

Introduction

This report summarizes the results of the Ohio Department of Health (ODH) HIV Care Services Section (HCS) 2011 Needs Assessment. HIV medication adherence is a vital component of controlling HIV disease progression. Using indicators derived from a review of current literature, anecdotal accounts, and client self-reports, the 2011 Needs Assessment investigates which resources and relationships most influence client adherence. Survey participants were limited to Ohio HIV Drug Assistance Program (OHDAP) adult clients who were continuously enrolled between August 1, 2010 and April 30, 2011 and who had at least five (5) medication dispenses mailed to their place of residence during the same period. A minimum of five dispenses was selected in an effort to ensure clients were using the ODH mail-order pharmacy as their primary pharmacy. Medicare clients with unobtainable medication data were excluded.

This report begins with a review of the methodology used to collect the data, followed by descriptive statistics of each of the needs identified in the survey.

Methodology

To better understand factors influencing client medication adherence, HCS staff conducted a literature review of recent research on this topic. This review indicated that health literacy, HIV knowledge, and perceptions about HIV medications appeared to be a greater predictor of HIV medication adherence than demographic characteristics.¹ Other researchers discovered a correlation between medical mistrust (a.k.a. conspiracy beliefs) held by African Americans and medication non-adherence.² As for socio-economic status (SES), a literature review published in *Retrovirology* concluded that “available evidence does not provide conclusive support for existence of a clear association between SES and adherence among patients infected with HIV/AIDS. [M]ost of the studies did not establish a statistically significant association between determinants of SES and adherence.”³

There are two standards for measuring adherence. The first method measures adherence according to viral breakthroughs since “the risk of HIV regimen failure is doubled among patients who are nonadherent to treatment.”⁴ This type of adherence is difficult to standardize because the threshold for viral breakthroughs differ by medication. The second method measures nonadherence as “the extent to which a person’s use of

¹ See Gatti, M., Jacobson, K., Gazmararian, J., Schmotzer, B. & Kripalani, S. (2009). Relationships between beliefs about medications and adherence. *American journal of health-system pharmacists*, 66, 657-664. DOI: 10.2145/ajhp080064

² See Bogart, L., Wagner, G., Galvan, F., & Banks, D. (2010). Conspiracy beliefs about HIV are related to antiretroviral treatment nonadherence among African-American men with HIV. *Journal of acquired immune deficiency syndromes*, 53(5), 648-55. DOI: 10.1097/qai.0b013e3181c57dbc

³ Falagas, M., Zarkadoulia, E., Pliatsika, P. & Panos, G. (2008). Socioeconomic status (SES) as a determinant of adherence to treatment in HIV infected patients: a systematic review of literature. *Retrovirology*, 5(13), DOI: 10.1186/1742-4690-5-13. Retrieved from <http://www.retrovirology.com/content/5/1/13>

⁴ Atkinson, M., Petrozzino, J. (2009). An evidence-based review of treatment-related determinants of patients’ nonadherence to HIV medications. *AIDS patient care and STDs*, 23(11), 903-914. DOI:10.1089/apc.2009.0024

medication fails to coincide with medical advice.”⁵ This definition focuses on other sociological and environmental factors, which is the emphasis of this needs assessment.

As other medication adherence researchers have noted, clients tend to self-report greater adherence because of question misinterpretation, poor recall and social desirability bias; thus, self-report alone is not considered a sensitive measure for diagnosing poor adherence. Corroborating measurements are recommended.⁶ Based on our literature review, the 2011 Needs Assessment focused on known factors influencing medication adherence: social supports, HIV disease and HIV medication knowledge, perceptions regarding the disease and treatment, trust issues with medical and social supports, personal empowerment and sources of HIV knowledge and support. This needs assessment was designed to identify specific areas needing improvement and subsequently addressing them.

As for corroborating measures, this needs assessment compares self-report with dispenses from OHDAP’s contracted pharmaceutical. This pharmacy contacts clients monthly to verify client address and client prescription needs. Since dispenses do not measure adherence, this corroborating evidence only determines if the client has received enough medications to be adherent, and if it reflects the client’s self-reported adherence behavior.

As additional corroboration, this report will use data collected by the HCS Case Management program. Since 2000 the HCS Case Management program has conducted biannual reports on predetermined outcome measures (OM). These measures are primarily self-report and include three questions regarding HIV medication adherence: have you ever missed a dose of your HIV/AIDS medications, and if so, why; and, how important is it for you to take every dose as prescribed? A related question asks how the client is paying for the medications, and includes the option of not getting the medications because of cost.

After designing this needs assessment survey, HCS did an initial state-wide mailing June 1, 2011 to 897 clients who met the study criteria, and a second mailing July 1. The second mailing was directed to clients who had either not responded to the first email, or whose mail was returned with a forwarding address. Of the 747 surveys that were ultimately delivered, 394 (49 percent) were completed and returned. Respondents were not required to answer every question. As a result, the total number of responses to each question may vary.⁷

Demographics

Because this was a confidential survey rather than an anonymous one, demographics were drawn from in-house data. The highest number of responses ($n=116$; 31 percent) came from north central region of the State. The

⁵ Ibid, Atkinson.

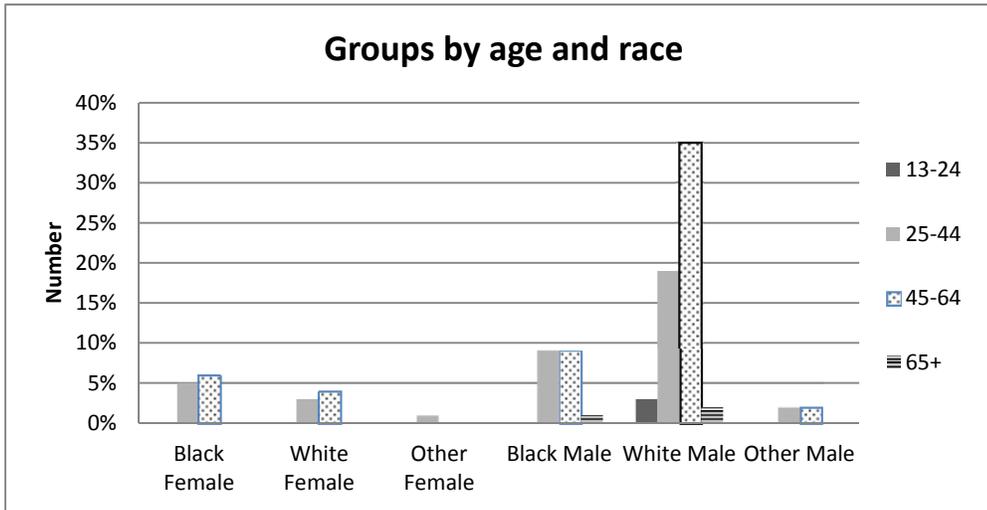
⁶ Berg, K.M., Arnsten, J.H. (2006). Practical and conceptual challenges in measuring antiretroviral adherence. *Journal of acquired immunity deficiency syndrome*, 43(Supplement 1), DOI: 10.1097/01.qai.0000248337.97814.66.

⁷ Thirty-nine (7 percent) were returned as undeliverable because of death, no forwarding address, moving out of state, or incarceration. Fifty-one (51) were returned with forwarding addresses. On July 1, HCS sent the same survey to all the clients who had not returned a survey and to those with corrected addresses (total=563). There were 39 (7 percent) returned for various reasons. This resulted in a total unduplicated count of 150 (17 percent) undelivered surveys.

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second largest ($n=83$; 22 percent) came from central Ohio. Around 9 percent came from each of the following regions: Cincinnati, Dayton and Toledo.⁸ The remaining eight regions showed response rates of less than 5 percent.

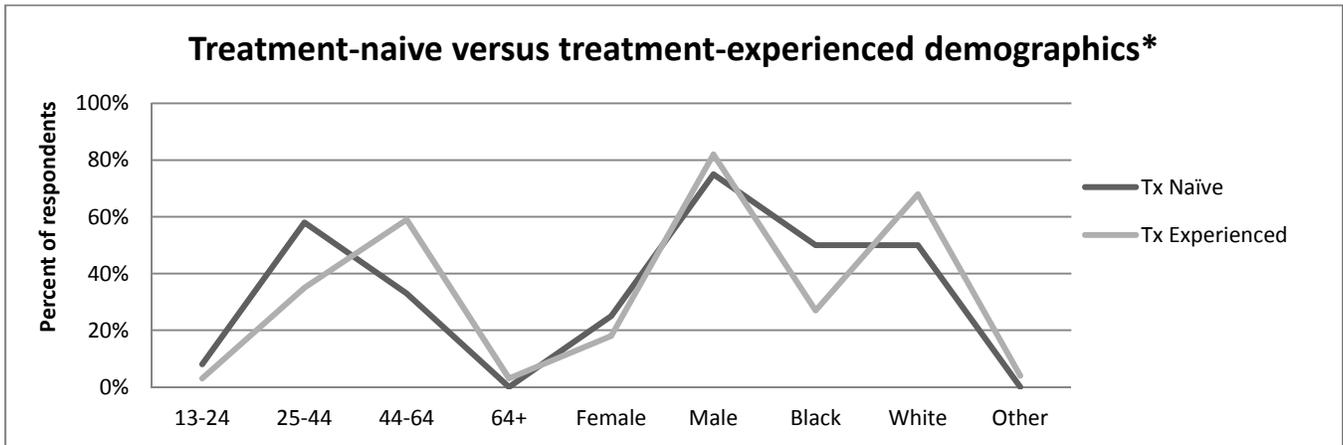
Of note, whites ($n=260$ of 394, 66 percent), males

($n=319$ of 394, 81 percent) and those between 45-64 years old ($n=223$ of 394, 57 percent) were the greatest number of respondents. As seen in the chart, when demographic categories are merged, white males between 45-64 years old comprised 35 percent ($n=136$) of the respondents, and black males between 45-64 years old, 9 percent ($n=36$). OHDAP program demographics were comparable within 3 percentage points with the survey respondents in two of the three areas: 84 percent male and 58 percent between 45-64 years old. The only significant demographic discrepancy was for white respondents. In the OHDAP program, 56 percent of clients were white. Survey results, therefore, over-represent this population by 10 percent.

Hispanics, both male and female, accounted for approximately 4 percent ($n=15$) of the respondents. Others, including Asians, Native Americans, Alaskan Natives and Pacific Islanders, comprised 2 percent ($n=9$ of 392).

Of the 394 respondents, 36 (9 percent) were treatment (tx) naïve. Treatment naïve, for the purposes of this study, refers to clients who have been put on HIV medications for the first time in the past year. Please note the following graph comparing demographics of the treatment naïve with the treatment experienced. The treatment naïve respondents tended to be younger (25-44 years old), male and black, which is a slight variance from the treatment experienced who tended to be older (44-64 years old), male and white.

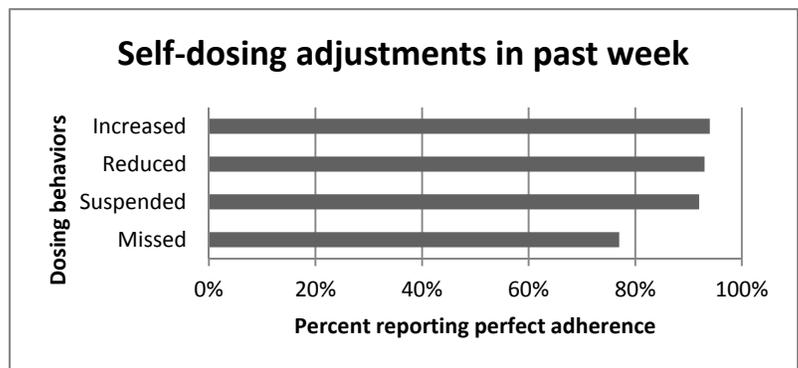
⁸ Cincinnati region includes Butler, Warren, Clinton, Hamilton, Clermont, Brown, Adams and Highland counties. Dayton region includes Dark, Miami, Clark, Preble, Montgomery and Greene counties. Toledo region includes Williams, Fulton, Lucas, Ottawa, Defiance, Henry, Wood and Sandusky counties.



* Due to the small data set for the treatment naïve ($n=36$), these results should not be generalized.

Medication Adherence

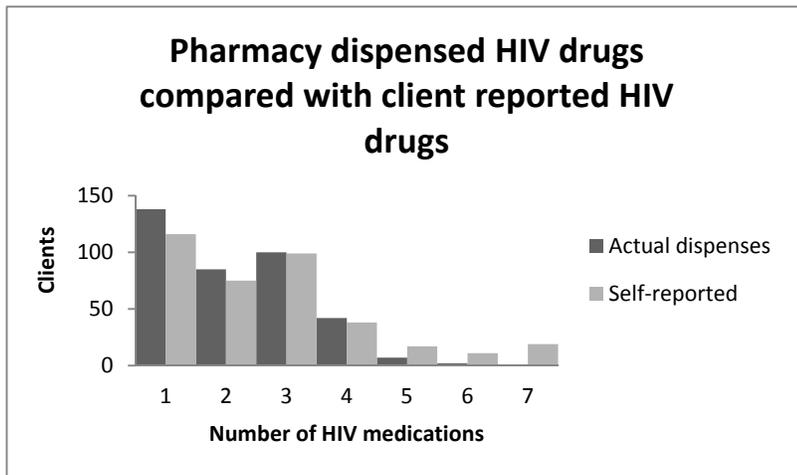
The needs assessment survey addressed client adherence from two different angles: recent and overall adherence. In an attempt to compensate for recall bias, the survey asked about clients' HIV dosing behaviors during the prior week. As seen on the chart at right, a high percentage of clients indicated that they did not accidentally miss, deliberately suspend, reduce or increase their HIV medications in the prior seven days. Clients were then asked if they considered last week's dosing behaviors typical and over 96 percent ($n=380$ of 394) reported that it was.



As for clients' overall adherence, most ($n=344$ of 394; 87 percent) strongly agreed that they are taking their medications as prescribed by their health care provider. This correlates positively with the 79 percent ($n=313$ of 393) who stated they have never *chosen* to skip their medications. When clients were asked if they ever *inadvertently missed* their HIV doses, 67 percent ($n=264$ of 394) agreed. Reasons for this varied and included changes in their routine, being too fatigued, being unable to follow complicated regimens, not having medications available or other unspecified reasons. Only 33 percent ($n=130$ of 394) stated they never missed a dose.

Respondents' attitude about adherence did not necessarily translate into their behaviors, as seen by comparing pharmaceutical dispenses and results of the 2010-2011 Outcome Measures (OM). On the OM, over 90 percent ($n=200$ of 260) strongly agreed that "taking their medications as prescribed" is important, and dispense data shows that 87 percent ($n=329$ of 375) did receive enough medication to be adherent, yet according to the OM, 23 percent ($n=60$ of 260) acknowledged they were not always adherent in the past 6 months.

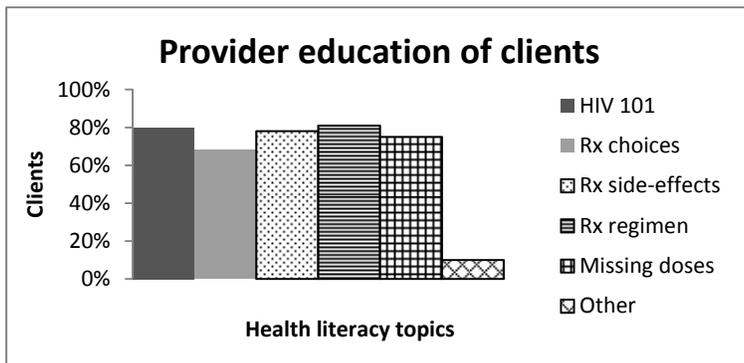
These three sets of data (the survey, dispense records, and OM) for the same clients and the same relative time period yielded differences in responses by up to 44 percent. Possibilities for why this occurs include: 1) client recall errors since the 2010-2011 OM asked if the client had ever missed during *the prior six months*, whereas the survey asked if clients had *ever* missed their medications; 2) social desirability bias since a case manager interviewed the client face-to-face for the OM whereas the survey was by mail; 3) different questioning methods since the OM simply asked if the client had missed their medications in the past six months, whereas the survey identified multiple reasons clients may have missed their medications, thus potentially prodding client memory. Further research would need to be completed to ascertain the actual reason for the variance.



A number of clients did not correctly identify how many HIV medications they were currently taking. As seen by the chart comparing dispenses with client-reported HIV drugs, respondents tended to overstate their HIV medications (as dispensed through our contracted pharmacy). This may be due to: clients confusing HIV medications with medications to treat comorbid conditions; including vitamins and other alternative therapies as HIV medications; counting combination medications as more than one (e.g. counting Atripla as 3 medications); getting HIV medications through other pharmacies; or misunderstanding the survey question.

Health Literacy

Medical literature reviews indicate that there is a positive correlation between client health literacy and medication adherence, but that not all sources of HIV knowledge are equally reliable or impactful. To identify what source of information may be more impactful, this needs assessment survey asked clients where they learned about HIV and HIV treatment, what kind of HIV health information they learned, and how competent they feel in following their medical regimen.

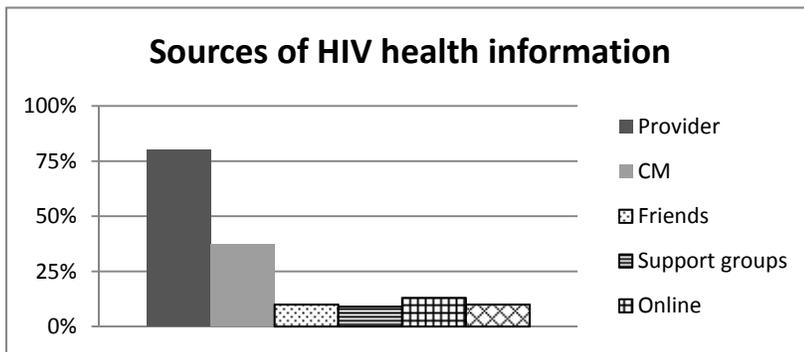


Clients were given multiple options and encouraged to check all that applied.

By far, the most common resource was their health care provider ($n=316$ of 394; 80 percent). Respondents reported that their provider taught them about drug side-effects ($n=308$ of 394; 78 percent), how to take their HIV medications ($n=319$ of 394; 81 percent),

and what to do if they miss a dose ($n=295$ of 394 ; 75 percent). Fewer reported learning about drug options ($n=266$ of 394 ; 68 percent), online resources for information ($n=109$ of 393 ; 28 percent), and other HIV-related topics ($n=40$ of 393 ; 10 percent). Only 7 percent ($n=26$ of 393) stated that their provider did not educate them about any of these things.

Because of the critical role providers play in ensuring adherence, clients were asked in three different ways if their providers taught them about how to take their medications. Over 80 percent agreed. Case managers were the second highest resource for HIV health information ($n=147$ of 394 ; 37 percent). Support groups, friends, family and written media made up the remaining resources.



The internet, especially with the proliferation of social media and mobile devices, has become an integral part of many people's lives. The question is how much of a role does the internet play in educating clients about HIV-related issues?

Clients were asked twice if the internet served as an HIV medication resource.

Responses varied from 13 percent ($n=53$ of 393) who said they learned about taking their HIV drugs from the internet to 32 percent ($n=127$ of 394) who said they agreed or strongly agreed that they use the internet for updates on HIV and HIV medication. This suggests that clients may initially talk to their providers about taking their medications, but later begin using the internet to keep up-to-date on advances in HIV knowledge and HIV medications.

Clients were specifically asked to check which of the following topics their providers discussed with them: HIV and how it behaves, HIV medication choices, HIV medication side-effects, how to take HIV medications, what to do if they skip/miss a dose of their HIV medications, and online resources for HIV and medication information. (Due to space constraints, each health topic has been abbreviated in the graphs. Please refer to the Topic Key text box to clarify which topic is being addressed.)

When provider-delivered client education was separated by treatment experience (naïve and experienced) and demographic (age, gender and race), a few notable disparities became more apparent. (Please see appendix one for two graphs illustrating results of provider education of treatment naïve and treatment experienced by demographic.)

In the treatment naïve group, 25-44 year olds were more likely than 45-64 year olds to report learning about their medication regimens, what to do when missing doses, and online resources from their provider. More females in the treatment naïve group than males reported that the provider taught them about HIV, their medication choices, medication regimens, and what to do if they miss a dose. Treatment naïve blacks were

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more likely than whites to report learning about their medication choices, but less likely to have learned about medication side-effects and online resources.

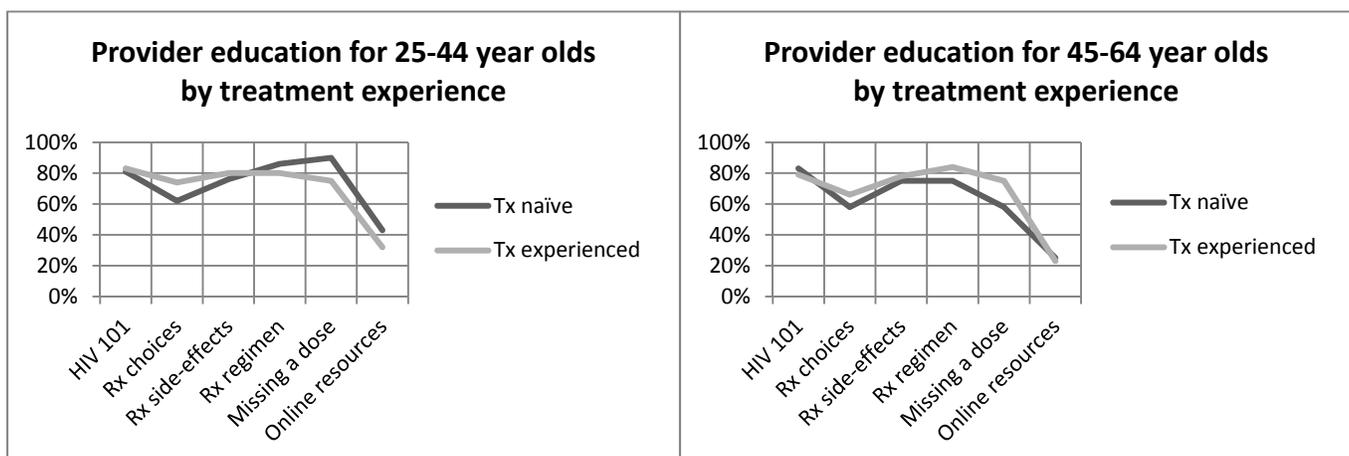
A slightly higher percentage of treatment-experienced 25-44 year olds than treatment-experienced 45-64 year olds reported learning about all aspects of HIV (not including online resources) from their providers. Treatment-experienced 45-64 year olds were 27 percent more likely to indicate learning about HIV medications online than treatment-experienced 25-44 year olds. The female and male categories were within 10 percentage points of each other in all health education categories. Whites reported greater than 10 percentage points higher than blacks in HIV 101, medication choices and online resources.

Topic Key	
Health literacy topics	Abbreviated form
HIV and how it behaves	= HIV 101
HIV medication choices	= Rx choices
HIV medication side-effects	= Rx side-effects
How to take HIV medications	= Rx regimen
What to do if I skip/miss a dose of HIV medications	= Missing doses
Online resources for HIV and medication information	= Online Resources

To get a better grasp of how the treatment naïve compare with the treatment experienced within each demographic category, the following six charts break them down. Due to the small data set for the treatment naïve group ($n=36$), this data should be used with caution.

Age and level of treatment experience appears to play a significant role in whether respondents believe they were taught about how to handle missing a dose of their medications. Ninety-percent of the treatment-naïve 25-44 year olds said they had been taught how to handle missing a dose. This is a greater percentage than the 25-44 year old treatment-experienced (75 percent), the 45-64 year old treatment-experienced (75 percent) and especially the 45-64 year old treatment-naïve (58 percent).

Regardless of treatment experience, providers were credited with teaching a higher percentage of the 25-44 year olds about internet resources than the 45-64 year olds.



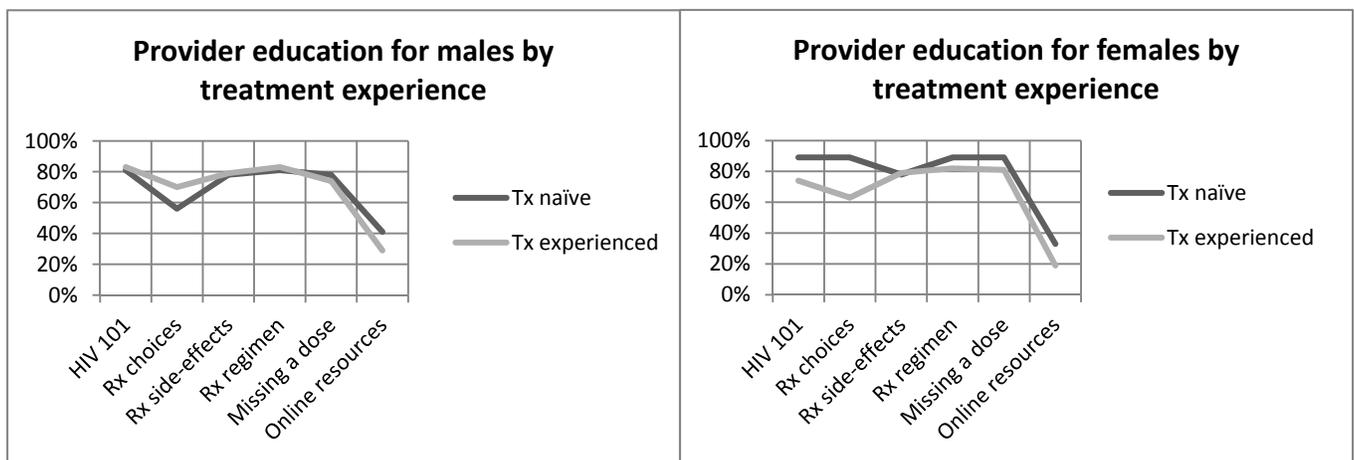
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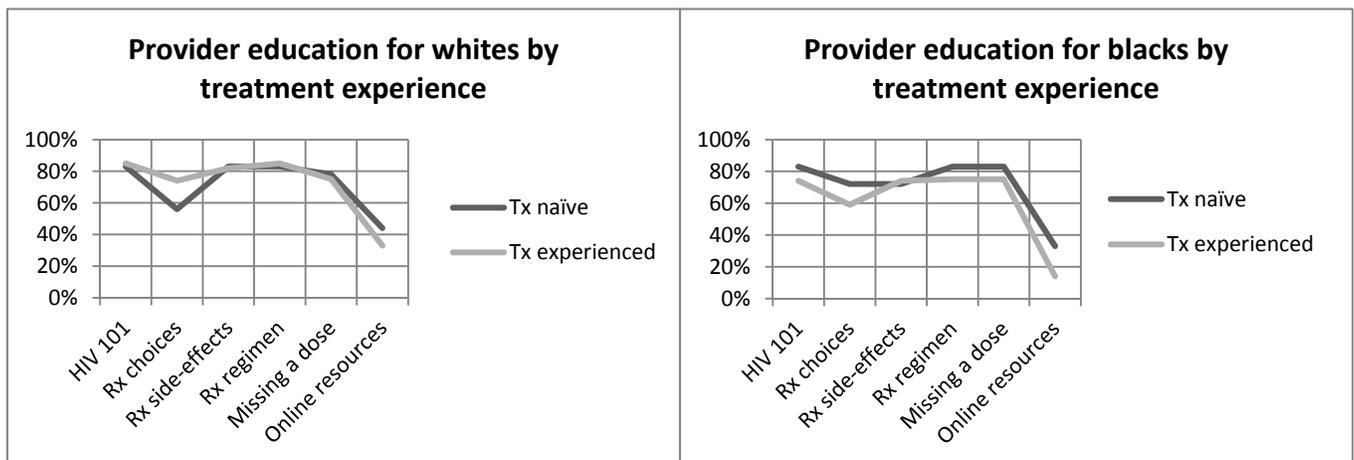
When comparing males and females by treatment experience there were a few notable differences, especially in the area of medication choice. There was a 14 percent difference between treatment naïve (56 percent) and treatment experienced males (70 percent) and a 26 percent disparity between the treatment naïve females (89 percent) and treatment experienced females (63 percent) in medication choice. What makes this particularly intriguing is that not only are the results reversed for treatment experienced/naïve males and females, but that treatment naïve females reported a higher amount of medication choice overall—nearly a 20 percent difference.

In regards to learning about online resources, a slightly higher percentage of males reported that their providers taught them as compared to the same treatment levels for females.



When comparing by race and treatment level, there are a couple noticeable variances. Treatment-naïve whites (56 percent) were 18 percent less likely to feel they had a choice in their medications than treatment-experienced whites (74 percent). By contrast, treatment-experienced blacks were 13 percent less likely to report having a choice in their medications than treatment-naïve blacks.

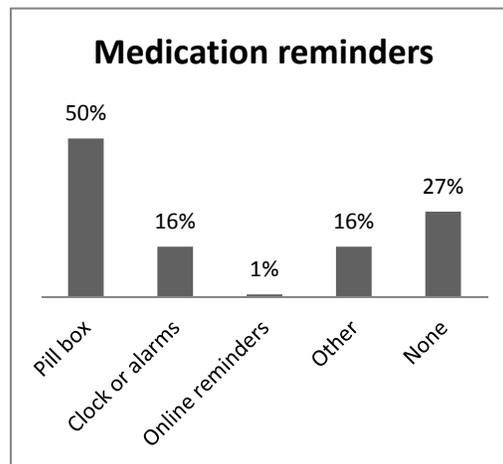
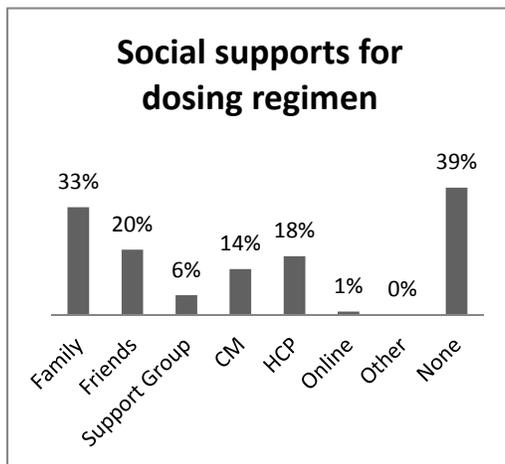
Treatment-experienced blacks were the least likely to report that their provider taught them about available online resources.



Resources and Attitudes Influencing Adherence

Health literature suggests that when clients feel competent in caring for their medical needs, this has a positive influence on their adherence. To determine how capable clients feel about their ability to self-administer their medications, the survey addressed the following issues: self-dosing rituals or habits, sense of ownership over their drug regimen, trust in their medical regimen, drug competence, attitude towards medication, and empowerment.

Clients were asked two different questions regarding dosing reminders: who reminds them to take their medications, and what aids they use to remind them. Clients could choose more than one person or thing so the responses may include duplicative data.

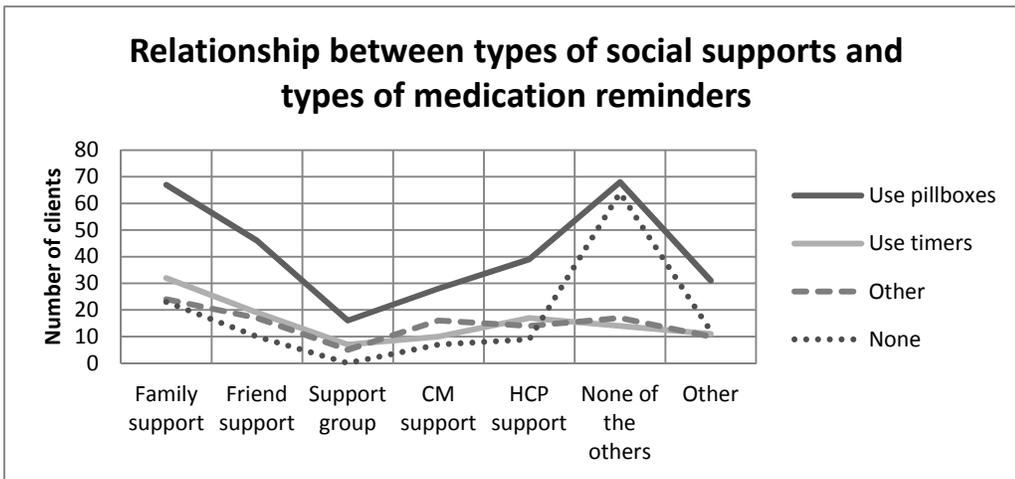


As seen by the social supports chart, a slight majority of clients ($n=153$ of 394; 39 percent) reported having no social supports for their medication dosing regimen. The second highest response was family ($n=130$ of 394; 33 percent). Friends

came in third ($n=80$ of 394; 20%), followed by their health providers ($n=70$ of 394; 18 percent) and case managers ($n=54$ of 394; 14 percent). Notice that online communities/social networks are not a significant aid.

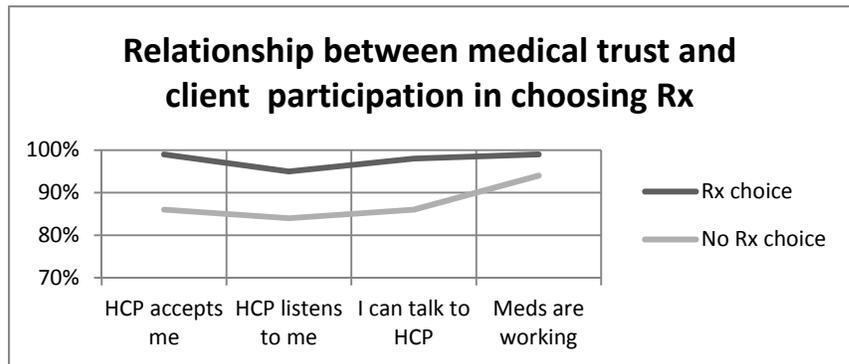
Medication reminders are an important aspect of clients' medication adherence, with pillboxes being the most popular ($n=198$ of 394; 50 percent) tool. The next most popular tool is none at all ($n=107$ of 394; 27 percent). Timed reminders such as clocks, alarms, cell phones, and watches are less popular ($n=63$ of 394; 16 percent), with approximately the same number of clients reporting they use other tools to help them remember. Many clients pair their medication regimen with a certain behavior or time of day: bedtime ($n=13$), meals ($n=9$), waking up ($n=4$), etc. Others use visual clues: setting it on the kitchen table, near the sink, or on the bureau next to the bed ($n=13$).

When data was correlated between social supports and medication reminders, there were 67 respondents who reported having family support and using pillboxes, and 68 clients who reported having none of the listed social supports who also used pillboxes. There were also 64 respondents who reported using neither social supports nor tools to remind them to take their medications. Positive correlations between the other social supports and medication reminder tools appeared to be equally spread out, although support groups appears to have a



consistently negative correlation with reminders. There does appear to be some positive correlation between social supports (other than support groups) and pillbox usage, but not enough to draw any conclusions.

Studies have indicated that medical trust plays a significant role in health care behaviors, including adherence, particularly in the African American community.⁹ This survey addressed the issue of medical trust by asking clients if they feel that they can talk to their provider about their health concerns, if their health care provider accepts them, if their provider listens to them

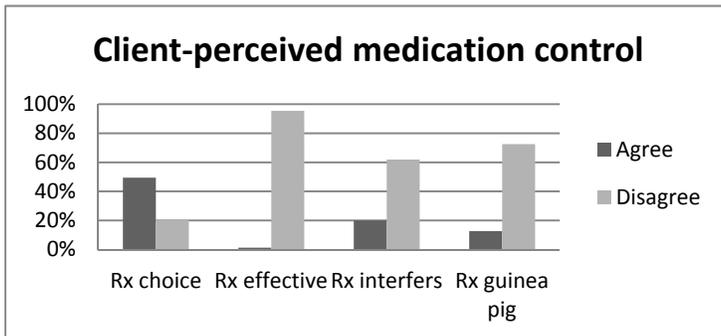


and/or if they believe their medications are working as intended. When these questions were stratified by race and gender, there was no significant difference in trust levels of respondents towards their providers.

There was a difference, however, when clients' trust was related to their perceived medication control. Those who felt they had some say in their medications consistently scored higher in medical trust and medication efficacy than respondents who did not feel they had a say.

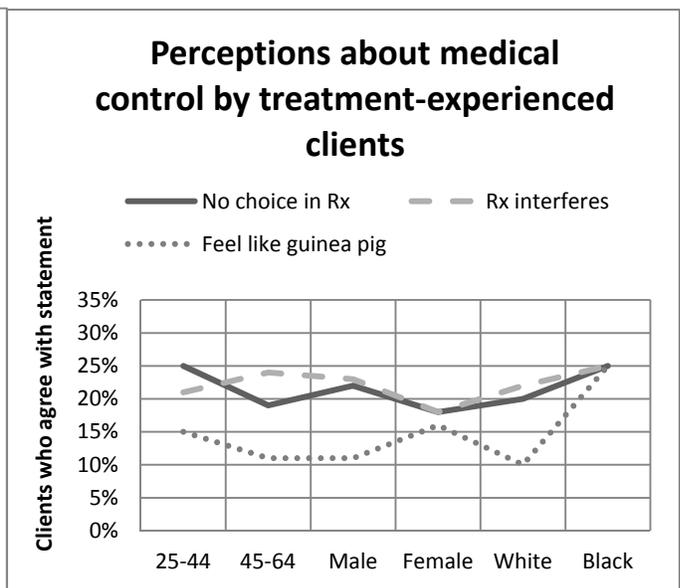
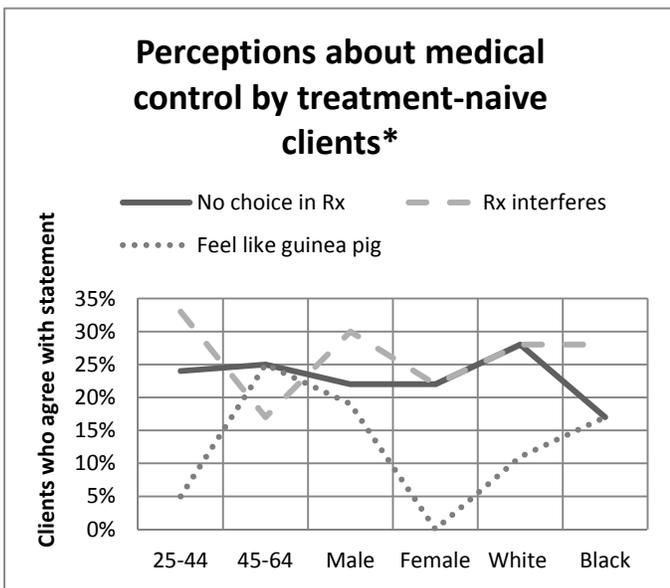
The survey took the issue of trust another step, by addressing clients' sense of control over their HIV treatment. The first question asked if clients feel they have any choice in which HIV medications they are taking. A little less than half of all respondents ($n=195$ of 394; 49 percent) somewhat agree or agree that they have some choice in their medication regimen. Though 21 percent ($n=81$ of 394) state they have little to no say in their medications and 26 percent ($n=102$ of 394) are neutral, 95 percent ($n=374$ of 394) believe their medications are at least somewhat working.

⁹ Bogart, L.M., Wagner, G., Galvan, F.H., and Banks, D. (2010). Conspiracy beliefs about HIV are related to antiretroviral treatment nonadherence among African-American men with HIV. *Journal of acquired immunity deficiency syndrome*, 53(5), 10.1097/QAI.0b013e3181c57dbc.



Effective medications are not necessarily convenient medications. Twenty-three percent ($n=89$ of 385) stated that their medical regimen prevents them from doing things in their life. Some clients ($n=50$ of 394; 13 percent) went even further, stating that their medications make them feel like test subjects or guinea pigs.

Although this survey's data group for the treatment naïve is too small ($n=36$) to generalize without further research, there appears to be some difference in how treatment naïve respondents perceive their level of control as compared to how treatment experienced respondents ($n=349$) perceive it. Treatment naïve 25-44 year olds and men were the most likely to feel their medications interfere with their lifestyles, and 45-64 year olds and males were the most likely to feel like guinea pigs (i.e. test subjects). Treatment naïve females were the least likely to report feeling like test subjects. In the treatment experienced group, there are some people in all demographic groups that report feeling like a guinea pig.



* Due to the small data set for the treatment naïve ($n=36$), these results should not be generalized.

Trust isn't just about the providers but also clients' relationships with significant others. These are people the client relies upon for emotional support. Most clients ($n=321$ of 394; 81 percent) reported that the most important people in their lives know they are HIV-positive. A slightly higher percentage ($n=343$ of 394; 87 percent) reported having people who emotionally support them.

Concluding Remarks

Adherence is not a simple issue to measure or to attain. As seen by clients' varying reports, most may indicate they've been adherent in one setting, then admit to missing doses in another setting. Clients may intellectually agree that it is important to follow their medical regimen as prescribed by their provider, but circumstances or situations interfere with their intentions.

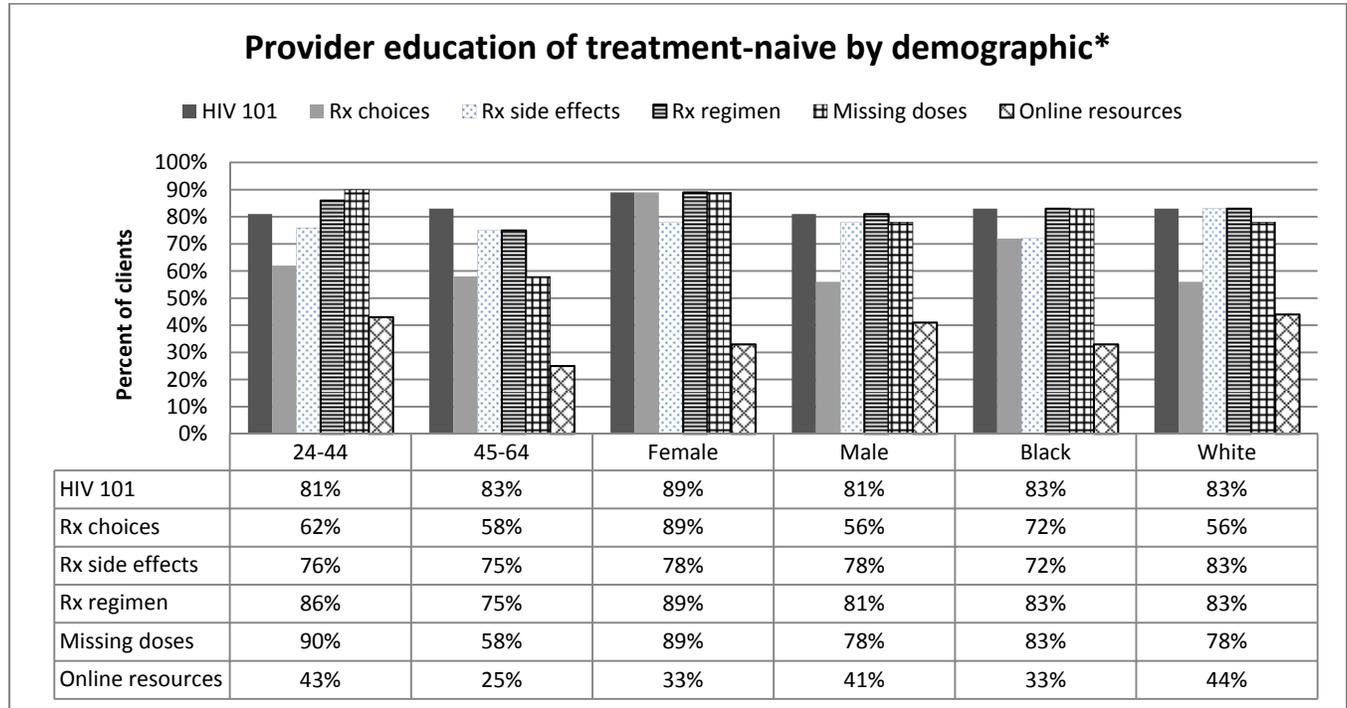
Although family support is an important component in adherence, a similar number reported having no supports. Medication reminders (particularly pillboxes) are also important for adherence, and yet a large number of respondents are not using anything. This makes it difficult to create any specific recommendations other than presenting a wide-range of medication adherence options from which clients can choose.

Survey results did suggest an intriguing relationship between client attitude towards their providers, their belief in their medications' efficacy and amount of say in choosing their medications.

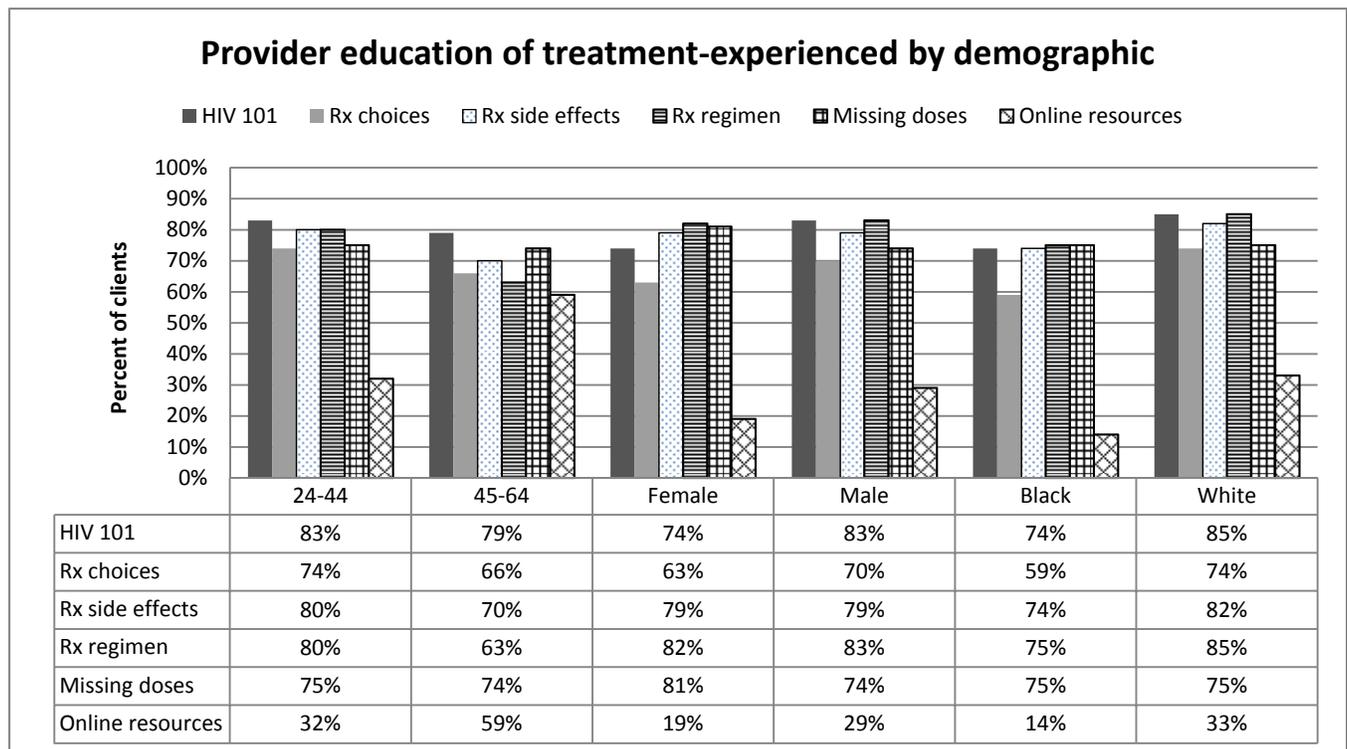
According to the survey's respondents, providers are a primary source of health education, but not everyone is hearing the same amount of information. Most report learning about HIV 101, drug side-effects and how to handle missing a dose, but different demographic groups appear to be learning more about some topics than others. In particular, treatment-naïve females reported some of the highest levels of health education (excluding drug-side effects and online resources) than any other group.

To compensate for some of these disparities, it may be useful to create HIV-medication information packets addressing these topics that can be distributed to new OHDAP clients. Although the internet does not appear to play an important role in client's early health education, the survey data may indicate that the internet, as a medication resource, increases the longer a person is under treatment. This is an area that ODH may want to utilize in more detail in the future.

Appendix One



*Due to the small data set for the treatment naive ($n=36$), these results should not be generalized.



Appendix Two

Survey attached.

The Ohio Department of Health, HIV Care Services section is looking for volunteers to complete this survey on HIV medication adherence. **You do not need to answer every question**, but completed surveys help us address your needs and concerns. Your answers are confidential and will have no influence on your Ohio HIV Drug Assistance program status.

Please use the self-addressed stamped envelope provided. ***If you are one of the first 92 people to complete and return this survey, you are eligible to receive a \$10 gift card if you check here:*** .

Circle the correct number

1. I take (1 2 3 4 5 6 7) HIV medication(s) every day.
2. Over the past week, I accidentally skipped or missed HIV medication doses on (1 2 3 4 5 6 7) day(s).
3. Over the past week, I decided not to take HIV medication doses on (1 2 3 4 5 6 7) day(s).
4. Over the past week, I took less HIV medication (a smaller dosage) than prescribed on (1 2 3 4 5 6 7) day(s).
5. Over the past week, I took more HIV medication (a larger dosage) than prescribed on (1 2 3 4 5 6 7) day(s).

Question

Check all that apply

6. My health care provider has talked to me about:

- | | |
|--------------------------|---|
| <input type="checkbox"/> | HIV and how it behaves |
| <input type="checkbox"/> | My HIV medication choices |
| <input type="checkbox"/> | My HIV medication side-effects |
| <input type="checkbox"/> | What to do if I miss a dose of HIV medication(s) |
| <input type="checkbox"/> | How to take my HIV medications |
| <input type="checkbox"/> | Online resources for HIV and medication information |
| <input type="checkbox"/> | Other. Specify _____ |
| <input type="checkbox"/> | None of the above |

7. I learned about taking my HIV medications from:

- | | |
|--------------------------|-------------------------|
| <input type="checkbox"/> | My health care provider |
| <input type="checkbox"/> | My case manager |
| <input type="checkbox"/> | My support group |
| <input type="checkbox"/> | My friends |
| <input type="checkbox"/> | My family |
| <input type="checkbox"/> | The Internet |
| <input type="checkbox"/> | Magazines or brochures |
| <input type="checkbox"/> | Other. Specify _____ |
| <input type="checkbox"/> | None of the above |

8. These people help me remember to take my HIV medications:

- | | |
|--------------------------|----------------------|
| <input type="checkbox"/> | Family |
| <input type="checkbox"/> | Friends |
| <input type="checkbox"/> | Support groups |
| <input type="checkbox"/> | Case Manager |
| <input type="checkbox"/> | Medical staff |
| <input type="checkbox"/> | Online communities |
| <input type="checkbox"/> | Other. Specify _____ |
| <input type="checkbox"/> | None of the above |

9. Sometimes I have accidentally skipped my HIV medications because:	<input type="checkbox"/>	My daily routine was changed
	<input type="checkbox"/>	I was too fatigued
	<input type="checkbox"/>	The medication was too hard to follow
	<input type="checkbox"/>	I didn't have my medications with me at time of dose
	<input type="checkbox"/>	I have never accidentally skipped a dose
	<input type="checkbox"/>	Other. Specify _____
10. Sometimes I choose not to take my HIV medications because:	<input type="checkbox"/>	I don't like the side effects
	<input type="checkbox"/>	I'm tired of taking the medications
	<input type="checkbox"/>	The medications interrupt my daily life
	<input type="checkbox"/>	The medications are too hard to follow
	<input type="checkbox"/>	The medications are Inconvenient
	<input type="checkbox"/>	I want to make the prescription last longer
	<input type="checkbox"/>	The medication feels too strong or toxic
	<input type="checkbox"/>	I have never chosen to skip a dose of my medications
	<input type="checkbox"/>	Other. Specify _____

Question	Circle one choice per question				
	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
11. I had a choice in what HIV medications I am taking	1	2	3	4	5
12. My HIV medications are working	1	2	3	4	5
13. My health care provider accepts me	1	2	3	4	5
14. My health care provider listens to me	1	2	3	4	5
15. I can talk to my health care provider about my health concerns	1	2	3	4	5
16. I know what to do if I miss a dose of HIV medication	1	2	3	4	5
17. My HIV medications keep me from doing things in my life	1	2	3	4	5
18. My HIV medications make me feel like a test subject (or a guinea pig)	1	2	3	4	5
19. I am taking my HIV medications the way I was told by my health care provider	1	2	3	4	5
20. My health care provider made sure I understood how to take my HIV medications	1	2	3	4	5
21. I use the Internet to keep updated about HIV and HIV medications	1	2	3	4	5

Question	Please check one answer per question	
22. In the past year, I started taking HIV medications for the first time.	<input type="checkbox"/>	No <input type="checkbox"/>
23. The most important people in my life know that I am HIV positive.	<input type="checkbox"/>	No <input type="checkbox"/>
24. I have people in my life who emotionally support me.	<input type="checkbox"/>	No <input type="checkbox"/>
25. Over the past week, I took my HIV medications like I usually do.	<input type="checkbox"/>	No <input type="checkbox"/>

Please return by June 30, 2011 in the enclosed envelope