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Medication-Related Barriers to Entering HIV Care

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Abstract

Early entry to HIV care and receipt of antiretroviral therapy improve the health of the individual and decrease the risk of transmission in the community. To increase the limited information on prospective decisions to enter care and how these decisions relate to beliefs about HIV medications, we analyzed interview data from the Never in Care Project, a multisite project conducted in Indiana, New Jersey, New York City, Philadelphia, and Washington State. From March 2008 through August 2010, we completed structured interviews with 134 persons with no evidence of HIV care entry, 48 of whom also completed qualitative interviews. Many respondents believed that HIV care entails the passive receipt of medications that may be harmful or unnecessary, resulting in reluctance to enter care. Respondents voiced concerns about prescription practices and preserving future treatment options, mistrust of medications and medical care providers, and ambivalence about the life-preserving properties of medications in light of an assumed negative impact on quality of life. Our results support the provision of information on other benefits of care (beyond medications), elicitation of concerns about medications, and assessment of psychosocial barriers to entering care. These tasks should begin at the time a positive test result is delivered and continue throughout the linkage-to-care process; for persons unwilling to enter care immediately, support should be provided in nonmedical settings.

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Introduction

Recent years have seen the advent of increasingly effective treatments for HIV through combination antiretroviral therapy (ART).¹ The evidence suggests that early treatment, accompanied by high adherence, improves long-term health² and may lower health care costs over the patient's lifetime.^{3,4} Clinical guidelines have been revised to recommend that therapy be started earlier in the course of disease to take advantage of the health benefits that earlier initiation confers.⁵ Recent studies have indicated that universal testing and appropriately prescribed ART for HIV-infected persons would not only benefit the individual but would substantially decrease HIV transmissions by decreasing HIV viral load in the community.^{6,7} A recent clinical trial, HPTN 052, showed that early initiation of ART significantly reduces HIV transmission to a partner.⁸ For the full benefits of these "test and treat" strategies to be realized, HIV-infected persons must enter care and take ART as prescribed before they experience symptoms.⁹ However, information on acceptance of ART in developed countries is limited, particularly among HIV-infected persons who feel well and are not already in care.

Although many researchers and clinicians recognize the advantages of timely entry to care and acceptance of ART, evidence suggests that some HIV-infected persons may not share these beliefs or may place greater importance on perceived disadvantages. For example, studies have documented reluctance to take ART and fears about medication side effects.^{10–17} However, because almost all studies have focused on HIV-infected persons already engaged in medical care, little is known about how medication-related factors influence prospective decisions to enter care.^{18,19} An important exception is a recent study by Pollini and colleagues²⁰ who found that, compared to those in care, persons who had never initiated HIV care were more likely to mistrust HIV medications and health care providers.

To explore this issue, we reviewed structured and qualitative interview data from the Never in Care (NIC) Project: HIV-infected adults who were aware of their infection but had never received HIV medical care were asked about their perceptions of HIV medical care and barriers to entering care. Although other barriers to entering care were cited (e.g., financial, not wanting to think about or disclose HIV status, depression), a prominent theme that emerged from qualitative interview data was an equation of HIV care with medications and strong concerns about taking HIV medications, resulting in a reluctance to enter care. To better understand the mechanisms through which these concerns about medications serve as a barrier to care, we describe NIC respondents' perceptions of the disadvantages and advantages of entering HIV medical care and accepting treatment and explore how beliefs about medications informed respondents' ideas about care.

Methods

NIC was a multisite project conducted in Indiana, New Jersey, New York City, Philadelphia, and Washington State during 2008–2010. NIC methods have been described in detail elsewhere,^{18,21} but in brief the mixed-method design consisted of a 30-min structured, face-to-face interview in all five project areas and additional 60-min qualitative interviews in

Indiana, Philadelphia, and Washington State. NIC respondents were sampled from the Enhanced HIV/AIDS Reporting System (eHARS), a population-based HIV surveillance system. NIC-eligible persons had received, and acknowledged, a diagnosis of HIV infection at least 90 days before sample selection; were at least 18 years old; spoke English; resided in the project area; and had not received HIV medical care. Failure to receive HIV medical care was initially determined by lack of CD4 T-lymphocyte or HIV viral load laboratory test reports to eHARS and later confirmed with participants during recruitment and interview. Informed consent was obtained from all respondents. NIC design and instruments were approved by the Institutional Review Boards (IRBs) of the Centers for Disease Control and Prevention and participating state or local health departments.

A structured questionnaire was used in all five project areas. This 30-min interview collected information on demographics, barriers to entering HIV care, use of complementary and alternative medicines, and interactions with general medical providers.

In Indiana, Philadelphia, and Washington State, a maximum of 25 respondents per area were recruited for an additional, qualitative interview. Most (79%) interviews were recorded by using a digital audio recording device and transcribed verbatim. For 21% of interviews, the interviewer took detailed handwritten notes because respondents refused to be recorded or the equipment failed. An interviewer observation form was used to document supplementary information (e.g., pertinent body language or facial expressions) that was not captured in the audio recording.

Six study researchers developed a qualitative interview codebook containing structural and thematic codes using a standardized iterative process.²² Differences were resolved through discussion and when needed, modification of coding criteria. Two researchers then independently coded the qualitative interview transcripts by using NVivo version 8 (QSR International, Victoria, Australia), averaging 98% intercoder reliability. We used SAS, version 9.3 (SAS Institute, Inc., Cary, NC), to analyze the structured interview data.

Results

Characteristics of respondents

From March 2008 through August 2010, 353 of 1556 (23%) persons with no evidence of HIV care entry were located and contacted. We completed structured interviews with 134 respondents (38% of those contacted and 9% of the total sample), 48 of whom also completed qualitative interviews. Of the structured-interview respondents, 76% were male, 52% were aged 18–34, 77% were of a race/ethnicity other than white (non-Hispanic or Latino), and 60% had a high school education or less (Table 1). Large proportions of respondents had low annual incomes, were homeless, and lacked continuous health coverage during the past 3 months. The results of χ^2 tests of association indicated no significant demographic differences between structured-interview respondents and qualitative-interview respondents (test statistics not shown).

Structured Interview

Among Those Who have Never Been in HIV Care, What Characterizes Persons with Concerns about HIV Medications?—Of the 128 NIC respondents who completed a structured interview and provided information on barriers to recent care entry, 34 (27%) said they had not received HIV medical care during the past 3 months because they believed the medicines would do more harm than good or would be unpleasant. In terms of demographic variables, respondents who cited medication-related barriers to entering care did not differ significantly from respondents who did not cite medication-related barriers (Table 2). Although these differences were not statistically significant, those with medication-related barriers were somewhat more likely to be a race/ethnicity other than white (non-Hispanic or Latino), and less likely to have a mode of HIV exposure related to male–male sexual contact and have continuous health-care coverage.

Structured-interview respondents with medication-related barriers to entering care were significantly more likely to say they had not received HIV medical care during the past 3 months because they did not like or trust health care workers (41% versus 6%, $p < 0.001$). They were also significantly more likely to have used complementary or alternative medications or self-care (e.g., diet, exercise, rest) to treat their HIV infection (68% versus 38%, $p < 0.01$). When respondents who reported a usual place for medical care were asked about their interactions with general medical providers, those with medication-related barriers were less likely than those without medication-related barriers to say they felt they had a “personal health care provider” (44% versus 76%, $p = 0.11$). This difference was not statistically significant and may have been limited by the small number of respondents.

Qualitative interview

How is HIV Medical Care Perceived among Persons with HIV Who have Never Been in Care?—To understand the preconceptions that qualitative-interview respondents had about HIV care, we asked, “What have you heard about HIV care?” Because none of these respondents had ever received care for HIV, their preconceptions stemmed from their experiences with non-HIV medical care, beliefs about medications and medical providers, cultural and media influences, and the experiences of family members, friends, and others in their community.

Care means medications

Although some respondents said they had not heard anything about HIV care or mentioned their perception that care is expensive, 67% mentioned medications when asked what they had heard about care. A typical response was “There’s a lot of medicines that go along with it [care], and a lot of tests.” Many believed that taking medications was an inevitable part of being in care for HIV. As one respondent phrased it, “The first thing the doctor wanna do is give you some kinda pills or somethin’. And then they have to give you a pill because of [what] that pill ain’t doin’..” Many respondents were hesitant to enter care because of their feelings about taking medication, for example, “When you say medical care, the only thing I keep thinkin’ about is medication. And I’m like, I don’t know if I need medication.” When discussing their decision not to enter HIV care, some expressly stated their aversion to

taking medications, such as this respondent, who stated “Anything...that has to do with pills I just...reject. I don’t like it, at all.”

A few respondents recognized that one might not have to take medications for HIV, at least not immediately. These respondents expected that if they entered care, doctors would perform “tests” and inform them whether they should take medications. As one respondent said when describing his posttest counseling session, “They told me that [long pause] I need to see my doctor and get all of my, I think that’s what she was talkin’ about, the tests I need to be takin’ to see where I’m at with my immune system.”

Preference for alternatives to medical care

Some respondents mentioned preferences for treating their HIV infection with alternative forms of care. As one respondent put it, “I’m not really—not too big on conventional medicine.” Others mentioned preferences for specific alternative treatments, such as herbs, vitamins, or other remedies. One respondent said, “My whole philosophy is [that] if I can do something like through herbs, through drinking some tea, or an old family remedy or something like that, I would do that in a heartbeat before I take any type of medication.” During the interview, respondents brought up various forms of self-care—such as eating more nutritious foods, exercising, and getting adequate rest—as a means of avoiding traditional HIV medical care. One respondent expressed it this way, “Deep down I still wanted, you know, I was still wondering if there was something that I could do from the time that I tested positive... onwards...that would probably help me keep myself more healthy and just go on with normal life.”

How are Beliefs about HIV Medications Related to Perceptions of Disadvantages and Advantages of HIV Care?—Among qualitative interview participants, 17 (38%) stated in the structured interview that they had not received HIV medical care during the past 3 months because they believed the medicines would do more harm than good or would be unpleasant. In the qualitative interview respondents were asked, “What are some disadvantages to getting into HIV medical care?” and “What are some advantages to getting into HIV medical care?” Because many respondents perceived medications as integral to HIV care, ideas about the effects of HIV medications were frequently mentioned when respondents discussed the disadvantages and advantages of entering care. Almost half of qualitative interview respondents (48%) expressed concerns about taking medications. Four broad themes emerged: concerns about prescription practices, distrust of medications and medical providers, concern that medications may cause more harm than good, and the belief that medications may prolong life.

Concerns about prescription practices

One perceived disadvantage to entering care stemmed from concerns about prescription practices. Some expressed worry about starting HIV medications too early in the course of their illness. These respondents believed that doing so might adversely affect their long-term health or result in the need to take more toxic medications later. Respondents feared that starting medications too early would cause them to feel ill at a time when they had no overt manifestations of HIV infection. As one respondent put it, “I’ve heard that...the medications

start off weaker and then the virus becomes accustomed to that medication. So as the longer you have it, the more strong the medication's gonna be. Probably the more sick you're gonna feel." One respondent justified his decision to delay taking medications by describing what he expected would happen in the future if he started taking HIV medications too soon:

Maybe I was receiving it and really didn't need it...at the time...I'm getting it but really don't need it...right away. [Maybe] I used it too early or something....

Getting started on meds and it might have been too early for me to get started on meds. And I was doing just fine. And then I got on the meds and then I was getting sicker, or I started getting really, really, really sick.

Another concern about prescription practices centered on receiving ineffective medications. For example, one respondent expected that if he got into care, his doctors might have to try out a variety of medications until they found one that was effective and that some of those ineffective medications might have a negative effect on his health. Some respondents were apprehensive about medical or pharmacy errors that could result in receipt of the wrong medication:

I'm skeptical because I'm like, "Okay, a doctor could say this and give me the wrong medicine." You know, it happens. It's happening even at my job. Somebody gave my coworkers the wrong medicine. They could have died if they didn't catch it in time. I'm like, I'm scared of medicine.

Distrust of medications and medical providers

Some participants' concerns about appropriate treatment appeared to arise from a general distrust of medications and health care providers. A number of respondents believed that providers do not know the true effects of HIV medications and expressed doubt about whether HIV medication would actually improve one's health. One respondent said, "I don't know what it's gonna do. I don't know if it's gonna help or...I...haven't seen any proof...as far as the...pills is concerned, I don't know if it...really helps." Some respondents voiced suspicions that HIV medications are intended to harm their health. One respondent expressed it this way:

I don't know who, who make these medicines... I just don't feel comfortable takin' it because I don't... I really think it's designed to kill you....people told me that people's on the medicine, they was on the medication, they died anyway....Or they died faster. And then they was, they got sicker... So you know... that's all the things I don't wanna have to go through. I guess that's part of the reason why I never took the medication 'cause I really think it's designed to kill you faster.

Part of the suspicion about the ill effects of HIV medications concerned beliefs that providers prescribe medications that are experimental and that a person who accepts medications is accepting being treated as a "guinea pig." These sentiments were sometimes compounded by a sense that the health care provider is not treating the person, but treating the illness, as in this response:

I think doctors are set in their ways some. I can't judge 'em all. Say the doctor says "I know what I'm doin'. I gave this medicine to so many people, it's workin' for

them...” ...Or I, I would always wonder for, “Are you doin’ it because of your experience or are you givin’ me this medicin—medicine because... of what’s goin’ on in my body?” ...Cause I think the doctors sometime they over, they know it all, ...you know. They’re dead set in their, in their theory...and that’s it....And I’m not sayin’ all of ‘em, but...I want somebody to really know me, what, what’s goin’ on in here. I don’t trust nobody, that’s the issue, right there. [laugh] Because...I don’t wanna be a guinea pig either....And that’s all it is right now, what I’m reading is that they’re just tryin’ this medicine, see if it works with this medicine, ...And I’m like, they don’t even know. And I’ve read where people are tryin’ this to see if it works. It’s workin’ right now but they don’t know what the outcome is....I’m like, that’s a guinea pig...I don’t wanna be a guinea pig.

Concern that medications may cause more harm than good

Many respondents echoed the concern that HIV medications may harm health and considered it a major disadvantage to receiving care. Many expressed concerns about side effects, which were described in terms of feeling “sick.” One respondent expressed fear that if he got into care, he would “...just pretty much be curled up in bed because of the medication.” Another respondent stated the idea as follows:

I don’t want medication for HIV....I’d had to be *proven*...[laugh] ‘Cause I’d, it just scares me to think that I’m gonna be more miserable than I am today. And I’m not even miserable right now....And you take a pill and it makes you worse than you was yesterday....And I feel great today.

For some respondents, fears about feeling sick as a result of taking medications overruled concerns about illness or death; that is, they believed that their quality of life would be compromised even if the medications would allow them to live longer. One respondent put it this way:

...eventually you gonna die anyway. And that’s how I feel, that if I’m gonna die I’m not gonna die with these doctors, you, you know, givin’ me pills and stuff. I’d rather die on my own instead of, you know...I’m gonna die anyway.

Some thought that in addition to making them feel sick, the medications would cause them physical harm. One respondent thought that HIV medications would “mess with, you know, the levels, with your body, your nervous system, and all that.” Some believed that their bodies would “reject” HIV medications or that HIV medication would “shorten my lifespan.” The idea that HIV medication would cause side effects was based on personal opinion and the experience of other HIV-infected persons in their lives. One respondent described what he learned from his brother-in-law:

Respondent: ‘Cause I heard, I heard you get, you can get sick, like, off the medicine they give you.

Interviewer: Who told you that?

Respondent: My brother-in-law that’s has HIV.

Interviewer: Okay. What is, what does he tell you about HIV meds?

Respondent: Not a lot. He say he barely take 'em. And his doctor was mad at him...

The belief that medications may prolong life

When describing perceived advantages to entering HIV medical care, some respondents said it might help a person live longer.

I...I have heard that it's gotten better. There's...medications that...prolongs your life. I thought when you, this HIV thing and next thing you know you can prepare to die. It don't seem like it's, it's like that anymore. I think about Magic Johnson when he made the announcement, basketball player....and...the type of care that he got or whatever medication he was on has preserved him. I mean, from what I see, he's, you know, he's in pretty good health.

However, as stated above, quality of life was sometimes mentioned in conjunction with the life-prolonging effects of HIV medications. The following is one respondent's expression of this concern:

I guess they can prolong it, it can pro—they might be prolong your life...but [long pause] even with some people that I have talked to...they take the medicine, some of 'em do take medicine. But they feel miserable! You know? So. I don't—I don't know, I, I just don't know. I, I hear though that you can live a, a long time being HIV...positive.

Because respondents were specifically asked about perceptions of advantages to care, some said their descriptions of the positive effects of medications were based on things they had been told but qualified these statements by saying that they were not sure whether they believed them.

Respondent: You know, that's what they, they tell, you know, is, I guess...When you get on the medication and, you know, it can be designed to help you out...as far as your antibodies or whatever in your system...It keeps you, is s'posed to keep you stronger, basically. I mean, like I said, I dunno if any of that is true, but you know...I dunno, I really dunno what to say as far as that...

Interviewer: Okay. And when you're saying "they" you're referring to the medication?

Respondent: Yes. When I say "they" I'm talkin' about like the doctors and the people who talk to you.

Discussion

In this sample of HIV-infected persons who had never entered HIV care, reluctance to enter care was influenced by reluctance to take medications (informed by distrust of medical care providers), and alternatives to conventional medical care were preferred, the combined effect of which may have been to deter respondents from entering HIV care. As increasing numbers of clinicians endorse early treatment with ART, this finding cautions us that a

return to a “Hit early, hit hard” message may deter a significant proportion of HIV-infected persons from entering HIV care. Almost one third of our structured-interview respondents said that concerns about medications had kept them from accessing care during the past 3 months, and almost half of qualitative-interview respondents expressed concerns about taking medications.

For persons with these concerns, the other benefits of HIV care (e.g., monitoring immune system function through laboratory tests, access to ancillary services) should be emphasized. In addition, messages to these patients should challenge the idea that HIV care entails the passive acceptance of medicines and reframe entering care as a way of taking control and being proactive about one’s health through a partnership with a supportive care team. Most important, this communication should begin at the time a positive test result is delivered. For persons who are unwilling to immediately enter HIV care, this communication should continue in supportive nonmedical settings (e.g., HIV/AIDS service organizations, peer support groups), since it may take some time for newly diagnosed persons to accept their diagnoses.²³ After linkage to and engagement in care has been established, individual decisions about whether to begin ART can then be made with full knowledge of clinical status and accurate information about the risks and benefits of treatment.

Although NIC respondents had not entered HIV care, many perceived care as having several disadvantages and few advantages. Respondents voiced concerns about prescription practices in terms of receiving appropriate treatment and preserving future treatment options, mistrust of medications and medical providers, a sense that medications do more harm than good, and an ambivalence toward the life-preserving properties of medications in light of an assumed negative impact on quality of life. The respondents who had medication-related barriers to entering care were more likely to mention dislike and mistrust of health care workers, and they were more likely to use complementary and alternative medications and self-care to treat their HIV infection.

Among patients who have entered HIV care, fear of side effects, mistrust of medications and health care workers, concerns about the effects of medications on quality of life, and a preference for alternative medicine and self-care have been associated with lower acceptance of ART,^{11,13–17,24–26} although at least one study found no association between conspiracy beliefs and access to care.²⁷ However, research on the role of mistrust of medications and health care workers as barriers to entering care has been limited. Negative feelings about medications, a preference for self-care over medications, and distrust of health care providers have been found to be barriers to care among those who have dropped out of care.¹⁰ In studying a sample of HIV-infected women who had entered care, Raveis and colleagues²³ found that negative attitudes toward health care providers were associated with delayed entry to HIV care. A recent quantitative study by Pollini and colleagues²⁰ found that negative ideas about medications and health care providers are common among HIV-infected persons who have not entered care, although these factors were not associated with being in care once other factors were considered. In a longitudinal study of a small number of gay men who had not entered HIV care, researchers found that reluctance to receive ART, concerns about side effects, and mistrust of medical care providers affected engagement in care.¹² These factors, along with a preference for traditional healers rather

than medical staff, were associated with suboptimal health care utilization among HIV-infected Zambians.²⁶ Our analysis supports the limited work in this area in that it also finds that concerns about medications and health care providers are common, and extends it by articulating the pathways through which fears about medications are related to decisions to not enter care.

Our results suggest that to improve linkage to care among persons who have concerns about HIV medications, time should be set aside during the delivery of the positive test result to describe the care process and explain that care also includes prevention measures and other services to ensure the well-being of patients. Staff trained in conducting psychosocial evaluations should ask questions about perceptions of HIV medications, use of complementary and alternative therapies, and trust in the health care system and health care workers. Information on current ART regimen options, the risks and benefits of ART, and ART side effects should be provided, but patient concerns should be taken seriously and discussed in a manner that encourages reflection.¹⁴ These discussions should include a full assessment of the patient's values and sociocultural context as they relate to HIV care.¹⁷

Although information about care and medications may be most accurately communicated by a medical provider, persons with negative perceptions of HIV medications may never enter a care relationship and therefore never have the opportunity to receive this information. In addition, as the experiences of NIC respondents indicate, they may not trust medical providers and thus prefer alternative therapies to information from the medical establishment. Distrust of health care institutions and systems has been found to affect the utilization of health care^{28–30} and may resonate more among people of color,^{31–34} who accounted for most of the new diagnoses of HIV infection in the United States in 2009.³⁵ Respondents who did not describe themselves as white were somewhat more likely to have medication-related barriers to entering HIV care. Because NIC respondents' ideas about HIV care were derived from their experiences in the community, it may be more effective to confront their negative perceptions through community-based interventions. Programs should consider peer-based and patient navigation strategies that use active referrals, which have proved effective in improving linkage to care and care utilization.^{36–39} Ongoing support and outreach in nonmedical settings may also facilitate linkage to, and engagement in, care for persons with concerns about medications.

This study has certain limitations. Our sample was drawn from five health department jurisdictions, but we were not able to contact a large proportion of potentially eligible persons. In addition, half of all interviews (50% of structured and 52% of qualitative) were conducted in one jurisdiction, Indiana. Compared to structured participants, a higher percentage of qualitative interview participants reported they had not received HIV medical care during the past 3 months because of medication concerns (38% versus 27%). Therefore, our findings may not represent all HIV-infected persons in the United States who have not received HIV care. However, the findings illustrate the beliefs and perceptions of some persons who have received a diagnosis of HIV infection but who have never been in care—an understudied population. Another potential limitation is that because of logistical constraints, all qualitative interviews were conducted with English-speaking respondents. In addition, most respondents were male; however, the proportion of female NIC respondents

(23%) is similar to the proportion of women in the United States who received a diagnosis of HIV infection in 2009 (24%).³⁵

Our results indicate that medication concerns may be barriers to HIV care for a substantial proportion of persons who do not enter care after receiving a diagnosis of HIV infection. We suggest that such concerns be elicited and that psychosocial barriers to entering care be assessed at the time of delivery of a positive test result and throughout the linkage-to-care process, followed by support and outreach in nonmedical settings to accommodate persons who are unwilling to enter care immediately. Building relationships of support and trust with nonmedical personnel may be the first step toward empowering HIV-infected persons to establish control of their medical care and make informed decisions about treatment.

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Table 1

Characteristics of Never in Care Respondents, 2008–2010

Characteristic	Structured interview respondents (<i>n</i> = 134)		Qualitative interview respondents (<i>n</i> = 48)	
	No.	%	No.	%
Gender				
Male	100	76	36	75
Female	31	23	11	23
Transgender	<5	1	<5	2
Age (years)				
18–34	70	52	23	48
35	64	48	25	52
Race/ethnicity				
Other than white (non-Hispanic or Latino)	98	77	34	76
White (non-Hispanic or Latino)	30	23	11	24
Education				
High school diploma	79	60	28	58
> High school diploma	52	40	20	42
Mode of HIV exposure was male–male sexual contact	66	49	22	46
Sexual orientation				
Homosexual	54	41	17	35
Heterosexual	60	45	23	48
Bisexual	18	14	8	17
Annual income \$10,000 (adjusted for number of dependents)	64	54	22	51
Currently unemployed	68	52	23	48
Homeless, past 3 months	24	18	11	23
Lack of continuous health insurance or coverage, past 3 months	93	70	34	71
Cited medication concerns as a reason for not entering HIV care, past 3 months	34	27	17	38
Interview site				
Indiana	67	50	25	52
New Jersey	13	10	—	—
New York City, NY	29	22	—	—
Philadelphia, PA	14	10	12	25
Washington	11	8	11	23

Table 2
 Factors Associated with Medication Concerns Among Never in Care Respondents, 2008–2010

Characteristic	Concerns about medications (n = 34)		No concerns about medications (n = 94)		χ^2 test for differences p Value
	No.	%	No.	%	
Gender					
Male	24	71	73	78	
Female	9	26	21	22	
Transgender	<5	3	—	—	0.21
Age (years)					
18–34	20	59	49	52	
35	14	41	45	48	0.50
Race/ethnicity					
Other than white (non-Hispanic or Latino)	29	85	66	73	
White (non-Hispanic or Latino)	5	15	25	27	0.14
Education					
High school diploma	22	65	55	59	
> High school diploma	12	35	39	41	0.53
Mode of HIV exposure was male-male sexual contact	13	38	51	54	0.11
Sexual orientation					
Homosexual	14	41	40	43	
Heterosexual	16	47	42	45	0.97
Bisexual	<5	12	12	13	
Annual income \$10,000 (adjusted for number of dependents)	18	60	46	54	0.58
Currently unemployed	19	56	48	51	0.63
Homeless, past 3 months	6	18	17	18	0.95
Lack of continuous health insurance or coverage, past 3 months	27	79	62	66	0.14
Did not get medical care in the past 3 months because did not like or trust health care workers	14	41	6	6	<0.001
Reason tested for HIV					
Someone recommended test to respondent	9	26	30	32	
Respondent decided to be tested	17	50	50	53	0.50

Characteristic	Concerns about medications (<i>n</i> = 34)		No concerns about medications (<i>n</i> = 94)		χ^2 test for differences <i>P</i> Value
	No.	%	No.	%	
Test was required (e.g., insurance, blood donation)	8	24	14	15	
Use of complementary/alternative medicines or self care since HIV diagnosis	23	68	36	38	< 0.01
Receipt of any non-HIV-related medical care	30	88	78	83	0.47
Has a usual place to go for medical care	11	37	38	49	0.26
Describes self as having a personal doctor, nurse or health care worker	5	45	27	71	0.11