



Building Workforce Capacity in Minority Communities through Individualized Preceptorships and Mentoring – Stories of Impact

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Disclosures

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Objectives

- Describe the importance and impact of providing longitudinal training to a variety of healthcare professionals.
- Cite the system wide impact of adding newly trained HIV clinicians to minority communities.
- Cite the mix of methods that can be used to develop and support new HIV care providers (e.g. didactics, supervision of direct clinical care, telehealth, long term mentoring, etc.)

WHAT IS ACCESS?

Gracine S. Lewis, BS, CPF

Special Projects Manager

Northeast/Caribbean AETC

Columbia University, Department of Psychiatry

Minority AIDS Initiative (MAI)

- Build community level capacity for HIV treatment in high-need medically underserved minority populations
- Target providers and clinical sites that are caring for infected and high-risk minority populations, who have less experience with:
 - diagnosis, treatment and/or management
- Conduct outreach to community and faith-based orgs
- Work with faculty at HBCUs/HSIs to train on HIV clinical & psychosocial topics

ACCESS Certificate Program

- AETC Community/Clinical Exchange & Sustained Support (ACCESS) Program
 - Racial/ethnic minority providers and those serving in racial/ethnic minority communities
 - Offers over 20 hours of didactic, skills building and competency-based training
 - National curriculum incorporated into training plan
 - Trainings are individually tailored
 - Except for special curriculum for Pharmacists, Community Health Workers and Medical Assistants
 - Continuing education
 - Certificate of completion

Program Management

- Work with Regional Partners (RP) to market ACCESS
- Link interested trainees with RP based on site expertise
- Data collection i.e. training plan and enrollment form
- Verify training hours
- Issue certificate of completion
- Follow-up survey
- Provide resources and additional training



Marketing

- NECA AETC Website
- Regional Brochure
- RP marketing (Intro slides)
- Monthly Newsletter
- Social Media



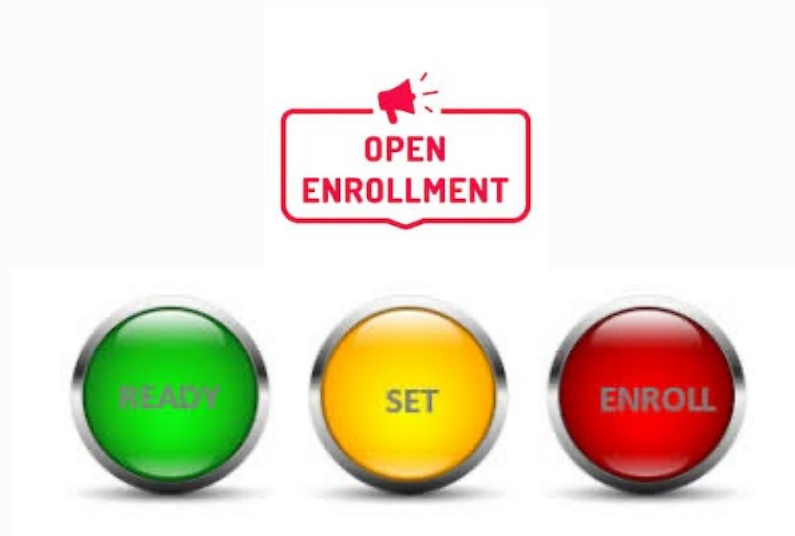
Data Collection

- Enrollment survey
 - Collect trainee data
 - Assess training needs
- Training plan
- Follow-up survey
 - 6 months post-training
 - Assess for changes in comfort levels
 - Assess efficacy of training program



Enrollment Form

- Enrollment form “individual needs assessment”
 - Employment setting
 - Profession
 - Race/ethnicity
 - Specialty
 - Years of experience
 - Training topics
 - Knowledge and confidence performing tasks along the HIV care continuum



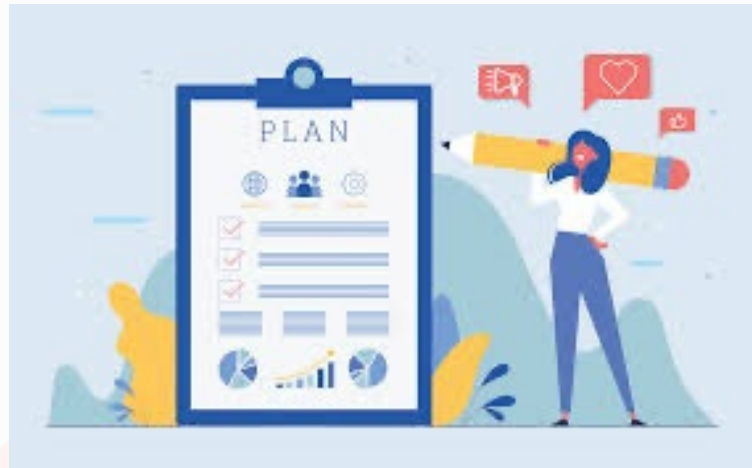
Eligibility

- Racial/ethnic minority health care provider
- Employed at an agency that meets the following criteria:
 - Located in predominantly racial/ethnic minority community
 - Located in community whose residents are at risk for HIV infection or living with HIV/AIDS
 - Historically serves racial/ethnic minority clients or patients



Training Plan

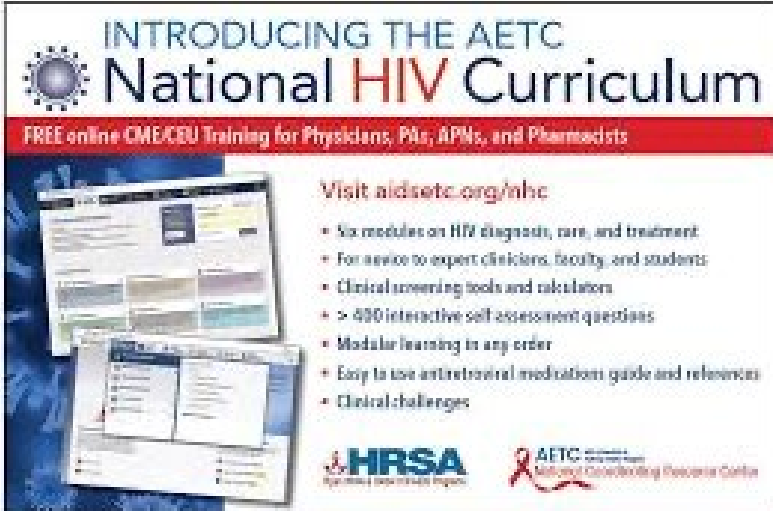
- Is created in collaboration with the training coordinator and the trainee
- Training topics are identified via enrollment form
- Record of:
 - Date
 - Time
 - Location
 - Title of training
 - Number of hours



AETC National HIV Curriculum

Self study modules:

- Screening and Diagnosis
 - Basic HIV Primary Care
 - Antiretroviral Therapy
 - Co-occurring Conditions
 - Prevention of HIV
 - Key Populations
-
- Tools and Features
 - Free CNE and CME





INTRODUCING THE AETC
National HIV Curriculum

FREE online CME/CEU Training for Physicians, PAs, APNs, and Pharmacists

Visit aidsetc.org/nhc

- Six modules on HIV diagnosis, care, and treatment
- For novice to expert clinicians, faculty, and students
- Clinical screening tools and calculators
- > 400 interactive self-assessment questions
- Modular learning in any order
- Easy to use antiretroviral medications guide and references
- Clinical challenges

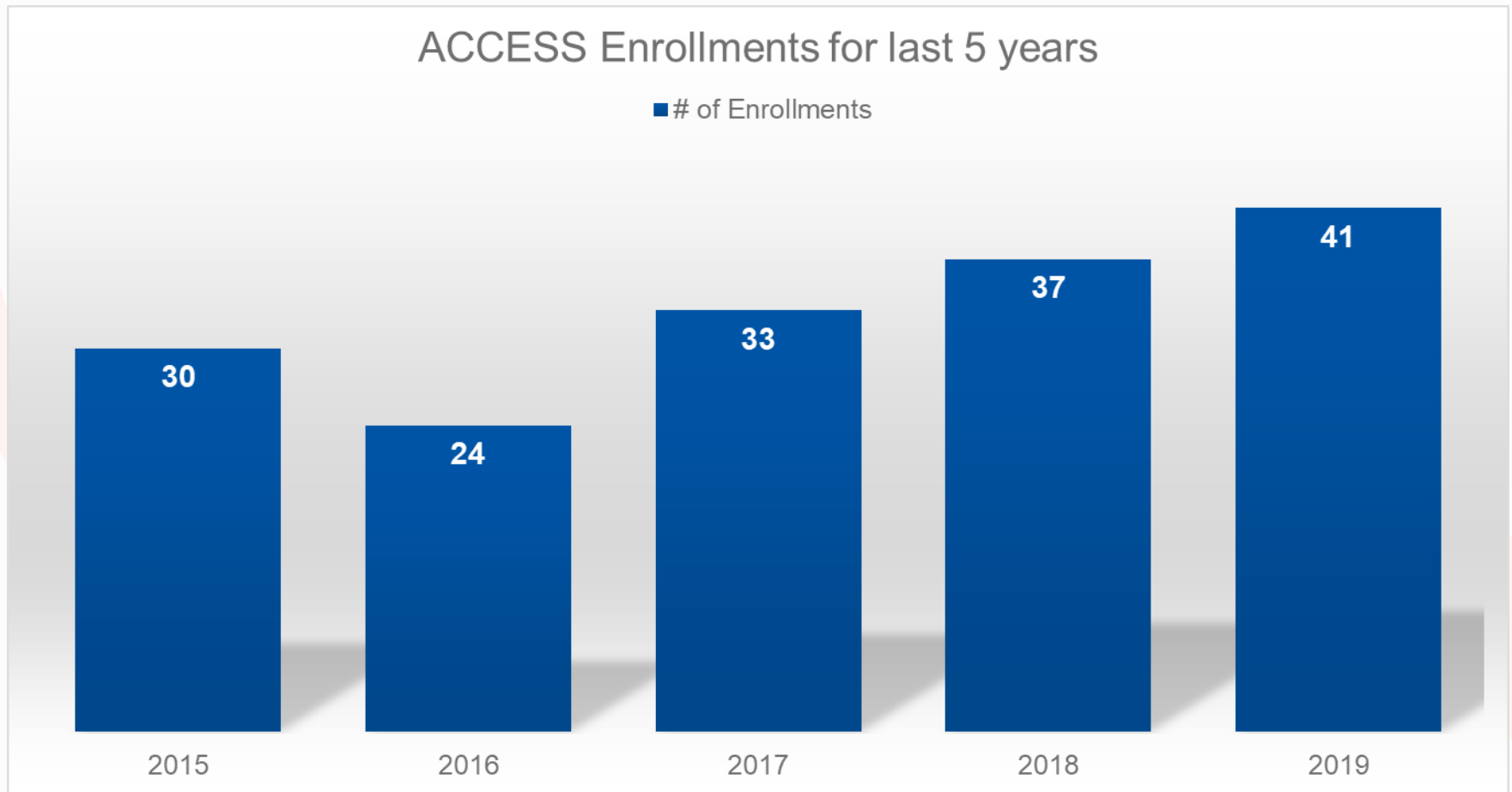
 **HRSA**
U.S. Department of Health and Human Services

 **AETC**
AIDS Education & Training Centers
National Coordinating Resource Center

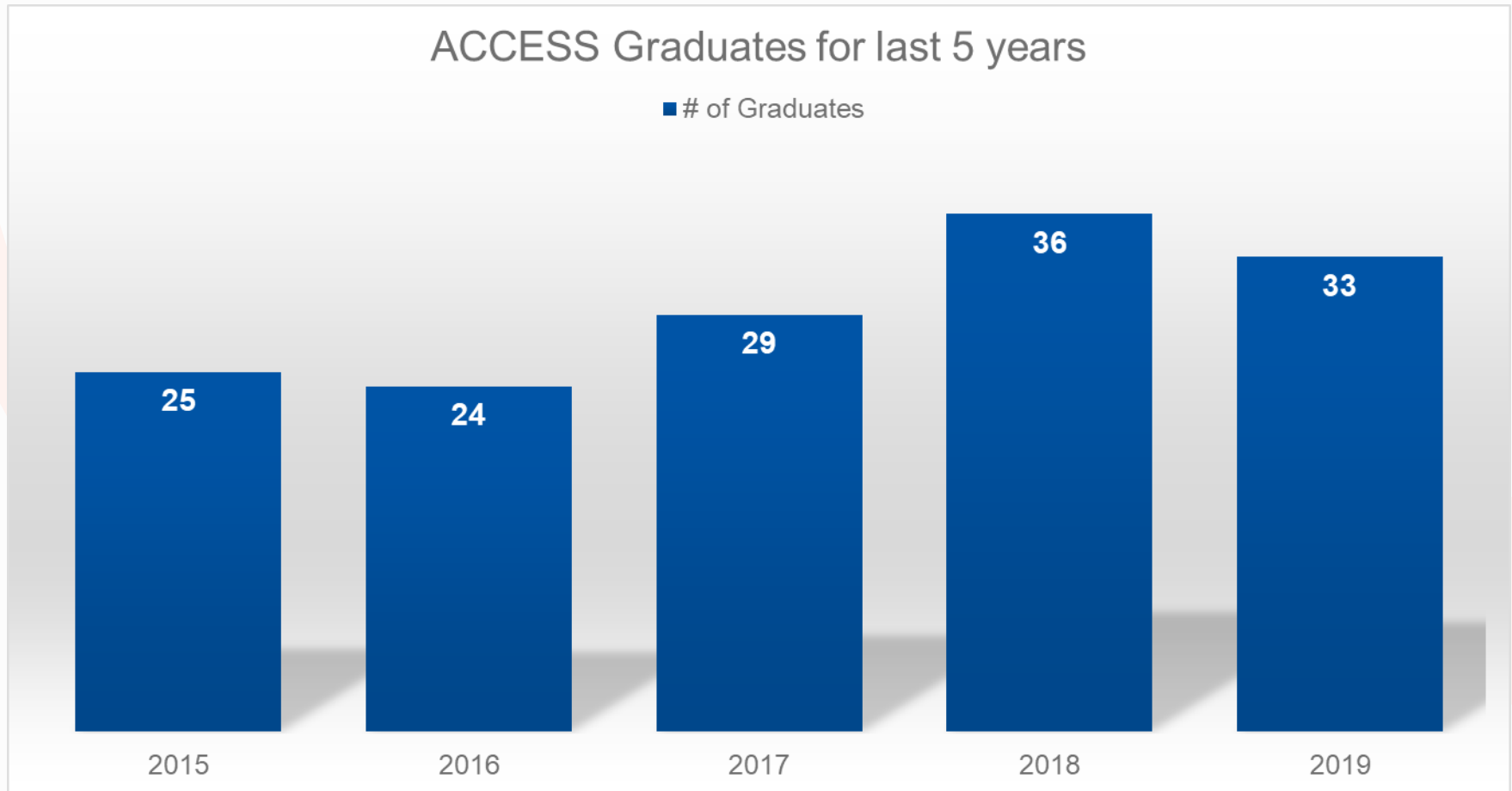
Special Curriculum: CHW, 5-day training

- Day 1 – Defining the role of CHW and providing an overview on the basics of HIV disease i.e. relationship between CD4 and VL counts, transmission, etc.
- Day 2 – The immune system, HIV life cycle, HIV medications and disclosure to clients (telling your story).
- Day 3 – Assessing adherence, understanding labs and HIV-related stigma and principles of peer work.
- Day 4 – Motivational interviewing, supporting clients with disclosure, depression and HIV, sexual health and harm reduction & substance use.
- Day 5 – Importance of documentation in health care, CHW database overview, confidentiality and boundaries and the role of CHW in team-based care.

Number of Enrollments (by year)

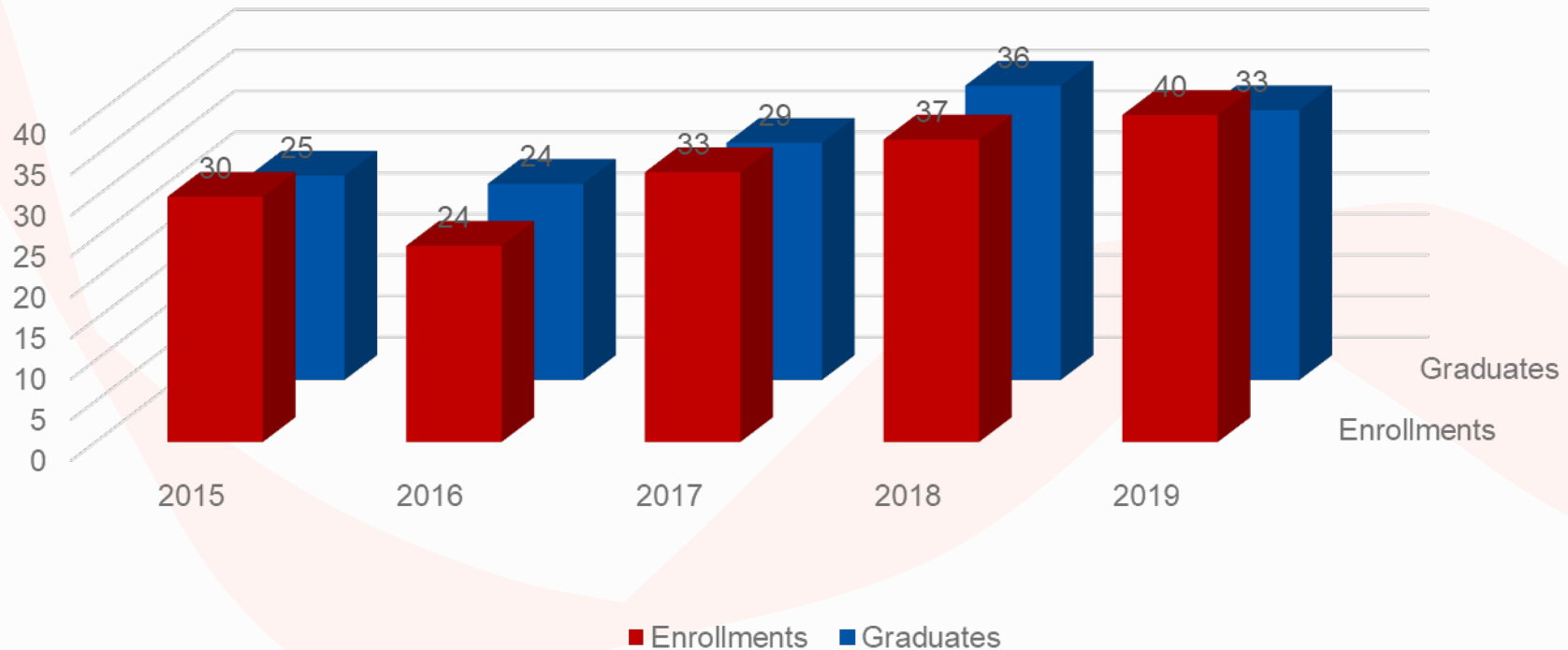


Number of Graduates (by year)



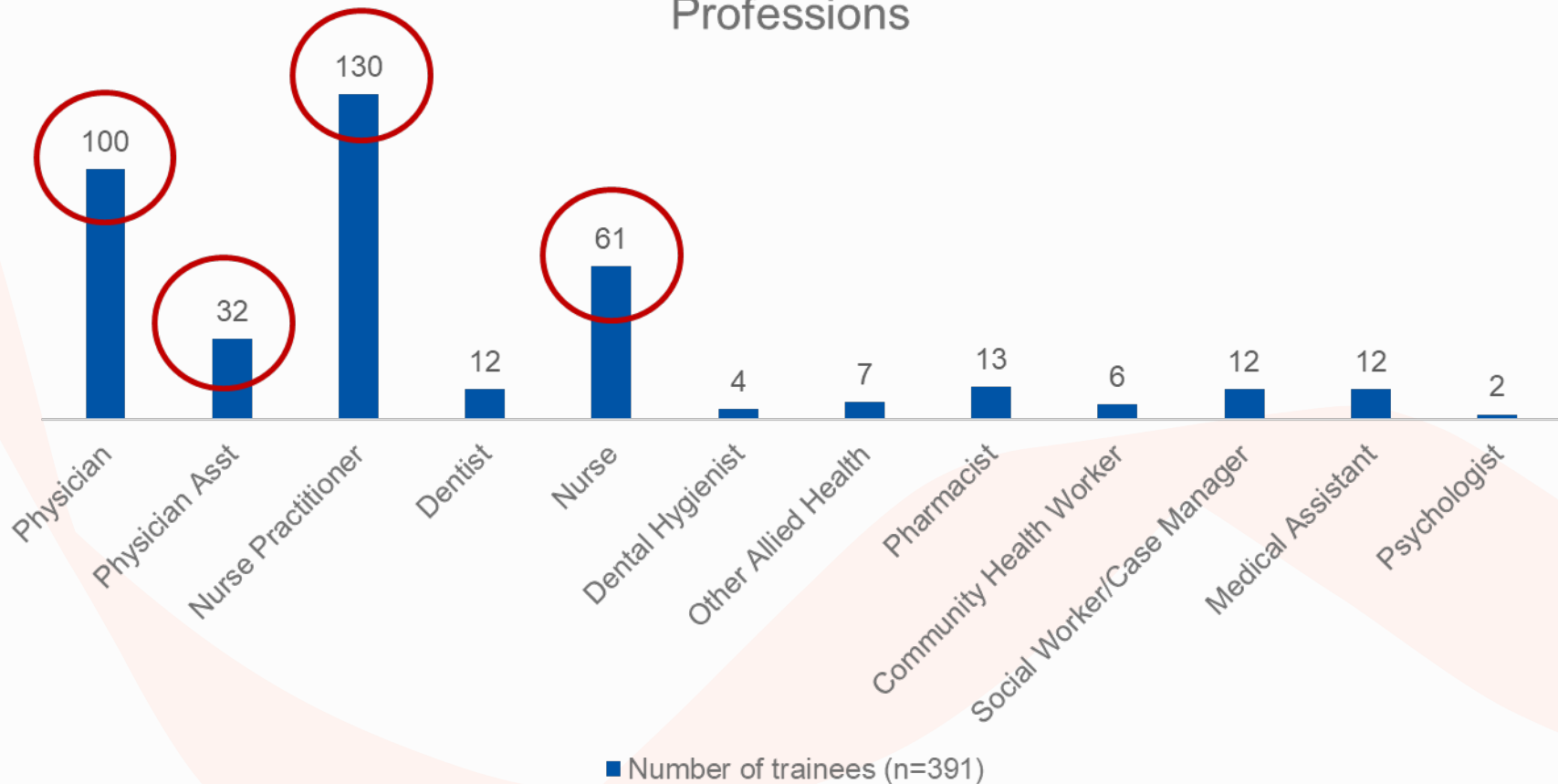
Number of Enrollments vs Graduates (by year)

Enrollments vs Graduates



Professions trained (overall)

Professions



Beyond ACCESS Training

Continued Support

- Mentoring
- Clinical consultations

Access to additional training

- Added to marketing listserv
- Continuing education credits



Challenges

- Scheduling conflicts
- Moderate drop out rate
- Follow up survey response



Successes

- Capacity building
- Leaders in the field
- AETC faculty



PHARMACY TRAINING

John Faragon, PharmD, BCPS, AAHIV-P

Clinical Pharmacist

Regional Pharmacy Director

Northeast/Caribbean AETC

Albany Medical College

Overview of Pharmacy Program

- Established contacts with USVI Pharmacists and Providers using local territory personnel on St. Croix and St. Thomas, Fall 2015
 - Assisted with initial contact with retail, community and hospital pharmacists
 - Assisted with Initial meetings with local HIV providers to establish relationship and to identify training needs

Establishing “Buy-In”

- Initial in person meetings where successful in that they:
 - Provided an opportunity for us to educate HIV care providers and pharmacists on HIV treatment and prevention
 - Helped identify challenges with HIV medication in hospital settings related to cost of ARV
 - Identified the need for PEP trainings, especially for sexual assaults
 - Establish the role of AETC in USVI with government, administrators and with care providers

Provider Training

- Once we established ourselves as being able to assist with HIV training, we identified significant need
 - One site had recently lost their HIV provider and 2 Advanced Practice Providers were now responsible for HIV care for 60+ patients
 - Established an ongoing needs assessment, training, and evaluation plan:

Provider Training (2)


- After assessing needs and availability, NECA AETC established tailored training plan for new providers
- One-hour calls set up every 2 weeks
 - ½ hour didactic
 - ½ hour case discussions about their patients
- Clinical Director – Marshall Glesby, MD, PhD
- Pharmacy Director – John Faragon, PharmD

Provider Training (3)

- Sample Didactic Trainings Covered
 - HIV Laboratory Interpretation and HIV Drug Resistance
 - HIV Drug Regimen selection
 - HIV Drug Interactions
 - Opportunistic Infections

Provider Training - Resistance

Commercial Resistance Test Interpretation



PhenoSense GT™
COMBINATION HIV DRUG RESISTANCE ASSAY

monogram biosciences

Formerly ViroLogic, Inc.
Patrick Joseph, MD, Medical Director - 345 Oyster Point Blvd
South San Francisco, CA 94080 - Tel: (800) 777-0177

Quest Diagnostics-San Juan Capistrano
33608 Ortega Highway
San Juan Capistrano, CA 92675
USA

Client: 00284 Project: 00073
Phone: (800)642-4657 Fax: (949)728-4981

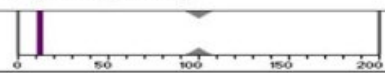
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| | | | | | |
|--------------------------------------|--|-----------------------------------|-----------------------------------|-------------------------|-------------------------------|
| Patient Name: | | DOB: | Patient ID: | Gender: | Monogram Accession # |
| Date Collected 03/21/2006 10:23 | | Date Received 03/25/2006 09:49 | Date Reported 04/09/2006 17:05 | Mode O | Report Status FINAL |
| Referring Physician Drew A Kovach | | Reference Lab ID 87930145 | | HIV-1 Subtype: B | |
| Comments | | | | | |

| | DRUG | | PHENOSENSE™ SUSCEPTIBILITY | | | Evidence of Susceptibility | | Net Assessment | |
|------------------------|---------------|--------------|---|-------------|--------------------------------|--------------------------------|-------------|----------------|---------------|
| | Generic Name | Brand Name | Cutoffs (Lower - Upper) | Fold Change | Increasing Drug Susceptibility | Decreasing Drug Susceptibility | Pheno Sense | | Gene Seq |
| NRTI | Abacavir | Ziagen | (4.5) | 11 | | | N | N | Reduced Susc. |
| | Didanosine | Videx | (1.3) | 2.77 | | | N | N | Reduced Susc. |
| | Emtricitabine | Emtriva | (3.5) | >MAX | | | N | N | Reduced Susc. |
| | Lamivudine | Epivir | (3.5) | >MAX | | | N | N | Reduced Susc. |
| | Stavudine | Zerit | (1.7) | 4.25 | | | N | N | Reduced Susc. |
| | Zidovudine | Retrovir | (1.9) | 22 | | | N | N | Reduced Susc. |
| | Tenofovir | Viread | (1.4) | 1.33 | | | Y | N | Sensitive |
| NRTI Mutations | | | M41L, D67N, L74V, V118I, M184V, L210W, T215Y, K219R | | | | | | |
| NNRTI | Delavirdine | Rescriptor | (2.5) | 5.30 | | | N | N | Reduced Susc. |
| | Efavirenz | Sustiva | (2.5) | 3.50 | | | N | N | Reduced Susc. |
| | Nevirapine | Viramune | (2.5) | 7.05 | | | N | N | Reduced Susc. |
| NNRTI Mutations | | | K103N | | | | | | |
| PI | Atazanavir | Reyataz | (2.2) | 236 | | | N | N | Reduced Susc. |
| | Fosamprenavir | Lexiva / r* | (5.2) | 236 | | | N | N | Reduced Susc. |
| | Indinavir | Crixivan | (2.1) | 85 | | | N | N | Reduced Susc. |
| | Lopinavir | Kaletra / r* | (10) | 85 | | | N | N | Reduced Susc. |
| | Nelfinavir | Viracept | (2.5) | 153 | | | N | N | Reduced Susc. |
| | Ritonavir | Norvir | (2.5) | >MAX | | | N | N | Reduced Susc. |
| | Saquinavir | Invirase | (1.7) | >MAX | | | N | N | Reduced Susc. |
| | Tipranavir | Aptivus / r* | (4) | 0.74 | | | Y | Y | Sensitive |
| PI Mutations | | | L10I, L24I, L33F, M36V, G48M, F53L, I54V, L63P, T74S, V82A | | | | | | |

▬ Clinical Cutoff (in bold) ▬ Hypersusceptibility ■ Sensitive Y Evidence of Drug Sensitivity
▬ Biological Cutoff ▬ Cutoff ■ Reduced Susceptibility N Evidence of Reduced Drug Susceptibility

For more information on interpreting this report, please visit www.MonogramHIV.com or call Customer Service at 800-777-0177 between the hours of 6:30am to 6:00pm PST Monday through Friday.

| | | |
|--|--|--|
| RC Virus Replication Capacity = 13% (Range 8%-20%) |  | Replication capacity (RC) indicates the ability of the virus to replicate in the absence of drug. Range represents 95% confidence interval around RC measurement. 100%=median RC of wild-type viruses. |
|--|--|--|

Provider Training – Resistance (2)

Stanford University HIV Drug Resistance Database

Stanford University
HIV DRUG RESISTANCE DATABASE
A curated public database to represent, store and analyze HIV drug resistance data.

HOME GENOTYPE-RX GENOTYPE-PHENO GENOTYPE-CLINICAL HIVDB PROGRAM ABOUT HIVDB SUPPORT HIVDB

Sierra 3.0.4

release notes / web service
May 21, 2020

Stanford
Coronavirus Antiviral
Research Database

Antivirals, investigational agents, repurposed drugs, monoclonal antibodies, interferons, and lead compounds (Apr 2020).

HIVDB Algorithm
Version 8.9-1

Nov 1, 2019

HIVdb-NGS (Beta)

release notes
Oct 24, 2019

Reference Library:
HIV-2
Resistance

A body of literatures reviewed, annotated and searchable

Sep 6, 2019

CPR
Calibrated
Population
Resistance

HIVDB released on February 11, 2020

Query / Download

Genotype-treatment

ARV selection data comprising 170,571 protease, 180,016 RT and 23,783 integrase HIV-1 virus sequences from 191,685 persons; 1,022 protease, 802 RT and 340 integrase HIV-2 virus sequences from 1,110 persons.

Genotype-phenotype

Drug susceptibility data comprising 25,434 PI, 19,858 NRTI, 11,548 NNRTI and 4,907 INI susceptibility results from HIV-1 virus isolates

Genotype-clinical

Clinical outcome data comprising genotype, treatments, plasma HIV-1 RNA levels and CD4 counts from 15 clinical trials and >1500 Treatment-Change Episodes

References

1,714 references of genotype-treatment and/or genotype-phenotype data according to author-yr, including 190 references collected since 2019-01-01.

3,183 Genbank submission sets according to author-yr and submission title, including 34 new submissions from Genbank release on 2019-12-15.

HIVdb Program

Drug Resistance Summaries
(Download PDF)

PIs
NRTIs
NNRTIs
INSTIs

HIVdb NGS Program

HIVdb Program for HIV-2

HIVseq Program

HIValg Program

HIV-1 Genetic Variability for
Drug Resistance

Single Genome Sequence
Database

News & Updates

Surveillance Mutations

INTERACTIVE MAP

Reference Libraries

Point-of-Care /
Essential Mutations

TCE

ART-AiDE

Publications

Other Resources

Multi-Drug Resistant Panels
Database Mirror

REGA HIV-1 Subtyping Tool 3.0
HBVseq Program

Provider Training – Resistance (3)

IAS-USA Mutations

MUTATIONS IN THE REVERSE TRANSCRIPTASE GENE ASSOCIATED WITH RESISTANCE TO REVERSE TRANSCRIPTASE INHIBITORS

Nucleoside and Nucleotide Analogue Reverse Transcriptase Inhibitors (nRTIs)¹

69 Insertion Complex² (affects all nRTIs currently approved by the US FDA)

| | | | | | | | | | | | |
|------------|----|----|--------|----|--|--|--|--|-----|-----|-----|
| | M | A | ▼ | K | | | | | L | T | K |
| Multi-nRTI | 41 | 62 | 69 | 70 | | | | | 210 | 215 | 219 |
| Resistance | L | V | Insert | R | | | | | W | Y | Q |
| | | | | | | | | | F | E | |

151 Complex³ (affects all nRTIs currently approved by the US FDA except tenofovir)

| | | | | | | | | | | |
|------------|----|--|----|----|--|-----|--|-----|--|--|
| | A | | V | F | | F | | Q | | |
| Multi-nRTI | 62 | | 75 | 77 | | 116 | | 151 | | |
| Resistance | V | | I | L | | Y | | M | | |

Thymidine Analogue-Associated Mutations^{4,5} (TAMs; affect all nRTIs currently approved by the US FDA other than emtricitabine and lamivudine)

| | | | | | | | | | | | |
|------------|----|----|----|--|--|--|--|--|-----|-----|-----|
| | M | D | K | | | | | | L | T | K |
| Multi-nRTI | 41 | 67 | 70 | | | | | | 210 | 215 | 219 |
| Resistance | L | N | R | | | | | | W | Y | Q |
| | | | | | | | | | F | E | |

| | | | | | | | | | | |
|-------------------------|--|----|--|----|--|-----|--|-----|--|--|
| Abacavir ^{1,6} | | K | | L | | Y | | M | | |
| | | 65 | | 74 | | 115 | | 184 | | |
| | | R | | V | | F | | V | | |
| | | E | | | | | | | | |
| | | N | | | | | | | | |

| | | | | | | | | | | |
|---------------|--|----|--|--|--|--|--|-----|--|--|
| Emtricitabine | | K | | | | | | M | | |
| | | 65 | | | | | | 184 | | |
| | | R | | | | | | V | | |
| | | E | | | | | | I | | |
| | | N | | | | | | | | |

| | | | | | | | | | | |
|------------|--|----|--|--|--|--|--|-----|--|--|
| Lamivudine | | K | | | | | | M | | |
| | | 65 | | | | | | 184 | | |
| | | R | | | | | | V | | |
| | | E | | | | | | I | | |
| | | N | | | | | | | | |

| | | | | | | | | | | |
|--------------------------|--|----|--|----|--|--|--|--|--|--|
| Tenofovir ^{1,7} | | K | | K | | | | | | |
| | | 65 | | 70 | | | | | | |
| | | R | | E | | | | | | |
| | | E | | | | | | | | |
| | | N | | | | | | | | |

| | | | | | | | | | | | |
|-------------------------------|----|----|----|--|--|--|--|--|-----|-----|-----|
| Zidovudine ^{4,5,8,9} | M | D | K | | | | | | L | T | K |
| | 41 | 67 | 70 | | | | | | 210 | 215 | 219 |
| | L | N | R | | | | | | W | Y | Q |
| | | | | | | | | | F | E | |

| | | | | | | | | | | |
|--------------------------------------|--|----|--|----|--|--|--|--|--|--|
| <i>Didanosine</i> ^{1,10,21} | | K | | L | | | | | | |
| | | 65 | | 74 | | | | | | |
| | | R | | V | | | | | | |
| | | E | | | | | | | | |
| | | N | | | | | | | | |

| | | | | | | | | | | | |
|---------------------------------------|----|----|----|----|--|--|--|--|-----|-----|-----|
| <i>Stavudine</i> ^{1,4,5,8,9} | M | K | D | K | | | | | L | T | K |
| | 41 | 65 | 67 | 70 | | | | | 210 | 215 | 219 |
| | L | R | N | R | | | | | W | Y | Q |
| | | E | | | | | | | F | E | |

Provider Training - HIV Treatment, DHHS Guidelines

Adult and Adolescent ARV

[Brief Version](#) | [Full Version](#)

Adult and Adolescent Opportunistic Infection

[Brief Version](#) | [Full Version](#)

Perinatal

[Brief Version](#) | [Full Version](#)

Pediatric ARV

[Brief Version](#) | [Full Version](#)

Pediatric Opportunistic Infection

[Brief Version](#) | [Full Version](#)

COVID-19 and Persons with HIV (Interim Guidance)

[Full Version](#)

Caring for Persons with HIV in Disaster Areas

[Full Version](#)

Pre-exposure Prophylaxis (PrEP)

[Full Version](#)

Occupational Postexposure Prophylaxis (PEP)

[Full Version](#)

Nonoccupational Postexposure Prophylaxis (nPEP)

[Full Version](#)

Prevention with Persons with HIV

[Full Version](#)

Laboratory Testing

[Full Version](#)

Hormonal Contraception

[Full Version](#)

HIV Counseling, Testing, and Referral

[Full Version](#)

Provider Training Between Calls

- NECA AETC Clinical Staff were available to provider for ongoing education between formal calls
- Facilitated ongoing assistance; both providers were able to contact us via e-mail, phone and text
- Clinical Consultations documented

Provider Training

- Bi-monthly calls over time were not needed and eventually providers just contacted Clinical Staff for assistance as needed
- Both providers are now subject matter experts and certified through AAHIVM
- Calls are much more advanced and not as frequent since training was completed

On-Going Training for USVI

- NECA AETC established as HIV experts
- Ongoing, live trainings from 2016-2019 continue to develop relationships
- Faculty Development attendance from USVI providers and pharmacists
- Effect of COVID-19 still unclear

Pharmacist Preceptorship

- Established in 2015 to provide opportunity for USVI pharmacists to spend time shadowing Regional Pharmacy Director
 - At least 3-5 days in length
 - At least 4 hours tailored didactic training
 - At least 8 hours of In-Patient rounding on HIV consult service
 - At least 2X3 hours blocks of clinic time with and HIV provider at Albany Medical Center

Pharmacist Preceptorship (2)

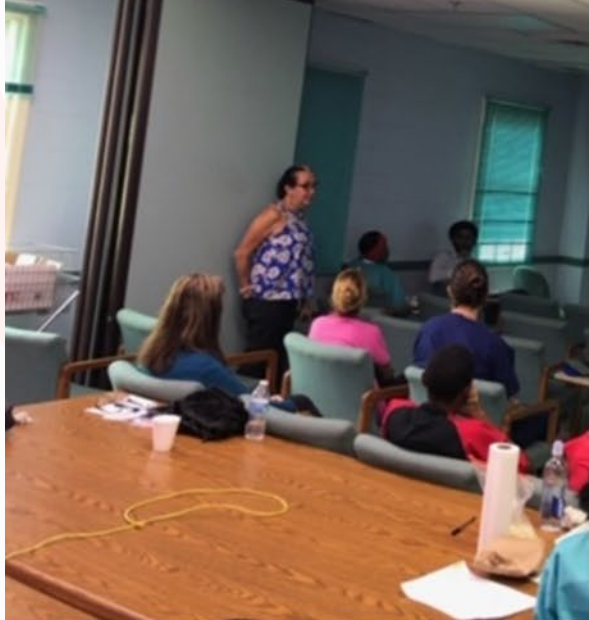
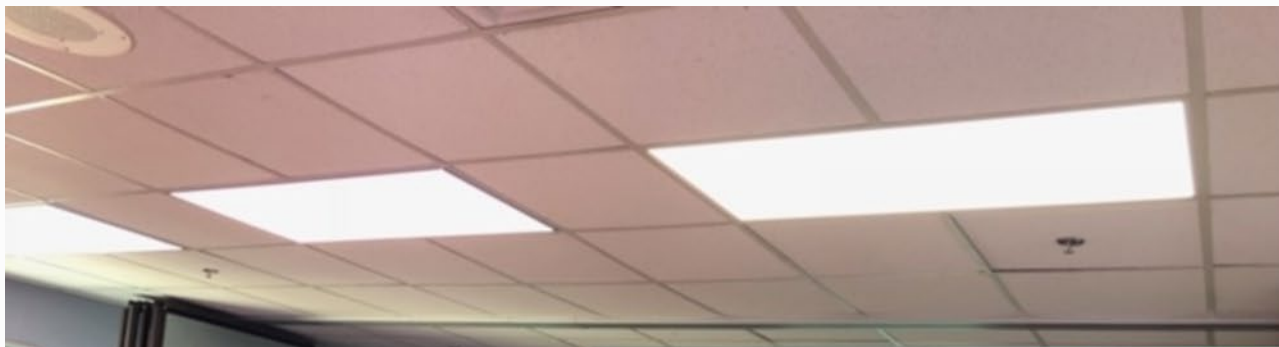
- Pharmacists selected for program were employees or providing services for patients with HIV infection from:
 - Walgreens Pharmacy
 - With AETC assistance started HIV testing and PrEP Program in 2018
 - St Thomas Medicine Shoppe
 - Neighborhood Pharmacy
 - Schneider Regional Medical Center
 - Gov. Juan F. Luis Hospital Medical Center
 - Frederikstad Health Center

Pharmacist Preceptorship (3)

- Preceptorship Topics Covered
 - PEP – regimen selection
 - PrEP – basic principles
 - HIV Treatment
 - Pediatric and Maternal Child Transmission
 - HIV Drug Interactions
 - Management of Opportunistic Infections
 - HIV Primary Care

Specific Resources for Training

- National AETC Website
- Local, NECA AETC Website
- National HIV Curriculum
- DHHS HIV Guidelines – Treatment, OI, PrEP, PEP, etc
- IAS-USA HIV Guidelines
- IAS-USA Resistance Card
- Stanford HIV Database
- University of Liverpool
- Others as needed





TRAINING EXPERIENCE

Vernique Caswell, PharmD

Director of Pharmacy, Schneider Regional Medical Center

Staff Pharmacist (Float), Walgreens Pharmacy

Scheduling my training

After completing my ACCESS enrollment form, Albany's training coordinator contacted me and we set up a training plan that included my interests and needs.

Once we had a plan in place, we scheduled the preceptorship for October.

Albany in October!



My 1st thought was “what will the weather be like?”

John said...”You have nothing to worry about...there’s a bridge!”

Me: “How cold is that you need a bridge?”

I practice in the US Virgin Islands

- The USVI is made up of three populated islands of St. Thomas, St. John St. Croix and surrounding islands.
- Average temperature of 80°.
- Our entire population of just over 100,000 people is smaller than many mainland cities.
- We have two hospitals one on St. Thomas the other on St. Croix. While both hospitals are publicly funded, we work in silos.

Concerns before my trainings

- We only have 80 beds (Schneider Regional) vs 700+ beds (Albany Med) can I bring back what I learned to our resource strapped hospital?
- “Shaking off my island mentality”
 - We live on an island our problems are unique
 - We don't have the volume to matter

Flying 3,000 miles to meet my neighbor

- It was decided that Preceptees from the USVI would train in pairs. Allowing us to build a bond with another pharmacist in my community through a shared experience.
- Which is how I ended up meeting another USVI pharmacist committed to providing care for people living with HIV for the first time in Albany, NY!

Out-patient clinic experience

- Patients were very welcoming and open to “students” – they were accustomed to and happy to be our “teachers”.
- Physicians were completely invested and involved in the psychosocial aspects of their lives in addition to the clinical well being of their patients.
- Physicians explored and discussed anticipated needs of patients before each visit. The “pre-thought” process helped us learn how to think about the purpose of the visit.
- Physicians asked guided questions throughout the visit when appropriate.
- At the conclusion of each visit, a “post-thought” process conversation either confirmed or changed our anticipated care plan.
- I observed patients receiving high-quality, non-judgmental, expert professional care.

In-patient experience

Thoughts that crossed my mind as I entered the hospital

- I have never been in a hospital this large!
- I finally get to see what John does all day!
- I can't wait to see what a “real” hospital pharmacy looks like!

What I observed

- We observed patients of all acuity –ICU, MedSurg, ObGyn, BHU
 - Meds were reviewed before rounding and best practice options were discussed for medication recommendations.
 - Visual tools/articles were provided for reference while rounding.
 - “Dream-team” of pharmacist/physician rounding.

Inpatient experience reflections

- It was immediately evident that there was a high standard of care for HIV inpatients and an even higher regard for privacy and dignity of each patient seen.
- Albany's HIV patients are perfect examples of how continuum of care leads to great outcomes. They are well known by AMC AETC faculty in an acute, inpatient episode and thoroughly followed-up in the clinic for ongoing chronic care.
- Community pharmacist I was with was blown away by the in-patient experience and extremely encouraged while “in her element” during the clinic experience
- This is what the “Dream-team” of pharmacist/physician rounding looks like

Lasting impact of my NECA AETC preceptorship

- As a result of this experience, the pharmacist I completed my preceptorship with collaborate and reach out to each other in times of need.
- My preceptorship gave me concrete guidelines on how to care for, think about and treat HIV patients, no matter where the care is taking place.
- I have updated several policy and procedures for my hospital's pharmacy

Lasting impact continued

- AETC is great at finding the individual stakeholders, getting us to buy-in to the mission, and then connecting the stakeholders through a common purpose.
- AETC Preceptorships have exposed me to the commonality of problems surrounding HIV
- *I have learned that while we *are* on an island, we are not on it *alone*.

Questions?

