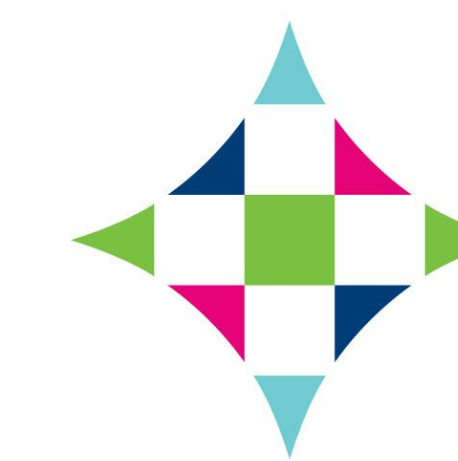




Quality Improvement Project: Treating FQHC Refugee Patients With Latent Tuberculosis At An Infectious Disease Clinic

Jack Spero OMSIII, Stephanie Deuley, DO, Kallie Poon, Sharon Casapulla, EdD, MPH, and Andrew Markus. Ohio University Heritage College of Osteopathic Medicine and Neighborhood Family Practice, Cleveland, Ohio, USA.



Introduction

- Approximately 70% of TB cases in the U.S. in 2019 occurred in non-U.S.-born people. It is important to identify and treat people with latent tuberculosis infection (LTBI), especially amongst recent newcomers to the U.S., to regulate and eradicate TB disease in the U.S.¹
- Barriers to LTBI treatment include healthcare access limitations (long wait times, inconvenient clinic hours), financial obstacles (treatment costs, insurance concerns), and personal factors (fear of side effects, symptom absence, misinformation, and stigma). Treatment adherence challenges involve regimen complexity, medication side effects, refill difficulties, frequent follow-up requirements, and cost barriers, significantly impacting TB control.¹
- At Neighborhood Family Practice (NFP), only 31.3% of patients positive for LTBI completed treatment upon first chart review, risking active tuberculosis disease and spread.
- This quality improvement project aims to identify barriers to LTBI treatment completion and analyze key factors influencing completion rates at NFP to develop effective interventions.

Methods

- Two retrospective chart review cycles of 166 recent U.S. refugees at NFP who screened positive on Quantiferon Gold Test between October 1, 2023 to October 1, 2024.
- Charts were analyzed for demographic data (age group, language), clinical variables (primary care provider assignment, Quantiferon result, referral status), treatment metrics (appointment attendance, treatment initiation, regimen selection, completion status), and documentation of LTBI in problem lists at 2 separate occasions first in October 2024 (Cycle 1) and second in March 2025 (Cycle 2).
- De-identified data was statistically analyzed using Chi-Square tests to examine relationships between these variables and treatment outcomes.



Figure 1. Neighborhood Family Practice.

This FQHC in Cleveland, Ohio, USA serves diverse populations including incoming refugees to Northeast Ohio.

Results

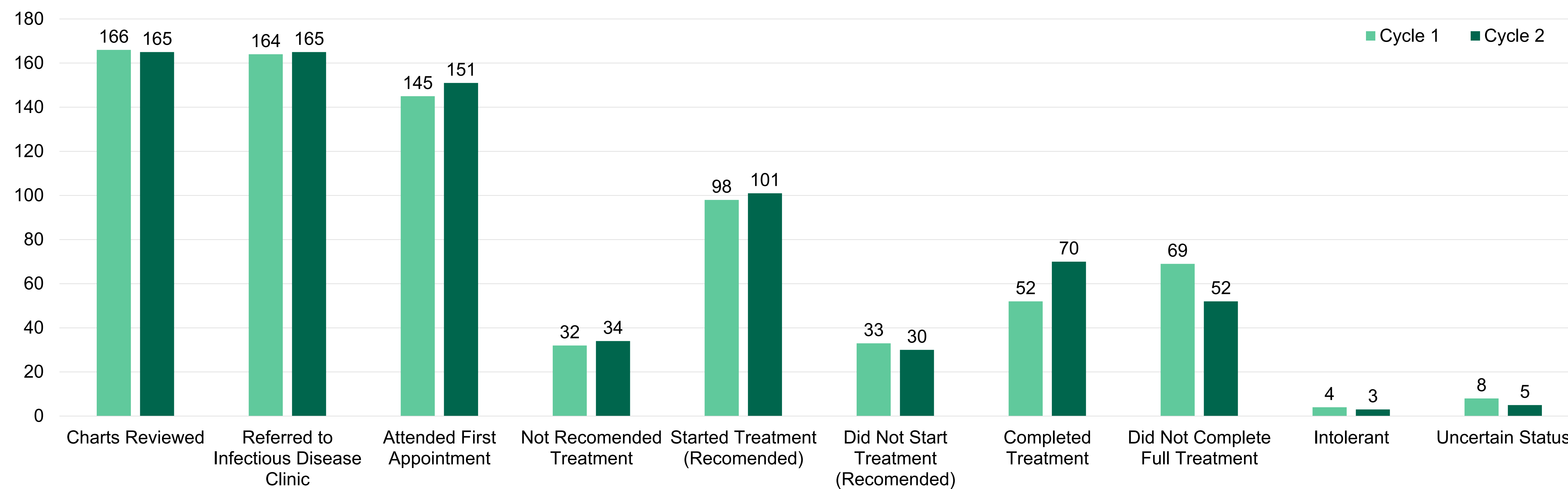


Figure 2. NFP LTBI Patient Treatment Outcomes.

- Cycle 1: 87.3% attended first appointment, 59% started treatment, and 31.3% completed treatment.
- Cycle 2: 91.5% attended first appointment, 61.2% started treatment, and 42.4% completed treatment.

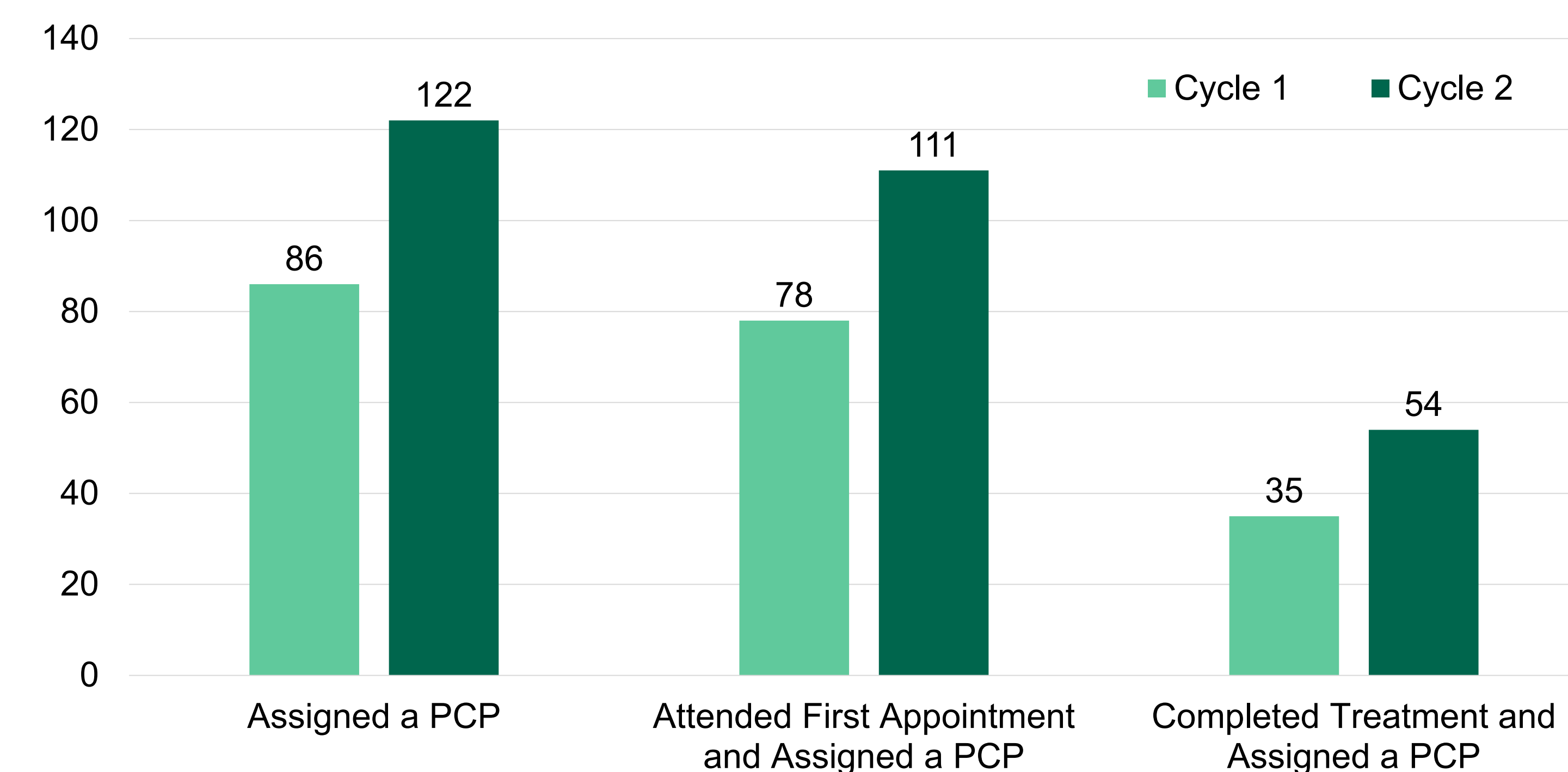


Figure 3. The Relationship Between PCP Status, Follow Up, And Treatment Completion.

PCP status was significantly associated with LTBI treatment completion on cycle 2 with $p=0.008$. It was approaching significance on cycle 1 with $p=0.054$.

Discussion

- The high first appointment attendance rate suggests that transportation barriers, frequently cited in literature as a major obstacle to LTBI care, may not be as significant for the NFP patient population in this study.¹
- The data revealed consistent referral patterns to the infectious disease clinic, indicating that the referral process itself is not a primary factor limiting LTBI treatment completion at NFP.
- There was positive association between having an assigned PCP and successful LTBI treatment completion, suggesting continuity of care may be an important factor in improving outcomes.

Conclusion

- Implementing a protocol to assign all LTBI-positive patients to a dedicated primary care provider could enhance treatment adherence through improved continuity of care, systematic follow-up, and integrated management of infectious disease treatment within the primary care setting.

References

- LATENT TUBERCULOSIS INFECTION: A GUIDE for PRIMARY HEALTH CARE PROVIDERS. <https://www.cdc.gov/tb/media/pdfs/Latent-TB-Infection-A-Guide-for-Primary-Health-Care-Providers.pdf>

Acknowledgements

- Special thanks to Abhishek Wajpe, MPH, Robert Bales, DO, and Amy Zack, DO.