Improvements in Primary Care Measures and Outcomes with Enrollment in a Low Barrier HIV Care Model

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BACKGROUND

The Moderate Needs (MOD) Clinic is a low-barrier, walk-in, team-based with shared patient panel, primary care model for people with HIV (PWH) housed within a conventionally organized HIV clinic in Seattle, WA. Previously, we showed improved care engagement and trend towards improved viral suppression for PWH enrolled in MOD. Here, we assess the extent to which enrollment affected HIV- related primary care measures and outcomes.

METHODS

In this retrospective cohort study among PWH enrolled in the MOD Clinic during 1/ 2018 through 4/ 2024, we conducted 2 analyses:

1) Compared achievement of **primary care process measures** in the year pre- and post MOD enrollment, defined by objective measures,* using McNemar's chi-squared tests
2) Determined the proportion of MOD patients diagnosed** with hypertension (HTN), diabetes mellitus (DM), dyslipidemia, and hepatitis C (HCV) who received counseling and/or pharmacologic intervention for diagnoses in the year post enrollment

Annual metrics assessing primary care for the entire clinic population – including MOD and all other patients with HIV in conventionally organized care - during the same period were obtained for reference.

*Lipids, hemoglobin A1c/plasma glucose, hepatitis C (HCV) antibody and/or RNA, blood pressure (BP), HIV viral suppression, and flu vaccination

**All diagnoses were determined by CFAR Network of Integrated Clinical Systems-validated definitions[1] and confirmed with individual chart review.

RESULTS

Table 1. Characteristics of patients enrolled in MOD (n=462)

	n (%)
Age at enrollment (mean ± SD)	42 (±12)
Gender	
Male	395 (85%)
Female	61 (13%)
Transgender	6 (1%)
Ethnicity	
Hispanic or Latino/a	65 (14%)
Non-Hispanic or Non-Latino/a	329 (71%)
Unknown or declined	68 (15%)
Race	
White	281 (61%)
Black or African American	132 (29%)
Asian	11 (2%)
American Indian	20 (4%)
Native Hawaiian or other Pacific Islander	11 (2%)
Multiracial	3 (1%)
Unknown or declined	4 (1%)

Enrollment in a low barrier HIV primary care model was associated with improved primary care screening, comorbidity care, and viral suppression.

RESULTS CONT.

Table 2. Proportion of MOD patients who achieved screening measures in the 12 months pre-enrollment and 12 months post-enrollment (N = 462)

	Annual Metrics for Total Clinic Population (2019-2024)	12 months pre-enrollment n (%)	12 months post-enrollment n (%)	p-value[a]
Lipid Panel	54% - 62%	145 (31%)	218 (47%)	<.0001
Diabetes Screening	39% - 53%	125 (27%)	228 (49%)	<.0001
HCV Screening	31% - 36%	188 (41%)	274 (59%)	<.0001
BP measurement	89% - 99%	345 (75%)	450 (97%)	<.0001
Cervical cancer screening up to date (N = 58 eligible)	----[c]	20 (34%)	35 (60%)	0.005
Influenza vaccination	43% - 49%	128 (28%)	216 (47%)	<.0001
Viral suppression[b]	83% - 90%	269 (58%)	385 (83%)	<.0001

[a]p-values are adjusted for multiple comparisons with the Bonferroni correction.
[b]At least HIV-1 RNA <200 copies/mL at any point during the time period
[c]Clinic metrics for cervical cancer screening were not tracked in this time period

Table 3. Proportion of MOD patients with comorbid conditions and intervention prescribed or performed in the post-enrollment period (N = 462)

	n (%)	Any Intervention	Pharmacologic	Lifestyle Modification
Hypertension	104 (23%)	80 (77%)	77 (74%)	25 (24%)
DM	27 (6%)	23 (85%)	19 (70%)	18 (67%)
Dyslipidemia	53 (11%)	13 (25%)	10 (19%)	6 (11%)
Hepatitis C	47 (10%)	9 (19%)	9 (19%)	--------

DISCUSSION

- For all evaluated primary care measures, there was a statistically significant increase in the proportion of patients who achieved the measure post-enrollment vs. pre-enrollment.
- For DM, HCV, and HTN, screening improved to the range of the overall clinic or better.
- Viral suppression increased from pre-enrollment to post-enrollment, which was not seen in previous analyses
- For HTN, DM, dyslipidemia, both pharmacologic and lifestyle interventions were broadly implemented among the patient population.
- **The role of integrating primary care into HIV care for PWH may be most important in those who are least likely to engage in care.**

CONCLUSIONS

Enrollment in MOD was associated with improved primary care screening and comorbidity care; for most metrics, in the year post-enrollment, screening levels were comparable to the conventional clinic. A walk-in HIV care model can improve primary care, in addition to VS, for PWH with incomplete care engagement.

A low-barrier, team-based, primary care approach can improve primary care for PWH with difficulties engaging in care.

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References

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