Consumers' Misunderstanding of Health Insurance

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Abstract: We report results from two surveys of representative samples of Americans with private health insurance. The first examines how well Americans understand, and believe they understand, traditional health insurance coverage. The second examines whether those insured under a simplified all-copay insurance plan will be more likely to engage in cost-reducing behaviors relative to those insured under a traditional plan with deductibles and coinsurance, and measures consumer preferences between the two plans. The surveys provide strong evidence that consumers do not understand traditional plans and would better understand a simplified plan, but weaker evidence that a simplified plan would have strong appeal to consumers or change their healthcare choices.

1. Introduction

Beginning in Fall 2013, as part of the 2010 Affordable Care Act (ACA), the Federal government and the minority of states who have opted to do so will begin open enrollment for a new set of 'affordable insurance exchanges'. The website HealthCare.gov describes an affordable insurance exchange as a "new transparent and competitive insurance marketplace where individuals and small businesses can buy affordable and qualified health benefit plans." The linking of the words "competitive" and "affordable" in the description reflects the stated intention of the designers of the ACA that competition between insurance companies will lower prices while maintaining quality.

In thinking about competition in the insurance market, one can distinguish between two levels at which it occurs. At a higher level, insurers compete with one another to attract business from employers (or possibly exchanges) – i.e., to include their plans among those offered to employees (or exchange subscribers). At a lower level, once a plan has been selected for inclusion by an employer or exchange, insurers will compete to attract subscribers to their plan as opposed to other plans being offered. Although our main focus in this paper is at the lower level -- on employees understanding of, attitudes toward, and behaviors contingent upon different insurance plans -- ideally competition at both of these levels will have beneficial effects on price and quality.

Competition at the consumer level, however, is only likely to result in reduced prices and improved quality when sufficient numbers of consumers make informed decisions. As Gabaix and Laibson (2006) show (see, more recently, Heidheues, Koszegi & Murooka, 2012a,b), competition can fail to eliminate biases in markets if there exists a core of consumers who make systematic errors in choosing between products. Given a significant core of naïve consumers, they show, a market equilibrium can arise in which naïve consumers pay prices substantially above marginal cost, and effectively subsidize sophisticated consumers who are able to exploit the mispricing. In the domain of insurance, for example, the existence of a substantial core of consumers who are disproportionately attracted to low deductible policies (see, e.g., Barseghyan et al., forthcoming; Sydnor, 2010) can enhance insurer's profits at the expense of those opting for low deductibles, while those who opt for high deductibles escape to fairly priced plans.

Whether consumers make self-interested or self-destructive decisions is not only a function of their individual levels of sophistication, but also of market-level factors. Research has shown, for example, that consumers can be overwhelmed and make worse decisions when they are given too much choice (Cronqvist and Thaler, 2004; Iyengar and Lepper, 2000). In the domain of insurance, consumers faced with too many choice options, particularly if not pre-screened for price and quality by an agent such as an employer, are likely to engage in suboptimal decision strategies, such as sticking with existing insurers or deciding based on word of mouth, and competition can suffer as a result. One study of Medicare plans in a Boston suburb, in which consumers chose between 47 different Part D prescription plans, found that the most expensive of the highly rated plans charged a premium 2.4 times that of the least expensive plan (Frank and Zeckhauser, 2009). Sensibly, most private employers who offer employees multiple insurance options not only prescreen plans but typically only offer a small number (e.g., 3-6).

Consumers can also make suboptimal decisions when faced with choices that are overly complex. Recognizing the importance of simplicity, the ACA mandates that, by March 2013, all insurers and employers will be required to present information about insurance plans in a standardized "summary of benefits and coverage" document that describes plan features such as premiums, deductibles and co-insurance. The law also eliminates the proverbial 'fine print' in a somewhat literal fashion by mandating a minimum 12-point type size. In addition, insurance shoppers will be given standardized cost estimates, modeled after nutrition facts labels on food products, for three common medical conditions: maternity care, breast cancer and diabetes. These provisions seek to mitigate a widely perceived but poorly documented problem: people's lack of understanding of their health insurance.

Despite frequent lamentations about Americans' poor understanding of health insurance, there is only limited empirical research addressing the issue. A recent posting on the website of Consumers Union lamented that "the field of health literacy, while quite robust in other ways, does not precisely measure consumers' ability to understand and use health insurance." (Consumer Union et al, 2011). The same posting notes that a comprehensive survey of health literacy research includes not a single study that investigates consumers' ability to understand and use health insurance (Berkman et al., 2011).

We address this gap in existing empirical research by reporting results from two different surveys designed to address the two issues raised by Consumer's Union: consumers' ability to (1) understand and (2) use health insurance. The first, 'comprehension', survey addresses not only how well Americans understand their own health insurance coverage, but also how well they believe they understand it. Prior research (e.g., O'Donoghue & Rabin, 1999) has shown that whether consumers have insights into their own decision errors can be as consequential as whether they are subject to the errors in the first place, in part because those who are aware of being prone to errors can take self-protective measures, such as hiring experts or employing decision aids.

The second, 'choice' survey, addresses consumers' ability to use information about health insurance and specifically examined whether they would make better decisions if they had a better understanding of their insurance plan. Drawing on insights from the comprehension survey, regarding which features of health insurance consumers find difficult to understand, we devised a simplified health insurance policy that eliminated the features of health insurance that consumers find most confusing: deductibles and coinsurance. Instructing respondents to imagine that they were either insured under this simplified plan, or under an actuarially equivalent traditional plan, the choice survey then asked them to make a series of hypothetical health care decisions. These choices were specifically designed to assess whether those insured under the simplified insurance plan would be more likely to engage in cost-reducing behaviors, such as going to an urgent care center rather than the emergency room for a non-life-threatening medical problem. The survey also assesses consumer preferences between a traditional plan and a simplified all-copay medical insurance plan.

2. Prior Research

Prior studies of individuals' understanding of health insurance coverage have adopted a wide range of methods but have generally reached a common conclusion: people's understanding of health insurance is far from perfect.

In one broad line of research, people with health insurance have been asked to report on – i.e., have effectively been tested on -- relatively crude aspects of their own coverage. One study surveyed a mixed sample of individuals in different regions of the U.S., some of who were participating in a health insurance experiment and others who were insured but not participating

in the experiment. The survey revealed that 90% of respondents with health insurance coverage were aware of being covered, and that people were relatively well informed about their coverage of in-patient services, but they dramatically underestimated their policy's coverage of outpatient services and drugs (Marquis, 1983). In addition, and perhaps not surprisingly, consumers whose insurance plans included coinsurance or fee-schedules were far less able to estimate costs than were patients with policies that would fully cover such expenditures. Another study (Meredith et al., 2002), of patients with depression, observed greater knowledge of medical benefits (accuracy rates ranging from 86% to 89%) than of mental health benefits (accuracy rates from 33% to 60%). A third study found that about three quarters of Wisconsin adults were aware of whether they were enrolled in a managed care or fee-for-service plans, but, of the minority who were in fee-for-service plans, 84% incorrectly believed that they were in managed care (Nelson et al., 2000). That is, most people believed they were in managed care, regardless of whether they were or not. In a fourth study, less than a third of respondents gave correct responses to four questions about basic features of their own plan's coverage (Cunningham et al., 2001). A fifth study found that individuals with health insurance were relatively accurate about whether their policy covered hospital and physician visits, but much less accurate about whether their plan included mental health coverage or covered emergency room visits in other states (Garnick et al., 1993). A common finding, seen across these studies, is that consumers tended to overestimate the restrictions in their own plans, and in particular the need for approval to see specialists.

A second line of research relevant to consumers' understanding of health insurance has examined whether people choose health insurance policies that minimize their costs. The "Consumers' Checkbook Guide" to health plans for Federal employees, for example, reports that "hundreds of thousands of employees and annuitants are enrolled in plans that are much more expensive than average, but provide no valued benefits"(Consumers' Checkbook). One study conducted shortly after the introduction of Medicare part D presented Medicare-eligible individuals with hypothetical choices and found that 71% made appropriate decisions about whether to enroll but only 36% chose the plan that would minimize their total costs (Heiss et al., 2006); while cost minimization is not necessarily equivalent to utility maximization, it is a useful benchmark. Drawing on actual plan choices from individuals several years into the program, another study found that many Medicare beneficiaries made suboptimal decisions, putting too much weight on monthly premiums and too little on out-of-pocket drug costs (Abaluck and

Gruber, 2011). The average insured individual in this study could have saved 31% of their total Part D spending by choosing an alternative plan. Acknowledging the problem, the Centers for Medicare and Medicaid Services (CMS) introduced an online total cost calculator designed to enable beneficiaries to compare the total out-of-pocket costs of different plans for consumers with different patterns of healthcare utilization.

Finally, a third line of research that is most relevant to the current paper tests consumers' comprehension of basic health insurance concepts. One study (Winter et al., 2006) found that 40% of Medicare-eligible individuals contacted shortly following the launch of Medicare part D reported little or no knowledge about Medicare prescription drug coverage. Given the older age of respondents, however, it is unclear whether these and other findings pertaining to Medicare will generalize to younger, likely less cognitively impaired, populations. Another study (Handel and Kolstad, 2013), found that only a minority of workers at a large firm were able to accurately answer questions on benefit design, their own recent health care cost, or other key questions that should, in principal, have been relevant to their choice of health insurance. This lack of understanding was correlated with their insurance choices.

In addition to studies conducted by academics, a limited number of studies conducted by commercial entities have addressed the issue of comprehension. One industry-sponsored study that asked individuals with health insurance to define insurance terms and calculate their bill found average accuracy rates of approximately 50% (The Regence Group, 2008). Another survey conducted by a health insurance company found that only 23% of respondents understood the terminology used in their health policy, only half knew their monthly health insurance premium, and only a few understood common healthcare acronyms such as HMO (36 percent), PPO (20 percent) and HSA (11 percent) (eHealth, 2008). Results from these survey-based studies are complemented by a series of studies conducted by Consumer's Union (Health Policy Brief, 2012) that employed cognitive interviewing, a one-on-one qualitative research method that yields rich and nuanced data even with small sample sizes (n=16 in each study). These studies yielded similar conclusions to the studies just reviewed. Findings included that consumers dread shopping for insurance, don't have a good understanding of cost-sharing concepts (specifically, deductibles, co-insurance levels and benefit maximums), and require a high level of numeracy to make informed judgments about and choices between medical plans.

3. Consequences of consumers' lack of understanding

At the individual level, consumers' limited understanding of health insurance has several likely consequences. First, limited understanding is likely to lead to suboptimal decisions. Prior research has found that individuals often stick with the status quo, maintaining the same coverage they had in the past even when superior options are available, seek advice from family or friends who may also have low levels of health literacy, and commonly enroll in highly advertised plans or those with a well-known brand name (Frank and Lamiraud, 2009; Handel, 2011). If simplifying insurance reduced these tendencies, it could potentially improve the quality of choices. Moreover, offering plans with copayments but no deductibles could help to remove one major source of suboptimality generally observed in choices among insurance plans – the tendency for consumers to choose plans with lower than optimal deductibles (Sydnor, 2010).

Second, as already noted, if consumers don't understand their own health insurance policies, it is unlikely that they will respond to the incentives embedded in those policies. Field experiments on simplifying either the information gathering or decision making process have documented positive impacts on outcomes in a variety of health and non-health domains: parents' choices of schools for their children (Hastings and Weinstein, 2008), senior citizens' Medicare Part D plan choices (Kling et al., 2012), employees' rates of 401k enrollment (Choi et al., 2009), take-up of the Earned Income Tax Credit by low income families (Bhargava and Manoli, 2012), and college financial aid applications and subsequent college attendance (Bettinger et al., 2009). If people understand their own health insurance, they should be more likely to make the types of cost-effective choices that are encouraged by plan design, such as visiting an urgent care center rather than the emergency room when the former is more appropriate. The latter issue is especially important given the increasing prominent of value-based insurance design (VBID), which increases reimbursement of high value services and/or lowers it on low value services, in an attempt to drive consumers to make more value-responsive decisions when it comes to consuming medical services.

Third, if insurance purchasers (or potential purchasers) are aware of their own lack of understanding, this may help explain widespread discontent with existing insurance options. One study of individuals who made an active choice about whether to enroll in Medicare part D, found ample evidence of widespread dissatisfaction with the program, both among those who

decided to enroll and those who did not (Heiss et al., 2006). Among those who decided to enroll, 71% indicated that there were too many alternative plans to choose from, 34% that the enrollment process was very complicated, and 52% that they "had difficulty understanding how Medicare Part D works and what savings it would provide." Among those who decided not to enroll, the equivalent figures were 69% (too many plans), 61% (enrollment process complicated) and 62% (difficulty understanding how Medicare Part D works). In a question asked of a larger, representative, sample of senior citizens that included about one third who were actually facing the choice of whether to enroll in Medicare part D, only 30% endorsed the statement that "the Medicare Part D program is well designed." Any accounting of the benefits of simplified insurance should include reductions in the time consumers spend on information searching and decision making as well as improvements in well-being resulting from reduced anxiety.

Fourth, a somewhat more subtle, but equally important, consequence of insurance complexity is that individuals will focus on the simplified information that is presented to them, and insurers will then engage in what economists call 'shrouding' – displaying information in a selective fashion that highlights aspects advantageous to the seller (Gabaix and Laibson, 2006). For example, the requirement for insurance companies to publicize the cost of maternity, breast cancer, and diabetes care, will likely lead them to design plans that dramatically reduce costs for these services and raise costs on other types of care which they do not have to report. Exactly such a pattern has been documented from the Mexican social security system, in which financial providers were required to provide information about fees. These providers reduced the fees that were required to be reported but raised those they were not obligated to report (Hastings and Tejeda-Ashton, 2008).

Finally, it is possible that a simplified insurance product would be simpler for an insurer to administer and might also lead to reduced costs if consumers are less likely to contact the insurance company with questions that require costly employee time to answer.

4. Comprehension Study: Insurance-holders' understanding of health insurance

The comprehension survey was conducted mainly to elicit insurance-holders' understanding of basic health insurance concepts and their beliefs about their own level of understanding. The survey was designed by the academic team using input from Humana

employees who were expert in the workings, and building blocks, of medical insurance.

4.1.   Methods

The comprehension study (as well as the 'choice' study presented below) were both surveys (see Appendix A for details) administered to representative samples of Americans recruited by Knowledge Networks Inc. in January and February 2012. To be eligible, respondents had to be (1) non-institutionalized adults age 25-64 residing in the United States; (2) the primary or shared decision maker for their own or their families' healthcare; and (3) have health insurance through their own or a family member's employer. The two latter questions were asked at the beginning of the survey, and respondents were not allowed to participate if their answer to either was negative.

Knowledge Networks' sample, KnowledgePanel®, is based on probability sampling covering both the online and offline populations in the U.S..[1] Active panel members were drawn at random, assigned to the survey, and received a notification e-mail containing a link that sent them to the survey questionnaire. After three days, automatic email reminders were sent to all non-responding panel members in the sample. Knowledge Networks provides weights for improving the fit to the U.S. population which we applied in all analyses except where noted. The left-hand columns of table 1 presents summary statistics on the demographics of the comprehension study sample (n=202), comparing both the unweighted and weighted distribution of sample characteristics. As is evident from the table, in this study and the next, the weighting did not have a major impact on the distribution of sample characteristics.

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[1] KnowledgePanel is based on probability sampling covering both the online and offline populations in the U.S.. Panel members are recruited through national random samples. Households are provided with access to the Internet and hardware if needed. Unlike Internet convenience panels, KnowledgePanel recruitment uses dual sampling frames that includes both listed and unlisted telephone numbers, telephone and non-telephone households, and cell-phone-only households, as well as households with and without Internet access. KnowledgePanel recruitment methodology conforms to the quality standards established by selected RDD surveys conducted for the Federal government (such as the CDC-sponsored National Immunization Survey). More information about the KnowledgePanel sampling, data collection procedures, weighting, and IRB-bearing issues are available at:
http://www.knowledgenetworks.com/knpanel/index.html

Table 1

Respondents were asked, first, to state whether they understood each of the 4 most basic insurance parameters: deductible, copay, coinsurance and out-of-pocket maximum. After stating whether they knew what each was, they were given a multiple choice question to elicit their actual understanding. The pair of questions about the deductible, for example, was:

Q111 Do you know what a Deductible is?

○ Yes
○ No

Q3 Which of the following best describes a Deductible?

○ An amount deducted from your paycheck to pay for your insurance premium (1)
○ The amount deducted (covered) out of your total yearly medical expenses (2)
○ The amount you pay before your insurance company pays benefits (3)
○ The amount you pay before your health expenses are covered in full (4)
○ I'm not sure (5)

After answering these questions for all four concepts, respondents were presented with a conventional insurance policy (see Appendix A, Plan T), which they were asked to print out and which was also available to them in a box at the bottom of the screen whenever they were asked questions that required accessing it. The conventional policy incorporated deductibles, copays, coinsurance and out-of-pocket maxima (different from individual and family, and different for in- and out of network). The policy was closely modeled on a commercially available product, and was described in terms comparable to those provided in typical open enrollment information packets.

Respondents were first asked to imagine that they were insured under the policy they were shown, and were then asked to respond to a series of multiple-choice questions about the costs of medical services under different scenarios that varied in terms of the services being used and whether they had spent down their deductible. Responses to these questions were selected so they required few, if any, calculations to answer, but only required, and hence measured, their understanding of the mechanics of health insurance.

The first question they answered, for example, was:

First, imagine that none of your family members, including you, have spent any money so far this year on medical care.

Q18 Your (in network) primary care doctor charges $80 for an office visit. How much will it cost you to visit your doctor if you are sick?

○ Nothing (free) (1)
○ $30 (2)
○ $40 (7)
○ $55 (3)
○ $80 (4)
○ $150 (5)
○ I'm not sure (6)

Following each of these questions they were asked an open-ended question about whether the multiple choice question was difficult to answer and, if so, why. (Few respondents answered this question, so responses to it were not analyzed and are not discussed.)

Next, respondents were asked to answer a single open-ended question (not multiple choice) which asked them to compute the cost of a specific service – a 4 day stay at an in-network hospital. They were told:

Q29 You have not had any medical expenses so far this year. You go in to an in-network hospital for 4 days to obtain surgery. The hospital stay for the surgery costs $100,000. How much will the hospital stay for the surgery cost you, personally?

$_____

Two questions then elicited further information about their understanding of different features of health insurance, specifically coverage of preventive care and whether spending on in-network providers counts toward the deductible for out-of-network providers. The next 11 questions elicited their self-perceived understanding (on a 5-point scale from "definitely don't understand" to "definitely do understand") of different concepts and issues – e.g., "how the individual and family deductibles work." (Results from these questions, which largely paralleled those reported above and were otherwise uninteresting, are reported in the on-line appendix but

not discussed in this paper.)

Respondent were then asked two multiple choice questions, about their desire for a simplified insurance product, an issue of central importance to the research team:

Q58 Suppose there was a new insurance product that had no deductibles, and only fixed (copay) fees for different services. The plan still covers preventive services for free. Assuming that in the end you paid about the same total amount for medical care, would you prefer the plan you have been working with in this survey, or this new plan?

○ Strongly prefer existing plan (1)
○ Prefer existing plan (2)
○ No preference between them (3)
○ Prefer new (copay only) plan (4)
○ Strongly prefer new (copay only) plan (5)

They were then asked the same question, but imagining that the copay fees were 50% higher. Finally, they were asked a question about the importance they placed on an insurance plan offering out-of-network coverage (an issue of interest to Humana when it came to deciding on the specifics of the simplified plan they would create).

4.2. Results

Table 2 reports the percent of respondents who stated that they understood each concept listed, the percent who were correct about their own knowledge (correctly understanding a concept when they believed they did), and the percent who correctly answered the multiple choice questions about each insurance concept regardless of their self-assessed understanding. As is evident from the table, people were highly confident about their own understanding of copays, deductibles and maximum out-of-pocket costs (all > 90%), but were less confident about their understanding of coinsurance, which only 57% reported that they understood. Gauging actual understanding by correct responses to the multiple choice questions, however, respondents' actual understanding of concepts was lower than perceived understanding, ranging from a high of 78% for deductibles to a low of 34% for coinsurance. Only 14% of respondents answered all four questions correctly. Moreover, note that the multiple choice questions probably overestimate respondents' understanding since simply guessing would yield an

accuracy rate of 20%. Overconfidence (assessed by respondents who reported that they understood the concept, but gave the wrong multiple choice response) was evident for all four items, ranging from a low of 19% for deductibles to 41% for both coinsurance and maximum out-of-pocket costs.

Table 2

Table 3 reports the percent of correct answers to questions designed to gauge respondents' ability to estimate costs of different tests and procedures given the traditional insurance plan they were presented with. There is substantial heterogeneity across questions in respondents' ability to correctly assess health care costs. For several multiple choice items (e.g., the cost of an in-network office visit either before or after meeting the deductible), more than 75% of respondents answered correctly. However, accuracy rates were much lower – approximately 40% -- for a number of other services and tests, such as an MRI (before or after meeting the deductible) and out-of-network services. On average respondents gave correct responses to 58% of the multiple choice questions. Finally, only 11% of respondents gave the correct response to a relatively simple fill-in-the-blank question about the cost of a 4 day hospital stay (14% came within plus or minus $1,000 of the correct number; approximately the same fraction who estimated incorrectly overestimated and underestimated the correct value).

Table 3

To determine what demographic characteristics were associated with respondents' understanding of health insurance, we regressed, using OLS, the sum of the number of insurance questions (summarized in Table 2) answered correctly (mean: 2.39, SD: 1.04, range: 0-4), and the number of the ten cost questions (summarized in Table 3) answered correctly (mean: 5.30, SD: 2.27, range: 0-10), on a variety of demographic characteristics (see Table 4), including a dummy variable based on number of visits they reported making to a doctor (greater than or equal to once a month=1).[2] The first regression in the table shows that older respondents

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[2] OLS was appropriate because the error terms were approximately normally distributed.

answered fewer questions correctly, while college educated and above-median income respondents answered a higher number of concept questions correctly. Having more experience with the health care system, however, did not have a significant effect. The second regression shows that neither of these variables, nor any others we included, predicts respondents' abilities to calculate costs. Neither comprehension variable was predicted significantly by the frequency of medical visits variable, failing to provide support for the prediction that greater experience with medical care would increase people's understanding of concepts or ability to compute costs.

Table 4

When presented with the concept of a simplified plan, and asked for their preference between it and a traditional plan, respondents exhibited a strong preference for the simplified plan. Fourteen percent strongly preferred the simplified plan, 41% preferred it, 31% were indifferent, 7% preferred the existing plan, and 7% strongly preferred the existing plan. An ordered probit regression[3] (column 3 of Table 4) showed that the simplified plan appeals more to females but there are no other significant demographic differences. Adding variables for the number of cost questions answered correctly and the number of insurance concepts identified correctly (column 4 of Table 4), we find, somewhat surprisingly, that the number of concept questions answered correctly has a *positive* effect on preference for the new plan; those with a better understanding of health insurance concepts show a stronger preference for the simplified plan. One possible explanation for this effect is that people who did not understand health insurance concepts may not have been aware of their ignorance and, as a result, under-appreciated the benefits of simplification.

Not surprisingly, respondents were less positive about the simplified plan when it came with copay fees that were 50% higher. With this modification, 7% strongly preferred the simplified plan, 21% preferred it, 34% were indifferent, and 29% prefer the original plan and 9% strongly preferred the original plan. The 50% difference does not represent the likely cost-consequence of eliminating deductibles, but was chosen somewhat arbitrarily to determine

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[3] Ordered probit was used because the preference response scale is clearly ordinal, but not necessarily cardinal in the sense that respondents could interpret the difference between, e.g., "strongly prefer S" and "prefer S" as having greater significance than the difference between, e.g., "prefer S" and "No preference."

whether respondents would be willing to make a substantial sacrifice on another dimension to enroll in a simplified insurance plan. This reduced the percentage who stated they would prefer a simple plan from 55%, in the case in which higher copayments were not indicated, to 28%.

5. Choice Study: The impact of health insurance simplification on healthcare decision making

The choice study was conducted to assess the impact of a simplified health insurance plan on choices between medical tests and services, and also to measure the relative appeal of a traditional or simplified insurance plan both before and after respondents had been asked to compute the cost they would incur for obtaining a routine medical expense.

Working in a collaborative team of academics and insurance industry professionals at Humana, we designed a simplified insurance product that reduces cost-share variance and eliminates deductibles and coinsurance, two components of standard insurance policies that are least well understood by policy holders, as indicated by prior research and corroborated in this study, and that consisted only of a series of copays for different services. The simplified insurance product, which is presented in Appendix A, includes larger copay differentials between higher cost/lower value services and lower cost/higher value services, with the goal of driving insured individuals toward the latter. The simplified insurance plan poses a stark contrast to the "consumer-driven" health insurance plans that are currently popular among insurers and employers that incorporate high deductibles that apply to most (but typically not preventive) services.

5.1. Methods

Respondents (n=413; demographics presented in the right-hand columns of table 1) were randomly assigned to answer questions in one of two orders. Half were first assigned to make hypothetical healthcare choices imagining they had the same traditional plan that had been shown to respondents in the comprehension survey (see Appendix A). The plan was presented to them on the bottom part of their computer screen, and they were also asked to print it out for ease of perusal. They were then asked to make the same decisions again, but this time assuming they had a simplified plan (see Appendix A). The simplified plan was designed by Humana actuaries to have the same premium as the traditional plan (assuming a similar client base, rate of profit,

16

and, conservatively, that the plan did not change healthcare utilization). The other half of subjects made the same decisions, but in reverse order.

The decisions, which were presented in the form of scenarios, were designed to determine if respondents would choose the option encouraged by the incentives embedded in both plans. For example, the first scenario asked respondents to choose between a dermatologist who was in-network but whose office was far away and one who was out-of-network but closer and highly recommended:

Q111 For this question, imagine that you have not had any medical expenses to date. You need to see a dermatologist for a spot on your back that you are worried about. Dr. H is a board-certified dermatologist who is in your insurance company's network. He is 10 miles away, and you don't know much about his reputation. Several friends of yours have highly recommended Dr. O, a dermatologist who is only 2 miles away, but is not part of your insurance plan's network. You know that both doctors charge $150 for an office visit. Please remember that your insurance plan is <PLAN>. Who will you make an appointment to see?

○ Definitely Dr. H. (1)
○ Probably Dr. H (2)
○ Not sure (3)
○ Probably Dr. O (4)
○ Definitely Dr. O (5)

Q112 In answering the previous question, did you take account of what you would end up paying, out of pocket, depending on what you chose to do?

○ Yes
○ No

Q113 How did your insurance plan affect your decision? (open-ended response)

Q114 How difficult was it, or would it be, for you to understand how much you would have to pay if you went to the in-network versus the out-of-network dermatologist?

- ○ Very difficult (1)
- ○ Somewhat difficult (2)
- ○ Not particularly difficult (3)
- ○ Somewhat easy (4)
- ○ Very easy (5)

The second scenario asked respondents to imagine they had a painful ear-ache and to choose between the emergency room or urgent care. In the third scenario, respondents were presented with a scenario in which they went to the pharmacy and were told by the pharmacist that their doctor had prescribed a name brand drug when a generic was available. They were asked if they would want the pharmacist to call the doctor if he/she offered, and whether they themselves would be willing to make such a call.

For each scenario, there were pros and cons for each alternative choice, but one choice was designed to minimize costs, and we were interested in whether making these costs more transparent would increase respondents' sensitivity to them. While the costs of making different choices were quite different across scenarios (approximately a $100 difference in the dermatology scenario, $200 in the Urgent care/ER scenario and $35 in the medication scenario), they were not very different between the two insurance policies ($5 greater difference for plan T in the dermatology scenario, $50 greater difference for plan T in the Urgent Care/ER scenario and $10 greater difference for plan S in the medication scenario). Thus, the main determinant of choices between the plans was not differences in the incentives provided by the plans, but rather the respondents' ability to understand the incentives.

After each of these sets of questions, they were asked follow-up questions about whether they took account of what they would have to pay when they made the decision and whether the insurance policy made it easy to understand the cost ramifications of the decision. After each, they were also asked an open-ended question, to express in their own words, "How did your insurance plan affect your decision?"

In a final section of the choice survey, respondents were asked which of the two plans they preferred, and which they thought was easier to understand. Their responses were recorded on a (-5 to +5) scale using a slider. They were then asked to compute how much a single service

would cost under the two plans. The question asked them to imagine, "You have personally incurred $2,000 in out-of-pocket medical expenses this year. You go in to an in-network hospital for 4 days. The hospital stay costs $100,000. If you had Plan ___, how much would the hospital stay cost you personally?" The correct response under the simplified plan was $1,050, and under the traditional plan it was $2,500. Having attempted to answer the question, but without being given feedback about the correct answer, respondents then used the sliders to again answer the questions about plan reference and which plan was easier to understand.

5.2. Results

Table 5 summarizes respondents' answers to the questions just described, irrespective of ordering (since order turned out not to matter). For all decisions, respondents are directionally more likely to make the lower cost choice if they had the simplified plan, but the differences relative to the traditional plan are small (2 to 3 percentage points) and not always statistically significant. Differences in whether respondents would take account of what they would have to pay are all close to zero and not significant. Finally, differences on the question of whether the simplified plan made it easy to understand the cost ramifications of a particular choice all favor the simplified plan, are somewhat larger (8 to 21 percentage points), and are all statistically significant at the 0.01 level.

Table 5

Supporting the idea that the simple plan was indeed simpler, 43% of respondents gave the correct answer to the cost of the hospital stay question for the simple plan, but only 2.2% gave the correct answer for the traditional plan. For the simple plan, 38% of those with a high school education or less gave the correct answer, compared to 49% of those with a college degree or higher ($p<0.001$). The equivalent numbers for the traditional plan were 1.3% for those with a high school education or less and 3.6% correct for those with more than a high school education (p of difference=0.14). Thus, those with more education were more likely to answer the question correctly under either plan, but a larger effect is that, regardless of education, people were much more likely to answer the question correctly for the simplified than for the traditional plan. The increased probability of correctness with the simplified plan was the same regardless of how

often the respondent reported visiting the doctor (based on adding a variable for frequency of doctor visits to a logistic regression of probability of correctness on plan, p=0.47).

To investigate more generally whether respondents are able to answer more precisely under either plan, we calculated the percent absolute error (or PAE, |answer-correct|/correct) of each answer to the hospital stay question. Figure 1 shows the cumulative distribution of respondents exhibiting different levels of absolute error, broken down between less- and more-frequent visitors to the doctor. The Y intercepts shows the different proportions exactly correct (i.e. with zero error) – as reported above, the simplified plan has significantly more correct answers in both cases. Among less-frequent visitors, we see that almost 90% are able to answer the simple plan question with 500 PAE or less, compared to around 60% with the traditional plan; furthermore, the simple plan seems to outperform for any error level below 800 PAE. The picture is similar among more-frequent visitors, although performance there is uniformly better, and the traditional plan seems to be less relatively disadvantageous (Kolmogorov-Smirnov tests of equality of the weighted distribution functions all with ps < .001). Interestingly, the traditional plan seems to outperform for about the 10% of respondents with the highest errors in both visit-frequency groups (above about 800 and 1700 PAE respectively). However, since only 6 respondents reached these levels of error in either group, this comparison may be especially sensitive to individual- and question-level effects (for likely examples of the latter, note the discrete jumps at about 700 and 3100 PAE in only the traditional plan, regardless of frequency).

Figure 1

Responses to the open-ended questions about how the insurance plan affected each decision (available from the authors, on request) were more interesting than the open-ended responses to the comprehension survey. Two differences between those responding for plan S and plan T were salient. The first was that respondents used many more words in their responses when explaining their decision under plan S than plan T. For plan S, including only those who saw plan S first and summing over the three questions (corresponding to the three scenarios), respondents used an average of 172 words to explain their decision (S.E.=13.8), but with plan T only a mean of 133 (S.E. 10.4), a significant difference (p<.01). Even more striking, though admittedly anecdotal, were the differences in the nature of the explanations. Explanations for

decisions made under plan S were much more coherent and more likely to cite specific numbers than those made under plan T.

Respondents were asked two questions, both before and after they had attempted to compute the cost of the hospital stay: (1) which plan they preferred, and (2) which of the two plans they found easier to understand. Figure 2 presents the distribution of responses to the two questions, both before and after computing the cost of the hospital stay. Initially, prior to computing the cost of the service, there was a slight, although statistically insignificant, preference for the simple plan (mean=0.12 on -5 to +5 scale, s.d. = 3.77; $t(412)=0.54$, $p=0.59$). There was, however, a strong belief that the simple plan was easier to understand (mean=1.64 on -5 to +5 scale, s.d. = 3.29; $t(412)=8.07$, $p<0.001$). After attempting to compute the cost of the hospital stay, the belief that the simple plan was easier to understand, which was already strong, did not change significantly; however, there was a very substantial shift toward preferring the simplified plan (mean shift=0.99, s.d.=3.88; $t(412)=4.17$, $p<0.001$).

Figure 2

Finally, we categorize the plan preference variable both before and after attempting to compute the cost of the hospital stay, which could take on 11 values, into three ranges (preference for the traditional plan, "not sure", and preference for the simplified plan). We then estimated ordered probit regressions of respondent characteristics on this ordered preference outcome (Table 6). Belief that the simplified plan was easier to understand is a very strong predictor of preference for that plan prior to attempting the cost computations; after attempting the calculations, actual success in doing so is an additional strong predictor of preference for the simplified plan. After controlling for these two variables, posterior preference for the simpler plan is greater for women and those without a college degree.

Table 6

6. Discussion

Our analysis of the results from the two surveys highlights a number of benefits of a simplified insurance plan design. The comprehension study shows that people have a limited

understanding of traditional health insurance. Only 14% of the sample was able to answer correctly 4 multiple choice questions about the four basic components of traditional health insurance design: deductibles, copays, coinsurance and maximum out of pocket costs ('MOOP'). Similarly, many respondents were unable to calculate the cost of basic services covered by the traditional insurance plan. Most strikingly, only 11% were able to correctly answer a fill-in-the-blank question about the cost of a hospitalization.

Second, respondents reported that they would be somewhat more likely to engage in some cost-reducing behaviors – specifically, going to urgent care instead of the ER, and contacting their doctor to ask for a generic drug – if they were covered by a simplified insurance plan than if they were covered by a traditional plan. One explanation for why we don't find a striking difference in choices between the traditional and simplified plan may stem in part from the fact that people are already aware that traditional plans incorporate incentives for seeing in-network providers, avoiding the emergency room, and taking generic drugs, even if they can't quantify the consequences of choosing one option over the other. Indeed, the fear induced by such ambiguity -- that the more expensive options may be *much* more expensive -- may be an even more potent motivator than the knowledge of actual cost-differences that the simplified plan makes it so much easier to understand. In sum, these results suggest that simplification is likely to have a substantial effect on individuals' *understanding* of their own insurance policies, but raises questions about the magnitude of the effect such an increment in understanding is likely to have on healthcare choices.

Third, respondents preferred the simplified health insurance plan when it was described in general terms (in the comprehension study) and presented in detail (in the choice study). In the choice study, however, the strong preference for the simplified plan emerged only after respondents attempted to compute the cost of a single service, contingent on being insured under each plan. Moreover, based in part on responses to the open-ended question about why they preferred the plan they expressed a preference for, it seems that some respondents were put off by the high prices of services that the simplified plan made it easier to perceive. This points to a potential pitfall or marketing a simplified plan; people may prefer the devil they *don't* know in this context. Perhaps as a result of optimism bias or a dislike for being confronted by painful information, consumers may be attracted by the traditional plan's shrouding of the prices they will have to pay should they require various medical services.

Inevitably, the research has limitations. Respondents may not have been very motivated to answer the comprehension questions correctly, since they were not incentivized to do so. More seriously, the choices respondents made in the choice survey were hypothetical, and may not well represent how respondents would behave if confronted with similar, real, choices. On the one hand, the quality of the information they received was probably as good as most insured individuals face when they are making healthcare decisions, and the predominant multiple choice questions in the survey may have made it easy for respondents to guess the correct answer, so the results may overstate both the impact of the insurance policy on medical choices as well as on ability to estimate costs. On the other hand, the hypothetical nature of the choices, and the lack of incentives for responding correctly, may have decreased respondents' attentions to details, which could have attenuated differences between the surveys that might be greater in the real world. In addition, some of the factors incorporated in the scenarios, such as recommendations from friends, the convenience of a doctor who is geographically closer, and the stressfulness of contacting a doctor to change a prescription, seem likely to have a greater impact in reality than in hypothetical choice, although this is not so important for understanding the impact of the insurance policies since these factors were held constant between the two versions of the survey.

Although simplified insurance might help consumers make better choices between policies, and perhaps better healthcare decisions given the policies they end up selecting, the overall impact of simplification is likely to be more subtle and complex because employers are unlikely to be a static part of the equation. Prior research on automatic enrollment in retirement plans found that it led workers to save more, but also led employers to cut back on the match rate so as to maintain the same approximate payout (Soto & Butrica, 2009; Butrica & Karamcheva, 2012). Thus, the main net effect was to redistribute wealth from more affluent workers to poorer workers who hadn't been saving previously or receiving the match (arguably a good thing), but decreasing the match, as well as the savings rates, for more affluent workers. The impact of health insurance will therefore depend not only on the responses of different groups of workers, but also those of employers.

The impact of simplification is also likely to depend on the specific form that simplification takes. Almost surely, the single largest mistake that most insurance purchasers make is to purchase policies with overly low deductibles (Sydnor, 2010). Indeed, such mistakes are so severe that in some cases they violate dominance – e.g., when someone pays more than

$250 to drop the deductible on a medical insurance policy by less than $250. Based on this finding alone, it might seem that lowering deductibles to zero would be lead to even more suboptimal choices, but we think this is not necessarily a correct inference. If copayments are raised as deductibles are dropped, this could decrease moral hazard – one of the factors that raises the cost of low deductible policies.

In addition, if all workers faced the same zero deductible, this would eliminate adverse selection, at least on deductibles, which is a major contributing factor to the low pricing of high deductible policies. If making choices simpler makes it easier for consumers to find good matches in coverage, however, is unlikely to help, and might even have adverse effects, when it comes to the other aspects of adverse selection. For example, better decision making on the part of consumers could lead to a greater concentration of unhealthy consumers in high cost, high benefit, plans, which would tend to raise the costs, and prices, for such plans, and, as a result, to reduce risk-sharing between healthier and sicker individuals.

Giving people choices between insurance options they understand is almost certainly a good thing; it is, arguably, *inherently* desirable for people to make healthcare decisions with a reasonable understanding of what different options will cost. Yet, as the prior discussion suggests, knowing exactly who will benefit or be hurt by simplification is not at all easy to predict. Like most policies, therefore, it would be best to examine the consequences of insurance simplification beginning with small scale field experiments.

While recognizing the potential problem of insurance complexity, the ACA adopts a somewhat superficial approach to dealing with it that revolves around the standardization and simplified presentation of information about insurance plan features. However, presenting simplified information about something that is inherently complex introduces a risk of 'smoothing over' real complexities, in effect burying them in the now not-so-fine print. Rather than trying to explain inherently complex insurance plans in simple terms, therefore, a more fundamental approach would be to (1) design health insurance products that are truly simple, and (2) require plans to offer identical features that can be directly compared. In this paper, we have shown that it is possible to develop a cost-neutral simplified insurance product that is appealing to consumers. Hopefully, the market will recognize, and meet, the need for such products.

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Table 1

Characteristics of two samples (including only qualified respondents)

	Comprehension Study (n=202)		Choice Study (n=413)	
	Weighted	Unweighted	Weighted	Unweighted
% Male	51.7%	52.5%	45.1%	45.8%
Age Mean	43.7	45.9	44.1	47.0%
(S.D.)	(11.0)	(11.2)	(11.3)	(11.1)
[range]	[25-64]	[25-64]	[25-64]	[25-64]
Married %	75.2%	75.2%	69.0%	70.7%
Income median	$75,000 to $84,999	$75,000 to $84,999	$75,000 to $84,999	$75,000 to $84,999
Income ($thousands)				
< 50	20.3%	20.3%	22.1%	22.8%
50-99	48.3%	45.0%	43.9%	44.1%
100-149	23.2%	24.8%	20.1%	22.3%
>= 150	8.2%	9.9%	13.9%	10.9%
Employment status				
employed %	75.4%	77.7%	80.2%	79.2%
unemployed %	3.6%	3.0%	3.0%	3.4%
retired/other %	21.0%	19.3%	16.8%	17.4%
Race/ethnicity				
white %	73.7%	78.7%	69.8%	77.0%
black %	7.2%	6.9%	10.3%	9.0%
Hispanic %	12.2%	9.4%	12.7%	8.5%
Other/Mixed %	7.0%	5.0%	7.2%	5.6%
Household size median	3	2	2	2
Highest Education				
less than HS grad %	5.5%	3.5%	4.7%	4.4%
high school grad %	52.2%	53.5%	52.0%	48.2%
college grad %	28.3%	27.7%	24.9%	26.2%
advanced degree %	14.0%	15.3%	18.3%	21.3%

Table 2

Actual and self-perceived comprehension of insurance concepts; Comprehension Study

Concept	Percent who think they understand concept	Percent of those who think they understand who correctly answer question testing understanding of concept	Percent of total sample who correctly answer question testing understanding of concept
Deductible	97%	81%	78%
Copay	100%	72%	72%
Coinsurance	57%	59%	34%
Maximum Out-of-Pocket	93%	59%	55%

Note: Comprehension of each concept was assessed in a separate multiple choice question with 5 possible responses.

Table 3

Ability to compute insurance costs: Percent answering multiple choice and fill-in-the-blank questions correctly; Comprehension Study

Multiple choice cost-estimate questions	% correct
In-network primary care visit	73%
Out-of-network office primary care doctor	59%
In-network MRI	41%
In-network primary care (after meeting deductible)	77%
In-network MRI (after meeting deductible)	57%
Level 1 allergy medication	78%
In-network primary care (after meeting MOOP)	58%
Out-of-network office primary care doctor (after meeting MOOP)	35%
E.R. charge (with admission)	40%
Average, multiple choice questions	58%
Open-ended cost question: Cost of 4 day stay in hospital	11%
Two multiple choice questions:	
In the plan, is preventive care covered 100% if you have not yet met your deductible?	76%
In the plan, if you spend money out-of-pocket on in-network providers, does this spending count toward the deductible for out-of-network providers?	34%

Table 4

Predictors of comprehension and preference; Comprehension Study

dependent variable:	Linear Regressions		Ordered Probit Regressions	
	(1) number of insurance concepts identified correctly	**(2) number of cost questions answered correctly**	**(3) preference for simplified plan**	**(4) preference for simplified plan**
Male (SE)	0.05 (0.15)	-0.32 (0.32)	-0.29 (0.16)*	-0.29 (0.16)*
age (SE)	-0.11 (0.06)*	-0.11 (0.13)	0.05 (0.01)	0.09 (0.01)
Age^2 (SE)	0.00 (0.00)*	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
≥ college (SE)	0.31 (0.15)**	0.36 (0.34)	0.09 (0.16)	-0.00 (0.16)
≥ median income (SE)	0.33 (0.15)**	0.04 (0.34)	0.14 (0.16)	0.08 (0.16)
Visit >= once per month (SE)	0.20 (0.15)	-0.73 (0.49)	0.03 (0.23)	0.03 (0.23)
Number of cost questions answered correctly (SE)	--	--	--	0.05 (0.04)
Number of insurance concepts identified correctly (SE)	--	--	--	0.24 (0.08)***
Adjusted R^2	0.05	0.00	--	--
Overall test of parameters	F(6,192)=2.74, p=0.0141	F(6,192)=0.95, p=0.4593	X^2(6)=5.88, p=0.4366	X^2(8)=22.15, p=0.0068

Standard errors in parentheses; +* Significant at α =.10; ** Significant at α =.05 ***;

Significant at α =.01

Table 5

Hypothetical choices stratified by traditional or simplified insurance plan coverage; Choice Study

Scenario/Decision outcome	Traditional Plan (Plan T)	Simple Plan (Plan S)	Significance of difference between respondents' answers*
Dermatologist			
Chose to go in-network	78%	80%	p = 0.24
Took account of what you would pay?	91%	93%	p=0.62
Found it easy to understand cost ramifications?	73%	81%	p=0.01
Care for Ear-ache			
Chose urgent care over ER	74%	77%	p=0.04
Took account of what you would pay?	87%	87%	p=0.43
Found it easy to understand cost ramifications?	79%	88%	p=0.001
Blood pressure medications: name brand vs. generic			
Would ask pharmacist to call doctor	78%	81%	p=0.09
Respondent would call doctor (only asked if "no" above)	70%	77%	p<0.001
Took account of what you would pay?	88%	88%	p=0.43
Found it easy to understand cost ramifications?	69%	90%	p < 0.001

* McNemar's test on unweighted data

Table 6

Predictors of preference for simplified over traditional insurance plan; Ordered Probit, Choice Study

dependent variable:	(1) preference for simplified insurance plan before computing hospital cost	(2) preference for simplified insurance plan before computing hospital cost	(3) preference for simplified insurance plan after computing hospital cost	(4) preference for simplified insurance plan after computing hospital cost
Male	0.04 (0.11)	0.01 (0.11)	-0.10 (0.11)	-0.21 (0.12)*
age	0.02 (0.01)	0.05 (0.01)	-0.06 (0.01)	-0.02 (0.01)
age^2	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
≥ college	-0.05 (0.12)	-0.07 (0.12)	-0.18 (0.12)	-0.29 (0.13)**
≥ median income	-0.08 (0.12)	-0.14 (0.12)	0.05 (0.12)	-0.11 (0.13)
Visit >= once per month (SE)	0.09 (0.15)	0.11 (0.15)	-0.04 (0.15)	0.06 (0.16)
simplified plan is easier to understand	--	0.09 (0.02)***	--	0.46 (0.02)***
estimated cost of hospital stay with simple plan correctly	--	0.11 (0.12)	--	0.46 (0.13)***
Overall test of parameters	$X^2(6)$=2.78, p=0.8355	$X^2(8)$=38.02, p<0.001	$X^2(6)$=8.66, p=0.1938	$X^2(8)$=185.6, p<0.001

Standard errors in parentheses; *: Significant at α=.10 **; Significant at α=.05 ***; Significant at α=.01

Figure 1

Cumulative proportion correct by percent absolute error in cost calculations under traditional and simplified plans, by frequency of doctor visits; Choice Study
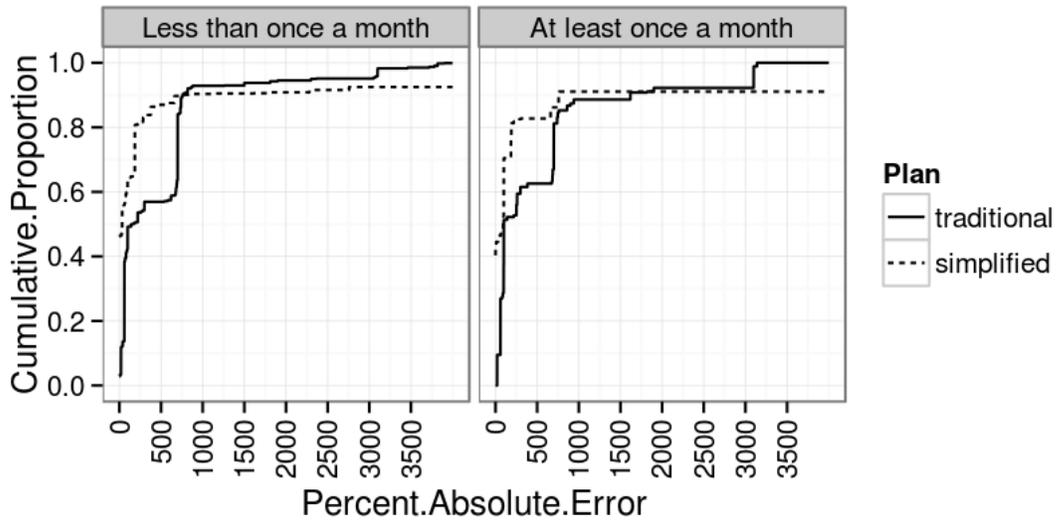
Figure 2

Relative preference for, and self-perceived understanding of, traditional and simplified insurance, before and after computing cost of hospitalization; Choice Study

Plan Understanding
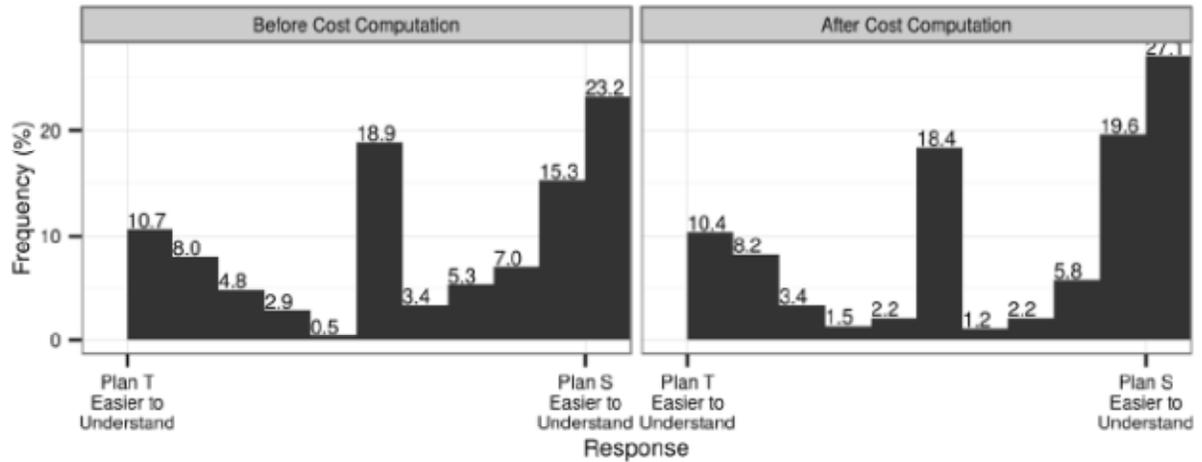
Plan Preference
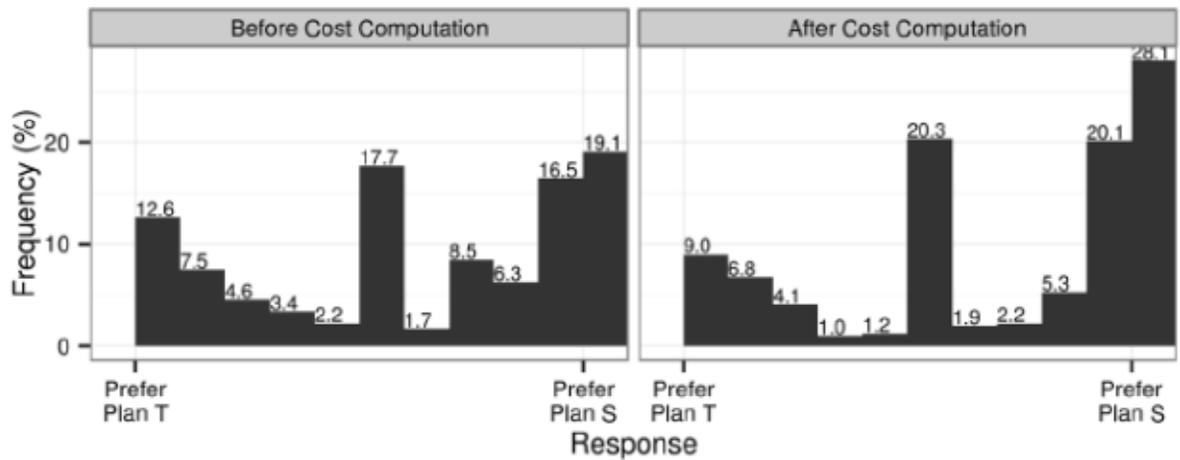
Appendix: The two insurance plans

CODE: A67

Plan S	
	You Pay (In Network)
PHYSICIAN SERVICES (per visit)	
Preventive Services: preventive office visits, preventive laboratory and radiology, preventive immunizations, preventive Pap smear, preventive mammography	$0
Diagnostic lab/test	$0
Primary care office visit	$35
Specialist visit	$60
Therapies: chiropractor, speech, physical, occupational	$60
Urgent Care	$75
HOSPITAL SERVICES (per visit)	
Emergency Room	$250
Outpatient Surgery	$700
Inpatient Stay	$350 per day, up to a maximum of $1,050.
OTHER MEDICAL SERVICES (per visit)	
Durable Medical Equipment & Prosthetics	$375
Ambulance	$375
Advanced Imaging (PET, MRI, MRA, CAT)	$375
PRESCRIPTION MEDICATION BENEFIT (per 30 day prescription)	$10 Generic/$50 Brand
Maximum Out-of-Pocket/Year - All fees above apply towards maximum out-of-pocket. Once maximum hit, all costs are covered.	
Single	$5,000
Family	$10,000
OUT OF NETWORK:	
If you go to an **Out of Network physician, lab, or hospital**, services are covered at 50% after you have paid $5,000 as an Individual or $15,000 as a family.	

	Plan T	
	In Network providers	Out of Network providers
Coinsurance Values	80%	50%
Office Visit Copay	$30 primary care/$55 specialist	Not applicable
Deductible - per calendar year - copays do not apply		
Single	$1,500	$4,500
Family	$3,000	$9,000
Out-of-Pocket Maximum - per calendar year - Deductible and copays do not apply		
Single	$3,000	$9,000
Family	$6,000	$18,000
PREVENTIVE SERVICES Preventive office visits Preventive laboratory and radiology Preventive Pap smear Preventive mammography Preventive prostate screening Preventive immunizations Preventive flu/pneumonia immunizations Preventive endoscopy	100%	50% after deductible
PHYSICIAN SERVICES		
Office visit	100% after office visit copay	50% after deductible
Diagnostic laboratory and radiology	100%	50% after deductible
HOSPITAL SERVICES		
Inpatient services	80% after deductible	50% after deductible
Emergency room visit (copay waived if admitted)	100% after $300 copay	100% after $300 copay
Outpatient surgery and services	80% after deductible	50% after deductible
OTHER MEDICAL SERVICES		
Urgent Care	100% after $75 copay	50% after deductible
Spinal manipulations, adjustments, modalities, physical, occupational, cognitive, speech and audiology therapy	100% after specialist copay	50% after deductible
Advanced imaging (PET, MRI, MRA, CAT, SPECT)	80% after deductible	50% after deductible
Ambulance	80% after deductible	80% after in-network deductible
Durable medical equipment	80% after deductible	50% after deductible
Rx Benefit - Retail - Level One: Low cost generic and brand-name drugs. - Level Two: Higher cost generic and brand-name drugs. - Level Three: Brand-name drugs that have generic or brand-name alternatives on Levels One or Two. - Level Four: High-technology drugs (certain brand-name drugs, and self-administered injectable medications).	$10/$40/$70/25%	70% after applicable copayment

Online appendix A: The surveys

Survey 1: Understanding Insurance

[SCREENING QUESTIONS]

[SP, IF SKIP, PROMPT]

S1. Are you the primary or shared decision maker for yourself and/or family's healthcare? (you do not need to be the policyholder)

○ Yes
○ No

[SP, IF SKIP, PROMPT]

S2. Do you/your family have health insurance through your or a family member's employer?

○ Yes
○ No

IF S1=YES AND S2=YES, CONTINUE, OTHERS TERMINATE.

[DISPLAY]

Q15 Dear respondent: This survey is designed to gain a better understanding of what people do and do not understand about health insurance policies. You will be asked to review a benefits summary for a health insurance plan. You will then be asked questions about this health insurance plan. These questions are intended to assess your understanding of health insurance plans. Please do not access any outside information (e.g., on the web) when you answer these questions.

[DISPLAY]

We will be asking you about the insurance plan below. You will want to be able to refer back to this plan. We recommend that you make a copy of this plan now by clicking on PRINT below.   Also, in case you do not have access to a printer, this plan description will be available for you to review in a text box under each of the following questions about the plan.

[SHOW INSURANCE PLAN T ON THE SAME SCREEN, PUT A "PRINT" BUTTON AT BOTTOM OF THIS SCREEN SO THAT RESPONDENTS CAN PRINT OUT THE INSURANCE PLAN T BY CLICKING THE "PRINT" BUTTON]

[DISPLAY]

Q113 The following questions assess your understanding of health insurance terms and concepts. If you don't know the answer to a question, please click on "I'm not sure." To answer the questions, please refer to the copy of the health insurance plan you have in front of you.

[PROGRAMMING INSTRUCTION: FOR THE FOLLOWING QUESTIONS (Q111 TO Q105) , PLEASE SHOW A SCROLL-DOWN BOX AT BOTTOM OF EACH QUESTION SCREEN, SUCH THAT RESPONDENT CAN SCROLL DOWN THE BOX TO SEE THE WHOLE INSURANCE PLAN T]

Q111 Do you know what a Deductible is?

❍   Yes
❍   No

[SP, Q111=YES]

Q3 Which of the following best describes a Deductible?

❍   An amount deducted from your paycheck to pay for your insurance premium (1)
❍   The amount deducted (covered) out of your total yearly medical expenses (2)
❍   The amount you pay before your insurance company pays benefits (3)
❍   The amount you pay before your health expenses are covered in full (4)
❍   I'm not sure (5)

Q4 Do you know what a Copay is?

❍   Yes
❍   No

 [SP, IF Q4=YES]

Q5 Which of the following best describes a Copay?

○ A specific dollar amount you pay for a specific service (1)
○ A specific dollar amount your insurer pays for a specific service (2)
○ A fixed percent of the cost of a procedure that you have to pay (the insurer pays the remainder) (3)
○ The amount your employer contributes to paying for your health premium (4)
○ I'm not sure (5)

Q89 Do you know what Coinsurance is?

○ Yes
○ No

[SP, IF Q89=YES]

Q90 Which of the following best describes Coinsurance?

○ A specified dollar amount you pay for a specific service (1)
○ The total amount you are required to pay until you reach your deductible (2)
○ The percent of the cost of medical services that the insurer pays (3)
○ The amount your employer contributes to paying for your health premium (4)
○ I'm not sure (5)

Q88 Do you understand what an Out-of-Pocket Maximum is?

○ Yes
○ No

[SP, IF Q88=YES]

Q87 Which of the following describes an (in-network) Out-of-Pocket Maximum? Assume that all the responses refer to in-network expenses.

○ After meeting the out-of-pocket maximum, all medical expenses are covered 100% (1)
○ After meeting the in-network out-of-pocket maximum, copays must still be paid, but all other medical expenses are covered 100% (2)
○ After meeting the out-of-pocket maximum, you must pay 100% of your medical expenses (3)
○ I'm not sure (4)

[DISPLAY]

Q38 For the remainder of questions in the survey, please use any information from the insurance plan you have in front of you that you believe is relevant.

[DISPLAY]

Q17 First, imagine that none of your family members, including you, have spent any money so far this year on medical care.

Q18 Your (in network) primary care doctor charges $80 for an office visit. How much will it cost you to visit your doctor if you are sick?

- ○ Nothing (free) (1)
- ○ $30 (2)
- ○ $40 (7)
- ○ $55 (3)
- ○ $80 (4)
- ○ $150 (5)
- ○ I'm not sure (6)

[TEXT BOX, SHOW ON THE SAME SCREEN WITH Q18]

Q44 Is the question above difficult for you to answer? If so, please explain why.

Q103 An out of network primary care doctor charges $80 for an office visit. How much will it cost you to visit this doctor?

- ○ Nothing (free) (1)
- ○ $30 (2)
- ○ $40 (7)
- ○ $55 (3)
- ○ $80 (4)
- ○ $150 (5)
- ○ I'm not sure (6)

[TEXT BOX, SHOW ON THE SAME SCREEN WITH Q103]

Q48 Is the question above difficult for you to answer? If so, please explain why.

Q116 You have an MRI on your knee in an in network facility. The cost for this service is $1,000. How much will it personally cost you for this service?

- ○ Nothing (free) (1)
- ○ $75 (2)
- ○ $200 (3)
- ○ $800 (4)
- ○ $1,000 (5)
- ○ I'm not sure (6)

[TEXT BOX, SHOW ON THE SAME SCREEN WITH Q116]

Q117 Is the question above difficult for you to answer? If so, please explain why.

[DISPLAY]

Q16 Now, for the following few questions, please imagine that you, personally, have met your in-network deductible (but not your maximum out of pocket).

Q22 Your (in network) primary care doctor charges $80 for an office visit. How much will it cost you to visit your doctor?

- ○ Nothing (free) (1)
- ○ $30 (2)
- ○ $40 (7)
- ○ $55 (3)
- ○ $80 (4)
- ○ $150 (5)
- ○ I'm not sure (6)

[TEXT BOX, SHOW ON THE SAME SCREEN WITH Q22]

Q93A Is the question above difficult for you to answer? If so, please explain why.

Q92 You have an MRI on your knee in an in network facility. The cost for this service is $1,000. How much will it personally cost you for this service?

- ❍ Nothing (free) (1)
- ❍ $75 (2)
- ❍ $200 (3)
- ❍ $800 (4)
- ❍ $1,000 (5)
- ❍ I'm not sure (6)

[TEXT BOX, SHOW ON THE SAME SCREEN WITH Q92]

Q47 Is the question above difficult for you to answer? If so, please explain why.

Q23 Your doctor prescribes a level 1 allergy medication. The drug costs $80. How much will it cost you, personally, to fill this prescription at an in-network pharmacy?

- ❍ Nothing (free) (1)
- ❍ $10 (2)
- ❍ $20 (3)
- ❍ $40 (4)
- ❍ $70 (5)
- ❍ I'm not sure (6)

[TEXT BOX, SHOW ON THE SAME SCREEN WITH Q23]

Q53 Is the question above difficult for you to answer? If so, please explain why.

[DISPLAY]

Q107 Now, for the next few questions, please imagine that you have met both your in-network deductible and out-of-pocket maximum.

Q108 Your (in network) primary care doctor charges $80 for an office visit. How much will it cost you to visit your doctor?

○ Nothing (free) (1)
○ $30 (2)
○ $40 (7)
○ $55 (3)
○ $80 (4)
○ $150 (5)
○ I'm not sure (6)

[TEXT BOX, SHOW ON THE SAME SCREEN WITH Q108]

Q49 Is the question above difficult for you to answer? If so, please explain why.

Q101 An out of network primary care doctor charges $80 for an office visit. How much will it cost you to visit this doctor?

○ Nothing (free) (1)
○ $30 (2)
○ $40 (7)
○ $55 (3)
○ $80 (4)
○ $150 (5)
○ I'm not sure (6)

[TEXT BOX, SHOW ON THE SAME SCREEN WITH Q101]

Q120 Is the question above difficult for you to answer? If so, please explain why.

Q97 You have extreme abdominal pain and decide to go to the Emergency Room. You are then admitted to the hospital with appendicitis. The Emergency Room charge is $500 and the in-patient stay is $5,000. How much will this cost you?

○ Nothing (free) (1)
○ $300 (2)
○ $1,000 (3)
○ $1,300 (4)
○ $5,500 (5)
○ I'm not sure (6)

[TEXT BOX, SHOW ON THE SAME SCREEN WITH Q97]

Q110 Is the question above difficult for you to answer? If so, please explain why.

[DISPLAY]

Q102 The next questions are more difficult, and are intended to challenge those who are very knowledgeable about health insurance. They ask you to compute the amount you would have to pay to obtain different medical services, in different situations. You are welcome to use a calculator to answer these questions. Similar to the previous questions, these questions all assume you have the same medical insurance plan that you should have in front of you.

[NUMBER BOX, RANGE: 0-999999]

Q29 You have not had any medical expenses so far this year. You go in to an in-network hospital for 4 days to obtain surgery. The hospital stay for the surgery costs $100,000. How much will the hospital stay for the surgery cost you, personally?

$_____

[TEXT BOX, SHOW ON THE SAME SCREEN WITH Q29]

Q51 Is the question above difficult for you to answer? If so, please explain why.

Q31 In the plan, is preventive care covered 100% if you have not yet met your in-network deductible?

❍ Yes
❍ No
❍ I'm not sure (3)

Q33 In the plan, if you spend money out-of-pocket on in-network providers, does this spending count toward the deductible for out-of-network providers?

❍ Yes
❍ No
❍ I'm not sure (3)

]

Q39 Which of the following features of the plan do you feel you understand or do not understand

	Definitely don't understand (1)	Think I don't understand (2)	Think I understand (3)	Definitely do understand (4)
Copay (1)	○	○	○	○
Deductible (2)	○	○	○	○
Out of pocket maximum (3)	○	○	○	○
Coinsurance values (4)	○	○	○	○
How much preventive care costs (5)	○	○	○	○
In-network versus out-of-network distinction (6)	○	○	○	○
How the in-network and out-of-network deductibles work (7)	○	○	○	○
How the in-network and out-of-network out-of-pocket maximums work (8)	○	○	○	○
How much advanced imaging will cost if I get it in-network or out-of-network (9)	○	○	○	○
How the individual and family deductibles work (10)	○	○	○	○
What medical services will and will not be covered, and how much will be covered (11)	○	○	○	○

[TEXT BOX]

Q60 Now that you have familiarized yourself with this insurance plan (by trying to answer our questions), please tell us what you like about the plan.

Q59 What do you not like about the plan?

Q58 Suppose there was a new insurance product that had no deductibles, and only fixed (copay) fees for different services. The plan still covers preventive services for free. Assuming that in the end you paid about the same total amount for medical care, would you prefer the plan you have been working with in this survey, or this new plan?

○ Strongly prefer existing plan (1)
○ Prefer existing plan (2)
○ No preference between them (3)
○ Prefer new (copay only) plan (4)
○ Strongly prefer new (copay only) plan (5)

Q64 Suppose this new plan eliminated the deductible, but had fixed copay fees that were 50% higher than the plan you just answered questions about. Again, assume that in the end you would pay about the same total amount in total. Would you prefer the plan you have been working with in this survey, or this new plan with copays 50% higher?

○ Strongly prefer existing plan (1)
○ Prefer existing plan (2)
○ No preference between them (3)
○ Prefer new (copay only) plan (4)
○ Strongly prefer new (copay only) plan (5)

Q106 Suppose there were two plans. One plan allows you to go out of network for any service, but there is a $5,000 deductible for out of network services (you pay the first $5,000 of out of network costs) and 50% coinsurance on out of network expenses (you pay 50% of all costs over and beyond the deductible). The other plan does not offer out of network benefits (you pay 100% of any service you get out of network, unless you are traveling and it is an emergency). The plan that does not offer out of network benefits has a monthly premium that is 10% less. Which plan would you prefer?

○ Strongly prefer plan that offers out of network benefits but costs 10% more (1)
○ Prefer plan that offers out of network benefits but costs 10% more (2)
○ No preference between them (3)
○ Prefer plan that does not offer out of network benefits but costs 10% less (4)
○ Strongly prefer plan that does not offer out of network benefits but costs 10% less (5)

Q95 Finally, some questions about you...

Q114 Overall, how would you rate your health?

❍ Poor (1)
❍ Fair (2)
❍ Good (3)
❍ Very good (4)
❍ Excellent (5)

Q115 What about the health of your least healthy family member who would be covered under the same insurance policy as you? How would you rate that person's health?

❍ Poor (1)
❍ Fair (2)
❍ Good (3)
❍ Very good (4)
❍ Excellent (5)
❍ No other family member covered under the same insurance policy (6)

Q121 Which of the following best describes how often someone in your family goes to the doctor or to a healthcare facility?

❍ Almost never (1)
❍ Once a year (2)
❍ A few times a year (3)
❍ Once a month (4)
❍ Once a week (5)
❍ More than once a week (6)

Q121a. Do you or any family members covered under the same insurance policy take a prescription drug on a daily basis?

❍ Yes
❍ No

Q76 In which country were you born?

❍ USA (1)
❍ Other (please specify) (2) _____

Q93 Please indicate your occupation:

❍ Unemployed (1)
❍ Retired (2)
❍ Management, professional, and related (3)
❍ Service (4)
❍ Sales and office (5)
❍ Farming, fishing, and forestry (6)
❍ Construction, extraction, and maintenance (7)
❍ Production, transportation, and material moving (8)
❍ Government (9)
❍ Other (10)

[TEXT BOX, IF Q93=3 TO 10]

Q94 If employed, what is your exact position?

Q86 Please indicate your current family structure.

❍ Single without children (1)
❍ Single with children (2)
❍ Married without children (3)
❍ Married with children (4)
❍ Life partner without children (5)
❍ Life partner with children (6)

PARTY7
SHOW PARTY1 IF XPARTY7 = 9 (MISSING).

PARTY1.   Generally speaking, do you think of yourself as a...

Republican...1
Democrat 2
Independent...3
Another party, please specify: _____ 4

No preference 5

ASK PARTY2 IF "REPUBLICAN" AT PARTY1.

PARTY2.   Would you call yourself a...

Strong Republican 1
Not very strong Republican 2

ASK PARTY3 IF "DEMOCRAT" AT PARTY1.

PARTY3.   Would you call yourself a...

Strong Democrat 1
Not very strong Democrat.................................2

ASK PARTY4 IF "INDEPENDENT", "ANOTHER PARTY", OR "NO PREFERENCE" OR SKIP AT PARTY1.

PARTY4.   Do you think of yourself as closer to the...

Republican Party 1
Democratic Party 2

Q43 Thank you for completing this survey! Please write any comments/reactions you have for us in the box below

Survey 2: Insurance-contingent decisions

[SCREENING QUESTIONS]

[SP, IF SKIP, PROMPT]

S1. Are you the primary or shared decision maker for yourself and/or family's healthcare? (you do not need to be the policyholder)

◯ Yes
◯ No

[SP, IF SKIP, PROMPT]

S2. Do you/your family have health insurance through your or a family member's employer?

Yes

No

IF S1=YES AND S2=YES, CONTINUE, OTHERS TERMINATE.

DOV: PLAN

1: PLAN T

2: PLAN S

DOV: GROUP

1: SHOW PLAN T FIRST (FROM Q1 TO Q109: PLAN="PLAN T", FROM Q69 TO Q125: PLAN="PLAN S")

2: SHOW PLAN S FIRST (FROM Q1 TO Q109: PLAN="PLAN S", FROM Q69 TO Q125: PLAN="PLAN T")

[PROGRAMMING INSTRUCTION: RANDOMLY ASSIGNED THE RESPONDENT TO TWO GROUP (GROUP1: SHOW PLAN T FIRST, GROUP2: SHOW PLAN S FIRST)

[DISPLAY]

Q15 Dear respondent: We are interested in how people's insurance plans affect the medical decisions they make. We are going to show you two different insurance plans and, for each, ask you to imagine that it is your insurance plan. Then we will ask you to make various medical decisions, taking into

account how much the plan pays for different services.   Please do not access any outside information (e.g., on the web) when you answer these questions.

[DISPLAY]

We will first be asking you about the insurance plan below called **<PLAN>**. You will want to be able to refer back to this plan. We recommend that you make a copy of this plan now by clicking on PRINT below.   Also, in case you do not have access to a printer, the plan description will be available for you to review in a text box under each of the following questions about the plan.

This plan has a number of features, including deductibles, copays, out-of-pocket maximums, etc.. For the following questions, please assume that **<PLAN>** is your insurance plan.

[SHOW INSURANCE PLAN T OR PLAN S ON THE SAME SCREEN (IF GROUP=1, SHOW PLAN T; IF GROUP=2 , SHOW PLAN S), PUT A "PRINT" BUTTON AT BOTTOM OF THIS SCREEN SO THAT RESPONDENTS CAN PRINT OUT THE INSURANCE PLAN BY CLICKING THE "PRINT" BUTTON]

[PROGRAMMING INSTRUCTION: FOR THE FOLLOWING QUESTIONS, PLEASE SHOW A SCROLL-DOWN BOX AT BOTTOM OF EACH QUESTION SCREEN, SUCH THAT RESPONDENT CAN SCROLL DOWN THE BOX TO SEE THE WHOLE INSURANCE <PLAN>]

Q3 For this question, imagine that you have not had any medical expenses to date. You need to see a dermatologist for a spot on your back that you are worried about. Dr. H is a board-certified dermatologist who is in your insurance company's network. He is 10 miles away, and you don't know much about his reputation. Several friends of yours have highly recommended Dr. O, a dermatologist who is only 2 miles away, but is not part of your insurance plan's network. You know that both doctors charge $150 for an office visit. Please remember that your insurance plan is <PLAN> . Who will you make an appointment to see?

○ Definitely Dr. H. (1)
○ Probably Dr. H (2)
○ Not sure (3)
○ Probably Dr. O (4)
○ Definitely Dr. O (5)

Q98 In answering the previous question, did you take account of what you would end up paying, out of pocket, depending on what you chose to do?

○ Yes
○ No

Q99 How did your insurance plan affect your decision?

Q37 How difficult was it, or would it be, for you to understand how much you would have to pay if you went to the in-network versus the out-of-network dermatologist?

○ Very difficult (1)
○ Somewhat difficult (2)
○ Not particularly difficult (3)
○ Somewhat easy (4)
○ Very easy (5)

Q100 For this question, imagine that, on a Saturday, a mild ear-ache you had been experiencing suddenly turned extremely painful.   You want to get medical help, and need to decide whether to go to the Emergency Room (ER) or the Urgent Care clinic. The Urgent Care clinic is closer to your house. The ER is likely to have a substantially longer wait, but you are more confident that the ER will know how to handle the problem. Please remember that your insurance plan is <PLAN>. Where will you go?

○ Definitely ER (1)
○ Probably ER (2)
○ Not sure (3)
○ Probably Urgent Care (4)
○ Definitely Urgent Care (5)

Q101 In answering the previous question, did you take account of what you would end up paying, out of pocket, depending on what you chose to do?

○ Yes
○ No

Q102 How did your insurance plan affect your decision?

Q103 How difficult was it, or would it be, for you to understand how much you would have to pay if you went to the ER versus the Urgent Care clinic?

○ Very difficult (1)
○ Somewhat difficult (2)
○ Not particularly difficult (3)
○ Somewhat easy (4)
○ Very easy (5)

Q105 Suppose you went to your primary care physician, who told you that you have high blood pressure and should go on a blood pressure medication. He then prescribed a medication, and tells you that you should expect to be on it for a long time. You bring it to your pharmacy, and they tell you that there is a safe and popular generic drug that is not the same as the 'name-brand' drug your doctor prescribed, but performs the same function. He suggests that he's willing to call your physician's office while you wait. Please remember that your insurance plan is <PLAN>. Will you ask the pharmacist to call your physician?

○ Definitely will not ask (1)
○ Probably will not ask (2)
○ Not sure (3)
○ Probably will ask (4)
○ Definitely will ask (5)

Q105a What if the pharmacist did not offer to call your doctor, but offered to wait while you contacted your doctor. Would you call your doctor?

Select one answer only

○ Definitely will not call
○ Probably will not call
○ Not sure
○ Probably will call
○ Definitely will call

Q106 In answering the previous questions, did you take account of what you would end up paying, out of pocket, depending on what you chose to do?

○ Yes
○ No

Q107 How did your insurance plan affect your decisions?

Q108 How difficult was it, or would it be, for you to understand how much you would have to pay if you took the 'name-brand' drug your doctor recommended versus the generic alternative?

○ Very difficult (1)
○ Somewhat difficult (2)
○ Not particularly difficult (3)
○ Somewhat easy (4)
○ Very easy (5)

[DISPLAY]

Q69 Now, we will show you a different plan called **<PLAN>**. You will want to be able to refer back to this plan. We recommend that you make a copy of this plan now by clicking on PRINT below. Also, in case you do not have access to a printer, the plan description will be available for you to review in a text box under each of the following questions about the plan.

This plan has different payment amounts for different services. For the following questions, please assume that **<PLAN>** is your insurance plan.

[SHOW INSURANCE PLAN T OR PLAN S ON THE SAME SCREEN (IF GROUP=1, SHOW PLAN S; IF GROUP=2 , SHOW PLAN T), PUT A "PRINT" BUTTON AT BOTTOM OF THIS SCREEN SO THAT RESPONDENTS CAN PRINT OUT THE INSURANCE PLAN BY CLICKING THE "PRINT" BUTTON]

Q111 For this question, imagine that you have not had any medical expenses to date. You need to see a dermatologist for a spot on your back that you are worried about. Dr. H is a board-certified dermatologist who is in your insurance company's network. He is 10 miles away, and you don't know much about his reputation. Several friends of yours have highly recommended Dr. O, a dermatologist who is only 2 miles away, but is not part of your insurance plan's network. You know that both doctors charge $150 for an office visit. Please remember that your insurance plan is <PLAN>. Who will you make an appointment to see?

○ Definitely Dr. H. (1)
○ Probably Dr. H (2)
○ Not sure (3)
○ Probably Dr. O (4)
○ Definitely Dr. O (5)

Q112 In answering the previous question, did you take account of what you would end up paying, out of pocket, depending on what you chose to do?

○ Yes
○ No

[TEXT BOX, IF Q112=YES]

Q113 How did your insurance plan affect your decision?

Q114 How difficult was it, or would it be, for you to understand how much you would have to pay if you went to the in-network versus the out-of-network dermatologist?

○ Very difficult (1)
○ Somewhat difficult (2)
○ Not particularly difficult (3)
○ Somewhat easy (4)
○ Very easy (5)

Q116 For this question, imagine that, on a Saturday, a mild ear-ache you had been experiencing suddenly turned extremely painful.   You want to get medical help, and need to decide whether to go to the Emergency Room (ER) or the Urgent Care clinic. The Urgent Care clinic is closer to your house. The ER is likely to have a substantially longer wait, but you are more confident that the ER will know how to handle the problem. Please remember that your insurance plan is <PLAN>. Where will you go?

○ Definitely ER (1)
○ Probably ER (2)
○ Not sure (3)
○ Probably Urgent Care (4)
○ Definitely Urgent Care (5)

Q117 In answering the previous question, did you take account of what you would end up paying, out of pocket, depending on what you chose to do?

○ Yes
○ No

[TEXT BOX, IF Q117=YES]

Q118 How did your insurance plan affect your decision?

Q119 How difficult was it, or would it be, for you to understand how much you would have to pay if you went to the ER versus the Urgent Care clinic?

❍ Very difficult (1)
❍ Somewhat difficult (2)
❍ Not particularly difficult (3)
❍ Somewhat easy (4)
❍ Very easy (5)

Q121 Suppose you went to your primary care physician, who told you that you have high blood pressure and should go on a blood pressure medication. He then prescribed a medication, and tells you that you should expect to be on it for a long time. You bring it to your pharmacy, and they tell you that there is a safe and popular generic drug that is not the same as the 'name-brand' drug your doctor prescribed, but performs the same function. He suggests that he's willing to call your physician's office while you wait. Please remember that your insurance plan is <PLAN>. Will you ask the pharmacist to call your physician?

❍ Definitely will not ask (1)
❍ Probably will not ask (2)
❍ Not sure (3)
❍ Probably will ask (4)
❍ Definitely will ask (5)

Q121a What if the pharmacist did not offer to call your doctor, but offered to wait while you contacted your doctor. Would you call your doctor?

Select one answer only

○   Definitely will not call
○ Probably will not call
○   Not sure
○ Probably will call
○ Definitely will call

Q122 In answering the previous questions, did you take account of what you would end up paying, out of pocket, depending on what you chose to do?

○ Yes
○ No

[TEXT BOX, IF Q122=YES]

Q123 How did your insurance plan affect your decisions?

Q124 How difficult was it, or would it be, for you to understand how much you would have to pay if you took the 'name-brand' drug your doctor recommended versus the generic alternative?

○ Very difficult (1)
○ Somewhat difficult (2)
○ Not particularly difficult (3)
○ Somewhat easy (4)
○ Very easy (5)

[PROGRAMMING INSTRUCTION: FOR Q73 TO Q126, PLEASE SHOW A SCROLL-DOWN BOX AT BOTTOM OF EACH QUESTION SCREEN, SUCH THAT RESPONDENT CAN SCROLL DOWN THE BOX TO SEE WHOLE INSURANCE PLAN T AND PLAN S, IF GROUP=1, SHOW "PLAN T" FIRST, IF GROUP=2, SHOW "PLAN S" FIRST]

[DISPLAY]

Q73 Now, we'd like to ask you to compare the two plans you have seen.

[SLIDER SCALE. FROM -5 TO 5, INCREMENT: 1]

[DO NOT SHOW NUMBER OR TICK MARK] [CURSOR START AT LEFT (-5)]

[IF GROUP=1, SHOW "PLAN T" ON THE LEFT, IF GROUP=2, SHOW "PLAN S" ON THE LEFT]

[Prompt if skip: You did not move the slider. If you would like to move the slider, please do so now. If you would like to leave the slider in its current position, please continue]

Q74 Which of the two plans do you prefer?
Use the slider below to place your answer.

Prefer <PLAN>   No Preference   Prefer <PLAN>

_____

[SLIDER SCALE. FROM -5 TO 5, INCREMENT: 1]

[DO NOT SHOW NUMBER OR TICK MARK] [CURSOR START AT LEFT (-5)]

[IF GROUP=1, SHOW "PLAN T" ON THE LEFT, IF GROUP=2, SHOW "PLAN S" ON THE LEFT]

[Prompt if skip: You did not move the slider. If you would like to move the slider, please do so now. If you would like to leave the slider in its current position, please continue]

Q77 Which of the two plans do you think is easier to understand?

Use the slider below to place your answer.

Easier with <PLAN>   No Preference   Easier with <PLAN>

_____

[SLIDER SCALE. FROM -5 TO 5, INCREMENT: 1]

[DO NOT SHOW NUMBER OR TICK MARK] [CURSOR START AT LEFT (-5)]

[IF GROUP=1, SHOW "PLAN T" ON THE LEFT, IF GROUP=2, SHOW "PLAN S" ON THE LEFT]

[Prompt if skip: You did not move the slider. If you would like to move the slider, please do so now. If you would like to leave the slider in its current position, please continue]

Q75 Which plan makes it easier to make medical decisions that take account of the costs you would incur for different services?

Use the slider below to place your answer.

Easier with <PLAN>   No Preference   Easier with <PLAN>

_____

[DISPLAY]

Q78 Now we would like you to figure out how much a specific medical service will cost you under the two plans.

[DISPLAY]

Q80 You have personally incurred $2,000 in out-of-pocket medical expenses this year. You go in to an in-network hospital for 4 days. The hospital stay costs $100,000.

[NUMBER BOX, RANGE: 0-999999, SHOW ON THE SAME SCREEN WITH Q80; SHOW BEFORE Q82 IF GROUP=1]

Q81 If you had Plan T, how much would the hospital stay cost you personally?

$_____

[only show Plan T in the scrollable box]

[NUMBER BOX, RANGE: 0-999999, SHOW ON THE SAME SCREEN WITH Q80; SHOW BEFORE Q81 IF GROUP=2]

Q82 If you had Plan S, how much would the hospital stay cost you personally?

$_____

[only show Plan S in the scrollable box]

[SLIDER SCALE. FROM -5 TO 5, INCREMENT: 1]

[DO NOT SHOW NUMBER OR TICK MARK] [CURSOR START AT LEFT (-5)]

 [IF GROUP=1, SHOW "PLAN T" ON THE LEFT, IF GROUP=2, SHOW "PLAN S" ON THE LEFT]

Q84 For which plan was it easier to make this calculation?

Use the slider below to place your answer.

Easier with <PLAN>   No Preference   Easier with <PLAN>

_____

[SLIDER SCALE. FROM -5 TO 5, INCREMENT: 1]

[DO NOT SHOW NUMBER OR TICK MARK] [CURSOR START AT LEFT (-5)]

 [IF GROUP=1, SHOW "PLAN T" ON THE LEFT, IF GROUP=2, SHOW "PLAN S" ON THE LEFT]

Q83 Having made the calculation, which of the two plans do you prefer?

Use the slider below to place your answer.

Prefer <PLAN>   No Preference   Prefer <PLAN>

_____

[TEXT BOX]

[IF Q83 ~=0 (no preference)]

Q126 Why do you prefer the plan you prefer?

Q126a For the next few questions, please refer back to Plan S (PROGRAMMING NOTE: SHOW PLAN S). Imagine a modification of Plan S, where the monthly premium for this plan would be $5 higher, but the copays are lower, and the copays for the following services would be reduced as described below:
• 	The copay for a visit to your primary care doctor would be reduced from $35 to $25
• 	The copay for a visit to a specialist would be reduced from $60 to $55
• 	The copay for a visit to an urgent care facility would be reduced from $100 to $75
• 	The copay for a visit to the emergency room would be reduced from $375 to $250
• 	The copay for an inpatient stay would be reduced from $700/day to $350/day

- The copay for outpatient surgery would be reduced from $700 to $350

Which pricing structure do you prefer?

○ The pricing structure in the current Plan S
○ The pricing structure presented above with a higher premium but lower copays

[PROGRAMMING NOTE: SHOW PLAN S]
Q126b Now imagine a different modification of Plan S, where the monthly premium for this plan would be $5 lower, but the copays are higher, and the copays for the following services would increase as described below:
- The copay for a visit to your primary care doctor would increase from $35 to $45
- The copay for a visit to a specialist would increase from $60 to $75
- The copay for a visit to an urgent care facility would increase from $100 to $125
- The copay for a visit to the emergency room would increase from $375 to $500
- The copay for an inpatient stay would increase from $700/day to $1000/day
- The copay for outpatient surgery would increase from $700 to $1000

Which pricing structure do you prefer?

○ The pricing structure in the current Plan S
○ The pricing structure presented above with a lower premium but higher copays

[DISPLAY]

Q88 Finally, some questions about you...

Q129 Overall, how would you rate your health?

○ Poor (1)
○ Fair (2)
○ Good (3)
○ Very good (4)
○ Excellent (5)

Q131 What about the health of your least healthy family member who would be covered under the same insurance policy as you. How would you rate that person's health?

- ○ Poor (1)
- ○ Fair (2)
- ○ Good (3)
- ○ Very good (4)
- ○ Excellent (5)
- ○ No other family member covered under the same insurance policy (6)

Q132 Which of the following best describes how often someone in your family goes to the doctor or to a healthcare facility?

- ○ Almost never (1)
- ○ Once a year (2)
- ○ A few times a year (3)
- ○ Once a month (4)
- ○ Once a week (5)
- ○ More than once a week (6)

Q132a Do you or any family members covered under the same insurance policy take a prescription drug on a daily basis?

- ○ Yes
- ○ No

Q98 In which country were you born?

- ○ USA (1)
- ○ Other (please specify) (2) _____

Q100a Please indicate your occupation:

○ Unemployed (1)
○ Retired (2)
○ Management, professional, and related (3)
○ Service (4)
○ Sales and office (5)
○ Farming, fishing, and forestry (6)
○ Construction, extraction, and maintenance (7)
○ Production, transportation, and material moving (8)
○ Government (9)
○ Other (10)

[TEXT BOX, IF Q100a=3 TO 10]

Q102a If employed, what is your exact position?

Q104a Please indicate your current family structure.

○ Single without children (1)
○ Single with children (2)
○ Married without children (3)
○ Married with children (4)
○ Life partner without children (5)
○ Life partner with children (6)

PARTY7
SHOW PARTY1 IF XPARTY7 = 9 (MISSING).

PARTY1.   Generally speaking, do you think of yourself as a...

Republican..1
Democrat 2
Independent...3
Another party, please specify: _____ 4
No preference...5

ASK PARTY2 IF "REPUBLICAN" AT PARTY1.

PARTY2.   Would you call yourself a...

                                                    Strong Republican 1
                                                    Not very strong Republican 2

ASK PARTY3 IF "DEMOCRAT" AT PARTY1.

PARTY3.   Would you call yourself a...

                                                    Strong Democrat 1
                                                    Not very strong Democrat.................................2

ASK PARTY4 IF "INDEPENDENT", "ANOTHER PARTY", OR "NO PREFERENCE" OR SKIP AT PARTY1.

PARTY4.   Do you think of yourself as closer to the...

                                                    Republican Party 1
                                                    Democratic Party 2

Q43 Thank you for completing this survey! Please write any comments/reactions you have for us in the box below.

Self-perceived understanding of insurance concepts; Comprehension Survey

	Think or certain they understand
Deductible	95%
copay	94%
coinsurance	51%
MOOP	84%
Cost of preventive care	85%
In-network versus out-of-network distinction	86%
How in-network and out-of-network MOOPS work	65%
How the in-network and out-of-network deductibles work	73%
How much advanced imaging will cost in- and out-of-network	73%
How the individual and family deductibles work	80%
What medical services will and will not be covered	76%