

Retention in Care: Implementing an Internal Medicine Residency Program and Pharmacy Residency Program

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Disclosures

Presenter(s) has no financial interest to disclose.

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Learning Objectives

At the conclusion of this activity, the participant will be able to:

1. Review scheduling and curriculum requirements of medical and pharmacy residents in a Ryan White HIV clinic.
2. Describe how to maintain continuity and patient satisfaction in a residency learning environment.
3. Implement processes that allow for consistent documentation between multiple providers

OSU-CHS 10-15 years ago



OSU Center for Health Sciences

Founded in 1972 as the Oklahoma College of Osteopathic Medicine and Surgery

Classes began in 1974

Current campus in 1976

One of 34 COCA-accredited osteopathic medical colleges in the United States and the only one in Oklahoma

526 employees and 142 faculty members

Graduate about 115 medical students each year

3014 alumni from our osteopathic program

OSU-CHS today



OSU-CHS expansion-Tandy building



Simulation models



OSU Internal Medicine Specialty Services Clinic

*Established in September 1996 by
Thomas Stees, DO

*Cared for over 3000 HIV-positive
persons since 1996

*Coverage of the eastern half of the
state



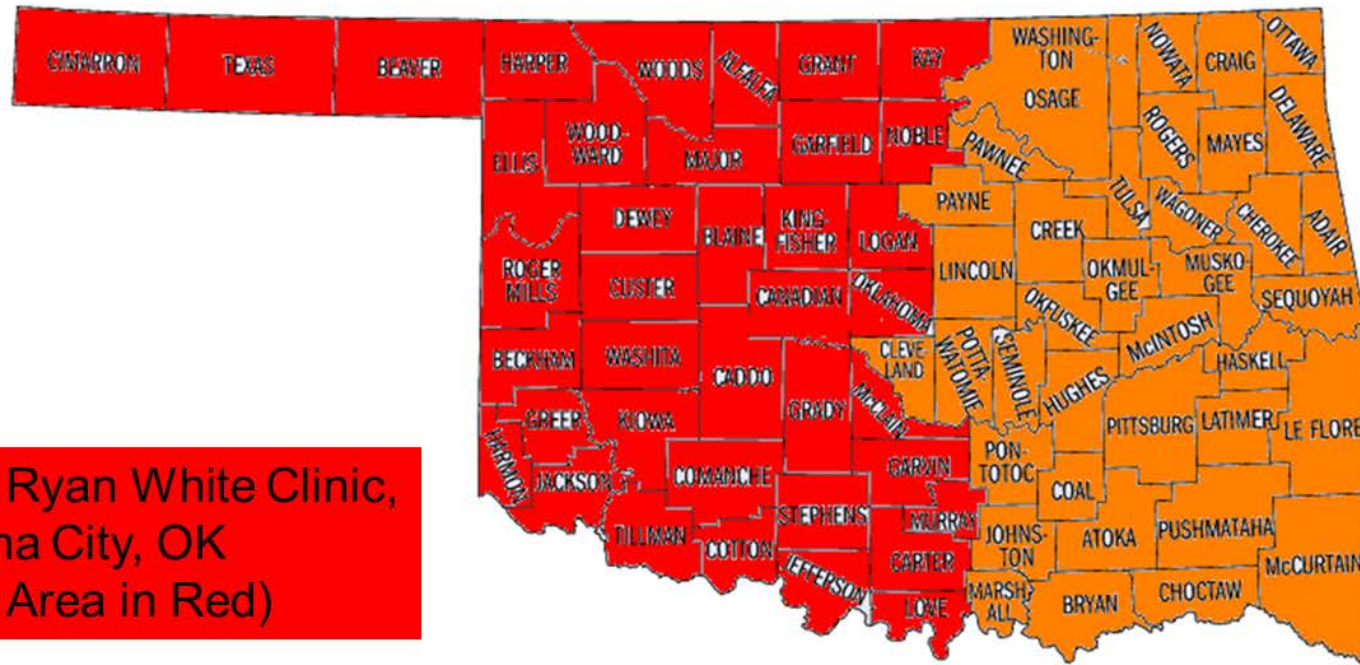
World AIDS Day 2017



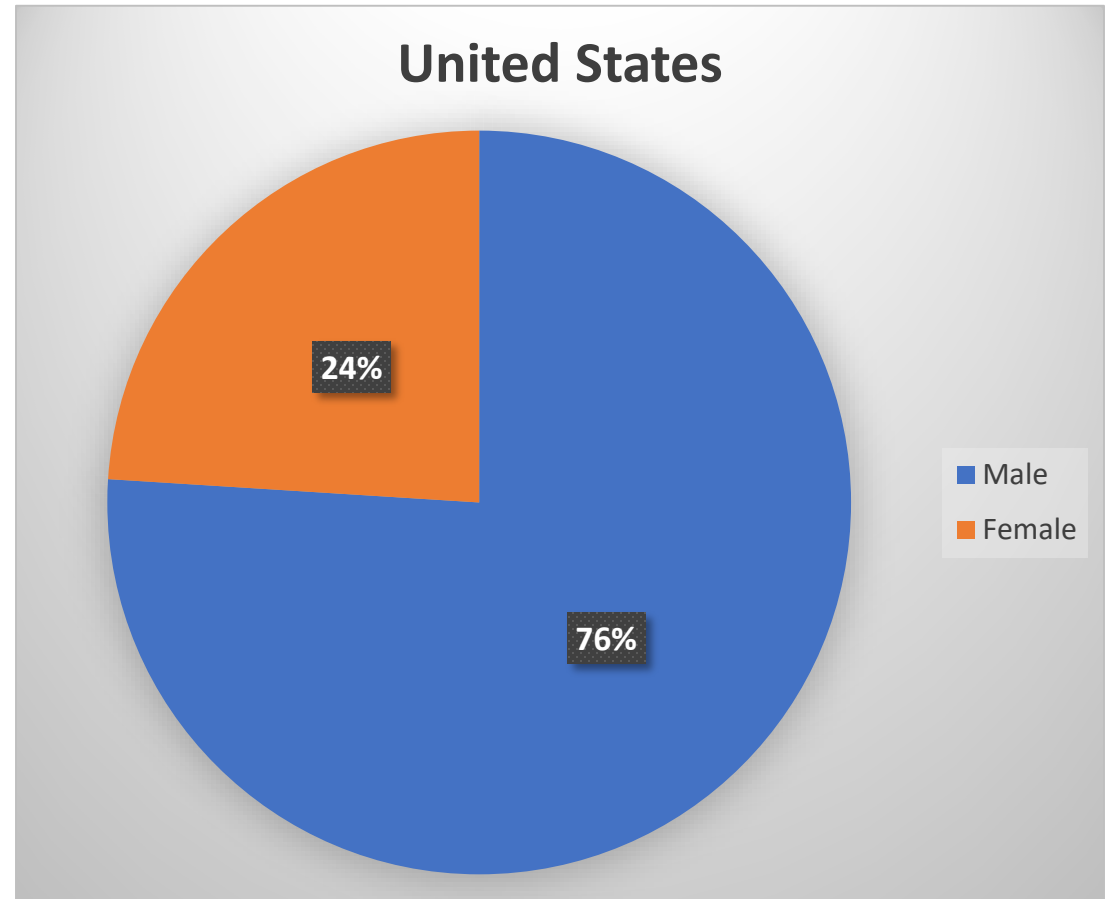
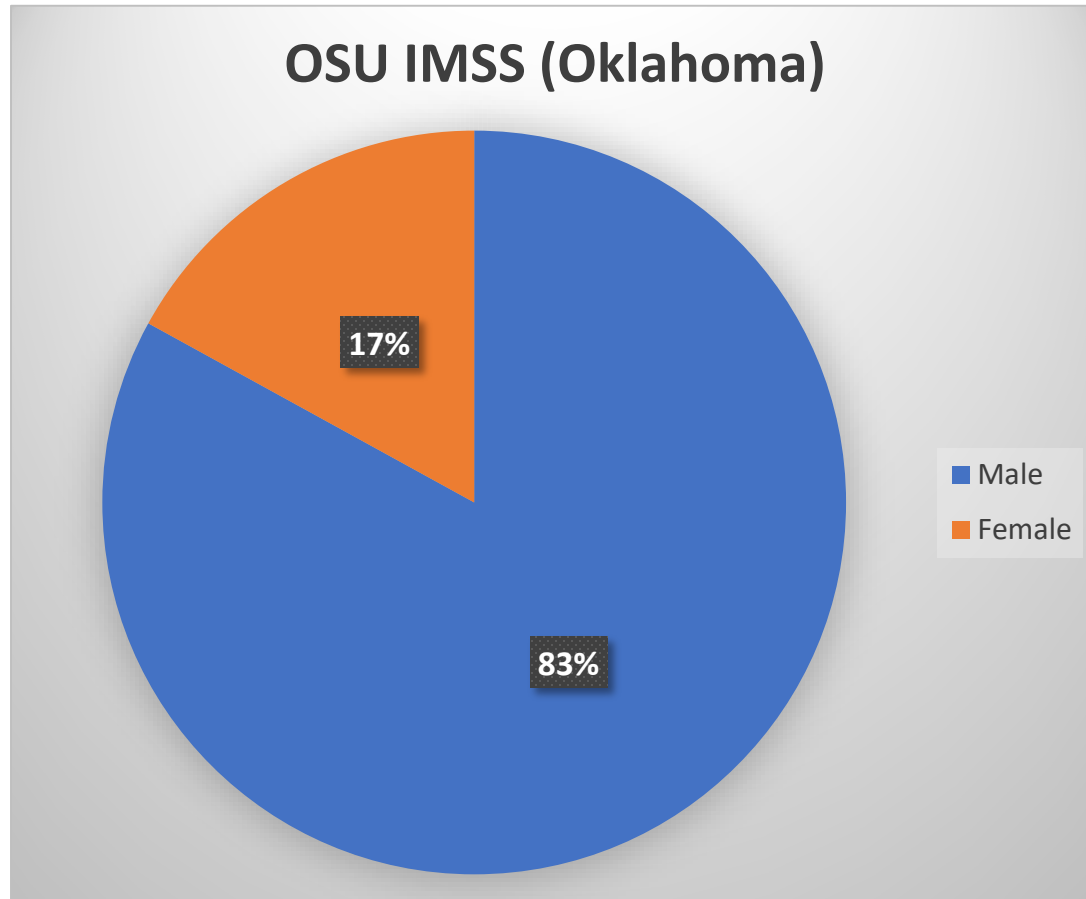
Oklahoma Service Areas

OSU-CHS Ryan White Clinic, Tulsa, OK
(Service Area in Orange)

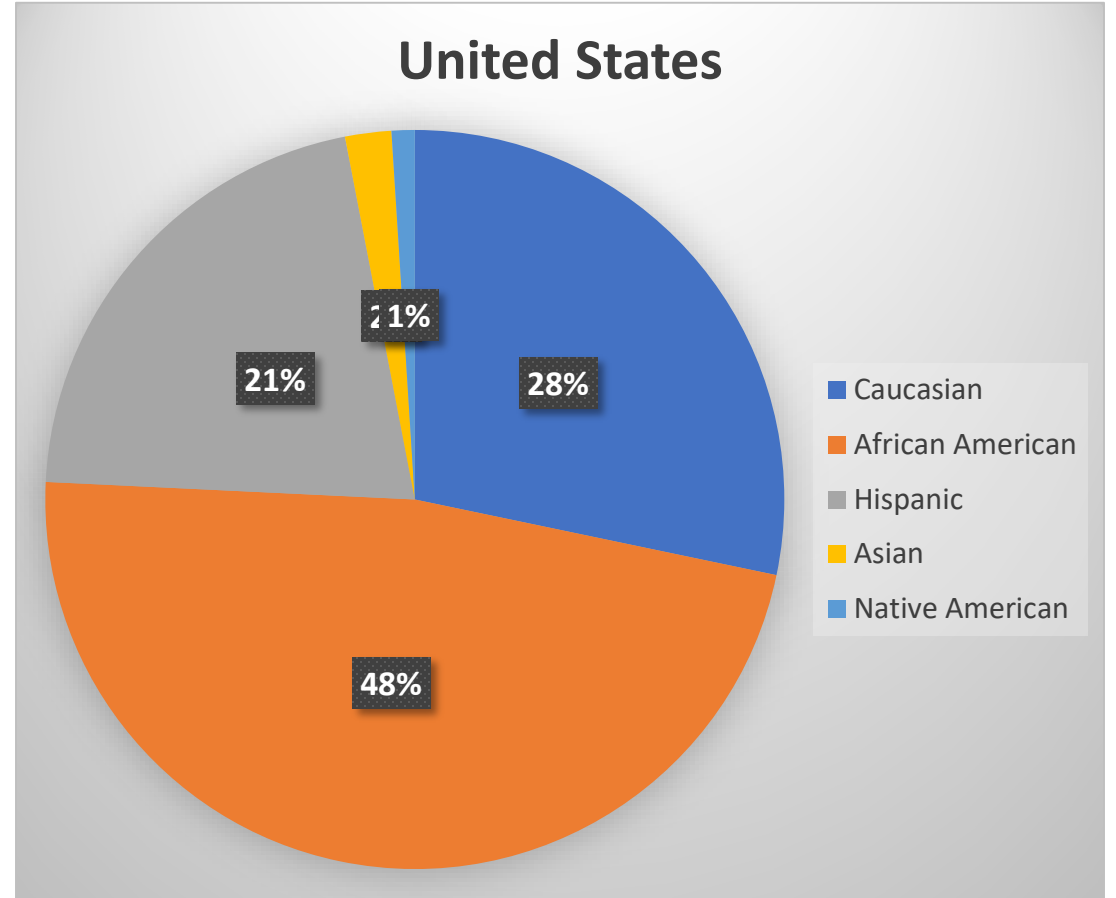
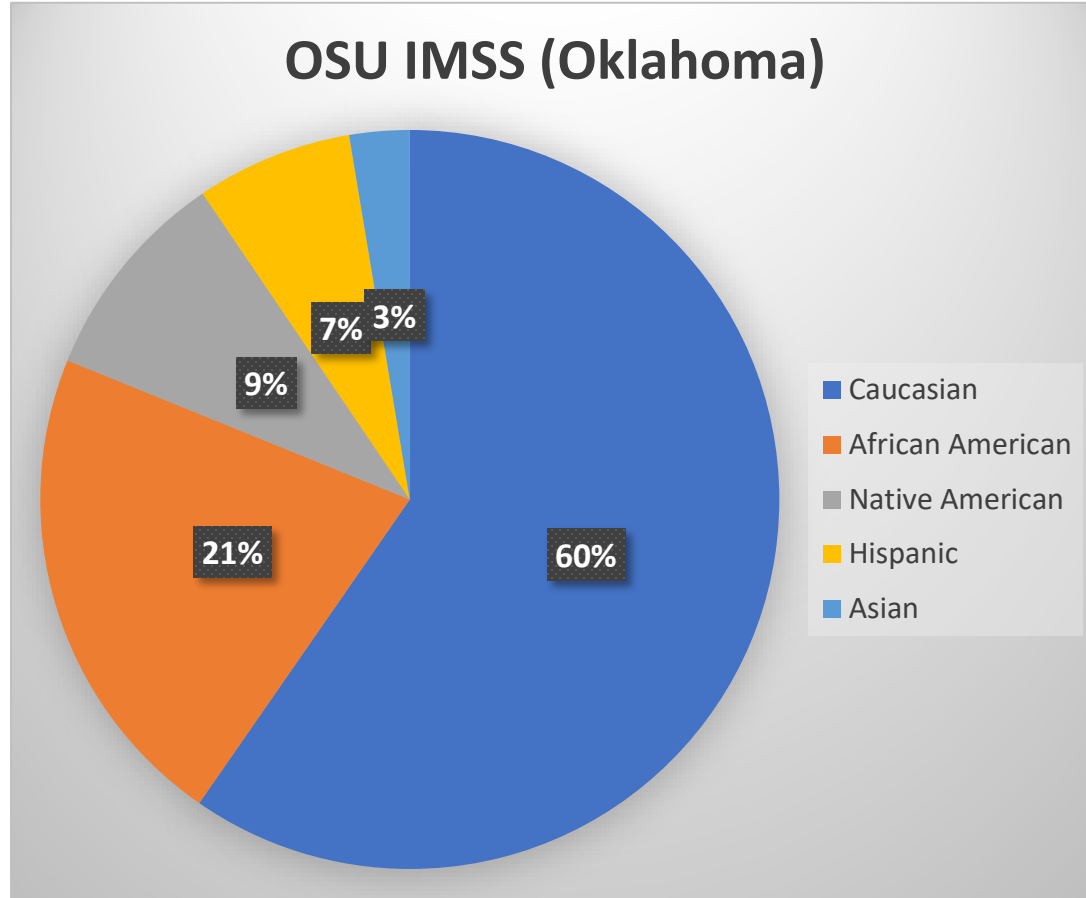
OUHSC Ryan White Clinic,
Oklahoma City, OK
(Service Area in Red)



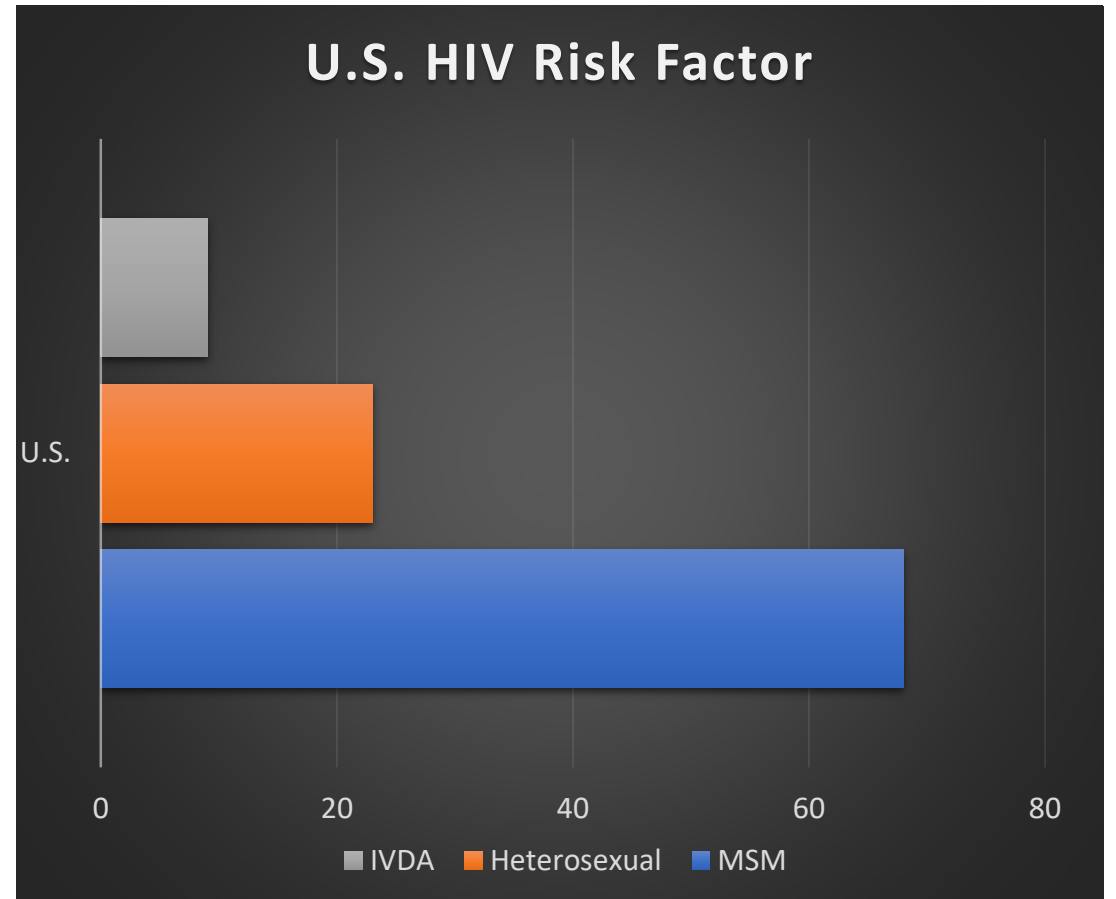
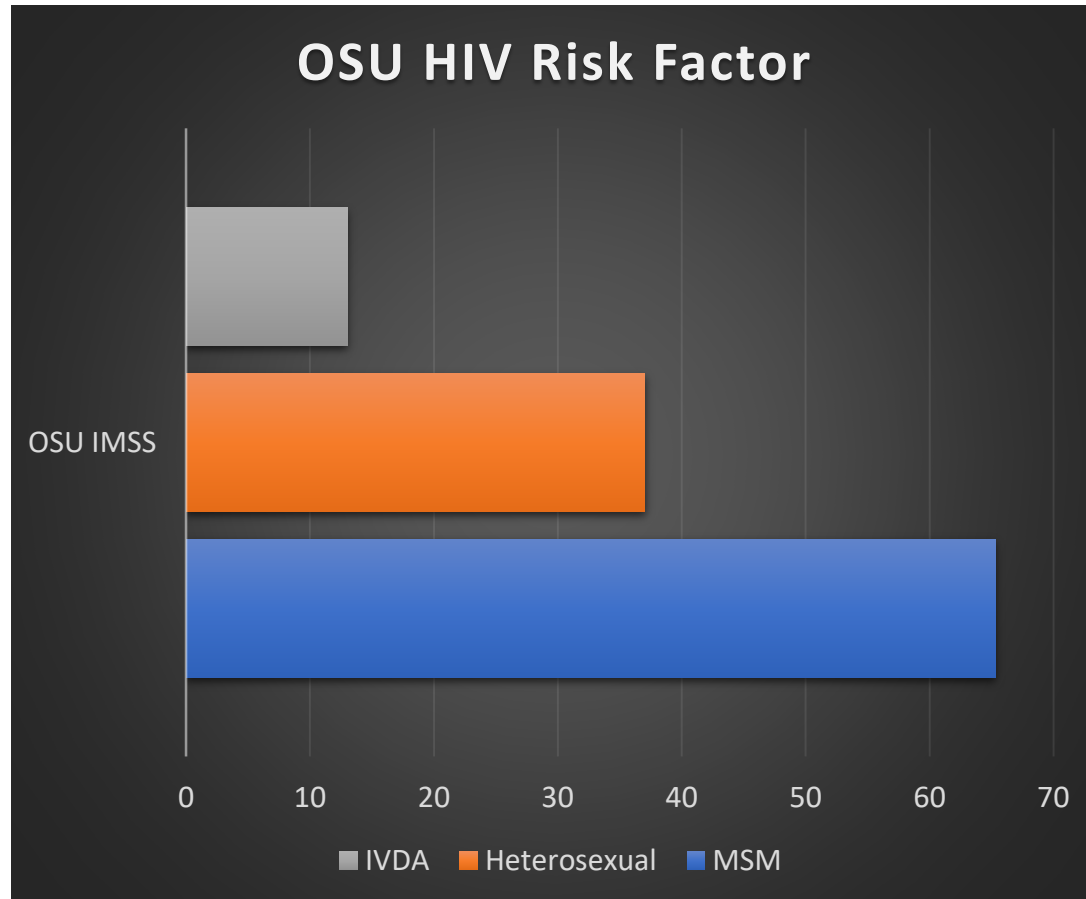
Clinic vs U.S. Demographics - Gender



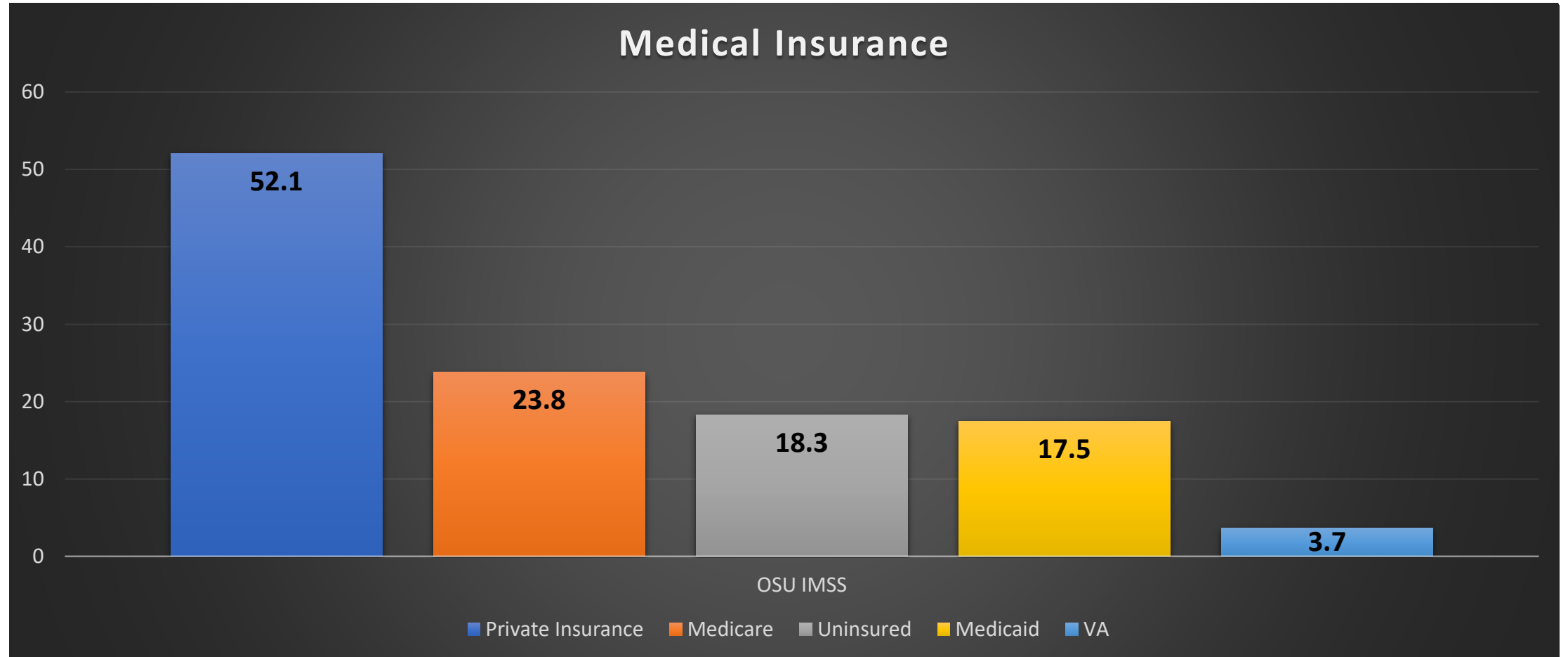
Clinic vs U.S. Demographics - Race



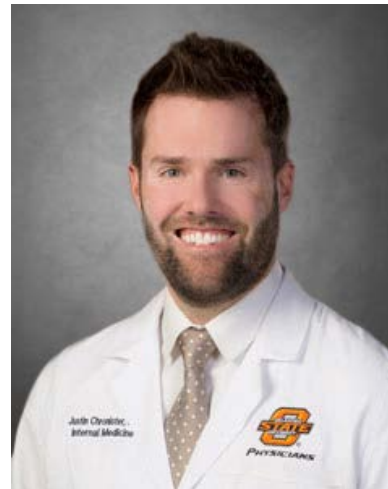
Clinic vs U.S. Demographics – Risk



Clinic Demographics - Insurance



Clinical Assistant Professors

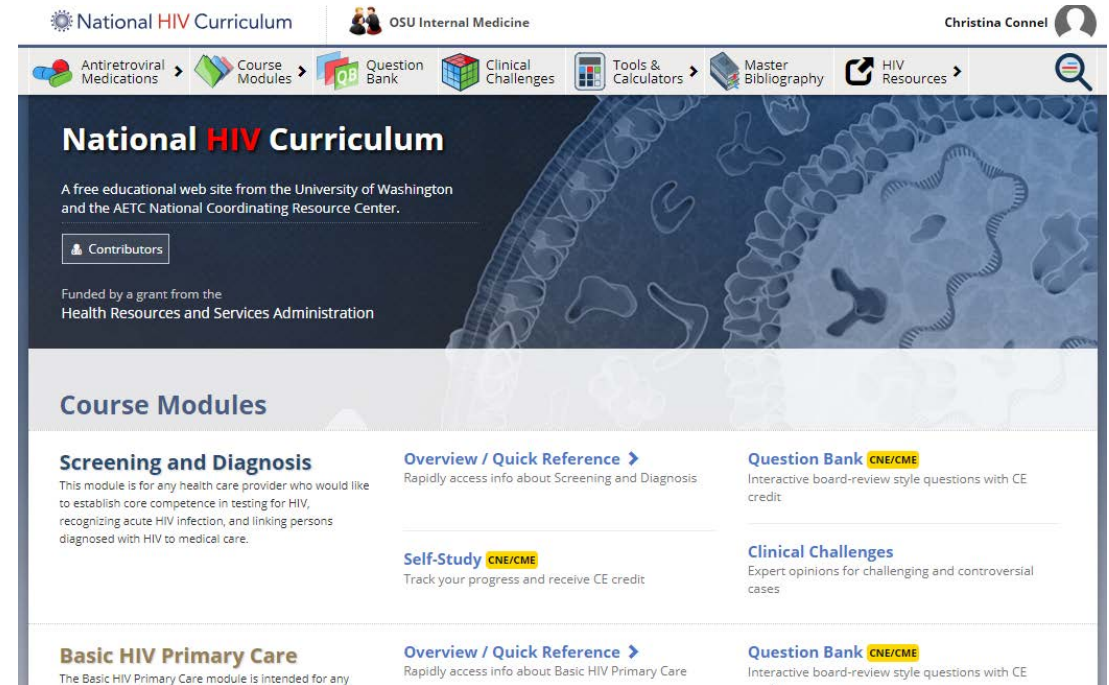


Internal Medicine Residents



Medical Resident Schedule

- Curriculum
 - <https://www.hiv.uw.edu/>
 - Required modules in PGY1 year
 - Lunch and Learn
 - Academics
- ½ day/week continuity clinic
- PGY1 Clinic month



Pharmacy Staff



Christina Connel, PharmD, AAHIVP



Pharmacy Residents

Clinical Pharmacy Team

- Clinical Pharmacist
 - One full time clinical pharmacist
 - Oversee pharmacy team
 - Review all resistance testing
 - Clarify nursing questions
 - Refills
 - Patient calls
- Pharmacy Residents
 - 2-PGY1 residents
 - 2 PGY2 residents
 - Adherence visits
 - New patient/Switch counseling
 - Drug information
- Pharmacy students
 - 2-P4 students/month
 - Adherence
 - Assisting with annual lab monitoring

Pharmacy Resident/Student Schedule

Pharmacy Residents

- Curriculum
 - Assigned reading from DHHS guidelines
 - Primary literature as appropriate
- PGY1 – residents
 - Two ½ days per week
- PGY2 – residents
 - One ½ day per week
 - One month rotation

Pharmacy Students

- Curriculum
 - Assigned reading/discussions of DHHS guidelines
 - Journal club assignment
 - Patient case presentation assignment
- One month rotation

Clinic Workflow

- Open floor plan
- Integration of pharmacy and medical training
 - Pharmacy students assess adherence/medication issues prior to physician
 - Collaboration in medication decision making
- Proximity of attending and resident physicians



Consistency - Assessing Barriers

- Medical residents address
 - Substance abuse
 - Nutrition
 - Mental health
- Pharmacy address
 - Medication adherence
 - Nutrition resources

Flowsheets

File Add Rows Add LDA Cascade Add Col Insert Col Last Filed Reg Doc Graph Go to Date Values By Refresh Legend Link Lines

AMB HIV INTAKE Encounter Vitals Patient Health Questi...

Accordion Expanded View All

No department...
9/14/18
1000

Reset

BASIC NEEDS

Do you need help with food, shelter, clothing, or transportation		
Do you have dental needs		
Copay for IMSS		
Max Out of Pocket		

PHARMACY ADHERENCE QUESTIONS

How often do you feel that you have difficulty taking your HIV medications on time? By "on time" we mean no more than 2 hours before		
On average, how many days PER WEEK would you say that you missed at least one dose of your HIV medications		
When was the last time you missed at least one dose of your HIV medications		
"TOTAL ADHERENCE SCORE [Scoring (>10 equals good adherence; <10 = poor adherence)]"		
Patient Preferred Pharmacy		
CrCl (ml/min)		

NUTRITION SCREENING

The food I bought just didn't last and I don't have money to get more		
I couldn't afford to eat balanced meals		

Adherence Questions:

1. How often do you feel that you have difficulty taking your HIV medications on time? By "on time" we mean no more than 2 hours before or 2 hours after the time your doctor told you to take it.

1. All of the time 2. Most of the time 3. Rarely 4. Never

2. On average, how many days PER WEEK would you say that you missed at least one dose of your HIV medications?

1. Every day 2. 4 to 6 days/week 3. 2 or 3 days/week 4. Once a week
5. Less than once a week 6. Never

3. When was the last time you missed at least one dose of your HIV medications?

1. Within the past week 2. 1 to 2 weeks ago 3. 3 to 4 weeks ago
4. Between 1 and 3 months ago 5. More than 3 months ago 6. Never

SCORE _____ [Scoring (> 10 equals good adherence; < 10 = poor adherence)]

Nutrition Screening:

The food I bought just didn't last and I don't have money to get more

1. Never true 2. Sometimes true 3. Often true

I couldn't afford to eat balanced meals

1. Never true 2. Sometimes true 3. Often true

Adherence question Scoring system

Consistency – Annual Labs

- Completed by pharmacy students
- Ensures annual labs are ordered appropriately
- An additional avenue for pharmacy-physician communication

Resident: _____				Date of Service: _____			
Patient: _____				DOB: _____			
Test:	Order:	Date of Last	Notes	Test:	Order:	Date of Last	Notes
A1C	Y N		CrCl:	A1C	Y N		CrCl:
Hep Panel	Y N			Hep Panel	Y N		
Lipid	Y N			Lipid	Y N		
Quanti. Gold	Y N			Quanti. Gold	Y N		
STI screen	Y N			STI screen	Y N		
Pap/Pelvic Exam	Y N			Pap/Pelvic Exam	Y N		

Patient: _____				DOB: _____			
Test:	Order:	Date of Last	Notes	Test:	Order:	Date of Last	Notes
A1C	Y N		CrCl:	A1C	Y N		CrCl:
Hep Panel	Y N			Hep Panel	Y N		
Lipid	Y N			Lipid	Y N		
Quanti. Gold	Y N			Quanti. Gold	Y N		
STI Screen	Y N			STI Screen	Y N		
Pap/Pelvic Exam	Y N			Pap/Pelvic Exam	Y N		

Retention in Care – Refill policy

- To obtain refills patients are required to have:
 - Continuity in the clinic (office visit within the last 6 months)
 - Scheduled appointment with a physician
 - Recent laboratory testing in chart
- Refills at office visits
 - Are not to exceed their next schedule appointment

Case Managers



Sarah Maxey

Tonya Busby



Bill Wong

Stan Tune



**Tracie Martin,
Outreach CM
& Tier 1 clients**

Case Managers

- Intake appointment for HDAP
- Follow up with patients every 6 months for HDAP renewal
- Referrals
- Outreach CM for hospitalized patients
- Tier 1-3 Acuity Scale for management

Tier 1

- Newly diagnosed (< 1 year)
- Not in care or not on ART
- Non-adherent
- Hospitalized
- Pregnant

Contact every 30 days

Case Managers

Tier 2

- VL > 200 or CD4 < 500/40%
- Social isolation
- Medicaid or no insurance
- Unstable housing or transport
- Recently incarcerated
- Substance abuse
- Domestic violence, legal issues

Contact every 90 days

Tier 3

- VL < 200 and CD4 > 500/40%
- Adheres to ART and follow up
- Stable housing and transport
- Insurance or current HDAP
- Stable mental health without substance abuse
- Stable support system

Contact every 6 months

Nurses



Cathy White, LPN
Nurse Supervisor



Taylor Fox, LPN & Nicole Wilbourn, RMA



Amber Factor, LPN

Staff



Lisa Jenkins,
Program Coordinator



Melissa Cox,
Practice Administrator



Holly Spencer,
Accounting Specialist



Kim Rector,
Resident Coordinator



Angela Bloxham-Wilkerson,
Data Entry Coordinator

Screening Questions

Flowsheets

File | Add Rows | Add LDA | Cascade | Add Col | Insert Col | **Last Filed** | Reg Doc | Graph | Go to Date | Values By | Refresh | Legend | Link Lines

Encounter Vitals | Encounter Vitals | Patient Health Questi... | **AMB HIV INTAKE**

Hide All Show All | Accordion Expanded **View All** |

GENERAL	No depart
DEMOG...	9/27/18
HIV KNO...	0900
GENERAL	
Substance abuse addressed this visit	Yes
Mental Health addressed this visit	Yes
Malnutrition issues address this visit	Yes
Date of initial HIV diagnosis	
Location - City of first diagnosis	
Location - State of first diagnosis	
DEMOGRAPHICS	
Patient's monthly income	
Who do you live with	
How many dependants do you have	
Is your emergency contact aware of your status	
Are you currently receiving funds from any of the follow	
If you have no income, who supports you	
What is their income	
HIV KNOWLEDGE	
Do you Feel you are generally informed about HIV	
What information can we provide you about HIV	

Follow up | Preco...

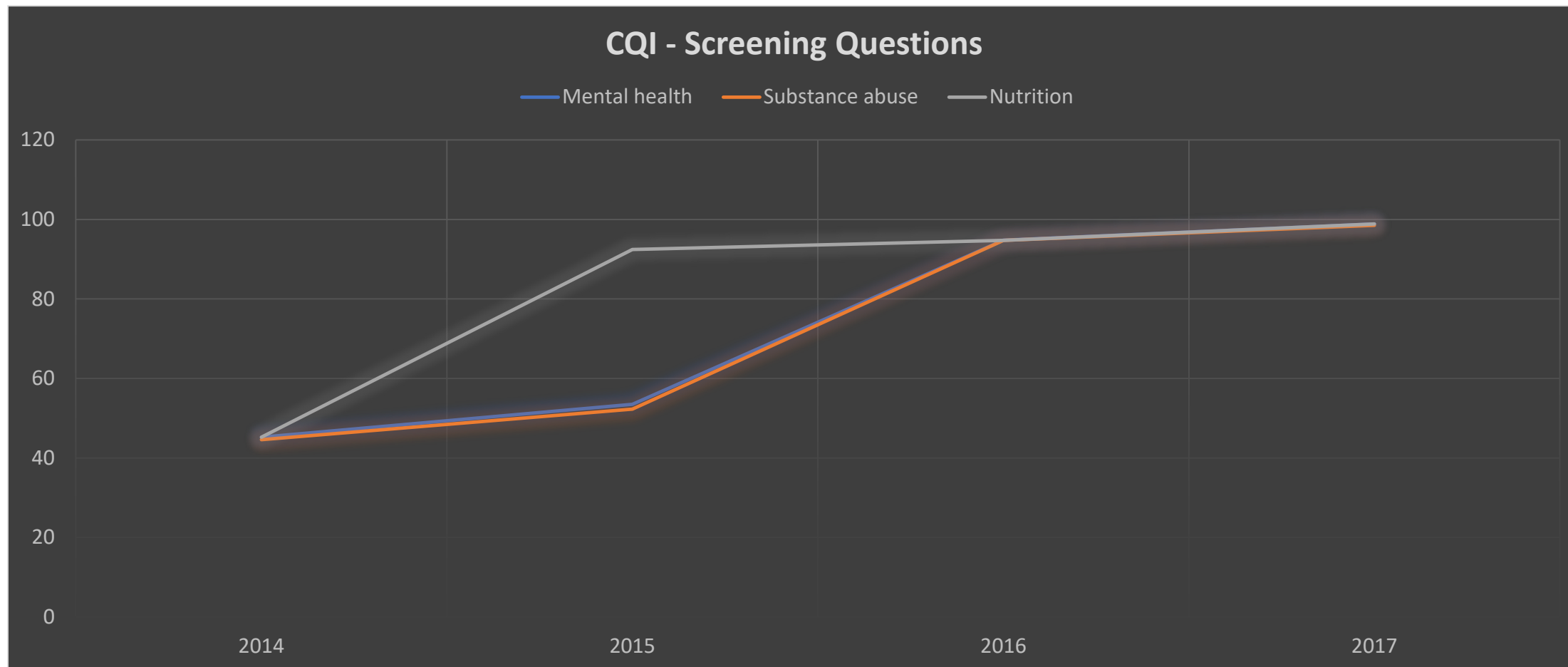
GENERAL

Substance abuse addressed this visit

Mental Health addressed this visit

Malnutrition issues address this visit

Clinical Quality Improvement



New Patient History

HIV STATUS

Patient's current HIV status

ROUTE OF TRANSMISSION

Route of transmission was

RISK FACTORS

The patient has the follow risk factor(s)

AIDS DEFINING CRITERIA

AIDS defining criteria consists of

ASSOCIATED SYMPTOMS

Associated symptoms include

PERTINENT NEGATIVES

Pertinent negatives include

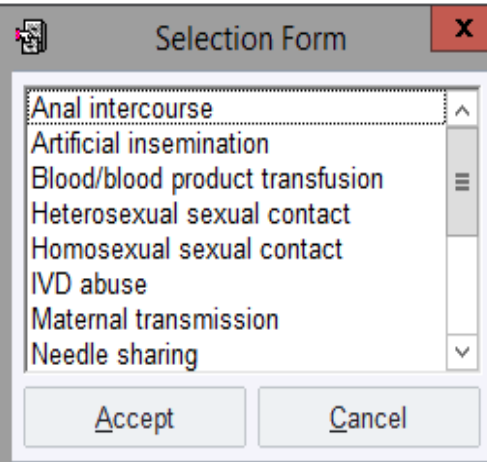
Follow up

HAART therapy start date

Patient is practicing the following preventive measures

The patient has received the following interval care

Preconception

A dialog box titled "Selection Form" with a close button (X) in the top right corner. It contains a list of HIV transmission routes and risk factors: Anal intercourse, Artificial insemination, Blood/blood product transfusion, Heterosexual sexual contact, Homosexual sexual contact, IVD abuse, Maternal transmission, and Needle sharing. The list has scrollable arrows on the right. At the bottom are "Accept" and "Cancel" buttons.

Preconception Counseling

AIDS DEFINING CRITERIA

AIDS defining criteria consists of

ASSOCIATED SYMPTOMS

Associated symptoms include

PERTINENT NEGATIVES

Pertinent negatives include

Follow up

HAART therapy start date

Patient is practicing the following preventive measures

The patient has received the following interval care

Preconception

Is patient child bearing age?

Yes

Current form of contraception:

Condom

Are you interested in having a child?

No

Selection Form

Condom
Pill
Diaphragm
IUD
Surgical
Spermicide
Implant
Rhythm

Accept Cancel

Preconception

Is patient child bearing age?: Yes

Current form of contraception:: Abstinence

Are you interested in having a child?: No

Preconception

Is patient child bearing age?

Current form of contraception:

Are you interested in having a child?

HIV Template Flowsheet

AMB HIV INTAKE

SCREENING QUESTIONS

GENERAL

Substance abuse addressed this visit: Yes
Mental Health addressed this visit: Yes (CREOKS)
Malnutrition issues address this visit: Yes
Date of initial HIV diagnosis: (2011 at TCHD)
Location - City of first diagnosis: (Tulsa (TCHD))
Location - State of first diagnosis: (OK)

ROUTE OF TRANSMISSION

Route of transmission was: Anal intercourse

RISK FACTORS

The patient has the follow risk factor(s): Male who has sex with male(s)

AIDS DEFINING CRITERIA

AIDS defining criteria consists of : CD4 < 200

ASSOCIATED SYMPTOMS

Associated symptoms include: No associated symptoms

Follow up

HAART therapy start date: (2012 Tivicay, abacavir, lamivudine)

HIV Template – Epic

The history is provided by the patient.

HIV

Disease stability: unstable.

Risk factors include male with male sex. Risk factors do not include IV drug use.

Nutrition Assessment:

He has no difficulty eating.

Substance Abuse:

Abuses substances: No.

Health Maintenance (over past year):

Eye exam: No.

Hepatitis C:

Negative for Hepatitis C.

Counseled about substance abuse: Yes.

Patient received HCV counseling: Yes.

Medication Adherence:

Prescribed HAART: No.

HIV Education:

Evidence of understanding of disease process: Yes.

Understands concepts of adherence: Yes.

Evidence of understanding of prevention: Yes.

Evidence of understanding of transmission: Yes.

Provided education: Yes.

Medication Instructions:

ARV regimen discussion points: new medications, potential side effects and importance of 100% adherence.

Response to teaching: verbalized good understanding.

Laboratory Data on Template Note

Lab Results

Component	Value	Date/Time
WBC	4.0 (L)	09/06/2018 01:30 PM
HGB	15.7	09/06/2018 01:30 PM
HCT	49.0	09/06/2018 01:30 PM
PLT	216	09/06/2018 01:30 PM
MCV	92.7	09/06/2018 01:30 PM

Lab Results

Component	Value	Date/Time
NA	137	09/06/2018 01:30 PM
K	3.8	09/06/2018 01:30 PM
CL	101	09/06/2018 01:30 PM
CO2	23	09/06/2018 01:30 PM
CA	9.7	09/06/2018 01:30 PM
BUN	8	09/06/2018 01:30 PM
CREAT	0.94	09/06/2018 01:30 PM
GLUCOSE	95	09/06/2018 01:30 PM
TOTALPROTEIN	8.6 (H)	09/06/2018 01:30 PM
ALBUMIN	4.5	09/06/2018 01:30 PM
BILITOTAL	1.4 (H)	09/06/2018 01:30 PM
ALKPHOS	63	09/06/2018 01:30 PM
AST	26	09/06/2018 01:30 PM
ALT	13	09/06/2018 01:30 PM

Lab Results

Component	Value	Date/Time
HELPERCD4	15 (L)	09/06/2018 01:30 PM

CD4 ABSOLUTE

Date	Value	Ref Range	Status
09/06/2018	192 (L)	410-1,590 cumm	Final

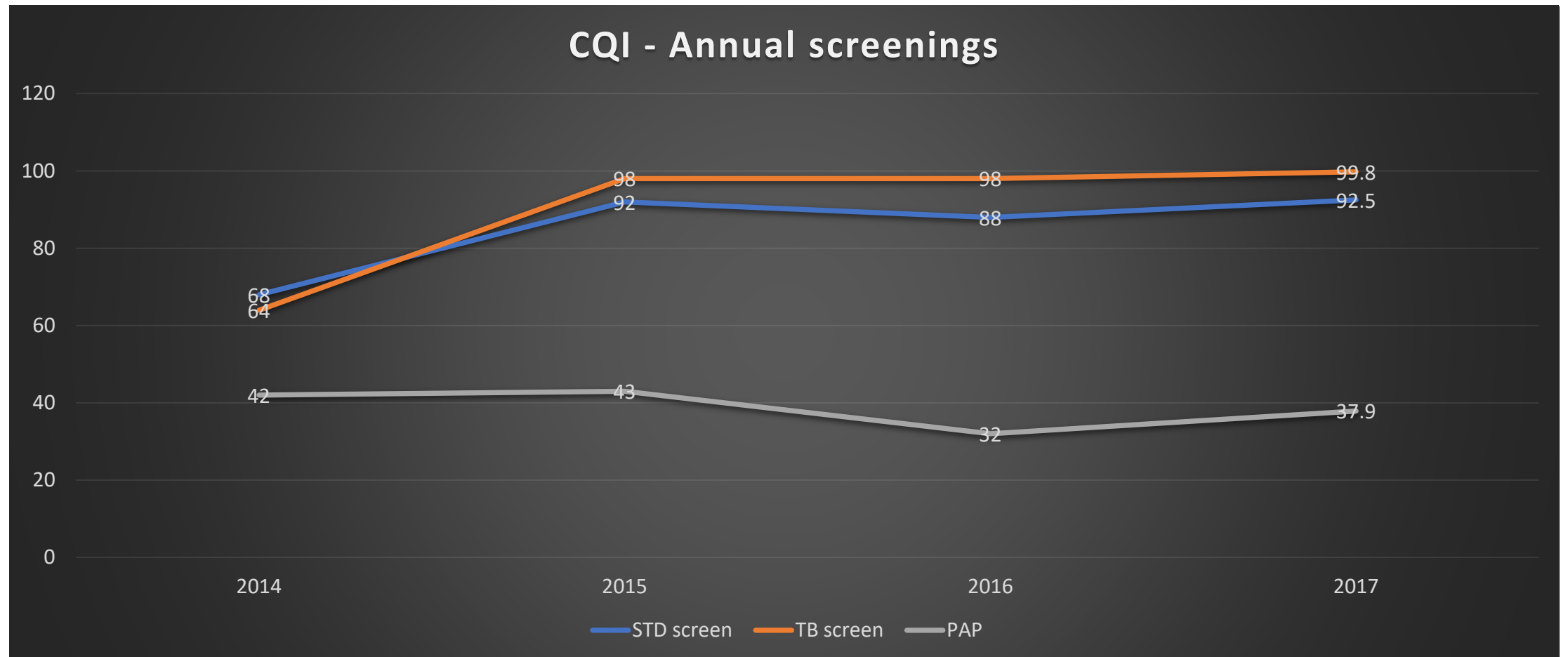
HIV-1 RNA QUANT

Date	Value	Ref Range	Status
09/06/2018	2,231	copies/mL	Final

Laboratory Data

	Every 3-6 months	Every 12 months
CD4	X	
Viral load	X	
CBC	X	
CMP	X	
Lipid panel		X
HgbA1c		X
RPR		X
Quantiferon		X
Hepatitis panel		X
Urine GC/CL		X

Clinical Quality Improvement



Depression Screening – PHQ-9

9/27/18

0900

PHQ-9 Questions

Little interest or pleasure in doing things:	0
Feeling down, depressed, or hopeless:	0
Trouble falling or staying asleep, or sleeping too	0
Feeling tired or having little energy:	0
Poor appetite or overeating:	0
Feeling bad about yourself-or that you are a	0
Trouble concentrating on things, such as reading	0
Moving or speaking so slowly that other people	0
Thoughts that you would be better off dead, or of	0
If you checked off any problems, how difficult	Not difficult at all

PHQ-9 Total

PHQ-9 Total	0
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Behavioral Health Staff



Dr. McElwain
Psychiatrist



Lisa Harrison, LPC



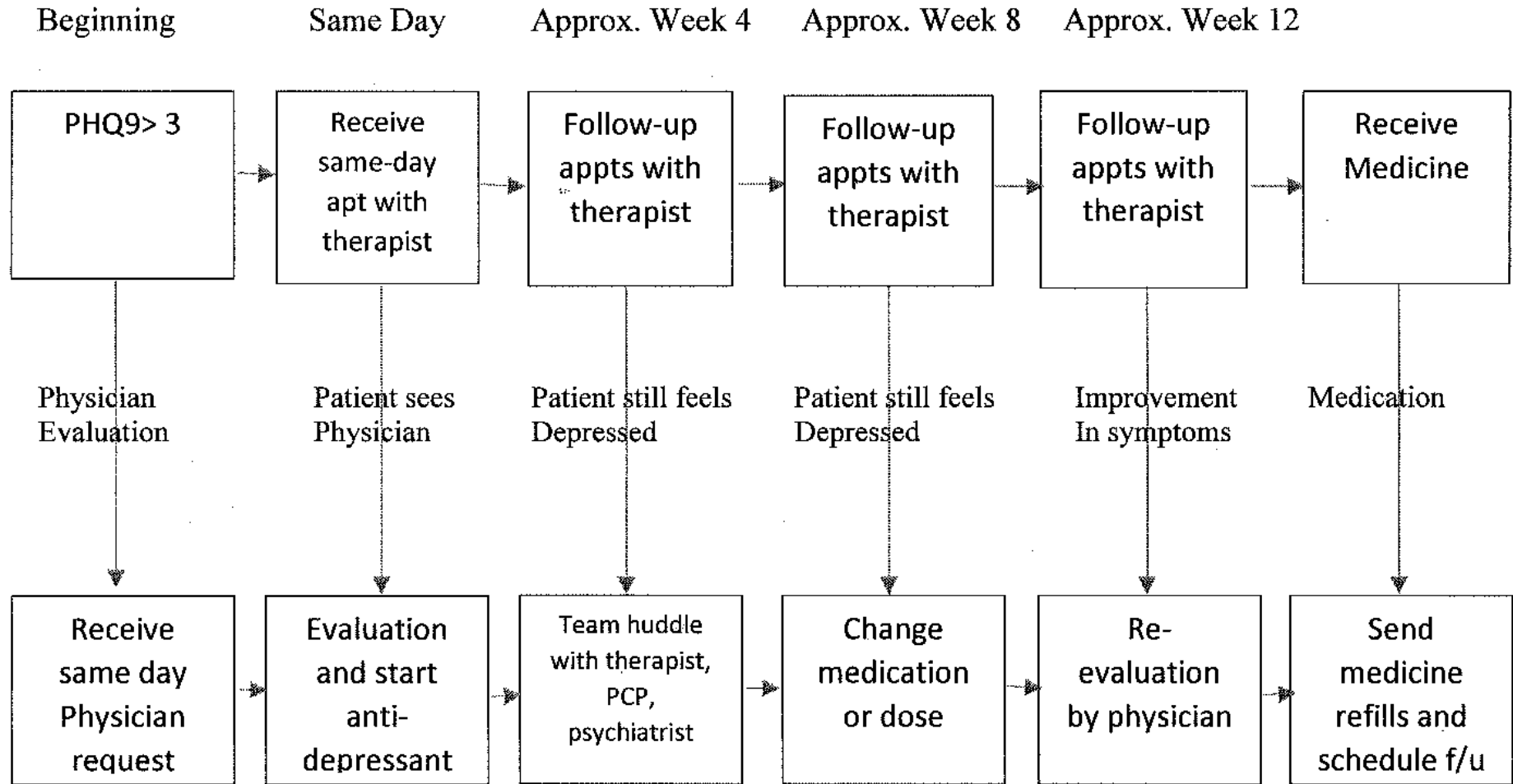
Erica Quick, LPC
Collaborative Care

Collaborative Care

Timeline

Nurse/ Therapist

Receptionist/ Physician



Peer Advocates


- Assist with new patients and lost-to-care patients for retention
- Call prior to appointment for introduction
- Follow up face-to-face at appointment
- Follow for 6 months
- Offer resources and support groups
- State assists with transport to appointment for newly diagnosed



Chuck & Susan

Patient Satisfaction Surveys

- Acute visits available daily
- Morning appointments available
- Continuity care
- Reminder appointment calls by front desk, instead of automated system
- Customer Service Training
- HIV Orientation for new residents
- Peer advocates
- Quarterly newsletters
- Apps for MyChart and Rx refills for OU Pharmacy




"Happiness is an attitude. We either make ourselves miserable, or happy and strong. The amount of work is the same."
— Francesca Reigler

Internal Medicine Specialty Service Clinic
April, 2018

Changes in the Internal Medicine Specialty Service Clinic:

The clinic was awarded funding last September, 2017 to bring patients back into care. This funding allowed us to hire two part-time Peer Advocates that will be available in the mornings and some afternoons to assist newly diagnosed and lost-to care patients. When you see these two people in the clinic, stop and introduce yourself.



Internal Medicine Specialty Services

Chuck:

I was born in Phoenix AZ. 1969. We moved, when I was 10, to Kiefer Oklahoma, where I graduated High School, 1987. I have lived in Tulsa since 1989. I mostly have been in the automotive industry most of my adult life, from body shops to maintenance facilities.

I became disabled in 2009 with Congestive Heart Failure. After this I became active in the HIV community, as a volunteer and eventually creating the Grateful Day Foundation.

Through the Foundation, I have worked as a patient advocate, for the past 6 years. I have a foster daughter who is almost 18, and a boxer named Pepper, who is 6.

Please feel free to contact either Susan or Chuck on the Advocacy Line at (918) 382-4642 with any questions or concerns.

Staffing Changes:

Dorothea Fullard has moved to another clinic within OSU Medicine. The Nurse Manager is actively looking for a replacement.

Miya Lewis, Outreach Case Manager resigned and has been replaced by Tracie Martin. Tracie has been with the OSU IMSS clinic for several years providing case management to a group of patients. If Miya was your case manager, you should be getting a call from Tracie in the near future. She did a wonderful job with her group of patients and will be able to assist you with your medical and social needs.

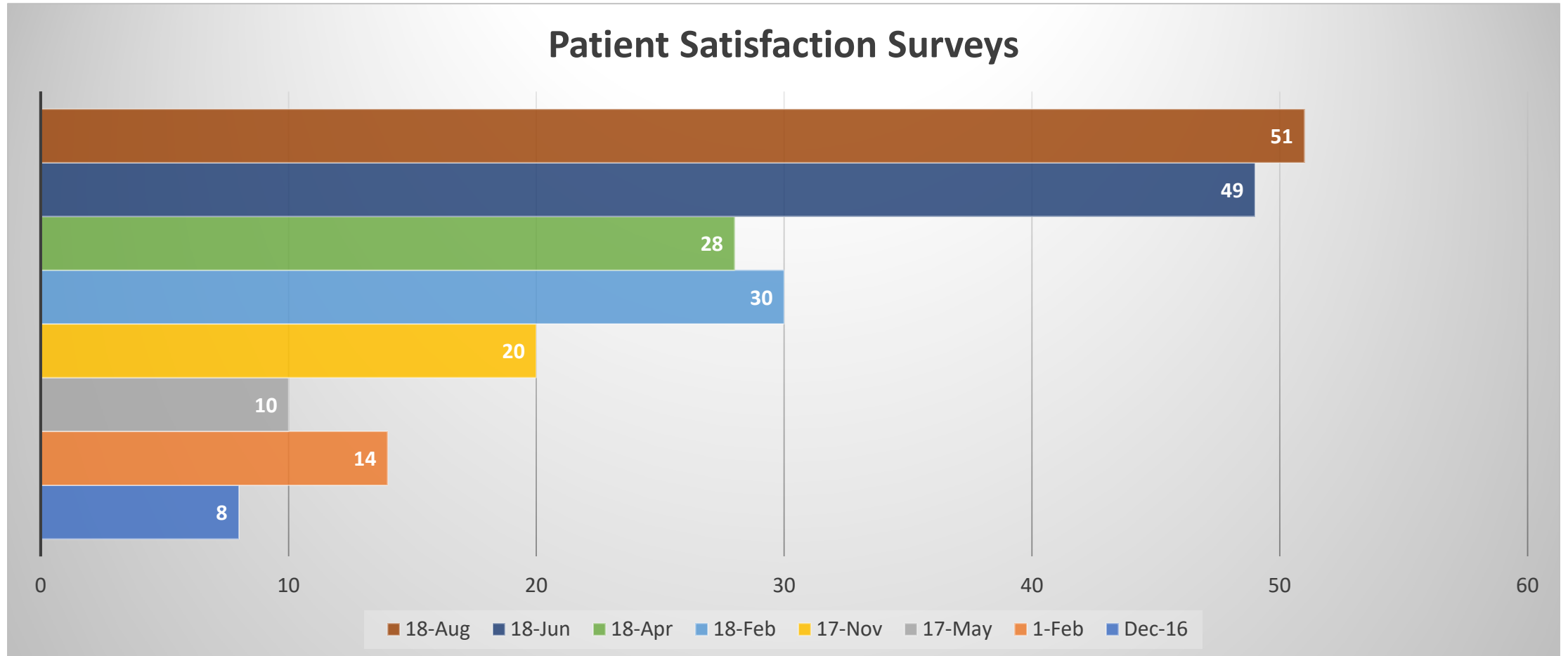
Christa Padgett was one of the front office staff and has accepted a new position in another OSU Medicine Clinic. This position is currently open.

Susan:

My name is Susan and I recently joined the team at OSU Internal Medicine Specialty Services as a Peer Advocate. My work consists mostly of assisting new patients to establish and maintain a treatment regimen. I am a native Oklahoman born in Tulsa, and I graduated high school in Bristow. I attended Oklahoma City University, majoring in Piano Performance.

I am excited to be a part of OSU IMSS, and believe that the advocacy work that we do will be beneficial in helping our patients achieve their treatment goals.

Patient Satisfaction Surveys



Telemedicine



Telemedicine



Project ECHO

- Extension for Community Health Care Outcomes
- Expert teams use multi-point videoconferencing to conduct virtual clinics with community providers
- Case-based collaborative learning
- Small didactic session for CME credit



HIV ECHO TEAM



**Madhuri J. Lad, D.O., FACOI,
AAHIVS**

Clinical Assistant Professor
OSU Medicine, Department of
Internal Medicine



**Christina Connel, Pharm.D.,
AAHIVP**

Clinical Assistant Professor
OSU Medicine, Department of
Internal Medicine



Crystal David, Pharm.D., BCPS

Clinical Assistant Professor
OSU Medicine, Department of
Family Medicine

Patient Service Representatives



Becky Terry



Revati Nkosu & Kristin Stephens

Patient Service Representatives - Retention

- Weekly follow up calls for missed lab or physician appointments
- Utilize CareWare to determine lost-to-care patients twice a year
- Utilize Accurint service to obtain accurate information on lost-to-care patients
- Schedule new patient appointments with verification/proof of positivity
- Schedule follow up appointments with appropriate resident to maintain continuity
- Reminder calls for appointments 1 day in advance

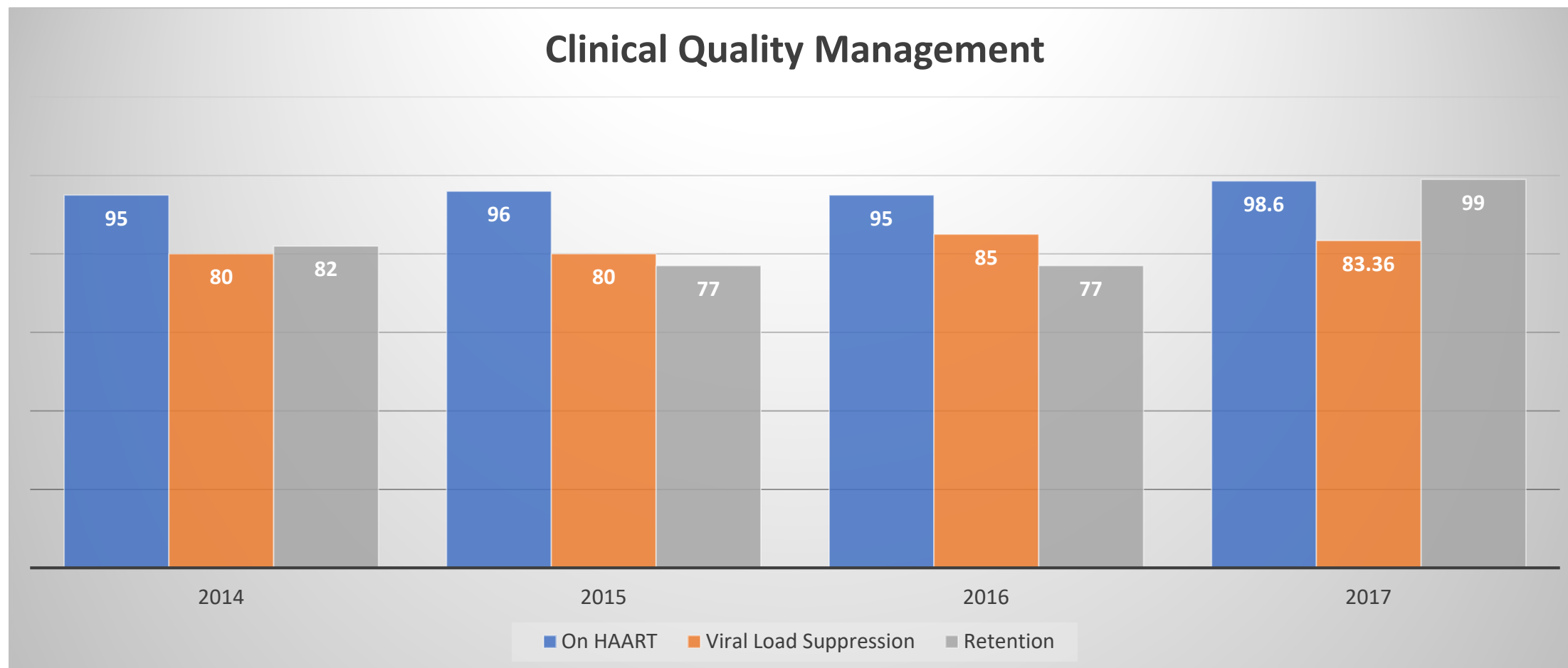
Scheduling Resident Continuity Clinic

Weber, Nathan, DO	Sch	OFFICE VISIT ESTABLISHED	REV LAB WEBER PT/RST
Bass, Jason, DO	Sch	OFFICE VISIT ESTABLISHED	Rev Labs
Natarajan, Kelly Eileen, DO	Sch	OFFICE VISIT ESTABLISHED	Rev Labs
Weber, Nathan, DO	Sch	OFFICE VISIT ESTABLISHED	REV LAB WEBER PT/RST
Bass, Jason, DO	Sch	OFFICE VISIT ESTABLISHED	REV LAB BASS PT/RST
Natarajan, Kelly Eileen, DO	Sch	OFFICE VISIT ESTABLISHED	REV LAB NATARAJAN PT/RST
Weber, Nathan, DO	Sch	OFFICE VISIT ESTABLISHED	REV LAB WEBER PT/RST
Bass, Jason, DO	Sch	OFFICE VISIT ESTABLISHED	REV LAB BASS PT/RST
Natarajan, Kelly Eileen, DO	Sch	OFFICE VISIT ESTABLISHED	REV LAB P NEFF PT/RST
Weber, Nathan, DO	Sch	OFFICE VISIT ESTABLISHED	rev lab Hiebert/ Anal PAP
Bass, Jason, DO	Sch	OFFICE VISIT ESTABLISHED	Rev Labs
Natarajan, Kelly Eileen, DO	Sch	OFFICE VISIT NEW PATIENT	new patient rev lab
Weber, Nathan, DO	Sch	OFFICE VISIT ESTABLISHED	REV LAB WEBER PT/RST

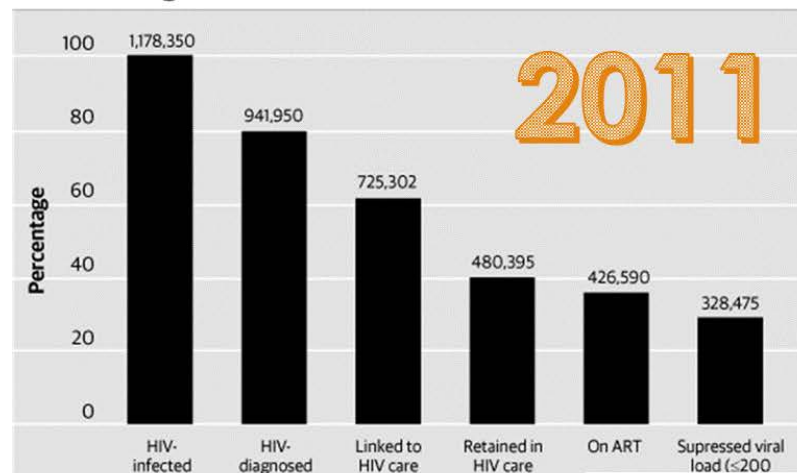
Clinical Quality Improvement Committee

- Team includes medical and assistant medical directors, clinical pharmacist, program coordinator, practice administrator, nurse, patient service representative, case manager, chief resident, and peer advocates
- Work plan for clinical quality management
- Chart audits
- Patient Satisfaction Report
- HIV Certification Exam
- Work flow for prescriptions, rooming patients, scheduling, etc.

Retention In Care 2014-2017



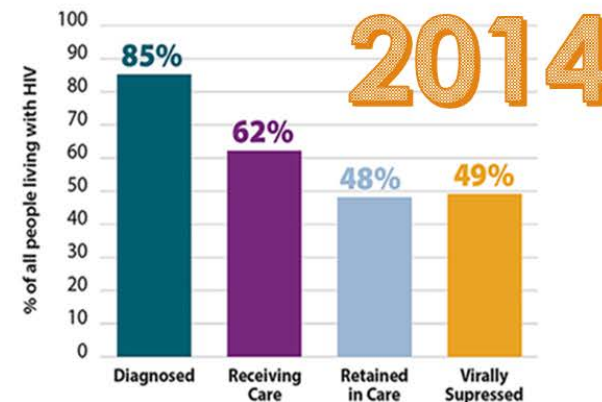
Number and percentage of HIV-infected persons engaged in selected stages of the continuum of HIV care – United States



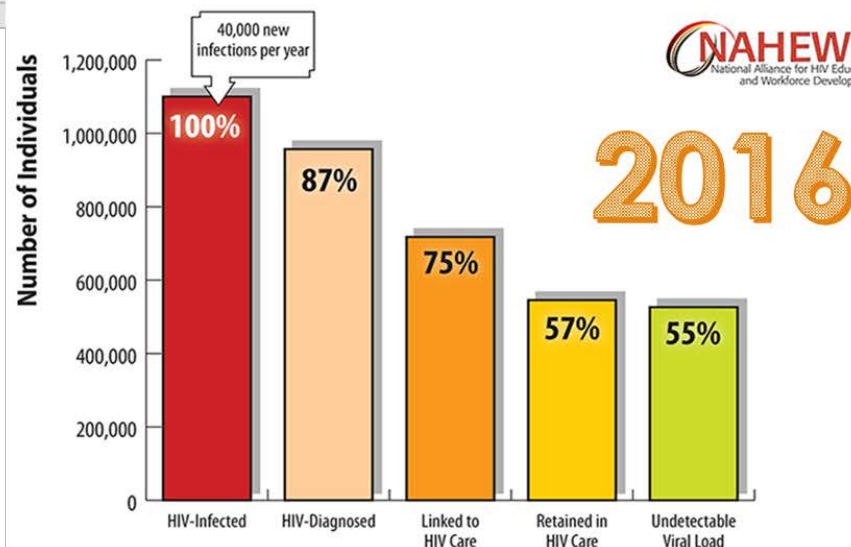
Source: Adapted from Morbidity and Mortality Weekly Report 60: 1618-1623, 2011

HIV Care Continuum, United States, 2014

An estimated 1.1 million people are living with HIV in the United States.



The U.S. HIV Care Continuum¹



NAHEWD
National Alliance for HIV Education
and Workforce Development

KEY CHARACTERISTICS OF TEN ADAPS WITH HIGHEST RATES OF VIRAL SUPPRESSION¹

ILLINOIS, IOWA, MASSACHUSETTS, NEW HAMPSHIRE, NEW MEXICO, NEW YORK, OHIO, OKLAHOMA, OREGON, AND WEST VIRGINIA

¹ (88%) of clients virally suppressed (i.e., have a VL < 200 copies/mL)

GEOGRAPHIC REGION

3 in Northeast, 3 in Midwest, 2 in South, and 2 in West



UTILIZATION

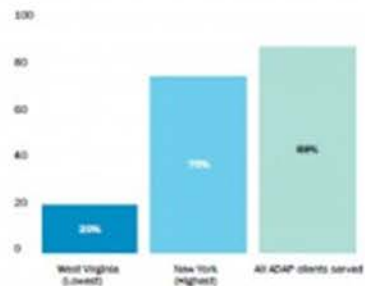
(i.e., number of clients served in calendar year 2015)



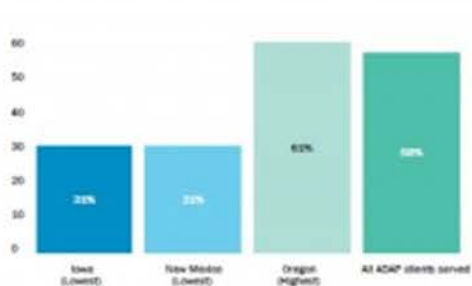
MEDICAID VS. NON-MEDICAID EXPANSION

DEMOGRAPHICS

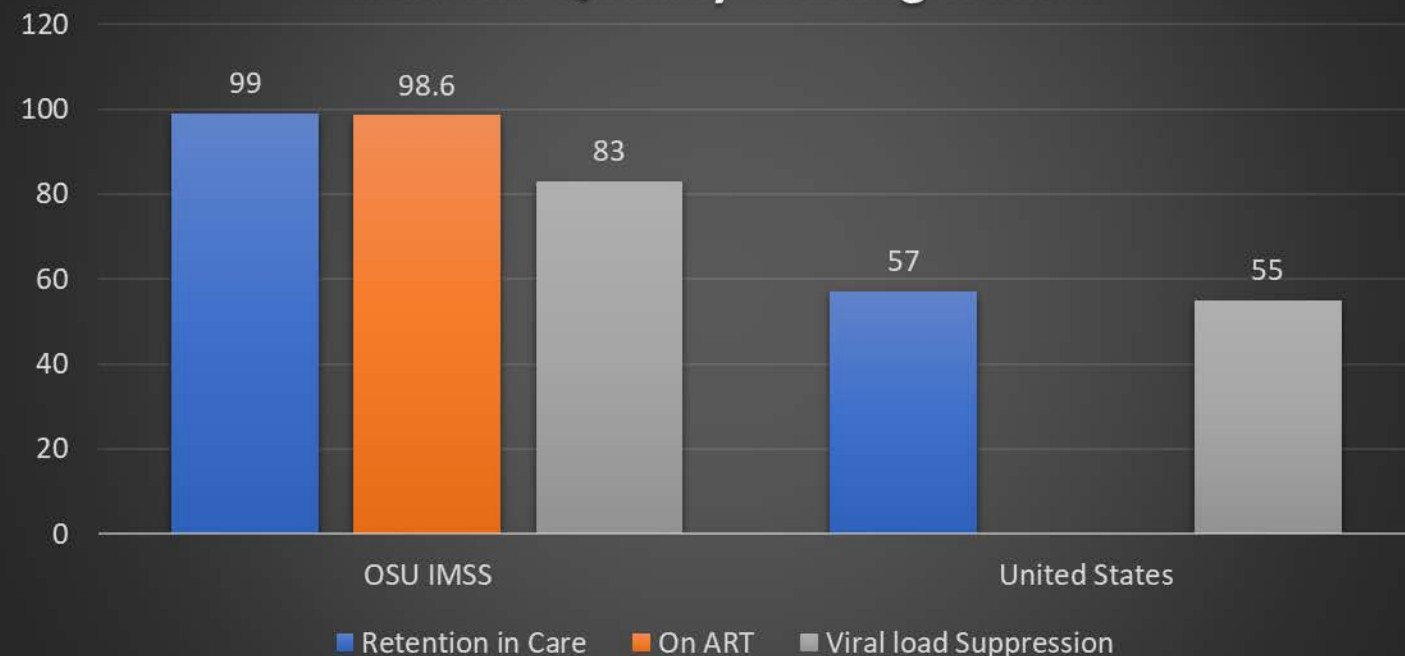
Proportion of Non-White Clients Served in Calendar Year 2015



Proportion of Clients Served with Incomes ≤138% FPL



Clinical Quality Management



Red Nose Day 2017

- On-site Walgreens Specialty Pharmacy
- Thanks to OSU IMSS staff, medical and pharmacy residents, students, physicians, and most importantly our patients!



Obtaining CME/CE Credit

If you would like to receive continuing education credit for this activity, please visit:

<http://ryanwhite.cds.pesgce.com>

References

- Barakat et al. *The Changing Face of HIV Care: Expanding HIV Training in Internal Medicine Residency Program.* Academic Medicine: Journal of the Association of American Medical Colleges. 2017.
- Fessler et al. *Development and Implementation of a Novel HIV Primary Care Track for Internal Medicine Residents.* Journal of General Internal Medicine. 2016; 32(3):350-4.