

# Home Sharps Disposal Project

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## Background

- Medical facilities have processes in place to ensure safe sharps disposal within these facilities; however, there are no Federal regulations for home sharps disposal.
- Patients who regularly use sharps in their home may not know or follow state laws regarding safe disposal.
- Our initial survey, distributed from 30 January 2017 through 31 March 2017, found that around 50% of Diabetes Center of Excellence (DCOE) patients did not safely and properly dispose of sharps at home.
- Nearly 30% threw sharps away in the trash without a container; this is a dangerous practice (Costello & Parikh, 2013; Gold & Schumann, 2007).

## Purpose

The goal of this process improvement project was to create a pharmacy intervention at Lackland AFB to instruct and inform patients about proper home sharps disposal.

## Method

- An intervention to address improper home sharps disposal was developed in conjunction with the DCOE and the Lackland Pharmacy to instruct and inform patients about proper sharps disposal.
- DCOE repeated the survey from 5 November 2018 through 15 February 2019 (Figure 1).

Date \_\_\_\_\_

Gender:    Male    Female

Age \_\_\_\_\_

Type of diabetes:    Type 1    Type 2    Other

Age at Diagnosis: \_\_\_\_\_

Has a healthcare provider ever instructed you on disposal of sharps (lancets and/or needles)?

   YES    NO

How do you dispose of lancets (pokors)?

\_\_\_\_\_

\_\_\_\_\_

Are you on therapy requiring needles?    YES    NO

If not, please STOP.

How do you dispose of your needles?

\_\_\_\_\_

\_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

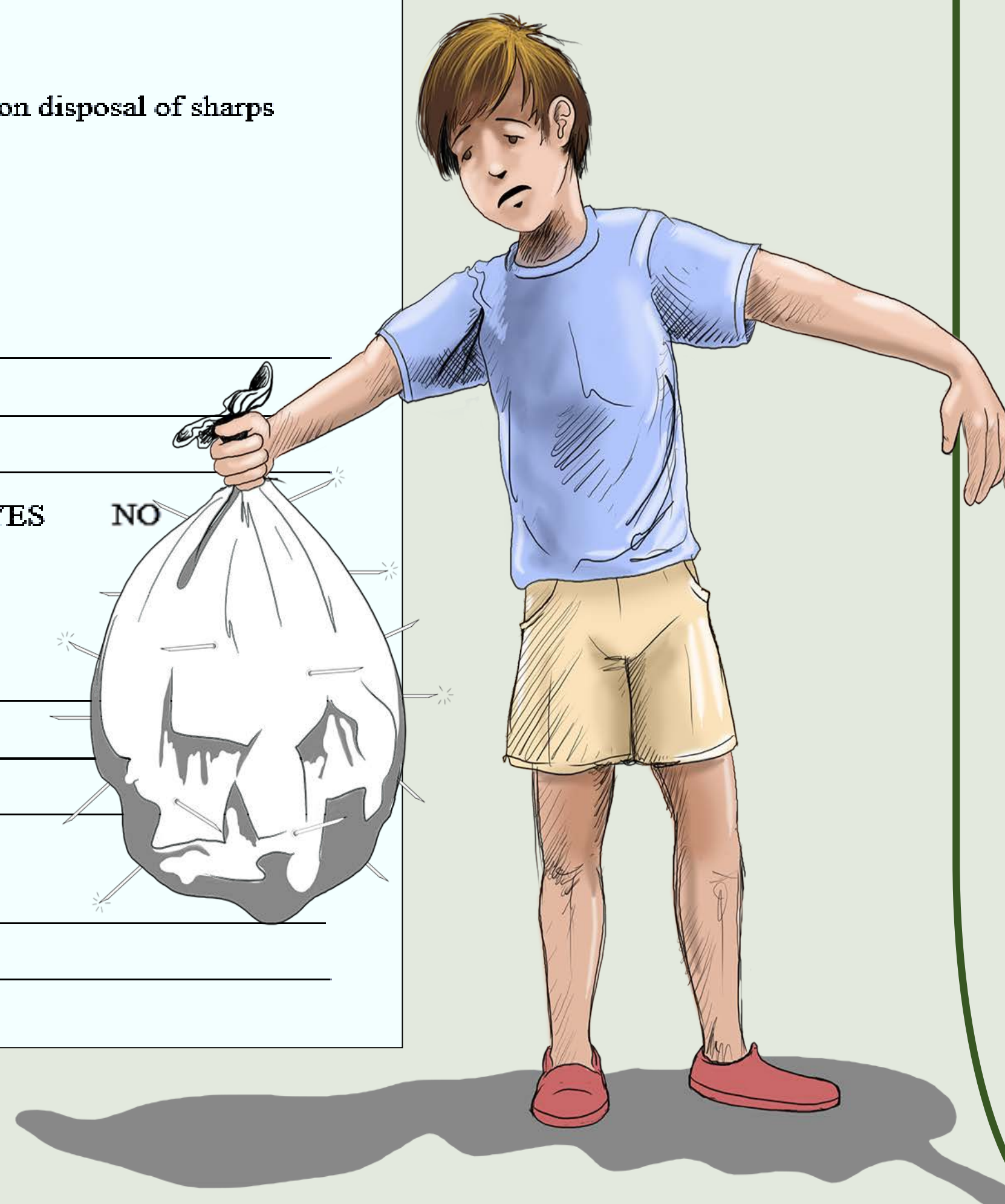


Figure 1. Sharps Disposal Survey

- When sharps (needles or lancets) or insulin were distributed in the Lackland pharmacy system, the pharmacist placed 1) a sticker on the bag containing information about sharps disposal and 2) a sticker for an approved container inside each bag (Figure 2).



Figure 2. Sharps Stickers

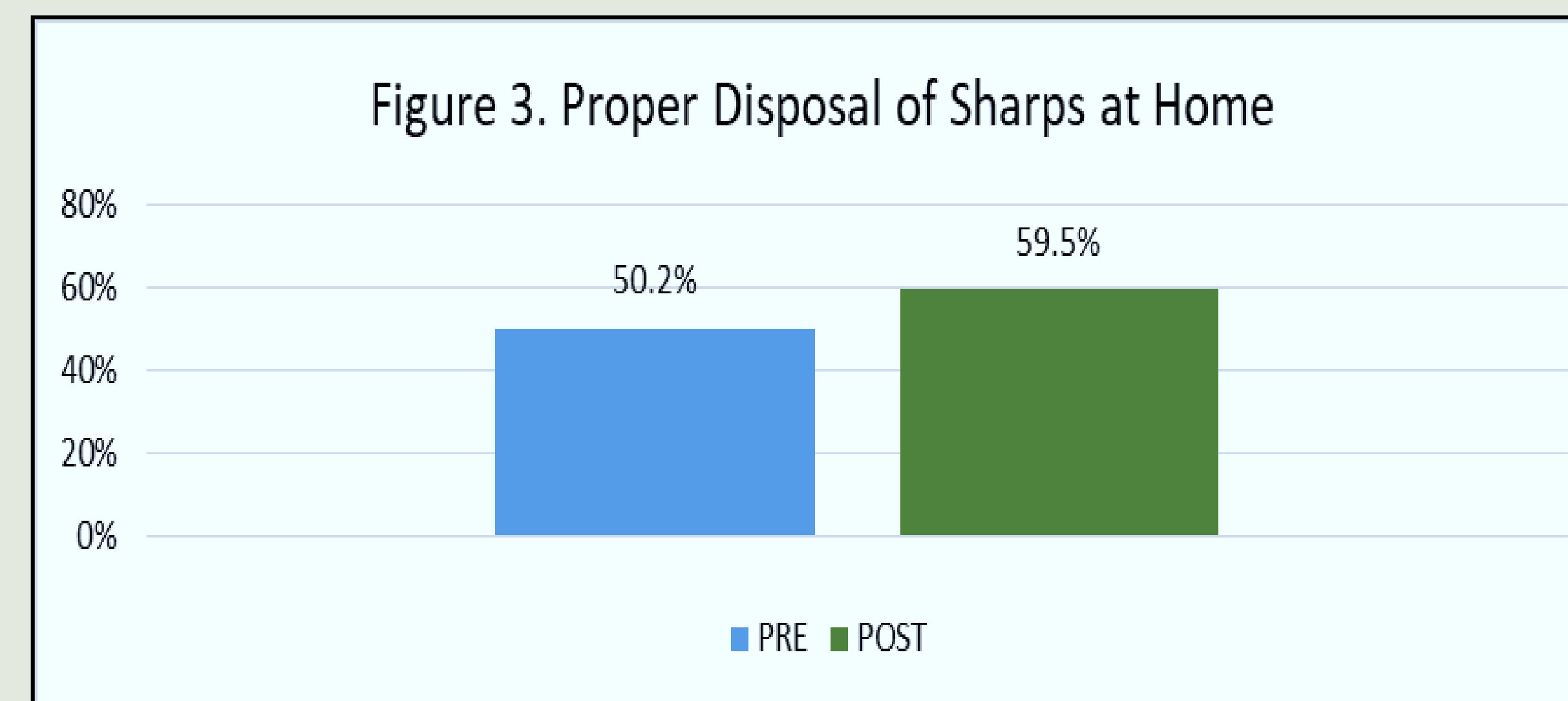
## Results

- The DCOE surveyed 256 patients prior to the intervention and 262 patients after the intervention. Patient demographics are shown in Table 1.

Table 1. Patient Demographics

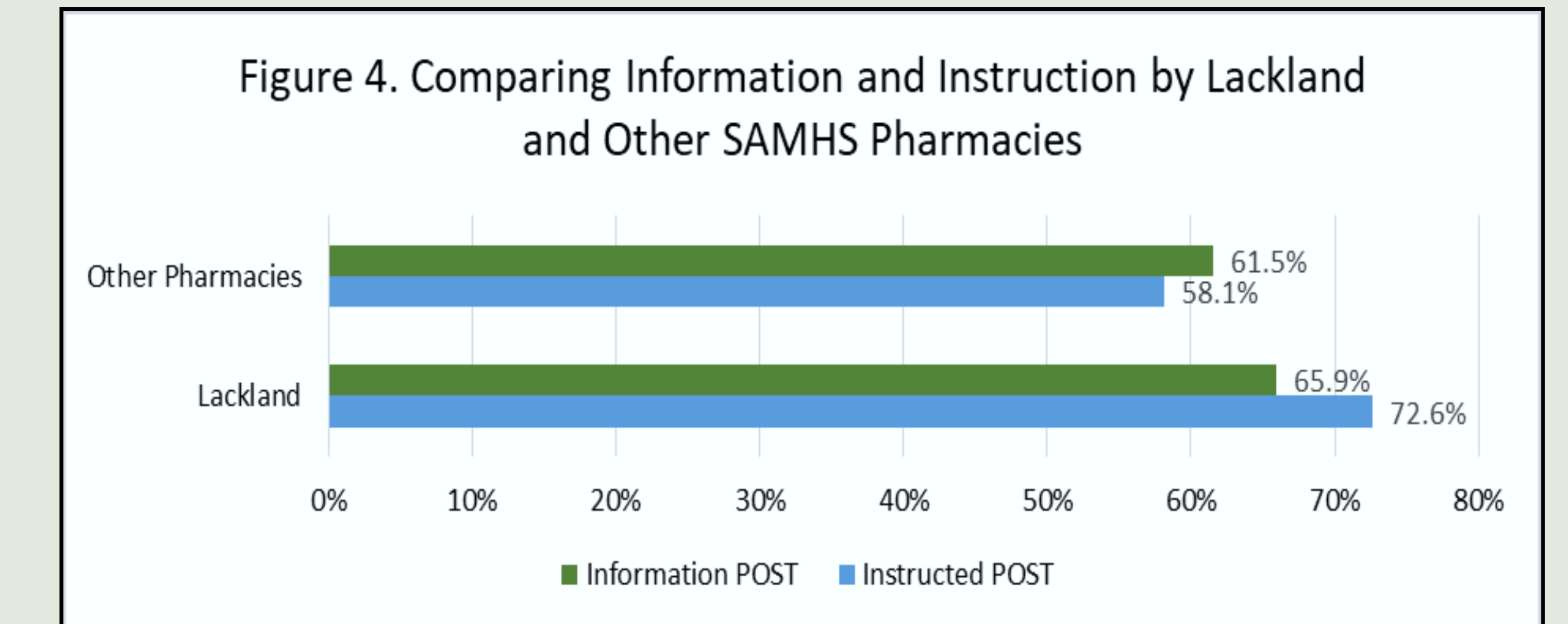
	PRE (n=249)	POST (n=252)
Mean Age	56.29	53.55
Female	48.2%	42.0%
Male	51.8%	58.0%
Type 1	26.1%	27.0%
Type 2	73.1%	65.9%

- Proper home sharps disposal improved by 9.3% from baseline (50.2%) to post intervention (59.5%) (Figure 3).



- Those who reported being instructed on safe sharps disposal were significantly more likely to properly dispose of sharps at home ( $p < 0.001$ ) regardless of where they received the instruction.

- Significantly more patients at Lackland (72.6%) reported being instructed on how to properly dispose of sharps compared to other San Antonio Military Health System (SAMHS) pharmacies (58.1%) that did not participate in the intervention ( $p = 0.02$ ) (Figure 4).



## Limitation

- Since all patients surveyed received diabetes care at the DCOE, it is possible that they received information and/or instruction about home sharps disposal from DCOE staff.

## Discussion

- While we saw an increase in proper home sharps disposal from 2017 to 2019, we cannot say that our intervention was the reason for this change.
- Rather, instruction on proper sharps disposal, regardless of pharmacy, was significantly associated with safe disposal.



## References

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Costello, J., & Parikh, A. (2013). The sticking point: Diabetic sharps disposal practices in the community. *Journal of General Internal Medicine*, 28(7), 868-869.

Gold, K., & Schumann, J. (2007). Dangers of used sharps in household trash: Implications for home care. *Home Healthcare Now*, 25(9), 602-607.

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