

How do we keep patients in long term care?

Factors associated with patients' return to care after a gap in treatment.

INTRODUCTION

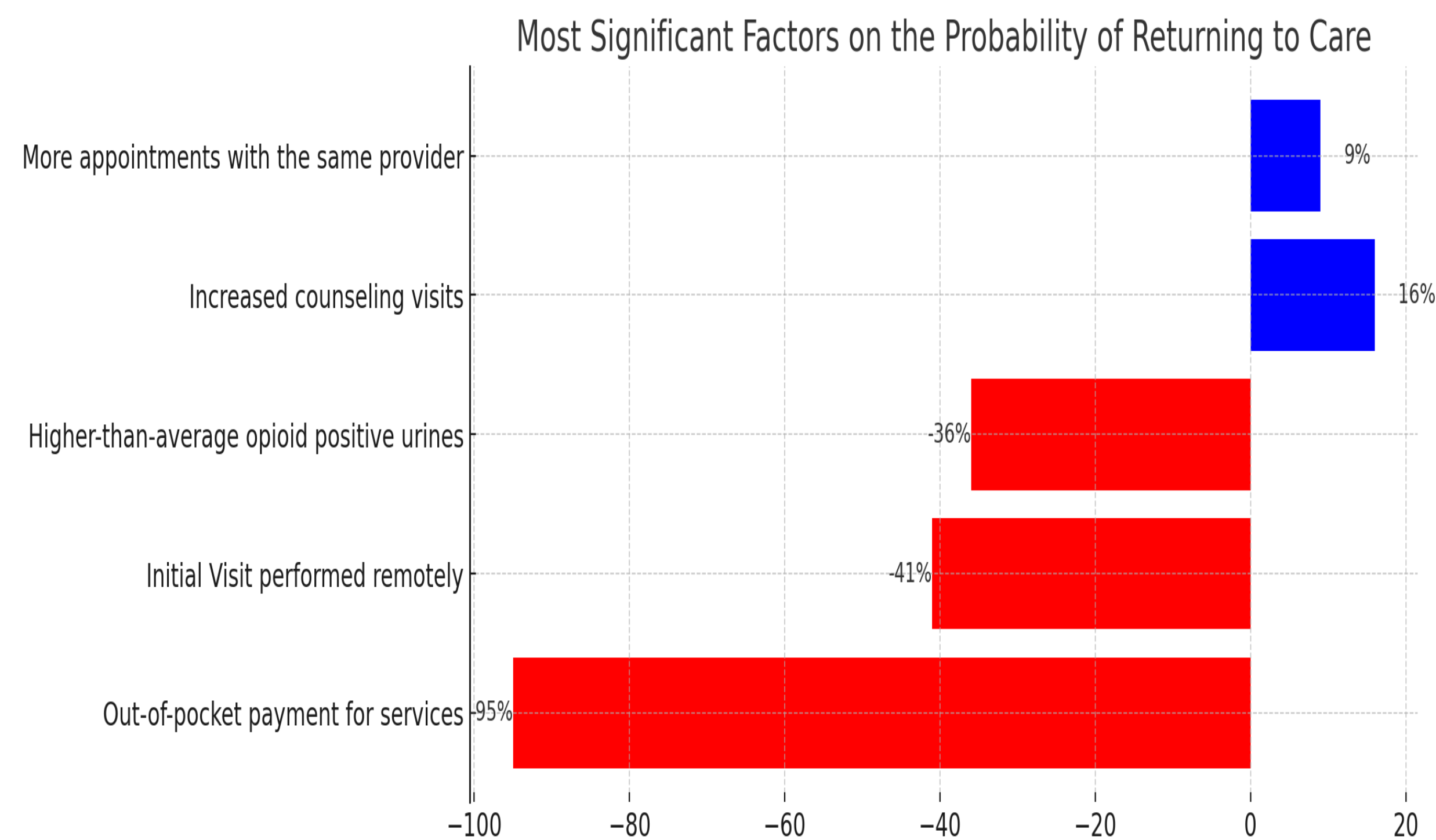
- Remaining in MOUD treatment is linked to improved outcomes and reduced substance misuse, as well as lower morbidity and mortality rates (Bart, 2012).
- However, less than half of patients who initiate MOUD treatment stay in care for six months or longer
- Few interventions have been effective at increasing MOUD retention rates, with departures from care often due to factors related to the patient's condition or external circumstances (Chan et al., 2021; Kennedy et al., 2021).

METHODS

- Design: cohort study
- Sample: All patients initiating MOUD treatment at one of 72 CleanSlate clinics from 7/31/2021 to 7/31/2022.
- Outcome: Patients who departed care (defined as no medical visits \geq 90 days) who subsequently returned to care prior to 7/31/2023.
- We utilized a repeated cross-validation XGBoost logistic model with Bayesian hyperparameter optimization to discern factors influencing patients' return to care.
- Shapley values were calculated to determine each feature's unique impact on the predicted outcome, highlighting the most significant contributors.

RESULTS

- 13,402 patients initiated MOUD treatment at Cleanslate centers from 7/31/21 to 7/31/22.
- 52% (7,094/13,402) of new patients departed care during the study period.
- 12% of those who departed (851/7094) returned to care prior to 7/31/2023.
- The average age was 39 (sd=10), 37% were female, 4% Hispanic, and 70% of patients received Medicaid.
- Factors associated with return to care after a departure included having a higher-than-average number of counseling visits and patient having more clinic visits with their primary provider (blue).
- Factors increasing the likelihood of not returning to care after a departure (red) initial visit performed remotely, higher than average number of opioid-positive urine tests, and self-payment for services.



CONCLUSION

- Longer treatment retention is linked to better outcomes for SUD patients, but care disruptions and premature treatment termination are significant obstacles
- The association of a relationship with a primary provider and increased counseling visits with return to care after a departure highlights the benefits of providing personalized, patient centered care
- Advanced machine learning models offer a more nuanced control of variables, helping pinpoint factors associated with return to treatment and can guide targeted interventions for enhanced retention (Carter., 2023, ASAM, 2023, NIDA, 2023).

AUTHORS & DISCLOSURES

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