# Experiences Accessing Healthcare Services during COVID-19 among Persons Living with HIV (PLWH) in Western Washington

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## Abstract

# Experiences Accessing Healthcare Services among Persons Living with HIV during COVID-19 Social Distancing in Western Washington

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COVID-19 social distancing has posed significant challenges to the provision of healthcare services and their accessibility, making accessing routine care difficult. In this study, we explore how COVID-19 social distancing has impacted accessing routine care services for persons living with HIV (PLWH) in Western Washington State.

Twenty-four patients from the University of Washington HIV clinic patient registry were recruited to participate in semi-structured in-depth interviews (IDIs) through purposive sampling. All 24 IDIs were conducted through HIPAA-compliant Zoom, audio recorded, and transcribed. Thematic analysis was conducted to identify important themes related to how COVID-19 social distancing has impacted healthcare access among PLWH.

COVID-19's impact on healthcare access in this population varied considerably. Individuals who expressed difficulty navigating the system relied heavily on social services support, and some

described negative experiences with telemedicine. Participants who were less reliant on social services often expressed that their ability to access healthcare was unchanged due to COVID-19 social distancing restrictions. These individuals described positive experiences with telemedicine and satisfaction with their HIV care. For some patients, fear of contracting COVID-19 led them to delay needed care. Others noted that fear of contracting COVID-19 increased their motivation to adhere to their HIV medications, which they perceived would protect them from COVID-19.

Our results highlight disparities in COVID-19's impact on access to healthcare services, with more vulnerable patients who required social services to help to engage in care expressing greater challenges. Despite recent innovations in healthcare delivery in response to the COVID-19 pandemic, current and future healthcare innovations should be carefully evaluated and provided along with adjunctive services if needed, in order to ensure equitable healthcare access.

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## INTRODUCTION

In January of 2020, the first U.S. case of the novel coronavirus disease (COVID-19) was identified in Western Washington.[1] Consequently, state and local governments in the U.S. started to impose social distancing measures to contain the spread of COVID-19.[2] Within the U.S., the pandemic's social distancing guidelines and regulations have posed significant challenges to the healthcare system,[3] challenging traditional strategies for accessing and providing healthcare services.[4] In consequence, the COVID-19 pandemic and related social distancing have disproportionately impacted vulnerable communities, such as the socioeconomically disadvantaged, racial or ethnic minorities, people facing homelessness, and people living with chronic health conditions.[5-6] People living with HIV (PLWH) often have multiple vulnerabilities in addition to their chronic HIV disease, increasing the challenges they have faced during the COVID-19 pandemic.

COVID-19 social distancing may have disproportionately impacted PLWH in several ways.[7,9] First, the risk of SARS-CoV-2 transmission and death from COVID-19 is increased for immunocompromised persons compared to those who are not immunocompromised.[8] Further, PLWH require access to routine care, which was initially disrupted by social distancing measures.[9] Since initial implementation of social distancing guidelines, many health policies have been updated and innovations made in an attempt to improve access to healthcare services during the COVID-19 pandemic.[10-11] However, many challenges that may limit access for the most vulnerable populations remain. There is a need for more research to assess remaining barriers to healthcare access and evaluate use and satisfaction with services such as telemedicine and other accommodations made for COVID-19 safety, from the patient perspective.[11]

Although social distancing measures have recently loosened,[3] their effect on access to healthcare services over the course of the pandemic is important to understand, in order to inform current and future public health interventions in response to COVID-19 and similar pandemics. The overarching goal of this qualitative study is to explore PLWH's experiences with accessing healthcare services during initial implementation of COVID-19 social distancing guidelines. Specifically, we aim to understand facilitators and barriers that have enabled or limited access to healthcare services among PLWH in Western Washington since the start of the COVID-19 pandemic.

## METHODS

### Study Design and Population

Within a mixed-methods study to evaluate the impact of the COVID-19 pandemic on PLWH, we conducted a qualitative analysis of experiences with healthcare services utilization during social distancing. For the larger COVID-19 study, participants were recruited through a network of HIV clinics in Western Washington. In the first phase, 400 participants were recruited by e-mail or telephone for a cross-sectional Computer-Assisted Personal Interview (CAPI) survey. Open-ended questions on healthcare services access and the use of health access interventions that expanded during the COVID-19 pandemic, such as telemedicine, online counseling, and pharmacy delivery services were included. Individuals were eligible for the study if they were ≥18 years of age, enrolled in HIV care at one of the Harborview Medical Center's HIV clinical sites, had consented to the UW HIV patient registry, and were proficient in the English language. Survey participants were asked if they would be willing to participate in an in-depth interview (IDI). Among those willing to be interviewed, 24 individuals were purposively sampled according to their level of

COVID-19 stress (either top or bottom tertile). All study components were conducted online, due to ongoing COVID-19 social distancing measures.

## Positionality

I do not have any personal experiences with HIV/AIDs or the need for accessing healthcare services for chronic conditions. I have limited experience conducting HIV/AIDs research. I identify as female and heterosexual and do not share the experience of some of the participants who identified as gay, homosexual, or lesbian. I am the health navigator for my family because they do not speak English and have difficulty navigating the healthcare system on their own. Further, I have worked as a Clinical Case Manager for a non-profit providing mental healthcare services and assisted clients in accessing healthcare services. I am a second-year MPH student at the University of Washington and am unemployed. Currently, I am insured through Apple Health (Washington State Medicaid). During social distancing, I had some challenges accessing healthcare services such as mental health, dental care, and COVID-19 testing.

## Data Collection

IDIs were conducted with a purposive sample of survey respondents from the lower and upper tertiles of COVID-19 stress scores, stratified to achieve a range of respondent age, sex, race/ethnicity, and sexual orientation that was similar to that of the overall survey population. IDIs were conducted online using HIPAA-compliant Zoom, given social distancing restrictions, and were recorded with participant consent. A semi-structured discussion guide was used to explore key influences on healthcare services utilization including: 1) the participant's knowledge about COVID-19, 2) the impact of COVID-19 social distancing restrictions on the participant's overall health (mental, physical, sexual), 3) healthcare services utilization prior to COVID-19, 4) the impact of COVID-19 on access to healthcare services, and 5) satisfaction with healthcare innovations during COVID-19 (e.g., telemedicine) (Appendix A).

Audio recordings were transcribed by Otter.ai, and transcripts were verified against audio recordings for accuracy by the research team. To ensure data quality and facilitate rapid theme identification, interviewers wrote targeted debrief reports immediately following each interview. Interviews lasted approximately 60 minutes, and participants received a $40 incentive for their participation.

## Ethics

Ethical approval for this study was obtained from the University of Washington Institutional Review Board. All participants were provided with either an electronic version of the consent form by email or a written consent form by mail. Prior to the interview, the interviewer reviewed the consent form with the participant to ensure understanding and to obtain consent for the interview and recording.

## Conceptual Model

Our analysis was informed by Andersen's Behavioral Model and Penchansky and Thomas's Model of Access to Care.[12-13] Andersen's Behavioral Model is a multilevel model that incorporates both social and contextual determinants of healthcare service use, including four major components: 1) Environment, 2) Population characteristics, 3) Health behavior, and 4) Outcomes.[12] Within this model, population characteristics highlight aspects of social determinants of health: predisposing factors, enabling factors, and need factors—that heavily influence an individual's ability to access healthcare services.[12] The Penchansky and Thomas Access to Care Model provides a deeper explanation of how factors affect healthcare services access and evaluates influences falling into five dimensions representing: 1) Acceptability, 2) Accessibility, 3) Accommodation, 4) Affordability, and 5) Availability.[13] These dimensions were incorporated into the Andersen Behavioral Model's population characteristics component to better characterize enabling factors to help identify challenges experienced by the participants in care access. When combined, these models provide a comprehensive framework for understanding access to healthcare services and their relationship to consumer satisfaction (Figure 1).

## Data Analysis

Participant demographic information was abstracted from the CAPI survey and summarized using descriptive statistics in RStudio. Qualitative data were analyzed using thematic analysis, guided by our combined conceptual model. Both deductive and inductive methods were used to develop an initial codebook. Deductively, an initial codebook was created based on the components and domains of the conceptual model. A subset of transcripts and debrief reports were then reviewed to identify additional inductive codes and expand existing code definitions. Two coders used this codebook to code two randomly selected transcripts, during a consensus coding process. Discrepancies in code application were discussed and resolved with two senior study team members, tested on another 5 transcripts, and then used to generate a final codebook and coding strategy. Using the updated codebook, one member of the coding team independently coded 17 transcripts, while another member coded 5 transcripts. Ten transcripts were swapped between coders and coding application reviewed for consistency in application and interpretation, and discussion of reviewed transcripts was used to revise individually coded transcripts. All coding was conducted using ATLAS.ti version 22 (ATLAS.ti Scientific Software Development GmbH, Berlin, Germany).

After coding, thematic analysis continued, with the identification of patterns across the 24 coded transcripts.[14,15] Queries of codes and memos were used to identify emerging themes related to each component or subcomponent of the Andersen Model (e.g., predisposing factors) and to consumer satisfaction from the Penchansky and Thomas Model. Direct quotes from participants were grouped under each theme, in order to illustrate the facilitators and barriers that participants faced and provide an explanation for how they affected participants' access to healthcare and satisfaction with services received.

## RESULTS

Twenty-four individuals participated in IDIs, with an average age of 47 years (interquartile range (IQR): 28-67 years). Overall, 75% were male, 65% were white, and 65% identified as gay, homosexual or lesbian. While 83% reported at least some college, 50% were unemployed or on disability, with only 21% employed full-time and 17% employed part-time.

Overall, the impact of COVID-19 social distancing guidelines on healthcare access varied, with some participants experiencing more challenges than others. The impact of social distancing on the healthcare system exacerbated access challenges, with the degree of difficulty and satisfaction heavily dependent on the social determinants described under the population characteristics domain of the Anderson Model. Our thematic analysis identified three main themes that characterize how and why PLWH healthcare access was impacted during COVID-19 social distancing guidelines were imposed.

**Fear of contracting COVID-19 negatively influenced care-seeking decisions and behaviors**

Many participants described being fearful of contracting COVID-19 and perceived receipt of in-person services as an additional risk. Most participants believed PLWH were at higher risk of contracting COVID-19, and/or experiencing adverse outcomes when compared to other populations. Additionally, all participants believed that those with comorbidities, in addition to HIV, were at the highest risk of contracting the virus. Participants who had comorbidities expressed concern about accessing healthcare and some reported delays in seeking routine care.

> *"I just feel like when I go to the hospital, I'm at a very high risk, which I have no idea if that is at all true, but I just feel like it. Like I just want to get in get out real quick. And so, I'm overdue for an HIV checkup, which I'm not worried about, but I just haven't been making doctor's appointments to go up there."—43-year-old White male*

Several participants reported canceling or rescheduling medical appointments due to concerns about COVID-19 exposure. Participants with comorbidities often expressed feeling scared, anxious, and insecure when they had to attend in-person appointments for procedures such as lab, physical therapy, and other specialty care.

> *"So I have to go every two months. But, you know, it's sad to say this, when I do go, I literally have to take an edible to like, relax myself. That's how nervous and anxious I am going into the hospital."—37-year-old Black female*

In contrast, other participants felt that medical facilities were less risky than other public spaces and believed these facilities had successfully implemented procedures that minimized COVID risk.

> *"I think going to the store is more risky. Because I feel like the medical facility, people are adhering a lot better to protocols."—57-year-old White male*

While fears of contracting COVID-19 negatively affected willingness to attend in-person medical visits, COVID-19 fears had the opposite effect on medication adherence. Most participants were aware that untreated HIV increased the risk of experiencing serious outcomes if they were to become infected with COVID-19. Many described COVID-19 as an additional motivator for maintaining or improving adherence.

> *"Yes. I think one of the good things that, COVID has made me take my medicine, medication more…Because I don't want to go to the hospital."—37-year-old Black female*

### COVID-19-related challenges made access to healthcare more difficult for those with more complex health navigation needs

In addition to COVID-19 fears acting as a barrier to healthcare access, participants also described navigational challenges brought on by the pandemic in general. Participants expressed challenges in accessing healthcare due to job loss, changes in insurance, and the need to navigate online systems for assistance with unemployment or insurance claims.

For some participants, transportation was a challenge. Those who relied on public transportation services were especially concerned about possible COVID-19 exposure while commuting, while those with their own means of transportation and those who lived close enough to walk to the clinic reported fewer concerns.

> *"Here I am surviving 35 years of HIV, and COVID comes in and within a week takes me out. So there is, that's still in the back of your mind whenever I go out, so even to doctor's appointments, to the dentist, and QFC [local grocery store], I'm a little nervous, especially if somebody gets on the streetcar. I do take the streetcar home because I'm carrying bags, and if somebody gets on the streetcar and is not wearing a mask, one time I got off and waited for the next streetcar, so…"—67-year-old American Indian male*

> *"Um, no, not. I just, it's the same way, I live exactly six blocks away from [clinic name]. So unfortunately, it's uphill. But I mean, it's there. You walk. So that's not necessarily been a trouble."—30-year-old Black gender non-conforming*

In addition to access challenges, those who were able to attend their appointments expressed dissatisfaction with newly implemented COVID-19 safety screening prior to entering the healthcare facilities. Participants didn't appreciate answering questions related to COVID-19 symptoms and exposure, long wait times, the possibility of contracting SAR CoV-2 from other patients while waiting, and the lack of accommodation provided by healthcare facilities' staff. These newly added procedures led to delays in care for some.

> *"…the experience in the screening part, for entry into the building, was not very pleasant that I had to cancel my appointment at both the [clinic name] and physical therapy appointment… security guards and screeners were little bit impolite in the sense that they're not comfortable asking the questions, and it came across like they are yelling and very condescending…And it came to a head that the entry area had not been very well managed, as the patient in line were very congregating……they don't realize that they have to keep the six-foot distance from each other…And when I was in line, people encroaching on me that way. I just felt extremely uncomfortable…"—64-year-old Asian male*

### Telemedicine and patient-centered pharmacy procedures increased healthcare access during social distancing

Remote healthcare delivery access strategies, including telemedicine and pharmacy services, were adopted or expanded during COVID-19 social distancing. Participants who used these services often found them beneficial. Fifteen of the 24 participants described using telemedicine to attend medical appointments. Participants who had prior experience using Zoom expressed greater satisfaction with telemedicine. For these participants, telemedicine was an acceptable replacement for in-person visits that afforded continuity in care and was convenient.

> *"But like for me just to go to see the doctor in Seattle, it's, you're still talking six hours or more. And so this is fantastic doing Zoom. And I don't feel like I'm missing anything. They're very good about listening to you. And if you have a question, they're more than*

> *willing to listen to you. They don't get in a hurry, you know, they're not trying to. So no, I, when this all done and over, I hope they stick with it."—64-year-old White male*

In contrast, a few participants expressed negative beliefs about and experience with telemedicine. Busy clinics with reduced staff, confusion over the telemedicine process, and desire for social interaction were specifically mentioned by participants who reported negative experiences using telemedicine.

> *"We try to understand how to navigate the healthcare system. And I know that several of us who have been in touch, had to go to other clinics outside the [clinic name] to get health care. And especially when I was waiting for telehealth that didn't come through…So that's why I called again and made an appointment for today…it didn't go well and things like that…I didn't find that it is very helpful in the sense that I'm left with so much to deal with to even get a telehealth care conference…"—64-year-old Asian male*

> *"I've never liked FaceTime. I've never liked any of that stuff. If I want you to see me, I'll be there. If I don't want you to see me, then you're not going to see me……I'm a huge believer in social skills. And all of this is killing social skills."—30-year-old Black gender non-conforming*

While many participants found telemedicine useful, it is important to note that six of the 24 participants had not used telemedicine to access healthcare services prior to the interview and did not mention any specific reasons for this.

Regarding medication access, all 24 participants described having uninterrupted access to their HIV medications, and 14 reported no changes in their adherence. Individuals who experienced a change of insurance due to unemployment or job changes described more challenges accessing medication. Those whose health insurance only allowed 1-month supplies of tablets expressed greater dissatisfaction, especially if this limitation was new to them.

> *"…I get my medications, and it used to be 30 days… but because of COVID, they have now increased it to 90 days, which for me, helps out a lot. Because having a 90-day supply is better than a 30 day, because there's usually hiccups in between refills."—51-year-old White male*

> *"So I, well when my contract ended my insurance with work ended. And then now I'm just on Apple Health because I'm on unemployment. The one sucky thing though, is that the Medicaid, the Apple Health, it won't give you three months of meds at one time. It only let you take one. So, that's where the major change was for me is that I do now have to go into the pharmacy every month."—41-year-old White female*

Despite the inequity in access to medications experienced by the participants as demonstrated above, all participants felt that the antiretroviral medication supply chain in general was not affected by the pandemic.

## DISCUSSION

Mapping participants' experiences accessing healthcare to the adapted Andersen Behavioral Model combined with the Penchansky and Thomas Access to Care Model, we identified challenges and facilitators related to accessing care for PLWH in Western Washington. Social distancing impacted care seeking and health behaviors by changing the care environment and the way care is provided. Remote health access interventions (telemedicine, etc.) were expanded in an attempt to bridge gaps in access and meet patient needs. However, given heterogeneity in patient characteristics, the success of interventions to ensure healthcare access varied, resulting in varied outcomes in terms of healthcare utilization and consumer satisfaction.

PLWH are a vulnerable population who require routine care and could be at increased risk of experiencing severe COVID-19 if their care is disrupted and their viral load rebounds.[16-18] Our study findings show that while the COVID-19 pandemic impacted everyone, experiences accessing healthcare services during social distancing varied considerably among PLWH, with some experiencing more challenges than others. In particular, individuals who experienced job loss, insurance change, or disruption in services they relied upon were at risk of having unmet care needs. Understanding negative influences on healthcare access during the COVID-19 pandemic is important to inform current and future health interventions in response to COVID-19 or other emerging public health threats. Our results emphasize the need to understand these challenges through a health equity lens, among PLWH and potentially among other disadvantaged patient groups with multiple comorbidities.

Participants almost universally felt that PLWH are more at risk of contracting the coronavirus than others, and some felt that going to their in-person appointment in the healthcare facility could increase their risk of exposure. Fears of contracting COVID-19, as well as beliefs about having more severe disease from COVID-19, led some to delay accessing care. To date, there is a paucity of qualitive research in the US among PLWH in this area. Health system messaging that reinforces infection control practices that have the broad support of populations routinely accessing care may counteract these fears and improve care. At the same time, attention to patients' experiences with infection control practices such as symptom screening at facility entrances is important, as seen by our participants' negative experiences that were reported.

One positive finding we identified related to COVID-19 fears was improved motivation to adhere to HIV medications. These results contradict another study looking at the impact of COVID-19 among a racially/ethnically diverse sample of gay, bisexual, and other men who have sex with men living with HIV in the US South.[19] This study found that even though COVID-19 did not appear to be impacted on access to HIV medications among their study population, adherence to medical regimens was found to be affected related to the changes of everyday routine. Many factors may contribute to this difference. For instance, this study was conducted earlier in the COVID-19 pandemic which could explain why some participants were having more difficulty adhering to their medication due to routine change while our study participants may have been more adjusted to the new routine given the timing of the study. Additionally, there are some differences in demographic characteristics among these two studies' populations—the average age of the participants is much lower than ours, and the distribution of race/ethnicity among the study participants is different. Overall, the timing of the study and the participants' demographic characteristics differences are two major reasons that could explain the contradiction between our studies.

In an attempt to improve healthcare access during COVID-19 social distancing, intervention such as telemedicine was adopted and expanded.[20-21] As hoped, telemedicine facilitated improved access to care for some study participants. Similarly, a pre-pandemic retrospective study evaluating the impact of implementing a telemedicine program for outpatient services through the University of California Davis Health System found that the expansion of telemedicine increased access to care.[18] While telemedicine was a positive experience for some participants in our study, telemedicine did not improve access to care for study participants who reported confusion with using this new approach. Similar to previous research findings from the Southern US, [19] lacks of ability to easily navigate the technology used for remote healthcare delivery was a barrier to access for some. Important to note, this current study was conducted after the first year of the pandemic which could have contributed to burnout with navigating telemedicine systems and lower usage among some participants. Moreover, some clinics are starting to open for more in-person visits by the time many of the interviews were conducted.

Participants who were able to acquire medications for longer durations of time than previously allowed expressed great satisfaction with these services—the access was impacted by types of insurance coverage. Despite the unequal access for all participants, all PLWH who participated were able to access medications during social distancing. Our study results again harmonized with findings from the study looking at the impact of COVID-19 among PLWH in the US South, noting that COVID-19 has increased access-to-care challenges overall.[19] If similar circumstances were to occur in the future, existing interventions should be adapted to accommodate participants' needs and constraints related to pharmacy refill timing.

This study has several limitations. First, it was impossible to conduct in-person recruitment and data collection during the study period due to COVID-19 social distancing and related human subjects' restrictions on research. Given these restrictions, the study was limited to patients who had access to and were able to use email and Zoom. In addition, although the study attempted to achieve representative coverage of age, sex, race/ethnicity, socioeconomic status, and sexual orientation, the study only captured the experiences of those proficient in the English language. Finally, given the timing and the nature of IDI, the study was only capturing one point with a single interview.

## CONCLUSION

The impact of COVID-19 social distancing on accessing healthcare services among PLWH in Western Washington varied based on patients ability to navigate health systems, fears and knowledge about COVID-19 and HIV, and access to virtual health and pharmacy refill options. Our results highlight disparities in COVID-19's impact on access to healthcare services, with more vulnerable patients who needed more help engaging in care experiencing greater challenges. Despite recent innovations in healthcare delivery in response to the COVID-19 pandemic, current and future healthcare innovations should be carefully evaluated for accessibility. Vulnerable individuals with barriers to access should be provided with adjunctive services as needed, in order to ensure equitable healthcare access. More research is needed to understand the longer-term implications of the COVID-19 pandemic on PLWH.

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## DISCLAIMER

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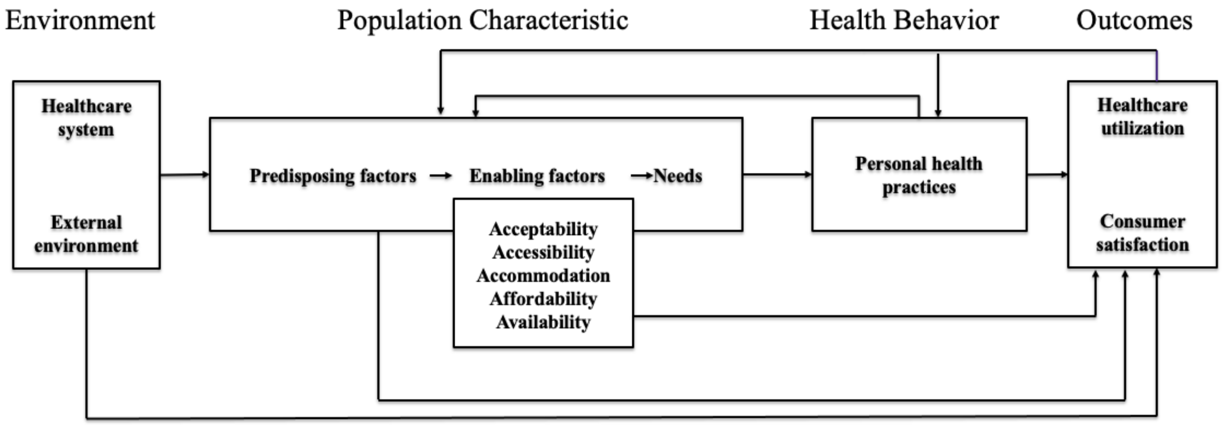
**Table 1. Participants' Demographic Characteristic**

| **Participant Characteristic** | **N** | **N (%)** |
|---|---|---|
| **Gender Identification** | | |
| Male | 18 | 75% |
| Female | 5 | 21% |
| Gender Non-conforming | 1 | 4% |
| **Sexual Orientation** | | |
| Gay, Homosexual, or Lesbian | 16 | 67% |
| Straight or Heterosexual | 6 | 25% |
| Bisexual | 1 | 4% |
| Don't know | 1 | 4% |
| **Race** | | |
| White | 16 | 67% |
| Black | 3 | 12% |
| American Indian | 4 | 18% |
| Asian | 1 | 4% |
| **Level of Education** | | |
| 12 grade or less | 2 | 8% |
| High School graduate or GED | 3 | 12% |
| Some college/AA degree/Technical school training | 12 | 50% |
| College graduate (BA/BS) | 3 | 12% |
| Graduate school degree: Master's or Doctorate degree (MD, PhD, JD) | 4 | 18% |
| **Occupational Status** | | |
| Employed full-time | 5 | 21% |
| Employed part-time | 4 | 18% |
| Unemployed/not working due to disability | 12 | 50% |
| Retired | 2 | 8% |
| N/A | 1 | 4% |

### Figure 1. Conceptual Models

**Adapted from Andersen's Behavioral Model of Health Service 1995 and Penchansky and Thomas's Access to Care 1981**



## Appendix A: Semi-Structured In-Depth Individual Interviews Guide

### KNOWLEDGE OF COVID-19:

First, I'd like to learn a little more about what you know about COVID-19.

a. What have you heard about the new coronavirus, also called COVID-19 or SARS-CoV-2?
b. Who or where do you get your information on COVID-19 from?
    i. What do you think about the accuracy of what you have heard?
    ii. What sources of information do you trust?
c. Have you received and/or asked for any guidance from any of your healthcare providers about the new coronavirus? Did you get enough information? Why or why not?

### BELIEFS/PERSONAL EXPERIENCE OF COVID-19:

Now, I'd like to talk with you about your beliefs about your risk of getting COVID-19.

a. Who is at risk of COVID?
b. Do you think people living with HIV are more at risk or less at risk for the new coronavirus than people not living with HIV?
c. What do you think about your own risk of getting COVID?
    i. If you were to get COVID, what do you think about your own risk of having complications?
    ii. How concerned are you about getting (that is, contracting) the new corona virus? Or how worried are you about getting COVID?
    iii. Why do feel that way?
    iv. Has your concern changed over time? Why or why not?
d. What is your attitude towards masking?
e. Are people around you wearing masks (for example: people in your family/social network, near where you live, when you go outside)? Is this a cause of stress?
f. Did you ever have any symptoms or situations that made you think that you might have had COVID-19?
g. Did anyone you know have COVID-19?
    i. Please tell me about your experience (or the experience of someone you know) having COVID-19?
    ii. What was your experience with symptoms?
    iii. Did you get tested? (if yes, what was it like to get tested for COVID-19?)
    iv. What is the experience of getting tested like?
    v. How did you or healthcare providers manage your (your loved one's) illness?
    vi. What could healthcare works have done better to improve your experience?
    vii. Have you (or someone you know) experienced any longer lasting health effects from COVID-19?
    viii. Are you scared about getting COVID-19 again? Why or why not?

h. Do you think there is support from the community for people who have had COVID e.g. wanting to take care of those affected, or is there stigma?

## SOCIAL DISTANCING:

Now, I'd like to talk with you about your experiences with social distancing and how that has influenced what your life is like.

a. Overall, how has your quality of life changed since coronavirus? Do you feel more or less socially connected? More or less engaged in activities. More or less bored?
b. How has your mood been since the COIVD pandemic start?
    i. Have you experienced depression, sadness, or grief?
    ii. Have you experienced anxiety or additional stress?
c. Have you had social support from your family, friends, or partner?
d. How do these experiences or feelings affect your life?
e. How has the coronavirus and/or social distancing affected other parts of your life?
    i. How has your job or how you get money changed?
    ii. How has your ability to see friends and family changed?
    iii. Have there been any changes in your sexual life? Has it been difficult to meet people?
    iv. How has your sexual behavior, sexual health, or relationships changed?
    v. Has anything changed about your use of alcohol, tobacco, marijuana, or other drugs?
f. What has been the most challenging part of the social distancing guidelines?
g. What have you done to stay connected with friends and family? How do you feel that's been working for you?
h. What else have you done to cope during social distancing?

## HEALTH CARE ACCESS:

Next, I'd like to hear more about how COVID-19 has affected your desire or ability to access HIV care.

a. What was working well for HIV care before COVID-19?
b. What were some of the challenges with your HIV care before COVID-19?
c. How has your HIV care changed since COVID-19?
    i. How has COVID-19 changed how you access medications? What has been hard/easy about these changes?
    ii. How has COVID-19 changed your adherence to medications? Why?
    iii. Have you had a clinic visit during this pandemic?
    iv. Do you feel comfortable having in-person clinic visits? Do you feel that COVID protocols (masking, distance between patients) have been followed where you receive your HIV and non-HIV care?
    v. What do your clinic visits look like COVID-19? Have you used telemedicine? Why/why not? What did you like/not like about that?
    vi. How has getting to clinic changed since COVID-19? How have you liked or not liked those changes?

    vii. In your opinion, has your risk of contracting an STI increased, decreased, or not changed during the COIVD-19 pandemic?
    viii. Have you had trouble getting tested for sexually transmitted infection (syphilis, gonorrhea, or chlamydia) since COVID-19 began?
    ix. What has been different about your ability to get social services? What about insurance? What about counseling and support? What has been working well with these changes? What has not been working well?

d. How has COVID affected your desire or ability to access other types of health care for conditions other than HIV?
e. What do you and members of your community need to manage life during the COVID-19 outbreak that you are not getting? Are there any other concerns that you like the Madison Clinic to know about or address?