
Posters and Presentations: Family Medicine

Family Medicine

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Lead me to Lead Screening: Improving Lead Screening Rates at Urban, High-Risk Family Medicine Clinics

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Lead me to lead screening: Improving Lead Screening Rates at Urban, High Risk Family Medicine Clinics

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Background/Introduction

- Downtown Omaha was home to a lead refinery for over 125 years.
- Lead particles from here have been deposited in the soil surrounding the facility creating much of Omaha into the largest lead Superfund site.
- Our family medicine clinic has approximately 328 pediatric patients from 1-7 years old who are at higher risk of lead toxicity.
- Our clinic has been working to increase lead screening through in clinic screening options. Our percent of lead screening has improved since implementing educational sessions/material and pre-reviewing clinic charts for eligible screening patients that are scheduled for the day.

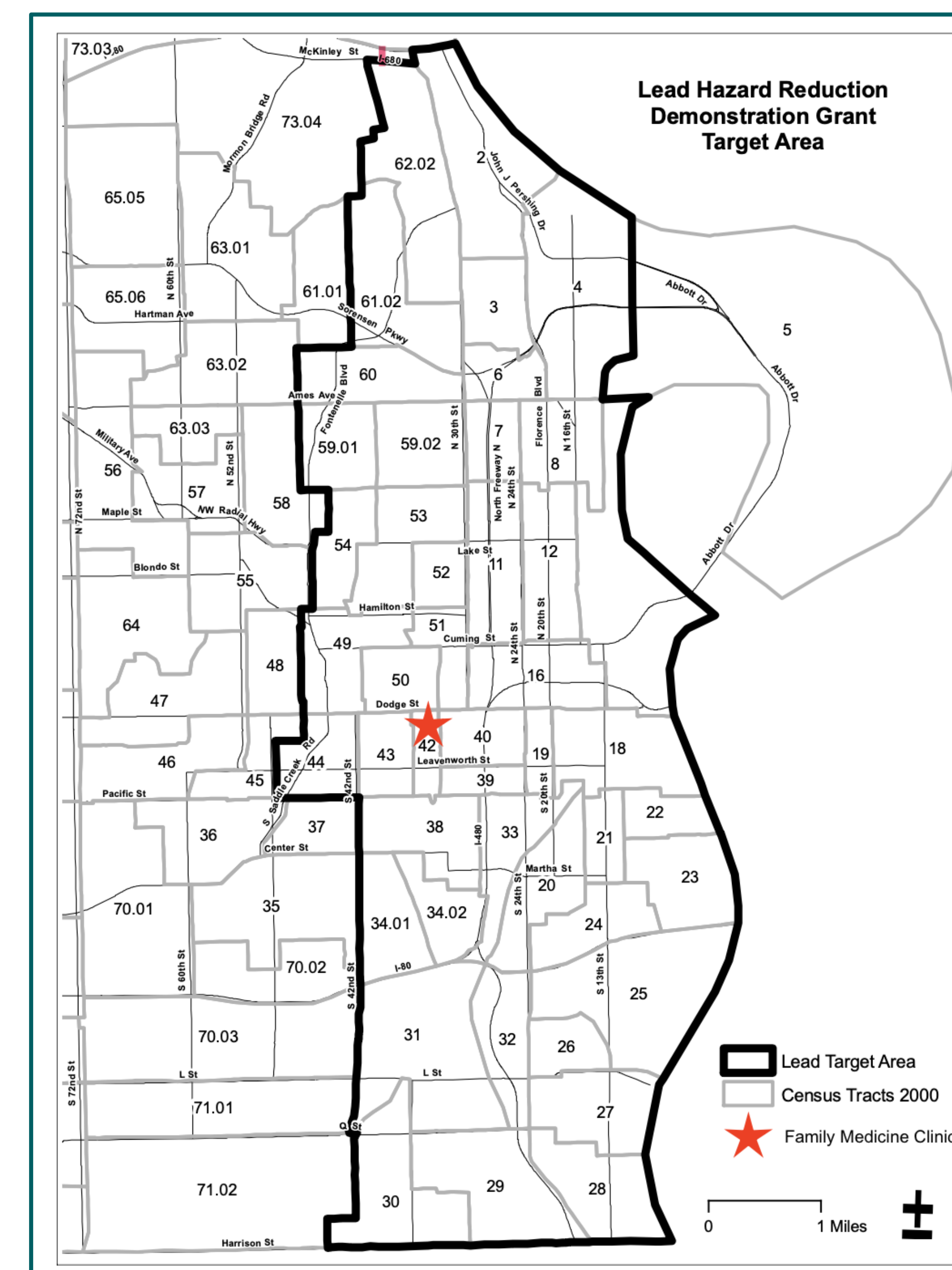
Objective/Purpose

- Understand criteria for lead screening in pediatric population
- Have increased availability for lead screening in family medicine clinics
- Improve lead screening completion through staff education and pre-reviewing charts.

Methods

- Staff was trained on capillary blood draw procedure and equipment to complete lead screening in clinic was obtained for the clinic.
- Staff was educated on lead screening recommendations along with Omaha's Superfund site status.
- Visual reminders were placed in provider workrooms to encourage proper lead screening and if eligible for lead screening was noted on their visit notes.
- Completed lead screening tests for pediatric patients age 1-7 years were measured before and after the above methods were put in place.

High Risk Lead Zone in Omaha, Nebraska

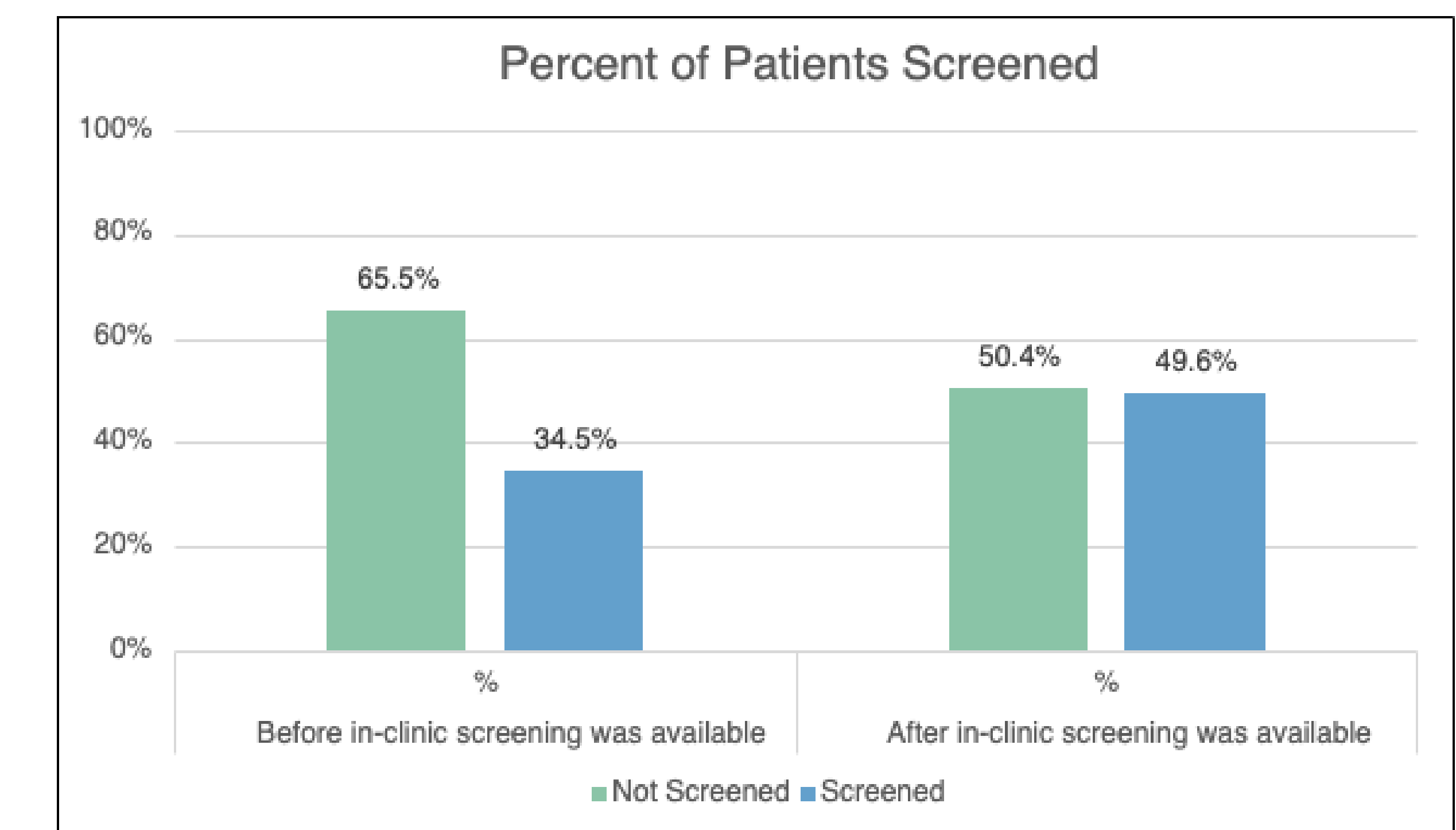


Demographics/Results

	Before in-clinic screening was available		After interventions were initiated		p-value
	#	%	#	%	
Gender					
Female	18	46.2%	59	43.7%	0.074
Male	21	53.8%	76	56.3%	
Ethnicity					
Hispanic or Latino	5	12.8%	34	25.2%	0.103
Not Hispanic or Latino	34	87.2%	101	74.8%	
Race					
Asian	0	0.0%	1	0.7%	N/A
Black or African American	13	33.3%	6	4.4%	
Other	3	7.7%	32	23.7%	
Unknown	0	0.0%	15	11.1%	
White or Caucasian	23	59.0%	81	60.0%	
Did the patient have a positive lead screen (>=3.5)?					
No	39	100.0%	118	88.1%	0.024
Yes	0	0.0%	16	11.9%	
	Mean	SD	Mean	SD	
Age (Years)	3.4	1.9	2.9	1.9	0.181

The before and after groups are statistically equal in terms of sex and ethnicity. The average age of the before group is significantly older (mean=3.4 years, SD=1.9) than that of the "after" group (mean=2.6 years, SD=1.8) (p=0.024). Participants are more likely to have a positive screen after in-clinic screening was available when compared to before in-clinic screening was available (p=0.024).

Results



Conclusions

- Eligible patients were more likely to be screened for lead after interventions were initiated (49.6% of eligible patients were screened) than they were before in-clinic screening became available (34.5% of eligible patients were screened) (p=0.006).
- Although a higher rate of patients were screened, a large amount were not screened in clinic. This could be due to numerous factors; one is a blood draw lab in hospital that many providers send patients to and availability of staff in clinic.
- It is important for Family Medicine providers to know their local health department recommendations.

References

- OMAHA LEAD | Superfund Site Profile | Superfund Site Information | US EPA. (n.d.). <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?useaction=second.Cleanup&id=0703481#bkgground>
- Douglas County Health Department. 2022. Lead Poisoning Prevention Program. <https://www.douglascountyhealth.com/lead-poisoning-prevention>