

# Implementing Retention Measures in HIV Clinic in Rural North Carolina: Don't Miss Your Shot!

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## ABSTRACT

### Background

Implementing and measuring retention interventions presents unique challenges in rural HIV clinics. We implemented three tailored retention measures to improve viral load (VL) suppression and determine if any one measure was a better determinant

### Methods

Clinic wide, patient level data was obtained over 48 months. Data was used to identify patients for Patient Care and Retention Project (PCARP) intervention. Measures were obtained at 12, 24, 36 and 48 months after implementation. Three retention measures were calculated for patients; risk of missing a clinic visit, missed visits and increasing viral loads. Missed visits were recorded as a count and visit kept was measured as a portion of visits attended versus scheduled. Statistical analysis of all three measures was done. Descriptive statistics were generated including means, and percentages

### Results

Among the 282 clinic patients, 160 (57%) were identified for PCARP. All interventions were associated with improved VL suppression. Patients in Social Media intervention achieved 73%, 82%, 81% and 85% VL suppression at 12, 24, 36 and 48 months respectively; Food recipients 71%, 81%, 80%, 87%; patients requiring both achieved 77.8%, 85%, 77% and 81% VL suppression at 12,24, 36 and 48 months. Improved adherence to medical visits was noted in each intervention group over the 48month period

### Conclusion

Three retention measures tailored to patients were successful and sustainable 48 months after implementation. The results suggest that tailored, structured intervention is associated with improved VL suppression

## BACKGROUND

Retention into medical care among people living with HIV (PLWH) is vital as this maximizes viral suppression, reduces the risk of disease progression, and viral transmission. The HIV Medicine Association guidelines endorse an emphasis be placed on retention in HIV medical care rather than just focusing on adherence to antiretroviral medications. Implementing interventions and measuring retention presents unique challenges in rural HIV clinics. We implemented three tailored interventions to determine if specific methods are associated with improved retention in HIV care

## METHODS

### Retention in Care Measures:

- Missed medical visits (not cancelled or rescheduled) were recorded as a count. A kept appointment was measured as a scheduled medical visit the patient attended (excluded sick visit, cm appointment).
- Visit constancy was observed as a percentage of 6-month intervals with at least one clinic visit.

### Outcome Measure:

- Did the patient achieve Viral Load suppression at the 6 month interval visit?

### Patient Care and Retention Program Assessment for Patient Care and Retention Intervention

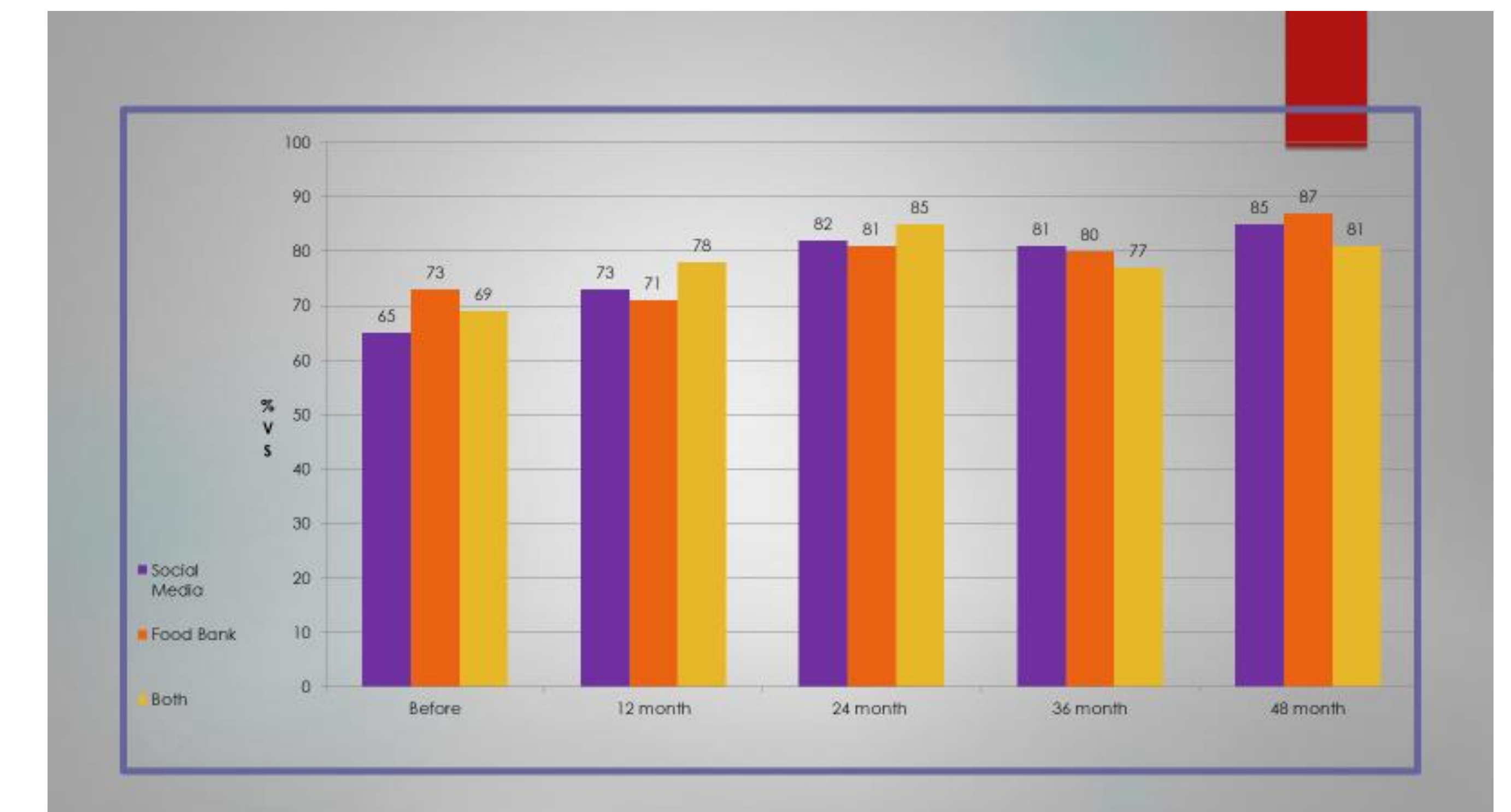
High Risk	Moderate Risk	Low Risk
No reliable Transportation	<b>Inconsistent Transportation</b>	KARTS for transportation
Unstable Housing / Homeless	Recent change in housing	Has Stable Housing
<b>Invalid Contact Information</b>	Change in contact information	Social Media / valid contact
<b>Food Insecurity / Resources</b>	<b>Decrease in food stamps</b>	Adequate food / Nutrition
<b>ADAP recipient / high co-pay Not divulging HIV status fam.</b>	<b>Lack of support system but insured / on parent's insurance</b>	Family aware of status Fully insured
Mental Health / current substance abuse (opioids)	History of treatment for mental health / substance abuse	No substance abuse issues
Missed at least 2 consecutive visits. "Frequent Fliers"	Frequent Flier	No missed visits in previous 12 months
<b>Missed 1 medical visit in 6 mos. Without reason (Stigma, fear, denial)</b>	<b>Rescheduled at least 1 medical visit in 6 months without identified barrier</b>	Rescheduled at least 1 medical visit in 12 months without identified barrier
<b>Increased VL or no longer virally suppressed</b>	Virally suppressed but admits stigma, fear, accepting dx.	Virally Suppressed

## RESULTS

### Patient Care and Retention Program and Adherence to Medical Visits 2013-2017

PCARP	Total	Kept	Missed	No Show Rate
<b>Social Media</b>				
12 mos	142	119	23	16%
24 mos	161	133	28	17%
36 mos	160	133	27	16%
48 mos	153	131	22	14%
<b>Food Bank</b>				
12 mos	261	226	35	13%
24 mos	289	256	33	11%
36 mos	302	263	39	13%
48 mos	304	268	36	12%
<b>PCARP TOTAL</b>				
12 mos	403	345	58	14%
24 mos	450	389	61	13%
36 mos	462	396	66	14%
48 mos	457	399	48	11%

## RESULTS



## CONCLUSIONS

- Identifying which patients are at highest risk for not being retained is important to target intervention efforts to those groups.
- Invalid contact information, food insecurity, lack of nutritional resources and not being virally suppressed are strong predictors of retention.
- Other important factors more specific to rural communities are inconsistent transportation and lack of a family based support network.
- Characteristics associated with retention will necessarily vary between urban and rural clinics. Rurality of HIV in the deep south becomes important when prioritizing interventions for improvement.
- We highlight the importance and positive impact of supportive service programs on patient retention, including case management, transportation, use of social media, food and nutrition

## KEY POINTS

- We need to fundamentally rethink the way health care services are delivered especially in under resourced rural communities.
- We need to redefine what a "visit" means. Virtual visits, social media contact, communication with case management, etc.
  - Stigma
  - Co-pay
  - Fear
- We need to make better use of technology available to us to improve clinical outcomes. Better outcomes with less dollars is the expectation

## ACKNOWLEDGEMENTS

PCARP TEAM  
Lester, Harmon, DNP - Provider  
Kara McGee PA - Provider  
Rita Cozart - Program Manager  
Sharon Burwell, RN  
Jerrell Cozart - Outreach Coordinator, PCARP Team Co-Leader  
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