

Houston Area HIV Services Ryan White Planning Council

Comprehensive HIV Planning Committee

2:00 p.m., Thursday, June 13, 2019

Meeting Location: 2223 W. Loop South, Room 532
Houston, Texas 77027

AGENDA

I. Call to Order

- A. Welcome
- B. Moment of Reflection
- C. Adoption of the Agenda
- D. Approval of the Minutes (March 14, 2019)

Ted Artiaga and
Daphne L. Jones, Co-Chairs

II. Public Comment and Announcements

(NOTE: If you wish to speak during the Public Comment portion of the meeting, please sign up on the clipboard at the front of the room. No one is required to give his or her name or HIV status. All meetings are audio taped by the Office of Support for use in creating the meeting minutes. The audiotape and the minutes are public record. If you state your name or HIV status it will be on public record. If you would like your health status known, but do not wish to state your name, you can simply say: "I am a person living with HIV", before stating your opinion. If you represent an organization, please state that you are representing an agency and give the name of the organization.

III. Epidemiological Profile – Verbal Update

Amber Harbolt, Health Planner
Office of Support

IV. Needs Assessment Progress

- A. Updated Timeline
- B. Finalized Survey Tool
- C. Project LEAP Pilot and Process Update
- D. NAG Analysis Workgroup Meeting – 6/21 at 9:00 a.m.
- E. NAG Meeting – 7/15 at 1:00 p.m.

V. Review 2019 Public Hearing Topics

- A. May 20th – Social Determinants of Health
Special Study
- B. July 1st – Updates from the Epi Profile

VI. New Business

- A. Quarterly Report

VII. Announcements

Ted Artiaga and
Daphne L. Jones, Co-Chairs

VIII. Adjourn

Houston Area HIV Services Ryan White Planning Council

Comprehensive HIV Planning Committee

2:00 p.m., Thursday, March 14, 2019

Meeting Location: 2223 West Loop South, Room 532; Houston, Texas 77027

Minutes

MEMBERS PRESENT	MEMBERS ABSENT	OTHERS PRESENT
Ted Artiaga, Co-Chair	Daphne L. Jones, excused	Bruce Turner, RWPC Chair
Dawn Jenkins	Denis Kelly, excused	Veronica Ardoin
Holly McLean	Rodney Mills, excused	Crystal Townsend, TRG
Matilda Padilla	Shital Patel, excused	Marcus Benoit, TRG
Imran Shaikh	Faye Robinson, excused	Samantha Bowen, RWGA
Dominique Brewster	Isis Torrente, excused	Amber Harbolt, Office of Support
Bianca Burley	Ryan Clark	Diane Beck, Office of Support
Nancy Miertschin	Elizabeth Drayden	
Steven Nazarenus	Larry Woods, excused	
Steven Vargas		
Anthony Williams		

Call to Order: Ted Artiaga, Co-Chair, called the meeting to order at 2:00 p.m. and asked for a moment of reflection.

Adoption of Agenda: **Motion #1:** *it was moved and seconded (Vargas, McLean) to adopt the agenda. Motion carried.*

Approval of the Minutes: **Motion #2:** *it was moved and seconded (McLean, Williams) to approve the February 14, 2019 minutes. Motion carried.* Abstentions: Shaikh.

Public Comment: None.

Epidemiological Profile: Harbolt reviewed the revised Chapter 1 and also Chapter 2 (EMA data only), see attached. Dr. Shaikh said that the city's data is still undergoing internal review and they've gotten many comments back. They need help incorporating people first language. Townsend said to get with Jeffrey Campbell to have the language reviewed. Shaikh went on to say that there are multiple programs and bureaus working on the data. He said that if any problems are found to let them know. He said they have also pulled data for AIDS and asked if Harbolt would need that. She replied no but it is useful for late/concurrent diagnosis; it is no longer referred to as AIDS but Stage 3 HIV.

2020 EIIHA Workgroup: Harbolt reviewed the EIIHA planning process and requirements, development timeline and FY 2020 EIIHA Approval Motion, see attached. **Motion #3:** *it was moved and seconded (McLean, Vargas) to approve the following motion: In order to meet HRSA grant application deadlines, request the Planning Council to allow the Comprehensive HIV Planning Committee to have final approval of the FY 2020 EIIHA Plan, provided that:*

- *The FY 2020 EIIHA Plan is developed through a collaborative process that includes*

- stakeholders from prevention and care, community members, and consumers; and*
- The recommended FY 2020 EIIHA Plan is distributed to Planning Council members for input prior to final approval from the Comprehensive HIV Planning Committee.*

Motion carried.

2019 Needs Assessment Progress: Harbolt reviewed the updated timeline and the 2019 Key Concepts. See attached. Turner said he would like to see the survey stay the same as the last one.

Announcements: Harbolt called attention to the FYI items in the meeting packet: New York Times article by Dr. Charlene Flash about test and treat and a Request for Information from the Department of Health and Human Services.

Adjournment: The meeting was adjourned at 3:51 p.m.

Submitted by:

Approved by:

Amber Harbolt, Office of Support Date

Chair of Committee Date

JA = Just arrived at meeting
 LR = Left room temporarily
 LM = Left the meeting
 C = Chaired the meeting

2019 Voting Record for Meeting Date March 14, 2019

MEMBERS	Motion #1: Agenda				Motion #2: Minutes				Motion #3: 2020 EIIHA Workgroup			
	ABSENT	YES	NO	ABSTAIN	ABSENT	YES	NO	ABSTAIN	ABSENT	YES	NO	ABSTAIN
Ted Artiaga, Co-Chair				C				C				C
Daphne L. Jones, Co-Chair	X				X				X			
Dawn Jenkins		X				X				X		
Denis Kelly	X				X				X			
Holly McLean		X				X				X		
Rodney Mills	X				X				X			
Matilda Padilla		X						X		X		
Shital Patel	X				X				X			
Faye Robinson	X				X				X			
Imran Shaikh		X						X		X		
Isis Torrente	X				X				X			
Dominique Brewster ja 2:03 pm	X				X					X		
Ryan Clark	X				X				X			
Elizabeth Drayden	X				X				X			
Nancy Miertschin ja 2:03 pm	X				X					X		
Steven Nazareus		X				X				X		
Steven Vargas		X				X				X		
Anthony Williams		X				X				X		
Larry Woods	X				X				X			

Proposed Needs Assessment Group Activities Timeline
February 2019 – March 2020

Draft
Updated 05-01-19

Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019
Needs Assessment Group (NAG) meets to design Needs Assessment (NA) process ✓	Survey Workgroup creates survey tool – 3/18/19, 11a – 1p ✓	NAG approves survey tool and sampling plan – 4/15/19, 1p – 3p ✓	Analysis Workgroup adopts principles for data analysis (will set soon)	NA data collection and entry continues	NA data collection and entry continues NAG update – 7/15/19, 1p – 3p	NA data collection and entry continues
	Epi Workgroup convenes to create sampling plan – 3/18/19, 2p – 4p ✓	NA data collection and entry begins ✓	NA data collection and entry continues	Focus Group: Case Mgmt Staff – 6/19/19	Focus Group: Outreach Staff – 7/10/19	Focus Group: Prevention / Linkage Staff
Sep 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2020	Feb 2020	Mar 2020
NA data collection and entry ends, cleaning and analysis begins	Analysis WG convenes to review preliminary findings	Analysis concludes, staff write report	Committee approves NA report	No activities	Steering and Council approve NA report	Report findings prepared for HTBMN and priority setting processes
Focus Group: HSDA/Rural consumers	Focus Group: EMA/Urban consumers	NAG reviews/approves NA report – 11/18/19, 1p – 3p				

2019 Needs Assessment Survey
Needs Assessment Qualification Questions

We are surveying folks about services for people who are dealing with a specific long-term health condition. Please answer the following questions. When you are finished, please return to a survey staff member to see if you qualify for the survey. 😊

1. Which county do you live in?

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> Harris | <input type="checkbox"/> Colorado |
| <input type="checkbox"/> Fort Bend | <input type="checkbox"/> Austin |
| <input type="checkbox"/> Waller | <input type="checkbox"/> Walker |
| <input type="checkbox"/> Montgomery | <input type="checkbox"/> I don't live in any of these counties |
| <input type="checkbox"/> Liberty | <input type="checkbox"/> I don't want to answer |
| <input type="checkbox"/> Chambers | |
| <input type="checkbox"/> Wharton | |

2. Are you dealing with a chronic or long-term health condition?

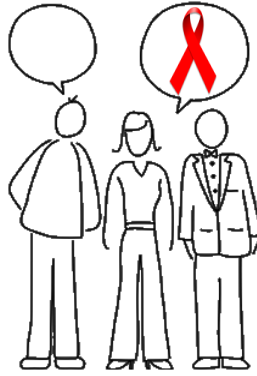
- | | |
|------------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> I don't know |
| <input type="checkbox"/> No | <input type="checkbox"/> I don't want to answer |

3. Are you living with any of the following health conditions?

- | | |
|--|---|
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> I don't know |
| <input type="checkbox"/> High blood pressure | <input type="checkbox"/> I don't want to answer |
| <input type="checkbox"/> HIV | |
| <input type="checkbox"/> Hepatitis C | |

STAFF USE ONLY-SURVEY ADMIN

Date of survey: _____
Agency/location: _____
Staff initials: _____
Gift card #: _____

**STAFF USE ONLY-DATA ENTRY**

Date of data entry: _____
Auto survey #: _____
Staff initials: _____

2019 Consumer Survey

Dear Participant,

The purpose of this survey is to learn about your needs for HIV care and what it's like for you to be living with HIV. Only people who are living with HIV, 18 years of age or older*, and who live in the greater Houston area should take this survey. If you don't meet these requirements or are not sure, please talk to a staff person now.

* A parent or legal guardian must complete a survey on behalf of a person living with HIV ages 13-17.

Please read the following before you begin:

- Your participation in this survey is 100% voluntary. You do not have to participate. If you do, it will help us learn what people need for HIV care.
- Everything you tell us is 100% confidential. You will not be identified in the report, and no information about you *as an individual* will be collected or shared. All the answers you give will be combined with other surveys and shown as a group.
- You may find some of the questions personal, and they may make you feel uncomfortable. You do not have to continue if you feel this way. Please talk to a staff person at any time if you feel uncomfortable with the survey.
- You will receive an incentive for your participation after you have finished the survey. You will be asked to sign for the incentive, but you do not have to use your legal name.
- If you complete the survey, you are consenting to participate in this project. You are also giving us your consent to use your survey answers. Again, you will not be identified in the report, and no information about you *as an individual* will be collected or shared.
- Please take your time to answer all questions as completely and accurately as possible. There are no right or wrong answers. There is no time limit.
- If you have questions about this survey, please contact the Ryan White Planning Council Office of Support at (832) 927-7926 at any time.

You can begin the survey now. Please bring your completed survey to a staff person when you are done. Thank you for your participation in this project!

Section 1: HIV Services

1. Please tell us about any of the following funded HIV services you have used or needed in the past 12 months:

HIV medical care visits or clinic appointments with a doctor, nurse, or physician assistant (i.e., outpatient primary HIV medical care)	Please check one: <input type="checkbox"/> I didn't know this service was available <input type="checkbox"/> I did not need this service <input type="checkbox"/> I needed this service, and it was easy to get <input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)	Briefly, please tell us what made it difficult for you to get this service? <hr/> <hr/> <hr/>
HIV medication assistance (this is help paying for HIV medications <i>in addition to or instead of</i> assistance from the state/ADAP)	Please check one: <input type="checkbox"/> I didn't know this service was available <input type="checkbox"/> I did not need this service <input type="checkbox"/> I needed this service, and it was easy to get <input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)	Briefly, please tell us what made it difficult for you to get this service? <hr/> <hr/> <hr/>
Health insurance assistance (this is when you have private health insurance or Medicare and you get help paying for your co-pays, deductibles, or premiums for medications or medical visits)	Please check one: <input type="checkbox"/> I didn't know this service was available <input type="checkbox"/> I did not need this service <input type="checkbox"/> I needed this service, and it was easy to get <input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)	Briefly, please tell us what made it difficult for you to get this service? <hr/> <hr/> <hr/>
Oral health care visits with a dentist or hygienist	Please check one: <input type="checkbox"/> I didn't know this service was available <input type="checkbox"/> I did not need this service <input type="checkbox"/> I needed this service, and it was easy to get <input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)	Briefly, please tell us what made it difficult for you to get this service? <hr/> <hr/> <hr/>

Con't: Please tell us about any of the following HIV services that you have used or needed in the past 12 months:

Case management (these are people at your clinic or program who assess your needs, make referrals for you, and help you make/keep appointments)	Please check one: <input type="checkbox"/> I didn't know this service was available <input type="checkbox"/> I did not need this service <input type="checkbox"/> I needed this service, and it was easy to get <input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)	Briefly, please tell us what made it difficult for you to get this service? <hr/> <hr/> <hr/>
Outpatient alcohol or drug treatment or counseling	Please check one: <input type="checkbox"/> I didn't know this service was available <input type="checkbox"/> I did not need this service <input type="checkbox"/> I needed this service, and it was easy to get <input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →) Did you need this service for: <i>(Check all that apply)</i> <input type="checkbox"/> Alcohol use concerns <input type="checkbox"/> Drug use concerns	Briefly, please tell us what made it difficult for you to get this service? <hr/> <hr/> <hr/>
Professional mental health counseling (this is counseling or therapy with a licensed professional counselor or therapist, either individually or as part of a therapy group)	Please check one: <input type="checkbox"/> I didn't know this service was available <input type="checkbox"/> I did not need this service <input type="checkbox"/> I needed this service, and it was easy to get <input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)	Briefly, please tell us what made it difficult for you to get this service? <hr/> <hr/> <hr/>
Day treatment (this is a place you go during the day for help with your HIV medical care from a nurse or PA. It is <i>not</i> a place you live)	Please check one: <input type="checkbox"/> I didn't know this service was available <input type="checkbox"/> I did not need this service <input type="checkbox"/> I needed this service, and it was easy to get <input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)	Briefly, please tell us what made it difficult for you to get this service? <hr/> <hr/> <hr/>

Con't: Please tell us about any of the following HIV services that you have used or needed in the past 12 months:

Hospice care (this is a program for people in a terminal stage of illness to get end-of-life care)	Please check one: <input type="checkbox"/> I didn't know this service was available <input type="checkbox"/> I did not need this service <input type="checkbox"/> I needed this service, and it was easy to get <input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)	Briefly, please tell us what made it difficult for you to get this service? <hr/> <hr/> <hr/>
Nutritional supplements (this includes supplements like Ensure, fish oil, protein powder, etc. and/or nutritional counseling from a professional dietician)	Please check one: <input type="checkbox"/> I didn't know this service was available <input type="checkbox"/> I did not need this service <input type="checkbox"/> I needed this service, and it was easy to get <input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)	Briefly, please tell us what made it difficult for you to get this service? <hr/> <hr/> <hr/>
Vision care (this includes routine vision services and glasses provided at your HIV clinic or program)	Please check one: <input type="checkbox"/> I didn't know this service was available <input type="checkbox"/> I did not need this service <input type="checkbox"/> I needed this service, and it was easy to get <input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)	Briefly, please tell us what made it difficult for you to get this service? <hr/> <hr/> <hr/>
Language translation (at your clinic or program in a language <u>other than English or Spanish</u>).	Please check one: <input type="checkbox"/> I didn't know this service was available <input type="checkbox"/> I did not need this service <input type="checkbox"/> I needed this service, and it was easy to get <input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)	Briefly, please tell us what made it difficult for you to get this service? <hr/> <hr/> <hr/>

Con't: Please tell us about any of the following HIV services that you have used or needed in the past 12 months:

<p>Transportation (this is when your clinic or program offers van rides or a Metro bus card to help you attend your HIV medical appointments)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I didn't know this service was available</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p> <p>Did you need this service for: (Check all that apply)</p> <p><input type="checkbox"/> Van ride(s)</p> <p><input type="checkbox"/> Bus pass(es)</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>Outreach services (these are people at your clinic or program who contact you to help you get HIV medical care when you have a couple of missed appointments)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I didn't know this service was available</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>ADAP enrollment workers (these are people at your clinic or program who help you complete an application for ADAP medication assistance from the state)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I didn't know this service was available</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>**If you were in Harris County Jail, please tell us about:</p> <p>Pre-discharge planning (this is when jail staff help you plan how to access HIV medical care after your release)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I didn't know this service was available</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>

2. The following services are not currently funded through Ryan White, but could be funded in the future. You may have used these services at facility or through a different funder than Ryan White. Please tell us about any of the following unfunded HIV services that you have used or needed in the past 12 months:

<p>Home health care (this is medical care provided specifically for the treatment of HIV when you cannot leave home)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get from _____ (agency received from)</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>Child care services (this is child care provided to children living in your household to allow you to attend HIV medical visits)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get from _____ (agency received from)</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>Food bank / home delivered meals (this includes food items, personal hygiene produces, cleaning supplies, water filters; hot meals; meal delivery; and vouchers to purchase food)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get from _____ (agency received from)</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p> <p>Did you need this service for: (Check all that apply)</p> <p><input type="checkbox"/> Food bank</p> <p><input type="checkbox"/> Home delivered meals</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>

Con't: Please tell us about any of the following unfunded HIV services that you have used or needed in the past 12 months:

<p>Health education / risk reduction (this is education about strategies to prevent or reduce the risk of HIV transmission to others)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get from _____ (agency received from)</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>Housing (this is temporary or long term housing specifically for people living with HIV)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get from _____ (agency received from)</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>Other professional services (these are professional and consultant services for HIV-related: legal services like Social Security Disability Insurance denial and discrimination, permanency planning including wills and dependent placement, and tax preparation if you used the advanced premium tax credit to purchase Affordable Care Act health insurance)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get from _____ (agency received from)</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p> <p>Did you need this service for: (Check all that apply)</p> <p><input type="checkbox"/> Legal services</p> <p><input type="checkbox"/> Permanency planning</p> <p><input type="checkbox"/> Tax preparation</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>

Con't: Please tell us about any of the following unfunded HIV services that you have used or needed in the past 12 months:

<p>Psychosocial support services (these support group and counseling services not provided by a licensed mental health professional, including bereavement counseling and HIV support groups)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get from _____ (agency received from)</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p> <p>Did you need this service for: (Check all that apply)</p> <p><input type="checkbox"/> Online support/groups</p> <p><input type="checkbox"/> In person support/groups</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>Rehabilitation services (this is outpatient physical, occupational, speech, and vocational therapy)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get from _____ (agency received from)</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>
<p>Respite care (this is in-home non-medical assistance provided to a person living with HIV to relieve a primary caregiver responsible for the person's daily care)</p>	<p>Please check one:</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get from _____ (agency received from)</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>

Con't: Please tell us about any of the following unfunded HIV services that you have used or needed in the past 12 months:

Residential or inpatient alcohol or drug treatment or counseling	<p>Please check one:</p> <p><input type="checkbox"/> I did not need this service</p> <p><input type="checkbox"/> I needed this service, and it was easy to get from _____ (agency received from)</p> <p><input type="checkbox"/> I needed this service, and it was difficult to get (<i>go here</i> →)</p> <p>Did you need this service for: (Check all that apply)</p> <p><input type="checkbox"/> Alcohol use concerns</p> <p><input type="checkbox"/> Drug use concerns</p>	<p>Briefly, please tell us what made it difficult for you to get this service?</p> <p>_____</p> <p>_____</p> <p>_____</p>
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3. What is your preferred method of communication? _____

4. How do you currently communicate with your HIV medical provider?






(Check all that apply)

- ☐ I don't currently have a medical provider (*skip bullets below and go to Question 5*)
- ☐ Phone calls
- ☐ Email
- ☐ Text messaging
- ☐ An online portal (ex: MyChart)
- ☐ I drop by the office in person
- ☐ Other: _____

• Does your HIV medical provider communicate information about your health in a way that is straightforward and easy to understand?

- ☐ Yes ☐ No

• How would you rate communication with your HIV medical provider?

 It's Poor	 It's Not Very Good	 It's Good	 It's Very Good	 It's Great!
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

• If communication is "Poor", "Not Very Good", or "Good", what could be changed to make it better? (*skip to Question 5 if "Very Good", or "Great"*)

5. What other kinds of services do you need to help you get your HIV medical care?

Section 2: When You Were First Diagnosed

6. What year were you diagnosed with HIV? _____

7. Where did you get your HIV diagnosis? _____

• If you were diagnosed after 2014, did you get any of the following services from the same agency where you were diagnosed? (*Check one answer for each item below*)

- | | | | |
|---|------------------------------|-----------------------------|---|
| • A list of HIV clinics to go to for medical care | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't remember |
| • An appointment for your first HIV doctor's visit | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't remember |
| • Someone offered to help you get into HIV care | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't remember |
| • Someone answered all of my questions about how to live with HIV | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't remember |
| • Someone told me how to get help paying for HIV medical care | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't remember |

Section 3: Your HIV Care History

8. If there was a delay in seeing a doctor for HIV for more than 1 month after you received your HIV diagnosis, what caused the delay? (Check all that apply)

- ☐ N/a, there was no delay in seeing a doctor for HIV
- ☐ My first HIV medical appointment was rescheduled
- ☐ I didn't know services exist to help pay for HIV care
- ☐ I was diagnosed before HIV treatment existed
- ☐ I felt fine, I wasn't sick
- ☐ I didn't want to believe I contracted HIV
- ☐ I didn't want to take medications
- ☐ I didn't know where to get HIV medical care
- ☐ I couldn't afford HIV medical care
- ☐ I was drinking or doing drugs at the time
- ☐ I had problems with mental health at the time
- ☐ There were other priorities in my life at the time
- ☐ I couldn't get there, no transportation
- ☐ I was afraid of people finding out I contracted HIV
- ☐ Don't remember
- ☐ Other: _____

9. If you ever stopped seeing an HIV doctor for 12 months or more, why did you stop? (Check all that apply)

- ☐ N/a, I never stopped seeing a doctor for 12 months
- ☐ I moved or relocated
- ☐ My eligibility expired
- ☐ I felt fine, I wasn't sick
- ☐ I was tired of it, wanted a break
- ☐ I didn't want to take HIV medications
- ☐ I had side effects from my HIV medications
- ☐ My viral load was undetectable
- ☐ I couldn't afford it anymore
- ☐ I lost my health insurance or Ryan White
- ☐ I was drinking or doing drugs at the time
- ☐ I had problems with mental health at the time
- ☐ There were other priorities in my life at the time
- ☐ I couldn't get there, no transportation
- ☐ My doctor or case manager left
- ☐ I had a bad experience at the clinic
- ☐ Don't remember
- ☐ Other: _____

10. In the past 12 months, how many times have you:

Visited a doctor, nurse, or PA for HIV: _____

Been prescribed HIV medication (ART): _____

Had a test for your HIV viral load: _____

Had a test for your CD4 (t-cell) count: _____

☐ I haven't done any of these in the past 12 months

☐ I've never done any of these

☐ I don't remember

11. If you are not currently taking HIV medications, why are you not taking them?

(Check all that apply)

☐ N/a, I *do* take HIV medication

☐ I missed a refill

☐ I am undetectable or an elite controller/long-term non-progressor
(please note that current treatment standards recommend continuing with HIV medication if you are undetectable to help stay undetectable)

☐ I forget to take them

☐ I did not receive my mail-order medications or I think someone else took them from my mail

☐ My eligibility expired

☐ No doctor has offered them to me

☐ My doctor doesn't think it's a good idea for me

☐ I had bad side effects

☐ They are too hard to take as prescribed

☐ I don't have the correct food to take with them

☐ I can't pay for them

☐ I don't have prescription insurance coverage

☐ I don't have a safe place to keep them

☐ I don't want anyone to know I'm taking HIV meds

☐ I was tired of it, wanted a break

☐ I choose not to take them

☐ I feel fine, I'm not sick

Other: _____

Section 4: Other Health Concerns

12. Has a doctor told you that you currently have any of the following *non-HIV* medical condition? *(Check all that apply)*

☐ Alzheimer's or dementia

☐ Arthritis

☐ Asthma

☐ Auto-immune disease (i.e., MS, lupus)

☐ Blood clotting disorder

☐ Cancer

☐ Chronic pain

☐ Diabetes

☐ Epilepsy or seizures

☐ Heart disease

☐ Hepatitis B

☐ Hepatitis C

If so: ☐ Treated ☐ Not treated

☐ Herpes

☐ High blood pressure

☐ High cholesterol

☐ HPV (human papillomavirus)

☐ Lung disease/COPD

☐ Liver disease

☐ Neuropathy/pain or numbness in hands or feet

☐ Obesity

☐ Osteoporosis, or bone disease

☐ Sleep disorder

☐ TB. If so: ☐ Active TB ☐ Latent TB

☐ Thyroid disease

☐ I have not been told I have any of these

☐ Prefer not to answer

☐ Other: _____

13. Have you been tested for any the following conditions?

(Check all that apply for each item below.)

	In the past <u>3</u> months	In the past <u>6</u> months	In the past <u>9</u> months	In the past <u>12</u> months	It has been <u>longer</u> <u>than 12</u> months	I have never had this test	I don't remember
Chlamydia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gonorrhea	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Syphilis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

• **Were you diagnosed with any of the conditions?**

(Check all that apply. If you have never had testing for any of the conditions or you do not remember, skip below and go to Question 14)

- ☐ No, I was not diagnosed with any of the conditions
- ☐ Chlamydia
- ☐ Gonorrhea
- ☐ Syphilis

• **If you were diagnosed with any of the conditions, did you complete treatment?**

(Check all that apply, and write in the condition/s to which each answer applies.)

- ☐ N/a, I was not diagnosed with any of the conditions
- ☐ No, I never got treatment for _____
- ☐ I started treatment, but did not complete it for _____
- ☐ Yes, I completed treatment for _____

14. In the past 12 months, have you felt any of the following to such a degree that you thought you wanted help? (Check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Anger | <input type="checkbox"/> Mood swings |
| <input type="checkbox"/> Anxiety or worry | <input type="checkbox"/> Trouble remembering |
| <input type="checkbox"/> Fear of leaving your home | <input type="checkbox"/> Trouble focusing |
| <input type="checkbox"/> Feeling impulsive or out of control | <input type="checkbox"/> Sadness |
| <input type="checkbox"/> Hallucinations | <input type="checkbox"/> Thoughts of hurting yourself or others |
| <input type="checkbox"/> Loneliness or isolation | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Night terrors | <input type="checkbox"/> None of the above |
| <input type="checkbox"/> Insomnia | <input type="checkbox"/> Prefer not to answer |

****If you are having any of these thoughts right now, contact your counselor immediately or refer to the resource list attached to this survey.**

15. Has a doctor told you that you currently have any of the following conditions?

(Check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> ADD/ADHD | <input type="checkbox"/> Gender dysphoria/gender identity disorder |
| <input type="checkbox"/> Agoraphobia | <input type="checkbox"/> Obsessive compulsive disorder |
| <input type="checkbox"/> AIDS Survivor Syndrome | <input type="checkbox"/> PTSD |
| <input type="checkbox"/> Anxiety or panic attacks | <input type="checkbox"/> Schizophrenia or episodes of psychosis |
| <input type="checkbox"/> Bipolar disorder | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Depression | <input type="checkbox"/> I don't have a mental health diagnosis |

16. In the past 12 months, have you experienced any of the following?

(Check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Been treated differently because you're living with HIV | <input type="checkbox"/> Threats of violence by a stranger |
| <input type="checkbox"/> Been denied services because you're living with HIV | <input type="checkbox"/> Physical assault by someone you know |
| <input type="checkbox"/> Been asked to leave a public place | <input type="checkbox"/> Physical assault by a stranger |
| <input type="checkbox"/> Verbal harassment/taunts | <input type="checkbox"/> Sexual assault by someone you know |
| <input type="checkbox"/> Threats of violence by someone you know | <input type="checkbox"/> Sexual assault by a stranger |
| | <input type="checkbox"/> None of the above |
| | <input type="checkbox"/> Prefer not to answer |

17. Are you currently in an intimate relationship with someone who makes you feel afraid, threatened, isolated, forces you to have sex, or physically hurts you?

(Check one)

- ☐ Yes ☐ No ☐ Prefer not to answer

***If you currently feel unsafe in an intimate relationship, refer to the resource list attached to this survey for help.*

Section 5: Substance Use

18. In the past 12 months, has alcohol or drug use interfered with you getting HIV medical care? *Examples could include alcohol or drug use that led to missing HIV medical appointments, having trouble taking HIV medications as prescribed, avoiding medical care for fear of legal issues, or fear telling your HIV doctor about alcohol or drug use. (Check one)*

- ☐ No, I have not used alcohol or drugs
- ☐ No, I have used alcohol or drugs, but it has not interfered with me getting HIV medical care
- ☐ Yes
- ☐ Prefer not to answer

If you answered no or prefer not to answer, skip bullet below and go to Question 19.

If you answered yes, which substance(s)? (Check all that apply)

- ☐ Alcohol
- ☐ Club/party drugs (e.g., ecstasy/MDMA/Molly, GHB, roofies, ketamine)
- ☐ Cocaine or crack
- ☐ Hallucinogens (e.g., LSD, PCP, mushrooms)
- ☐ Heroin
- ☐ Inhalants (e.g., poppers, glue)
- ☐ Marijuana
- ☐ Methamphetamine/meth
- ☐ Prescription drugs not prescribed to you (e.g., painkillers, opioids, tranquilizers)
- ☐ Prescription drugs prescribed to you, but used differently than intended
- ☐ Legal drugs from a shop (e.g., bath salts, kush/spice)
- ☐ Other: _____
- ☐ None of the above
- ☐ Prefer not to answer

Section 6: Housing, Transportation, and Social Support

19. Where do you sleep most often? (*Check one*)

- ☐ My own house/apartment that I pay for
- ☐ My own house/apartment that someone else pays for
- ☐ At the home of friends/family
- ☐ A group home for people living with HIV
- ☐ A group home, not just for people living with HIV
- ☐ Hotel/motel room that I pay for
- ☐ Hotel/motel room that someone else pays for
- ☐ Shelter
- ☐ Car
- ☐ On the street
- ☐ A combination of places, it changes all the time
- ☐ Other: _____

20. Do you feel your housing situation is stable? (*Check one*) ☐ Yes ☐ No

21. Does your housing situation currently have any of the following problems?

(*Check all that apply*)

- ☐ Problems with housing quality (*e.g. mold, asbestos, exposed wires, broken windows, leaks, poor insulation, broken plumbing, or broken appliances*)
- ☐ Problems with overcrowding/too many people
- ☐ Feeling like I have no privacy, or my personal items and medications are not safe
- ☐ Feeling unsafe or threatened in my house/apartment
- ☐ Feeling unsafe or threatened in my neighborhood
- ☐ I've had trouble getting housing because of felon status
- ☐ Other problems with my housing situation: _____
- ☐ I have no problems with my housing situation

22. Has your housing situation interfered with you getting HIV medical care?

(*Check one*) ☐ Yes ☐ No

23. Has your transportation situation interfered with you getting HIV medical care?

(*Check one*) ☐ Yes ☐ No

24. Social support is when people or groups in your life provide emotional support, assistance, advice, and/or companionship. Do you get social support from any of the following? (*Check all that apply*)

- ☐ Family / friends
- ☐ Faith group
- ☐ Recovery / sobriety group
- ☐ In-person support group
- ☐ Online groups (*please specify*): _____
- ☐ N/a, I don't get social support from any of these

Section 7: Financial Resources

25. What is your employment situation? (Check all that apply)

- ☐ Employed full time
- ☐ Employed part time
- ☐ Employed as a contractor (ex: Lyft, Uber, Instacart, DoorDash, etc.)
- ☐ Employed for cash (ex: cleaning, childcare, landscaping, construction, etc.)
- ☐ Self-employed
- ☐ I support myself through sex work
- ☐ I support myself through street work (ex: panhandling, drug trade, etc.)
- ☐ Retired
- ☐ Not working due to disability
- ☐ Unemployed, but currently seeking employment
- ☐ Unpaid volunteer
- ☐ Full time student
- ☐ Part time student
- ☐ Stay at home parent
- ☐ Unpaid caregiver for a family member or friend
- ☐ Other: _____

26. What is your current monthly household income? \$ _____

☐ Prefer not to answer

- How many people, including you, depend on this income? _____
- Of these, how many are children under 18 years old? _____

27. How do you pay for **general** medical care for yourself or your family?

(Check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Private health insurance. If so, which company do you have? _____
(e.g., Aetna, Anthem, Blue Cross/ Blue Shield, CIGNA, Humana) | <input type="checkbox"/> VA
<input type="checkbox"/> Indian Health Service
<input type="checkbox"/> Self-pay
<input type="checkbox"/> I don't get medical care because I can't pay for it
<input type="checkbox"/> I only get medical care for HIV through Ryan White
<input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> COBRA
<input type="checkbox"/> Medicaid
<input type="checkbox"/> Medicare
<input type="checkbox"/> Gold Card | |

28. Do you have trouble paying for the following types of medications on your own?

(Check one answer for each item below)

	Yes	No	I do not take this
HIV medication(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-HIV related medications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medications for mental health conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **If you have trouble paying for your medications, are you getting help paying for them?** (Check one)

- | | |
|------------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> No | <input type="checkbox"/> N/a, I do not take medication |

29. Do you regularly have difficulty accessing healthy food? (Check one)

☐ Yes

☐ No (skip bullet below and go to Question 30)

• What are the reasons you regularly have difficulty accessing healthy food?

☐ Healthy food is too expensive

☐ There is nowhere to buy healthy food near where I live

☐ It takes too long to travel to buy healthy food

☐ I don't have time to buy healthy food

☐ I'm not sure what kinds of food are healthy

☐ I don't like the taste of healthy food or I find it boring

☐ My family doesn't like healthy food

☐ I just choose not to eat healthy food

☐ I don't know how to cook

☐ I don't have the resources to be able to cook or store food

☐ I don't have time to prepare healthy food

☐ The options available at the food bank or food pantry I use are not healthy

☐ Other: _____

Section 8: Please Tell Us About Yourself...

30. What zip code do you live in? _____

31. What is your age (in years)?

☐ 13-17 years old

(parent / guardian completed)

☐ 18-24 years old

☐ 25-34 years old

☐ 35-49 years old

☐ 50-54 years old

☐ 55-64 years old

☐ 65-74 years old

☐ 75+ years old

32. What sex were you assigned at birth? (Check one)

☐ Male

☐ Female

☐ Intersex (someone born with both male and female reproductive or sex organs; or with reproductive or sex organs that were not clearly male or female)

33. What is your *primary* gender identity or gender expression today? (Check one)

☐ Man

☐ Woman

☐ Non-binary or gender fluid

☐ Other: _____

34. Are you currently pregnant? (Check one) ☐ Yes ☐ No ☐ Don't know

• If you are currently pregnant, are you in prenatal care?

(Check one)

☐ Yes

☐ No

☐ Don't know

35. How do you identify in terms of your sexual orientation? (Check one)

☐ Straight/Heterosexual

☐ Gay

☐ Lesbian

☐ Bisexual

☐ Pansexual (someone who feels sexual attraction, desire, love toward all sexes/genders)

☐ Asexual (someone who does not feel sexual attraction)

☐ Undecided

☐ Other: _____

36. Are you of Hispanic or Latin(o/a/x) origin? ☐ Yes ☐ No

37. What is your primary race? (Check one)

- | | |
|---|--|
| <input type="checkbox"/> White | <input type="checkbox"/> Pacific Islander or Native Hawaiian |
| <input type="checkbox"/> Black/African American | <input type="checkbox"/> Native American or Alaska Native |
| <input type="checkbox"/> Hispanic/Latin(o/a/x) | <input type="checkbox"/> Multiracial |
| <input type="checkbox"/> Asian American | <input type="checkbox"/> Other: _____ |

38. How long have you lived in the U.S.? (Check one)

- | | |
|--|---|
| <input type="checkbox"/> I was born in the U.S.
(if you were born in the U.S., skip bullet below and go to Question 39) | <input type="checkbox"/> I am here temporarily on a visa (student, work, tourist, etc.) |
| <input type="checkbox"/> More than 5 years | <input type="checkbox"/> Prefer not to answer |
| <input type="checkbox"/> Less than 5 years | <input type="checkbox"/> Other: _____ |

- What is your country of origin? (Please specify): _____
☐ Prefer not to answer

39. In the past 12 months, have you been released from jail or prison?
(Check one) ☐ Yes ☐ No

Section 9: Prevention Activities

40. In the past 12 months, have you received any information about preventing HIV transmission? (Check one) ☐ Yes ☐ No

- If so, where did you get this information? _____
- What was the information? _____

41. People living with HIV who maintain an undetectable viral load (under 20 copies/mL) for at least 6 months have essentially no risk of transmitting HIV to another person through sex. This is sometimes called Undetectable = Untransmittable, or U = U. **Have you heard about U = U before today?**
(Check one) ☐ Yes ☐ No ☐ Don't remember

42. Pre-Exposure Prophylaxis (also called PrEP) is a way for people who don't have HIV to prevent getting HIV by taking a pill every day. **Have you heard about PrEP before today?** (Check one) ☐ Yes ☐ No ☐ Don't remember

43. Do you know where a person who does not have HIV can go to get on PrEP?
(Check one) ☐ Yes ☐ No

***See the resource list attached to this survey for more information about PrEP.*

44. Post-exposure Prophylaxis (also called PeP) is a way for people who don't have HIV to prevent getting HIV if they think they may have been exposed through sex or needle sharing in the last 72 hours. **Have you heard about PeP before today?**
(Check one) ☐ Yes ☐ No ☐ Don't remember

45. Do you know where a person who does not have HIV can go to get PeP?

(Check one) ☐ Yes ☐ No

****See the resource list attached to this survey for more information about PeP.**

46. **If you've had sex in the past 6 months**, what is the HIV status of your sex partner(s)? This could be anal, vaginal, or oral sex, either receptive (bottom) or insertive (top), with any person. (Check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> I have not had sex in the past 6 months (skip Questions 47-49 below and go to Question 50) | <input type="checkbox"/> HIV negative, not taking PrEP |
| <input type="checkbox"/> HIV positive | <input type="checkbox"/> I don't know |
| <input type="checkbox"/> HIV negative, taking PrEP | <input type="checkbox"/> I don't remember |
| | <input type="checkbox"/> Prefer not to answer |

47. How often do you talk about your HIV status with new sex partners? (Check one)

- ☐ Always, with every partner
☐ Sometimes, with some partners
☐ Never, my partner already knows
☐ Never, I always use condoms, so I don't feel like I have to share my status
☐ Never, I have an undetectable viral load, so I don't feel like I have to share my status
☐ Never, I don't feel comfortable sharing my status
☐ Never, I don't want to share my status
☐ Never, I do not have sex

48. **If you've had sex in the past 6 months**, how often did you use a condom (or female / internal condom) for each of the following? (Check one answer for each item below)

	Every time	Most of the time	About half of the time	Rarely	Never	N/A, I didn't do this
Getting oral sex	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Giving oral sex	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vaginal sex	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anal sex, receptive (bottom)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anal sex, insertive (top)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

49. If you've had sex in the past 6 months, and you did not use a condom, why?

(Check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> I only ever have sex with one person | <input type="checkbox"/> I'm afraid my partner(s) will tell other people about my HIV status |
| <input type="checkbox"/> My sex partner(s) is living with HIV | <input type="checkbox"/> I'm not comfortable talking to partners about condoms |
| <input type="checkbox"/> My sex partner(s) is on PrEP | <input type="checkbox"/> I'm afraid of what my partner(s) will do if I bring up condoms |
| <input type="checkbox"/> My viral load is undetectable | <input type="checkbox"/> I only have oral sex, so I don't feel like I need a condom |
| <input type="checkbox"/> I don't think I can get HIV again | <input type="checkbox"/> I only use condoms when I have vaginal or anal sex, not with oral |
| <input type="checkbox"/> I can't get condoms | <input type="checkbox"/> I want to have a baby |
| <input type="checkbox"/> I don't like condoms | <input type="checkbox"/> Sex with a condom doesn't feel as good |
| <input type="checkbox"/> I'm not comfortable using condoms | <input type="checkbox"/> I only use sex toys for penetrative sex |
| <input type="checkbox"/> I'm allergic to condoms | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> I can't find condoms that fit | |
| <input type="checkbox"/> I'm too drunk / high at the time to remember to use condoms | |
| <input type="checkbox"/> I get caught up in the moment, and forget to use them | |
| <input type="checkbox"/> I don't think my partner likes condoms | |

50. In the past 12 months, did you use a needle to inject any substance, including medications, insulin, steroids, hormones, silicone, or drugs? This does not include an injection or blood test from a medical professional. (*Check one*)

- ☐ No (*skip Questions 51-52 below and go to Question 53*)
- ☐ Yes

51. In the past 12 months, how often did you share or use needles or injection equipment that somebody else may have used?

- | | |
|--|--|
| <input type="checkbox"/> N/a, I never share or use other people's needles or injection equipment | <input type="checkbox"/> Only a few times |
| <input type="checkbox"/> Never | <input type="checkbox"/> About half the time |
| | <input type="checkbox"/> Often |
| | <input type="checkbox"/> Always |

52. In the past 12 months, how often did you clean your needles or injection equipment with bleach?

- | | |
|---|--|
| <input type="checkbox"/> N/a, I never share or reuse needles or injection equipment | <input type="checkbox"/> About half the time |
| <input type="checkbox"/> Never | <input type="checkbox"/> Often |
| <input type="checkbox"/> Only a few times | <input type="checkbox"/> Always |

Final Questions...

53. In the past 12 months, did you get help for yourself from any of the following agencies? (*Check all that apply*)

- | | |
|--|---|
| <input type="checkbox"/> AAMA | <input type="checkbox"/> Harris County Jail |
| <input type="checkbox"/> Accesshealth in Fort Bend | <input type="checkbox"/> Legacy Community Health |
| <input type="checkbox"/> AIDS Foundation Houston (AFH) | <input type="checkbox"/> Memorial Hermann |
| <input type="checkbox"/> AIDS Healthcare Foundation (AHF) | <input type="checkbox"/> Positive Efforts |
| <input type="checkbox"/> Avenue 360 Health & Wellness | <input type="checkbox"/> St. Hope Foundation |
| <input type="checkbox"/> Bee Busy Inc. | <input type="checkbox"/> TDCJ |
| <input type="checkbox"/> Bee Busy Wellness Center | <input type="checkbox"/> Texas Children's Hospital |
| <input type="checkbox"/> Bering Omega Community Services | <input type="checkbox"/> The Montrose Center (formerly
Montrose Counseling Center) |
| <input type="checkbox"/> Change Happens! | <input type="checkbox"/> Thomas Street Health Center |
| <input type="checkbox"/> Covenant House | <input type="checkbox"/> Veteran's Affairs/VA |
| <input type="checkbox"/> Fundación Latinoamericana De Acción
Social (FLAS) | <input type="checkbox"/> Other: _____ |

54. Do you know how to file a grievance or a complaint? (*Check one for each item below*)

	Yes	No
<i>With an agency</i>	<input type="checkbox"/>	<input type="checkbox"/>
<i>With Ryan White**</i>	<input type="checkbox"/>	<input type="checkbox"/>

***See the resource list attached to this survey for the Ryan White grievance/complaint lines.*

Thank you for taking our survey!

Your answers will help us learn what people need for HIV care in the Houston Area.

If you have questions about this survey after today, please contact:

Ryan White Planning Council

Office of Support

(832) 927-7926

Please bring your completed survey to a staff person now.

To be updated to 2019

RESOURCE LIST – YOURS TO KEEP!

Please tear off this page and take it with you.

If you need immediate help, please contact the agencies below.

All services are available in English and Spanish.

CRISIS HOTLINES (available 24 hours/7 days)	
Abuse/Neglect Hotline (Adult, Child, Disabled)	1-800-252-5400
Coalition for the Homeless	713 739-7514
Crisis Intervention of Houston Spanish	713 HOTLINE (468-5463) 713 4AYUDA
LGBT Switchboard Helpline	713 529-3211
Rape Crisis Hotline	713 528-7273
Suicide Prevention Hotline	1-800-273-TALK (8255) 1-800-799-4TTY (4889) TTY
Teen Crisis Hotline	713 524-TEEN
Texas Youth Hotline	1-800-989-6884
Trevor Lifeline (LGBTQ youth)	1-866-488-7386
United Way	211 (713-957-4357)
Vet2Vet Crisis Hotline	1-877-VET2VET (838-2838)
Veteran Crisis Line	1-800-273-8255 (Press 1)
DOMESTIC/INTIMATE PARTNER VIOLENCE	
Aid to Victims of Domestic Abuse	713 224-9911
Domestic Violence Hotline	713 528-2121
LGBT Switchboard Helpline	713 529-3211
DOMESTIC VIOLENCE EMERGENCY SHELTER	
Fort Bend County Women's Center	281 342-HELP (4357)
Houston Area Women's Center	713 528-2121
Montgomery County Women's Center	936 441-7273
The Montrose Center (LGBT)	713 529-3211
MENTAL HEALTH CRISIS	
Emergency Psychiatric Services	713 970-7070
Tri-County Emergency Psychiatric Services (Montgomery, Liberty, and Walker counties)	1-800-659-6994
PRE-EXPOSURE PROPHYLAXIS (PrEP)	
Bee Busy Wellness Center	713 771-2292
Dr. Gorden Crofoot	713 526-0005
Houston Area Community Services (HACS)	832 384-1406
Legacy Community Health	832 548-5221
St. Hope Foundation	713 778-1300
SUBSTANCE & ALCOHOL ABUSE	
Alcoholics Anonymous	713 686-6300
Al-Anon	713 683-7227
Cocaine Anonymous	713 668-6822
Narcotics Anonymous	713 661-4200
Palmer Drug Abuse Program	281 589-4602
QUESTIONS ABOUT THE SURVEY	
	713 572-3724

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FUNDED AGENCIES

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- Montrose Center
- St. Foundation
- Thomas Street Health Center
- UT Health Science Center (pediatrics)
- VA Medical Center

RYAN WHITE PART B & STATE SERVICES

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- Harris County Jail
- Legacy Community Health
- Montrose Center
- Saint Hope Foundation

RYAN WHITE PART A:

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Spanish: 713-439-6095

Or write to:

Harris County Public Health Services
Ryan White Grant Administration
2223 West Loop South, Suite 417
Houston, TX 77027

RYAN WHITE PART B & STATE SERVICES:

Reachelian Ellison, Consumer Relations
Coordinator

713-526-1016, Ext. 104

rellison@hivtrg.org

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Houston Regional HIV/AIDS Resource
Group
500 Lovett Boulevard, Suite 100
Houston, TX 77006

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2019 QUARTERLY REPORT

COMPREHENSIVE HIV PLANNING COMMITTEE

Status of Committee Goals and Responsibilities (*means mandated by HRSA):

1. Assess, evaluate, and make ongoing recommendations for the Comprehensive HIV Prevention and Care Services Plan and corresponding areas of the End HIV Plan.
2. *Determine the size and demographics of the estimated population of individuals who are unaware of their HIV status.
3. *Work with the community and other committees to develop a strategy for identifying those with HIV who do not know their status, make them aware of their status, and link and refer them into care.
4. *Explore and develop on-going needs assessment and comprehensive planning activities including the identification and prioritization of special studies.
5. *Review and disseminate the most current Joint Epidemiological Profile.

Committee Chairperson

Date

EDITORIAL

Ending the HIV Epidemic A Plan for the United States

Anthony S. Fauci, MD; Robert R. Redfield, MD; George Sigounas, MS, PhD; Michael D. Weahkee, MHA, MBA;
Brett P. Giroir, MD

In the State of the Union Address on February 5, 2019, President Donald J. Trump announced his administration's goal to end the HIV epidemic in the United States within 10 years. The president's budget will ask Republicans and Democrats



Supplemental content

to make the needed commitment to support a concrete plan to achieve this goal.

While landmark biomedical and scientific research advances have led to the development of many successful HIV treatment regimens, prevention strategies, and improved care for persons with HIV, the HIV pandemic remains a public health crisis in the United States and globally.

In the United States, more than 700 000 people have died as a result of HIV/AIDS since the disease was first recognized in 1981, and the Centers for Disease Control and Prevention (CDC) estimates that 1.1 million people are currently living with HIV, about 15% of whom are unaware of their HIV infection.¹ Approximately 23% of new infections are transmitted by individuals who are unaware of their infection and approximately 69% of new infections are transmitted by those who are diagnosed with HIV infection but who are not in care.² In 2017, more than 38 000 people were diagnosed with HIV in the United States. The majority of these cases were among young black/African American and Hispanic/Latino men who have sex with men (MSM). In addition, there was high incidence of HIV among transgender individuals, high-risk heterosexuals, and persons who inject drugs.¹ This public health issue is also connected to the broader opioid crisis: 2015 marked the first time in 2 decades that the number of HIV cases attributed to drug injection increased.³ Of particular note, more than half of the new HIV diagnoses were reported in southern states and Washington, DC. During 2016 and 2017, of the 3007 counties in the United States, half of new HIV diagnoses were concentrated in 48 "hotspot" counties, Washington, DC, and Puerto Rico.⁴

The US Department of Health and Human Services (HHS) has proposed a new initiative to address this ongoing public health crisis with the goals of first reducing numbers of incident infections in the United States by 75% within 5 years, and then by 90% within 10 years. This initiative will leverage critical scientific advances in HIV prevention, diagnosis, treatment, and care by coordinating the highly successful programs, resources, and infrastructure of the CDC, the National Institutes of Health (NIH), the Health Resources and Services Administration (HRSA), the Substance Abuse and Mental Health Services Administration (SAMHSA), and the Indian Health Service (IHS). The initial phase, coordinated by the HHS

Office of the Assistant Secretary of Health, will focus on geographic and demographic hotspots in 19 states, Washington, DC, and Puerto Rico, where the majority of the new HIV cases are reported, as well as in 7 states with a disproportionate occurrence of HIV in rural areas (eFigure in the Supplement).

The strategic initiative includes 4 pillars:

1. diagnose all individuals with HIV as early as possible after infection;
2. treat HIV infection rapidly and effectively to achieve sustained viral suppression;
3. prevent at-risk individuals from acquiring HIV infection, including the use of pre-exposure prophylaxis (PrEP); and
4. rapidly detect and respond to emerging clusters of HIV infection to further reduce new transmissions.

A key component for the success of this initiative is active partnerships with city, county, and state public health departments, local and regional clinics and health care facilities, clinicians, providers of medication-assisted treatment for opioid use disorder, and community- and faith-based organizations.

The implementation of advances in HIV research achieved over 4 decades will be essential to achieving the goals of the initiative. Clinical studies serve as the scientific basis for strategies to prevent HIV transmission/acquisition. In this regard, as reviewed in a recent Viewpoint in *JAMA*,⁵ large clinical studies have recently proven the concept of undetectable = untransmittable (U = U), which has broad public health implications for HIV prevention and treatment at both the individual and societal level. U = U means that individuals with HIV who receive antiretroviral therapy (ART) and achieve and maintain an undetectable viral load do not sexually transmit HIV to others.⁵ U = U will be invaluable in helping to counteract the stigma associated with HIV, and this initiative will create environments in which all people, no matter their cultural background or risk profile, feel welcome for prevention and treatment services.

Results from numerous clinical trials have led to significant advances in the treatment of HIV infection, such that a person living with HIV who is properly treated and adherent with therapy can expect to achieve a nearly normal lifespan. This progress is due to antiviral drug combinations drawn from more than 30 agents approved by the US Food and Drug Administration (FDA), as well as medications for the prevention and treatment regimens of HIV-associated coinfections and comorbidities. Furthermore, PrEP with a daily regimen of 2 oral antiretroviral drugs in a single pill has proven to be highly effective in preventing HIV infection for individuals at high risk. In addition, postexposure prophylaxis provides a highly ef-

fective means of preventing transmission from a high-risk exposure and can serve as a bridge to PrEP.

Collectively, these advances suggest that, theoretically, the HIV epidemic in this country could be ended quickly by expanding access to treatment to all persons with HIV and PrEP to all those at high risk. The administration has developed a practical, achievable plan to focus on hotspots of HIV infection, both demographic and geographic. Lessons learned and effective strategies emanating from this initiative would ultimately be applied to profoundly reduce HIV incidence nationwide through federal, state, and local health departments and nongovernmental organizations.

In the developing world, particularly in Africa, the President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund to Fight AIDS, Tuberculosis and Malaria have helped close gaps in HIV treatment and prevention implementation and have addressed disparities between resource-rich and resource-limited nations. PEPFAR has brought the HIV global pandemic from crisis toward control and replaced death and despair with hope and life. The latest results achieved by US leadership and partnerships through PEPFAR, the Global Fund, and other organizations are estimated to have saved more than 21.7 million lives. PEPFAR alone is supporting more than 14.6 million people with lifesaving ART, when just 50 000 people were receiving ART in Africa at the start of the PEPFAR program in 2003.⁶

Demographic and geographic hotspots of HIV infection need a particular focus to interrupt or disrupt the kinetics of HIV spread in the United States. The coordinated multi-HHS agency initiative will provide this focus. The HRSA Ryan White HIV/AIDS Program (RWHAP) has achieved remarkable success in implementing quality HIV treatment and care. For 2017, the program reports that 85% of individuals who had at least 1 medical visit had achieved viral suppression, far exceeding the national average of 60% of HIV-diagnosed adults and adolescents. The RWHAP has significantly increased the rate of viral suppression among key populations including women, transgender individuals, black/African American individuals, adolescents and young adults, and those with unstable housing.⁷

Using this experience, HRSA will accelerate its efforts working with state and county health departments and community and faith-based organizations to play a major role in the HHS initiative to end the US HIV epidemic. The RWHAP provides the infrastructure, personnel, and expertise for effective treatment and medical intervention strategies. The CDC will be critical for this initiative by amplifying its existing programs and working in communities along with state and local health authorities to bring HIV testing to all who need it, to diagnose infections as early as possible, to conduct epidemiologic investigations of new HIV clusters, and to promote rapid linkage to comprehensive care in the RWHAP. The HRSA Health Centers Program will provide PrEP services to those identified at high risk for HIV acquisition and care for those with HIV. The IHS will focus on urban and rural tribal communities, ensuring that emerging threats are addressed and effective programs and services are marshaled in these communities to address the 4 pillars of the strategic initiative. To expand access to treating HIV, the IHS has published PrEP guidelines for local use and customization and developed electronic health record clinical reminders to assist clinical staff.

The NIH's Centers for AIDS Research will inform HHS partners in this initiative on best practices, based on state-of-the-art biomedical research findings, and by collecting and disseminating data on the effectiveness of approaches used in this initiative. In addition to syringe services programs, access to FDA-approved medication-assisted treatment for substance use disorders, in concert with counseling/behavioral services, is critically important. SAMHSA's efforts to increase providers of medication-assisted treatment, particularly in the hotspots, will help control the spread of HIV, providing access for intravenous drug users with substance use disorder and HIV to receive the treatment they need.

The president, the secretary of HHS, and members of the department are committed to ending the HIV epidemic in the United States. The president's budget will propose a way forward on this bold initiative to achieve this goal.

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Published Online: February 7, 2019.

doi:10.1001/jama.2019.1343

Conflict of Interest Disclosures: None reported.

REFERENCES

1. Department of Health and Human Services, Centers for Disease Control and Prevention. HIV in the United States and dependent areas. <https://www.cdc.gov/hiv/statistics/overview/ata glance.html>. Updated January 29, 2019. Accessed February 5, 2019.
2. Frieden TR, Foti KE, Mermin J. Applying public health principles to the HIV epidemic: how are we doing? *N Engl J Med*. 2015;373(23):2281-2287. doi:10.1056/NEJMms1513641
3. Department of Health and Human Services, Centers for Disease Control and Prevention. NCHSTP AtlasPlus. <https://www.cdc.gov/nchstp/atlas/index.htm>. Published August 30, 2017. Accessed February 4, 2019.
4. Department of Health and Human Services, Centers for Disease Control and Prevention. HIV Surveillance Report 2017. <https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>.
5. Eisinger RW, Dieffenbach CW, Fauci AS. HIV viral load and transmissibility of HIV infection: undetectable equals untransmittable. *JAMA*. 2019; 321(5):451-452. doi:10.1001/jama.2018.21167
6. Joint United Nations Programme on HIV and AIDS. Global HIV & AIDS Statistics—2018 Fact Sheet. <http://www.unaids.org/en/resources/fact-sheet>. Accessed February 5, 2019.
7. Mandsager P, Marier A, Cohen S, Fanning M, Hauck H, Cheever LW. Reducing HIV-related health disparities in the Health Resources and Services Administration's Ryan White HIV/AIDS Program. *Am J Public Health*. 2018;108(S4):S246-S250. doi:10.2105/AJPH.2018.304689

Metabolic Syndrome Among People Living with HIV Receiving Medical Care in Southern United States: Prevalence and Risk Factors

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AIDS and Behavior

ISSN 1090-7165

AIDS Behav

DOI 10.1007/s10461-019-02487-8

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AIDS 10461 • ISSN 1090-7165 • 10.1007/s10461-019-02487-8

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Metabolic Syndrome Among People Living with HIV Receiving Medical Care in Southern United States: Prevalence and Risk Factors

Sabeena Sears^{1,8} · Justin R. Buendia¹ · Sylvia Odem¹ · Mina Qobadi² · Pascale Wortley³ · Osaro Mgbere⁴ · Jontae Sanders⁵ · Emma C. Spencer⁵ · Arti Barnes^{6,7}

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Abstract

Using representative data among 1861 in care people living with HIV (PLWH) in four southern states (Texas, Mississippi, Florida, and Georgia) from the 2013–2014 Medical Monitoring Project (MMP) survey, we estimated the prevalence and odds of metabolic syndrome (MetS) among various demographic and HIV related risk factors. Overall MetS prevalence was 34%, with our participants being mostly black (55%), male (72%), ≥ 50 years old (46%), and overweight or obese (60%) with undetectable viral loads (≤ 200 copies/ml, 69%), and were currently taking antiretroviral medication (98%). Compared to those who were ≥ 60 years, 18–39 year olds had a 79% (95% CI 0.13–0.33) lower odds of having MetS. Women were 2.24 times more likely to have MetS than men (95% CI 1.69–2.97). Age and sex were significant predictors of MetS. Since MetS is a combination of chronic disease risk factors, regular screening for MetS risk factors among aging PLWH is crucial.

Keywords HIV · Metabolic syndrome · Medical Monitoring Project · Southern United States

Resumen

Usando datos representativos entre 1861 personas viviendo con VIH y recibiendo cuidado para VIH en cuatro estados del sur (Texas, Mississippi, Florida y Georgia) de la encuesta del Proyecto de Monitoreo Médico (MMP, siglas en inglés) 2013-2014, estimamos la prevalencia y las probabilidades del síndrome metabólico (MetS) entre varios factores de riesgo demográficos y relacionados con el VIH. La prevalencia general de MetS fue del 34%, y nuestros participantes fueron en su mayoría negros (55%), hombres (72%), ≥ 50 años (46%), con sobrepeso u obesidad (60%), con carga viral indetectable (≤ 200 copias/ml, 69%), y actualmente tomando medicamentos antirretrovirales (98%). En comparación con los que tenían ≥ 60 años, los de 18 a 39 años tuvieron un 79% (IC del 95%: 0.13-0.33) más baja probabilidad de tener MetS. Las mujeres tuvieron 2.24 veces más probabilidad de tener MetS que los hombres (IC del 95%: 1.69-2.97). La edad y el sexo fueron predictores significativos de MetS. Dado que el MetS es una combinación de factores de riesgo para enfermedades crónicas, la evaluación regular de los factores de riesgo de MetS a lo largo del proceso de envejecimiento de personas que viven con VIH es crucial.

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Abbreviations

MetS	Metabolic syndrome
CVD	Cardiovascular disease
HIV	Human immunodeficiency virus
PLWH	People living with HIV
AIDS	Acquired immunodeficiency syndrome
aOR	Adjusted odds ratio
CI	Confidence intervals
MMP	Medical Monitoring Project
IDF	International Diabetes Federation
HDL	High density lipoprotein
BP	Blood pressure
BMI	Body mass index
ART	Antiretroviral therapy

T2DM	Type II diabetes mellitus
NFHL	Nutrition for healthy living
NHBLI	National Heart, Blood, and Lung Institute
AHA	American Heart Association
HAART	Highly active antiretroviral therapy
ATP	Adult treatment panel

Introduction

The success of highly active antiretroviral therapy has led to a dramatic decline in immunodeficiency-related causes of death and improvement in life expectancy among PLWH [1–3]. However, as patients are aging with HIV, the decline in morbidity and mortality has been clouded by the emergence of a number of cardio-metabolic perturbations [4]. Cardio-metabolic perturbations, which are collectively known as the metabolic syndrome, refer to a cluster of coexisting metabolic risk factors, such as abdominal obesity, dyslipidemia, defective glucose metabolism, and arterial hypertension [5], that are associated with increased risk of cardiovascular disease (CVD) and diabetes mellitus [6, 7]. In addition to the cardiovascular outcomes, individuals with MetS are thought to be more susceptible to a range of conditions. This includes, but is not limited to, vascular diseases (e.g., atherosclerotic cardiovascular disease and hypertension), adiposity-related disorders (e.g., sleep disordered breathing and fatty liver disease), insulin resistance conditions (e.g., type 2 diabetes or gestational diabetes and polycystic ovary syndrome), atherogenic dyslipidemia, hormonal dysfunction, and chronic kidney disease [8].

With a wide range of estimates from 11.2 to 45.4%, the prevalence of MetS among PLWH is debatable [9, 10]. These large differences may be attributed to differences in study design, small sample sizes, different demographic characteristics of sample populations, and the several MetS definitions used, which make it difficult to draw consistent and comparable population level conclusions on MetS prevalence among PLWH [9].

Although unhealthy behaviors such as poor diet and low levels of physical activity contribute to chronic diseases such as diabetes [11], the natural course of HIV infection and its treatment further increase the susceptibility to cardio-metabolic disorders among PLWH [12]. HIV infection itself, through chronic deregulated inflammatory response, may also play an important role in the pathogenesis of both diabetes mellitus and atherosclerosis [9, 13]. Moreover, the use of certain antiretroviral therapy regimens that include a protease inhibitor is associated with adipose tissue changes and disorders of glucose and lipid metabolism [14]. These findings have raised concerns that PLWH may be at a higher risk of developing MetS, which subsequently may be linked to an increase in CVD risk and diabetes.

CVD is the number one cause of death in adults worldwide [15]. It has been shown that patients with HIV experience a 2–3 times higher CVD risk compared to those without HIV [16, 17]. Previous studies [18–21] reported gender differences on CVD risk among PLWH, but the results are inconsistent. Cross-sectional data from the Data Collection on Adverse Events of Anti-HIV Drugs study [18] showed that female sex was a protective factor against the risk of myocardial infarction among adults living with HIV. However, two studies reported higher relative risk of acute myocardial infarction in HIV positive women than in HIV positive men [19, 20]. Chow et al. found a similar gender effect for stroke among adults living with HIV, indicating an increased risk of stroke among women with HIV compared to men with HIV [21].

Diabetes is the seventh leading cause of death in the US and one of the major causes of CVD, adult-onset blindness, kidney failure, and lower-limb amputations, affecting 9.4% of the US population [22]. It has been shown that patients living with HIV can have up to a twofold higher risk of diabetes when compared to the general population [23], with the prevalence estimate of up to 14% [24]. The direct influence of HIV on diabetes remains unclear. There is mixed evidence regarding HIV as an independent risk factor for diabetes, with some studies reporting an increased prevalence and incidence of impaired glucose tolerance and diabetes among PLWH [25, 26] and others showing no independent effect of HIV on the development of diabetes [25, 27].

In the US, the South is generally behind other regions in some key HIV prevention and care indicators such as having the highest numbers of people without health insurance [28] and not adopting newer HIV prevention advances such as antigen/antibody HIV tests that can detect acute HIV infection. Consequently, it is important to understand disease prevalence to better allocate resources essential for developing preventive and management strategies, health-care service planning, and the implementation of specific targeted interventions. Studies indicate that southern states are disproportionately affected by diseases linked with MetS such as obesity [29], diabetes [30], and hypertension [31, 32]. In addition, southern states account for nearly half of all PLWH (44%) in the US, despite making up about one-third (37%) of the overall US population [33, 34]. In 2014, eight of the top 10 states in the US with the highest HIV morbidity rates were in the South and included Texas, Mississippi, Georgia, and Florida [35]. Therefore, understanding the potential overlapping impact of being a PLWH in the South, with respect to cardiovascular and diabetes risk, could lead to better clinical assessments and risk mitigation in this population. With a paucity of data available on CVD and diabetes among southern PLWH, we aimed to estimate the prevalence of metabolic syndrome and to establish its associated risk factors among PLWH in the southern US.

Methods

Medical record abstraction and interview data from the 2013–2014 MMP survey, which includes statewide surveillance of PLWH for Texas (including the city of Houston), Mississippi, Georgia, and Florida, were used in this study. MMP is a Centers for Disease Control (CDC) supplemental surveillance system that monitors behavioral and clinical characteristics of people living with HIV (PLWH) aged 18 years or older receiving medical care across 23 sites nationwide. MMP is a cross-sectional survey with a three-stage sampling design: (1) At a geographic level for the US and dependent areas, (2) At a facility level through outpatient HIV care facilities, and (3) on an individual level for PLWH aged ≥ 18 years who had at least one medical care visit at a sampled facility between the months of January and April of 2013 and 2014. Data collection occurred between June 2013 and May 2015. The data obtained were weighted to account for the probabilities of selection at each sampling stage and adjusted for nonresponse and multiplicity. Nonresponse adjustments accounted for differing response at both facility and patient levels, and multiplicity adjustments accounted for patient's visits to more than one HIV care facility [36]. After excluding participants for missing data, our sample included 1861 participants representing 80,596 of adults living with HIV in the four southern US states (Texas, Florida, Mississippi, and Georgia).

Measures

These analyses used the International Diabetes Federation (IDF) definition of metabolic syndrome (MetS) was used for these analyses, which is characterized by central obesity plus two of the following criteria: raised triglycerides, reduced HDL (high density lipoprotein) cholesterol, raised blood pressure (BP), or raised fasting blood glucose [37]. Central obesity for MMP participants was calculated from body mass index (BMI, kg/m^2), race/ethnicity, and birth sex-specific equations developed by Bozeman et al. [38]. Multiracial, Asian, Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, and transgender participants ($n = 94$) were excluded because there were no equations developed for these populations. BMI measurements, as documented in the medical chart within 1 year of the participant interview, were abstracted from medical records. Participants with missing height or weight ($n = 275$) were excluded.

MMP participants were classified as having the following four MetS criteria if any of the following was documented in the medical record:

Raised triglycerides (1) hypertriglyceridemia diagnosis or (2) prescription medications for raised triglycerides treatment as determined by clinician review of all the recorded medications abstracted or (3) most recent fasting triglyceride laboratory (lab) value ≥ 150 mg/dl.

Reduced high density lipoprotein (HDL) cholesterol (1) "low HDL" diagnosis or (2) prescription medications for low HDL (medications which could be used for both hypertriglyceridemia and low HDL such as statins, among others, were not double counted among criteria for raised triglycerides and low HDL) or (3) most recent fasting HDL lab < 40 mg/dl (males) or < 50 mg/dl (females).

Elevated blood pressure (BP) or hypertension (1) hypertension diagnosis or (2) prescription medications for hypertension treatment or (3) most recent systolic BP ≥ 130 or diastolic BP ≥ 85 mmHg.

Raised fasting blood glucose (1) Type 2 diabetes diagnosis or (2) most recent fasting blood glucose > 100 mg/dl.

If the participants met the waist circumference criteria, they were further evaluated on whether they had enough non-missing criteria to be considered for the study. Because participants could be seeking non-HIV care and/or receiving prescriptions for non-HIV medications at other medical facilities from which we did not review their medical chart, we assumed that the participant did not meet criteria only if they had labs that fell within normal range at the sampled facility, otherwise the criterion was set to missing for that participant. For this study, we determined that if a participant met the waist criterion but did not meet at least two other criteria for MetS and had two or more criteria missing due to non-availability of lab values or other diagnostic variables, then they were excluded from the analysis ($n = 383$). Additionally, if a participant met one criteria but had at least one criteria missing, they were excluded from the analysis because it is possible that they could have MetS if the value of the missing criteria was known ($n = 110$). Figure 1 displays the flowchart of the study sample selection process and highlights the inclusion and exclusion criteria used.

Other variables included were: sociodemographic variables including age, sex at birth, race/ethnicity, education, health insurance type, current smoking status, alcohol use, and poverty level. Length of time on antiretroviral therapy (ART) was determined from patient self-report. Clinical variables measured within the past year included BMI, time since HIV diagnosis, viral suppression status, prescription of ART, and geometric mean CD4+ T-lymphocyte (CD4) count.

Statistical Analysis

Among PLWH, weighted prevalence and 95% confidence intervals (CI) of MetS were calculated as overall

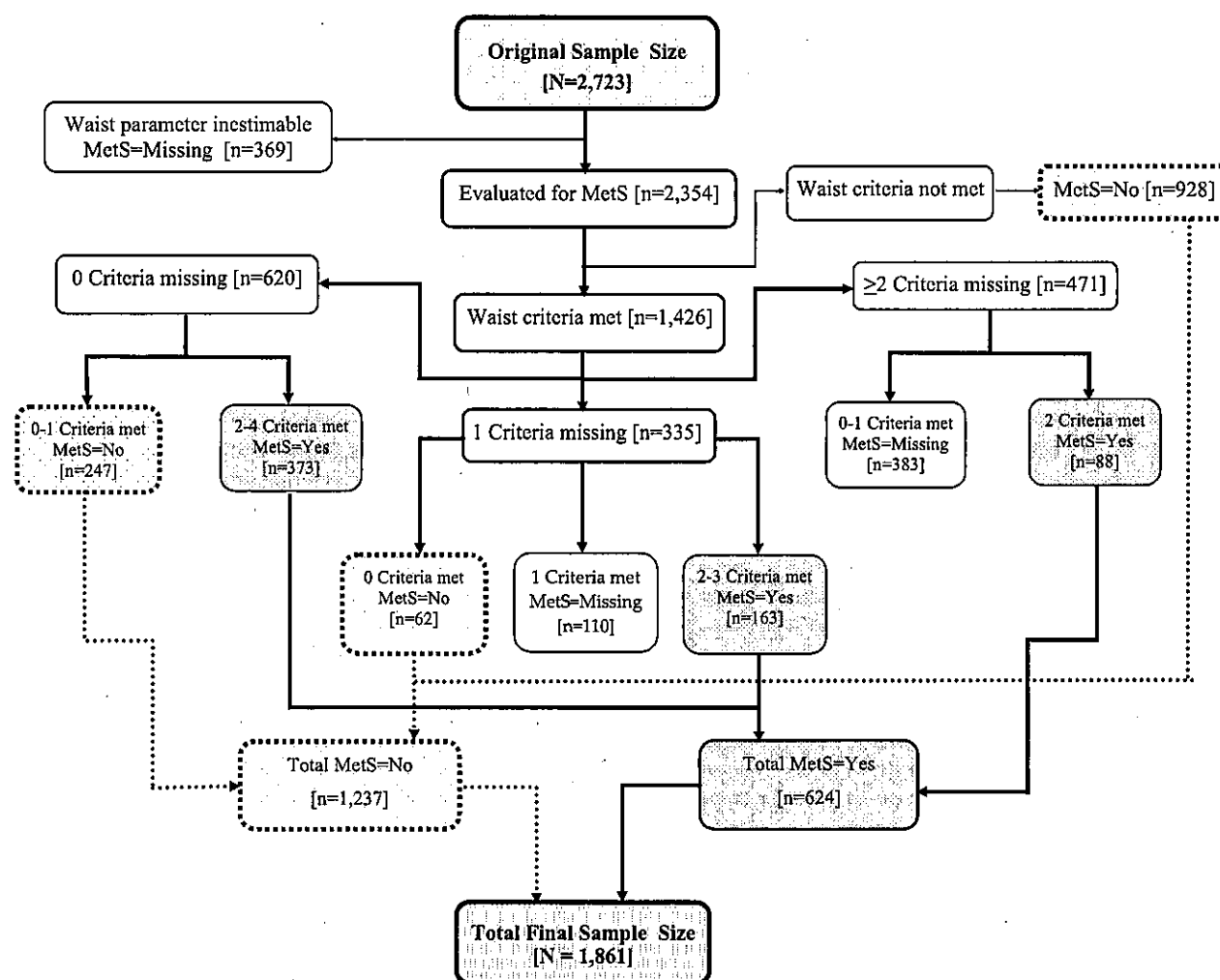


Fig. 1 Flowchart of study sample selection process

measure and by each of the following categories of sociodemographic and HIV-related characteristics: age (18–39, 40–49, 50–59, or ≥ 60 years), sex at birth, race/ethnicity (non-Hispanic White, Black, Hispanic), education (< high school, high school or equivalent, or > high school), poverty level (at or below federal poverty line and above federal poverty line), BMI (normal weight, overweight, or obese), time since HIV diagnosis (< 5 years, 5–9 years, or ≥ 10 years), and length of time on antiretroviral therapy (ART) (< 5 years, 5–9 years, or ≥ 10 years). To identify factors associated with MetS and to compute adjusted odds ratios (aOR) and corresponding 95% CIs among PLWH, multivariable logistic regression models were used with MetS as the outcome, and all the aforementioned characteristics except for BMI were included as independent predictors. Variables that changed the aOR by > 10% were retained in the multivariable model. All analyses were

performed using SAS 9.4 (SAS Institute, Cary, North Carolina, USA) and weighted to account for clustering, unequal selection probabilities, and non-response.

Human Subjects Protection

MMP has been determined by the National Center for HIV, Viral Hepatitis, STD and TB Prevention's Office of the Associate Director for Science at the CDC to be a non-research, public health surveillance activity used for disease control program or policy purposes. As such, MMP is not subject to human subjects' regulations, including federal institutional review board (IRB) approval. All data collection was Health Insurance Portability and Accountability Act compliant. Informed consent was obtained from all individual participants included in the study.

Results

Of the 2723 total participants from the four southern US states (Texas, Florida, Mississippi, and Georgia), 862 were excluded from the analysis due to missing data, leaving a final analytic sample of 1861 participants. Table 1 shows the baseline characteristics of these participants by MetS. Thirty-four percent of the total sample ($n=624$) had MetS, most of whom were men (62%), black (50%), ≥ 50 years of age (61%), and overweight or obese (97%).

Table 2 shows the aORs and 95% CIs of having MetS by the various predictors. Age, sex, and current smoking were all significantly associated with MetS prevalence ($p < 0.01$ for all). Compared to those ≥ 60 years old, 18–39 year-olds had a 79% lower odds of having MetS (95% CI 0.13–0.33). Similarly, lower odds were observed in males compared to females (aOR: 0.45, 95% CI 0.34–0.59). Current smokers had a 39% reduced odds of having MetS (95% CI 0.46–0.81).

Since sex at birth was a strong predictor of MetS, Table 3 illustrates the sex-stratified aORs of MetS by various sociodemographic factors. Age and smoking remained significant predictors of MetS for men whereas only age remained as a significant predictor for women ($p < 0.01$ for all). In both men and women, those aged 18–39 years had an 81% and 73% lower odds of having MetS, respectively. Male current smokers had a 42% reduced odds of having MetS (95% CI 0.34–0.66).

Discussion

We found that approximately a third of PLWH living in southern states have MetS. Given the disproportionate impact of diseases linked to MetS in the South, we expected the prevalence of MetS in our study to be higher, but this could be partially explained by demographic differences and our conservative selection process. Additionally, we used the IDF definition rather than the ATP III definition used in other studies. Currently, there are no regional population-based estimates for MetS in the southern US, but our results are within range of several studies among PLWH. A recent systematic review of MetS among PLWH by Paula et al. [9] showed that MetS prevalence ranged from 11% in a Mediterranean multicenter lipodystrophy case definition cohort [39] to up to 45% in an Italian cohort [40]. Differences in characteristics among study participants may contribute to the variability observed in previously published MetS prevalence estimates. For example, a cohort of only men in an international cohort [41] saw a significantly lower MetS prevalence (18%)

compared to 25.5% among a cohort of South African men and women [42]. An analysis using the Nutrition for Healthy Living (NFHL) study found MetS prevalence to be 24% among American PLWH [43], which is lower than our current result. Several factors including the use of the National Heart Blood and Lung Institute/American Heart Association (NHLBI/AHA) guidelines (vs IDF), a younger cohort (mean age = 42 vs. 47 years), and a predominantly white sample (52% vs. 25% in MMP) may further explain the reasons for the lower estimate.

Our results show that women have more than double the odds of having MetS than men, which could be explained by more women (75%) meeting the waist criteria compared to men (43%). Cultural factors like different diets in males compared to females may be a possible contributor. According to Freimer et al. cultural variation may play an important role in human nutrition and must be considered in either clinical or public health intervention strategy particularly in areas with large immigrant populations [44]. The increased MetS odds may not only be due to gender differences in traditional risk factors such as body weight [45], abdominal adiposity [46], and genetic biomarkers differences [47], but also to drug exposure, antiretroviral-associated toxicities [45], and combined ARV treatment. Pernerstorfer-Schoen et al. [48], in a prospective longitudinal cohort study compared gender-stratified HIV positive individuals initiating a protease inhibitor containing highly active antiretroviral therapy (HAART) regimen with matched HIV negative individuals. The authors found that LDL:HDL was higher among female HIV patients compared to males after initiation of a combined antiretroviral therapy and that circulating levels of E-selectin, an endothelium-associated marker of inflammation and atherosclerotic risk, declined in males whereas they remained elevated in women [48]. This indicates that HAART-suppressed immunological/inflammatory processes are less effective in HIV positive female patients than in males [48]. Furthermore, lower rates of risk factor modification due to lower risk perception in women compared to men [49] can contribute to gender differences in CVD among HIV positive adults. Sobieszczyk et al. in a study of 2393 women (1725 HIV positive and 668 HIV negative), reported that nearly one-third of HIV positive women met criteria for MetS diagnosis, and that MetS prevalence was significantly higher among women living with an HIV diagnosis compared to those with a negative HIV status (33% vs. 22%, $p < 0.0001$) [50]. The authors also reported an increased prevalence of high triglycerides, low HDL, higher BMI, older age, and current smoking status as risk factors associated with higher MetS prevalence among HIV positive women compared to HIV negative women [50]. Prior studies show that estrogen reduction due to menopause is associated with weight gain, insulin resistance and central adiposity, and may contribute to an increased risk of hypertension, dyslipidemia, diabetes, and cardiovascular disease

Table 1 Baseline characteristics by metabolic syndrome status

Characteristic	Metabolic syndrome status				Test statistics	
	No MetS		MetS		Rao-Scott Chi-square statistic	p value
	N	% ^a	N	% ^a		
Sex						
Male	953	70	387	30	35.42	<0.001***
Female	284	55	237	45		
Race/ethnicity						
White	304	66	164	34	4.63	0.100 ^{ns}
Black	707	68	313	32		
Hispanic	226	62	147	38		
Age group (years)						
18–39	426	87	62	13	96.25	<0.001***
40–49	339	64	182	36		
50–59	329	56	253	44		
≥ 60	143	54	127	46		
BMI (kg/m ²)						
< 25 (normal)	726	97	21	3	658.49	<0.001***
25–< 30 (overweight)	386	60	255	40		
≥ 30 (obese)	125	26	348	74		
Education						
< High school	255	62	154	38	5.37	0.070 ^{ns}
High school/equivalent	332	64	179	36		
> High school	649	69	291	31		
Insurance						
Private	307	65	160	35	13.91	<0.01**
Public	542	63	321	37		
Ryan White only	341	73	126	27		
Unspecified	12	59	7	41		
None	32	83	7	17		
Poverty						
Above	561	65	288	35	0.18	0.670 ^{ns}
Below	614	67	312	33		
Smoking status						
Never	550	64	300	36	16.48	<0.001***
Former	207	59	147	41		
Current	475	73	172	27		
Binge drinking (30 days)						
No	1017	65	550	35	3.25	0.070 ^{ns}
Yes	199	72	67	28		
HIV related characteristics						
ART Use						
No	31	76	12	24	2.21	0.140 ^{ns}
Yes	1170	66	601	34		
ART use duration						
Not on ART	34	76	9	24	32.38	<0.001***
< 5 years	3875	77	121	24		
5–9 years	241	69	109	31		
≥ 10 years	465	59	314	41		

Table 1 (continued)

Characteristic	Metabolic syndrome status				Test statistics	
	No MetS		MetS		Rao-Scott Chi-square statistic	p value
	N	% ^a	N	% ^a		
HIV diagnosis duration						
< 5 years	332	77	100	23	37.08	<0.001***
5–9 years	290	71	117	28		
≥ 10 years	615	59	407	41		
Mean CD4 count (cells/μl)						
0–199	128	73	47	27	17.99	<0.001***
200–349	178	75	65	25		
350–499	278	70	110	30		
≥ 500	616	61	382	39		
Viral load (copies/ml)						
< 200 (undetectable)	831	65	450	35	2.23	0.140 ^{ns}
≥ 200	406	69	174	31		
Total	1237	100	624	100		

^aWithin a given level of the characteristic, some percentages may not add up to exactly 100 due to rounding

Significance Level: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, *ns* not significant ($p > 0.05$)

among postmenopausal women compared with premenopausal women [51]. Thus, HIV positive postmenopausal women are more likely to develop metabolic disorders not only from HIV related factors such as HAART but also from the consequences of hypoestrogenism. These metabolic changes to some extent may explain the increased risk of MetS among women, especially post-menopausal women [52]. We noted a similar age-related prevalence of MetS in older women in the current study (Table 3). Further research is needed to determine underlying mechanisms of the gender differences in MetS among PLWH.

While there were initial differences noted in the prevalence of MetS by HIV-specific variables, such as longer duration of HIV diagnosis, longer duration of ART use, and higher mean CD4 count, the logistic regression model did not reveal any significant impact of these factors. The initial significance of longer duration of HIV diagnosis and longer ART use may have been explained by age since many of the participants who had been diagnosed and have been taking ART therapy longer were also older. It is also important to note that other conditions or factors not considered in our current study may also be implicated in the odds of acquiring MetS among PLWH.

Study Limitations and Strengths

Our study had several strengths including the robust MMP sampling methodology, which is designed to achieve generalizability to HIV positive adults receiving medical care with weighted sampling. Medical chart reviews provided

in-depth clinical data that allowed the measurement of various demographic and cardio-metabolic parameters. When combined with detailed patient interviews that provided extensive sociodemographic and other behavioral risk factors, we were able to measure and capture a wide array of potential confounders on MetS among PLWH.

Our study has certain limitations. First, MMP was not specifically designed to measure the prevalence of MetS. For our study, labs from abstracted patient charts were considered fasting if they were clearly marked as such in the medical record. A significant percentage of the labs were not used due to abnormal value (e.g., a glucose value of 101 mg/dL) and unknown fasting status. However, the majority of our study participants who met the criteria had either a diagnosis or were on prescription medication for these criteria (77% for glucose, 81% for triglyceride, and 91% for HDL). We tried to overcome this issue with the use of the well-accepted IDF rather than Adult Treatment Panel (ATP) III criteria, which relies less heavily on fasting lab status for the glucose criteria and allows for the inclusion of type II diabetes diagnoses. Another limitation is the extrapolation of waist circumference from BMI measure. Although we used an equation that has been found to be highly predictive of waist circumference from BMI with minimal error [38], its predictive power was less for women than for men. Waist circumference estimates derived from BMI may be less accurate for women than for men due to the shift in body fat distribution in middle-aged/older women [53]. However, the Bozeman et al. [17] equation does try to mitigate these limitations by using age-specific waist circumference equations for women. Several other known risk factors

Table 2 Odds of metabolic syndrome among PLWH

Characteristic	aOR	95% CI
Sex		
Male (<i>Ref</i>)	1.00	–
Female	2.24	1.69–2.97*
Race/ethnicity		
White (<i>Ref</i>)	1.00	–
Black	0.81	0.58–1.14 ^{ns}
Hispanic	1.52	0.98–2.35 ^{ns}
Age group (years)		
18–39	0.21	0.13–0.33*
40–49	0.80	0.55–1.16 ^{ns}
50–59	1.08	0.68–1.71 ^{ns}
≥ 60 (<i>Ref</i>)	1.00	–
Education		
<High school	1.51	1.00–2.27 ^{ns}
High school/equivalent	1.41	0.99–1.99 ^{ns}
>High school (<i>Ref</i>)	1.00	–
Poverty		
Above (<i>Ref</i>)	1.00	–
Below	0.79	0.57–1.10 ^{ns}
Smoking status		
Never (<i>Ref</i>)	1.00	–
Former	1.07	0.68–1.71 ^{ns}
Current	0.61	0.46–0.81*
ART use duration		
<5 years (<i>Ref</i>)	1.00	–
5–9 years	1.11	0.59–2.09 ^{ns}
≥ 10 years	0.84	0.42–1.68 ^{ns}
HIV diagnosis duration		
<5 years	0.68	0.35–1.32 ^{ns}
5–9 years	0.62	0.33–1.51 ^{ns}
≥ 10 years (<i>Ref</i>)	1.00	–
Mean CD4 count (cells/μl)		
0–199 (<i>Ref</i>)	1.00	–
200–349	0.84	0.48–1.47 ^{ns}
350–499	1.04	0.63–1.73 ^{ns}
≥ 500	1.50	0.90–2.50 ^{ns}
Current ART use		
No (<i>Ref</i>)	1.00	–
Yes	1.09	0.44–2.67 ^{ns}

aOR adjusted odds ratio, 95% CI 95% confidence interval, *Ref* referent, *ns* not significant

Significance level: *significance based on 95% confidence interval

Table 3 Odds of metabolic syndrome stratified by sex

Characteristic	Men		Women	
	aOR	95% CI	aOR	95% CI
Race/ethnicity				
White (<i>Ref</i>)	1.00	–	1.00	–
Black	0.69	0.47–1.00 ^{ns}	1.33	0.67–2.66 ^{ns}
Hispanic	1.44	0.91–2.27 ^{ns}	2.17	0.82–5.78 ^{ns}
Age group (years)				
18–39	0.19	0.10–0.35*	0.27	0.12–0.62*
40–49	0.94	0.60–1.49 ^{ns}	0.62	0.31–1.25 ^{ns}
50–59	1.22	0.72–2.09 ^{ns}	0.82	0.40–1.68 ^{ns}
≥ 60 (<i>Ref</i>)	1.00	–	1.00	–
Education				
<High school	1.51	0.94–2.43 ^{ns}	1.52	0.82–2.80 ^{ns}
High school/equivalent	1.53	1.00–2.35 ^{ns}	1.21	0.67–2.18 ^{ns}
>High school (<i>Ref</i>)	1.00	–	1.00	–
Poverty				
Above (<i>Ref</i>)	1.00	–	1.00	–
Below	0.78	0.54–1.11 ^{ns}	0.86	0.48–1.56 ^{ns}
Smoking status				
Never (<i>Ref</i>)	1.00	–	1.00	–
Former	1.05	0.61–1.82 ^{ns}	1.10	0.52–2.32 ^{ns}
Current	0.48	0.34–0.66*	1.11	0.70–1.77 ^{ns}
ART use duration				
<5 years (<i>Ref</i>)	1.00	–	1.00	–
5–9 years	1.17	0.49–2.76 ^{ns}	1.16	0.42–3.21 ^{ns}
≥ 10 years	0.94	0.38–2.34 ^{ns}	0.68	0.27–1.72 ^{ns}
HIV diagnosis duration				
<5 years	0.74	0.31–1.76 ^{ns}	0.64	0.22–1.84 ^{ns}
5–9 years	0.72	0.34–1.52 ^{ns}	0.41	0.16–1.06 ^{ns}
≥ 10 years (<i>Ref</i>)	1.00	–	1.00	–
Mean CD4 count (cells/μl)				
0–199 (<i>Ref</i>)	1.00	–	–	1.00
200–349	0.66	0.36–1.20 ^{ns}	1.29	0.40–4.10 ^{ns}
350–499	1.06	0.56–2.00 ^{ns}	0.81	0.32–2.06 ^{ns}
≥ 500	1.42	0.83–2.42 ^{ns}	1.49	0.60–3.71 ^{ns}
Current ART use				
No (<i>Ref</i>)	1.00	–	1.00	–
Yes	1.39	0.26–7.45 ^{ns}	0.85	0.26–2.83 ^{ns}

aOR adjusted odds ratio, 95% CI 95% confidence interval, *Ref* referent, *ns* not significant

Significance level: *significance based on 95% confidence interval

for MetS were not measured in our data. These include: diet, physical activity, family history for chronic diseases in MetS (hypertension, diabetes, and cardiovascular disease). As with any observational study, residual or uncontrolled confounding

associated with these risk factors may have impacted our estimates. Finally, cross-sectional surveillance data was utilized from which causality cannot be inferred from the results.

Conclusions

Our study addressed the lack of available data on MetS on PLWH in the southern US. Thus, our study is the first population level estimate of the prevalence of MetS among PLWH in these four southern US states. This regional assessment is critical for the understanding of how to prioritize risk mitigation and primary care prevention services in an aging HIV population that is increasingly diagnosed with additional chronic diseases other than HIV itself. Given that PLWH are living longer, longitudinal data are warranted to assess long-term MetS risk and how MetS may impact mortality among PLWH. Since HIV care providers may also provide primary care to PLWH, our study highlights the need for HIV care providers to regularly screen and monitor chronic disease risk factors if not already doing so. Additionally, intervention programs that promote and encourage healthy lifestyle such as physical activity and nutritional counseling should be offered to PLWH as part of an integrated HIV care during clinic visits.

Acknowledgements The authors would like to thank the HIV care facilities and sampled persons who participated in the MMP from the four Southern US states (Texas, Florida, Mississippi, and Georgia). We would also like to acknowledge the MMP staff from the participating project areas for the data collection; and members of the Community Advisory Board, Provider Advisory Board and management of the States' Department of Health Services, local Health Departments and members of the Clinical Outcomes Team in CDC's Behavioral and Clinical Surveillance Branch of the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention for their respective support and contributions.

Disclaimer The findings and conclusions of this article are solely the responsibility of the authors and do not necessarily represent the official position of the US Centers for Disease Control and Prevention or any of the associated State Departments of Health Services or local Health Departments.

Funding The Medical Monitoring Project for the data collection cycles used in the current study was supported by the Centers for Disease Control and Prevention (CDC) under the Cooperative Agreement Number PS09-937.

Compliance with Ethical Standards

Conflict of interest The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

- Grinsztejn B, Luz PM, Pacheco AG, et al. Changing mortality profile among HIV-infected patients in Rio de Janeiro, Brazil: shifting from AIDS to non-AIDS related conditions in the HAART era. *PLoS ONE*. 2013;8(4):e59768.
- Martin-Iguacel R, Negredo E, Peck R, Friis-Møller N. Hypertension is a key feature of the metabolic syndrome in subjects aging with HIV. *Curr Hypertens Rep*. 2016;18(6):46.
- Murray CJ, Ortblad KF, Guinovart C, et al. Global, regional, and national incidence and mortality for HIV, tuberculosis, and malaria during 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet*. 2014;384(9947):1005–70.
- Palella FJ Jr, Delaney KM, Moorman AC, et al. Declining morbidity and mortality among patients with advanced human immunodeficiency virus infection. *N Engl J Med*. 1998;338(13):853–60.
- Expert Panel on Detection E. Executive summary of the third report of the National Cholesterol Education Program (NCEP) expert panel on detection, evaluation, and treatment of high blood cholesterol in adults (Adult Treatment Panel III). *JAMA*. 2001;285(19):2486.
- Ford ES. Risks for all-cause mortality, cardiovascular disease, and diabetes associated with the metabolic syndrome: a summary of the evidence. *Diabetes Care*. 2005;28(7):1769–78.
- Eckel RH, Grundy SM, Zimmet PZ. The metabolic syndrome. *Lancet*. 2005;365(9468):1415–28.
- Sperling LS, Mechanick JJ, Neeland JJ, et al. The cardiometabolic health alliance: working toward a new care model for the metabolic syndrome. *J Am Coll Cardiol*. 2015;66(9):1050–67.
- Paula AA, Falcão MC, Pacheco AG. Metabolic syndrome in HIV-infected individuals: underlying mechanisms and epidemiological aspects. *AIDS Res Ther*. 2013;10(1):32.
- Branson BM, Owen SM, Wesolowski LG, et al. Laboratory testing for the diagnosis of HIV infection: updated recommendations. 2014.
- Jaggers JR, Prasad VK, Dudgeon WD, et al. Associations between physical activity and sedentary time on components of metabolic syndrome among adults with HIV. *AIDS Care*. 2014;26(11):1387–92.
- Jericó C, Knobel H, Montero M, et al. Metabolic syndrome among HIV-infected patients: prevalence, characteristics, and related factors. *Diabetes Care*. 2005;28(1):132–7.
- Deeks SG. HIV infection, inflammation, immunosenescence, and aging. *Annu Rev Med*. 2011;62:141–55.
- Carr A, Samaras K, Burton S, et al. A syndrome of peripheral lipodystrophy, hyperlipidaemia and insulin resistance in patients receiving HIV protease inhibitors. *Aids*. 1998;12(7):F51–8.
- Benjamin EJ, Blaha MJ, Chiuve SE, et al. Heart disease and stroke statistics-2017 update: a report from the American Heart Association. *Circulation*. 2017;135(10):e146–603.
- Farahani M, Mulinder H, Farahani A, Marlink R. Prevalence and distribution of non-AIDS causes of death among HIV-infected individuals receiving antiretroviral therapy: a systematic review and meta-analysis. *Int J STD AIDS*. 2017;28(7):636–50.
- Data Collection on Adverse Events of Anti-HIV drugs (D: A: D) Study Group. Factors associated with specific causes of death amongst HIV-positive individuals in the D: A: D Study. *Aids*. 2010;24(10):1537–48.
- Friis-Møller N, Sabin CA, Weber R, et al. Combination antiretroviral therapy and the risk of myocardial infarction. *N Engl J Med*. 2003;349(21):1993–2003.
- Triant VA, Lee H, Hadigan C, Grinspoon SK. Increased acute myocardial infarction rates and cardiovascular risk factors among patients with human immunodeficiency virus disease. *J Clin Endocrinol Metab*. 2007;92(7):2506–12.
- Lang S, Mary-Krause M, Cotte L, et al. Impact of individual antiretroviral drugs on the risk of myocardial infarction in human immunodeficiency virus-infected patients: a case-control study nested within the French Hospital Database on HIV ANRS cohort CO4. *Arch Intern Med*. 2010;170(14):1228–38.
- Chow FC, Regan S, Feske S, Meigs JB, Grinspoon SK, Triant VA. Comparison of ischemic stroke incidence in HIV-infected and

- non-HIV-infected patients in a U.S. Health Care System. *J Acquir Immune Defic Syndr* (1999). 2012;60(4):351–8.
22. CfD Control. Prevention. National diabetes statistics report, 2017. Atlanta, GA: Centers for Disease Control and Prevention; 2017. p. 2017.
23. Tien PC, Schneider MF, Cox C, et al. Association of HIV infection with incident diabetes mellitus: impact of using hemoglobin A1C as a criterion for diabetes. *J Acquir Immune Defic Syndr* (1999). 2012;61(3):334.
24. Brown TT, Cole SR, Li X, et al. Antiretroviral therapy and the prevalence and incidence of diabetes mellitus in the multicenter AIDS cohort study. *Arch Intern Med*. 2005;165(10):1179–84.
25. Butt AA, McGinnis K, Rodriguez-Barradas MC, et al. HIV infection and the risk of diabetes mellitus. *AIDS* (London, England). 2009;23(10):1227.
26. Samaras K. Prevalence and pathogenesis of diabetes mellitus in HIV-1 infection treated with combined antiretroviral therapy. *JAIDS J Acquir Immune Defic Syndr*. 2009;50(5):499–505.
27. Rasmussen LD, Mathiesen ER, Kronborg G, Gerstoft J, Obel N. Risk of diabetes mellitus in persons with and without HIV: a Danish nationwide population-based cohort study. *PLoS ONE*. 2012;7(9):e44575.
28. Rebeiro PF, Gange SJ, Horberg MA, et al. Geographic variations in retention in care among HIV-infected adults in the United States. *PLoS ONE*. 2016;11(1):e0146119.
29. Ezzati M, Martin H, Skjold S, Hoorn SV, Murray CJ. Trends in national and state-level obesity in the USA after correction for self-report bias: analysis of health surveys. *J R Soc Med*. 2006;99(5):250–7.
30. Danaei G, Friedman AB, Oza S, Murray CJ, Ezzati M. Diabetes prevalence and diagnosis in US states: analysis of health surveys. *Popul Health Metr*. 2009;7(1):16.
31. Hicks LS, Fairchild DG, Cook E, Ayanian JZ. Association of region of residence and immigrant status with hypertension, renal failure, cardiovascular disease, and stroke, among African-American participants in the third National Health and Nutrition Examination Survey (NHANES III). *Ethn Dis*. 2003;13(3):316–23.
32. Obisesan TO, Vargas CM, Gillum RF. Geographic variation in stroke risk in the United States: region, urbanization, and hypertension in the Third National Health and Nutrition Examination Survey. *Stroke*. 2000;31(1):19–25.
33. Reif SS, Whetten K, Wilson ER, et al. HIV/AIDS in the Southern USA: a disproportionate epidemic. *AIDS Care*. 2014;26(3):351–9.
34. Reif S, Safley D, McAllaster C, Wilson E, Whetten K. State of HIV in the US Deep South. *J Community Health*. 2017;42(5):844–53.
35. AIDSvu. Emory University, Rollins School of Public Health; 2014. <https://aidsvu.org/>. Accessed 22 Jan 2019.
36. Iachan R, Johnson CH, Harding RL, et al. Design and weighting methods for a nationally representative sample of HIV-infected adults receiving medical care in the United States-Medical Monitoring Project. *Open AIDS J*. 2016;10:164.
37. Alberti KGMM, Zimmet P, Shaw J. Metabolic syndrome—a new world-wide definition. A consensus statement from the international diabetes federation. *Diab Med*. 2006;23(5):469–80.
38. Bozeman SR, Hoaglin DC, Burton TM, Pashos CL, Ben-Joseph RH, Hollenbeak CS. Predicting waist circumference from body mass index. *BMC Med Res Methodol*. 2012;12(1):115.
39. Bernal E, Masia M, Padilla S, Martin-Hidalgo A, Gutierrez F. Prevalence and characteristics of metabolic syndrome among HIV-infected patients from a Mediterranean cohort. *Med Clin*. 2007;128(5):172–5.
40. Gazzaruso C, Bruno R, Garzaniti A, et al. Hypertension among HIV patients: prevalence and relationships to insulin resistance and metabolic syndrome. *J Hypertens*. 2003;21(7):1377–82.
41. Samaras K, Wand H, Law M, Emery S, Cooper D, Carr A. Prevalence of metabolic syndrome in HIV-infected patients receiving highly active antiretroviral therapy using International Diabetes Foundation and Adult Treatment Panel III criteria: associations with insulin resistance, disturbed body fat compartmentalization, elevated C-reactive protein, and hypoadiponectinemia. *Diabetes Care*. 2007;30(1):113–9.
42. Nguyen KA, Peer N, de Villiers A, et al. Metabolic syndrome in people living with human immunodeficiency virus: an assessment of the prevalence and the agreement between diagnostic criteria. *Int J Endocrinol*. 2017;2017:1613657.
43. Jacobson DL, Tang AM, Spiegelman D, et al. Incidence of metabolic syndrome in a cohort of HIV-infected adults and prevalence relative to the US population (National Health and Nutrition Examination Survey). *J Acquir Immune Defic Syndr* (1999). 2006;43(4):458–66.
44. Freimer N, Echenberg D, Kretchmer N. Cultural variation—nutritional and clinical implications. *West J Med*. 1983;139(6):928–33.
45. Nicolson TJ, Mellor HR, Roberts RR. Gender differences in drug toxicity. *Trends Pharmacol Sci*. 2010;31(3):108–14.
46. Hadigan C, Meigs JB, Corcoran C, et al. Metabolic abnormalities and cardiovascular disease risk factors in adults with human immunodeficiency virus infection and lipodystrophy. *Clin Infect Dis*. 2001;32(1):130–9.
47. Cerrato E, Calcagno A, D'Ascenzo F, et al. Cardiovascular disease in HIV patients: from bench to bedside and backwards. *Open Heart*. 2015;2(1):e000174.
48. Pernerstorfer-Schoen H, Jilma B, Perschler A, et al. Sex differences in HAART-associated dyslipidaemia. *Aids*. 2001;15(6):725–34.
49. Mosca L, Jones WK, King KB, Ouyang P, Redberg RF, Hill MN. Awareness, perception, and knowledge of heart disease risk and prevention among women in the United States. *Arch Fam Med*. 2000;9(6):506.
50. Sobieszczyk ME, Hoover DR, Anastos K, et al. Prevalence and predictors of metabolic syndrome among HIV-infected and HIV-uninfected women in the Women's Interagency HIV Study. *J Acquir Immune Defic Syndr* (1999). 2008;48(3):272–80.
51. Polotsky HN, Polotsky AJ, editors. Metabolic implications of menopause. *Seminars in reproductive medicine*; 2010. Stuttgart: Thieme Medical Publishers; 2010.
52. Akl L, Valadares A, Gomes D, Pinto-Neto A, Costa-Paiva L. Factors associated with metabolic syndrome in middle-aged women with and without HIV. *J Metabolic Syndr*. 2016;5(200):2167-0943.1000.
53. Tremollieres FA, Pouilles J-M, Ribot CA. Relative influence of age and menopause on total and regional body composition changes in postmenopausal women. *Am J Obstet Gynecol*. 1996;175(6):1594–600.

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HIV Vaccine Awareness Day 2019

By: [Anthony Fauci, M.D., Director, National Institute of Allergy and Infectious Diseases \(NIAID\), National Institutes of Health](#), and [Maureen M. Goodenow, Ph.D., NIH Associate Director for AIDS Research, Director, Office of AIDS Research](#) | **Published:** May 17, 2019

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Since the first cases of what would become known as HIV/AIDS were initially reported in 1981, scientists and public health officials have been working to better understand HIV, develop strategies to effectively treat and prevent infection, and bring about an end to the pandemic. This effort remains a critical focus globally and for the United States.



We have the tools at hand that could—if fully implemented—end the HIV pandemic. Large clinical studies have proven that individuals with HIV who use antiretroviral therapy to achieve and maintain an undetectable viral load do not sexually transmit HIV to others—a concept known as undetectable = untransmittable (U=U). People who are at high risk for HIV can take a single daily pill known as PrEP, or pre-exposure prophylaxis, that is highly effective at protecting them from the virus. In addition, post-exposure prophylaxis, or PEP, provides a highly effective emergency means of preventing HIV transmission from a recent high-risk exposure and can serve as a bridge to PrEP.

In his State of the Union Address earlier this year, President Donald J. Trump announced his Administration's goal to end the HIV epidemic in the United States within 10 years. *[Ending the HIV Epidemic: A Plan for America](#)* aims to reduce new HIV infections in the United States by 90 percent by 2030. This approach is feasible in large part because the majority of new HIV infections in the United States are concentrated in certain geographic areas and within certain populations. More than 50 percent of new HIV diagnoses occur in 48 counties; Washington, DC; and San Juan, Puerto Rico. Additionally, seven states have a disproportionate occurrence of HIV in rural areas. In addition, young African American and Latino men who have sex with men bear a disproportionate burden of new infections. Targeted implementation of scientifically proven tools for HIV prevention, diagnosis, and treatment, as well as resources, expertise and technology, in these locales and among these

populations could end the domestic HIV epidemic.

While the ambitious Plan for America aims to end HIV as an epidemic within the United States in 10 years, achieving a durable end to the pandemic will almost certainly require a safe and effective HIV vaccine. The development and deployment of an effective vaccine would provide long-lasting protection and alleviate the need to depend heavily on prevention methods that require continued access and adherence. Such a vaccine, along with the optimal implementation of existing HIV treatment and prevention strategies would achieve the goal of durably ending the HIV epidemic in this country and worldwide. For geographic areas where the implementation of treatment and prevention is complicated by various social, economic and political concerns, a vaccine is critical to halting the epidemic. Indeed, even in countries with a good track record of implementing HIV treatment and prevention tools, a vaccine would hasten the end of the epidemic and ensure its durability./p>

In this regard, NIH is pursuing two scientific paths to develop a safe and effective HIV vaccine. One path aims to build on the promise of modest results seen in RV144, the U.S. Army-led HIV vaccine trial in Thailand. RV144 was the first and only trial to-date to demonstrate that an HIV vaccine can protect against infection. The Phase 2b/3 HIV vaccine trial [HVTN 702](#) began on World AIDS Day 2016 and has nearly completed enrollment of 5,400 men and women in South Africa. Another large vaccine efficacy clinical trial called HVTN 705/HPX2008 or [Imbokodo](#) launched in 2017. This Phase 2b proof-of-concept trial is evaluating an investigational vaccine regimen designed to induce immune responses against a variety of global HIV strains. This trial is nearing complete enrollment of 2,600 women in sub-Saharan Africa.

The second path to developing an HIV vaccine is based on theory and involves studying the body's immune response to HIV infection and generating and enhancing those responses through vaccination. The main theoretical approach to developing an HIV vaccine aims to prevent HIV infection by eliciting [broadly neutralizing antibodies \(bNAbs\)](#) —antibodies shown in the laboratory to stop most HIV strains from infecting human cells. Some people living with HIV naturally produce bNAbs. However, these antibodies develop too late after initial infection to clear the virus. Scientists at NIH and other institutions have isolated numerous bNAbs from people living with HIV and are working to develop vaccines that elicit these antibodies in healthy people.

Two experimental structure-based vaccines aimed at eliciting bNAbs directed against various components of the HIV envelope are in or near the early stages of human study. A [Phase 1 trial](#) testing the BG505 SOSIP.664 gp140 trimer vaccine candidate is currently enrolling men and women in Boston; Seattle; and Nairobi, Kenya. Planning for a Phase 1 clinical trial to test a [fusion peptide HIV vaccine](#)

developed by scientists at the NIAID Vaccine Research Center also is under way.

In addition to attempts to elicit antibodies to HIV via a vaccine, two multinational clinical trials are testing whether it is possible to prevent HIV by directly infusing people with bNAbs several times a year. Known as the [AMP Studies](#), for antibody-mediated prevention, these trials have completed enrollment of 4,600 men and women across four continents. If these studies prove successful, it will provide a rationale for using bNAbs as tools to prevent HIV infection. In addition, it would provide the proof of concept that if vaccines induce these bNAbs, such vaccines would be successful in preventing HIV infection.

The pursuit of a safe and effective HIV vaccine holds lifesaving potential for people worldwide and is among the highest HIV research priorities for NIH. On this HIV Vaccine Awareness Day, we recognize and thank the thousands of HIV vaccine clinical trial volunteers, researchers, health professionals, activists, and others who work with us toward this goal.

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Form Approved OMB# 0990-0379 Exp. Date 9/30/2020

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