2018 NATIONAL RYAN WHITE CONFERENCE ON HIV CARE & TREATMENT

Engaging PLWH with Complex Needs with Team Based Care: The CARES model

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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. Recognize the unique challenges experienced by different subpopulations of people living with HIV.
2. Identify interventions that may be effective in addressing barriers to ART adherence and retention in care for these patients with complex needs
3. Discuss steps to implement integrated team-based care programs and discuss barriers to their implementation

Obtaining CME/CE Credit

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Background

- People living with HIV with active substance use has been linked to significant poor HIV clinical outcomes[1]
- Severe mental illness (SMI) also linked to virologic failure[2], treatment interruptions/discontinuation[3], death[4]
- Large multicenter RCT of patient navigation with or without financial incentives did NOT improve viral suppression or prevent death[5]
- Substance use and mental health treatment availability limited in many settings

Grady Infectious Disease Program (IDP)

341 Ponce de Leon Ave, Atlanta, GA 30308

Grady IDP Mission

To provide a comprehensive continuum of ambulatory outpatient healthcare and related services to maximize quality of life for men, women and children living with HIV/AIDS in our community in a consumer-focused environment.

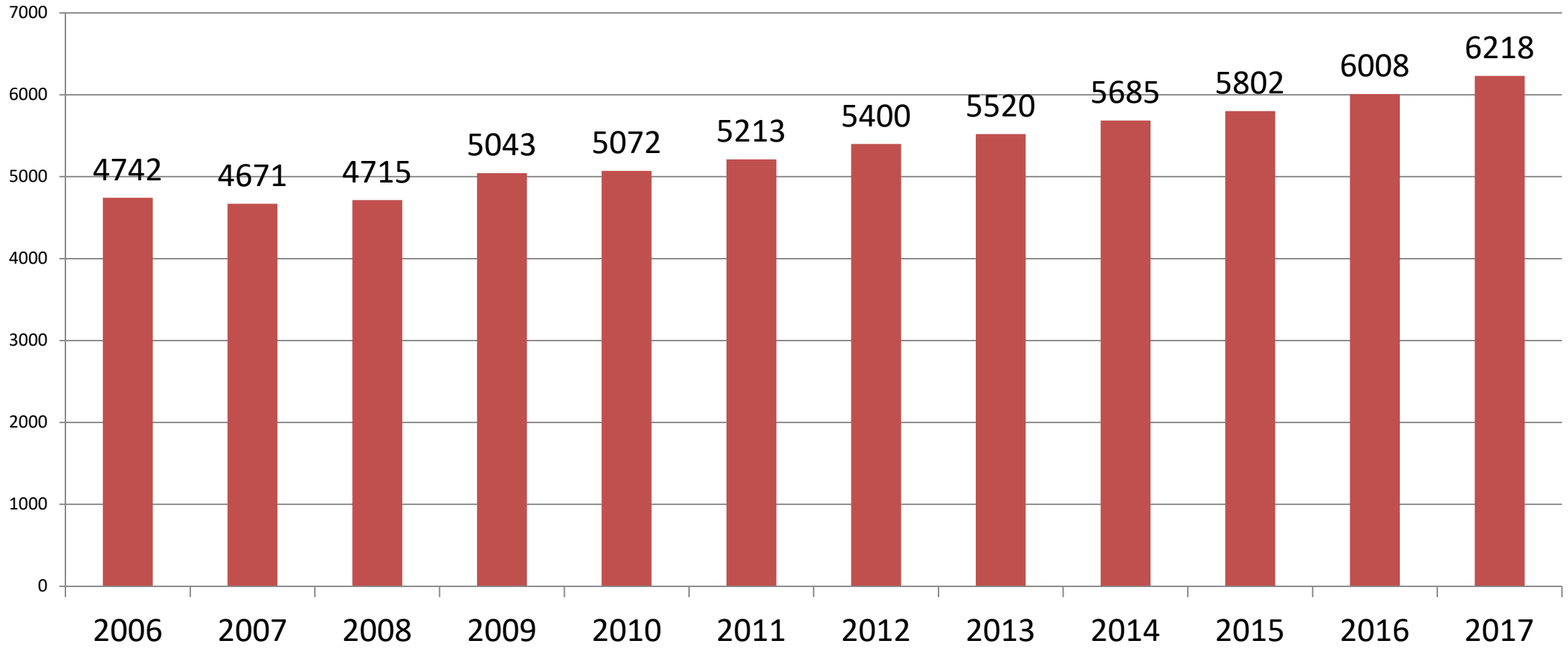
Eligibility criteria

- Persons living with HIV who reside in the 20-county Atlanta EMA
- Infants, children and youth <25 yrs from any county in GA
- Parent (living with HIV) of a child being followed in the Family Clinic from any county in GA
- If not already an established patient within the Grady Health System, must have AIDS-defining illness, Hep C co-infection, **severe mental health conditions and/or complex medical or psychosocial needs**

Who are our patients?

- **71% Male,** 28% Female, <1% Transgender
- **84% Black/African American**, 9% White, 5% Latino
- 14% <= 24, 35% 25-44, 51% >=45 years of age
- 32% < FPL, 60% < 2X FPL
- **42% uninsured**, 26% Medicaid, 21% Medicare
- **64% Stage 3 (AIDS)**

Total Number of Unduplicated Patients (2006-2017)



Comprehensive Medical/Social Services

- Adult, Family and Youth Clinics
- Subspecialties:
  - Heme/Onc, Hepatitis C, Ophthalmology, Neurology, Palliative Care, Pulmonary, Physical Therapy
- Center for Wellbeing
  - Behavioral health/counseling
  - Psychiatric services
  - Wellness programs
- **CARES**
- Oral Health Clinic
- Lab, radiology and pharmacy
- Social services/case management
- Peer counseling/navigation
- Nutrition
- On-site community services
  - Legal Aid, housing support, nutritional support
- Chaplain
- Day-care services/babysitting

Center for Adherence, Retention, and Engagement Support (CARES)

- Started in 2001 and originally named “Transition Clinic,” started as an intervention to reduce ED utilization/hospitalization and address adherence among a group of clinic patients
    - Homeless/unstably housed, incarcerations, active substance use identified as referral criteria
- “Specialty clinic” housed within IDP that offers an integrated wellness program for PLWH with severe mental illness and/or with polysubstance abuse that impedes access to care in traditional models of care
- Name changed to “CARES” in 2017

CARES Mission

The interdisciplinary CARES team will provide individualized care using a harm reduction model to optimize functioning, health, and physical, emotional and spiritual wellness in a population of patients with complex needs.

Category	Characteristics	Number N= 96 (%)
Demographics	Black/African American	91 (95)
Demographics	Male	61 (95)
Demographics	Completed high school	50 (52)
Alcohol and Substance Use	Crack/Cocaine	72 (75)
Alcohol and Substance Use	Alcohol	82 (85)
Alcohol and Substance Use	IVDU	26 (27)
Psychiatric Diagnoses	Depression	57 (59)
Psychiatric Diagnoses	Schizophrenia/Schizoaffective	22 (24)
Psychiatric Diagnoses	Alcohol Dependence	81 (84)
Psychiatric Diagnoses	Drug Dependence	80 (83)
Psychiatric Diagnoses	Dual Diagnosis	87 (91)
Life History	History of homelessness	76 (79)
Life History	History of psychiatric hospitalization	50 (52)
Life History	History of incarceration	63 (66)

Cohen et al. 2011

CARES Team

Medical Provider

Nurse

Chaplain

Mental Health Specialist

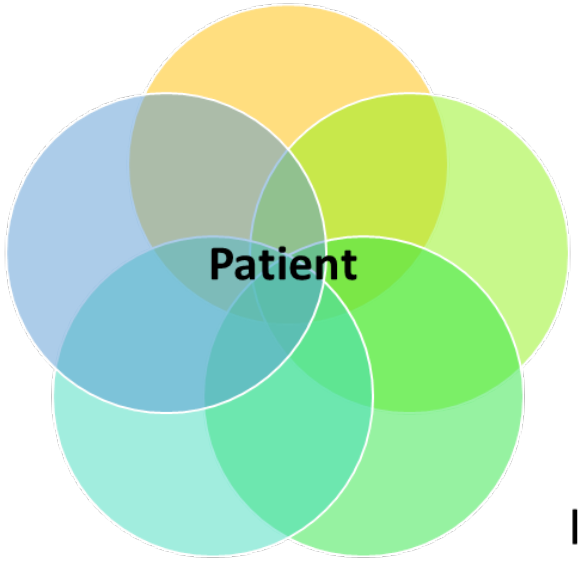
Social Worker

CARES Services

Medication adherence support (DOT, pill trays)

Transportation support (Medicaid, MARTA)

Health system navigation and health education



Spiritual guidance and advice

Nutrition program

Group and individual therapy sessions

Intensive case management

Referrals and “Eligibility” Criteria

- Initially a point-based system with following criteria:
  - Substance dependence impedes access and/or adherence to care
  - Mental illness impedes access and/or adherence to care
  - Neurocognitive impairment impedes access and/or adherence to care
  - Psychosocial factors impedes access and/or adherence to care (homeless, without income, inadequate social support)
  - 2+ admissions in the past 6 months
  - Has kept <2 scheduled medical visits in the past 6 months
  - African-American or Hispanic (*MAI criteria)
- Provider-driven referral → reviewed by program coordinator → intake by CARES team member

Preliminary Data

- Retrospective chart review of Transition Center (TC) patients between 2006-2010 (pre- post-format) by Cohen et al. (2011 CROI abstract)[6]
- Patients spent 14% more time in care after enrollment into TC
- 4-fold increase in time spent with virologic control (<500 RNA copies)
- Significant increase in primary care/mental health visits

The Grady IDP Transition Center: Evaluation of an Integrated Care Program for those with AIDS, Serious Mental Illness (SMI) and Addiction.

Jessica F. Cohen MS4[1], Nicholas Vogenthaler MD, MPH[1,2,3], Carlos Del Rio MD[1,2,3,4], Wendy S. Armstrong MD[1,2,4]

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ABSTRACT

Background: Patients with the triple diagnosis (HIV/AIDS, SMI, and SUD) are hard to retain in care and difficult to treat with antiretrovirals. We examined the ability of an integrated care program, the Transition Center (TC), that provides medical, mental health (MH), substance abuse care and social services in a single site, to engage patients in care, improve virologic control and increase CD4+ T-cell counts.
Methods: Retrospective chart review of sequential patients seen in the TC between 01/01/07 and 5/1/10. Abstracted data included demographic, psychiatric and SUD data, CD4 counts, HIV-1 RNA levels and clinic visit attendance. For each patient, data after enrollment in TC was compared to data before enrollment (when care was provided at an HIV medical clinic with access to MH and SUD treatment by referral). We evaluated three primary outcomes: change in percent (%) of time engaged in care (defined as 1 visit / 6 month period), change in % of time with virologic control (<500 copies/cc), and change in CD4+ T-cell counts.
Results: During the study period, 96 patients met inclusion criteria. Of these, 92% were black, 64% male, 80% had a history of homelessness, and 68% had a history of incarceration. Patients were engaged in care 95% of the time after enrollment in the TC as compared to 81% prior to enrollment ($p < 0.0001$). Before TC enrollment, patients achieved virologic control in 9% of months in care compared to 42% after enrollment ($p < 0.0001$). Absolute CD4 counts declined an average of 19 cells/yr before TC enrollment but increased an average of 35 cells/yr after enrollment (net change: +54 cells, $p < 0.0001$). Those with a statistically significant increase in % time spent engaged in care ($p<0.05$) were patients diagnosed >15 years ago, those homeless at or prior to enrollment, those with a history of crack use, with schizophrenia, or a history of incarceration. Patients with a significant increase ($p<0.05$) in the % of time with virologic control were those >38 years old, and those with more primary care visits and MH visits after enrolling in TC.
Conclusions: When compared to usual outpatient care, providing care through an integrated program such as the TC led to significantly increased time spent engaged in outpatient HIV care, time with virologic control, and CD4 counts. Integrating MH and SUD treatment into HIV care programs can improve outcomes in difficult to reach HIV-infected populations and provides a model for the care of these patients.

BACKGROUND

- Triple diagnosis accounts for 13-38% of PLWH and represents a *growing* segment of the HIV + population
- Integrated care models are highly promoted but rarely evaluated in terms of patients' disease outcomes.
- The Grady IDP serves > 5000 patients with AIDS. Of these, 79% are Black, 71% are male, 78% are at or below two times the federal poverty level, 41% are uninsured, 30% have Medicaid and 21% have Medicare.
- The Transition Center (TC) was created in 2001 to care for the most challenging subset of these patients - those with frequent hospitalizations, re-enrollments, incarcerations, and periods of time when they were lost to follow up.
- The TC provides walk-in care including primary care, mental health care, a nutritionist, social work, group therapy, and transportation assistance. All these services are available to all patients at the IDP, but the TC localizes these services, does not require individual referrals, and creates a community environment.
- The TC uses a harm-reduction model which does not require sobriety or 100% adherence in order for patients to attend.

RESULTS

Table 1: Demographic Data

Category	Characteristic	Number N=96(%)
Demographics:	Black	91 (95)
	Male	61 (95)
	Completed <high school	50 (52)
Alcohol and Drug use:	Crack/Cocaine	72 (75)
	EtOH	82 (85)
	IVDU	26 (27)
	THC	49 (51)
Psychiatric Diagnoses	Depression	57 (59)
	Bipolar Disorder	13 (14)
	Schizophrenia/Schizoaffective	22 (24)
	EtOH Dependence	81 (84)
	Drug Dependence	80 (83)
	Dual Diagnosis	87 (91)
Life History	History of homelessness	76 (79)
	History of psychiatric hospitalization	50 (52)
	History of Incarceration	63 (66)

Table 2: Changes in CD4 Count for Enrolled Patients

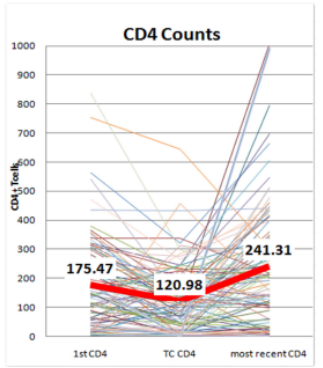

Table 3: Changes in biological outcomes before and after TC Enrollment

Biologic Outcomes	Pre TC	PostTC	p-value
% months linked to care	81%	95%	<.0001
% time virologic suppression	9%	42%	<.0001
Δ CD4+ T cells (cells/ml)	-19/year	+36/year	<.0001

Table 4: Patient Characteristics associated with % time linked to care and/or virologic suppression

Characteristic	Difference in % time linked to care with or without characteristic	p-value	Difference in % time with virologic suppression with or without characteristic	p- value
HIV diagnosis before 1995	19.1	<0.0001	.03	1.0
Age ≥38 at IDP enrollment	-3.2	0.45	23.68	0.001
Hx of incarceration	10.1	0.03	-5.9	0.5
Hx of homelessness	11.7	0.03	7.1	0.8
Schizophrenia	11.0	0.03	.03	1.0
Depression	-4.3	0.33	.43	1.0
Hx of Psychiatric hosp	7.7	0.07	-2.9	0.7
ETOH abuse	3.15	0.61	-0/9	0.9
THC abuse	9.0	0.035	-23.0	0.002
Crack abuse	14.2	< 0.005	-12.65	0.14
IVDU	15.0	0.0015	-12.6	0.13
≥1 PC visit/month	4.5	0.3	19.7	<0.01
≥ 1 MH visit/month	5.5	0.2	20.5	<0.01

METHODS

- This was a retrospective chart review of medical records for patients enrolled in the TC between May 2006 and May 2010.
- Recorded information included demographics, CD 4 counts, hospitalizations and ED visits, as well as # and type of appointments and high and low viral loads for every 6 month period.
- Linkage to care was defined as ≥1 appointment in each 6 month period. Virologic control was defined as having <500 copies/cc HIV RNA.

HYPOTHESES

1. The percentage of time patients are linked to care will be greater after enrollment in the TC than in standard care.
2. The percentage of time patients achieve virologic suppression will be greater after enrollment in the TC than in standard care.
3. The change in CD4 counts will be greater after enrollment in the TC than in standard care.
4. Patients enrolled in the TC will have fewer hospitalizations and ER visits.

Table 5: Healthcare Utilization before and after TC Enrollment

Health Care Utilization Outcomes	Pre-TC	PostTC	p-value
# of Primary Care visits/ 6mos.	2.82	3.48	<.0001
# of Mental Health visits/ 6mos.	0.84	5.64	<.0001
Hospitalizations/ 6months	0.68	0.50	<.05
ED visits/ 6months	1.26	1.08	.55

CONCLUSIONS

- The Grady IDP Transition Center improves outcomes for the difficult to reach population living with HIV, SMI, and addiction.
- After TC enrollment, patients spent 14% more time in care and had better control of their disease
- Patients had nearly a 4-fold increase in the time they spent with virologic control and increased their CD4+ counts by a net gain of 54 cells/cc/year while in TC care
- Patients had more consistent visits to both primary care and mental health care
- Future goals would be to study this program prospectively and to identify the elements of TC that are the most effective.

Grady Health System
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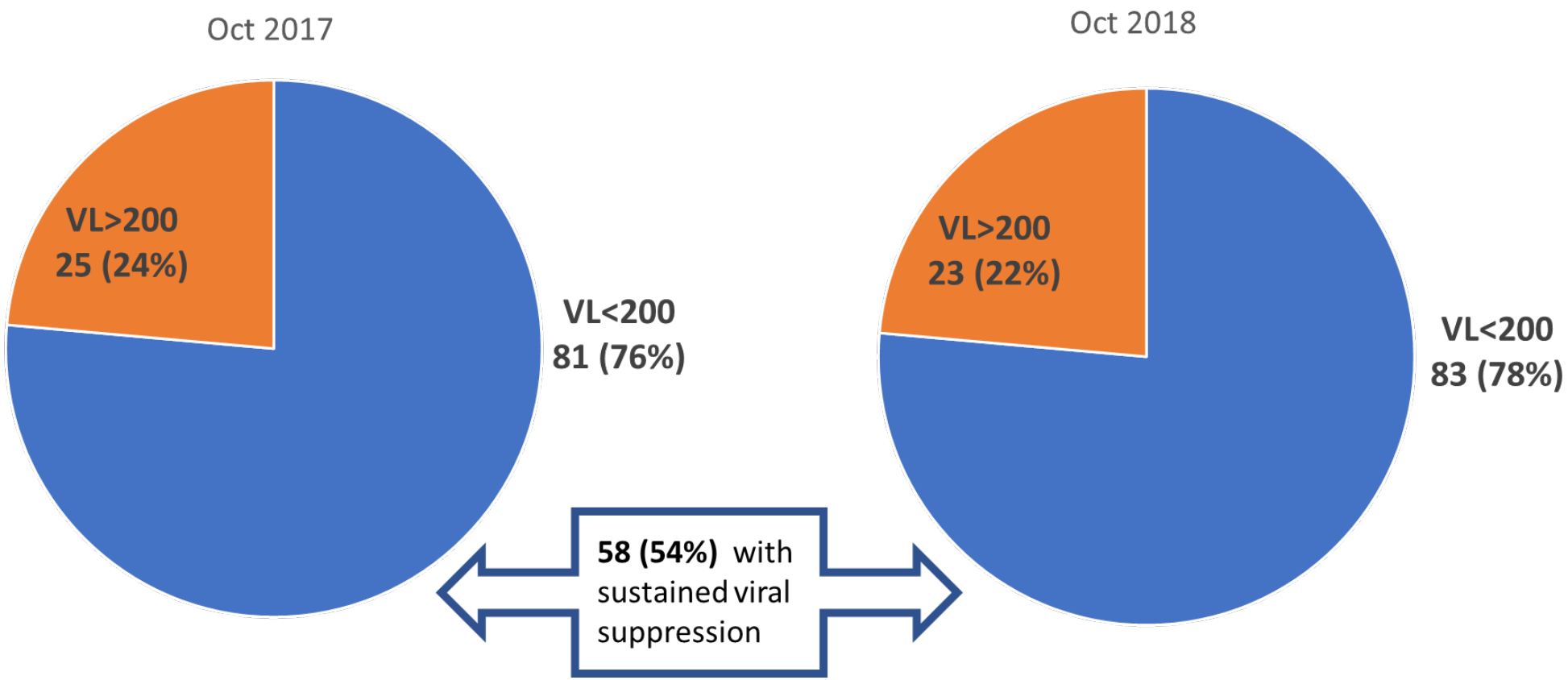
Viral Suppression among CARES Patients (N=106)



CARES: Key Components for Success

- Open-access (no appointments necessary)
- Adaptive interventions tailored to each individual
- 1-2 full time dedicated staff always available (consistency)
- Staff characteristics
- Multidisciplinary team approach and case conferencing
- Creation of “community” identity

Ongoing Process Improvement

- Systematic review of patients including VL, adherence to medical visits, treatment planning/establishing goals
- Who benefits from CARES model?
  - Prioritization of patient referrals/re-examining referral criteria
  - Identifying critical components of intervention
- Empowerment/capacity building/skills development (“letting them fly solo”)

Conclusion

- A multidisciplinary team-based specialty clinic may be effective for improving retention, ART adherence and viral suppression among those with complex psychosocial needs
    - Building a community as an intervention (vs individualized care/attention)
- May be cost-prohibitive and/or tough “sell” to administration due to high cost/low volume intervention
    - Ultimately will need cost-effectiveness data
- Outcomes data from similar models of care (ie. MAX clinic), RCTs needed

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