

# Highlights of Results of the Kaiser Permanente Northern California 2014/2015 Member Health Survey <sup>1</sup>

Nancy P. Gordon, ScD, Survey Director  
Kaiser Permanente Northern California Division of Research  
October 2017

## Introduction

Who are our members, and what is the status of their health? What behaviors are they engaging in that can promote or harm their health? What tools do they have that can be used to communicate with them about their health? And what are their preferences for seeking out health information and education to maintain and improve their health? This report provides some answers to these questions as it highlights some of the results of the 2014/2015 Member Health Survey conducted by the Kaiser Permanente Northern California (KPNC) Division of Research.

## Background

The Member Health Survey has been conducted every 3 years since 1993 with a stratified random sample of adults who are current members of the Kaiser Permanente Medical Care Program in Northern California. 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 Survey is funded by Kaiser Permanente's Northern California Community Benefit (CB) Program. Reports and statistics based on the 2014/2015 survey, survey questionnaires, and statistics from past surveys can be found on our website [www.memberhealthsurvey.kaiser.org](http://www.memberhealthsurvey.kaiser.org) or made available upon request.

## Methods

Data collection for the 2014 survey cycle was split across two years, with half of the usual number of members in each medical center service population surveyed in 2014 and the other half in 2015. In the 2014/2015 cycle, we mailed questionnaires to approximately 44,600 adult Health Plan members in the Northern California Region. The survey used a stratified random sample design in which pre-set numbers of women and men from five age groups (20–44, 45–64, 65–74, 75–79, and 80+) were randomly selected from each of our nineteen Northern California medical center service populations. Only current members who had been continuously enrolled during the three months prior to the survey and had no indication that they required an interpreter to communicate in English were

---

<sup>1</sup> This report can be cited as follows: Gordon NP. *Highlights of Results of the Kaiser Permanente Northern California 2014/2015 Member Health Survey*. Division of Research, Kaiser Permanente Medical Care Program, Oakland, CA, October 2017.

sampled. Two subsequent survey packet mailings were sent over the next several weeks to non-respondents, with the final wave of questionnaires mailed in September. Participants were also offered the opportunity to answer a secure online version of the questionnaire reached via a link emailed to them or by logging in using a URL printed on the survey materials. There is no individual financial incentive to participate in the survey, but participants are automatically entered into a drawing to win a \$100 gift card (100 winners). Phone administration was available on request but not used. Non-eligibles (deceaseds, non-current members, members living outside the main service area, language barrier) and members for whom neither Kaiser Permanente nor the U.S. Postal Service had forwarding addresses were dropped from the initial sample with no replacement. The overall survey response rate among survey eligibles was 37.9% (n=16,133/42,593), with seniors responding at the highest rates (see Appendix for age-sex group response rates and numbers of respondents). Post-stratification weighting factors were assigned to respondents so that statistics generated from the survey reflect the actual age, gender, and geographic composition of the adult membership at the time of the survey obtained from complex survey designs. Comparisons across race/ethnic groups are restricted to members aged 25-79. Unless otherwise specified, comparisons are for adults aged 20 and over or ages 20–44, 45–64, and 65 and over. All differences indicated in the text are statistically significant at a minimum of  $P < .05$ .

Using the combined 2014/2015 survey data, we produced profile reports describing the characteristics of members aged 20 and over in the Northern California region, and a report on seniors (ages 65 and over) in the Northern California region. These reports can be downloaded at [www.memberhealthsurvey.kaiser.org](http://www.memberhealthsurvey.kaiser.org).

More information about the survey design, response rates, and weighting can be found at the end of this report. For more comprehensive profile statistics, please see the full 2014/2015 survey cycle reports profiling members aged 20 and over (statistics for women and men aged 20-44, 45-64, and 65 and over), in Kaiser Permanente's Northern California Region, 19 medical center service populations, and 6 service areas (2 medical center service populations combined). A separate regional report on members aged 65 and over profiles men and women in age groups 65-74, 75-79, and 80 and over.

## Overview of Results

### The 2014/2015 Member Health Survey shows that compared with the survey in 2011:

- Our adult membership continues to become more race/ethnically diverse. There was a small but significant decrease in the percentages of non-Hispanic whites in (54.4% vs. 59.5%) and a small but significant increases in Latinos (15.9% vs 12.0%) and Asians (21.3% vs. 19.1%), with much little change for Blacks.
- There was no change in the percentages of adults with a college degree or at least some college, including for the older age group.
- The overall percentages of adults with a low-for-Bay Area household income (< \$35,000) did not significantly change, but in 2014/2015, significantly lower percentages of both female and male seniors (37.3% vs. 45.5% of women and 20.5% vs. 26.3% of men, respectively) were at that income level compared with 2011. At the upper range of household income, there was a small but significant increase in the percentage of all adults with a household income of over \$100,000 (34.5% in 2014/2015 vs. 30.1% in 2011), due primarily to significant increases among younger and older women.
- There was no significant change in the percentage of adults who indicated that in the past 12 months they had worried a great deal about their or their family's financial situation.
- The percentages of adults who indicated that they had delayed or not gotten medical care they thought they needed during the prior 12 months due to the cost slightly decreased (10.8% vs. 14.0%) and who said that they had started to take medicine in smaller doses or less frequently than prescribed, or decided not to fill a prescription due to the cost (5.6% vs. 7.9%). The

decreases were observed across all age groups, but were largest in the younger adult age group.

- There was no change in the percentages of adults who considered their overall health to be very good or excellent and their emotional/mental health to be very good or excellent.
- There was a significant decrease in the percentages of adults who were smokers (7.5% vs. 8.7%), but a significant increase in the percentage who reported having ever regularly smoked (39.8% vs. 29.1%). The significant increase in “ever smokers” was seen across all age-sex groups, but the decrease in current smoking was primarily among younger women (5.7% in 2014/2015 vs. 8.3% in 2011).
- There was no change in the percentages of adults who were obese (BMI  $\geq$  30) or very obese (BMI  $\geq$  35), with overall prevalence staying around 26% and 10%, respectively.
- There were significant increases in the percentage of adults who reporting engaging in exercise/physical activity at least 3 times a week (73.2% vs. 61.9%) and at least 5 times a week (39.8% vs. 29.0%), and these increases were observed for all age-sex groups. There was a significant decrease in the percentage of adults who got exercise/physical activity less than once a week (10.8% vs. 14.9%). Of those who got exercise at least once a week, there was a small but significant decrease in the percentage who indicated that when they exercised, they usually got moderate or vigorous exercise (70% vs. 73.2%); however, this decrease was only observed among younger women.
- No changes were observed with regard to healthy dietary practices, i.e., consumption of at least 3 servings of fruit/vegetables a day; usually trying to eat low fat/reduced fat foods; and usually trying to avoid high sodium/high salt foods.
- There was a significant increase in the percentage of adults who said that they felt very stressed, tense, or anxious much of the time (19.1% vs. 17.0%), with the change primarily observed for women in all 3 age groups.
- There was a decrease in the percentages of adults who reported being very satisfied with their life (37.2% to 32.0%). However, the percentages of adults who reported being satisfied with their life and being very happy or very/pretty happy did not significantly change.
- There was a significant increase in the overall percentage of adults who believe that health habits/lifestyle (e.g., exercise, diet, and weight) can affect their health quite a bit or extremely (87.8% vs. 85.1%). There was a similar increase in the overall percentage of adults who believe that stress and emotional troubles (e.g., depression and anxiety) can affect their health quite a bit or extremely (83.5% vs. 81.1%). For both of these beliefs, the largest increase was observed for middle-aged men.
- There were no significant changes in the overall percentages of adults who were able to use the Internet to get information with websites (alone or with some help). However, there were small but significant increases in use of email and text messaging among seniors.
- The overall percentages of adults who indicated getting health information from a website in the past year (approximately 40%) did not change, although an increase was observed for seniors (41.4% vs. 32.7%). Similarly, the overall percentage of adults who indicated interest in getting health information from websites (if they were interested in getting health information or advice using any of the modalities listed) did not increase, although an increase was observed for seniors (43.6% vs. 37.4%).

## 2014/2015 Survey Result Highlights by Category

- **Sociodemographic characteristics and financial circumstances** (pages 4-6)
- **Health status and health conditions** (pages 6-8)
- **Health behaviors and psychosocial/lifestyle risks** (pages 8-12)
- **Use of complementary and integrative health (CIH) modalities and nonvitamin/nonmineral dietary supplements** (pages 12-13)
- **Access to digital technology** (pages 13-14)
- **Methods used for obtaining health information and health education in the past year** (pages 14-16)
- **Preferred methods for obtaining health information and health education** (pages 16-18)
- **Survey methodology** (pages 19-20)

Note on report terminology: When reporting subgroup differences, the terms younger, middle-aged, and older adults/seniors refer to ages 20-44, 45-64, and 65 and over, respectively. When reporting race/ethnic differences, the term white refers to non-Hispanic White and Black to African-American/other black.

### Sociodemographic Characteristics and Financial Circumstances

#### Race/Ethnicity:

- Approximately 54% of members aged 20 and over are non-Hispanic white, 6% are African-American/Black, 16% are Latino/other Hispanic, and 201 are Asian.
- The race-ethnic composition of the adult membership varies by age group. Non-Hispanic Whites make up 43% of members aged 20–44, 58% of those aged 45–64, and 72% of those aged 65 and over; Asians make up 27%, 18%, and 12% of these age groups, respectively; and Latinos make up 22%, 14%, and 8%, respectively. The percentage of members who are African-American/Black (approximately 6%) does not significantly vary across age groups.

#### Educational Attainment:

- Among members aged 25 and over, nearly half (49%) are **college graduates** and approximately 79% have at least some college education.
- Educational attainment significantly declines with age. For example 58% of members aged 25–44, 45% of those aged 45–64, and 39% of those aged 65 and over are college graduates.
- Among seniors, men have significantly higher educational attainment than women (46% vs. 32%, respectively, who are college graduates). Among younger adults, women are more likely to be college graduates than men (61% vs 55%).
- Across all age groups, Blacks and Latinos are significantly less likely and Chinese significantly more likely than Whites to be college graduates, with no significant difference between Whites and Filipinos. Across all age groups, Latinos are significantly less likely than Whites to have at least some college.

#### Relationship Status:

- 76% of men and 70% of women aged 20 and over are married or in a committed relationship. However, while women in the younger group are more likely than men to be in married or in a committed relationship (75% vs. 69%), the reverse is true in the middle-aged (75% vs. 82%) and older (51% vs. 80%).
- Across all age groups, Black women are less likely to be married or in a committed relationship than White women; this same differences is found for men in the younger and middle-aged groups.

## Employment Status:

83% of men and 76% of women aged 20–64 reported currently being part of the workforce, working either for someone else or for their own business. An additional 5% of 20–44 year olds and 4% of 45–64 year olds were unemployed or laid off. Approximately 2% of members aged 20–44 and 15% of those aged 45–64 were retired or unable to work due to health or disability problems.

- While the majority of men and women aged 65 and over were retired or unable to work due to health problems or disability, 22% of men and 18% of women were still in the workforce. Approximately 32% of 65–69 year olds and 12% of 70-74 year olds, and 8% of 80-84 year olds were working at least part time.

## Income/Financial Circumstances

### Household Income

- Approximately 18% of adults aged 20 and over had a household income of \$35,000 or less (low income by San Francisco Bay Area standards) and 11% had a household income of \$25,000 or less. At the upper end, approximately 34% had a household income of \$100,000 or more, with about 16% having a household income over \$150,000. Household income significantly varied across age groups. At the lower end of the income ladder, 18%, 11%, and 30% of young, middle-aged, and older adults, respectively had a household income of \$35,000 or less, and 11%, 7%, and 18%, respectively, had household incomes of \$25,000 or less? At the upper end, 35%, 42%, and 19% in these age groups had a household income of \$100,000 or over.
- While there were no significant differences in percentages of women and men with these incomes in the non-senior age groups, among those aged 65 and over, women were nearly twice as likely as men to have a household income of \$35,000 or less (37% vs. 20%) and \$25,000 or less (24% vs. 10%). Across all age groups, women were less likely to report having an income of \$100,000 or more. Sex disparities in lower household income within the oldest age group are strongly associated with marital status. Among those older adults who are married, there were no significant sex disparities. However, among those older adults who are not married (in a committed relationship but not married, single, separated, divorced, or widowed), women are significantly more likely than men to have a household income of \$35,000 or less (54% vs. 37%) or \$25,000 or less (38% vs. 23%).
- Blacks and Latinos are significantly more likely than Whites to have a household income of \$35,000 or less (27% and 20% vs. 12%, respectively), and Chinese (7%) are significantly less likely than Whites to be at that income level. These differences persist across all 3 age groups, and this pattern was also true for income of \$25,000 or less.

### Financial strain

- Overall, 27% of adults aged 20 and over said that they were very worried about their or their family's financial situation during the past year, but younger and middle-aged adults were approximately twice as likely as those aged 65 and over (30% vs. 15%) to have been worried. This age disparity in worry about financial situation persists at different levels of income: Among 20-64 year olds, approximately 40% of those with household incomes of \$35,000 or less (no significant difference between  $\leq$  \$25,000 and \$25,000-\$35,000) and \$35,000-\$50,000 said they had been very worried, as did 36% of those with incomes of \$50,000-\$80,000, 31% with incomes of \$80,000-\$100,00, and 19% of those with incomes of \$80,000 or over. Among adults aged 65 and over, 24% of those with household incomes of \$35,000 or less (no significant difference between  $\leq$  \$25,000 and \$25,000-\$35,000), 16% of those with incomes of \$35,000-\$50,000, and approximately 12% of those with incomes of \$50,000 or more experienced financial worry.

Among 20-64 year olds, Blacks, Latinos, and Filipinos were significantly more likely to have been very worried about their personal or family financial situation than Whites, and

among seniors, Blacks were also more likely than Whites to have worried about their financial situation.

#### Reduced use of medical care or prescription medications due to cost

- Approximately 15% of women and 9% of men aged 20-64 and 5% of women and men aged 65 and over had, in the past year, delayed or did not get medical care they thought they needed due to the cost. Approximately 5% of adults had not filled a prescription or had used less prescription medicine than had been prescribed due to the cost. Among those aged 20-64, Blacks were significantly more likely to report reducing medication use than Whites due to cost issues (10% vs 6%) , but they did not differ with regard to delaying or foregoing medical care due to cost. Among seniors, Blacks were more likely to report delaying or foregoing medical care due to cost than Whites.

#### Reduced fruit and vegetable consumption due to cost

- Approximately 9% of adults consumed less fruits and vegetables than they would have wanted to due to cost. Across all age groups, the percentages who ate less fruit and vegetables than they would have wanted due to cost was significantly higher among women than men (including 15% of younger women); among Blacks and Latinos ages 25-79 than among Whites (14% and 14% vs. 7%); and among those with a household income of \$35,000 or less compared with incomes of \$50,000 or more.

#### Insufficient funds to pay for basic necessities sometime during the year

- In the 2015 survey, we asked whether the individual at any time during the past 12 months didn't have enough money to pay for food, housing, or other basic necessities. Approximately 7% of adults (10% of 20-44 year olds, 6% of 45-64 year olds, and 3% of those 65 years and over) indicated that they had experienced this situation. Among 20-64 year olds, approximately 27% of those with a household income of \$35,000 or less and 15% with an income of \$35,001-\$50,000, and 6% of those with an income of \$50,001-\$80,000 experienced this problem, suggesting that this is not just an issue for people with very low incomes. Among seniors, 10% of those with an income of \$25,000 or less and 4% of those with an income of \$25,001-\$35,000 experienced this problem. Overall (among ages 25-79), Blacks, Latinos, and Filipinos were significantly more likely than Whites to have experienced this problem (15%, 11%, and 12% vs. 5%,, respectively), while Chinese (1.6%) were less likely to than Whites.

### **Caregiver Responsibility**

- During the past 12 months, approximately 14% of 20-44 year olds, 26% of 45-64 year olds, and 24% of those aged 65 and over had provided unpaid care to a relative or friend who was seriously ill or had a physical, developmental, mental, or emotional disability (helping with personal needs, managing finances, arranging for services, etc.). Across all age groups, women were more significantly more likely to have this type of caregiver responsibility than men (15% vs. 12%, 29% vs 23%, and 27% vs 22%, respectively).

### **Health Status**

#### **Rating of Overall Health:**

- 56% of adult members rated their overall health as very good or excellent, and 89% rated their health as good or better. The percentages reporting very good/excellent health significantly decline with age: 64% of 20–44 year olds, 54% of 45–64 year olds, and 42% of those aged 65 and over (52% of 65–69 year olds, 46% of 70-74 year olds, 36% of 75–79 year olds, 31% of 80-84 year olds, and 22% of those aged 85 and over). Conversely, the percentages reporting fair or poor health increase with age: 6% of 20–44 year olds, 10% of 45–64 year olds, and 18% of those aged 65 and over (14% of 65-69 and 70-74 year olds, 19% of 75–79 year olds, 20% of 80-84 year olds, and 34% of those aged 85 and over). Across all 3 age groups, Blacks, Latinos, and Filipinos were significantly less likely to consider their health to be very good or

excellent than Whites, with no significant difference between Whites and Chinese. Among both middle-aged and older adults, Blacks, Latinos and Filipinos were also more likely than Whites to rate their health as fair or poor.

- When physical health and emotional health were rated separately, decline in rating of physical health parallels that for overall health. This is not the case for rating of overall emotional well-being, where across all age groups, approximately 61% of adults rate their emotional/mental health as very good or excellent, 28% rate it as good, and 11% rate it as fair or poor. The percentages of adults with very good or excellent emotional health does not significantly decline as does physical health until the after the age of 79, and while Blacks are somewhat more likely to report fair or poor emotional health than Whites, the disparity is not as large as is observed for fair or poor physical health.
- There are no significant sex differences in rating of overall health status, physical health status, or emotional health status within these age groups, although among adults aged 80 and over, women are more likely to report fair/poor health than men.

### **Extent to Which Physical and Emotional Health Problems Interfere with Work or Other Regular Daily Activities**

- Approximately 55% of 20-44 year olds, 43% of 45-64 year olds, and 35% of those aged 65 and older say that their physical health does not interfere at all with their regular daily activities. However, about 13% of 20-44 year olds, 22% of 45-64 year olds, and 30% of those aged 65 and over indicate that physical health problems, including pain, interfere at least moderately with their daily activities, and for approximately 10% of middle-aged and older adults, health impacts their daily activities quite a bit.
- Approximately 58% of adults say that their emotional/mental health does not interfere at all with their daily activities, and 14% say it interferes at least moderately. In contrast to physical health, there are no significant age group or sex differences with regard to interference of emotional/mental health.

### **Pain:**

- **Severe or Chronic Pain:** Approximately 31% of women and 24% of men experienced some kind of severe or frequent/chronic pain during the previous year. The prevalence of severe or frequent/chronic pain was higher among middle-aged and older adults than younger adults.
- **Musculoskeletal Pain:** 16% of members experienced musculoskeletal pain in the form of severe back pain/sciatica or neck/shoulder pain during the previous 12 months. The prevalence of musculoskeletal pain was higher among middle aged and older adults, but did not differ by sex within age groups.
- **Headaches:** Approximately 9% of adults experienced migraines or other severe headaches during the previous year. Frequent headaches were more common among 20-64 year olds (approximately 10% vs. 4%) and across all age groups, women were twice as likely as men to experience frequent headaches.
- **Arthritis:** Approximately 7% of women and men aged 45–64 and 21% of women and 11% of men aged 65 or older have arthritis.

### **Falls in the Past Year (Ages 65 and Over):**

- Approximately 30% of women and 22% of men aged 65 and over fell to the ground or on stairs at least once during the previous 12 months, and approximately 14% of women and 10% of men feel at least twice. Prevalence of at least one fall increased with age (22% of 65-74 year olds, 27% of 75-79 year olds, and 37% of those  $\geq$  80). Among adults aged 65-69 and 70-74, women were more likely than men to report at least one fall (26% vs 17% and 17% vs 12%, respectively) and 2 or more falls (12% vs 7% and 14% vs 11%, respectively).

## Other Health Conditions Affecting Quality of Life:

- **Urinary Incontinence (UI):** Approximately 4% of women aged 20-44, 13% of women aged 45-64, and 28% of women and 11% of men aged 65 and older experienced urine leakage at least once a week. Among women aged 65 and over, 22% of 65-74 year olds, 30% of 75-79 year olds, and 39% of those aged 80 and over experienced UI. Among men in these senior age groups, UI was experienced by 8%, 13%, and 19%, respectively.
- **Frequent Insomnia** (problems falling or staying asleep): Approximately 10% of adults suffer from frequent insomnia. This problem is more prevalent among middle-aged and older women (13% and 16%, respectively) than younger women (7%) and men (6% of younger men, 8% of middle-aged men, and 10% of older men).
- **Frequent Problems with Balance or Walking:** While this problem affects only around 1% of younger adults and 4% of middle-aged adults, approximately 15% of women and 10% of men aged 65 and over experience problems with balance or walking. This problem increases with age: 8% of 65-74 year olds, 15% of 75-79 year olds, and 25% of those aged 80 and over experience problems with balance or walking.
- **Frequent Problems with Memory:** About 2% of younger adults, 4% of middle-aged adults, and 9% of adults aged 65 and over experience frequent problems with memory. However, in the older age group, the actual increase in prevalence of memory problems doesn't really occur until the age of 75 ( 5% of 65-74 year olds, 11% of 75-79 year olds, and 15% of those aged 80 and over).
- **Problems with Hearing:** Hearing problems affect less than 2% of younger adults, but about 6% of middle-aged adults and 26% of older adults (21% of women and 31% of men) report having hearing problems or being deaf. In the older age group, prevalence of hearing problems increases with age (18% of 65-74 year olds, 26% of 75-79 year olds, and 44% of those aged 80 and over), with an approximate 10 percentage point difference in prevalence for women and men in each age group.

## Health Behaviors, Psychosocial and Lifestyle Risks

### Smoking:

- Overall, 7.5% of adults were current cigarette smokers. Prevalence of smoking was significantly higher among adults aged 20-64 than those aged 65 and over (approximately 8% vs. 4%, respectively), and among adults aged 20-44, prevalence was significantly higher among men than women (11.4% vs. 5.9%).
- Over half (56%) of adults who had smoked during at least part of the year prior to the survey had either quit (18.8%), attempted to quit (27.6%) or were taking steps toward quitting (9.4%).
- Approximately 60% of adults never regularly smoked. The percentages of adults who never regularly smoked are higher among younger and middle-aged adults than older adults (68%, 60%, and 44%, respectively). Within each age group, women are more likely than men to be never smokers (73% vs. 63%, 63% vs. 56%, and 50% vs. 36%, respectively).
- An additional question in the 2015 survey captured use of other forms of tobacco/nicotine during the past 12 months (e-cigarettes, pipes, cigars, bidis, and smokeless). Assuming this is ongoing use, combined with cigarette smoking, we estimate that approximately 14% of adults (19% of men and 9% of women) were currently using some form of tobacco in 2015. (By age group and sex: approximately 26% of men and 11% of women aged 20-44; 17% of men and 8% of women aged 45-64; and 9% of men and 6% of women aged 65 and over).
- Approximately 4% of adults had used e-cigarettes (or vape pens or e-hookah) in 2015. E-cigarette use was highest among younger adults (9.7% of men and 5.8% of women) and current cigarette smokers (approximately 34% of smokers aged 20-44, 16% of smokers aged 45-64, and 14% of smokers aged 65 and over). Approximately 10% of younger adult former

smokers had used e-cigarettes, but only about 2% of former smokers aged 45-64 and less than 1% of former smokers aged 65 and over had used them.

### **Exercise/Physical Activity:**

- Approximately 11% of adults were sedentary (routinely engaging in exercise or physical activity less than once a week); 73% engaged in exercise/physical activity at least three times a week; and 40% were getting exercise/physical activity five or more times a week.
- Of those who routinely engaged in exercise/physical activity at least once a week, 68% indicated that when they exercised, they usually getting moderate or vigorous exercise (“moderate” was defined as noticeably increasing breathing and heart rate, like walking fast or uphill). However, the percentages who got moderate or vigorous exercise declined with age (75% of 20-44 year olds, 67% of 45-64 year olds, and about 53% of those aged 65 and over).

### **Weight:**

- Approximately 64% of adults (57% of women and 71% of men) had a BMI  $\geq 25$ ; 28% of adults (no gender difference) had a BMI  $\geq 30$ , and approximately 11% (12% of women, 10% of men) had a BMI  $\geq 35$ .
- Middle-aged adults were significantly more likely to have a BMI  $\geq 30$  (33%) than men and women in the younger (26%) and older (26%) age groups, with no significant differences by sex within age groups.

### **Fruit and Vegetable Consumption:**

- 47% of adult members reported eating three or more servings of fruits and vegetables per day, and about 14% were consuming five or more servings per day, with no significant differences across age groups, and no significant change compared to 2011.
- Across all age groups, women are more likely than men to be consuming at least three servings of fruits and vegetables a day (54% vs. 39%) and at least five servings per day (18% vs. 10%).

### **Effort Made to Eat Reduced-fat Foods and Avoid High Sodium Foods:**

- 48% of adults reported that they usually tried to eat reduced or low fat foods most of the time, with women significantly more likely to do so than men (56% vs. 49%, respectively). Younger adults were significantly less likely than those aged 45 and over to try to eat reduced-fat foods most of the time (46% vs. 56% of women and 38% vs. 46% of men, respectively).
- 57% of adults tried to avoid foods high in salt or sodium most of the time. Again, women were more likely to do so than men (62% vs. 53%, respectively) and younger adults were significantly less likely to do so than those aged 45 and over (56% vs. 65% of women and 47% vs. 56% of men, respectively)

### **Consumption of Sugary Beverages (New item 2015):**

- Approximately 45% of adults drink at least one sugar or corn syrup sweetened drinks (e.g., regular soda and non-diet fruit drinks, vitamin water, bottled teas, coffee drinks, sports drinks, and energy drinks) at least twice a week. Younger adults are more likely than adults aged 45 and over to consume sugary beverages at least twice a week, and across age groups, men are more likely than women to do so (57% of men and 49% of women aged 20-44; 45% of men and 33% of women ages 45 and over).
- 26% of adults drink one or more sugary beverages at least 5 times a week. While there are no significant differences by age group, overall, men are somewhat more likely to consume these beverages at this higher frequency than women (30% vs. 23%).

### **Use of Multivitamins, Calcium, Vitamin D, and Selected Other Dietary Supplements:**

- 50% of women and 40% of men took a daily multivitamin, with no significant differences by age group.

- 30% of women and 9% of men took a calcium supplement. However, if we assume that daily multivitamins contain some calcium, then 60% of women and 43% of men are getting at least calcium through supplementation.
- 23% of women and 13% of men were taking a vitamin D supplement not as part of a multivitamin or calcium supplement.
- While the percentages of women and men who took a daily multivitamin did not significantly differ by age group, calcium and vitamin D supplementation significantly increased with age for both women and men.
- Approximately 7% of adults had used melatonin in the past year (approximately 9% of women 20-64, 7% of women 65 and over, and 5% of men). Melatonin usage was significantly higher among adults who had frequent insomnia (about 18%). Of adults with frequent insomnia, approximately 22% of women and 12% of men aged 20-64 and 15% of women and men aged 65 and over had taken melatonin.
- Nearly 25% of adults with arthritis used glucosamine.
- 28% of adults used fish oil, flaxseed oil, or omega-3 fatty acid supplements. Older adults were significantly more likely to use fish oil/omega-3 fatty acids than those under the age of 65 (34% vs. 27%).

### **Alcohol Consumption:**

- Approximately 22% of adults (24% of women and 19% of men) abstained from alcohol use during the previous year. Among both women and men, the percentages who abstained from alcohol increased with age (21%, 24%, and 34% of women and 17%, 20%, and 23% of men for ages 20-44, 45-64, and 65 and over, respectively). Among adults aged 25-79, East Asians had the highest abstinence rates (26% of men and 38% of women). Abstinence rates for Blacks (22%) and Whites and Latinos (17% for both) did not differ by sex.
- About 13% of adults (10% of women and 17% of men) have at least one drink 5 or more times a week. Among both women and men, the percentages who drank five or more times a week significantly increased with age (5%, 12%, and 17% of women and 11%, 18%, and 28% of men, for ages 20-44, 45-64, and 65 and over, respectively).
- For both women and men, the 65 and over age group has the highest percentages of abstainers and adults who consume alcohol five or more days a week.
- Approximately 30% of adults (34% of women and 26% of men) usually drink more than the recommended number of drinks in a day (defined as more than one drink for all women and men aged 66 and over or more than two drinks at a time for men aged 20-65). By age group (20-44, 45-64, and 65 and over), 42%, 32%, and 19% of women and 29%, 20%, and 34% of men were imbibing more than the recommended number of alcoholic drinks for their age and sex.
- Approximately 8% of adults (7% of women and 9% of men) usually drink more than the recommended number of drinks per week (defined as more than 7 drinks per week for all women and men aged 66 and over and more than 14 drinks per week for men aged 20-65). By age group, 6%, 8%, and 9% of women and 6%, 8%, and 19% of men drank more than the recommended number of alcoholic drinks per week for their age and sex.
- Among adults who said they consumed an alcoholic drink at least once a week, approximately 7.5% consumed at limits considered to be risky (>4 drinks for men aged 20-65 and >3 drinks for women and men aged 66 and over). The approximate percentages of these weekly drinkers consuming at this level was 8%, 4%, and 2% of women and 11%, 7%, and 9% of men ages 20-44, 45-65, and 66 and over, respectively. Among men 66 and over, 11% of 66-74 year olds, 7% of 75-79 year olds, and 4% of those aged 80 and over who drank at least weekly reported having > 3 drinks a day on days that they consumed alcohol.

## Sleep:

- Approximately 64% of adults usually got the recommended 7–9 hours of sleep per day, including naps. Nearly one-third (32%) usually got < 7 hours of sleep, and nearly 10% got <6 hours. Middle-aged adults were significantly more likely than younger and older adults to get <6 and <7 hours of sleep, and older adults were significantly more likely than the other groups to get > 9 hours of sleep.
- A third (33%) of all adults with frequent insomnia (no significant difference by age or sex) had used a prescription or over-the-counter sleep medication at least once during the previous year. If melatonin use is included as a sleep aid, the percentage rises to 43%.

## Emotional Well-Being:

- **Chronic Stress:** 19% of adult members (22% of women and 16% of men) reported feeling very stressed, tense, or anxious much of the time during the past year. Chronic stress is significantly more prevalent among working age adults, and within that age group, among women (ages 20–64: 25% of women and 18% of men ages 20-64 and 9% of women and 5% of men ages 65 and over).
- **Depression and/or Anxiety:** Approximately 16% of adult members experienced depression or anxiety/panic lasting at least two weeks during the previous 12 months or were taking antidepressant or anti-anxiety medication during that interval. Women were more likely than men to report these conditions (20% vs. 12%, respectively), with no significant age group differences.
- **Life Satisfaction and Overall Happiness:** Most (90%) of adults reported being satisfied with their lives in general, but only 32% were very satisfied. While 89% of adults reporting being pretty or very happy, only 25% indicated being very happy. Older adults were significantly more likely than those aged 20-64 to report being very satisfied with life (40% vs. 30%) and very happy (30% vs. 24%).

The lower levels of stress and higher levels of contentment experienced by as compared with younger and middle-aged adults may be associated with the relatively low levels of worry about personal/family financial security and safety. Overall, seniors were significantly less likely than adults aged 20-64 to report worrying a great deal about their financial situation (15% vs. 30%) or the safety of their neighborhood (4% vs. 8%).

## Health-Related Behaviors to Maintain or Improve Health:

- **Getting Exercise:** 66% of adults said they try to get exercise most days. However, 45% indicated trying to get *moderate or vigorous exercise* most days.
- **Healthy Eating:** Three-quarters (78%) of adults said they try to eat mostly healthy foods. Women were significantly more likely than men to say they try to eat mostly healthy foods (78% vs. 69%). Women were also significantly more likely than men to say they read labels and recipes to learn what is in their food (56% vs. 45%). The prevalence of these food-related practices among women and men did not significantly vary across age groups.
- **Losing Weight:** Two-thirds (66%) of adults with a BMI  $\geq$  30 indicated that they were taking steps to lose weight or maintain weight loss, with only modest differences between women and men.
- **Getting Enough Sleep:** 69% of adults said they try to get enough sleep to feel well rested. Women are significantly more likely to say they try to do so than men (73% vs. 65%).
- **Managing Stress:** Over half of all adults (53%) said they are trying to manage stress effectively. Adults under age 65 are significantly more likely to be trying to manage stress than those aged 65 and over (51% vs. 36%), and within these age groups, women are significantly more likely to be making this effort than men (ages 20–64: 56% vs. 45%; ages 65 and over:

40% vs. 30%). These age and gender differences parallel those found for prevalence of chronic high stress among different segments of the adult population.

- **Doing Enjoyable Activities:** Approximately 72% of adults say they do enjoyable activities at least once a week.
- **Reducing Risk of Falling** (adults aged 65 and over only): 44% of all adults aged 65 and over and 63% of those at elevated risk for falls (had at least one fall in the past year or reported a problem with balance/walking) said they are taking steps to reduce risk of falling. This is a significant increase over 2011, when 39% of all adults aged 65 and over and 58% of high risk older adults said they were taking steps to reduce falls. Women were significantly more likely than men (53% vs. 33% of all seniors; 68% vs. 53% of those with elevated fall risk) to be taking fall prevention steps.
- **Keeping the Brain Stimulated** (adults aged 65 and over only): Approximately 72% of adults aged 65 and over say they do activities to keep their brain stimulated. Women are significantly more likely to do so than men (74% vs. 69%).
- **Visiting People At Least Once a Week** (adults aged 65 and over only): Approximately 65% of adults aged 65 and over say they visit with people at least once a week. Women are significantly more likely to do so than men (69% vs. 59%).

#### **Beliefs about Relationship of Health Behaviors / Lifestyle and Emotions with Health:**

- About 88% of adults believed that their **health habits/lifestyle** (like diet, exercise, and weight) can affect their health quite a bit or extremely, and only around 4% thought that their health habits/lifestyle have little or no effect on their health. Adults aged 20-64 were significantly more likely than those aged 65 and over to believe that health habits/lifestyle had a large impact on their health (89% vs. 84%), and within the 20-64 age group, women were significantly more likely to believe this than men (91% vs 87%). Overall, only 4% of adults believed that their health habits/lifestyle had little or no effect on their health (4% of 20-64 year olds and 6% of those aged 65 and over).
- About 84% of adults believed that **stress and emotional troubles** such as depression or and anxiety can affect their health quite a bit or extremely. Adults aged 20-64 were more likely than those aged 65 and over to hold this belief (86% vs. 75%), and within these age groups, women were more likely to believe this than men (88% of women vs. 83% of men aged 20-64 and 77% of women vs. 73% of men aged 65 and over). Approximately 7% of 20-64 year olds and 14 of those aged 65 and over believe that stress and emotional troubles have little or no effect on their health.
- Among those aged 65 and over, prevalence of the belief that health habits/lifestyle can have a large effect on health declines with age, with percentages for those aged 65-74 similar to those for non-seniors (88%), but dropping to 82% and 74% among those aged 75-79 and 80 and over, respectively. A similar decline was found for the belief that stress/emotions can greatly affect health, with 80%, 72%, and 65% of those aged 65-74, 75-79, and 80 or over, respectively, believing this. Approximately 8% and 10%, respectively, of those aged 75-79 and 80 and over believe that health habits/lifestyle have little or no effect on their health, and approximately 17% and 21% of adults in these age groups believe that stress/emotional troubles have little or no effect on their health.

#### **Use of Complementary and Integrative Health (CIH) Modalities**

- Approximately 10% of adults used **chiropractic care**, 5% **acupuncture**, and 18% **massage therapy** (significant age-sex differences for massage therapy: 25% of women and 15% of men aged 20-64 and 12% of and 7% of men aged 65 and over). Among those who had experienced severe musculoskeletal pain (back, sciatica, neck, or shoulder) in the past year, about 22% had used chiropractic care (25% of ages 20-64 and 15% of ages 65 and over), 11% had used acupuncture (no age group difference), and 29% had used massage therapy

(39% of women and 28% of men aged 20-64 and approximately 16% of adults aged 65 and over).

- Approximately 20% of adults had used **deep breathing, mindfulness or other relaxation/ meditation techniques** during the past 12 months. Women aged 20-64 (27%) were significantly more likely to use mind-body techniques than men aged 20-64 (16%), older women (17%), and older men (9%).
- About 13% of adults did **yoga**. Women aged 20-64 (21%) were significantly more likely to do yoga than older women (about 10%), men aged 20-64 (8%), and older men (3%).
- 20% of adults (25% of women and 14% of men) used **prayer or spiritual practice** to improve or maintain their health, and about 3% used religious or spiritual healing by others.
- Approximately 6% of adults had used **psychological counseling**. Women aged 20-64 (9%) were significantly more likely to have done so than men aged 20-64 (5%), older women (4%), and older men (2%).

## Access to Internet, Email, and Text Messaging

### Mobile Phone, Smartphone, Text Messaging, and Apps:

- Over 97% of adults aged 20-64 and 86% of adults aged 65 and over (92% of ages 65-74, 85% of ages 75-79, and 71% of ages 80 and over) have a **mobile phone** (cellular or smartphone). **Smartphone** ownership is 88% among 20-44 year olds, 71% among 45-64 year olds, and 34% of those aged 65 and over (but 47% among 65-74 year olds, 24% among 75-79 year olds, and 10% among those aged 80 and over).
- Among those who own a mobile phone, 86% of 20-44 year olds, 76% of 45-64 year olds, and 43% of adults aged 65 and over (but 54% of ages 65-74, 36% of ages 75-79, and 22% of ages 80 and over) are able to send and receive **text messages** on a mobile phone.
- Approximately 57% of adults can **use apps on a smartphone** (only mobile phone owners were asked this question) -- 76% of adults aged 20-44, 55% of 45-64 year olds, and 21% of adults aged 65 and over (but 30% of ages 65-74, 14% of ages 75-79, and 4% of ages 80 and over). Among those who own a smartphone, 87% of 20-44 year olds, 77% of 45-64 year olds, and 61% of those aged 65 and over (but 63% of ages 65-74, 56% of ages 75-79, and 45% of ages 80 and over) are able to use apps on their smartphone.

### Internet:

- 94% of adults are **able to use the Internet to search for information** at their home or another location, and 94% could send and receive email. Ability to use the Internet is greater among younger and middle-aged adults than among those aged 65 and over. Nearly all (99%) of those aged 20-44 and 96% of those aged 45-64 are able to use the Internet, as compared with the 79% of those in the older age group. When we look at smaller age groups within that 65 and over segment, 92% of those aged 65-69, 86% of those aged 75-79, and 55% of those aged 80 and over can use the Internet.
- While most adults aged 20-64 who use the Internet are able to do so by themselves, approximately. However, the percentages able to use the Internet by themselves starts declining in the older age groups: 86% of 65-69 year olds, 77% of 70-74 year olds, 62% of 75-79 year olds, and 38% of those aged 80 and over are able to use the Internet on their own.
- Nearly all adults who use the Internet do so from home, and over half of adults aged 20-64 and 17% of those aged 65-74 use the Internet at work.
- Approximately 90% of adults who use the Internet access it using a desktop or laptop computer or a net book. Younger adults are somewhat less likely to use a computer to access

the Internet than middle aged-and older adults (85% vs. 91% and 92%, respectively). Other **devices used to access the Internet** included:

- Tablets: Used by approximately 38% of adult Internet users (43% of those aged 20-44, 38% of those aged 45–64, and 28% of those aged 65 and over).
- Smartphones: Used by approximately 57% of adult Internet users (73% of 20–44 year olds, 52% of 45–64 year olds, and 27% of those aged 65 and over).
- Older cell phones: Used by approximately 16% of adults (19% of ages 20-44, 14% of ages 45-64, and 8% of ages 65 and over).

#### **Email:**

- **Ability to use email** shows similar age-related differences. Nearly all (99%) of those aged 20–44, 95% of those aged 45–64, and 78% of those aged 65 and over can send and receive email. A closer look at the 65 and over age group shows that 91% of those aged 65–69, 86% of those aged 70-74, 74% of those aged 75–79, and 55% of those aged 80 and over are using email.
- While nearly all email users under the age 65 use email on their own, among those aged 65 and over, 86% of 65-69 year olds, 78% of 70-74 year olds, 65% of 75-79 year olds, and 40% of those aged 80 and over are able to use email on their own.
- Approximately 86% of adults who use email do so using a desktop or laptop computer, but use of a computer for email increases with age (82% of 20-44 year olds, 89% of 45-64 year olds, and 91% of those aged 65 and over). Other **devices used for email** include:
  - Tablets: 32% of adult email users (34% of 20-44 year olds, 33% of 45-64 year olds, and 24% of those aged 65 and over)
  - Smartphones: 57% of adult email users (73% of 20-44 year olds, 52% of 45-64 year olds, and 27% of those aged 65 and over)
  - Cellular phones: 15% of adult email users (17% of 20-44 year olds, 15% of 45-64 year olds, and 8% of those aged 65 and over).

## **Use of Health-Related Information Resources in the Prior 12 Months**

### **Use of Web-Based Health Education Resources:**

- **Information from Websites:** Approximately one-third (33%) of adults (37% of women and 28% of men) said that they got health information from kp.org or other websites during the 12 months prior to the survey. In the 20-44 and 45-64 age groups, women are significantly more likely than men to have sought web-based health information (38% vs. 23% and 42% vs. 34%, respectively). Among those aged 65 and over, 30% of both women and men had sought web-based health information, but the percentages decline with age (36% of ages 65-74, 26% of ages 75-79, and 17% of ages 80 and over)..
- Interestingly, some adults apparently don't consider using the MD Home Page or kp.org health information and health education tools as going to a website. When we combine those who said they got health information from a website with those who said they used a specific kp.org resource (online Health Encyclopedia or Drug Encyclopedia, online patient education program, or MD home page), the percentages of those who got health information from the Web significantly increases to overall 43% (48% of women, 38% of men) and by age group 39% of 20–44 year olds (48% of women, 30% of men), 47% of 45–64 year olds (52% of women, 43% of men), and 43% of all aged 65 and over (41% of women, 45% of men) .

- **Kaiser Permanente Web-Based Health Information/Education Resources:**

Approximately 29% (33% of women, 25% of men) used at least one of the following kp.org health information resources: Health/Drug Encyclopedia, MD Home Page, online patient education programs, kp.org podcasts). Usage of kp.org online resources varied by age group and among the younger groups, by gender: 24% of 20–44 year olds (30% of women, 17% of men), 33% of 45–64 year olds (37% of women, 29% of men), and 32% of those aged 65 and over (30% of women, 35% of men).

- Approximately 19% of adults (21% of women, 17% of men) got **health information from their primary care provider’s home page** on the website: 16% of 20–44 year olds (21% of women, 11% of men), 21% of 45–64 year olds (23% of women, 19% of men), and 22% of those aged 65 and over (20% of women, 25% of men)
- 7% of adults (9% of women, 5% of men) used **kp.org online health education/patient education programs**. By age groups: 7%, 11%, and 8% of women and 3%, 7%, and 7% of men.
- About 2% of adults listened to **kp.org podcasts** (no age group or gender differences)
- Approximately 12% of adults consulted the kp.org **online Health Encyclopedia or Drug Encyclopedias**. Note that this statistic may underestimate the percentage of members who looked up health-related information on the kp.org website because these sections are now accessed by tabs called “Conditions and Diseases” and “Drug and Natural Medicines.”
- **Health Apps:** Approximately 11% of adults (13% of women, 9% of men) used a health app designed to help with diet, exercise, sleep, monitoring a health condition, etc., in the past year. By age group 15% of 20-44 year olds (18% of women, 12% of men), 10% of 45-64 year olds (12% of women, 8% of men), and 4% of women and men aged 65 and over reported using a health app.
- **Online Chat rooms/Communities to get advice/support for a health condition:** Only about 1% of adults used this type of resource in the previous year.

**Use of Other Health Education Resources:**

- 121 of adults participated in a Kaiser Permanente **individual or group health education program**, with little substantive difference across age groups or by gender.
- 5% of adults (3% of 20-44 year olds, 6% of 45-64 year olds, and 7% of those aged 65 and over, no gender difference) received **one-on-one counseling from a Kaiser Permanente patient educator or health coach** to help change health-related behaviors or manage a chronic health condition.
- About 17% of adults used Kaiser Permanente **print health education materials** (18% of women and 9% of men aged 20–44, 20% of women and 16% of men aged 45–64, and 24% of men and women aged 65 and over).
- 33% of adults (36% of women, 29% of men) read a **Kaiser Permanente member newsletter**. By age group: 30% of women and 18% of men aged 20–44, 38% of women and 34% of men aged 45–64, and 45% of women and men aged 65 and over.
- About 5% of adults (7% of women aged 20-64, 4% of men 20-64, and 4% of women and men aged 65 and over) used a **weight loss or Health Eating/Active Living program** or service (health coach, group, counseling, web-based, email-based, etc.) inside or outside Kaiser Permanente.

**Use of Any Health Education/Information Resource** (*excluding kp.org secure features*): Altogether, 62% of adults (68% of women, 56% of men) used at least one of these web-based or more traditional health information/health education resources during the previous 12 months. By age group, 56% of

20-44 year olds (65% of women, 47% of men), 66% of 45-64 year olds (70% of women, 61% of men), and 70% of women and men aged 65 and over had sought out health-related information or health education during the previous 12 months

**Use of kp.org Patient Portal Features:** 55% of adults (62% of women, 47% of men) reported using the kp.org patient portal to send a secure message to their doctor, view lab test results, and/or refill a prescription. By age group, 52% of 20-44 year olds (64% of women, 39% of men), 59% of 45-64 year olds (65% of women, 52% of men), and 54% of adults aged 65 and over reported completing at least one of these tasks using the kp.org patient portal. Approximately 18% of adults (21% of women, 15% of men) reported using the KP app to access secure patient portal features.

**Use of Any kp.org Resource:** If we look at use of kp.org for health information or to use secure features, 61% of adults (68% of women, 53% of men) had touched kp.org during the year prior to the survey. By age group, this was 59% of 20-44 year olds (71% of women, 45% of men), 65% of 45-64 year olds (71% of women, 59% of men), and 59% of those aged 65 and over (57% of women, 62% of men). Of those in the older age group who are able to use the Internet, 74% (no gender difference) had touched kp.org.

## Preferred Methods for Receiving Health-Related Information and Advice

Members were asked to indicate which of 20 methods they would like to use to get information and advice about how to manage health conditions and make changes in health behaviors. Approximately 82% of adults indicated interest in at least one method, and 18% did not indicate interest in any of the methods. The following statistics are restricted to adults who indicated interest in at least one method.

### Information/Advice Using Website-Based Modalities:

- 38% of adults said they were interested in **getting information from Internet websites** (39% of women and men aged 20-64 and 29% of women and men aged 65 and over (36% of ages 65-74, 22% of ages 75-79, and 14% of ages 80 and over).
- 26% of adults were interested in getting information from their **doctor's kp.org home page** (22% of 20-44 year olds, 28% of 45-64 year olds, and 29% of adults aged 65 and over). Among older adults, 33% of 65-74 year olds, 27% of 75-79 year olds, and 23% of those aged 80 and over were interested in using this resource.
- 23% of adults were interested in getting information and advice by **watching online videos** on kp.org, YouTube, or other websites (26% of ages 20-44, 24% of ages 45-64, and 13% of ages 65 and over). Among older adults, 18% of 65-74 year olds, 9% of 75-79 year olds, and 5% of those aged 80 and over were interested in online health videos.
- **When online videos were combined with the other two website information sources**, the percentages interested in website-based health information increased to 55% of all adults (57% of ages 20-64, 54% of ages 65-74, 39% of ages 75-79, and 30% of ages 80 and over).

### Information/Advice Using Email/Internet-Based Modalities:

- 34% of adults were interested in getting health advice via **kp.org secure email** (35% of adults aged 20-64 and 65-74, 25% of 75-79 year olds, and 16% of those aged 80 and over).
- About 8% of adults were interested in **video/Skype sessions with a patient educator** (8% of 20-64 year olds, 5% of 65-74 year olds, and 2% of those aged 70 and over)
- 9% of adults were interested in watching **webinars/online talks** (10% of 20-64 year olds, 7% of 65-74 year olds, and 3% of those aged 75 and over).
- 37% of adults were interested in getting **health newsletters/information by email** (37% of ages 20-64, 39% of ages 65-74, 27% of ages 75-79, and 19% of ages 80 and over).

- Approximately 7% of adults were interested in listening to **podcasts/audio downloads** (98% of 20-64 year olds, 5% of 65-74 year olds, and 2% of those aged 75 and over).
- Approximately 10% of adults were interested in single or multi-session **online interactive programs** (11% of 20-64 year olds, 8% of 65-74 year olds, and 3% of those aged 75 and over).
- 25% of adults were interested in using **health-related apps**, but this declined with age (35% of 20-44 year olds, 22% of 45-64 year olds, 15% of 65-69 year olds, 9% of 70-74 year olds, 5% of 75-79 year olds, and 3% of those aged 80 and over). Among 20-44 and 45-64 year olds, women were significantly more likely to be interested in using health apps than men.

#### **Information/Advice Using Non-Internet-Based Modalities:**

- 30% of adults indicated interest in **individual in-person counseling with a patient educator** (no significant differences by age group or sex).
- Approximately 15% of adults (again no significant difference by age group or gender) were interested in having **telephone sessions with a health coach**. However, since 30% of adults (no significant age or gender difference) had indicated interest in brief telephone counseling with a patient educator in 2011, it is not clear whether respondents did not understand the term “health coach” (vs. patient educator) or were less receptive to the idea of being coached than counseled about how to manage their health conditions and make changes in health behaviors.
- Approximately 23% of adults were interested in **in-person workshops or classes**. Women were more interested in in-person programs than men (26% vs 17%). One-session class, workshop, or group programs were slightly more popular (than multi-session programs (22% vs. 17% for women, 14% vs 10% for men).
- Approximately 12% of adults were interested in using **interactive computer programs** (14% of 20-64 year olds, 9% of 65-74 year olds, and less than 4% of those aged 75 and over).
- 11% of adults (8% of younger adults and 14% of middle aged and older adults) were interested in **watching DVDs at home**.
- 23% of adults were interested in having **print health newsletters/information mailed** to them (15% of 20-44 year olds, 24% of 45-64 year olds, and 41% of those aged 65 and over). Among seniors, 35% of ages 65-74, 43% of ages 75-79, and 55% of ages 80 and over wanted print health newsletters.

#### **Preferred methods of getting health education by reading information, watching videos, and getting “written” information varies by age, with greater interest in non-Internet based modalities among older adults. These findings suggest that it is still very important to maintain and publicize non-Internet-based modes of health education delivery.**

- Nearly 2/3 (62%) of adults were interested in getting **“written” information either from websites (including doctor home page) or print materials** (57% of 20-44 year olds and 65% of those aged 45 and over). of those who were interested in written information, approximately 18% of 20-44 year olds, 22% of 45-64 year olds 27% of 65-74 year olds, 41% of 75-79 year olds, and 52% of those aged 80 and over only indicated wanting print materials, not web-based text. Conversely, approximately 57% of 20-44 year olds, 51% of 45-64 year olds, 44% of 65-74 year olds, 37% of 75-79 year olds, and 28% of those aged 80 and over only wanted to get information from websites, not print material. (The rest indicated interest in both modes of text presentation.)
- Approximately 29% of adults were interested in **watching health videos either online or on DVD** (30% of ages 20-64, 25% of ages 65-74, and 14-18% of those aged 75 and over). Of those who were interested in videos, approximately 18% of 20-44 year olds, 27% of 45-64 year

olds, 29% of 65-69 year olds, 43% of 70-74 year olds, and 57% of those aged 75 and over were only interested in DVDs, not online videos. In contrast, approximately 63% of 20-44 year olds, 48% of 45-64 year olds, 41% of 65-69 year olds, 33% of 70-74 year olds, and 25% of those aged 75 and over were only interested in online videos, not DVDs. (The rest indicated interest in both modes of health video.)

- Half of adults (44% of 20-44 year olds, 51% of 45-64 year olds, and 62% of those aged 65 and over) were interested in **receiving health newsletters by either email or regular mail/print**. Of those who were interested in receiving newsletters, approximately 19% of 20-44 year olds, 29% of 45-64 year olds, 30% of 65-69 year olds, 43% of 70-74 year olds, 54% of 75-79 year olds, and 50% of those aged 80 and over were only interested in mailed newsletters, not emailed newsletters. Conversely, approximately 63% of 20-44 year olds, 50% of 45-64 year olds, 41% of 65-69 year olds, 35% of 70-74 year olds, and 27% of 75-79 year olds, and 17% of those aged 80 and over were only interested in emailed newsletters, not mailed newsletters. (The rest indicated interest in both modes of health newsletter delivery.)

## 2014/2015 Member Health Survey Methods

### Data Collection

Data collection for the 2014 survey cycle was split across two years, with half of the usual number of members in each medical center service population surveyed in 2014 and the other half in 2015. In the 2014/2015 cycle, we mailed questionnaires to an, age-, sex-, and geographically stratified random sample of approximately 44,600 adult Health Plan members in the Northern California Region. Only current members who had been continuously enrolled during the three months prior to the survey and had no indication that they required an interpreter to communicate in English were sampled. Two subsequent survey packet mailings were sent over the next several weeks to non-respondents, with the final wave of questionnaires mailed in September. Participants were also offered the opportunity to answer a secure online version of the questionnaire reached via a link emailed to them or by logging in using a URL printed on the survey materials. Phone administration was available on request but not used. Non-eligibles (deceaseds, non-current members, members living outside the main service area, language barrier) and members for whom neither Kaiser Permanente nor the U.S. Postal Service had forwarding addresses were dropped from the initial sample with no replacement. The overall survey response rate among survey eligibles was 37.9% (n=16,133/42,593). This is slightly lower than the response rate for the 2011 survey (39.5%), with most of the decrease coming from the men and women aged 65 and over (down nearly 4 percentage points). The age-gender specific response rates for the 2014/2015 survey were as follows:

Final Response Rates for the 2014/2015 DOR Member Health Survey by Age-Gender Group, Members Aged 20 and Over in the Northern California Region Sample

|       | <u>20-44 years</u>    | <u>45-64 years</u>    | <u>65 years or over</u> | <u>Total</u>           |
|-------|-----------------------|-----------------------|-------------------------|------------------------|
| Women | 2899/9349<br>(31.0%)  | 2822/6232<br>(45.3%)  | 3102/4909<br>(63.2%)    | 8823/20490<br>(43.1%)  |
| Men   | 1784/10096<br>(17.7%) | 2429/7129<br>(34.0%)  | 3097/4878<br>(63.5%)    | 7310/22103<br>(33.1%)  |
| Total | 4683/19445<br>(24.1%) | 5251/13361<br>(39.3%) | 6199/9787<br>(63.3%)    | 16133/42593<br>(37.9%) |

All respondents were assigned a post-stratification weighting factor based on the age-gender distribution of the medical center service population from which they were selected. All estimates in this report are based on weighted survey data. The table below shows the age distributions of women, men, and all adults aged 20 and over after and before applying the post-stratification weighting factor.

| Age Group       | Women |           | Men   |           | All   |           |
|-----------------|-------|-----------|-------|-----------|-------|-----------|
|                 | Wtd % | (Unwtd %) | Wtd % | (Unwtd %) | Wtd % | (Unwtd %) |
| All 20 and Over | 100.0 | 100.0     | 100.0 | 100.0     | 100.0 | 100.0     |
| 20-44 yr        | 42.7  | 32.8      | 44.3  | 24.4      | 43.5  | 29.0      |
| 45-64 yr        | 36.0  | 32.0      | 36.9  | 33.2      | 36.4  | 32.6      |
| 65 and over     | 21.3  | 35.2      | 18.8  | 42.4      | 20.1  | 38.4      |
| 65-74           | 12.1  | 16.5      | 11.4  | 18.6      | 11.8  | 17.5      |
| 75-79           | 3.6   | 13.7      | 3.3   | 17.3      | 3.4   | 15.3      |
| 80-84           | 2.7   | 2.5       | 2.3   | 3.7       | 2.5   | 3.0       |
| 85 and over     | 2.9   | 2.5       | 1.8   | 2.8       | 2.4   | 2.6       |

## **Limitations of the Final Survey Respondent Sample**

Since the questionnaire only went out in English and very limited English-speaking members were excluded from the survey sample, non-English speaking members and members with very poor reading ability are not represented in this survey. An internal study that matched survey response status for the 2014 survey to a member race/ethnicity dataset (91% match rate for women and 84% match rate for men) found that among both women and men, non-Hispanic White, Chinese, Japanese, and Korean members were more likely to respond than African-American/Other Black, Latino, and Filipino members. The differential race-ethnic response rate, exclusion of non-English speakers and members with very low literacy, and lower response rates among young and middle-aged adults compared with adults aged 65 and over, yields a final weighted sample that underestimates African-American/Blacks and Latino/Hispanic members and overestimates some of the Asian ethnic groups. Finally, results of other surveys suggest that among older members, the very sickest and frailest are unlikely to have responded

## **Statistical Analysis**

All percentages were calculated using the Proc Surveymeans procedure in PC-SAS version 9.2 for data collected using a complex survey design. Differences between percentages were considered significant at  $p < 0.05$  when the 95% confidence intervals around the percentages for two subgroup comparisons did not overlap. When demographic subgroup sizes were small, resulting in large confidence intervals, Proc Surveylogistic was used for statistical analysis.