

Cleveland Inventory of Food and Tobacco Retail (CIFTR)

Skanda Moorthy, Laura Fernandez, MPH, Samantha Bentley, MPH, Elaine Borawski, PhD

Prevention Research Center for Healthy Neighborhoods at Case Western Reserve University (PRCHN), Department of Nutrition, Case Western Reserve University

Background

- Built environment plays a crucial factor in nutritional access and tobacco product availability and advertisement
- CIFTR (Formerly known as NEAP) aims to create a longitudinal dataset of the food and tobacco retail environment in the city of Cleveland
- Eventually, the dataset will be used by researchers to help eliminate nutritional disparities and increase equitable food access for all Cleveland residents

Population

- All Cleveland residents comprising of 34 defined neighborhoods by the Cleveland City Planning Commission
- Special focus on low socio-economic status neighborhoods due to increased volatility of nutritional landscape



Map of Cleveland's Neighborhoods

Learning Objectives

1. Perform field-level quantitative evaluation of the nutritional and tobacco landscape of Cleveland
2. Collect and maintain a comprehensive dataset using RedCap software
3. Understand the historical factors which contribute the residential and racial segregation of nutrition within Cleveland

Activities

- Perform ‘audits’ at all large supermarkets, grocery stores, and corner stores while simultaneously ‘groundtruthing’ fast food retailers
- Utilizing RedCap to add information to the longitudinal dataset while performing quality checks and revisits

Deliverables



Classification Sheet: Tobacco, Nicotine, and other Drugs



How to 'Audit' Stores, Tip Sheet

Methods & Results

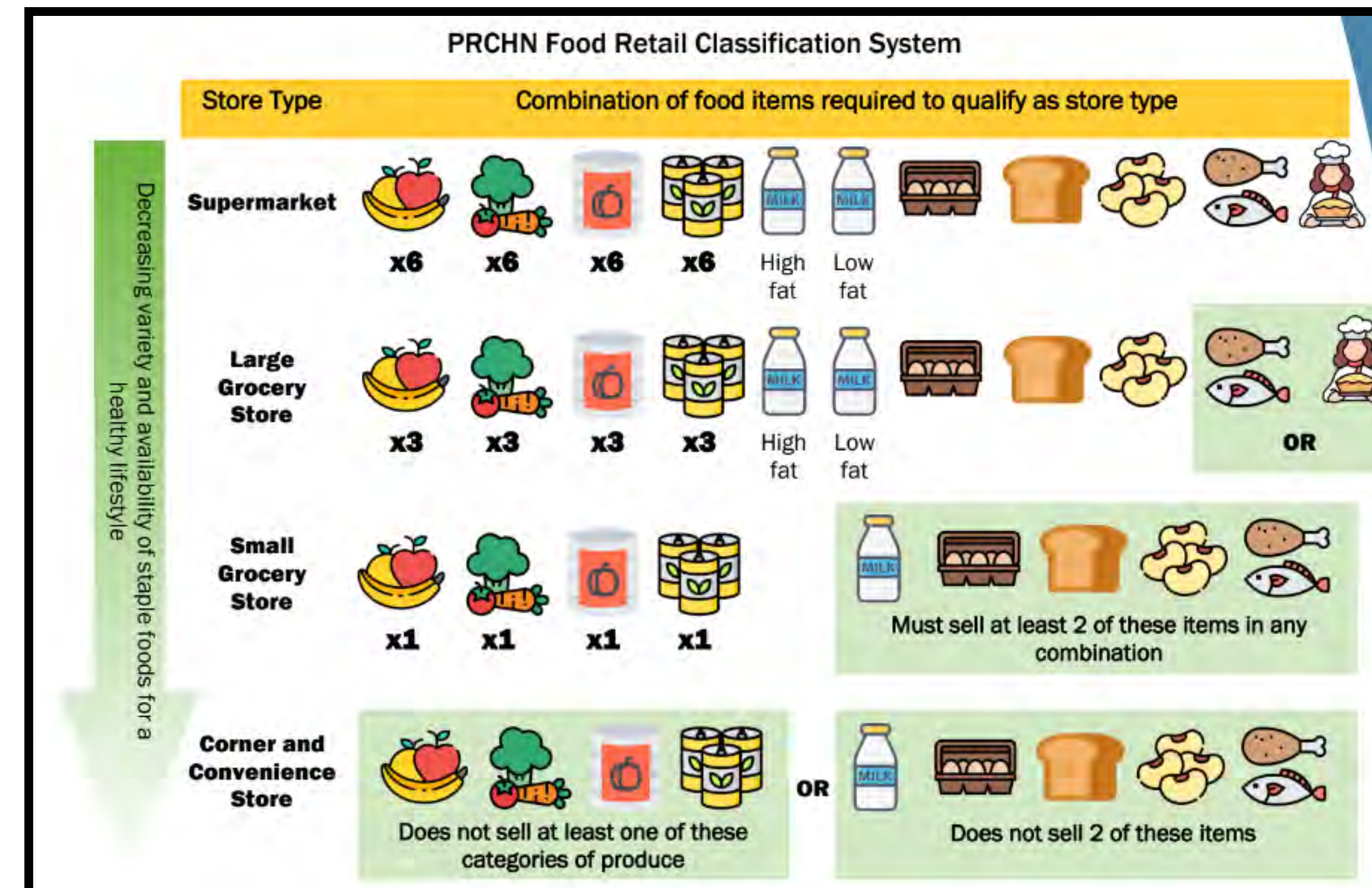


Figure 1: Food retail classification system used in field to determine retailer type.

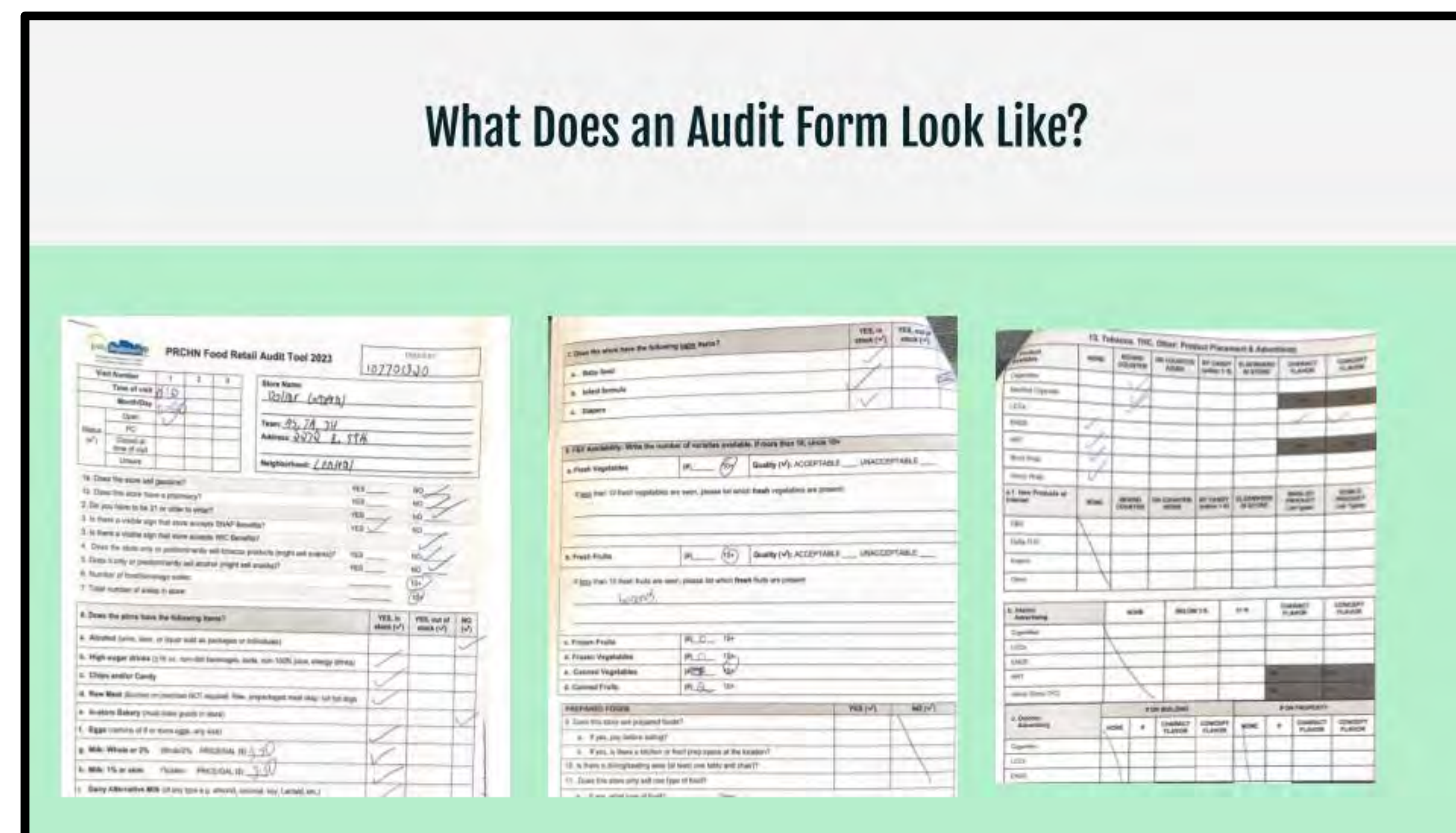


Figure 2: Example of 2023 CIFTR audit form used in the field to evaluate food retailers.

2022 Observations										2023 Observations					Data Entry				Progress Dashboard	
Store ID	Retail Name	Address	Street	Zip Code	Neighborhood	Store Status 2022	Store Type	Audited as of Audited 2022	Is store assessment completed?	Is there any change in store type, location, or name?	Did site assessment occur through the use of a mobile app or on-site assessment?	Comments (If any, please provide details on any issues found, such as missing data, incomplete assessment, or other relevant information.)	Notes/Observations	Assessment form uploaded to Data?	Data quality score completed?	Data quality score completed?	Data entry status	Data quality check to REDCap completed?	REDCap data quality check	# of store visits
Groundtruth and perform in-store assessment for the following stores. If a store status is observed through groundtruthing, perform an in-store assessment																				
19640008	Family Dollar	11705	Beltane	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
19640016	Dollar General	12526	Beltane	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
19640015	Dollar Tree	12709	Beltane	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450013	CVS Pharmacy	14025	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450012	Family Dollar	14035	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450025	Copeland Mart	14037	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	Denie Conve	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450011	Save-A-Lot	14041	Puritas	64135	Beltane-Puritas	Open	Larg Grocery Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450026	Convenient Food Mart	14302	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450007	M & B Searge	14906	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450019	Cleveland Food and Beverage	14939	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450016	Sam's	15050	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450012	Marc's	15050	Puritas	64135	Beltane-Puritas	Open	Larg Grocery Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450023	Cleveland Smoke and Beverage	15649	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450006	Glenn Mart	4202 W 130th	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
19640014	Wingmans Pharmacy	4201 W 130th	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450002	JJ Crab-N-Go	4202 W 130th	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450011	Family Dollar	4578 W 130th	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450009	Mobi	4611 W 130th	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Not Audited	No	-	Groundtruthing	TC	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12450006	The Pharmacy	4677 W 130th	Puritas	64135	Beltane-Puritas	Open	Corner-convenience Store	Audited	Yes	-	Groundtruthing	O	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Figure 3: Example of 2023 Longitudinal Dataset.

Freshfinder

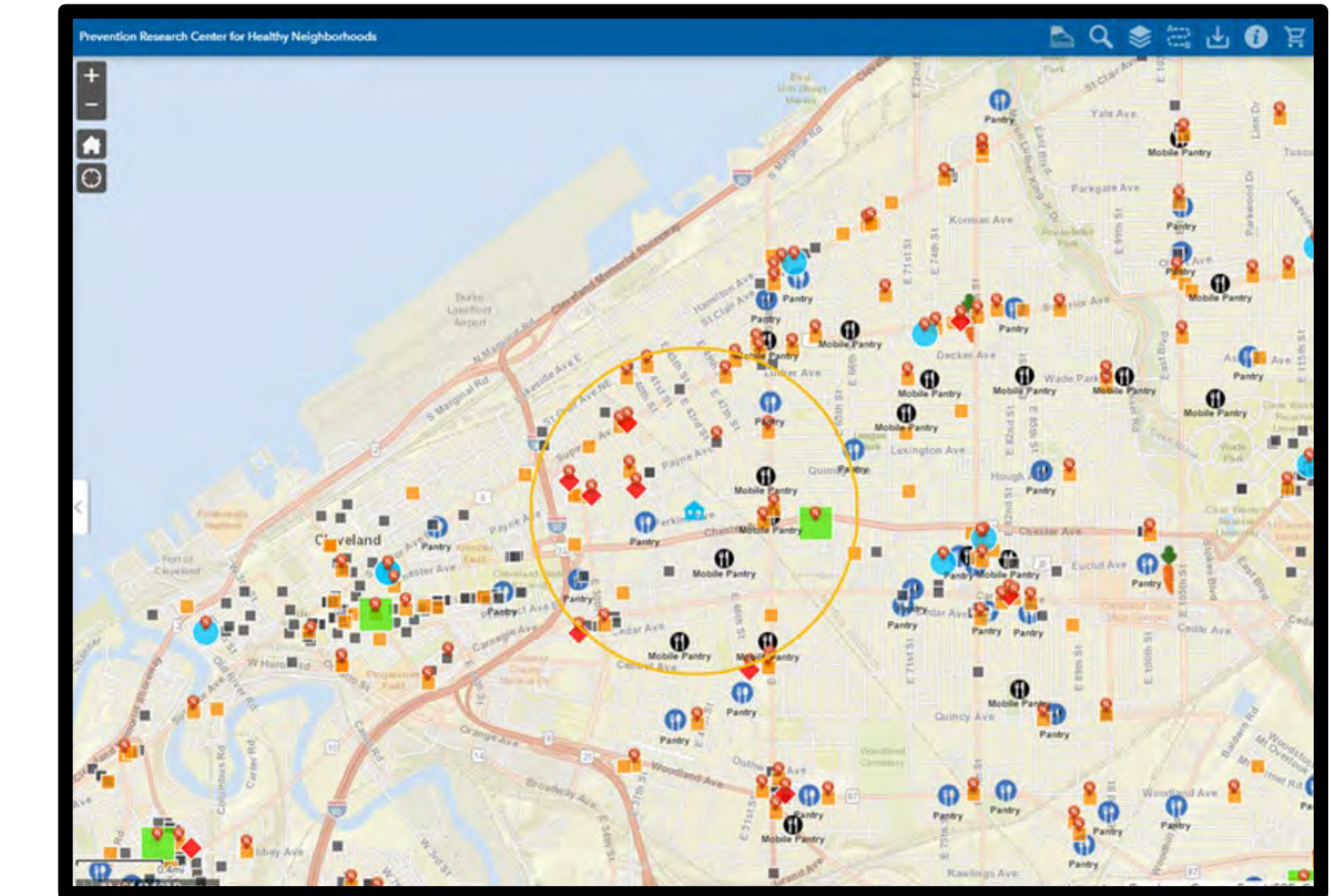


Figure 4: Image of Freshfinder, an interactive GIS food access map with an accessible QR code.

Lessons Learned

- The nutritional landscape of Cleveland is segregated highlighted by the differential access to large supermarkets
- Tobacco and e-cigarette companies have found creative ways to market their product while leaving public health policy makers to play catch up
- The past-in-present effects of redlining and racial discrimination on Cleveland's neighborhoods

Public Health Implications

- The overarching public health goal is to eventually reduce the widespread disparity in nutritional access and the prevalence of tobacco usage in the Cleveland area
- Creating a longitudinal dataset will enable researchers to have access
- The incorporation of Freshfinder presents an opportunity to improve both health workers and nutritionists' awareness of their client's local environment

Acknowledgments

- I would like to thank Dr. Borawski, Laura Fernandez, and Samantha Bentley for their continuous support and guidance throughout this project. Additionally, I would like to thank Kathryn Chapman for her kindness and mentorship throughout the project. Lastly, I would like to thank my 2023 CIFTR Cohort for their hard work and effort throughout the summer.