

## Background

- Despite the existence of medical waste disposal sites, many patients do not know how to discard their unused and expired medications.
- This results in:
  - 1) Improper, environmentally harmful (2,3,7) disposal routes including: the kitchen sink, toilet and the garbage (1).
  - 2) A heightened potential for abuse/misuse of medication
- Studies suggest that there is a role for patient education about proper disposal of unused and expired medications.
  - a. **Less than 20%** of households are counseled on medication disposal by a healthcare provider.
  - b. Those that are counseled are more likely to return medications to a pharmacy (5).
- The Multnomah County Health Department and other local healthcare organizations have introduced medical disposal containers in clinics and pharmacies (6).
- However, both patient and physician awareness about these new disposal boxes is low.
- Our project aims to increase provider knowledge regarding proper medical disposal of unused and expired medications.

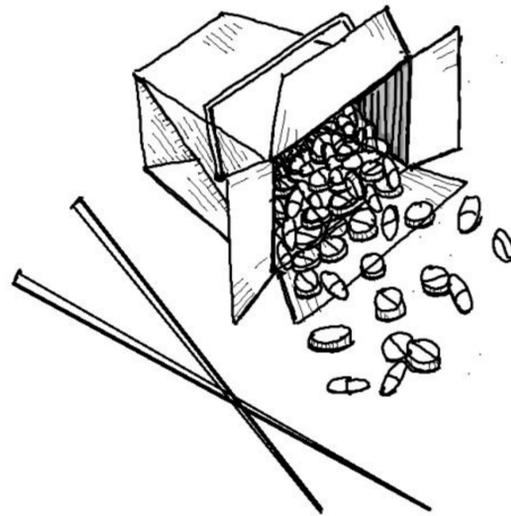
## Objectives

- To assess health care providers' knowledge regarding proper medication disposal (PMD)
- To measure the effectiveness of a brief provider informational intervention regarding proper medical disposal.

## Methods

- A brief 2-minute PMD presentation was delivered to two Multnomah County Clinics during their all-staff meetings.
- One of the clinics (Clinic A) had an existing medication disposal box, while the other one (Clinic B) did not.
- Changes in knowledge were evaluated using anonymously administered pre- and post-surveys.
- Surveys were analyzed by determining health care providers' increase in knowledge of proper medication disposal post-intervention.
- Clinic staff members who attended the meetings were given a flyer designed by project team members which summarized the information presented and provided a list of nearby medication disposal locations.

## WHAT WILL YOU DO WITH YOUR LEFTOVERS??



## Results

- A total of 55 healthcare providers (Clinic A n = 28, Clinic B n = 25) received the PMD presentation.
- 52 (95%) completed the pre and post surveys.
- Pre-intervention knowledge of PMD was higher in East County where there was an existing medication disposal box (92% accuracy) compared to Southeast County which did not have a medical disposal bin (52% accuracy).
- Surveys results showed improvement in 36% of Clinic A participants and 14.3% of Clinic B. (p value = 0.0086)

	Clinic A (n=25)	Clinic B (n=28)
<b>Presurvey Yes</b>	13	24
<b>Postsurvey Yes</b>	21	28
<b>% Knowledge Improved</b>	0.36	0.14
<b>p-value</b>	0.0086	

## Discussion

- The pre-intervention knowledge regarding proper medication disposal was higher in the clinic which had a medication disposal bin.
- Based on this finding, we can conclude that the presence of a medication disposal bin is positively correlated with provider knowledge regarding proper medication disposal.

## Limitations

- Small sample size and the results may not be generalizable.
- Unable to evaluate long-term retention of knowledge due to close timing of pre- and post- surveys.

## Conclusions

These findings may be used to encourage the institution of medication disposal bins in more health centers and an increase in medical staff knowledge of the practice.

## Acknowledgements

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## References

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