs@kp.org.

Thank you in advance for your help,



Nancy P. Gordon, ScD
Member Health Survey Director
Kaiser Permanente Division of Research

*If, after hearing back from us, you still have questions about your rights as a study participant or complaints about how the study is being conducted, you may also contact the Institutional Review Board for the Protection of Human Subjects: Kaiser Foundation Research Institute, 1800 Harrison Street, Oakland, CA 94612, or call toll-free (866) 241-0690.

MHS2011 Contact Letter (sent with print questionnaire)

April 18, 2011

Study ID: XXXXXXX

Passcode: Last 4 numbers in

Kaiser MRN

Dear [First Name Last Name],

You are one of a select group of Kaiser Permanente members in Northern California being asked to complete our **Member Health Survey**, done only once every 3 years.

Your participation is very important, even if you are healthy and rarely use medical care. Member Health Survey results help Kaiser Permanente:

- Plan services to meet the health-related needs of our adult membership.
- Evaluate use of and interest in a variety of health information and health improvement services.
- Conduct research to improve the health of our members and the communities we serve.

Because people are specially selected for this survey based on their age and sex, the survey must be completed only by or for [First Name Last Name].

If you prefer to complete the questionnaire online at our secure website, please type the following url into your browser's address box: **www.dor.kaiser.org/studies/mhs2011/** . To begin your survey, you will need the Study ID and Passcode which are at the top of this letter. If you have an email address registered with kp.org, we will also be sending you an email with the link to your online survey.

You will be entered into a drawing for one of 100 \$50 gift certificates when we receive your completed questionnaire by mail or online.*

Your answers are confidential and will only be used for research purposes. Your name will not appear in any report, nor will your answers become part of your medical record, shared with your doctor, or released outside the Division of Research in a way that identifies you. Your answers may be combined with other Kaiser Permanente information about your health and health care. For more information about the survey, please see the other side of this letter.

Your participation in this survey is voluntary. Neither your decision about participating nor your survey answers will affect your medical care or your Health Plan benefits.

If you want to contact us, please email us at **dor.mhs@kp.org** or **call toll-free (800) 723-8055** (choose Member Health Surveys). We will try to respond within 2 days. If, after hearing back from us, you still have questions about your rights as a study participant or complaints about how the survey is being conducted, you may also contact the Institutional Review Board for the Protection of Human Subjects: Kaiser Foundation Research Institute, 1800 Harrison Street, Oakland, CA 94612, or call toll-free (866) 241-0690.

Thank you in advance for your help,



Nancy P. Gordon, ScD
Member Health Survey Director