



# Effective Management of HIV in Rural Georgia using Telemedicine.

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## Introduction

- Rising HIV incidence in rural areas, with nationwide shortage of HIV specialists hinders achieving the AIDs 2030 goal.
- Telemedicine (TM) can extend HIV care in to remote communities. However its effectiveness when compared to face-to-face (F2F) care remains unclear.
- This study compares outcome indicators of HIV care delivered through TM and F2F care.

## Methods

- Stratified, systematic sampling of HIV clinic patients at Augusta University (F2F) and Laurens County Health Department, Dublin (TM).
- Extracted demographic data, HIV viral load (VL), CD4 count from patient records.
- Compared the mean CD4 count, mean viral load (VL), average rate of change of CD4 and VL. Reduction. Proportion of cases with improved CD4 and VL. reduction.
- Statistical test of differences between groups using T-test, chi-square and Snedecor statistics.

## Results

	F2F = 200	TM = 185
Gender	N (%)	N (%)
Females	106 (53)	90 (48.6)
Males	89 (44.5)	95 (51.4)
Transgender	5 (2.5)	0 (0)
Race		
Black	164 (82)	152 (82.2)
White	30 (15)	32 (17.3)
Others	6 (3)	1 (0.5)
Age (years)		
18-30	21 (10.5)	18 (9.7)
31-50	77 (38.5)	68 (36.8)
51+	102 (51)	99 (53.5)

Table 1: Demographic Data

	F2F	TM	P-value
Mean ΔCD4	134.52	120.76	0.45 <sup>a</sup>
Mean ΔVL	-3.34 x 10 <sup>4</sup>	-1.24 x 10 <sup>4</sup>	1 <sup>b</sup>
VL Decrease	0.44	0.45	1 <sup>c</sup>
CD4 Increase	0.41	0.43	1 <sup>c</sup>
UD VL	0.73	0.77	0.54 <sup>c</sup>
<b>Abbreviations:</b>			
<sup>a</sup> = T-statistics			
<sup>b</sup> = snedecor statistics			
<sup>c</sup> = Chi squared statistic			
UD VL = Year round Undetectable Viral load			
F2F = face-2-face			
TM = telemedicine			

Table 2: Statistical analyses

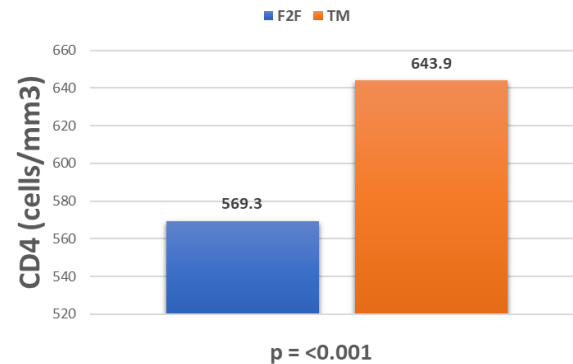


Figure 1: Mean CD4 count

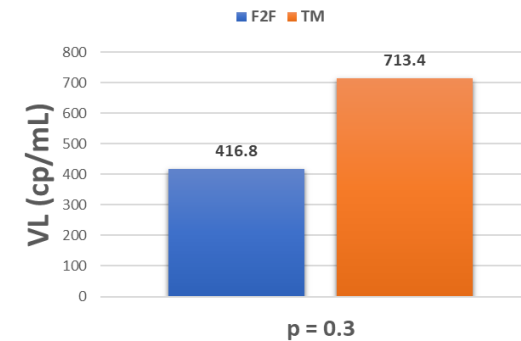


Figure 2 : Mean VL

## Conclusion

- All except one outcome indicators assessed in TM and F2F were statistically comparable between both groups.
- World-wide control and eradication of HIV requires increasing the use of TM outreach programs where specialist are scarce, to improve diagnosis, management and prevention of HIV especially in rural areas.