



Integration of Student Pharmacists into an Ambulatory Care Setting to Evaluate COPD Symptom Control and Inhaler Technique



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Background

COPD

- COPD (Chronic Obstructive Pulmonary Disease) is a progressive, irreversible pulmonary condition¹
- Affects **6.0% of the population**²
- 5-year prognosis upon hospital discharge after a COPD exacerbation:
 - Rehospitalization risk of **44%**
 - Mortality rate of **55%**³
- In the U.S., nonadherence in patients with COPD or asthma to inhalers is **23.4%**

Rural Veterans

- 25%** of Veterans are diagnosed with COPD, and in rural areas these rates are even higher⁴
- 33%** of Veterans are classified as rural⁵

Purpose & Aims

Purpose

Incorporate third-year student pharmacists into a pharmacist-led primary care clinic to assist in the care of Veterans with COPD. The students perform tasks such as assessing adherence, verifying inhaler technique, and analyzing symptom control to make recommendations that optimize therapy.

Aims

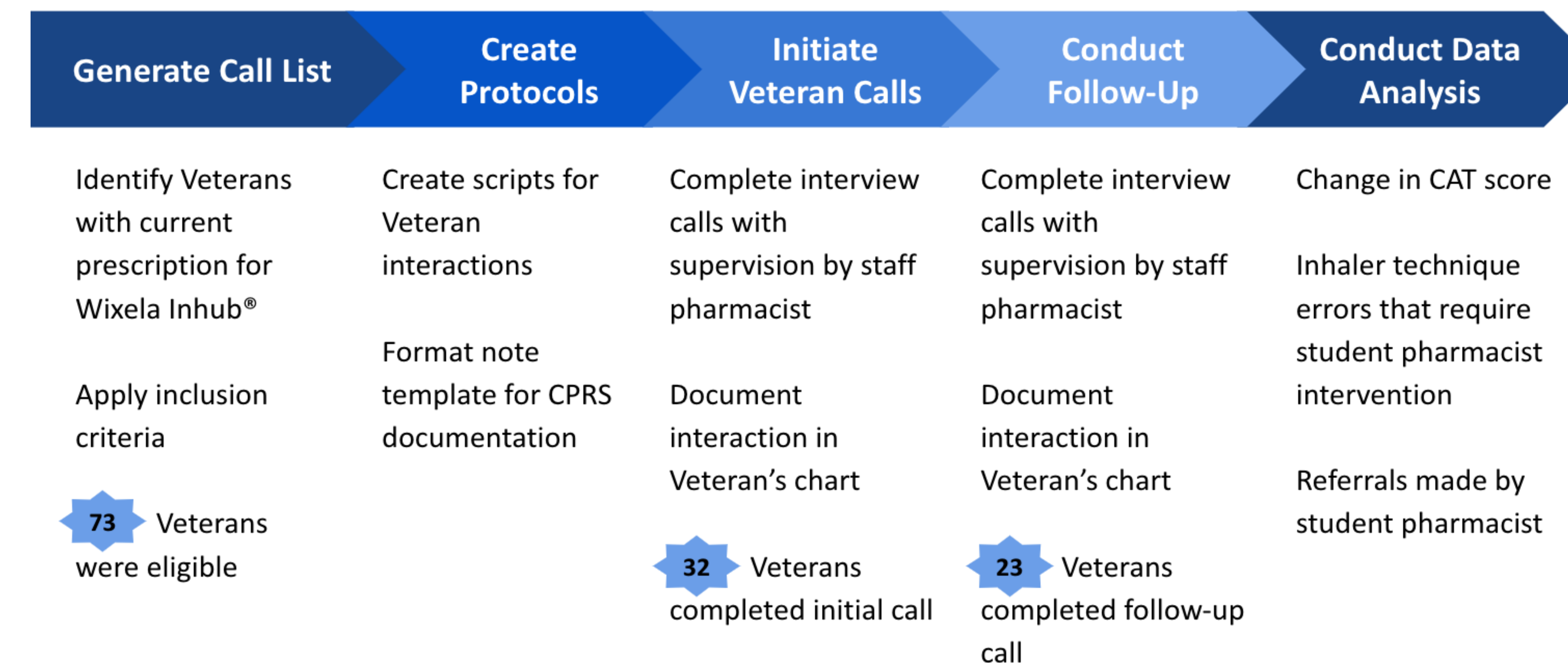
Evaluate the integration of student pharmacists into VA primary care clinics.

Design an intervention protocol to deliver COPD best practices.

Analyze the impact of student pharmacists' interventions.

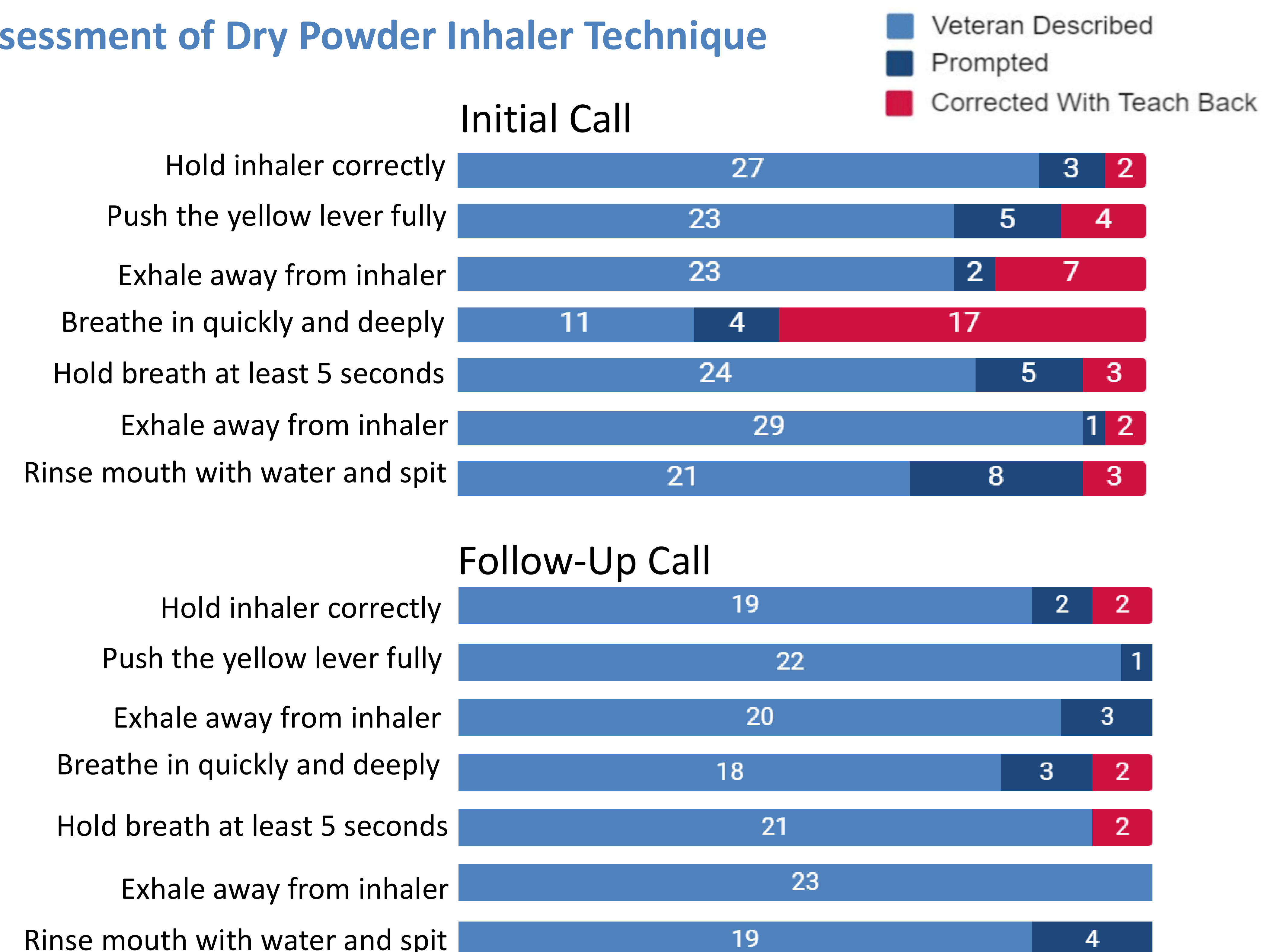
Methods

Student-Led Veteran Call Process

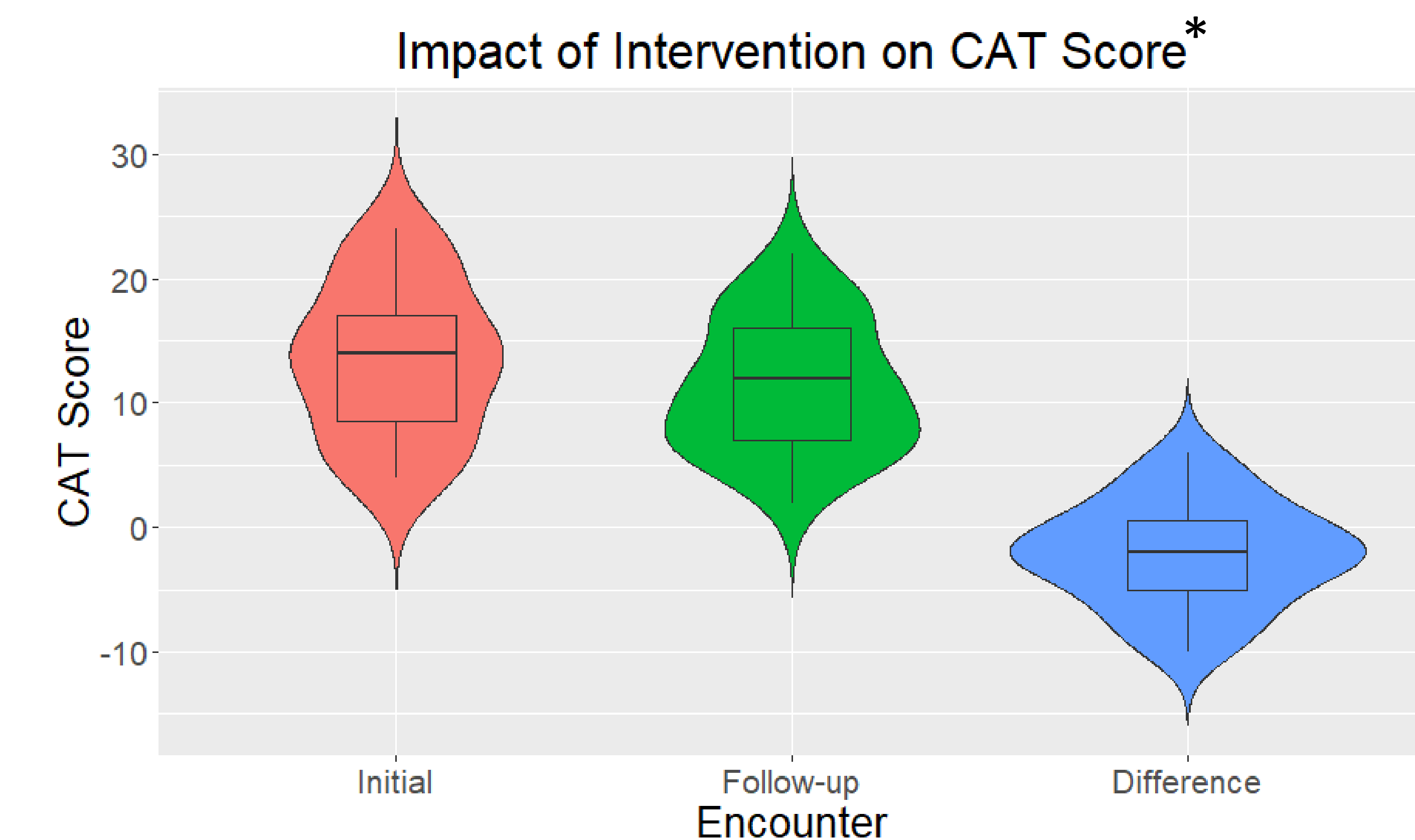


Results

Assessment of Dry Powder Inhaler Technique



Results cont.



*COPD Assessment Test (CAT) measures COPD symptom severity (cough, phlegm, chest tightness, shortness of breath, home limitations, confidence leaving the home, sleep, and energy levels) using a summed 0-5 scale.

- 68.8% of Veterans called were classified as rural
- During the initial call, 50% of Veterans reported perfect adherence, but this increased to 65.2% at the follow-up call
- 69% of Veterans had at least one inhaler technique error in the initial call, which was reduced to 17% in the follow-up call
- Referrals included: Aerobika Device (3), Tobacco Cessation (1), Other (1)

Conclusions

Based on the results from our inhaler technique analysis and average CAT Score difference of -2.13 , we conclude that student pharmacist-led interventions had a **clinically meaningful difference** for the involved Veterans and their COPD control.

Acknowledgements & References

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References can be found using the QR code to the right. Thank you!

