Asking Women to See Nurses or Unfamiliar Physicians as Part of Primary Care Redesign

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Abstract

Objective: **To gauge women's flexibility about seeing a nurse or an unfamiliar physician, to assess their interest in telephone visits, and to identify the characteristics of women who are least flexible.**

Study Design: **Telephone surveys, focus groups, and in-person interviews with women.**

Patients and Methods: **A random, demographically stratified sample of 1500 English-speaking female members of a health maintenance organization (ages 18-80 years) completed a 20-minute telephone survey (with a 72% response rate). A random subgroup of 500 women were asked about care preferences during acute illness and routine visit scenarios. Women (n = 242) from the full sample with a chronic illness were asked about their openness to telephone visits and care managers. Qualitative information was gathered from 10 focus groups and 75 in-person interviews.**

Results: **Most women (72%) were open to seeing a different physician for a minor acute illness, but they were less so (35%) for a routine checkup. If their physician was not available, the majority said they would be willing to see a registered nurse for the flu (72%) or a nurse–practitioner for a checkup (64%). Half (59%) of the chronically ill women were comfortable with telephone visits, and one third (37%) were "very interested" in care managers. Across scenarios, approximately one third of the women were strongly committed to seeing only their regular physician. They were more likely to be middle-aged or older, to have lower health plan satisfaction and perceived coordination of care, and to recall rude encounters with clinicians.**

Conclusion: **The flexibility of most women regarding redesigned models of healthcare is encouraging. More attention needs to be paid, however, to education of women about multidisciplinary roles, enhancement of coordination of care, and customization of care to match patients' preferences.**

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In an environment of growing quality and cost pressures, healthcare leaders are rethinking how and by whom primary care services are delivered.[1-5] This study explores women's reactions to primary care redesign options, including their openness to seeing nurses and physicians (other than their regular physician) who work on the same healthcare team.

The redesign of primary care from a solo practitioner model to a multidisciplinary team model offers several advantages.[3,6-8] First, when patients are able to see any one of several physicians who work closely together, delays and bottlenecks in appointment scheduling and access are substantially reduced.[9] Second, because at least 1 in 4 medical visits do not require a physician's expertise,[10] patients often can be matched with a more appropriate and less costly multidisciplinary clinician.[3,8] In many

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cases, specially trained clinicians are equally or better prepared than physicians to address common patient issues, such as health educators for lifestyle changes,[8] nurse–practitioners (NPs) for routine acute health problems,[11-15] nurses for adherence problems,[16-18] and psychologists for psychosocial concerns.[3,19-21] Third, studies of multidisciplinary teams in Great Britain, the Veteran's Affairs medical system, and elsewhere have shown that well-coordinated teams can improve health outcomes, especially for chronically ill patients, who account for the vast majority of utilization.[6,8,22,23]

Nevertheless, it is unclear whether these changes in care delivery might unintentionally interfere with the benefits of a consistent relationship with a primary physician. Studies have found that patients are more satisfied with a medical visit[24,25] and more likely to share in medical decisions[26-29] when they see their regular physician. Patients who see the same physician for many years and establish positive rapport, trust, and good communications are more likely to adhere to recommended medication regimens, be satisfied with their care, enjoy better health outcomes, and have lower utilization and costs.[18,24,30,31] Patients who switch or are forced to change providers are more likely to suffer problems associated with poor coordination.[32,33]

It is also unclear how patients and health plan members will react to new primary care systems and providers. With the so-called "consumer revolution" impacting healthcare and other industries,[34-37] assessing the public's preferences and addressing their concerns must be a central part of care redesign. Donald Berwick has argued that in the ideal redesign process "the customer is a partner, a co-architect of the future, and welcome at our table."[38] Yet, outside of patient satisfaction surveys[25,39-44] or asking patients to share in specific treatment decisions,[45-49] patients' preferences about how care is delivered rarely have been studied. In healthcare, getting the input of women is especially important, because women play a primary role in coordinating care for their families[50-52] and account for most inpatient and outpatient utilization.[53-55]

This study consisted of a telephone survey asking a representative sample of female members of Kaiser Permanente (KP) in Northern California about their preferences for seeing either a nurse or an unfamiliar physician if their regular physician was not available. We examined these preferences in both acute and routine care scenarios. We also asked a sample of female members with one or more chronic illnesses whether they would be interested in being assigned a care manager or would accept a telephone visit with their physician instead of an in-person visit. The results include a quantitative description of different preferences, as well as qualitative feedback on these issues gathered through focus groups and interviews with women during medical visits.

··· METHODS ···

Telephone Survey

In July 1998, 1500 English-speaking women (ages 18-80 years) enrolled in KP's 2.9 million-member health maintenance organization (HMO) in Northern California were interviewed by female professional interviewers for approximately 20 minutes over the telephone. This study focuses on subsamples (described below) drawn from this 1500-person survey. Calls were made at random from a list of current KP members. The structured surveys consisted of closed-ended questions with forced-choice responses. Wording was developed based on input from preliminary focus groups with members and clinicians, as well as 5 pilot drafts of the survey. The full survey is available from the authors on request.

The interviews were stratified to ensure that the sample was representative of the overall KP membership in terms of age, ethnicity, and distribution across 6 geographic areas of our region. Up to 10 calls were made to each randomly selected phone number. Of the total number of women reached by phone, 72% agreed to participate. This rate is equal to or higher than that reported in most surveys.[46,56,57] Most participants did not receive payment for the interviews. However, in order to optimize the response rate, 315 women who initially refused the interview were called back and offered a $10 incentive to participate. As a result, 250 survey participants were women who initially refused but then completed the survey after receiving a follow-up call and an incentive payment. There were no significant demographic differences or differences in survey responses between final participants and interview refusers.

This study focused on 2 subsamples from the full 1500-member survey. First, a random subsample of 500 members were asked questions regarding preferences for care delivery. The demographic characteristics of this sample closely match the overall membership and are listed in Table 1. This sample also reflects the generally high member satisfaction and retention of KP. The 95% confidence intervals

for most questions were approximately ±4%. The second sample consisted of 242 women from the full 1500-woman sample who self-reported that they had one or more of the following chronic conditions: arthritis, cancer, diabetes, heart disease, congestive heart failure, high blood pressure, or hyperlipidemia. Demographic characteristics of this subgroup also are listed in Table 1.

Data Analysis

After descriptive analysis of women's reactions to the scenarios, reactions were also cross-tabulated with demographic, self-reported health, health plan satisfaction, and care experience subgroups (listed in Tables 1 and 2). Chi-square analysis ($P < .01$) was used to identify significant subgroup variations in reaction. To examine possible interaction effects among subgroups, we used CHAID (Chi-squared Automatic Interaction Detector) (SPSS, Inc., Chicago, IL) analysis. CHAID is a relatively new statistical package used to divide a population into segments that differ significantly in respect to a designated criterion or outcome. CHAID begins by dividing a population into two or more distinct groups based on the variable (eg, age, health plan satisfaction) that best or most significantly differentiates the outcome

Table 1. Sample Demographics

	Percent	
Patient Characteristics	**Women in General Sample (n = 500)**	**Chronically Ill Women (n = 242)**
Age (y)		
18-24	8	5
25-34	16	8
35-44	24	14
45-54	26	26
55-64	10	14
65-80	16	33
Ethnicity		
Caucasian	62	62
African American	8	10
Hispanic	15	11
Asian	12	17
Mixed race	3	0
Marital status		
Married	65	60
Not married	35	40
Education		
Less than high school	7	6
High school	19	30
College	61	51
Postgraduate	13	13
Income		
Under $20,000	14	18
$20,000-$39,000	27	28
$40,000-$59,000	22	22
$60,000-$74,000	14	12
$75,000-$100,000	13	12
Over $100,000	10	8
Health status		
Excellent	23	11
Very good	39	36
Good	25	29
Fair	11	20
Poor	2	4
Health plan satisfaction		
High (8-10 rating)	60	62
Medium (5-7 rating)	34	32
Low (1-4 rating)	6	6
Years in health plan		
Less than 3	8	6
3-5	7	7
> 5-10	16	14
> 10-20	28	26
> 20+	41	47

variable (eg, preference to see a physician vs a nurse). It then splits each of these groups into smaller subgroups based on other predictor variables. This splitting process continues until no more statistically significant predictors ($P < .01$) can be found. The segments that CHAID identifies are mutually exclusive and exhaustive. In other words, the segments do not overlap and every member of the population belongs to only one segment.

Qualitative Feedback

We discussed care delivery options with 10 focus groups of women and 75 women via in-person interviews (from July to September 1998) as a way to collect in-depth qualitative feedback. The focus groups

Table 2. Differences in Patient Flexibility Regarding Providers by Age, Health Plan Satisfaction, and Care Experience*

	Percent, Given an Acute Illness Scenario		Percent, Given a Routine Checkup Scenario	
Patient Characteristics	**Women Who Must See Their Regular MD (Not an Unfamiliar MD)**	**Women Who Must See an MD (Not an RN)**	**Women Who Must See Their Regular MD (Not an Unfamiliar MD)**	**Women Who Must See an MD (Not an NP)**
Age (y)				
Under 25	21	18	40	21
25-34	34	26	58	28
35-44	21	22	59	31
45-54	28	26	72	44
55-64	47	44	81	58
65+	23	33	65	31
	$\chi^2 = 14.5$ ($df = 5$), $P < .05$	$\chi^2 = 11.5$ ($df = 5$), $P < .05$	$\chi^2 = 16.4$ ($df = 5$), $P < .01$	$\chi^2 = 20.6$ ($df = 5$), $P < .001$
Overall health plan satisfaction				
High (8-10 rating)	26	27	60	31
Medium (5-7 rating)	31	26	70	42
Low (1-4 rating)	33	56	78	48
	$\chi^2 = 1.3$ ($df = 2$), NS	$\chi^2 = 10.4$ ($df = 2$), $P < .01$	$\chi^2 = 5.9$ ($df = 2$), $P < .05$	$\chi^2 = 6.6$ ($df = 2$), $P < .05$
Staff or clinician rudeness in past 2 years†				
Experienced rudeness	30	33	76	45
No rudeness	27	26	60	33
	$\chi^2 = .5$ ($df = 1$), NS	$\chi^2 = .1$ ($df = 1$), NS	$\chi^2 = 6.9$ ($df = 1$), $P < .01$	$\chi^2 = 3.9$ ($df = 1$), $P < .05$
Care coordination‡				
Well coordinated	25	27	61	32
They forget	39	31	72	48
	$\chi^2 = 6.9$ ($df = 1$), $P < .01$	$\chi^2 = .5$ ($df = 1$), NS	$\chi^2 = 4.1$ ($df = 1$), $P < .05$	$\chi^2 = 7.1$ ($df = 1$), $P < .01$

MD = physician; RN = registered nurse; NP = nurse–practitioner; NS = not significant.
*The columns in this table represent 4 sets of options presented to participants (2 given an acute illness and 2 given the need for a routine visit). Each row represents the percentage of women in the particular subgroup who picked the option listed in the column heading. The chi-square tests compare those picking the option versus those picking the opposing option.
†Rudeness question: "Has a doctor, nurse, medical assistant, or other staff person at Kaiser said something to you that was rude, insensitive, or made you feel uncomfortable in the past 2 years?"
‡Coordination question: "When you go to see Kaiser doctors, do you feel like they are keeping track of the medications or treatments you need or does it seem like they forget your healthcare needs and what happened at earlier visits?"

included 3 general population groups of mixed age and ethnicity; 3 separate focus groups with young, middle-aged, and older women; and 4 ethnic/cultural focus groups (with African-American women, primarily Spanish-speaking women, primarily Cantonese-speaking women, and lesbian/bisexual women). Focus groups included 8 to 10 participants, resulting in a total of 92 female participants.

We also conducted 75 "experiential" interviews, in which women were interviewed by telephone the night before a medical visit and then interviewed inperson before and after their medical visit. The female interviewers used a semistructured interview schedule to capture members' experiences, impressions, and opinions during either a routine gynecology visit (n = 27) or a routine medical visit (n = 48) at 6 medical centers. Ninety percent of the women invited at random from appointment schedules agreed to participate.

The goals of the qualitative methods were (1) to test whether members had similar reactions in the less formal contexts of focus groups and visit interviews and (2) to include open-ended responses to illustrate the alternative points of view described in the survey. Additional information on the methods and results are available from the authors.

··· RESULTS ···

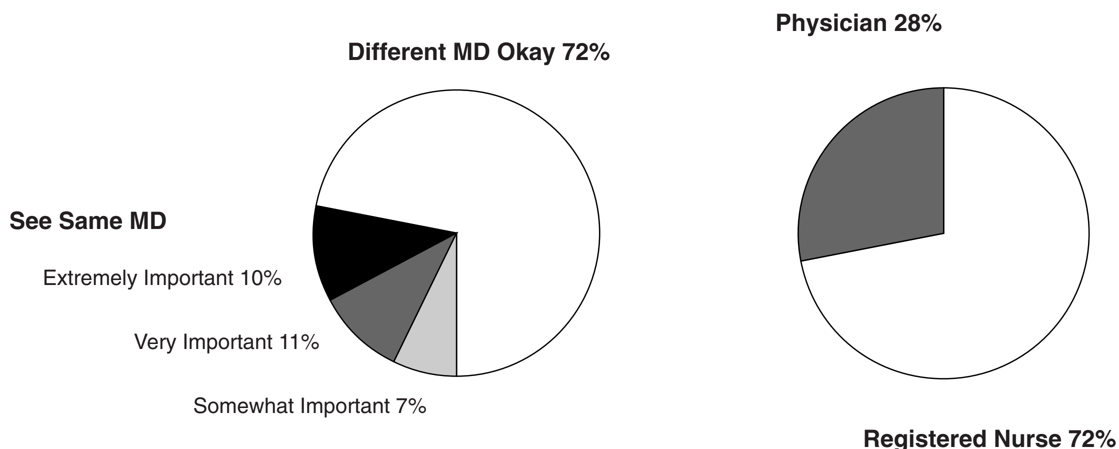
Women's Role in Healthcare Decisions

Most women had been in for a medical visit in the past year (92%), and over half (59%) had taken a family member to a medical appointment in the past year. One in five women (21%) said she regularly took care of a family member or friend who had an ongoing health problem or disability. Of married women, 69% said they kept track of their spouse's appointments and screening tests. In our membership, most women were either the primary decision maker about health plan choice (54%) or shared this responsibility equally with a spouse or family member (38%). In fact, only 8% said someone else was the primary decision maker.

Figure 1. Preferences for an Acute Visit When Sick With the Flu or a Sore Throat

Would it be important for you to see your regular doctor or would it be okay for you to see a *different* doctor who works closely with your doctor on the same healthcare team? (n = 500)

Imagine that your regular doctor's schedule is filled up. The appointment clerk offers to schedule an appointment with a *registered nurse*. Would you see the nurse who is specially trained to help with flus or would you ask to see a physician instead? (n = 492)



Knowledge of Nurse–Practitioners

Over half (59%) of the women surveyed said they knew the difference between an NP and a registered nurse (RN) in terms of education and responsibilities. The remaining either did not know the difference (30%) or had never heard of an NP (11%). College-educated women were significantly more likely to say they understood an NP's role and education (66%) than were women with a high school education or less (44%) (χ^2 = 37.98 [*df* = 1], $P < .001$). A substantial number of women, especially those who were not native English speakers, thought an NP had less education than an RN, concluding that the NP was still "practicing." Participants were read a brief definition of RN and NP roles to ensure a common definition for the following care scenarios.

Acute Versus Routine Visits

When asked whether "in general, is seeing your *same* doctor *every visit* important or not important to you," the vast majority of women said it was either very important (73%) or somewhat important (16%), with only 11% saying it was not important. To explore whether this preference might vary depending on the situation, we asked women to consider 2 specific scenarios.

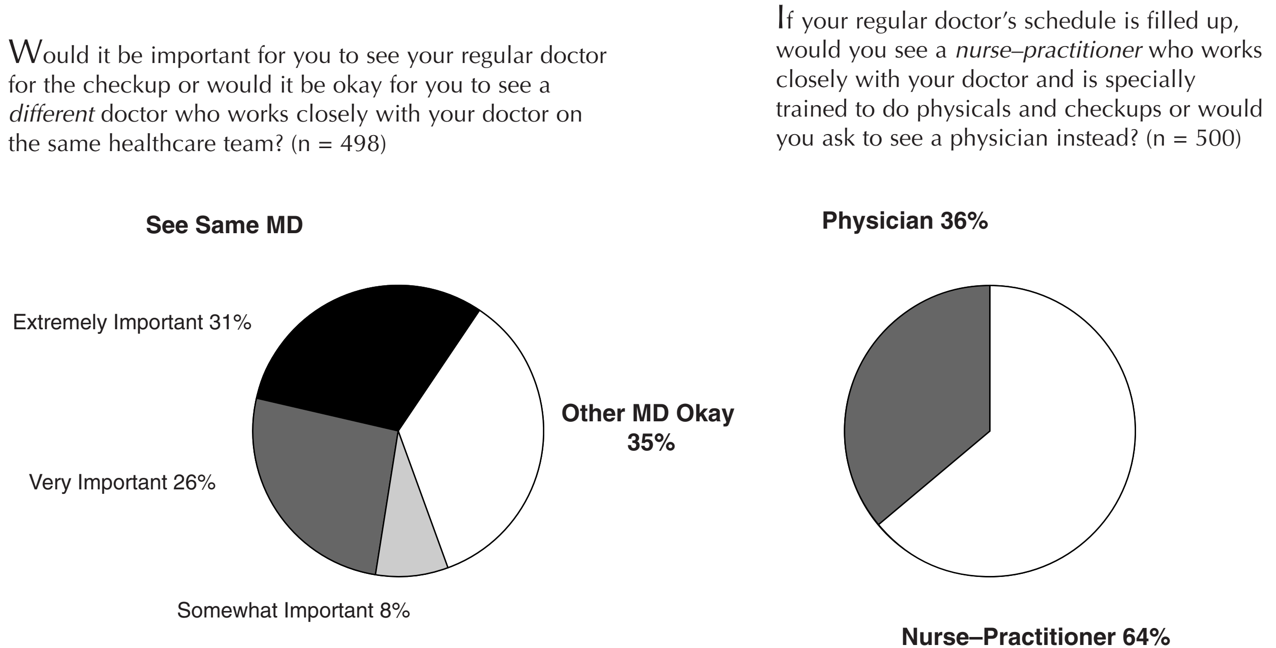
As outlined in Figure 1, if faced with the flu or a sore throat, most women (72%) said they would be comfortable with a different doctor (working on the same team as their regular doctor), and most (72%) would accept seeing a specially trained RN. In contrast, most women (65%) preferred to see their regular physician for a checkup or routine visit, with only one third (35%) open to seeing another physician (Figure 2). Yet if their physician was not available, most (64%) were open to seeing an NP specially trained to do checkups.

Qualitative Feedback

We presented the same scenarios to 10 focus groups of women and discussed them indepth with 75 women as part of experiential interviews during routine medical visits. We also asked broader questions about the possibility of seeing multidisciplinary clinicians (behavioral medicine specialist, health educator, physical therapist) in primary care in addition to or instead of a traditional physician visit.

The experiential interviews allowed us to test reactions within the context of a specific medical

Figure 2. Preferences for a Routine Checkup Including a Brief Physical Exam and Review of Medications



visit. Half of the women (39/75) said they would have been comfortable seeing a different physician, rather than their regular physician, for their current visit. When interviewers described the possibility of seeing multidisciplinary clinicians, one third (23/75) of the women said that seeing a health educator, behavioral medicine specialist, or physical therapist would have been helpful for their current visit.

In both the focus groups and the experiential interviews, women's reactions were divided into 3 points of view: (1) women who were very open to a multidisciplinary team model and did not think it was necessary to see their regular physician, or any physician for that matter; (2) women who were open to multidisciplinary care and somewhat flexible in seeing other physicians but still wanted a connection with their personal physician; and (3) women who were strongly committed to seeing regular physician(s) and would only see other clinicians in addition to, not instead of, their physician. Table 3 lists sample quotations from women with these different viewpoints.

Women With Flexible vs Traditional Preferences

Four factors, 1 demographic and 3 related to prior care experiences, significantly differentiated participants' flexibility. Table 2 presents the 4 scenario

Table 3. Comments About Multidisciplinary Team Care

Women Very Open to Seeing Different MDs and Multidisciplinary Team Clinicians	Women Open to Multidisciplinary Care but Who Want Connection to Their MD	Women Committed to Traditional Solo Practitioner Model
"Any doctor is okay…whoever can get my needs met soonest."	"I'd like to see a behavioral medicine person to talk about how my emotions are affecting my blood pressure."	"If I don't see my regular doctor, I'll just get the runaround and have to come back."
"The nurse–practitioner is able to spend more time with me than my doctor."	"If the nurse tells me to drop units of insulin, I'll still call and check with the doctor."	"My regular doctor knows my history. I'm comfortable with her."
"If I'm sick just take care of me. I trust you to make sure I'm seeing somebody that's qualified."	"It really depends on the person. There are some nurses and social workers I trust more than doctors."	"I had an appointment with my doctor, but ended up seeing a nurse–practitioner. I didn't like that. I wanted to hear what was going on from my doctor."
"Nurses are more likely to have women's health issues in mind."	"I like this [team] idea, but I'm assuming the doctor is going to keep up with all the pieces and know the big picture."	"I don't want just hello and goodbye from my doctor. When I go [to my doctor] I usually have a serious problem."
"I haven't seen my doctor in a long time. I always see a nurse. That's fine with me."	"If nurses and others can get everything in line first, my visit with my doctor can go a lot faster."	"The concept is great. It all depends on how it's executed. The clinic usually can't make sure my chart is there. Am I suppose to believe they can get my chart and information to 3 different people?"
"HMOs are middle-cost healthcare. I know I can't always see expensive doctors."	"It all depends on if they [the doctor(s)] know what's going on."	"This [team approach] sounds like way too much waiting for me."
"I'm just worried you are going to limit how often I can see this behavioral medicine person or the health educator. I bet they're going to be very busy."	"Kaiser needs to really listen to me when I say "this time I need to spend 10 minutes with my doctor." Other times I may say "2 minutes is fine."	"A few minutes is not going to be enough time for me with my doctor… Ten minutes right now isn't enough, but it's 3 times as much as what you're talking about."
"When I have a problem. I want to see somebody. Whoever can help. The faster the better!"	"I'm fine going directly to the team member first. I don't need to go through my doctor. But I want to end it all up with my doctor."	"I'd have to see it in action for a while before I'd want to try it. Let the younger people be the guinea pigs."
"People worry way too much about waiting to see their regular doctor…like this person is magic."	"What if I don't like the doctors on the team? I'd want to pick a few doctors and nurses that I prefer to see."	"This new system sounds like I'll only see my doctor when things are really, really bad."
"I'd especially like it if I can create my own team. Right now I could see one of any 100 doctors. If you narrow that down to 4, that's great."	"I can see this [model working] for certain types of visits, like seeing a physical therapist for back pain, as long as it's not for every visit."	
"If I want to talk about diet and exercise, I don't want to see a doctor. They don't know much about that."		

Figure 3. Subgroup Differences in Openness to Seeing a Different or Unfamiliar Physician for a Checkup

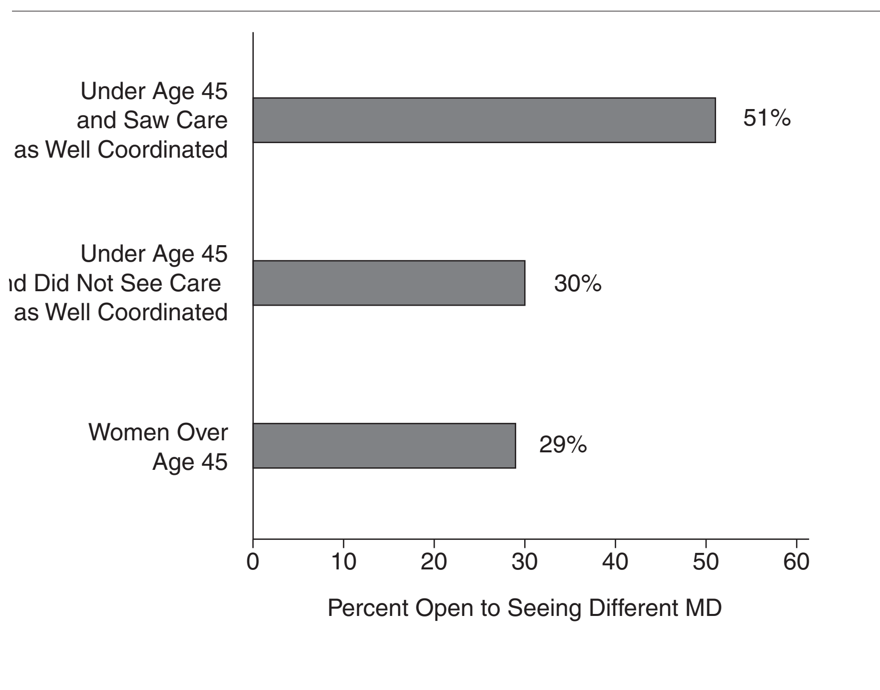
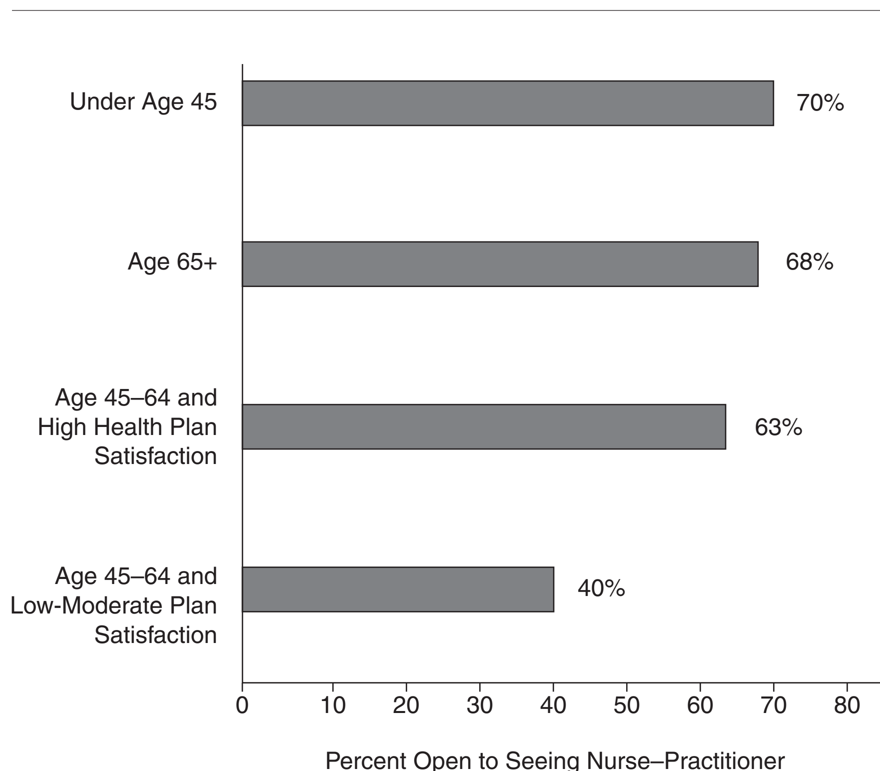


Figure 4. Subgroup Differences in Openness to Seeing a Nurse–Practitioner for a Checkup



options (listed in columns) and the percentage of women in the demographic and care experience subgroups (listed in rows) who insisted on seeing their regular physician or a physician rather than a nurse. First, across all scenarios, older women (especially those age 55-64 years) stood out as being least open to seeing an unfamiliar physician or seeing either an RN or NP. Next, in 3 of the 4 scenarios, lack of flexibility was related to having low overall health plan satisfaction and perceiving that care was poorly coordinated (ie, those women agreed with the statement, "It seems like they [Kaiser doctors] forget my healthcare needs and what happened at earlier visits"). Finally, women who said "a doctor, nurse, medical assistant, or staff person at Kaiser said something to me that was rude, insensitive, or made me feel uncomfortable in the past 2 years" were significantly less likely to be open to seeing an unfamiliar physician or NP in the checkup scenario. Other factors (education, ethnicity, income, health status, length of membership, history of seeing an NP for a medical visit, whether or not women see a regular physician) did not differentiate preferences.

Taken together, these small but statistically significant trends point to a cluster of characteristics (middle to older age, low satisfaction, not seeing care as well coordinated, and recalling rude encounters with clinicians and staff) that may lead

women to be more cautious about seeing an unfamiliar physician or nonphysician providers. For the routine checkup scenario (but not the acute illness scenario), we also noted interaction effects among factors that further heightened individual differences in flexibility.

As outlined in Figure 3, openness to seeing an unfamiliar physician differed by age (χ^2 = 11.4 [*df* = 1], $P < .01$) and, among women under age 45, by perceived coordination of care (χ^2 = 9.9 [*df* = 1], $P < .01$). Women were most likely to be open to seeing an unfamiliar physician for a checkup if they were under age 45 and saw care as well coordinated (51% open) and least likely to be flexible if they were over age 45 (29%) or under age 45 but did not see care as well coordinated (30%).

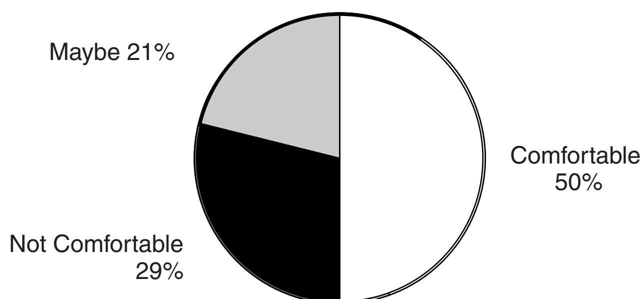
As outlined in Figure 4, openness to seeing an NP for a checkup differed by age group (χ^2 = 16.6, [*df* = 2], $P < .01$), and, among women age 45-64, by levels of health plan satisfaction (χ^2 = 9.8 [*df* = 1], $P < .01$). Taken together, women under age 45 were most open to seeing an NP (70%), and women age 45-64 with low-moderate satisfaction were least likely to be open to seeing an NP (40%).

Reactions to Disease Management Options

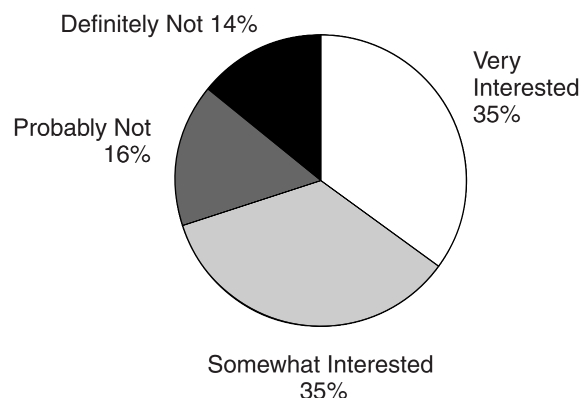
As outlined in Figure 5, women with one or more chronic conditions had mixed reactions to the option of having some medical visits by telephone or being assigned a care manager. Half (50%) of chronically ill women were comfortable with a telephone visit as it was described, and one third (35%) were "very interested" in being assigned to a care manager. Yet one half to two thirds were either ambivalent or not comfortable with these options. Table 4 lists sample quotations from women who discussed these options in focus groups or experiential interviews. No demographic or health factors differentiated women with different preferences, with one exception. Views of coordination of care and reactions to telephone visits were significantly related (χ^2 = 9.7 [*df* = 2], $P < .01$). Among women who saw their care as coordinated, two thirds (69%) were comfortable with telephone visits. In contrast, among women

Figure 5. Reaction to Disease Management Options in Women With One or More Chronic Diseases

Kaiser is planning to give patients with conditions like yours the choice of having some medical visits over the telephone rather than coming in for a visit. You could ask questions, talk about your medications or diet, and other issues. For something that required you to see your doctor in person, you would make an appointment, as usual. Would you feel comfortable having some of your medical visits over the telephone? (n = 242)



Kaiser offers a program where people with your condition are assigned a nurse or pharmacist who helps you plan and organize all areas of your care and helps coordinate the care you receive from different doctors or other professionals. This person is called a care manager. Is this something that would interest you? (n = 244)



who did not see their care as well coordinated, only half (47%) were fully comfortable with this option.

··· DISCUSSION ···

Although most women say it is important for them to see their regular physician at medical visits,[1] most women in our HMO study were willing to be flexible about which clinician they saw depending on the situation and context of the visit. In general, women were most likely to be open to seeing a different physician during a minor acute illness (flu or sore throat) and least likely to be open to seeing a different physician when the visit involved a routine checkup and medication review. If their physician was not available, two thirds of the women said they would be willing to see a nurse specially trained to treat the flu or an NP specially trained to do checkups.

This apparent flexibility is encouraging news for clinics and medical groups trying to reduce bottlenecks in access and shift some physician visits to more appropriate and less costly multidisciplinary clinicians. Similarly, medical groups and health plans implementing disease management systems may be encouraged by the fact that half of the chronically ill women in this survey were comfortable with having some visits over the telephone and one third were very interested in being assigned to a care manager.

Yet there was a significant subgroup of women (approximately one third across scenarios) who were firmly committed to seeing their regular physician every visit and did not want to see a nurse or NP. Feedback from the focus groups and experiential interviews suggested that these women were comfortable with multidisciplinary clinicians offering education and care to supplement their physician visit, but did not want this contact to be a substitute for a physician visit. The questions and concerns expressed about care managers, for example, may help explain why disease management programs have been frustrated by low participation rates.[8,58]

A limitation of this study is that these reactions were gauged by using hypothetical scenarios in one particular HMO. It will be important to follow up this study by examining men and women's reactions to provider choices in real clinical situations across a variety of capitated and fee-for-service health plans. Flexibility also should be tracked over time, because the openness we noted in this survey may decline over time if patients are repeatedly asked to see someone other than their regular physician. We also expect that flexibility will vary significantly across health plans. The estimates from this survey reflect the membership of a well-established staff-model

Table 4. Comments About Care Managers and Telephone Visits

Positive Reactions	Questions and Concerns
■ "A nurse may know more about your health than the doctor when it comes to diet and exercise."	■ "A care manager sounds like a middle man. I'll tell this person, then they'll tell the doctor. I'd rather tell the doctor myself."
■ "A care manager can make sure you are connected with programs and people like dietitians."	■ "If you want to talk to your heart nurse about your exercise or feeling woozy, that will be fine. But I'm worried that if I'm really sick, she won't bother talking with my doctor before telling me what to do."
■ "I sometimes have a hard time getting through to my doctor. Maybe this person can help me get more attention when I need it."	■ "It's not always obvious what the problem is. Why waste time explaining it to somebody other than your doctor."
■ "I have to involve my daughter more than I'd like. A case manager might keep me from having to call her all the time."	■ "My doctor knows all about my history. It's taken a long time to get there and I don't want to lose ground."
■ "It would be nice to have someone to call, even for little questions.… Yesterday my weight was off, and I wasn't sure whether I needed to take a diuretic."	■ "What may seem like a minor problem, like back pain, can be a symptom of something more serious. A doctor will know that."
■ "Telephone visits would be fine for me. Getting to the hospital and finding parking is a big hassle."	■ "I don't like it [telephone visits]. I'd feel too rushed over the phone."
■ "When I don't feel well, it's very hard for me to walk from my car to the clinic. I can do the same thing with my doctor over the phone most of the time."	■ "It's hard for me to hear my doctor when he's standing right in front of me. I probably couldn't hear him at all over the phone."

HMO with high member satisfaction and retention. To date, our HMO members have not been exposed to the models we discussed, because historically there have been few NPs in primary care and very limited application of a team model. Obviously, different contexts and populations may promote different reactions and preferences among patients. For example, we might expect health plans that emphasize greater choice among providers (eg, indemnity or preferred provider organizations) to face greater patient resistance to more flexible service models. Because in this study flexibility varied with age and health plan satisfaction, we would expect lower levels of flexibility in health plans with older and less satisfied members.

Study strengths include a high response rate and random-stratified sampling to ensure the telephone survey sample reflected the demographics of health plan membership. The study also benefited from using multiple methods to gather open-ended feedback and give voice to various points of view.

Taken together, the feedback from the women suggests several next steps for primary care redesign initiatives. First, programs need to inform members of the roles and qualifications of multidisciplinary clinicians. In this study, approximately half of the women without a college education did not know the differences between an RN and an NP. Call centers, appointment clerks, and physicians can incorporate brief education about clinicians' roles into their routine contacts with members (eg, an NP is not "practicing" or in training). Women also were reassured when told that the clinician is specially trained to help with their medical issue.

Second, clinics and medical groups should take steps to heighten coordination of care. Across scenarios, women who felt their care had not been well coordinated in the past were most resistant to seeing a different physician or multidisciplinary clinician. Prior research suggests concerns about inadequate coordination and communication may at times be justified.[32,33,59] In contrast, women in this study were most comfortable with team care when they felt their prior care had been well coordinated and were reassured that the other clinicians "worked closely with their doctor." The success of these new models depends on having the training and systems to ensure that members who see different physicians return to future visits with their primary physician and experience continuity in care and communications. These efforts would benefit from further research clarifying the specific actions or messages that heighten patients' confidence that their care will be coordinated.

Third, primary physicians need to maintain a continuous and positive relationship with their patients, even if the majority of preventive, acute, or chronic care is delivered by other team members. Many women said they would be satisfied by simply "touching base" briefly with their physician during visits, whereas others expected their physician to play a more central role directing their care and supervising decisions. Promoting a friendly and supportive clinic environment may be especially important during a period of redesign, given our findings that women who were already dissatisfied and saw staff as rude were most likely to be resistant to changes.

The greatest challenge to primary care redesign is finding ways to learn, record, and address the contrasting preferences of patients. If medical groups continue to shift toward a multidisciplinary team model but implement a "one size fits all" design, they risk encountering resistance from at least one third of their women patients and may be vulnerable to significant defections. Alternatively, organizations can build capabilities for mass customization, whereby the same medical office or group can deliver different configurations of providers and care strategies depending on the age, needs, and preferences of the patient. As a first step, appointment clerks can ask about preferences and then channel the patient to the most appropriate match. True mass customization will require information systems to record and remember these preferences and a commitment from management and clinicians to design customizable operations that respect and value patient differences.

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