VIRTUAL 2020 NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

30 YEARS

Developing Systems to Collect, Report, and Utilize Data to Implement CHW Initiatives in the South

Emily Leung, MPH

Research, Evaluation, Analytics Manager

CAI

CAI

Outline

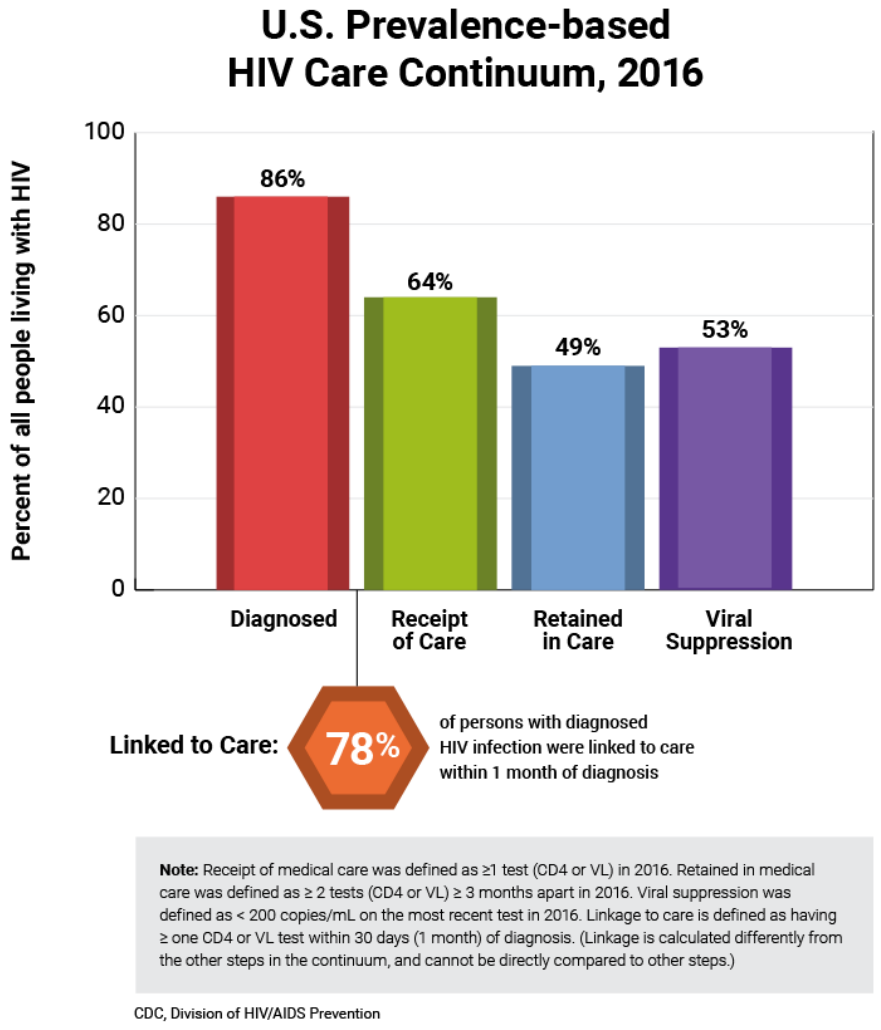
- **Project Overview**
- **Evaluation Approach and Continuous Quality Improvement (CQI)**
  - Client Encounter Form (CEF)
  - Implementation approach
- **Impact and outcomes of the CHW program**
- **How do we use data?**
  - Case study examples
- **Best Practices and Lessons Learned**

Learning Objectives

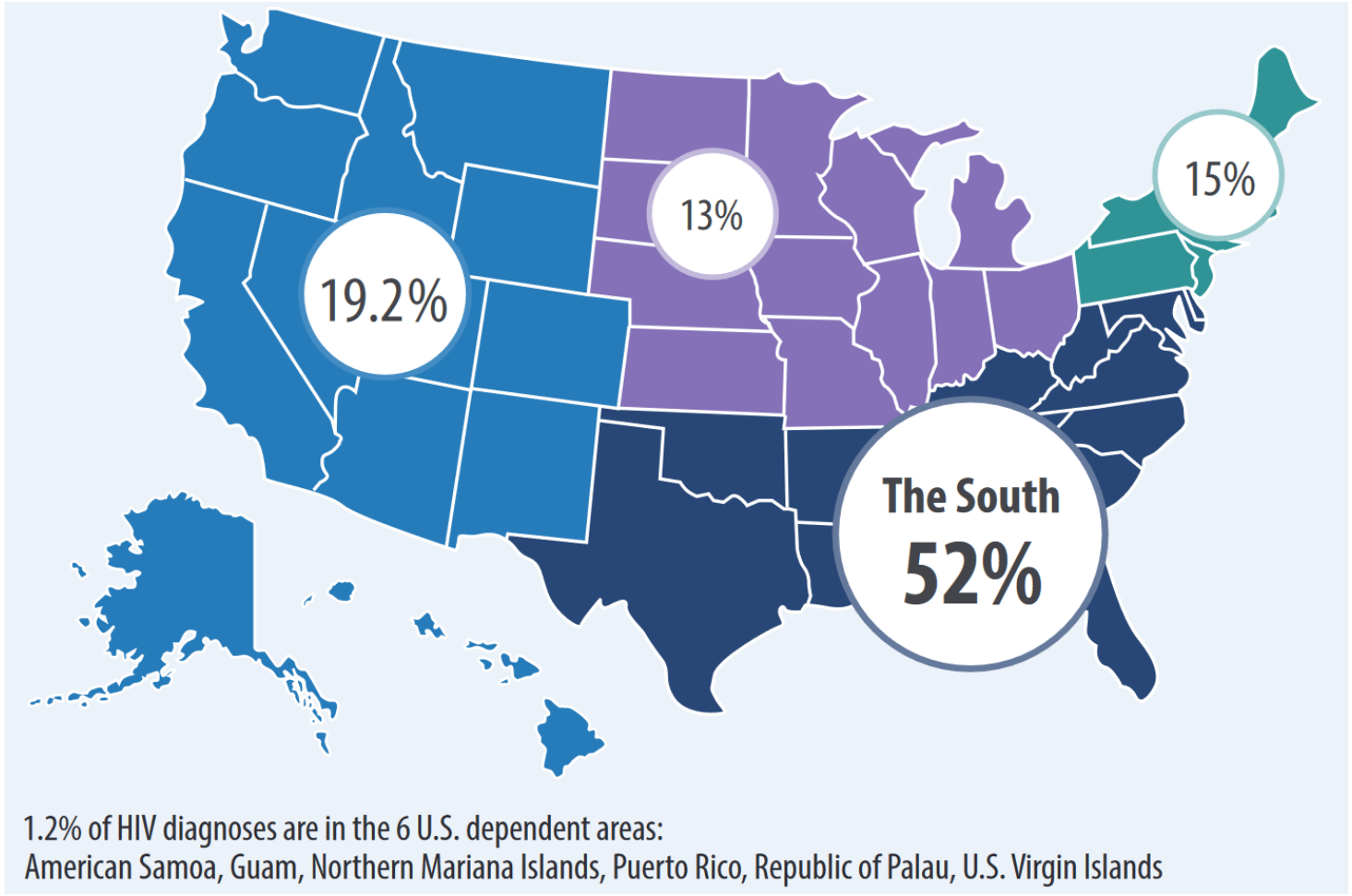
- Describe the process for implementing systems to collect, report, and use real-time data for continuous quality improvement
- Identify activities to facilitate real-time use of data by community health workers (CHW) and their teams to improve outcomes and inform strategic planning
- Demonstrate the value of establishing data systems to support implementation and continuous improvement of CHW models in practice

Project Overview

HIV Care Continuum Gaps



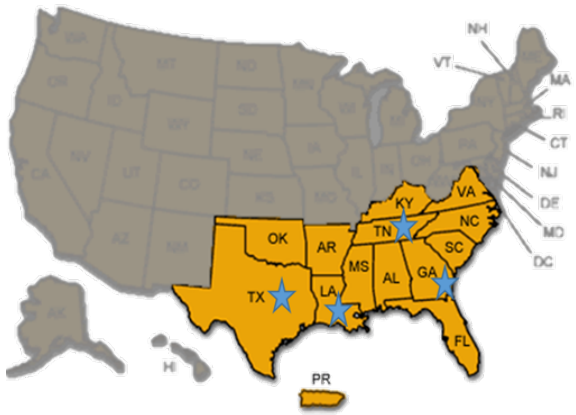
Southern U.S. Bears Disproportionate Burden



Source: CDC. Diagnoses of HIV infection in the United States and dependent areas, 2018. *HIV Surveillance Report* 2019;30

The Southern Initiative

- Funded by the Secretary's Minority AIDS Initiative Fund and HRSA's HIV/AIDS Bureau
- 3-year (2016-2019) project with the aim of improving HIV health outcomes among priority populations
- 4 organizations from Ryan White HIV/AIDS Part A Jurisdictions participating



Atlanta — POSITIVE IMPACT HEALTH CENTERS

Memphis — FRIENDS FOR LIFE ...helping people affected by HIV/AIDS live well...

New Orleans — CrescentCare A Partnership for Life

Houston — AVENUE 360 HEALTH & WELLNESS

Project Team

The National Association of County and City Health Officials (NACCHO), in partnership with Cicatelli Associates, Inc. (CAI), provide service delivery funding and training and technical assistance (TTA) to competitively selected subrecipients in four Part A jurisdictions in the South.

NACCHO
National Association of County & City Health Officials

NACCHO is the national organization representing the nearly 3,000 local health departments across the country.

CAI

CAI is a national capacity building organization with significant experience providing TA for Ryan White HIV/AIDS Program recipients and HIV providers.

Project Goals

- Support implementation of an evidence-based **Community Health Worker (CHW) care model** to increase retention and ART adherence.
- Increase capacity to serve minority populations (**MSM, youth, cisgender and transgender women, and people who inject drugs**) → improved health outcomes along the HIV care continuum

Project Goals Align with National HIV Goals

- Project is aligned with **national HIV goals**, including:
  - **Increasing access to care and optimizing health outcomes** for people living with HIV
  - **Establishing seamless systems to link people to care** immediately after diagnosis
  - **Supporting retention in care to achieve viral suppression** that can maximize the benefits of early treatment and reduce transmission risk
- Addresses the Secretary's Minority AIDS Initiative priority, "*Improving Health Outcomes for Racial and Ethnic Minority Populations Living with HIV/AIDS*"

Project Supported Three Activities

- **Primary intervention**: Community Health Worker (CHW) model
- **Secondary interventions**: Aimed at enhancing the CHW model for specific populations or implementing additional activities focused on reducing disparities in HIV outcomes and improving service delivery to minority populations
    - Examples: HIV testing in outreach settings, outreach to the transgender community, stigma reduction campaign, work process improvements, use of data to improve adherence
- Completion of NACCHO's ***Roots of Health Inequity*** **course**
    - Addresses the root causes of health inequities and systemic differences in health and wellness that are actionable, unfair, and unjust (racism, class oppression, and gender inequity)

Phased Implementation

Evaluation Approach & Continuous Quality Improvement

Process Evaluation

Are we doing what we said we would do?

- Average CHW caseload/month
- Average CHW encounters/month
- Encounter type
- Encounter length
- Number of encounters/client
- CHW services provided to address barriers
- Target community reached
- Average number of supervisory sessions/month/CHW
- Number of clients discussed during case conferencing
- Level of integration of CHW program

Outcome Evaluation

What is our impact on clients' lives?

- **Change in viral load**
  - For clients with elevated VL at assignment
  - For clients virally suppressed at assignment
- **Change in CD4 count**
- **Retention in care**

Measuring Efficacy—Drawing from Implementations Science

How do we determine the efficacy of the CHW model?

- Collect information on the following:
  - Actor
  - Action
  - Dose
  - Temporality
  - Action Target
  - Behavioral Target

Source: Hickey *et al. Implementation Science. (*2017).

Client Encounter Form

- Partnered with subrecipients and CHWs to develop a **client encounter form** (CEF)
- 6 main sections on the CEF
  - CHW identifiers (e.g., CHW name)
  - Client demographic data (e.g., age)
  - Encounter data (e.g., encounter length, key tasks performed)
  - Clinical indicators (e.g., viral load at last lab)
  - Action plan (e.g., identified barriers)
  - Additional comments

Research Electronic Data Capture

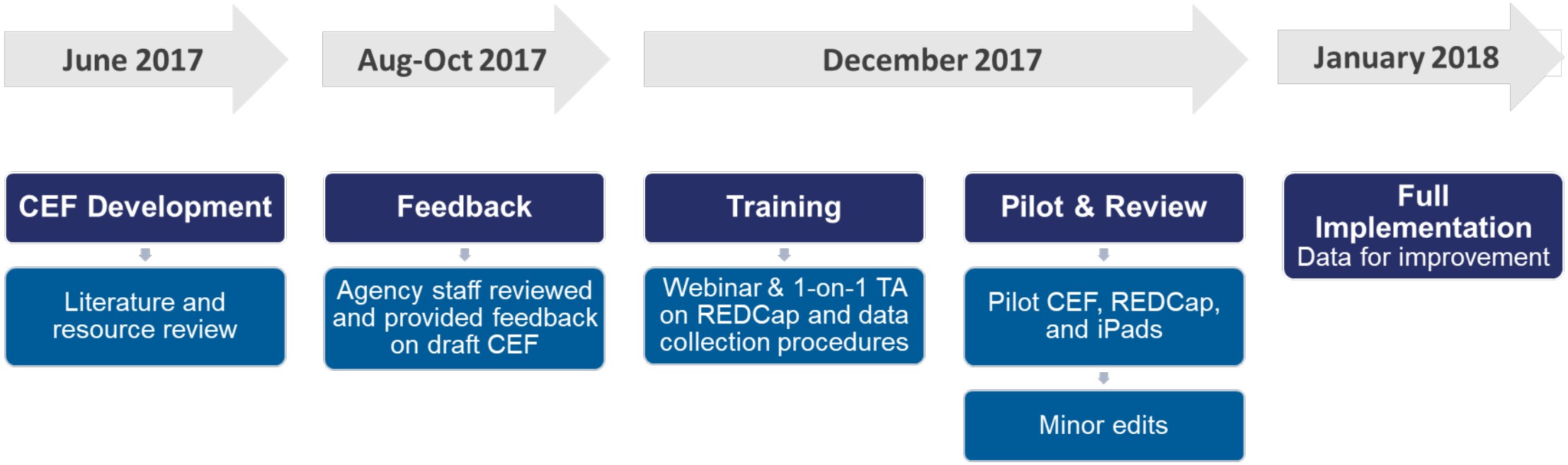
- Secure web application for building and managing online surveys and databases
- Supports online and offline data collection
    - Logging in online (*redcap.caiglobal.org*)
    - REDCap Mobile App on iPads
- Easy access to data for completing data entry, viewing, analysis, and export

Client Encounter Form

Adding new Record ID **14**

Record ID	14
CHW Name * must provide value	
Client's Medical Record Number (MRN) * must provide value	
Encounter Data	
Date of Encounter * must provide value	Today M-D-Y
Length of Encounter (minutes) * must provide value	
Encounter Type * must provide value	○ Clinic visit ○ Phone ○ Text ○ Accompanying to appointment ○ Home visit ○ In-field visit (e.g., coffee shop, outdoor meeting place, faith center) ○ Email ○ Letter reset
Minimum Client Engagement Strategy * must provide value	
Encounter took place with: * must provide value	
Is this an initial encounter? * must provide value	○ Yes ○ No reset
Action Plan	

Development and Implementation of Client Encounter Form



Data Collection Process

1

Prior to encounter, CHW accesses EHR or automatically-generated reports for clients' information

2

CHW meets with client and takes notes

3

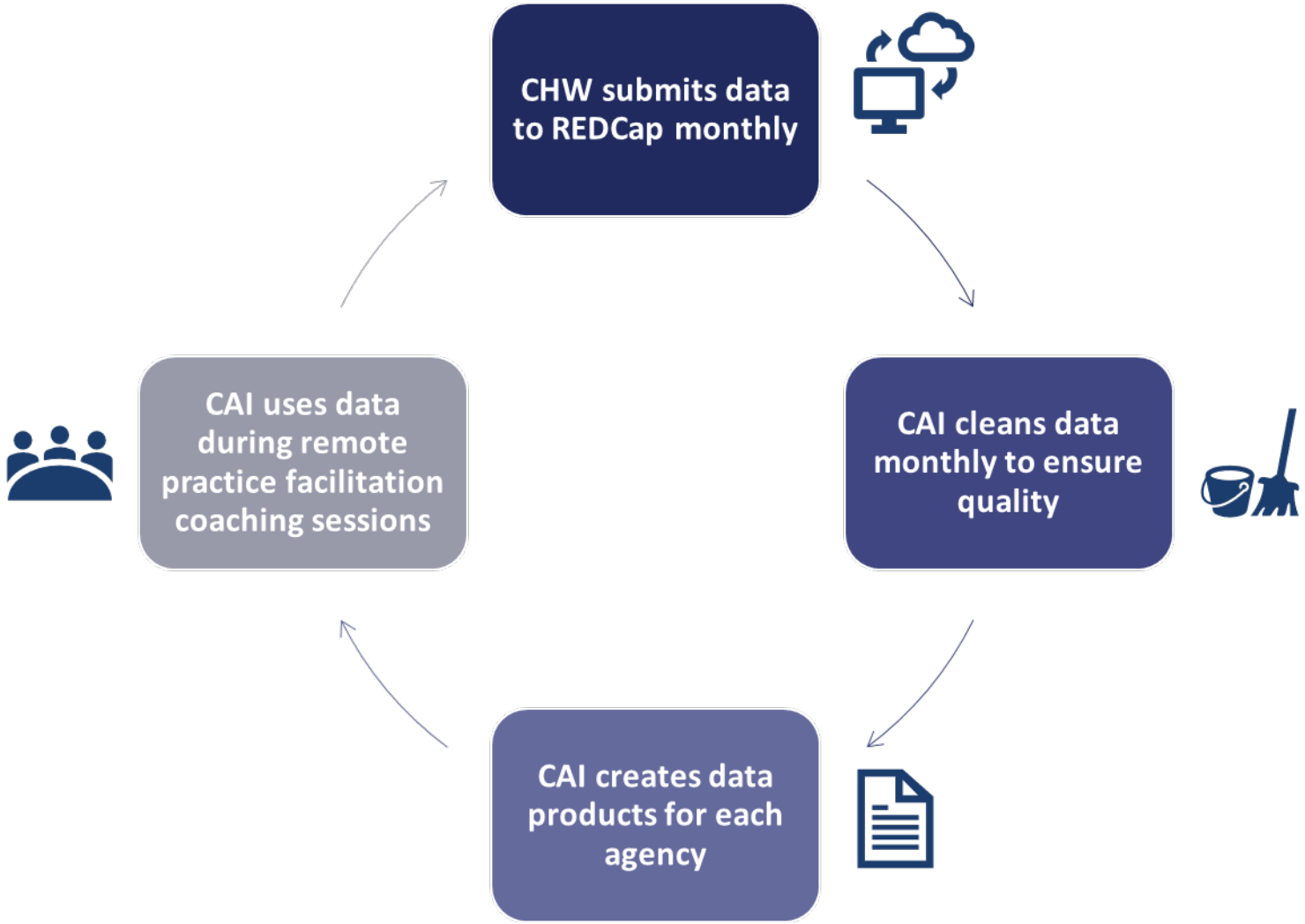
After encounter, CHW completes CEF on iPad or computer using REDCap

REDCap
Research Electronic Data Capture

4

Data is uploaded to REDCap server

Monthly Data Collection and Reporting Cycle



Data Products for Monitoring Implementation and CQI

Monthly Reports

- CHW Program Reports
- Supervisory Reports
- Clients Assigned, Engaged, and Number of Encounters Report

Bi-annual Reports

- Client Clinical Outcomes Reports
- Agency Data Dashboards

Involving CHW Teams was Crucial

- CHW teams reviewed draft CEF in Aug 2017
- CHW teams piloted CEF in Dec 2017 for one month prior to full implementation and we made edits based on feedback
- We collated CHW's feedback on experience with using CEF and made edits in June 2018
- We collated feedback and made last round of edits in Nov 2018

CHW Revisions

- **Streamline to enhance usability** of CEF
  - *Example: Streamline demographic data collection for repeat clients*
- **Addition of measures** that would enhance CHW's work with clients
  - *Example: Viral load and CD4 data, encounter took place with, addition of client barriers*
- **Setting standards for quality assurance** of CHW model and accountability
  - *Example: Developing and incorporating minimum client engagement strategy*

Impact on Clients' Lives

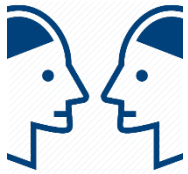
Who were our clients?

December 2017-August 2019

339 unique clients

2824 encounters

8.3 encounters / client



22% face-to-face

78% remote

Who were our clients?

December 2017-August 2019

VIRTUAL 2020 NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

30 YEARS

76% Black/African American

76% male

59% 25-39 years old

13% 18-24 years old

24% cisgender women

5% transgender

58% MSM

10% young MSM

CAI

What were clients' barriers to care?

December 2017-August 2019

Social Determinants of Health

24% limited transportation / mobility

20% financial instability

18% housing insecurity

Health System Factors

12% health systems characteristics

Individual Experiences and Co-morbidities

29% mental health issues

16% history of alcohol and/or substance abuse

15% lack of social support

15% experience of stigma

What did CHWs do?

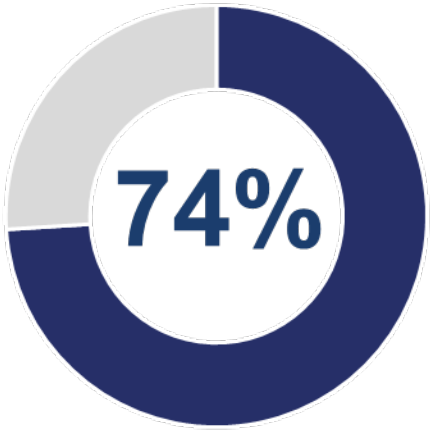
December 2017-August 2019

- Assigned on average, **21** clients/month
- Maintained an average caseload of **13 active** clients/month

- **43%** clients were referred to CHWs via warm referrals
- **47%** clients were referred to CHWs via cold referrals
- **8%** clients were identified through community-based testing activities

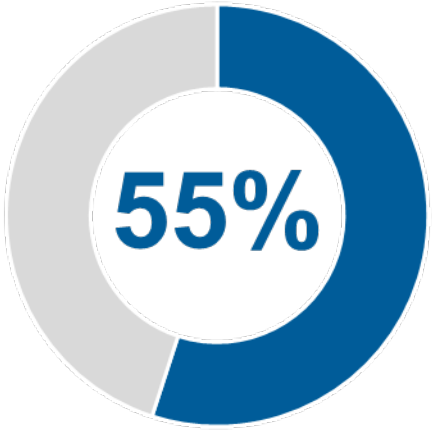
What was the impact?

December 2017-August 2019



clients with elevated VL saw **significant decrease*** in VL

*log change of > 0.5
N=129 clients with complete labs

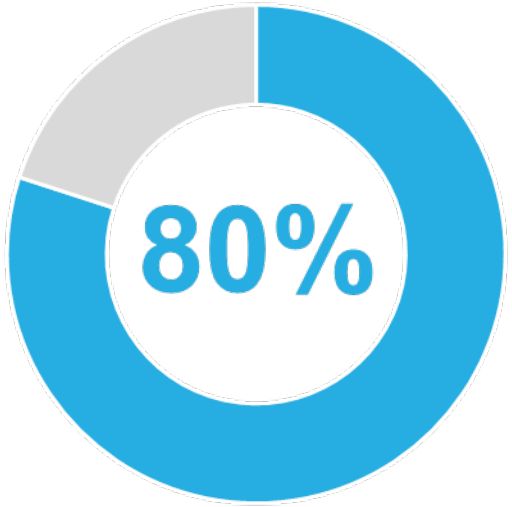


clients with elevated VL **reached viral suppression**

*viral suppression: VL under 200 cells/mL
N=129 clients with complete labs

What was the impact?

December 2017-August 2019



virally-suppressed clients **maintained viral suppression**

N=90 clients with complete labs

What was the impact?

December 2017-August 2019

VIRTUAL 2020 NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

76% clients with elevated VL were **retained in care***

N=129 clients with complete labs

78% virally-suppressed clients were **retained in care***

N=90 clients with complete labs

*Retention: client had completed a medical visit within the last 30 days

CAI

What did clients think of CHWs?

Clients agreed most with the following two statements:

- *My CHW treats me with respect* **(96%)**
- *My CHW understands my culture* **(88%)**

73% of clients agreed with the following statements:

- *I take my medication more often because of my CHW*
- *I see my doctor more often because of my CHW*.

What did clients think of CHWs?

- *"The CHW has helped me feel that I can have a life outside of my status."*
- *"[The CHW] is the only person at the clinic that really listens to me. When I told him I didn't wanna go to the doctor he didn't judge he listened to why and we scheduled another [appointment for a] later day."*

Value of Using Data: Case Study Examples

How do we use data?

Reports & dashboards

Virtual Community of Practice Sessions

Remote Practice Facilitation Coaching

Face-to-Face Cluster TA Workshops

Case Study Example #1: Data for Developing Standards

Observation: 78% of the CHW-client encounters were remote

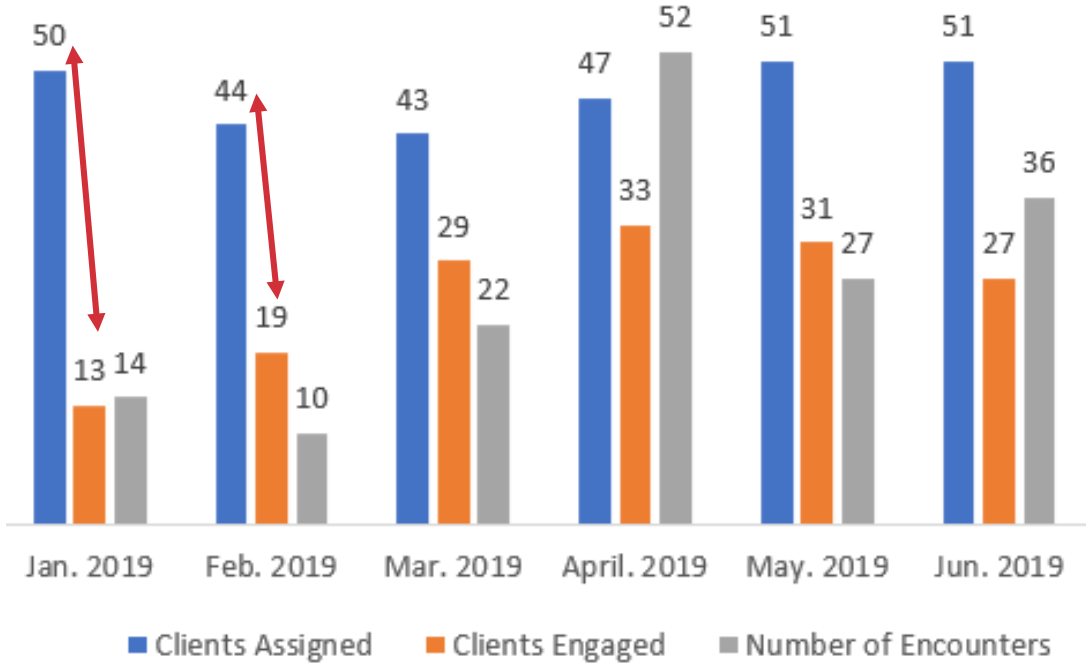
Reason: There were no standards set at each site for in-person vs. remote encounters

Response: We shared this data with CHWs and Supervisors and they all agreed that we wanted to increase in-person encounters. We developed standards together (adapted from the *Stay Connected* intervention).

Case Study Example #2: Data to Improve Client Engagement

Observation: We identified gaps between the number of clients assigned and number of clients engaged

Response: Over 6 months, this site improved rate of engagement of clients assigned and frequency of encounters.



Case Study Example #3: Data to Improve Client Outcomes

Observation: We identified specific clients who experienced significant viral load increases over 6 months

Response: Teams identified clients who needed additional follow-up and strategized on ways to improve client engagement

Client Rentention	Lab Date		Change in Viral Load				
Did client have a medical visit within last 6 months?	Baseline Lab Results	Most Recent Lab Results (as of 3/31/19)	Viral Load (Baseline)	VL (most recent as of 3/31/2019)	Trend	Log Change	Significant Change*?
Yes	3/8/2017	2/24/2019	40	462000		-4.1	Y
No	10/5/2017	6/28/2018	48	49800		-3.0	Y
Yes	2/12/2019	3/27/2019	1	20		-1.3	Y
Yes	8/31/2018	3/26/2019	1	20		-1.3	Y
No	5/11/2017	5/16/2017	30	30		0.0	N
Yes	3/18/2019	3/25/2019	1	237000		-5.4	Y
Yes	11/5/2018	2/14/2019	1	20		-1.3	Y

Best Practices and Lessons Learned

- Using an **implementation science framework** to guide evaluation activities has been essential to examining level of implementation of the CHW Model
- Support and commitment from **senior leadership and supervisors** is **essential**
- **Include CHWs and supervisors** in the development and continuous improvement of data-collection tools
- Consider using **flexible data collection systems** (e.g., offline data collection, access to data)
- Use **data to reflect** on services provided and areas of improvement
- **Integrate data** as a consistent component of TA

Acknowledgements

CAI

- Dawn Middleton
- Vanessa Arenas
- Lindsay Senter

NACCHO

- Sarah Getachew
- Gretchen Weiss

Subrecipients

- CrescentCare
- Friends for Life
- Positive Impact Health Centers
- Avenue360 Health and Wellness

VIRTUAL 2020 NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

Thank you!

For questions, please contact:

Emily Leung, MPH
ELeung@caiglobal.org

CAI

CAI

Questions?