

Referral Source Matters: The Hepatitis C Cascade of Care for Traditional versus Emergency Department Referrals

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BACKGROUND

- Hepatitis C (HCV) is a known epidemic, with acute and chronic disease increasingly recognized.
- Universal HCV screening was recently suggested to have the biggest impact on Cascade of Care (CoC) improvement.¹
- Vanderbilt University Medical Center (VUMC) Emergency Department (ED) implemented opt-out universal screening December 2016.
- Evaluation of such screening models on the HCV CoC is needed to adequately assess the impact of universal screening programs.

Objective:

Compare **CoC completion rates** among patients referred for HCV treatment from:

Traditional sources:

Primary Care, Internist, Hospitalization, etc. September 2015 and July 2016

Emergency Department (ED) source:

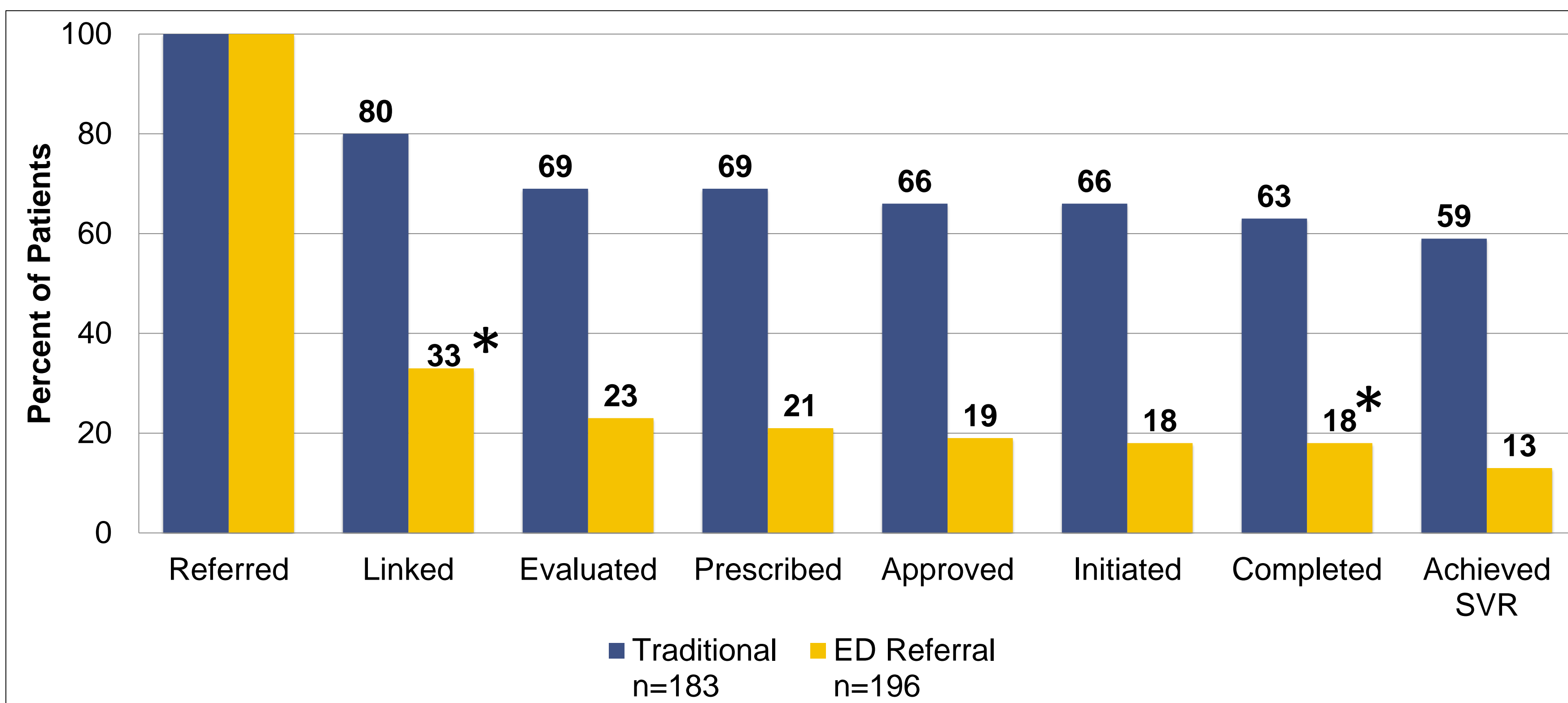
VUMC universal HCV screening program December 2016 and April 2018

METHODS

- Single-center, prospective cohort study
- Inclusion criteria: Diagnosis of chronic HCV with an appointment at the Vanderbilt University Medical Center (VUMC) Infectious Diseases (ID) Clinic
- Exclusion criteria: Treatment ongoing at the time of analysis
- Pearson chi-square tests were performed to compare baseline characteristics
- Binary logistic regression was used to test whether patients in traditional vs. ED referral differed in odds of completing linkage to care and completing HCV treatment
- Per protocol analysis: all patients starting treatment
- Intent-to-treat analysis: patients with sustained virologic response (SVR) results available 12+ weeks after treatment completion.

RESULTS

Figure 1: Cascade of Care by Referral Source



* Patients referred from the ED had significantly lower odds of being linked to care (ExpB 0.119, p<0.001) as well as lower odds of completing treatment (ExpB 0.126, p<0.001)

Figure 2: Movement Through the Cascade of Care

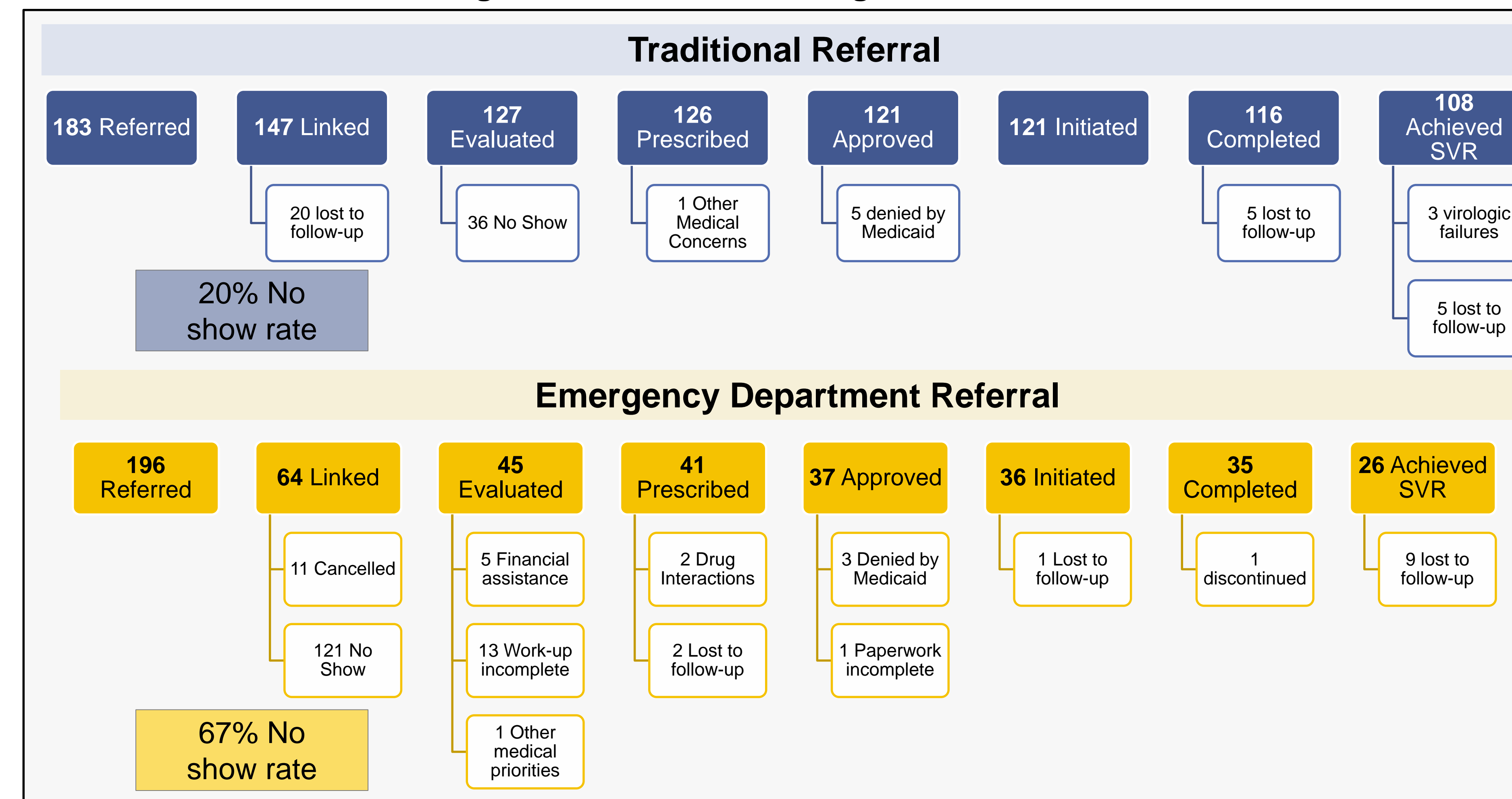
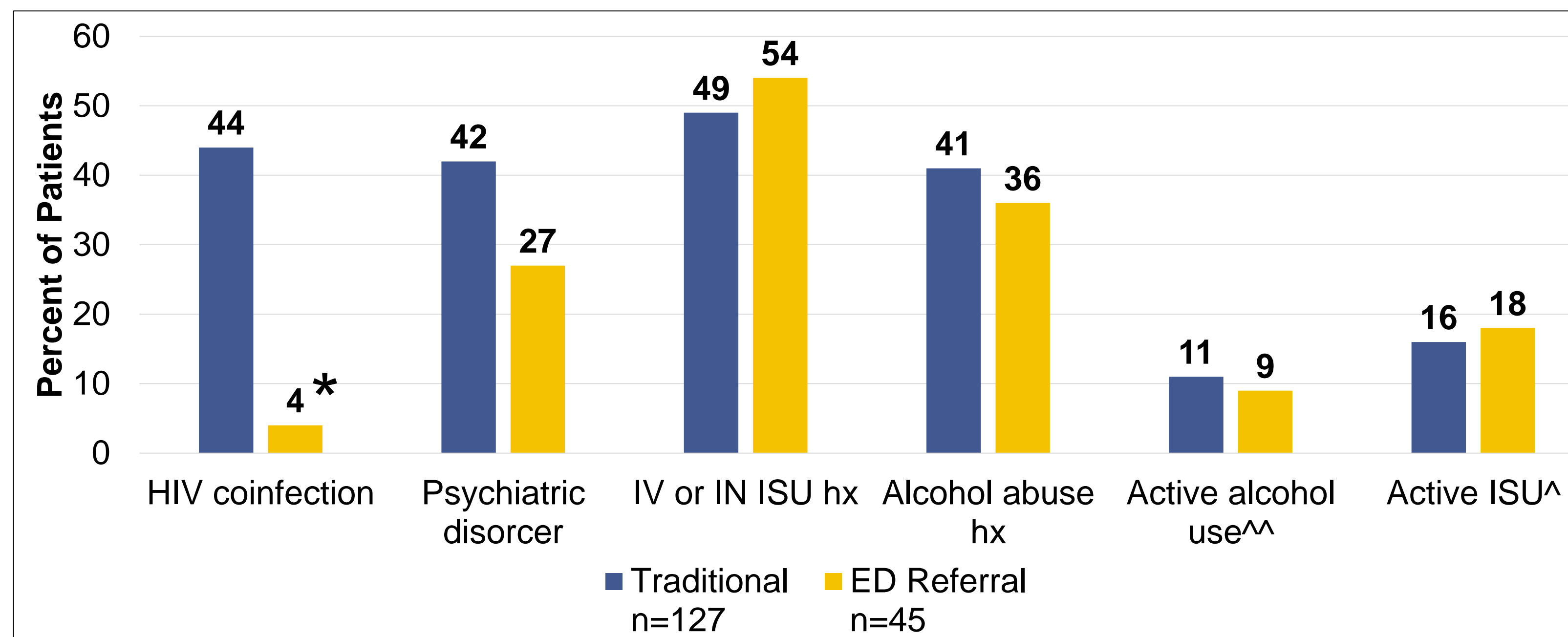


Table 1: Baseline Characteristics in Referred Patients

	Traditional n=183 n (%)	ED n=196 n (%)	p-value
Age (mean ±SD)	48±13	54±11	
Baby Boomer	96 (52)	78 (40)	0.013
Male	113 (62)	110 (56)	0.266
White	130 (71)	156 (80)	0.052
Insurance Type			<0.0001
Medicare	38 (21)	40 (20)	
Medicaid	56 (31)	70 (36)	
Commercial	70 (38)	24 (12)	
Uninsured	11 (6)	54 (28)	
Other	8 (4)	8 (4)	

Figure 3: Baseline Characteristics in Evaluated Patients



* HIV coinfection differed between patient referral sources (p<0.001)

^Use within 3 months of evaluation; ^^>5 drinks on most days of the week; HIV= Human Immunodeficiency Virus, IV=intravenous, IN= intranasal; ISU= illicit substance use; hx= history; IVDU= Intravenous drug use

Table 2: Treatment Completion and SVR Among Patients who Initiated Treatment

	Traditional, n=121	ED Referral, n=36
Completion Rate	96%	97%
SVR12 (all patients)	89%	72%
SVR12 (SVR data available)	97%	100%

CONCLUSIONS

- Patient characteristics and demographics may vary among referral sources for HCV treatment.
- Patients referred from our ED universal screening program are less likely to subsequently be linked and engaged in HCV care
- Universal screening initiatives should include resources to address linkage to care.

DISCLOSURES AND REFERENCES

Disclosures: Cody Chastain, Jakea Johnson, and Karen Miller: research support- Gilead Sciences, Inc.; Autumn Zuckerman: research support- Gilead Sciences, Inc., Sanofi Inc.

- References:
- Chhatwal J, et al. Changing Cascade of Care for Hepatitis C in the Era of Direct-Acting Antivirals. AASLD 2018.
 - Zuckerman A, et al. PLOS One. 13(6): e0199174. <https://doi.org/10.1371/journal.pone.0199174>.