

Characteristics of Older Adults in the Kaiser Permanente Northern California Region: Estimates for Adults aged 65-90 from the 2017 KPNC Member Health Survey

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August 2, 2020

This report based on data from the 2017 Kaiser Permanente Member Health Survey provides information about the sociodemographic characteristics, health characteristics, and social circumstances of older adults in the Kaiser Permanente (KPNC) membership prior to the COVID-19 pandemic. It also provides information about use of digital technology, sources used to obtain health information, and preferred methods for obtaining health information.

List of tables and topic covered (in order):

- Social Determinants of Health and Financial Strains
- Emotional Health and Non-Financial Psychosocial Stressors
- Overall Rating of Health
- Functional Health Issues and Availability of Help
- Health-Related Behaviors
- Use of Digital Technologies
- Sources of Health Information Used in Prior 12 Months
- Preferred Methods for Getting Health Information and Advice

What is the KPNC Member Health Survey?

The Member Health Survey is a self-administered (print and online) survey that has been conducted every 3 years since 1993 with stratified random samples of adults who are current members of the Kaiser Permanente Medical Care Program in Northern California and are able to answer an English-language questionnaire. The primary purposes of the survey are:

- To learn about the health-related needs and interests of the culturally diverse Kaiser Permanente Northern California adult membership, and by extension, members of the communities we serve;
- To provide information for health services planners to make evidence-based decisions about health information and health care service delivery; and
- To support research to improve the health of our members and the communities we serve.

The Member Health Surveys project is funded by Kaiser Permanente's Northern California Community Benefit (CB) Program through a direct allocation to the Division of Research. Reports and statistics based on previous surveys, survey questionnaires, and more information about survey methodology in prior cycles can be found at www.memberhealthsurvey.kaiser.org. Note that because of the differences in sample design and final respondent sample weighting, the results of the MHS2017 are not directly comparable to previous survey cycles.

2017 Member Health Survey sample

The MHS2017 sample was conducted with an age-sex stratified random sample of White, African-American/Black, Latinx, and Asian adults who were identified from a 2016 Demographically Enriched Cohort of Kaiser Adults (DECKA2016) race/ethnicity study cohort¹ (N= approximately 2.5 million members). After eliminating adults whose preferred spoken and written language in the electronic health record was not English (since the survey materials were only created in English) from this cohort, we randomly selected set numbers of men and women in 4 age groups (25-44, 45-64, 65-74, 75-90) for

How to cite this report: Gordon NP. Characteristics of older adults in the Kaiser Permanente Northern California region: Estimates for adults aged 65-90 from the 2017 KPNC Member Health Survey. Kaiser Permanente Division of Research, Oakland, CA, August 2, 2020.

¹ Gordon NP, Lin TY, Rau JL, Lo JC. Aggregation of Asian-American subgroups masks meaningful differences in health and health risks among Asian ethnicities: An electronic health record based cohort study. *BMC Public Health* **19**, 1551 (2019) doi:10.1186/s12889-019-7683-3.

each race/ethnic group for the starting survey sample. Some re-assignment of respondents to race/ethnic groups was done based on self-reported race/ethnicity ascertained from the survey. **Table 1** shows the final counts of men and women of White, African-American/Black, Latinx, Asian, and Other race/ethnicity aged 65-90 in the final sample, prior to weighting.

Survey respondents were assigned weighting factors derived from the DECKA2016 cohort so that estimates based on weighted survey data would reflect the age-sex-racial/ethnic composition of the adult KPNC membership in calendar year 2016. All prevalence estimates are based on respondent data weighted to the age-sex-race/ethnic composition of the KPNC adult membership. In this report, prevalence estimates are provided for ages 65-74 yr, 75-90 yr, and 65-90 yr, overall and by sex.

More about the methodology used for the 2017 Member Health Survey (MHS2017), including response rates and an overview of the changes to the sampling strategy and creation of survey respondent weighting factors to optimize the survey data for studying racial/ethnic differences, can be found in **Appendix 1** at the end of this report.

Table 1. Counts of members aged 65-90 in the final MHS2017 respondent sample prior to weighting to the 2016 KPNC membership

	White	African-American/Black	Latinx	Asian	Other	Total
All						
65-74 yr	333	150	151	171	11	816
75-90 yr	402	159	189	215	14	979
Total 65-90 yr	735	309	340	386	25	1795
Men						
65-74 yr	162	61	72	85	7	387
75-90 yr	193	79	94	112	8	486
Total 65-90 yr	355	140	166	197	15	873
Women						
65-74 yr	171	89	79	86	4	429
75-90 yr	209	80	95	103	6	493
Total 65-90 yr	380	169	174	189	10	922

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Table 2. Social Determinants of Health and Financial Strains, KPNC Members Aged 65-90 yrs, 2017

	65-74 yrs			75-90 yrs			65-90 yrs		
	Women	Men	All	Women	Men	All	Women	Men	All
<u>Educational attainment</u>									
< High school graduate	1.7%	3.6%	2.6%	8.0%	7.5%	7.8%	4.0%	5.0%	4.5%
High school graduate/GED	21.1%	12.0%	17.0%	28.8%	21.4%	25.4%	23.8%	15.4%	20.0%
Some college/AA degree	34.1%	30.7%	32.7%	34.5%	25.7%	30.5%	34.3%	28.9%	31.9%
College graduate	43.1%	53.6%	47.7%	28.7%	45.4%	36.3%	37.9%	50.6%	43.6%
<u>Household income in 2016</u>									
< \$25,000	12.7%	9.7%	11.3%	23.3%	11.5%	17.8%	16.3%	10.3%	13.6%
< \$35,000	18.9%	17.3%	18.1%	40.8%	21.0%	31.5%	26.4%	18.7%	22.8%
> \$65,000	43.9%	49.7%	46.4%	21.0%	43.1%	31.3%	36.0%	47.3%	41.1%
<u>Financial strains in past 12 mos.</u>									
Had problems making ends meet	6.6%	5.7%	6.2%	4.5%	3.7%	4.1%	5.8%	5.0%	5.4%
Worried food would run out before had money to buy more	0.6%	1.5%	1.0%	1.9%	0.2%	1.1%	1.0%	1.0%	1.0%
Worried might not be able to pay for needed medical care or medicines/medical supplies	5.3%	6.2%	5.7%	4.9%	5.5%	5.2%	5.1%	5.9%	5.5%
<u>Because of cost:</u>									
Delayed/did not get needed medical care	2.7%	3.6%	3.1%	1.9%	2.0%	1.9%	2.4%	3.0%	2.7%
Reduced/did not use an Rx medicine	1.7%	2.4%	2.0%	3.6%	3.9%	3.7%	2.4%	2.9%	2.6%
Delayed/did not get needed dental care	17.6%	16.9%	17.2%	13.2%	11.3%	12.3%	16.0%	14.9%	15.5%
Ate less fruits and vegetables than wanted	2.5%	2.9%	2.7%	3.0%	1.8%	2.5%	2.7%	2.5%	2.6%
Experienced any of the above financial strains in past 12 mos.*	22.6%	20.4%	21.6%	19.7%	18.4%	19.1%	21.5%	19.7%	20.7%
Worried a great deal about own/family's financial security	13.9%	12.8%	13.4%	10.2%	8.3%	9.4%	12.6%	11.2%	11.9%
Experienced financial strains* and/or was worried about own/family's financial security	28.5%	25.8%	27.2%	24.4%	22.6%	23.6%	27.0%	24.6%	25.9%
<u>Living Situation</u>									
Lives alone	25.0%	12.2%	19.2%	39.1%	13.6%	27.5%	30.1%	12.7%	22.2%
Lives with others	73.1%	85.4%	78.7%	57.2%	84.2%	69.5%	67.4%	85.0%	75.4%
Lives in a residence/community where meals, help and social activities are available	0.9%	1.6%	1.2%	2.9%	1.6%	2.3%	1.6%	1.6%	1.6%
Temporarily living with friend or relative	1.0%	0.7%	0.9%	0.8%	0.5%	0.7%	0.9%	0.7%	0.8%
In a committed relationship	65.4%	82.0%	72.9%	40.9%	80.9%	59.0%	56.6%	81.6%	67.9%
Married	60.8%	77.2%	68.2%	38.9%	78.9%	57.1%	52.9%	77.8%	64.2%

Estimated from the 2017 Kaiser Permanente Northern California Member Health Survey.

* In past 12 months, worried about having enough money for food, worried about having enough money to pay for medical expenses, had difficulty "making ends meet", delayed/did not get medical care or dental care due to cost, reduced prescription medication use due to cost, ate less fruits and vegetables due to cost.

Table 3. Emotional Health and Non-Financial Psychosocial Stressors, KPNC Members Aged 65-90 yrs, 2017

	65-74 yrs			75-90 yrs			65-90 yrs		
	Women	Men	All	Women	Men	All	Women	Men	All
Overall rating of emotional health									
Excellent/very good	63.0%	61.2%	62.3%	59.5%	64.3%	61.7%	61.8%	62.3%	62.1%
Good	25.4%	30.4%	27.5%	28.1%	29.3%	28.7%	26.3%	30.0%	27.9%
Fair/poor	11.6%	8.4%	10.2%	12.4%	6.4%	9.7%	11.9%	7.7%	10.0%
Extent to which emotional/mental problems interfere with daily activities									
Not at all/a little bit	89.6%	86.7%	88.3%	86.8%	85.9%	86.4%	88.6%	86.4%	87.6%
Moderately/quite a bit	10.4%	13.3%	11.7%	13.2%	14.2%	13.6%	11.4%	13.6%	12.4%
Has felt very stressed, tense, or anxious much of the time	10.2%	2.6%	8.7%	8.3%	6.8%	5.7%	9.5%	5.3%	7.6%
Frequency bothered by emotional problems (anxiety, irritability, depression, sadness) in past 4 wks									
Not at all/a little	74.6%	83.6%	78.7%	76.0%	80.4%	78.0%	75.1%	82.4%	78.5%
Somewhat	14.4%	10.3%	12.5%	15.4%	15.0%	15.2%	14.7%	12.0%	13.5%
Quite a bit/extremely	11.0%	6.1%	8.8%	8.6%	4.5%	6.7%	10.1%	5.5%	8.0%
Frequency feels lonely/isolated									
Never/rarely	77.7%	81.9%	79.6%	72.3%	85.6%	78.3%	75.8%	83.2%	79.1%
Sometimes	17.5%	14.2%	16.0%	23.0%	12.3%	18.1%	19.5%	13.5%	16.8%
Often/always	4.8%	3.9%	4.4%	4.7%	2.1%	3.5%	4.8%	3.3%	4.1%
Feels satisfied with life	95.7%	94.1%	95.0%	93.1%	97.4%	95.0%	94.7%	95.3%	95.0%
Very satisfied with life	38.4%	38.0%	38.4%	36.6%	43.2%	39.6%	37.8%	39.9%	38.8%
<u>In past 12 months:</u>									
Was worried about personal/family safety due to neighborhood violence	5.4%	2.9%	4.8%	3.3%	4.1%	3.1%	4.6%	3.7%	4.2%
Felt harassed/discriminated against	4.9%	1.1%	4.1%	2.7%	3.2%	2.0%	4.1%	2.4%	3.4%
Was physically or emotionally hurt or felt threatened by current/former spouse/partner or someone else they knew	5.5%	1.8%	5.0%	2.5%	4.4%	2.2%	4.4%	3.4%	4.0%
Experienced loss of a job, separation/divorce, death of a loved one, or other major life stress	18.3%	11.1%	14.3%	12.4%	9.5%	11.9%	16.2%	10.1%	13.4%

Estimated from the 2017 Kaiser Permanente Northern California Member Health Survey.

Table 4. Overall Rating of Health, KPNC Members Aged 65-90 yrs, 2017

	65-74 yrs			75-90 yrs			65-90 yrs		
	Women	Men	All	Women	Men	All	Women	Men	All
<u>Overall health</u>									
Excellent	12.3%	10.7%	11.6%	6.0%	5.6%	5.8%	10.0%	8.8%	9.5%
Very good	35.5%	31.8%	33.8%	29.3%	32.0%	30.5%	33.3%	31.8%	32.6%
Good	39.0%	40.4%	39.6%	45.6%	43.4%	44.6%	41.4%	41.5%	41.4%
Fair	12.2%	15.3%	13.6%	17.0%	17.0%	17.0%	13.9%	15.9%	14.8%
Poor	1.0%	2.0%	1.5%	2.0%	2.1%	2.0%	1.4%	2.0%	1.7%
<u>Physical health</u>									
Excellent	10.8%	10.4%	10.6%	6.4%	6.0%	6.2%	9.2%	8.8%	9.0%
Very good	37.5%	32.6%	35.3%	31.9%	29.6%	30.9%	35.5%	31.5%	33.7%
Good	37.7%	39.0%	38.3%	41.3%	44.8%	42.8%	39.0%	41.1%	39.9%
Fair	13.0%	16.2%	14.5%	18.3%	17.4%	17.9%	14.9%	16.7%	15.7%
Poor	1.1%	1.7%	1.4%	2.2%	2.2%	2.2%	1.5%	1.9%	1.7%
<u>Emotional health</u>									
Excellent	20.3%	24.9%	22.4%	22.9%	24.5%	23.6%	21.2%	24.8%	22.8%
Very good	42.8%	36.3%	39.8%	36.5%	39.8%	38.0%	40.6%	37.5%	39.2%
Good	25.4%	30.4%	27.6%	28.1%	29.3%	28.7%	26.3%	30.0%	28.0%
Fair	11.1%	5.9%	8.8%	11.3%	6.3%	9.0%	11.1%	6.1%	8.9%
Poor	0.6%	2.5%	1.4%	1.1%	0.1%	0.6%	0.7%	1.7%	1.2%
Extent to which physical health interferes with work/daily activities									
Not at all	35.4%	34.2%	34.9%	37.5%	27.2%	32.8%	36.2%	31.7%	34.1%
A little bit	40.3%	36.2%	38.4%	29.9%	38.4%	33.8%	36.5%	37.0%	36.7%
Moderately	14.5%	17.8%	16.0%	23.4%	20.6%	22.1%	17.7%	18.8%	18.2%
Quite a bit	9.8%	11.8%	10.7%	9.3%	13.8%	11.3%	9.6%	12.5%	10.9%
Extent to which emotional/mental health interferes with work/daily activities									
Not at all	65.1%	63.2%	64.3%	64.4%	61.9%	63.3%	64.9%	62.7%	63.9%
A little bit	24.5%	23.5%	24.0%	22.5%	24.0%	23.1%	23.8%	23.7%	23.7%
Moderately	8.1%	10.7%	9.2%	9.5%	11.7%	10.5%	8.6%	11.0%	9.7%
Quite a bit	2.3%	2.6%	2.5%	3.7%	2.5%	3.1%	2.8%	2.6%	2.7%

Estimated from the 2017 Kaiser Permanente Northern California Member Health Survey.

Table 5. Functional Health Issues and Availability of Help, KPNC Members Aged 65-90 yrs, 2017

	65-74 yrs			75-90 yrs			65-90 yrs		
	Women	Men	All	Women	Men	All	Women	Men	All
Physical health at least moderately interferes with work/daily activities	24.3%	29.7%	26.7%	32.6%	34.4%	33.4%	27.3%	31.4%	29.1%
Emotional/mental health at least moderately interferes with work/daily activities	10.4%	13.3%	11.7%	13.2%	14.1%	13.6%	11.4%	13.6%	12.4%
Urinary leakage at least once/wk	24.7%	12.2%	19.5%	31.7%	19.2%	26.1%	27.3%	14.9%	22.1%
Frequent problems with hearing or deafness	17.9%	22.5%	20.1%	26.7%	41.7%	33.5%	21.1%	29.5%	25.0%
If hearing impaired but not deaf, uses a hearing aid	48.7%	40.0%	44.4%	64.1%	68.7%	66.7%	55.9%	55.3%	55.6%
Difficulty driving, watching TV, reading, or doing activities of daily living due to vision impairment	10.0%	7.3%	9.0%	9.8%	11.0%	10.3%	10.0%	8.6%	9.5%
Oral health problems that make it difficult to eat/talk	5.6%	8.5%	6.9%	7.7%	9.4%	8.5%	6.4%	8.8%	7.5%
Frequent problems with memory	4.7%	4.5%	4.6%	10.5%	11.8%	11.1%	6.8%	7.2%	6.9%
<u>Sleep issues</u>									
Insomnia (difficulty falling/staying asleep)	14.1%	11.1%	12.7%	14.6%	14.1%	14.4%	14.3%	12.2%	13.3%
Sleep quality fair or poor	44.5%	42.3%	43.4%	42.9%	37.9%	40.6%	43.9%	40.7%	42.4%
Sleep quality poor/very poor	9.5%	7.5%	8.6%	9.4%	11.1%	10.2%	9.5%	8.8%	9.2%
Fair/poor quality of sleep and/or insomnia	46.0%	43.3%	44.7%	44.5%	40.4%	42.7%	45.5%	42.3%	44.0%
Frequent daytime fatigue while working or doing daily activities	9.0%	7.9%	8.5%	12.2%	13.6%	12.8%	10.2%	10.0%	10.1%
<u>Elevated risk for falls</u>									
Balance/walking problem	8.8%	8.5%	8.7%	20.0%	17.6%	18.9%	12.8%	11.8%	12.4%
≥ 1 fall in past 12 mos.	24.4%	16.3%	20.7%	31.7%	23.8%	28.2%	27.0%	19.0%	23.4%
Balance/walking problem and/or ≥ 1 fall in past 12 mos.	28.8%	20.2%	24.9%	42.6%	34.1%	38.7%	33.8%	25.3%	29.9%
<u>Mobility limitations</u>									
Not limited at all	82.2%	85.6%	83.7%	64.1%	68.9%	66.3%	75.9%	79.6%	77.6%
Has some trouble getting around but needs no help from another person or a special aid	11.5%	10.6%	11.1%	16.2%	13.9%	15.1%	13.1%	11.8%	12.5%
Usually uses a cane, walker, or poles when walk around	4.0%	3.1%	3.6%	17.8%	14.1%	16.1%	8.7%	7.1%	8.0%
Usually uses a motorized wheelchair or scooter to move around	0.9%	0.4%	0.7%	0.4%	1.1%	0.7%	0.7%	0.7%	0.7%
Usually needs help from another person to move around	1.5%	0.3%	0.9%	1.5%	2.0%	1.7%	1.5%	0.9%	1.2%

Table 5. Functional Health Issues and Availability of Help, KPNC Members Aged 65-90 yrs, 2017

	65-74 yrs			75-90 yrs			65-90 yrs		
	Women	Men	All	Women	Men	All	Women	Men	All
<u>Activities for which help from another person is needed:</u>									
<u>IADLS</u>									
Getting to places out of walking distance	6.1%	4.3%	5.3%	14.1%	7.3%	11.0%	8.9%	5.4%	7.3%
Shopping for groceries, etc.	4.8%	4.0%	4.5%	10.6%	3.8%	7.6%	6.9%	3.9%	5.6%
Doing routine household chores	5.5%	3.6%	4.6%	11.9%	5.4%	9.0%	7.8%	4.2%	6.2%
Preparing meals	2.2%	2.7%	2.4%	5.0%	2.7%	4.0%	3.2%	2.7%	3.0%
Managing money	1.2%	1.6%	1.3%	3.5%	1.2%	2.5%	2.0%	1.4%	1.7%
Using the telephone	0.3%	0.4%	0.4%	1.8%	3.8%	2.7%	0.8%	1.7%	1.2%
Communicating with healthcare providers	1.4%	0.2%	0.9%	2.9%	3.6%	3.2%	2.0%	1.4%	1.7%
<u>ADLs</u>									
Managing and taking medicines	0.7%	0.8%	0.8%	2.6%	3.0%	2.8%	1.4%	1.6%	1.5%
Getting in and out of bed/chairs	2.0%	1.1%	1.6%	3.0%	3.3%	3.1%	2.4%	1.9%	2.2%
Bathing in a tub	1.0%	1.1%	1.0%	3.4%	2.8%	3.2%	1.9%	1.7%	1.8%
Dressing	0.8%	0.3%	0.6%	2.1%	1.7%	1.9%	1.3%	0.8%	1.1%
Eating and drinking	0.2%	0.3%	0.2%	0.4%	0.0%	0.2%	0.3%	0.2%	0.2%
Using the toilet	0.5%	1.0%	0.8%	1.4%	0.1%	0.8%	0.8%	0.7%	0.8%
Cutting toenails	8.9%	8.6%	8.8%	27.4%	22.2%	25.1%	15.6%	13.5%	14.6%
<u># IADLs needs help with</u>									
None	89.8%	92.3%	90.9%	77.2%	84.5%	80.5%	85.3%	89.5%	87.2%
1	4.2%	3.3%	3.8%	10.9%	9.3%	10.2%	6.6%	5.5%	6.1%
2	3.2%	1.7%	2.5%	4.6%	2.7%	3.7%	3.7%	2.1%	3.0%
≥ 3	2.8%	2.6%	2.7%	7.3%	3.5%	5.6%	4.4%	2.9%	3.7%
<u># ADLs needs help with</u>									
None	90.8%	89.7%	90.3%	70.5%	76.7%	73.3%	83.5%	85.0%	84.2%
1	6.8%	8.8%	7.7%	24.5%	17.5%	21.4%	13.2%	11.9%	12.6%
2	1.0%	0.8%	0.9%	1.9%	3.0%	2.4%	1.4%	1.6%	1.5%
≥ 3	1.4%	0.7%	1.1%	3.1%	2.8%	2.9%	2.0%	1.5%	1.8%
<u>Perception of how well can take care of self</u>									
Completely able	79.1%	74.9%	77.3%	60.0%	59.5%	59.8%	72.2%	69.3%	71.0%
Very well	13.8%	15.0%	14.3%	23.6%	23.7%	23.6%	17.3%	18.1%	17.7%
Fairly well	6.3%	8.8%	7.4%	15.2%	13.4%	14.4%	9.5%	10.5%	9.9%
Not at all or not well	0.8%	1.3%	1.0%	1.2%	3.4%	2.2%	0.9%	2.1%	1.4%

Table 5. Functional Health Issues and Availability of Help, KPNC Members Aged 65-90 yrs, 2017

	65-74 yrs			75-90 yrs			65-90 yrs		
	Women	Men	All	Women	Men	All	Women	Men	All
<u>Gets enough help with ADLs/IADLs</u>									
Doesn't need help	89.6%	91.2%	90.4%	76.1%	82.4%	79.0%	84.7%	87.9%	86.2%
Gets enough help	7.0%	7.0%	7.0%	16.5%	13.9%	15.2%	10.4%	9.5%	10.0%
Could use a little more help	3.2%	1.7%	2.5%	6.6%	3.7%	5.2%	4.4%	2.4%	3.5%
Could use a lot more help	0.2%	0.1%	0.2%	0.9%	0.1%	0.5%	0.5%	0.1%	0.3%
<u>If became unable to take care of themselves, has someone living nearby who would help them or arrange for help/care they needed</u>									
No	6.1%	3.1%	4.7%	7.3%	3.2%	5.5%	6.5%	3.1%	5.0%
Yes	93.9%	96.9%	95.3%	92.7%	96.8%	94.5%	93.5%	96.9%	95.0%
If yes: Spouse	63.5%	80.5%	71.4%	39.4%	76.3%	56.6%	55.0%	79.0%	66.1%
If yes: Relative	40.2%	22.5%	32.0%	62.8%	28.6%	46.9%	48.2%	24.7%	37.3%
If yes: Friend	13.0%	10.8%	12.0%	12.4%	11.0%	11.8%	12.8%	10.9%	11.9%
If yes: Other	0.8%	2.4%	1.5%	2.7%	2.9%	2.8%	1.5%	2.6%	2.0%
<u>Has an Advanced Directive for Health Care and/or someone who will legally be able to make medical and end-of-life health care decisions for you if need arises</u>									
	64.1%	63.7%	64.0%	81.4%	76.5%	79.2%	70.2%	68.3%	69.4%
<u>Supportive services used in past 12 months:</u>									
Housekeeper/house cleaner	26.3%	18.3%	22.6%	30.0%	23.1%	26.9%	27.6%	20.0%	24.2%
Home-delivered meals	1.5%	0.0%	0.8%	0.9%	1.6%	1.2%	1.3%	0.6%	1.0%
Shopping/food delivery service	3.9%	1.5%	2.8%	2.8%	1.2%	2.1%	3.5%	1.4%	2.5%
Transportation service (e.g., paratransit)	1.7%	0.2%	1.0%	1.8%	1.2%	1.5%	1.7%	0.6%	1.2%
Paid caregiver/attendant	0.8%	0.9%	0.8%	3.6%	1.6%	2.7%	1.8%	1.1%	1.5%
Unpaid caregiver (e.g., relative or friend)	3.2%	1.7%	2.5%	7.5%	6.7%	7.1%	4.8%	3.5%	4.2%

Estimated from the 2017 Kaiser Permanente Northern California Member Health Survey.

Table 6. Health-Related Behaviors, KPNC Members Aged 65-90 yrs, 2017

	65-74 yrs			75-90 yrs			65-90 yrs		
	Women	Men	All	Women	Men	All	Women	Men	All
<u>Dietary practices</u>									
Usual number of servings fruits/vegetables eaten per day:									
≥ 3 servings day	52.8%	36.8%	45.6%	51.2%	27.9%	40.7%	52.3%	33.6%	43.8%
≥ 5 servings per day	16.7%	10.2%	13.8%	14.2%	10.7%	12.7%	15.8%	10.4%	13.4%
Usually tries to avoid foods high in sodium or salt	65.6%	57.2%	61.7%	57.7%	60.2%	58.9%	62.8%	58.3%	60.7%
Frequency usually drinks one or more sugar or corn syrup-sweetened beverages in a week									
≥ 5 days/week	18.7%	24.0%	21.0%	20.6%	29.0%	24.4%	19.4%	25.8%	22.2%
≤ 2 days/week	74.2%	66.7%	70.9%	73.1%	63.4%	68.7%	73.8%	65.5%	70.1%
< 1 day/week or never	64.7%	56.8%	61.2%	65.5%	52.9%	59.8%	65.0%	55.4%	60.7%
<u>Exercise</u>									
Frequency of exercise/physical activity									
≥ 5 days/week	43.4%	53.1%	47.6%	44.2%	49.5%	46.7%	43.7%	51.8%	47.3%
≥ 3 days/week	75.2%	78.7%	76.6%	70.4%	75.0%	72.5%	73.5%	77.3%	75.1%
< 1 day/week or never	11.2%	7.0%	9.5%	17.2%	11.2%	14.4%	13.3%	8.5%	11.3%
Usual exercise intensity if gets exercise ≥ 1 day a week:									
Light	42.6%	39.7%	41.3%	56.2%	48.6%	52.7%	47.2%	42.8%	45.2%
Moderate or vigorous	57.4%	60.3%	58.7%	43.8%	51.4%	47.3%	52.8%	57.2%	54.8%
<u>Usual amount of sleep per day</u>									
< 6 hrs (considered too little)	7.1%	6.7%	6.9%	11.9%	5.4%	8.9%	8.8%	6.2%	7.6%
6-7 hrs (< recommended amount)	21.4%	21.7%	21.5%	16.0%	17.5%	16.7%	19.5%	20.1%	19.8%
7- < 9 hrs. (recommended amount for adults aged 65 and over)	58.9%	61.3%	60.0%	57.1%	55.7%	56.5%	58.3%	59.3%	58.7%
> 9 hrs (considered too much)	12.6%	10.4%	11.6%	15.0%	21.4%	17.9%	13.4%	14.4%	13.9%
Had teeth checked and cleaned within past 12 months	79.5%	77.2%	78.5%	78.5%	76.9%	77.7%	79.2%	77.1%	78.2%
<u>Currently doing following to improve/maintain health</u>									
Getting moderate or vigorous exercise most days	41.0%	42.4%	41.6%	33.6%	40.1%	36.5%	38.3%	41.6%	39.8%
Walking ≥ 30 minutes most days	41.9%	47.8%	44.4%	30.6%	35.1%	32.7%	37.8%	43.1%	40.2%
Getting any exercise (walking or moderate/vigorous) most days	61.3%	65.6%	63.1%	50.3%	58.0%	53.8%	57.4%	62.8%	59.7%
Taking steps to lose weight or maintain weight loss	48.9%	44.2%	46.9%	31.0%	26.7%	29.0%	42.5%	37.8%	40.4%
Reading labels/recipes to learn content of foods	61.0%	43.7%	53.3%	54.9%	44.0%	49.9%	58.8%	43.8%	52.1%
Trying to eat mostly healthy foods	79.0%	71.1%	75.5%	73.2%	67.1%	70.4%	76.9%	69.6%	73.7%

Table 6. Health-Related Behaviors, KPNC Members Aged 65-90 yrs, 2017

	65-74 yrs			75-90 yrs			65-90 yrs		
	Women	Men	All	Women	Men	All	Women	Men	All
Currently doing following to improve/maintain health (contd.)									
Limiting alcohol to 1 drink or none	31.1%	37.2%	33.8%	35.2%	36.1%	35.6%	32.6%	36.8%	34.4%
Trying to manage stress effectively	48.1%	31.0%	40.3%	31.7%	24.1%	28.3%	42.2%	28.5%	36.0%
Trying to get enough sleep to feel well-rested	76.5%	63.7%	70.6%	68.3%	63.4%	66.1%	73.6%	63.6%	69.0%
Doing enjoyable activities ≥once/wk	74.8%	62.8%	69.3%	66.2%	60.2%	63.5%	71.7%	61.8%	67.2%
Doing activities to keep brain stimulated	79.7%	66.6%	73.8%	75.6%	67.2%	71.8%	78.2%	66.8%	73.1%
Visiting with people ≥ once/wk	71.5%	52.4%	63.0%	69.0%	56.2%	63.2%	70.6%	53.8%	63.1%
Taking all medicines as prescribed	73.9%	70.5%	72.4%	84.0%	83.9%	83.9%	77.5%	75.4%	76.6%
Taking actions to reduce risk of falling	39.1%	23.6%	32.1%	58.1%	36.8%	48.4%	45.9%	28.4%	38.0%
If had a fall in past year or has balance/walking problem	49.1%	39.8%	45.7%	68.2%	56.9%	63.7%	57.8%	48.3%	54.1%

Estimated from the 2017 Kaiser Permanente Northern California Member Health Survey.

Table 7. Use of Digital Technologies, KPNC Members Aged 65-90 yrs, 2017

	65-74 yrs			75-90 yrs			65-90 yrs		
	Women	Men	All	Women	Men	All	Women	Men	All
<u>Access to digital devices</u>									
Has access to an internet-enabled desktop, laptop or tablet computer	95.9%	93.4%	94.8%	75.1%	82.8%	78.6%	88.5%	89.6%	89.0%
Has a wi-fi enabled tablet	46.3%	35.2%	41.5%	30.9%	29.5%	30.3%	40.8%	33.2%	37.5%
Has a mobile phone (cell, smart)	97.9%	94.5%	96.4%	83.5%	86.4%	84.8%	92.8%	91.6%	92.2%
Has a smartphone (All*)	66.3%	63.4%	65.1%	28.9%	36.2%	32.2%	53.0%	53.6%	53.3%
Has a smartphone (if has a mobile phone)	67.8%	67.1%	67.4%	34.6%	41.9%	38.0%	57.1%	58.5%	57.7%
Has a smartphone or wi-fi enabled tablet	74.7%	68.6%	72.0%	44.4%	47.2%	45.7%	63.9%	60.9%	62.6%
Has a smartphone, wi-fi enabled tablet or a computer	96.5%	94.8%	95.8%	77.6%	84.5%	80.7%	89.8%	91.1%	90.3%
Can easily print information or forms from the internet (All, whether uses internet or not)	77.7%	79.6%	78.6%	52.4%	68.4%	59.7%	68.1%	75.4%	71.5%
<u>Internet use</u>									
Goes online by self or with someone else's help (All*)	94.3%	90.4%	92.5%	72.2%	81.0%	76.2%	86.4%	87.0%	86.6%
Goes online by self (All*)	87.9%	84.4%	86.3%	60.3%	65.7%	62.8%	78.0%	77.5%	77.8%
Goes online by self (internet users)	93.2%	93.3%	93.3%	83.5%	81.1%	82.4%	90.3%	89.2%	89.8%
<u>Internet users only:</u>									
Where uses the internet									
At home	97.9%	99.0%	98.3%	96.9%	94.1%	95.5%	97.6%	97.3%	97.5%
At work	16.1%	22.9%	19.0%	3.1%	4.4%	3.8%	12.4%	16.7%	14.3%
At other location	40.6%	53.9%	48.0%	32.2%	33.7%	32.9%	38.1%	47.1%	43.3%
Device used to go online									
Computer	87.0%	92.2%	89.3%	84.1%	93.8%	88.8%	86.1%	92.8%	89.2%
Tablet	41.7%	34.1%	38.5%	41.7%	30.1%	36.0%	41.7%	32.7%	37.7%
Cell phone	18.1%	14.1%	16.3%	18.1%	17.5%	17.8%	18.1%	15.3%	16.8%
Smartphone	52.3%	51.3%	52.0%	29.8%	32.1%	31.0%	45.5%	44.7%	45.2%
E-reader	5.7%	1.2%	3.7%	5.2%	3.5%	4.3%	5.6%	2.0%	3.9%
Can easily print from internet	77.7%	79.6%	78.6%	52.4%	68.4%	59.7%	68.1%	75.4%	71.5%
<u>Email use</u>									
Able to use email (All*)	94.6%	90.0%	92.5%	73.8%	82.9%	77.9%	87.2%	87.5%	87.3%
Uses email by self (All*)	89.3%	84.2%	87.0%	65.5%	66.8%	66.1%	80.8%	78.0%	79.6%
Uses email by self (email users)	94.4%	93.6%	94.0%	88.8%	80.6%	84.8%	92.7%	89.2%	91.1%
If uses email, device used:									
Computer	85.0%	91.4%	87.8%	83.9%	90.5%	87.2%	84.7%	91.1%	87.6%
Cell phone	15.8%	16.1%	16.1%	13.4%	15.3%	14.3%	15.1%	15.8%	15.5%
Smartphone	51.1%	51.6%	51.4%	29.7%	31.0%	30.3%	44.8%	44.5%	44.7%
Tablet	37.7%	30.6%	34.8%	42.4%	27.9%	35.3%	39.1%	29.7%	34.9%

Table 7. Use of Digital Technologies, KPNC Members Aged 65-90 yrs, 2017

	65-74 yrs			75-90 yrs			65-90 yrs		
	Women	Men	All	Women	Men	All	Women	Men	All
<u>Use of other digital technologies</u>									
Able to send/receive text messages (All)	88.1%	84.0%	86.3%	53.6%	59.3%	56.2%	75.9%	75.1%	75.6%
Able to send/receive text messages (if has a mobile device**)	89.1%	85.9%	87.8%	59.1%	64.6%	61.7%	79.4%	78.7%	79.1%
Able to use apps (All)	51.6%	49.1%	50.6%	25.2%	28.0%	26.5%	42.3%	41.5%	42.0%
Able to use apps (if has a smartphone or tablet)	52.1%	51.2%	51.8%	29.0%	31.3%	30.0%	44.7%	44.4%	44.6%
Would be willing to complete a questionnaire/form on kp.org if sent a link by email or secure message									
Yes	59.4%	62.6%	60.9%	38.0%	47.5%	42.5%	52.2%	57.3%	54.6%
No	16.2%	19.6%	17.7%	37.4%	26.7%	32.4%	23.4%	22.1%	22.8%
Not sure	24.4%	17.8%	21.4%	24.5%	25.7%	25.1%	24.5%	20.6%	22.7%

Estimated from the 2017 Kaiser Permanente Northern California Member Health Survey.

* All = Everyone, whether has a digital device or not

Table 8. Sources of Health Information Used in Prior 12 Months, KPNC Members Aged 65-90 yrs, 2017

	65-74 yrs			75-90 yrs			65-90 yrs		
	Women	Men	All	Women	Men	All	Women	Men	All
Any KP group or individual health education program/service	10.7%	15.4%	13.0%	13.0%	10.6%	11.9%	11.5%	13.7%	12.6%
Health educator or wellness coach	7.6%	8.2%	7.9%	7.0%	7.0%	7.0%	7.4%	7.8%	7.6%
Print health education materials	16.7%	17.0%	17.0%	18.3%	17.6%	18.0%	17.3%	17.2%	17.3%
<u>Information from kp.org or another website</u>	43.9%	41.4%	42.7%	31.7%	37.0%	34.1%	39.6%	39.8%	39.7%
Information from KP website	28.4%	26.7%	27.6%	15.2%	25.1%	19.7%	23.8%	26.1%	24.8%
Information from kp.org MD home page	19.3%	21.6%	20.3%	14.8%	22.4%	18.3%	17.7%	21.9%	19.6%
Online education videos on KP website	10.0%	10.5%	10.2%	5.8%	7.2%	6.4%	8.5%	9.3%	8.8%
Information from another website	19.1%	19.0%	19.0%	14.3%	14.4%	14.3%	17.4%	17.3%	17.4%
Listened to kp.org podcast	2.2%	3.1%	2.6%	0.4%	1.8%	1.0%	1.6%	2.6%	2.1%
Used a health app to help with diet, exercise, sleep, self-monitoring, etc.	9.5%	9.1%	9.3%	3.6%	4.2%	3.9%	7.4%	7.4%	7.4%
<u>Used kp.org secure features</u>									
Emailed doctors/other staff, viewed lab results, or refilled prescriptions	74.6%	61.6%	68.6%	52.2%	54.5%	53.2%	66.7%	59.0%	63.1%
Used the KP app to use kp.org secure features	30.1%	22.4%	26.6%	14.1%	17.5%	15.7%	24.5%	20.7%	22.7%

Estimated from the 2017 Kaiser Permanente Northern California Member Health Survey.

Table 9. Preferred Methods for Getting Health Information and Advice, KPNC Members Aged 65-90 yrs, 2017

	65-74 yrs			75-90 yrs			65-90 yrs		
	Women	Men	All	Women	Men	All	Women	Men	All
Indicated a preference for any of the listed health information/health education modalities*	91.2%	88.4%	89.9%	86.5%	87.3%	86.9%	89.6%	88.0%	88.9%
If indicated a preference for at least one modality, interested in:									
Individual counseling (by phone or in-person)	45.3%	40.7%	43.4%	41.5%	41.8%	41.6%	44.0%	41.1%	42.8%
Telephone wellness coach sessions	23.6%	20.4%	22.1%	21.3%	19.9%	20.6%	22.8%	20.2%	21.6%
In-person counseling with a patient educator	34.6%	33.3%	34.2%	33.8%	32.5%	33.2%	34.3%	33.0%	33.8%
Video visit with patient educator or doctor	13.0%	13.0%	13.0%	5.3%	9.8%	7.4%	10.4%	11.8%	11.0%
Video visit with a patient educator	11.2%	8.3%	9.9%	2.0%	5.9%	3.8%	8.0%	7.4%	7.8%
Video visit with a doctor	11.3%	11.2%	11.3%	4.6%	9.6%	6.9%	9.1%	10.6%	9.8%
Group in-person program	33.4%	20.0%	27.4%	25.0%	14.3%	20.0%	30.5%	18.0%	24.9%
One-session workshop/group prg.	29.1%	16.7%	23.6%	22.4%	12.3%	17.7%	26.8%	15.1%	21.5%
Multi-session class/group prg.	21.5%	13.3%	17.8%	17.2%	9.1%	13.4%	20.1%	11.8%	16.3%
Text message	24.9%	22.4%	24.0%	12.9%	15.2%	13.9%	20.8%	19.8%	20.5%
Secure email message	45.3%	45.3%	45.4%	27.4%	31.5%	29.3%	39.3%	40.4%	39.8%
Information from a website	29.1%	34.0%	31.4%	16.8%	21.6%	19.0%	25.0%	29.5%	27.1%
Information from MD home page on kp.org	31.3%	38.1%	34.4%	26.1%	31.3%	28.5%	29.5%	35.6%	32.4%
Online videos about health topics	25.8%	20.7%	23.5%	11.4%	15.5%	13.3%	20.9%	18.9%	20.0%
Webinar	13.2%	8.8%	11.2%	2.3%	3.8%	3.0%	9.5%	7.0%	8.4%
Online interactive program	12.5%	10.9%	11.8%	3.3%	3.6%	3.4%	9.4%	8.3%	8.9%
Health app on tablet/smartphone	21.0%	14.2%	18.0%	4.6%	5.4%	5.0%	15.4%	11.1%	13.4%
Podcast/online audio program	11.5%	6.2%	9.1%	0.6%	3.7%	2.0%	7.8%	5.3%	6.7%
Chatroom/online community	3.2%	3.2%	3.2%	1.2%	1.5%	1.3%	2.5%	2.6%	2.5%
Information from any website, including kp.org MD home page	47.1%	53.3%	49.9%	31.8%	41.8%	36.4%	41.9%	49.2%	45.3%
Information from a website, online video, online interactive program, webinar, or podcast	57.5%	58.5%	58.0%	35.5%	46.3%	40.5%	50.0%	54.1%	51.9%
Health information/newsletters by mail or email	58.7%	53.0%	56.0%	59.3%	59.7%	59.5%	58.9%	55.4%	57.2%
Mailed information/newsletter	29.8%	27.4%	28.6%	41.6%	36.8%	39.4%	33.8%	30.7%	32.4%
Emailed information/newsletter	39.9%	35.5%	37.9%	26.1%	35.5%	30.4%	35.2%	35.5%	35.3%
Print materials	37.1%	32.1%	34.8%	38.8%	40.2%	39.4%	37.7%	35.0%	36.4%
DVD at home	11.0%	11.6%	11.2%	6.4%	11.4%	8.7%	9.5%	11.5%	10.4%

Estimated from the 2017 Kaiser Permanente Northern California Member Health Survey.

* Some people may not have been interested in any health education modalities, but others may not have answered this question. For this reason, estimates were restricted to people who indicated interest in at least one modality in the checklist.

Appendix 1. MHS2017 Methodology and Response Rates

In the 2017 survey cycle, we mailed questionnaires and emailed links to the online version of the questionnaire to a stratified random sample of approximately 22,000 adult Health Plan members ages 25-90 in the KPNC region. Because the 2017 survey sample was only going to be half as large as was used for previous cycles due to budgetary constraints, we employed a different sampling strategy than was used for previous survey cycles that we hoped would yield adequate numbers of White, Black, Latinx, and Asian men and women in three age groups (25-44, 45-64, 65-90) to enable comparisons of characteristics by race/ethnicity. This was done with the knowledge that the survey response rate would be lower due to oversampling of demographic subgroups (i.e., younger adults, Blacks, and Latinx adults) that traditionally are less likely to participate in surveys like this. The survey sample was restricted to members whose electronic health records (EHR) indicated English as a preferred written and spoken language because in the prior attempts to survey Spanish speakers we had extremely low participation rates and we could not afford to translate, print, and mail survey materials in multiple languages. Members were sent print survey materials and companion email links up to two times to try to boost the response rate. Survey participants were told that they would automatically be enrolled in a drawing for one of 100 x \$100 gift cards.

As expected, the overall response rate (23%) was considerably lower than was achieved in the 2014/2015 survey cycle, varying by race/ethnicity and sex, and increasing with age. However, the response rates by race/ethnicity x age group x sex were in line with what we had expected based on response rates for these demographic groups in the 2014/2015 survey cycle. Survey respondents were assigned post-stratification weights based on the age (5-year intervals) distributions for men and women in their race/ethnic group derived from a 2016 Demographically Enriched Cohort of Kaiser Adults (DECKA2016) that had been created for another study.¹ Analyses based on the final weighted respondent sample thus approximately reflects the age x sex x race/ethnic composition in 2016 of KPNC members aged 25-90 whose primary language was English. Because of differences in the method used to select the sample (sampling from 4 race/ethnic groups at the regional level vs. from 19 medical center service populations) and to create the survey weighting factors (based on age-sex composition of each race/ethnic group vs. age-sex composition of each medical center service population), the 2017 survey results are not directly comparable with those from other survey cycles.

MHS2017 response rates by age group, race/ethnicity and sex, ages 25-90 yr

	White	African-American/Black	Latinx	Asian	All
Men					
25-44 yr	12.8	7.4	7.4	13.5	9.7
45-64 yr	26.5	15.7	19.9	23.3	21.4
65-90 yr	59.5	34.1	44.8	50.1	48.5
Women					
25-44 yr	23.5	16.5	17.2	21.2	19.5
45-64 yr	37.0	28.0	28.7	30.5	31.3
65-90 yr	64.0	41.6	44.2	50.0	51.4
All 25-90 yr	30.2	17.1	18.7	26.1	22.8

¹ Gordon NP, Lin TY, Rau JL, Lo JC. Aggregation of Asian-American subgroups masks meaningful differences in health and health risks among Asian ethnicities: An electronic health record based cohort study. *BMC Public Health* **19**, 1551 (2019) doi:10.1186/s12889-019-7683-3.