

Innovations in the ER:

Collaborations Among TA Providers, Emergency Departments, & Health Jurisdictions to Identify and Treat HIV, HCV, and Syphilis



Tuesday, August 10th, 2021 | 12 – 1pm ET; 11am – 12pm CT;
10 – 11am MT; 9 – 10am PT





Cooperative Agreement Award # U69HA33964

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Who We Are

Strengthen & support implementation of jurisdiction Ending the HIV Epidemic (EHE) Plans to contribute to achievement of reduction in new reported HIV cases by 75% by 2025



Technical Assistance Provider
innovation network

Tip: Get TAP-in TA and Training by Contacting TAP-in@caiglobal.org



TAP-in Webinar Partners



Ending
the
HIV
Epidemic



Technical Assistance Provider
innovation network

A Project of



All listed organizations are partners with TAP-in for this webinar



Introductions



Panel

- **Tom Donohoe**, Professor of Family Medicine, David Geffen School of Medicine at UCLA, TA Provider, TAP-in and PAETC-Los Angeles Area
- **Kathy Jacobson, MD**, Chief, California STD Control Branch
- **Kristopher Lyon, MD**, Public Health Officer Kern County, California
- **Kim Hernandez, MPH**, Assistant Division Director of Public Health, Kern County Public Health
- **Kian Azimian, MD**, Emergency Medicine Physician, Bakersfield Memorial Hospital
- **Will Murphy**, Project Director, TAP IN, CAI Inc.



Objectives

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

1

Explain the critical role Emergency Departments (ED) play in identifying and treating HIV, HCV, STIs and SUDs and ending the HIV Epidemic in both urban and rural settings

2

Discuss how TAP-in, AETCs, and other partners can work with Emergency Departments and health jurisdictions to help high-risk patients link to or re-engage in high quality HIV/HCV treatment

3

Review how TAP-in, AETCs, planning bodies, and others can best work with Emergency Departments and health jurisdictions to maximize health outcomes for the most vulnerable and hard-to-reach populations in your community

Outline



Overview of How the Collaboration Started



Critical Role of the ED in Ending the HIV Epidemic (EHE)



Demographics and Epidemiology of Kern County



Routine HIV, HCV, Syphilis Screening and Linkage data (pre and post COVID-19)



Challenges, Facilitators, and Lessons Learned



Future Plans and Recommendations



Q&A



Collaboration: That First Call

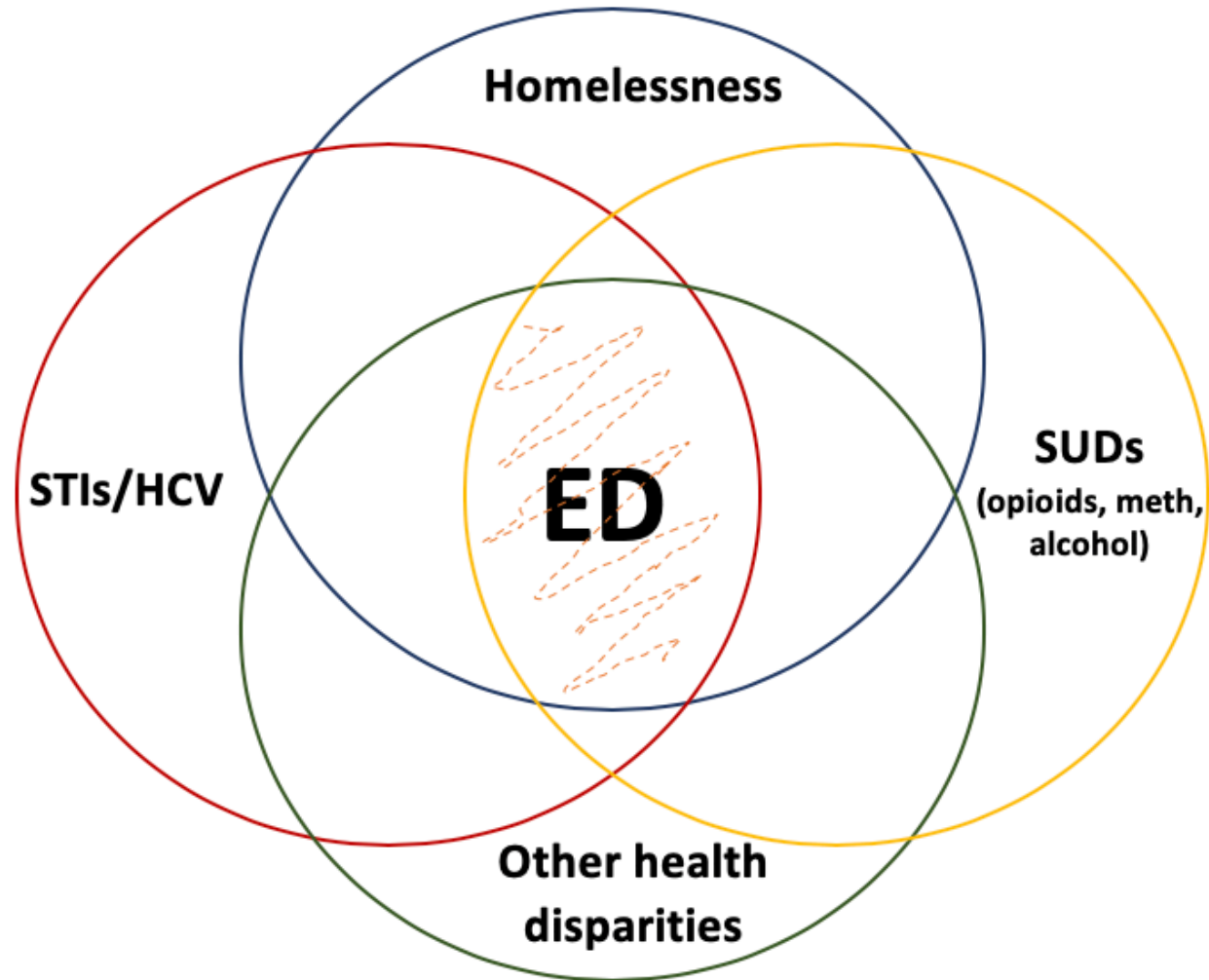
“I’m interested in implementing routine HIV screening in one or more Emergency Departments in Kern County. Can you help?”

Kristopher Lyon, MD

Thursday, May 17, 2018



Critical Role Of ED In EHE





How Can TA Help?

Planning the TA:

Advice/Partners/Consultants

Bernie Branson, MD? Doug White, MD?
Local Contacts Kern (LHJ, AETC, Part C...)

WHERE IS KATHY JACOBSON, MD?

Possible Supplemental Resources/Funders

Federal/State/Local? (Combine projects?)

FOCUS Program ... René Bennet, JD

Workplan/Timeline

Fit this project into our full plate of activities
Be realistic





Critical Role of the ED in EHE

Kathy Jacobson, MD

*Co-Chair, California COVID-19 Testing Task Force
Chief, STD Control Branch (CDPH)*

ARTICLE IN PRESS

INFECTIOUS DISEASE/REVIEW ARTICLE

HIV Prevention and Treatment: The Evolving Role of the Emergency Department

Kristi Stanley, MD*; Meredith Lora, MD; Stephen Merjavy, MD; Jennifer Chang, MD; Sanjay Arora, MD;
Michael Menchine, MD, MPH; Kathleen R. Jacobson, MD



Background

HPTN 052 study

96% reduction in transmission

A closer look

(Cohen et al. NEJM Aug 2011)

Even if HIV patients are **not virally suppressed**
HIV-infected patients **prescribed ART**
estimated to be **30.3% less likely to transmit HIV**
than those retained in care but not prescribed

- (Skarbinski et al. JAMA IM April 2015)

90-90-90 Targets



Getting to Zero- CA, NY, LA, SF



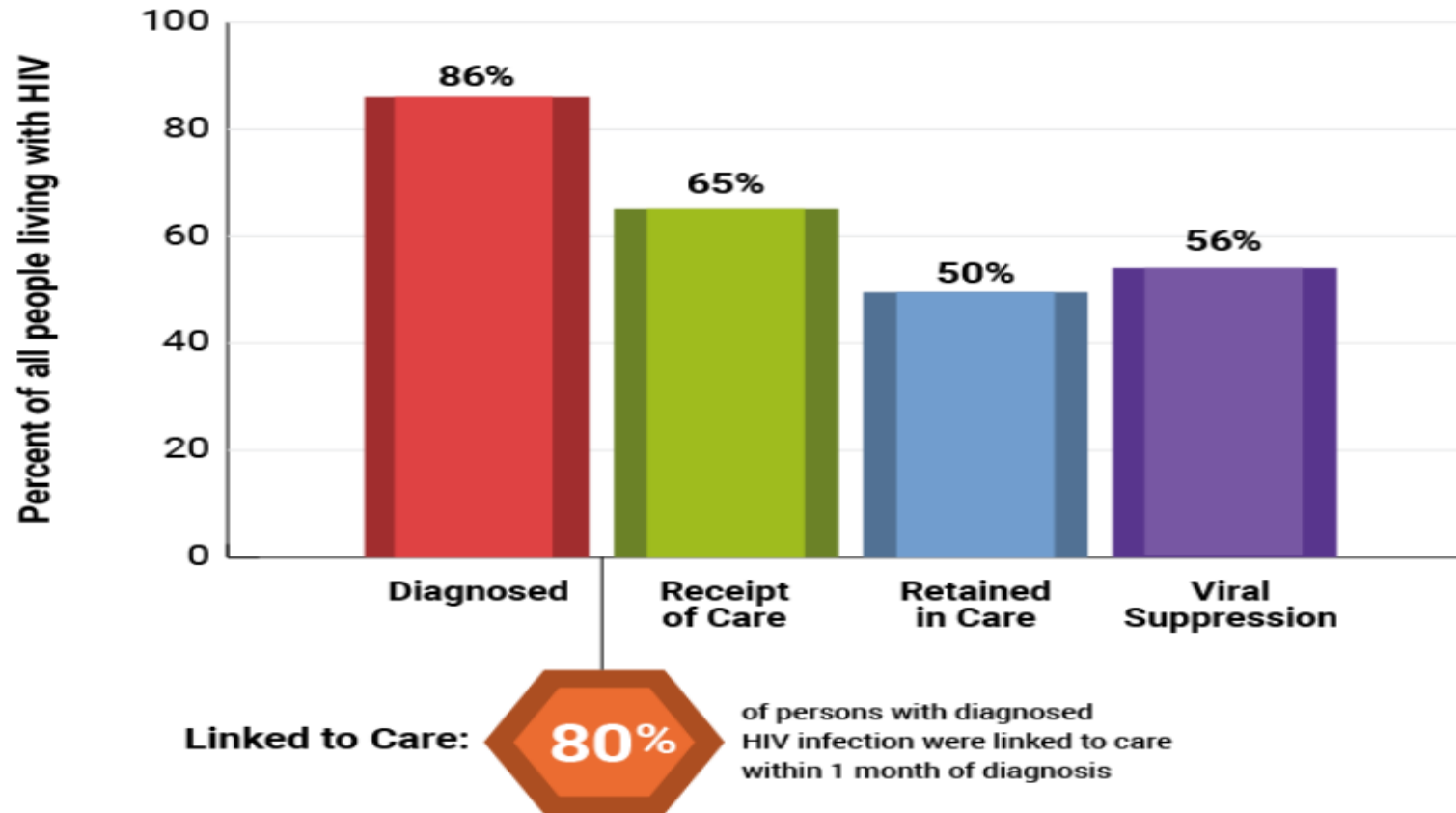
U=U

Undetectable = Untransmissible (sexually)

Eisinger, Dieffenbach and Fauci, JAMA 2018
(HPTN 052, PARTNER 1 and 2, Opposites Attract)

**“Ending the HIV Epidemic,
A Plan for America”
January 2019**

Prevalence-based HIV Care Continuum, U.S. and 6 Dependent Areas, 2018



Note: Receipt of medical care was defined as ≥ 1 test (CD4 or VL) in 2016. Retained in medical care was defined as ≥ 2 tests (CD4 or VL) ≥ 3 months apart in 2016. Viral suppression was defined as < 200 copies/mL on the most recent test in 2016. Linkage to care is defined as having \geq one CD4 or VL test within 30 days (1 month) of diagnosis. (Linkage is calculated differently from the other steps in the continuum, and cannot be directly compared to other steps.)



Why Emergency Departments?

HIV patients are **3 times more likely** to visit an emergency room, be **racial minorities**, and **lack health insurance** compared with their non-HIV counterparts

*Rothman, R. E. et al. Academic Emergency Medicine, 14(7), 653-657. DOI: 10.1197/j.aem.2007.04.004

Pitts, S. R. et al. Natl Health Stat Report, 7(7), 1-38. PMID: 18958996

Lyons, M. S. et al Public Health Reports, 120(3), 259.

Bozzette SA et al. N Engl J Med. 1998;339(26):1897-1904

Emergency Departments are a **safety net** for HIV infected individuals

Often the **sole point of entry** into the healthcare system

Hsieh et al, Annals of EM, July 2015



HIV Testing in the ED

Roll-Out

Paralleled declines -- rates undiagnosed HIV

Made Significant Strides

Curbing the HIV epidemic in the US

Hansoti B, Kelen GD, Quinn TC, Whalen MM, DesRosiers TT, Reynolds SJ, Redd A, Rothman RE. A systemic review of emergency department-based HIV testing and linkage to care initiatives in low resource settings. PLoS One. 2017 Nov 2;12(11):e0187443. doi: 10.1371/journal.pone.0187443. eCollection 2017. Image:





Los Angeles County + University of Southern California ED

Largest ED in the western United States

- 170,000 annual visits
- 65% Hispanic, 15% Black, 5.4% Asian
- 42% women
- 80% household income <\$20,000





Case #1

- 45-year-old homeless black female comes in for a sore throat, abdominal pain, fever to 102.5. You tell her that you will be getting some labs today including an HIV test.
- SH- ETOH (suicidal, using alcohol)
- Raped 3 weeks ago while under the influence
- Results of Routine Screen
 - Antigen/antibody combo: **POSITIVE**
 - HIV-1/2 antibody differentiation: pending
 - HIV viral load: pending

HIV Ag/AB Immunoassay



Identify acute HIV infections between 10-21 days post exposure

Patients are likely to be symptomatic

Possibly seek medical care for the non-specific acute viral illness

(Branson et al. CDC June 27, 2014)



Acute HIV in the ED

Annals of Emergency Medicine *An International Journal*

Non

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Acute HIV Discovered During Routine HIV Screening With HIV Antigen-Antibody Combination Tests in 9 US Emergency Departments

Presented at the International AIDS Conference, July 2016, Durban, South Africa; and the American Public Health Association annual meeting, November 2017, Atlanta, GA.

[Douglas A.E. White, MD^{a,*}](#), [Thomas P. Giordano, MD, MPH^b](#), [Siavash Pasalar, PhD^c](#), [Kathleen R. Jacobson, MD^d](#), [Nancy R. Glick, MD^e](#), [Beverly E. Sha, MD^f](#), [Priya E. Mammen, MD, MPH^g](#), [Bijou R. Hunt, MA^h](#), [Tamara Todorovic, MPH^a](#), [Lisa Moreno-Walton, MDⁱ](#), [Vincent Adomolga, MPH^g](#), [Daniel J. Feaster, PhD^j](#), [Bernard M. Branson, MD^k](#)

214,524 screened for HIV

839 (0.4%) new diagnosis

122 (14.5%) acute HIV

717 (85.5%) established infection

Compare

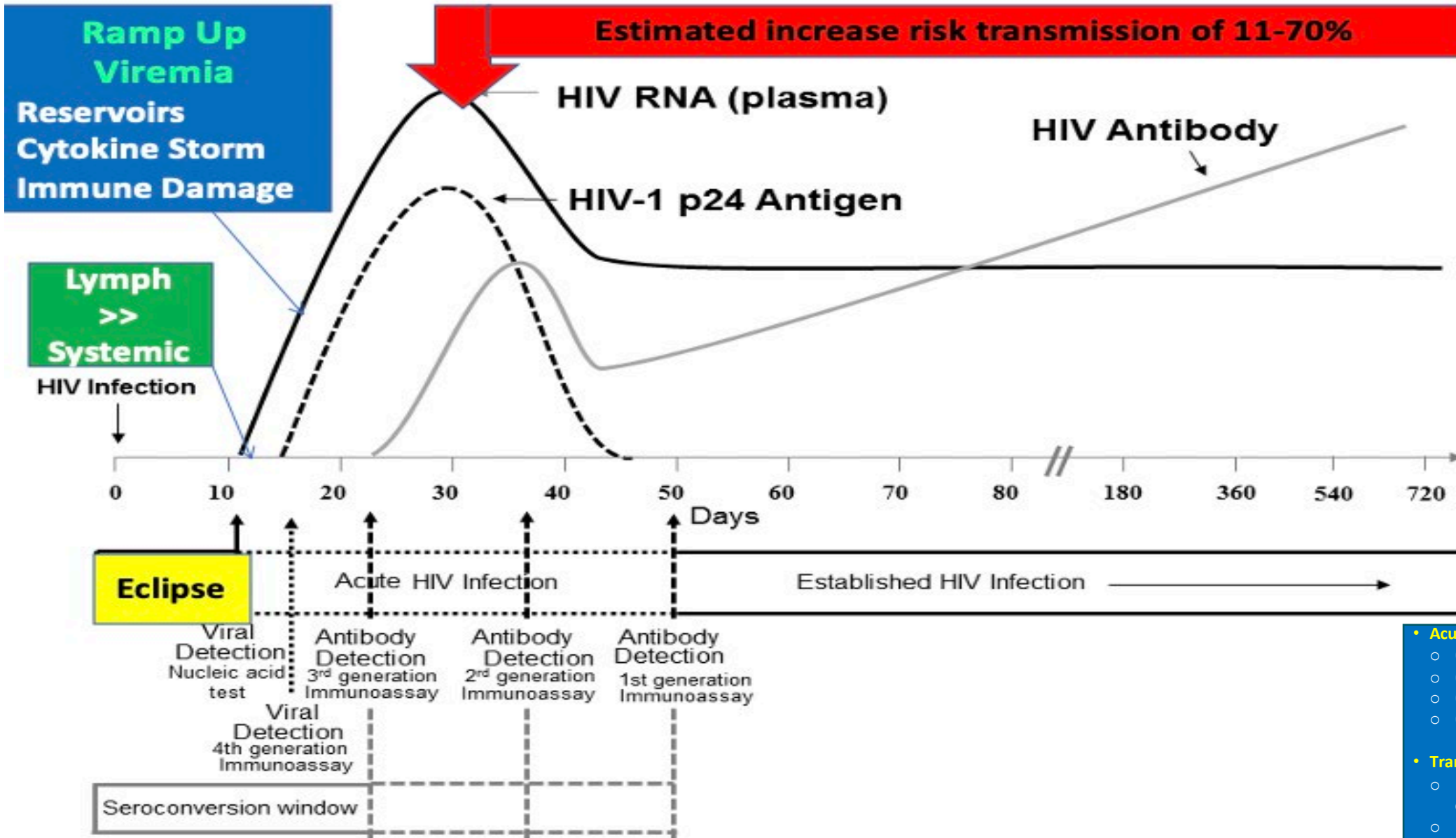
% Historic Positivity PHDs (2 - 4%)

High-risk, high-prevalence MSM (8 - 17%)

Opportunity to intervene



HIV DIAGNOSIS



- **Acute**
 - (Cohen, et al. JID, 2010)
 - (Stacey, et al, J. of Virology , 2008)
 - (Fiebig, et al , AIDS 2001)
 - (Cohen et al. NEJM Aug 2011)
- **Transmission**
 - Brenner et al. JID, 2007, Hollingsworth, et al. JID, 2008,
 - Pilcher, et al. JID, 2004,
 - Gray, et al. JID, 2012

Earlier Intervention in Acute HIV

Decreases

Viral replication

Size viral reservoir

Inflammation

Transmission

May be eligible for “cure” near future

(CROI 2017- Abstract #12- Jintanat Ananworanich Payne et al. #35, Uprety et al. #374, Ghosn et al, #373, Etemad et al. #110 LB)



Case #2

24-year-old Hispanic Male (H/M) MSM comes to your ED following a motor vehicle accident. He is advised at your ED everyone getting labs gets a routine HIV test. He does not refuse the test.

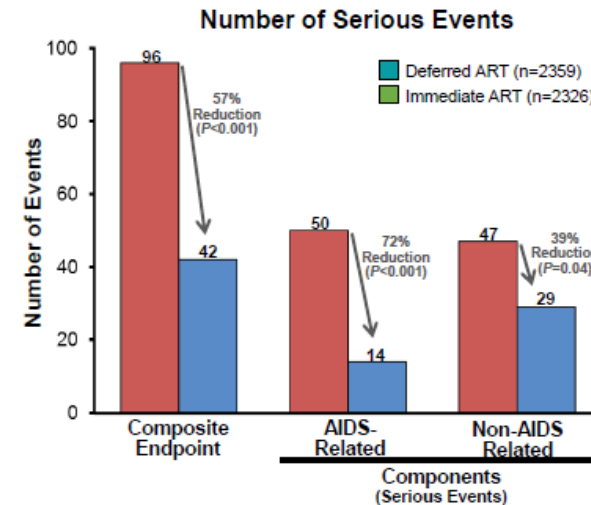
Routine Screening Results

- Antigen/antibody combo: POSITIVE
- HIV-1/2 antibody differentiation: Pending
- HIV viral load: Pending

START Study- All Subgroups Did Better with Early vs. Delayed

START Study Outcomes: Composite Primary Endpoint and its Components

- Immediate ART superior to deferred ART
 - Serious and non-serious AIDS events
- 68% of the primary endpoints with CD4 >500 cells/ mm³
- Similar reductions in events across all subgroups
- No increase in AEs associated with immediate ART



Lundgren J, et al. 8th IAS Conference. Vancouver, 2015. Abstract MOSY0301.
The INSIGHT START Study Group. *N Engl J Med*. 2015; July 20. [Epub ahead of print].

Recommendations

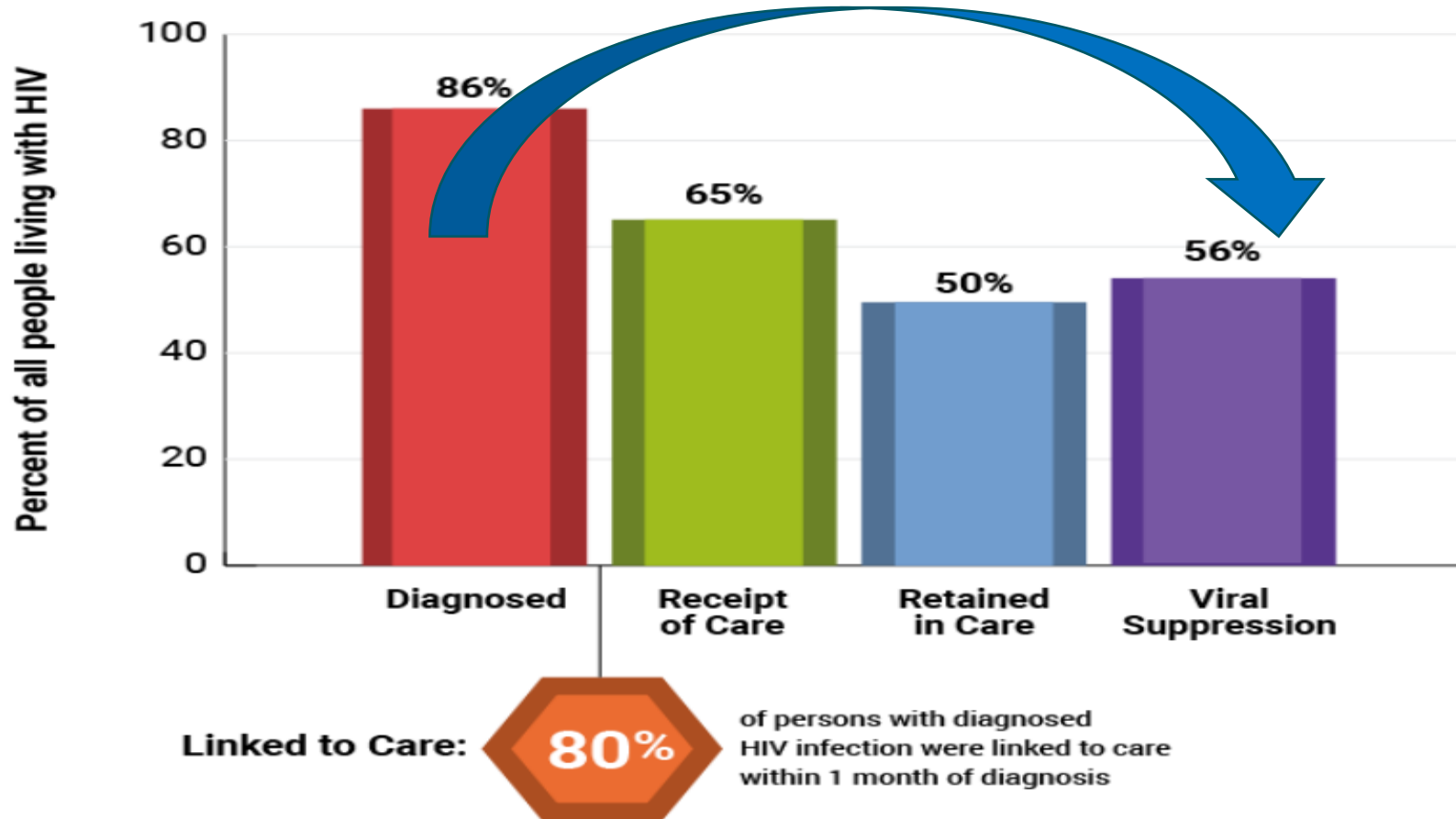
Move from diagnosis to...

Immediate prescription

In an effort to **reduce HIV transmission**

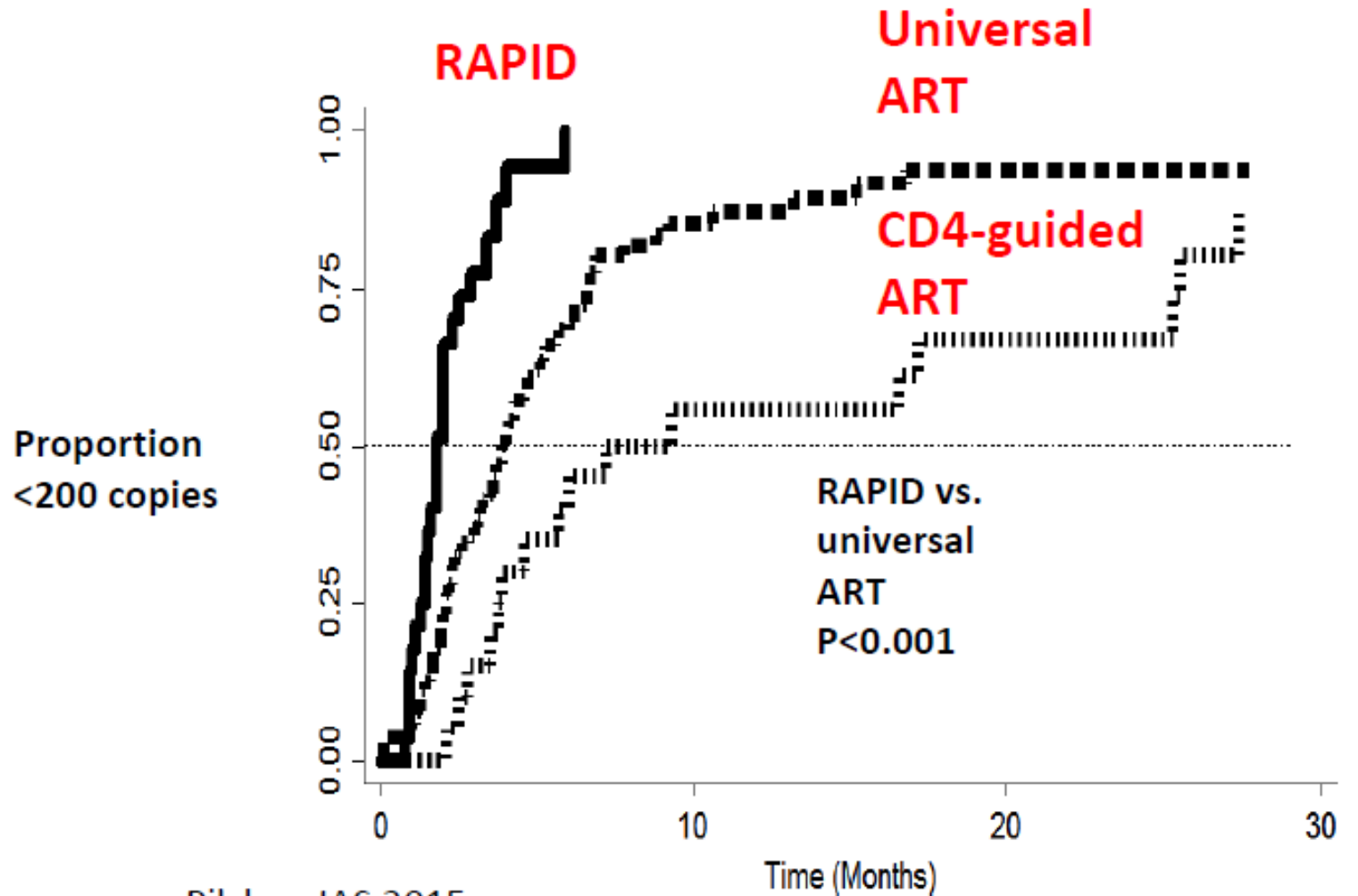
(A Fauci NIAID following **START** and Skarbinski et al. JAMA IM 2015,)
<http://www.niaid.nih.gov/news/QA/Pages/STARTqa.aspx>

Prevalence-based HIV Care Continuum, U.S. and 6 Dependent Areas, 2018



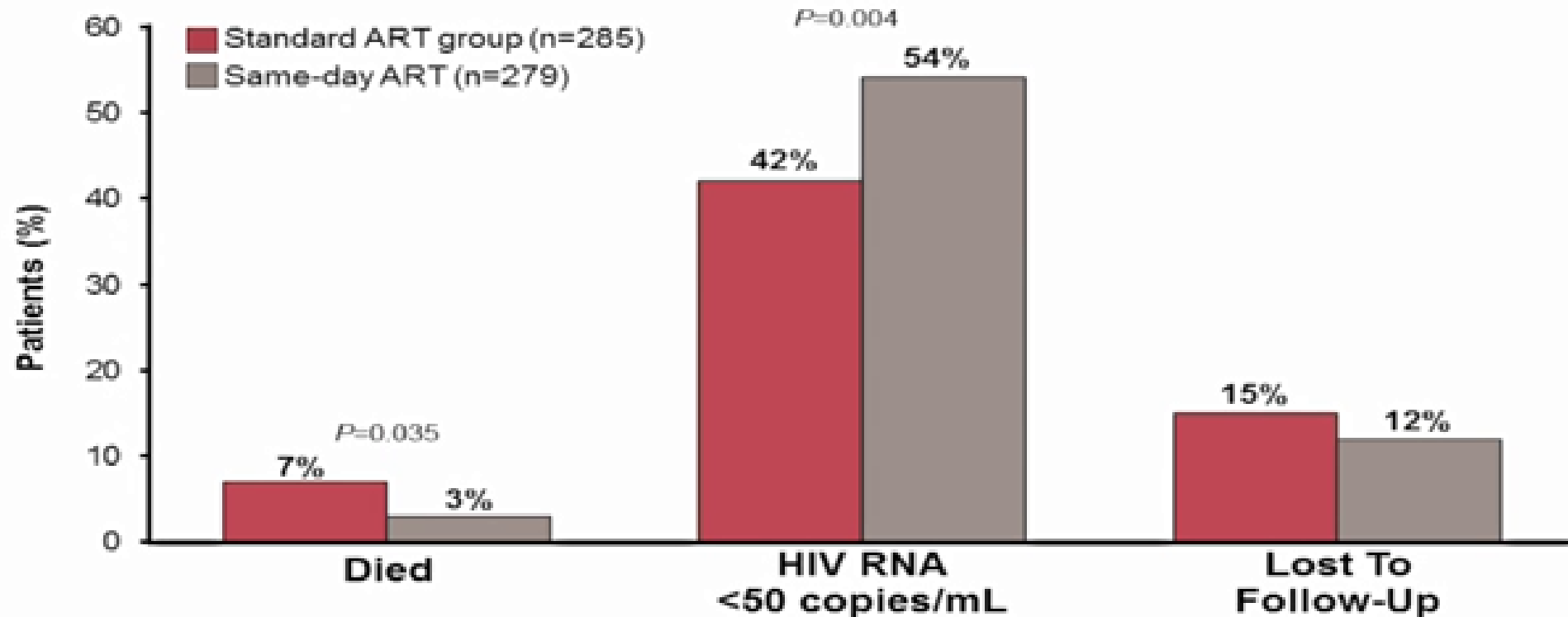
Note: Receipt of medical care was defined as ≥ 1 test (CD4 or VL) in 2016. Retained in medical care was defined as ≥ 2 tests (CD4 or VL) ≥ 3 months apart in 2016. Viral suppression was defined as < 200 copies/mL on the most recent test in 2016. Linkage to care is defined as having \geq one CD4 or VL test within 30 days (1 month) of diagnosis. (Linkage is calculated differently from the other steps in the continuum, and cannot be directly compared to other steps.)

Time to VL suppression by ART initiation strategy: SFGH 2006-2014



AIDS 2016-IMMEDIATE VS 21 DAY DELAYED (DMB- STOPPED STUDY EARLY)

Same-Day HIV Testing and ART Initiation: 12 Month Outcomes



Initiating ART: standard ART group (92%), same-day ART group (100%)

Koenig S, et al. 21st IAC. Durban, 2016. Abstract WEAE0202



Case #3

35-year-old white male presents to the ED complaining of abscess of the left hand.

Results of Routine Screen-
POSITIVE

Disclosure- HIV+ diagnosed 5 yrs. ago, previously LTC but didn't like the clinic so fell out of care.

Did you waste your money repeating his HIV test?



HIV TRANSMISSIONS IN 2016

% OF PEOPLE WITH HIV	STATUS OF CARE	ACCOUNTED FOR X% OF NEW TRANSMISSIONS*
15%	didn't know they had HIV	38%
23%	knew they had HIV but weren't in care	43%
11%	in care but not virally suppressed	20%
51%	taking HIV medicine and virally suppressed	0%

*Values do not equal 100% because of rounding

SOURCE: Vital Signs. 2019

Conclusions

HIV Testing in ED's

Reaches into the heart of the Epidemic

Ensures some of the most difficult to reach patients can access care

Contributes Substantially to Ending the Epidemic

Nothing is more expensive than a missed opportunity

H. Jackson Brown Junior, American Author

**There are opportunities in your local Emergency Department—
you are not going to want to miss!!**



Vision for ED in Kern

Kristopher Lyon, MD

Public Health Officer, Kern County

Emergency Medicine Physician





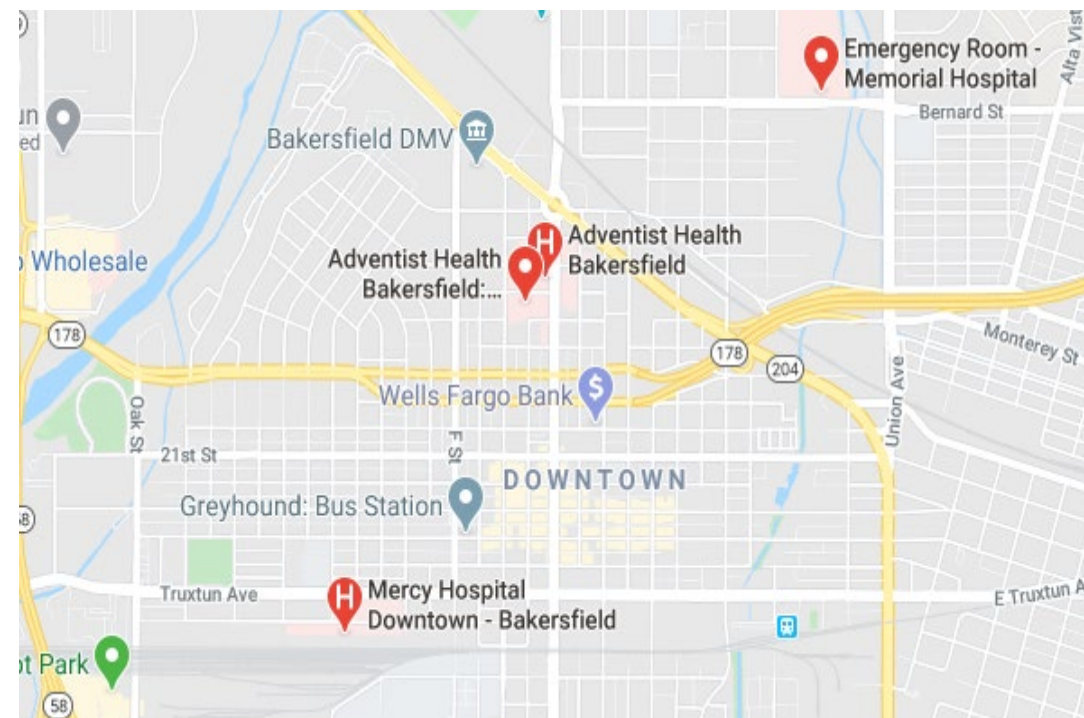
Demographics of Kern County

Home to 893,119 people

23% live below the Federal Poverty Level

- 53% Latino/Hispanic
- 33% White
- 5% Black/African American

Bakersfield is the largest city with 383,579





Vision for Kern EDs

- Improve individual and public health
- Increase local expertise and resources
- Coordinate with community providers
- Obtain help, training, technical assistance, where possible
- Test run approaches (PDSA cycles)
- Be compliant...standards/laws/rules
- **Don't let perfection be the enemy of the good**





Planning, Meeting, Applying

- Conducted PDSA cycle
- Applied for and received FOCUS HIV/HCV screening and linkage grant (Emergency Department and Health Department)
- Applied for and received **Rapid ART** grant from State Office of AIDS (health department)
- Met with legal, financial, regulatory, lab and other involved departments
- Conducted full day training with PAETC, health department, and clinicians/staff
- Hired new positions made possible by grants
- **Successfully launched program in October 2019**
- **Dealing with COVID-19 since March 2020**



Kern Epidemiology

Kimberly Hernandez, MPH

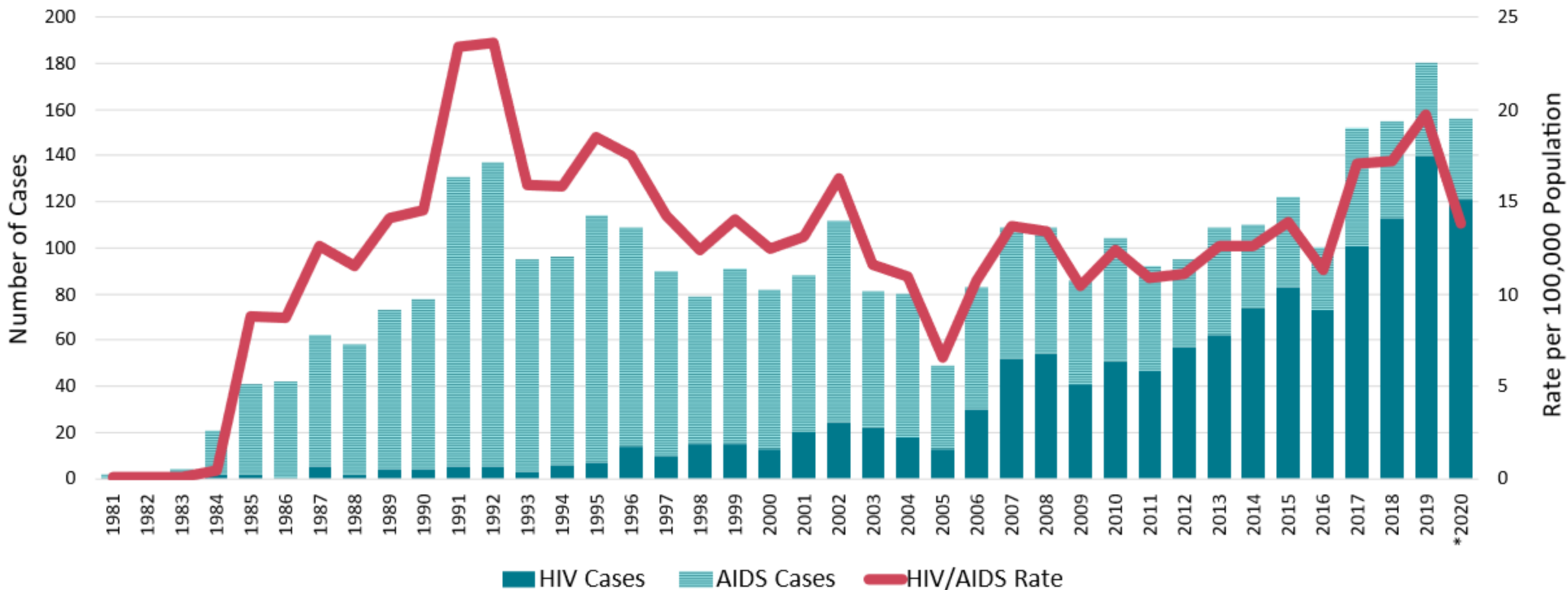
Assistant Division Director of Public Health

Kern County Public Health





KERN COUNTY HIV/AIDS CASES



*2020 data is preliminary

Cumulative Cases

3,579 cases

63% dx as AIDS cases

2020 Cases

• 156 cases

• 22% dx as AIDS cases

Recent Trends

• 25% more cases in 19-20 than 91-92

• Rate is 22% lower in 19-20 than 91-92



“Almost” An EHE-Designated County

2018 Newly Diagnosed HIV Infections by California County

County	Number of Cases	Rate per 100,000	Trend	Designation
1. Los Angeles	1,711	16.6	21% decrease from 2014	EHE
2. San Diego	379	11.5	25% decrease from 2014	EHE
3. Orange	286	8.9	19% decrease from 2016	EHE
4. San Bernardino	278	12.8	25% increase from 2014	EHE
5. Riverside	259	10.7	2% decrease from 2014	EHE
6. San Francisco	240	27.0	27% decrease from 2014	EHE
7. Alameda	200	12.0	35% decrease from 2016	EHE
8. Sacramento	158	10.3	14% decrease from 2014	EHE
9. Kern	156	17.2	42% increase from 2016	Not EHE



Kern County STD Summary, 2020*

Infection	Number of Cases	Frequency
Chlamydia	5,077	14 per day
Gonorrhea	1,992	5 per day
Syphilis	1,093	3 per day
HIV	156	3 per week
Kern	8,318	1 infection every 63 minutes

Infection	Number of Cases	Frequency
Congenital Syphilis	36	1 every 10 days

*2020 data is preliminary



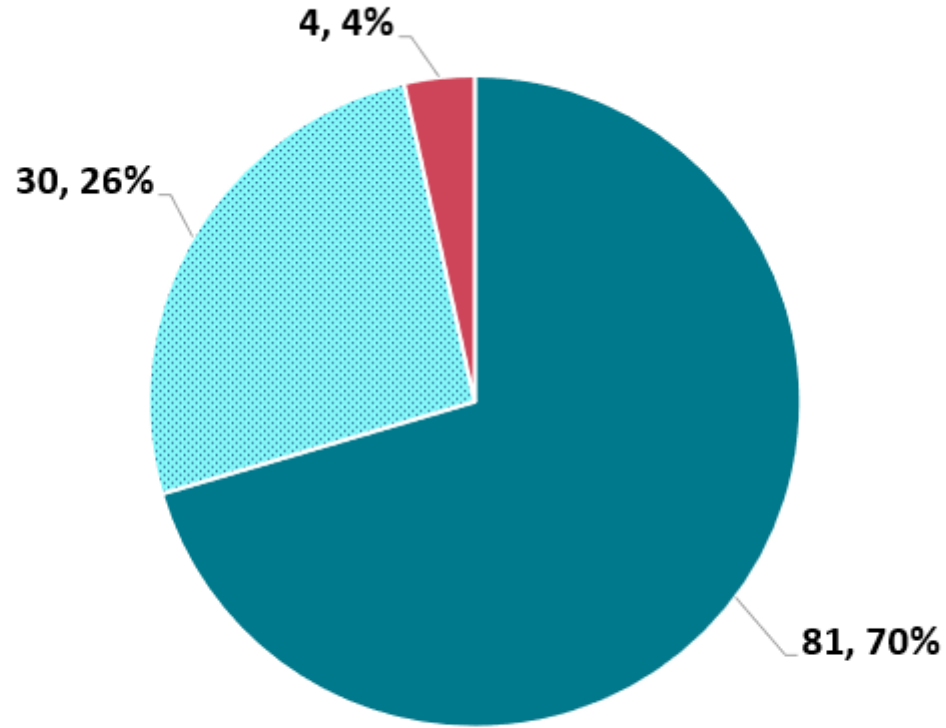
Kern County Rapid ART Demonstration Project

- Funded by California Department of Public Health
- Logical evolution after successful pre-exposure prophylaxis (PrEP) program development
- October 2019 – June 2021
- Goals
 - HIV antiretroviral therapy (ART) initiated within 5 days of preliminary result
 - HIV specialist appointment within 30 days



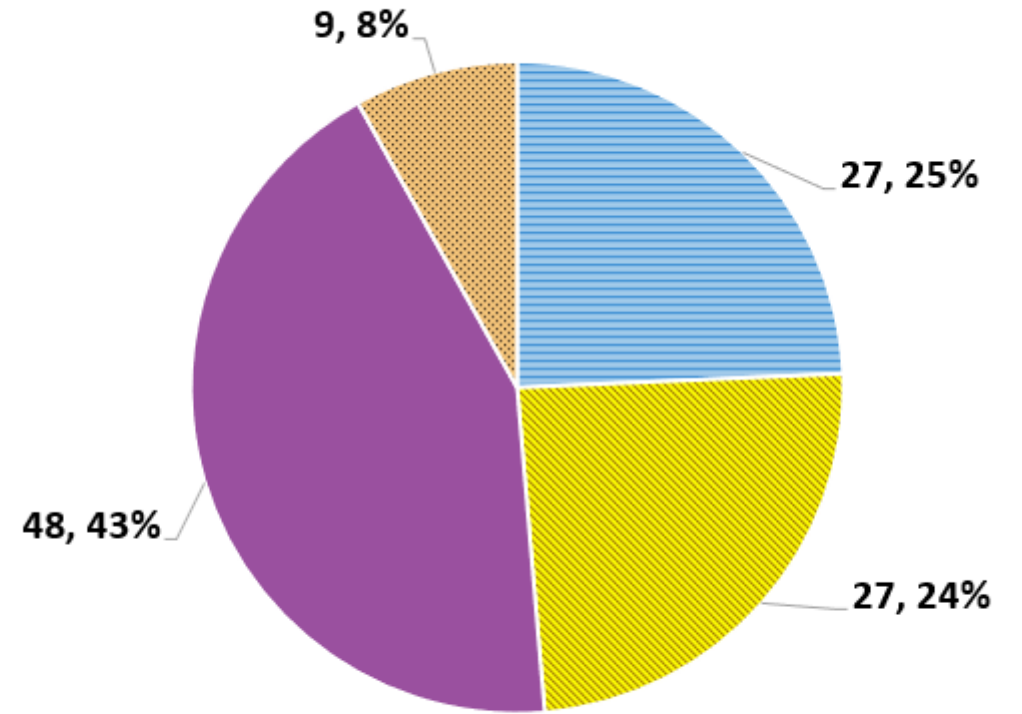
Rapid ART Referrals

Diagnosis Status (n = 115)



- Newly Diagnosed
- Previously Diagnosed
- Did Not Confirm

Referral Facility Type (n = 111)

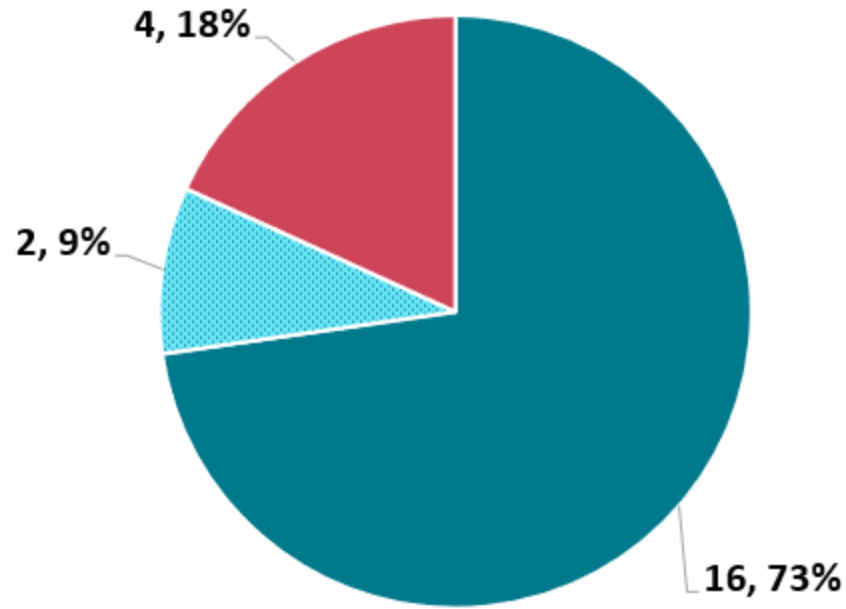


- Public Health
- Emergency Department
- Other Kern Provider
- Out of County Provider



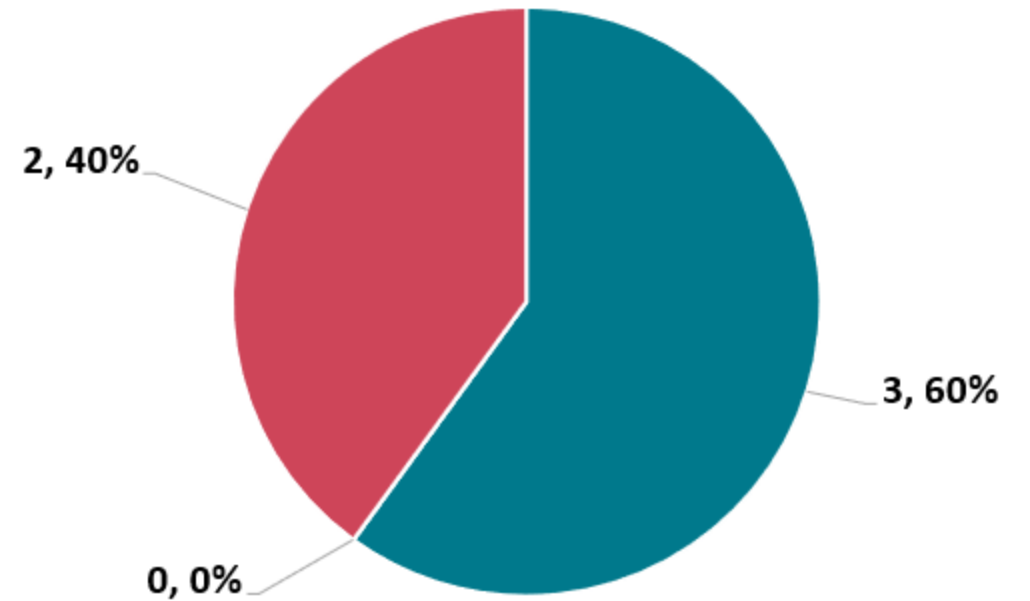
Rapid ART Outcomes From ED Referrals

New Diagnosis (n = 22)



- In Care with HIV Specialist
- Pending Appointment with HIV Specialist
- Lost to Follow Up

Previously Diagnosed (n = 5)



- In Care with HIV Specialist
- Pending Appointment with HIV Specialist
- Lost to Follow Up



Public Health Rapid ART Challenges

Insufficient patient contact information

- Incorrect, unanswered, or lacking phone number
- Unstable housing

Individual patient readiness to engage in care

- Avoided further follow up after initial contact, missed appointments

Funding cycle has concluded

- Embedded in Public Health follow up process

COVID-19 pandemic

- Public Health Clinic closed March – May; limited services did include Rapid ART
- Public Health investigators prohibited from field visits and patient transportation
- Healthcare visits decreased dramatically
- Socio-economic pressures (homelessness, drug use, mental health)



Public Health Rapid ART Successes

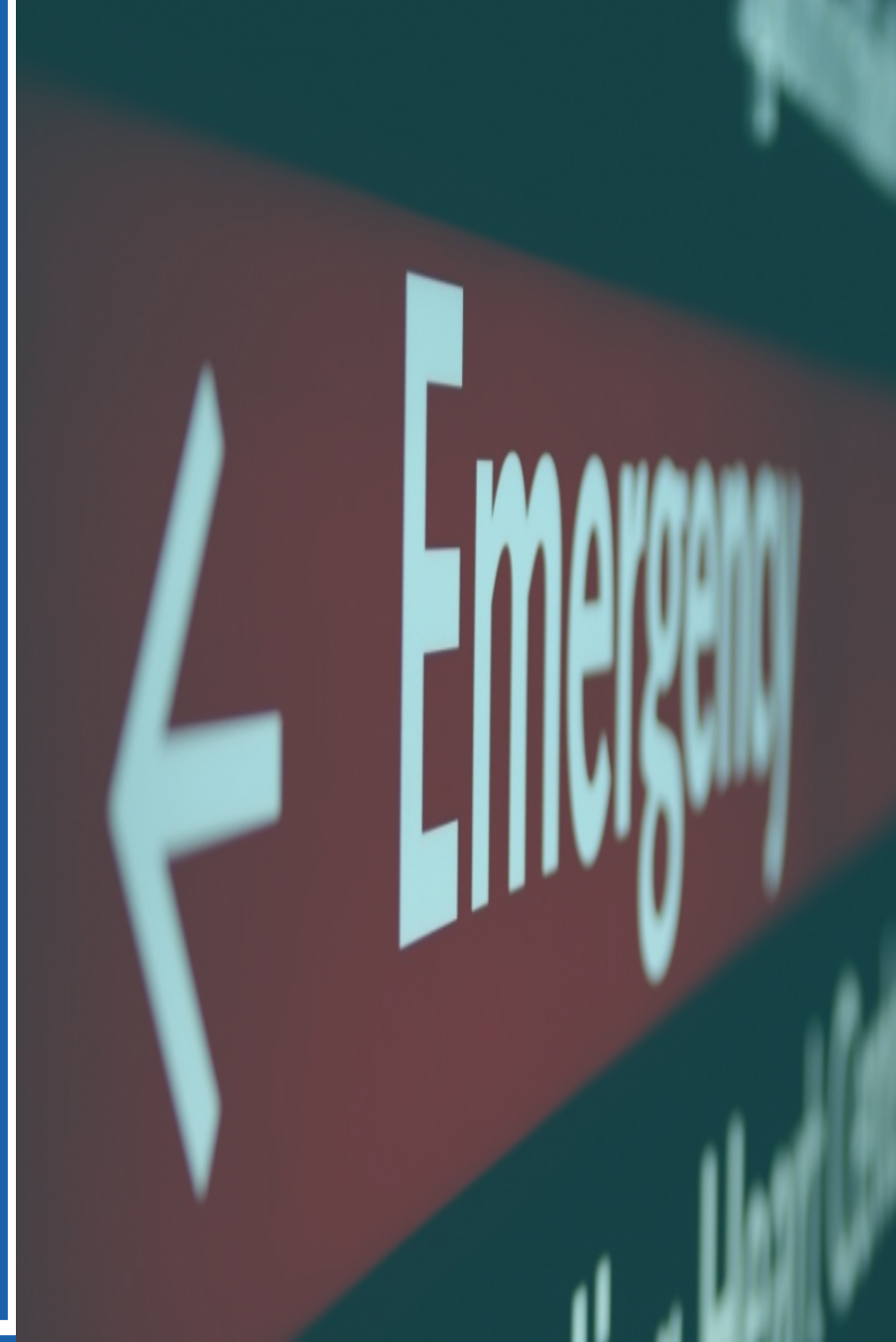
- Routine Opt-Out Testing Emergency Department Partnership
 - 27% of newly diagnosed patients would likely have gone un-diagnosed
- Out-of-Care Patients
 - 78% of patients identified in hospital EDs linked to care or pending care appointments
- Newly Diagnosed Patients Identified in the ED
 - 32% received ART within 5 days of first positive test result; 59% within 14 days
 - 25% had appointment with specialist within 30 days; 67% within 60 days
- Repeated Contact Attempts
 - Many patients lost to follow up during initial Rapid ART attempt were re-engaged and connected to care months or years after first referral



Screening Inside the ER

Kian Azimian, MD

*Emergency Medicine Physician
Bakersfield Memorial Hospital*





HIV Testing Data (Pre/Post COVID-19)

HIV Testing Data (Pre/Post COVID-19)	
Goal for October 2019 – May 2021	14,500
October 2019 – March 2020	<ul style="list-style-type: none">• Expected: 4,152• Achieved: 6,550• Positivity Rate: 0.6% (39 HIV+ patients including 2 acute infections)
April 2020 – May 2021	<ul style="list-style-type: none">• Expected: 10,348• Achieved: 4,407• Positivity Rate: 1.1% (49 HIV+ patients, 1 acute)

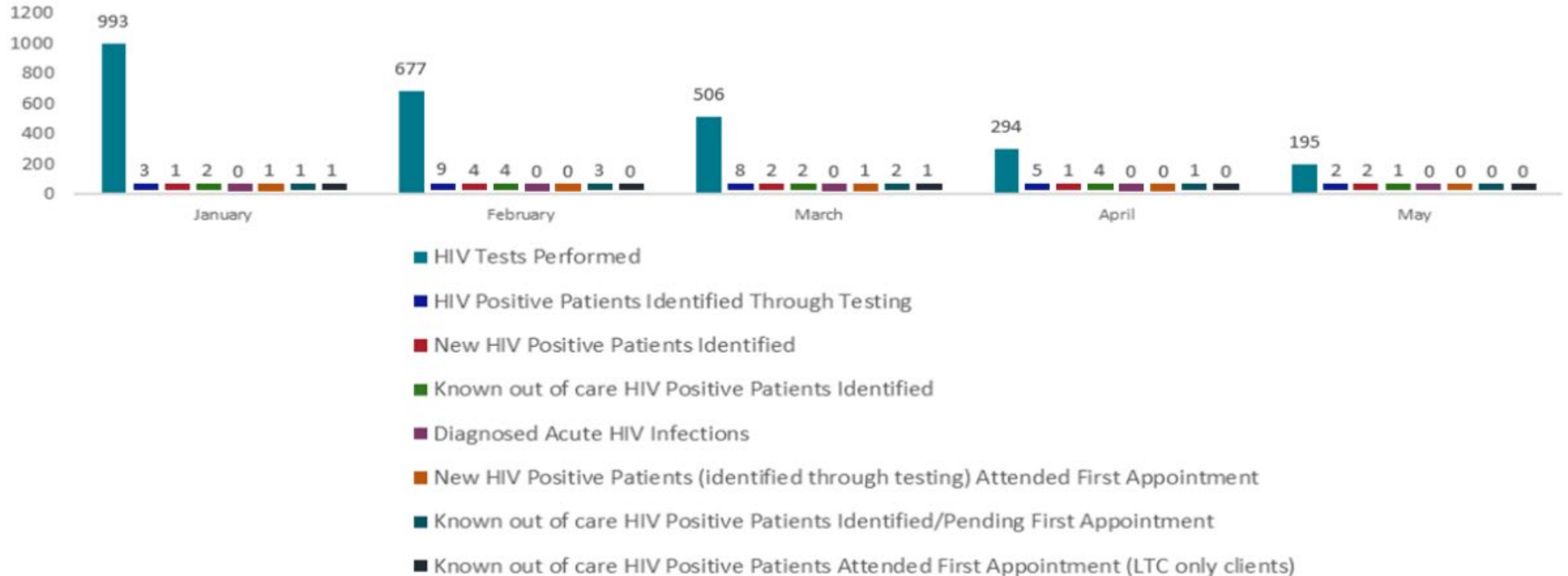


HCV Testing Data (Pre/Post COVID-19)

HCV Testing Data (Pre/Post COVID-19)	
Goal for October 2019 – May 2021	14,500
October 2019 – March 2020	<ul style="list-style-type: none">• Expected: 4,152• Achieved: 6,097• Positivity Rate: 6.5% (394 HCV RNA+ patients)
April 2020 – May 2021	<ul style="list-style-type: none">• Expected: 10,348• Achieved: 4,259• Positivity Rate: 7.1% (301 HCV RNA+ patients)



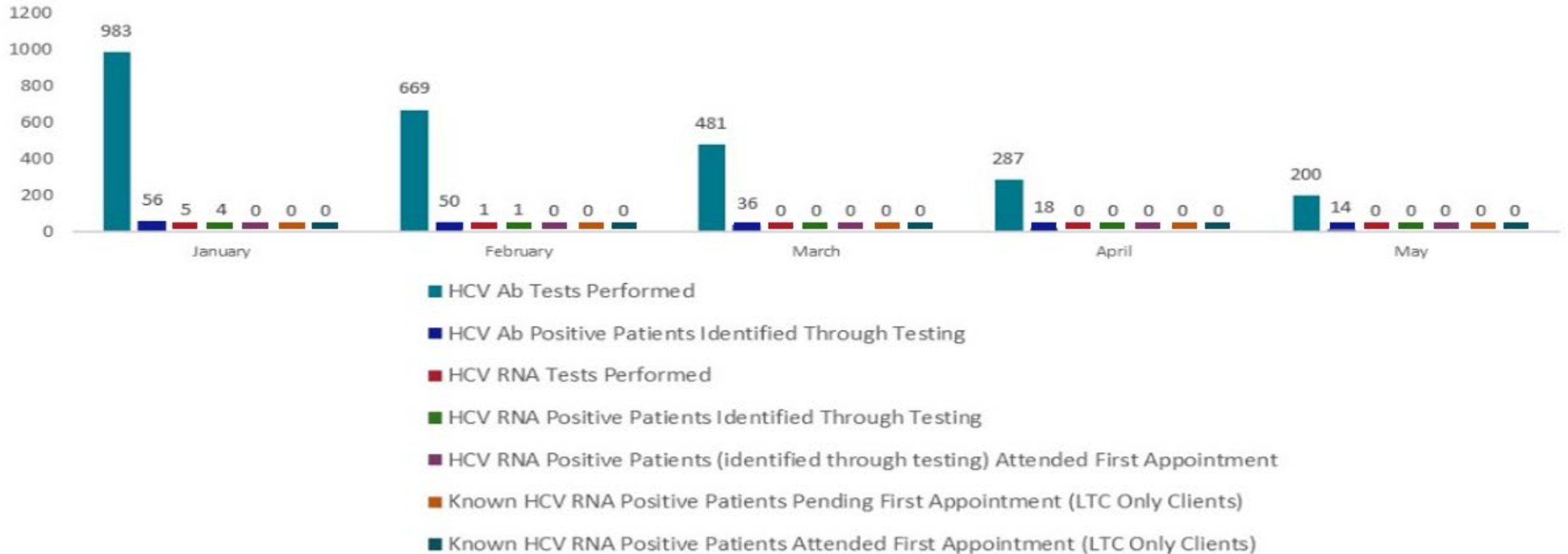
HIV Testing Data Post COVID-19 Drop



Source: Bakersfield Memorial Hospital



HCV Testing Data COVID-19 Drop



Source: Bakersfield Memorial Hospital



Syphilis ED Screening Data 2019 - 2020

Syphilis ED Screening Data Oct 2019 – June 2020			
Month/Year Reactive	RPRs Conducted	RPRs Reactive	Percentage Reactive
Oct 2019	1,471	84	5.70%
Nov 2019	1,602	88	5.49%
Dec 2019	1,283	62	4.83%
Jan 2020	987	56	5.67%
Feb 2020	684	48	7.02%
March 2020	497	31	6.24%
April 2020	289	17	5.88%
May 2020	199	19	9.55%
June 2020	338	24	7.10%

Source: Bakersfield Memorial Hospital



Syphilis ED Screening Data 2020-2021

Syphilis ED Screening Data July 2020 – May 2021

Month/Year Reactive	RPRs Conducted	RPRs Reactive	Percentage Reactive
July 2020	362	27	7.46%
Aug 2020	279	27	9.68%
Sep 2020	409	31	7.58%
Oct 2020	436	30	6.88%
Nov 2020	288	24	8.33%
Dec 2020	303	26	8.58%
Jan 2021	456	34	7.46%
Feb 2021	404	32	7.92%
Mar 2021	522	48	9.20%
Apr 2021	590	30	5.08%
May 2021	362	38	10.50%

Source: Bakersfield Memorial Hospital



Opioids & ED: The Bridge Program

- Bridge Grant provides education and resources to make emergency rooms into primary access points for opioid addiction treatment.
- Over the span of 2 years with the Bridge Program:
 - Total patients identified with SUD = 656
 - Total patients started on Suboxone = 513
 - Success Rate = 78%
- Benefits of MAT treatment are a 15x decreased risk of death (all causes). Decrease risk of HIV & HepC, criminal activity, becoming victim of crime, and obstetric complications in pregnant women.



Challenges

Electronic Health Record (needs to be approved, “built,” for gold standard)

Legal/Administrative Concerns (understanding current laws, adjusting policies)

Laboratory Preparedness (volume of tests, reagents needed, etc.)

Revenue Integrity/Billing (need to code/document)

Hiring/training/sustaining new positions from grants

Getting buy-in from 100% of leadership and staff



Screening in Second ED and Plans for the Future

Kristopher Lyon, MD

Public Health Officer, Kern County

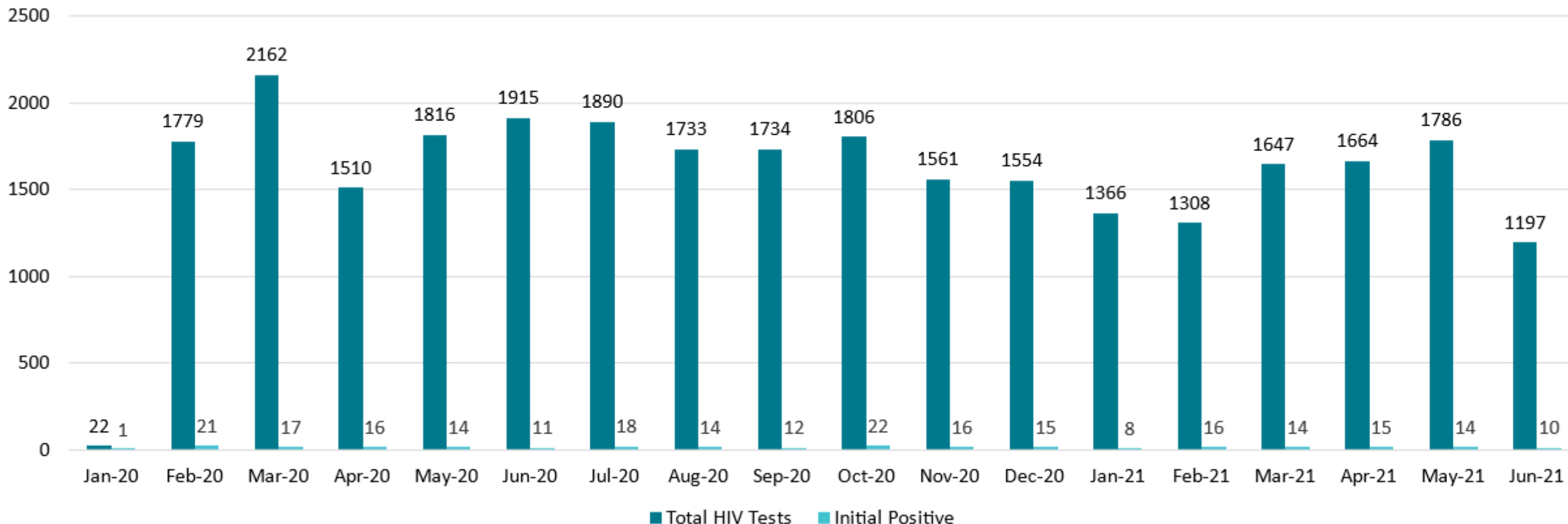
Emergency Medicine Physician





2020-2021 HIV Screening - Adventist ED

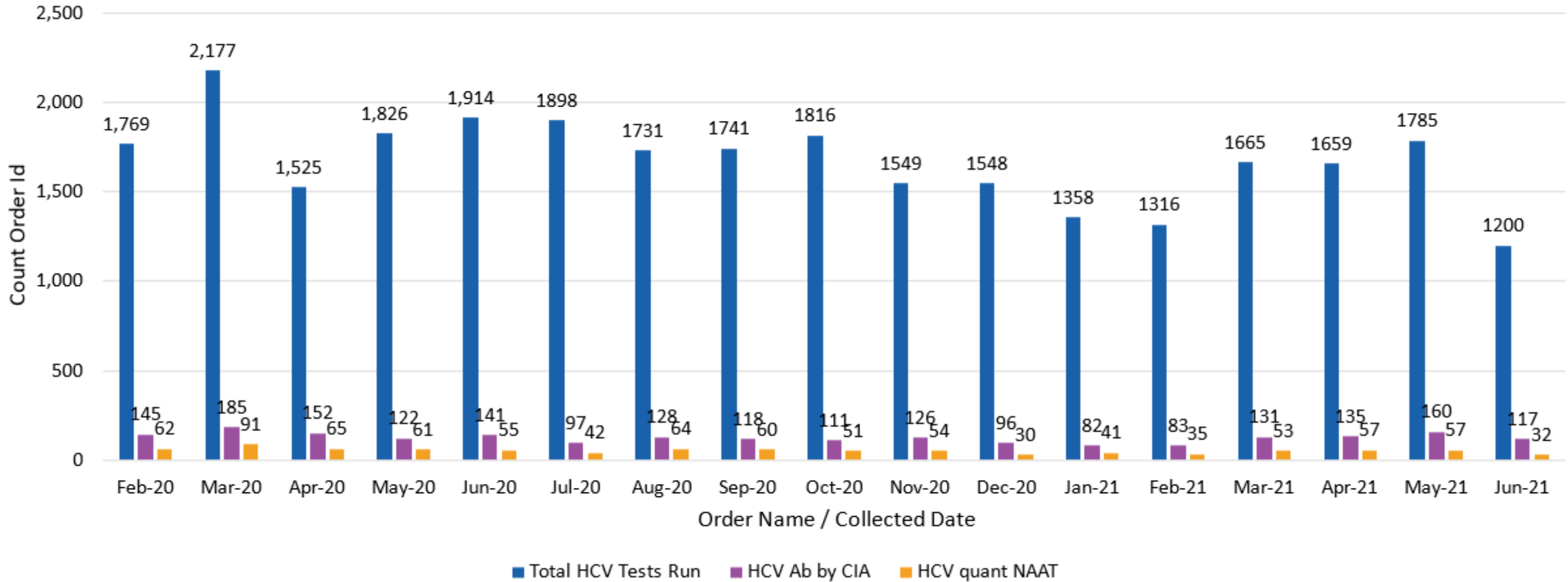
HIV Screening



Source: Kern County



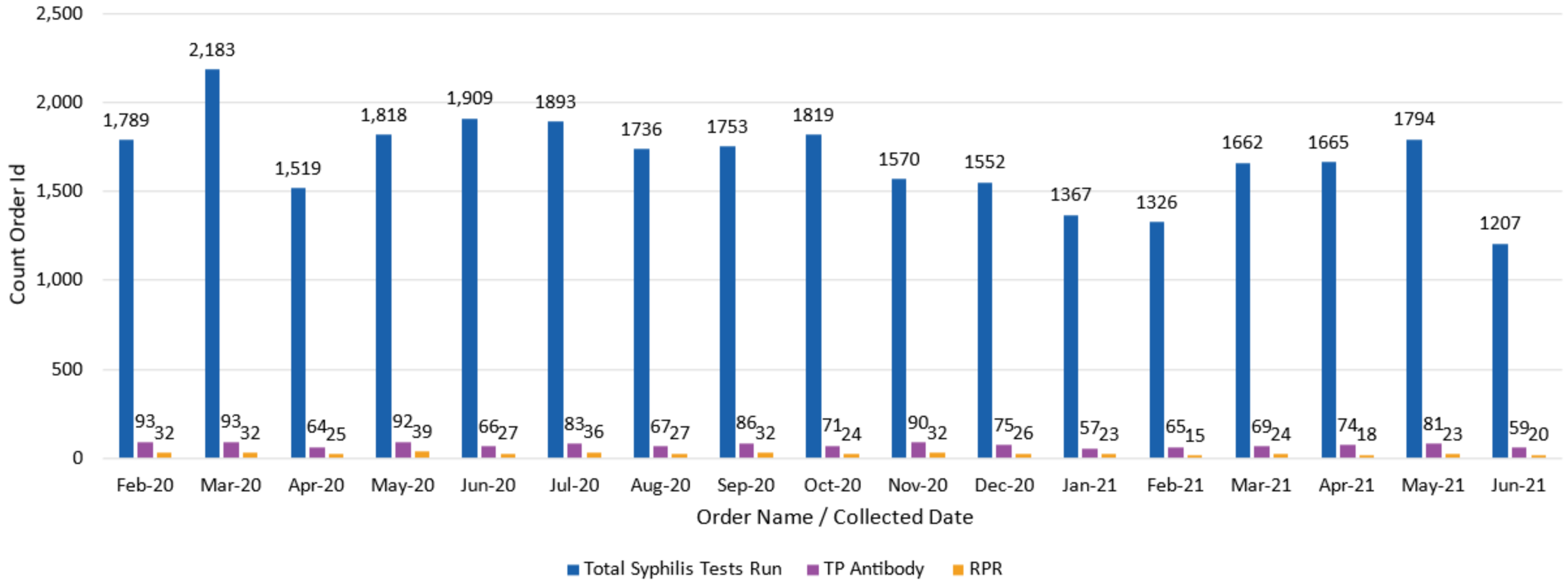
2020-2021 HCV Screening - Adventist ED



Source: Kern County



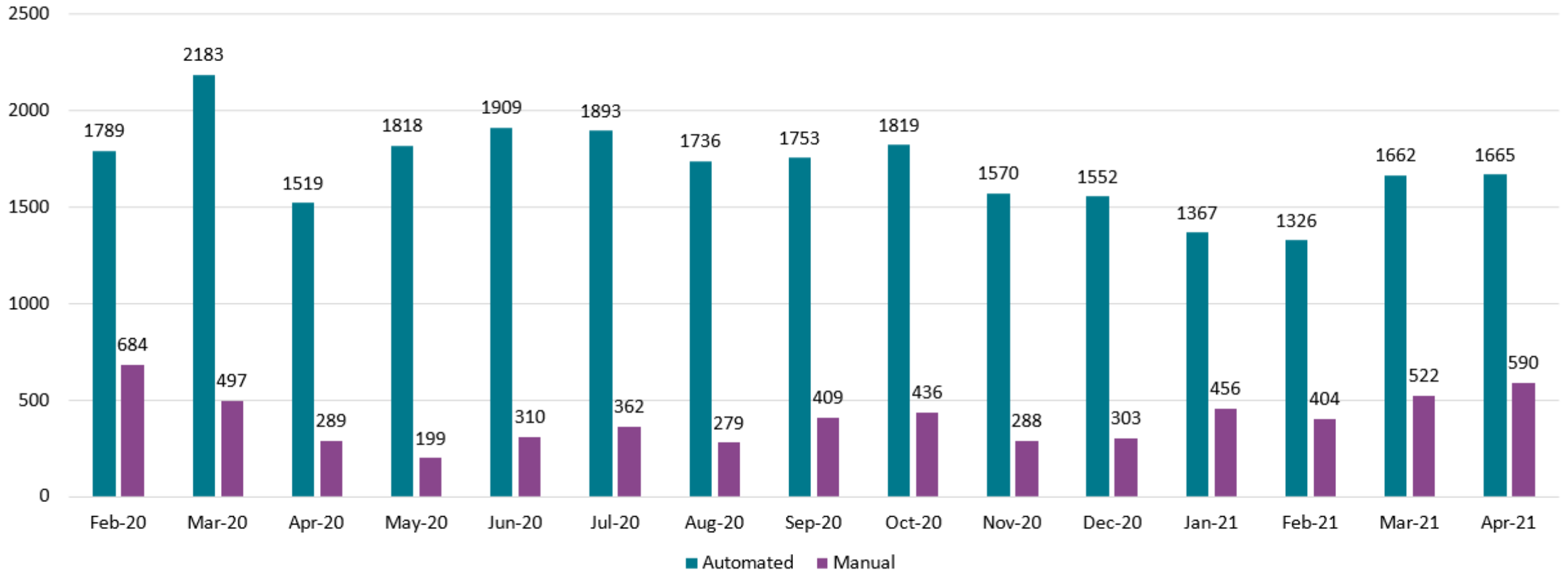
2020-21 Syphilis Screening - Adventist ED



Source: Kern County



2020-2021 - Automated Versus Manual



Source: Kern County



Plans for the Future

1. Screenings will increasingly be tied to EHR rather than providers
2. Provide immediate ART in EDs where possible
3. Secure 3rd ED to implement screening and linkage (post COVID-19)
4. Develop sustainability plans for post-grants environment
5. Increase numbers screened/treated/linked for HIV
6. Increase numbers screened/diagnosed/linked for HCV
7. Increase numbers screened/treated/linked for syphilis (including PrEP)
8. **Address high risk HIV negatives---and Methamphetamine users---
in EDs**



Acknowledgements

Terri Church, Michelle Wheeler, William Watts, Tracy Langenfield, Sherri Weaver, and Renae Wade – Dignity Health, Bakersfield

Patrick Salazar, Shantell Waldo, Nick Morse– Kern County Department of Public Health

Kevin Watson, Jennifer Bones, and Lisa Boudreault – Adventist Health, Bakersfield

Rene Bennett – FOCUS Program

And Many Others who make this entire project possible



Where to Get Help



TAP-in: Technical Assistance Provider innovation network

<https://targethiv.org/ta-org/tap-in>

Email TAP-in@caiglobal.org

AETCs: AIDS Education and Training Centers

<https://aidsetc.org>

PTCs: STD/HIV Prevention Training Centers

<https://nnptc.org>

ATTCs: Addiction Technology Transfer Centers

<https://attcnetwork.org>



Regional TAP-in Structure

3 regional hubs with a TA Lead and up to 3 Coaches assigned to each hub



A Project of CAI



TAP-in Provides TA for Rapid ART in the ER

- TAP-in is working with 7 EHE jurisdictions on Rapid ART TA.
- TA tailored to meet the needs and context of the jurisdiction.
- Several jurisdictions are focusing on Rapid ART in the ER.
- Our TA includes:
 - Development and review of Rapid ART protocols in Emergency Departments and community clinics
 - Curriculum development for HIV care providers
 - Grand rounds with Emergency Departments and HIV clinicians



What We Can Do For You

- Develop a tailored jurisdictional TA plan
- Provide on demand technical assistance
- Assist in the development of a data dashboard
- Provide access to a pool TA providers
- Link to regional and national resources
- Facilitate peer to peer expert consultation
- Link you to additional training and resources



How to Request TA

Ending
the
HIV
Epidemic



Technical Assistance Provider
innovation network

A Project of



CAI

Email: tap-in@caiglobal.org



Questions?



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Closing and Evaluation

WE WANT TO HEAR FROM YOU!

In order to complete our evaluation, you must be registered for this webinar. If you have not registered, please register using the link in the chat. Thank you!

A photograph of a wooden surface with a light blue sticky note. The word "thanks!" is written on the note in black cursive handwriting. A black pen is partially visible on the right side of the image.

thanks!