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In Consumer-Directed Health Plans, A Majority Of Patients Were Unaware Of Free Or Low-Cost Preventive Care

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ABSTRACT **Consumer-directed health plans are plans with high deductibles that typically require patients to bear no out-of-pocket costs for preventive care, such as annual physicals or screening tests, in order to ease financial barriers and encourage patients to seek such care. We surveyed people in California who had a consumer-directed health plan and found that fewer than one in five understood that their plan exempted preventive office visits, medical tests, and screenings from their deductible, meaning that this care was free or had a modest copayment. Roughly one in five said that they had delayed or avoided a preventive office visit, test, or screening because of cost. Those who were confused about the exemption were significantly more likely to report avoiding preventive visits because of cost concerns. Special efforts to educate consumers about preventive care cost-sharing exemptions may be necessary as more health plans, including Medicare, adopt this model.**

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Consumer-directed health plans are plans with high deductibles that can be coupled with a health savings account. Available since 2004, health savings accounts allow people with a qualified high-deductible plan to make tax-free contributions to a savings account that can be used only for medical expenses. Health savings account funds unused in one year can "roll over" to be used in future years; what's more, the funds belong to the person and can be used even if he or she changes jobs or retires. Both employers and employees can contribute to the account, but neither is required to do so. The percentage of workers enrolled in qualified high-deductible plans has been steadily increasing, from 8 percent in 2009 to 19 percent of covered workers in 2012.[1]

In theory, these plans engage consumers in their health care and decrease unnecessary care seeking by exposing consumers to more of the true cost of care. However, the plans typically exempt recommended preventive visits and tests from the deductible, thereby encouraging consumers to obtain this care. The Affordable Care Act similarly requires all health plans to cover recommended preventive services without cost sharing, including those recommended by the US Preventive Services Task Force.[2]

For preventive care exemptions to be effective, however, consumers must know they exist. To date, there is limited information about how well consumers understand that certain preventive services are exempt from cost sharing, and there are concerns that patients may not seek preventive care because of cost. Lists of deductible-exempt preventive care are detailed and plan specific, meaning that consumers must have thorough knowledge about their plan to know exactly which services are exempt.

Previous studies have shown that patients have poor knowledge of specific health plan details.[3,4] Studies of preventive care utilization in high-deductible health plans have shown mixed results, with some studies finding decreases in the use of preventive services and others finding

no significant change.[5–14] No study has examined consumers' knowledge of preventive care cost-sharing exemptions in a consumer-directed health plan. If consumers are unaware of their specific health plan details, they may avoid preventive care unnecessarily.

In this article we report on our survey of people whose consumer-directed health plan exempted routine physicals and preventive medical tests from their deductible. We examined knowledge of these preventive care cost-sharing exemptions and determined whether beneficiaries avoided preventive care because of cost concerns. Finally, we assessed whether there was an association between how well beneficiaries understood preventive care deductible exemptions and whether they reported avoiding or delaying preventive care because of cost.

Study Data And Methods

SETTING Kaiser Permanente Northern California is an integrated health care delivery system with more than three million members, providing comprehensive medical care, including outpatient, inpatient, emergency department, pharmacy, and laboratory services.

The benefit plans in our study were high-deductible health plans that met Internal Revenue Service rules for health savings account eligibility.[15] Annual deductibles were between $1,500 and $2,700 for individual coverage and $3,000 and $5,450 for families. All nonpreventive services counted toward the deductible, including office visits, medical tests, emergency department care, and hospitalizations, meaning that people paid the full cost of this care until their cumulative payments reached the annual deductible amount. Once their annual spending reached the deductible amount, patients paid modest copayments or coinsurance for covered services thereafter.

A specific set of preventive services was exempt from the deductible regardless of the patients' total medical spending. For the beneficiaries in this study, these services included one annual preventive office visit, such as an annual routine physical, provided at no out-of-pocket cost, as well as specific preventive medical tests and screenings, including cholesterol tests, diabetes screenings, mammograms, and colon cancer screenings, which required a modest copayment of $10.

STUDY POPULATION We drew a random study sample from all adult (ages 18–65) Kaiser Permanente Northern California primary subscribers who were enrolled in a health savings account–eligible high-deductible plan through their small-group employer (fewer than fifty employees) throughout 2007. We focused on small-group employers because few large employers offered these plans during the study year and because small-group employers generally offered a single health insurance plan option for their employees, thus limiting concerns about patient self-selection. We selected only primary subscribers, meaning their health insurance plan was purchased through their own employer and not through a family member's employer.

Starting in January 2008, we mailed a study introduction letter, questionnaire, reply postcard, and return envelope to all potential participants. Recipients could decline participation via postcard or telephone or complete the questionnaire and return it by mail. Trained interviewers contacted all other potential participants, obtained spoken consent, and completed the interview by phone. Interviewers also called respondents who had mailed back the written survey to complete and clarify any missing items. We attempted to reach potential participants during different times of the day on weekdays and weekends. All participants who completed the survey by phone or mail received a $3 coffee gift card.

The response rate was 79.2 percent (456 completed surveys or interviews out of 576 eligible subjects). Respondents were ineligible for the study if they could not complete the interview in English or if they could not be reached because of incorrect contact information or after fifteen or more attempts. There were no significant differences ($p > 0.05$) between participants and nonparticipants in age, sex, or deductible amount or type (family versus individual).

QUESTIONNAIRE Although all of the study's participants were enrolled in a consumer-directed health plan with the same set of deductible-applicable and exempt services, we used the questionnaire to assess awareness of these plan details. We asked participants to report whether they had any deductible, the amount of the deductible, and whether their deductible applied to a given list of preventive and nonpreventive medical services. Specifically, we asked participants to report whether the following types of services applied toward their health plan's deductible: preventive office visits (for example, annual routine physicals), nonpreventive doctor's office visits, preventive medical tests and screenings, and nonpreventive medical tests.

We asked participants whether the amount they would have to pay caused them to delay or avoid any preventive office visits or any of the following tests and screenings: cholesterol test, diabetes test, colon cancer screening, or mammography (all classified as deductible-exempt preventive care in their benefit plan).

We also asked participants to report whether they had made a contribution to their health savings account themselves and whether they received a contribution from their employer. Although all participants' high-deductible plans were eligible for a health savings account, employee and employer contributions varied and were voluntary.[16] We also collected patient characteristics, including race/ethnicity, education, income, marital status, self-reported health status, and affiliation with a regular provider.

Lastly, we asked patients if they also had a deductible health plan or a health savings account in 2006. Using Kaiser health plan administrative data, we obtained information on each participant's deductible amount and Diagnostic Cost Group comorbidity score,[17,18] an expanded version of the method used by the Centers for Medicare and Medicaid Services for risk adjustment. Higher comorbidity scores indicate a greater severity of coexisting illnesses.

ANALYSIS We first calculated the percentage of participants who correctly reported having a deductible and the percentage who reported their deductible amount accurately. To allow for some imprecision in the deductible amount reported, we classified patients as generally knowing their deductible amount if their self-reported amount was within 20 percent of the actual amount. We also calculated the percentage that correctly reported that each type of preventive or nonpreventive medical service was or was not exempt from their deductible.

Using multivariate logistic regression, we examined how patient characteristics (age, sex, race/ethnicity, education, income, marital status, having a primary care doctor), having had a deductible prior to the study year, actual deductible amount, and number of office and emergency department visits were associated with correct knowledge of which services were and were not exempt from the deductible.

We then calculated the percentage of respondents who reported delaying or avoiding a preventive office visit or a preventive medical test or screening, or both. Using multivariate logistic regression, we examined the association between understanding deductible exemptions for preventive care and reportedly delaying or avoiding those services because of cost, adjusting for patient characteristics, actual deductible amount, and health savings account contribution source.

We computed the adjusted percentage of respondents who reported each outcome by fitting logistic regression models and using them to predict three uniform levels of knowledge: first, as if all respondents correctly reported that preventive services are deductible exempt, and nonpreventive services apply to the deductible; second, as if all respondents incorrectly reported that their deductible applies to both preventive and nonpreventive services; and third, as if all respondents incorrectly reported that their deductible does not apply to either preventive or nonpreventive services. The standard population used in the direct adjustment procedure was the mix of covariate values in our study population.

We included all participants in the analyses of preventive office visits ($n = 456$), but we included only participants over age thirty-five in analyses of preventive tests and screenings ($n = 328$), since this was the age group potentially eligible for the specific set of preventive tests and screenings included in the study questionnaire (cholesterol tests, diabetes screenings, mammograms, and colon cancer screenings).

The Institutional Review Board of the Kaiser Foundation Research Institute approved the study protocol and materials.

LIMITATIONS Our study has several limitations. For one, the survey was conducted among health savings account–eligible consumer-directed health plan members within a single integrated health care delivery system, and the benefit plans in our study were offered by enrollees' employers and not randomly assigned. Results may differ in other care delivery settings.

In addition, patients' behavior may differ in deductible benefit plans paired with other types of spending accounts, including a health reimbursement arrangement, which allows only employer contributions and is not portable as people move from one employer to another. Household income and education levels among our study participants were slightly higher than the US average, probably because everyone in our study sample was enrolled in an employer-sponsored health insurance plan. Importantly, all of our analyses adjusted for respondents' characteristics, including income and education. Since our survey was collected cross-sectionally, we can describe only associations between our study measures, and we are not able to confirm causality. Also, although the consumer-directed health plans in our study are comparable to currently offered plans, future studies are needed to assess consumers' knowledge of health plan details and care seeking in health insurance plans today.

Finally, a major limitation of our study is that it relied on patient self-reporting and not actual utilization data. However, it is important to note that knowledge of plan details is best assessed through patient self-reporting and that patient-initiated behavior, such as delays in care seeking, is challenging to identify directly in utilization

data. Nevertheless, future studies are needed to confirm self-reported changes in use of preventive care using actual health care use patterns. Further research is also needed to examine the clinical impact of any forgone preventive care associated with consumer-directed health plans.

Study Results

Exhibit 1 displays characteristics of all 456 study participants. Among all participants, 51.4 percent were younger than age forty-five, 49.3 percent were female, 59.7 percent had "very good" or "excellent" self-rated health, 84.2 percent had some college education, and 19.7 percent had incomes less than $40,000.

KNOWLEDGE OF PREVENTIVE EXEMPTIONS Among all 456 study respondents, 83.6 percent knew that their health plan included a deductible, and 69.7 percent correctly reported the deductible amount (within a range 20 percent above or below the actual amount).

EXHIBIT 1

Characteristics Of Respondents To The Survey On Consumer-Directed Health Plans, Kaiser Permanente Northern California, 2007

Characteristic	Percent of respondents
AGE (YEARS)	
<35	28.1
35–44	23.3
45–54	29.8
55–64	18.9
OTHER CHARACTERISTICS	
Female	49.3
Nonwhite race/ethnicity	36.6
Married or living with a partner	55.9
EDUCATION	
Less than high school graduate	15.8
Some college or more	84.2
ANNUAL INCOME	
<$40,000	19.7
$40,000–$59,000	17.5
$60,000–$99,999	30.3
$100,000+	24.6
HEALTH AND CARE CHARACTERISTICS	
Very good/excellent self-reported health	59.7
Had a regular primary care physician	87.7
CDHP experience in 2006 (prior to the study year)	
Had deductible prior to the study year	53.5
Had HSA prior to the study year	11.2
DEDUCTIBLE KNOWLEDGE IN THE STUDY YEAR	
Correctly knew that health plan included a deductible	83.6
Correctly knew amount of deductible (within 20% of exact amount)	69.7

SOURCE Authors' analysis. **NOTES**: *N* = 456. Household income information was missing for 7.8 percent of participants. All respondents had a health savings account–eligible high-deductible health plan during the study period (2007). CDHP is consumer-directed health plan. HSA is health savings account.

Exhibit 2 shows respondents' self-reported knowledge of cost sharing for preventive and nonpreventive office visits and medical tests or screenings, or both. In the case of office visits, 18.1 percent of respondents understood the cost-sharing arrangement, meaning that they knew preventive office visits were exempt from the deductible but nonpreventive office visits were not exempt from cost sharing. For medical tests, 10.4 percent correctly understood the cost-sharing arrangement.

However, 50.2 percent of the respondents did not understand the plan design and mistakenly reported that all office visits applied toward their deductible, not recognizing that preventive visits were exempt (Exhibit 2). Similarly, 48.3 percent thought that all medical tests applied toward their deductible, unaware that preventive tests or screenings, or both, would cost them little out of pocket. On the other hand, 31.7 percent of respondents thought that neither preventive nor nonpreventive office visits were subject to the deductible, including those respondents who did not realize that they had any deductible at all. Similarly, 41.3 percent believed that neither preventive nor nonpreventive medical tests and screenings were subject to the deductible.

In multivariate analyses, we found no significant association between any patient characteristic and knowledge of the exemption for preventive office visits ($p > 0.05$). For medical tests and screenings, in multivariate analyses, respondents who had "very good" or "excellent" self-rated health (odds ratio: 1.7; 95% confidence interval: 1.0, 2.9) were significantly more likely than others to know that preventive tests and screenings were exempt from their deductible.

DELAYED OR AVOIDED PREVENTIVE OFFICE VISITS Overall, 18.6 percent of all respondents reported that they had delayed or avoided a preventive office visit because of its cost, even though for all respondents this type of office visit was exempt from their deductible and had no out-of-pocket charge. Similarly, 19.2 percent said that cost concerns caused them to avoid at least one of the preventive tests or screenings. There was no significant difference in reported preventive care-seeking behavior between patients who did not know they had a deductible and those who did.

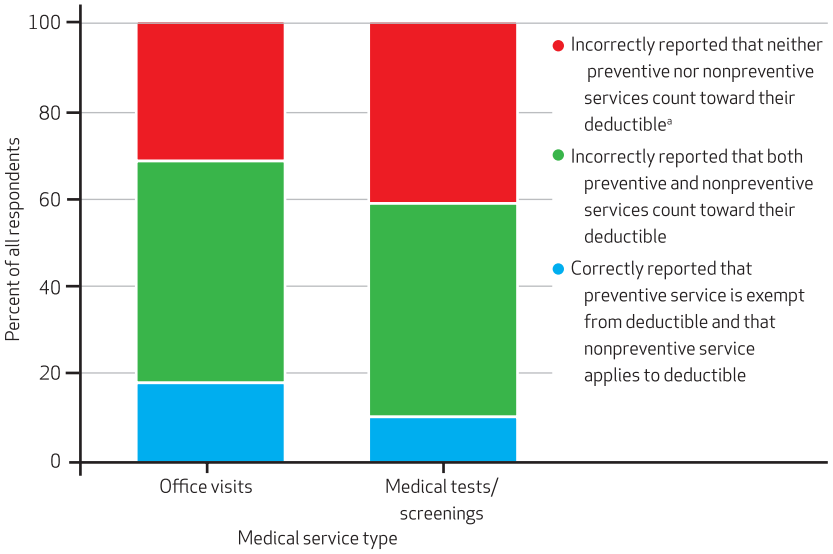
We observed some association between patients' understanding of whether preventive care was exempt from their deductible and their care-seeking behavior (Exhibit 3). After adjustment for patient characteristics, 23.8 percent of those who mistakenly thought that the deductible applied to all office visits said they delayed or avoided a preventive office visit because of cost, while only 7.8 percent of those who correctly

understood the cost-sharing scheme delayed or avoided care because of cost—a significant difference ($p < 0.01$). Among those who mistakenly thought that the deductible did not apply to either preventive or nonpreventive visits, 18.1 percent said they delayed or avoided a preventive office visit because of cost—also a significant difference from the 7.8 percent figure ($p = 0.047$).

DELAYED OR AVOIDED MEDICAL TESTS After adjusting for patient characteristics, we found a similar association between patients' understanding of the plan design and their care-seeking behavior for medical tests, although this association was not significant. Specifically, 21.0 percent of those who mistakenly thought they had to pay out of pocket for all medical tests reported that they delayed or avoided a preventive test or screening, compared with 15.4 percent who reported delaying or avoiding care among those who knew that preventive tests and screenings were exempt from the deductible, and 18.0 percent delaying or avoiding care among those who thought the deductible did not apply to either preventive or nonpreventive tests. As noted, the differences across these three groups did not reach statistical significance.

EXHIBIT 2

Consumers' Knowledge Of Deductible Exemption For Preventive Services



SOURCE Authors' analysis. [a]Includes the 17.4 percent of all respondents who were not aware of having any deductible at all.

Discussion

In a survey of patients in a consumer-directed health plan that exempted preventive care from their deductibles, we found that consumers rarely understood that they did not have to pay the full price for preventive office visits and preventive tests. Those who mistakenly thought that their deductible applied to preventive care were significantly more likely than others to report avoiding preventive visits. Our findings raise concerns about patients' ability to navigate plans with high cost sharing and complex benefit designs. These issues are also important to consider in the context of preventive care cost-sharing exemptions that have been initiated in Medicare and private plans under the Affordable Care Act.

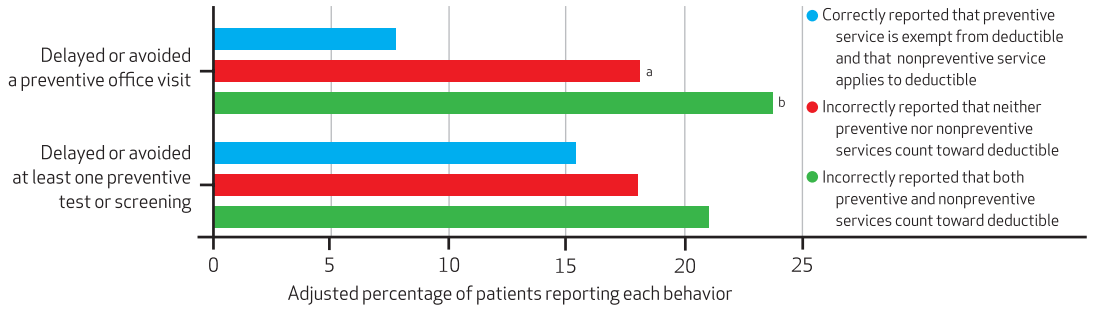
LIMITED KNOWLEDGE OF PREVENTIVE CARE EXEMPTIONS Although the vast majority of patients with a health savings account–eligible high-deductible plan knew of their deductible, we found that nearly half of all study participants mistakenly thought that their deductible applied to both preventive and nonpreventive office visits and medical tests alike. Fewer than one in five consumers in our study understood that a preventive office visit was exempt from their deductible, and only one in ten understood that preventive tests were exempt from their deductible.

Importantly, this low awareness of preventive cost-sharing exemptions persisted across patients with different sociodemographic characteristics. Interestingly, we found that those with better self-reported health were more likely than others to understand that preventive tests and screenings were exempt from their plan's deductible. This may seem counterintuitive, because healthy patients visit their doctors less frequently and therefore have less of a need to learn their benefit plan design. On the other hand, preventive care may represent a greater portion of expected health care use for healthy people, potentially explaining why they better understand these benefits.

PATIENTS OFTEN AVOIDED PREVENTIVE CARE We found that despite the fact that preventive care would have been provided for free or for a modest copayment, nearly one in five consumers said that cost concerns led them to delay or avoid preventive office visits or tests. Those who did not know that preventive office visits were exempt from their deductible were significantly more likely to avoid these visits because of cost concerns. For preventive medical tests, those who did not know that these were exempt from the deductible were also more likely to avoid a preventive test than those who correctly understood the preventive care exemption, although not significantly so, probably because of our limited study sample of respondents over age thirty-five who were eligible for any preventive medical test.

EXHIBIT 3

Patients' Reports Of Delaying Or Avoiding Preventive Care Because Of Cost, By Knowledge Of Plan Design



SOURCE Authors' analysis. **NOTES** Preventive test behavior excluded respondents under age thirty-five, since they do not qualify for any of the specific preventive screenings included in the study. [a]$p < 0.01$ when compared to the respondents who correctly reported that the preventive service is deductible exempt and the nonpreventive service counts toward the deductible. [b]$p < 0.05$ when compared to the respondents who correctly reported that the preventive service is deductible exempt and the nonpreventive service counts toward the deductible.

Even among those who understood that cost sharing did not apply to preventive care, some patients still said they avoided or delayed care because of cost concerns. For some patients, this may reflect the cost barrier posed by the modest copayment for preventive tests and screenings, or by the costs associated with other care generated from the clinical encounter. For example, even if a given preventive office visit has no initial cost, any nonpreventive tests, procedures, or follow-up visits ordered as a result of that visit would be subject to the deductible, and the patient would still need to pay the full cost of those subsequent medical services. Conversely, even if a given preventive screening is free, if the patient needed to first schedule a nonpreventive visit for his or her physician to order that test, there could still be a cost associated with that care-seeking decision. Preventive care cost-sharing exemptions are designed to exempt specific types of care rather than episodes of care. Thus, complex benefit plans, even those that exempt preventive care from cost sharing, may cause patients to avoid recommended preventive services.

EXPANDING COST-SHARING EXEMPTIONS AND ACCESS TO BENEFIT INFORMATION To promote the use of preventive services, beginning in 2011 Medicare and other insurance plans are required under the Affordable Care Act to exempt certain preventive services from cost sharing. These include services recommended by the US Preventive Services Task Force and by the Advisory Committee on Immunization Practices, as well as Medicare annual wellness visits.[2] The preventive services examined in our study are included among the preventive care cost-sharing exemptions initiated under the health reform law.

Furthermore, although consumers already had some access to their health insurance plan benefit information, including for preventive services, this information might not be easily accessible to patients at the time that they are making a care-seeking decision. For example, this benefit information may be offered only through annual employer health insurance enrollment and renewal mailings. The detailed benefit plan information also might not be described at an appropriate health literacy level for consumers to easily understand.[19] To help address this problem, beginning in September 2012 under another Affordable Care Act provision, all consumers will consistently receive a summary of benefits and coverage designed to be consistent across plans and easier for patients to understand.[20] How these new changes affect patients' knowledge of benefits and care-seeking decisions will be important to understand.

Conclusion

Overall, we found that the majority of patients did not understand the details of preventive care cost-sharing exemptions in a consumer-directed health plan. This confusion appeared to create barriers to seeking preventive care, even when it was actually available for free or for a low out-of-pocket cost.

Our findings show that even thoughtful benefit designs can be confusing to consumers and might not have the expected effect if consumers' awareness or comprehension remains low. Education and consumer decision support to increase awareness of the detailed benefit design features will be extremely important to truly remove the cost barrier for preventive care. ■

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NOTES

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In this month's *Health Affairs*, Mary Reed and coauthors report on their survey of people in California who had consumer-directed health plans—those with high deductibles, often paired with a health savings account or similar vehicle. Many such plans require patients to bear no deductibles or cost sharing for preventive care, such as annual physicals or screening tests, to encourage use of these services. But the survey showed that fewer than one in five understood this feature of their plan, and roughly one in five had delayed or avoided a preventive office visit, test, or screening because of cost. The authors say special efforts to educate consumers about

preventive care cost-sharing exemptions may be necessary, particularly as more health plans, including Medicare, adopt this model.

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