PURPOSE

To provide a descriptive analysis of 2017/2018 inspection results (pass/conditional pass/closed) of Toronto's Public Disclosure Food Inspection System, named DineSafe. Spatial analysis was also performed to identify clusters of conditional pass/closed (CP/C) results, then compared to census data to observe association with low-income cutoff scores.

METHODS

DineSafe Data acquisition and organization

Calculating number and percentage of first annual restaurant inspections per census tract Spatial analysis

Description Only first annual inspections of restaurant premises in 2017/2018 were analyzed. Microsoft Access was used to organize then export tables as Microsoft Excel files. Restaurant locations were geocoded then spatially joined to census tracts using ArcMap.

Spatial autocorrelation was performed using Moran's I and Getis-Ord Gi* in ArcMap. Microsoft Excel Pivot tables were used to summarize data.

Table 1 – Summary of methods

Socioeconomic associations

Locations of First Annual 2017/2018 Inspections by Outcome



RESULTS – Descriptive Analysis

Year	Inspe		DineSafe notices poste					
	Pass (%)	Conditional	Closed	[–] Total	by ins (Cit	INSPECTION OUTCOME (City of Toronto, 2012)		
		Pass (%)	(%)			CONDITIONAL PASS	CLC	
2017	5510 (92.61)	438 (7.36)	2 (0.03)	5950		THE THE ADDRESS OF THE ADDRESS OF T	THIS EST	
2018	5907 (91.48)	540 (8.36)	10 (0.15)	6457	The committees a set open and by lower 2008. Sum a second set of the lower and the low		BY ORDER OF THE M	
<i>Table 2</i> inspect	<i>– Inspection resultions for 2017 and</i>	And the second state of th	Image: State	And the second s				
Community Council Area								

Year	Community Council Area						
	Scarborough (04)	North Vork (06)	Toronto and	Etabicaka (06)			
	Scarborougn (%)	NOILII YOIK (%)	East York (%)	ELODICOKE (%)			
2017	810 (13.61)	910 (15.29)	3168 (53.24)	1062 (17.85)	5		
2018	796 (12.33)	1003 (15.53)	3543 (54.87)	1115 (17.27)	6		
T=1-1-2			for 2017 and 201	0			

Table 3 - Inspection results by Community Council area for 2017 and 2018

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Spatial Distribution and Characteristics of Restaurant Inspections in Toronto, Ontario

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RESULTS – Counts and Percentages of Geocoded Conditional Pass & Closed Results

Number of Inspections Resulting in Conditional Pass/Closed Status Per Census Tract



Percent of Total Inspections Resulting in Conditional Pass/Closed Status Per Census Tract

2017



RESULTS – Spatial Analysis – Hotspot Analysis

Significant Hotspot Locations of Conditional Pass/Closed Results



Toronto/East York had the highest count of CP/C outcomes in both years, but hotspot analysis did not identify it as significant when accounting for percentage of total restaurants. Downtown Toronto is a major tourism destination in Ontario, and restaurants are attracted to neighborhoods with higher levels of tourist activity (Yang, Roehl, & Huang, 2017). However, since real estate prices may deter smaller businesses from settling in the downtown area, perhaps the downtown core may contain a higher ratio of high-end or chain restaurants compared to other parts of the city. Chain restaurants in the United States have been found to show lower rates of violations than independently owned restaurants, due to their own quality control and food safety monitoring programs (Harris, DiPietro, Murphy, & Rivera, 2014). Future research could be done to investigate if the chain status of restaurants also plays a significant role in the City of Toronto.



Total

5950 6457



2018



Random? Year 2017 2018

Association between Low-income cutoff scores (LICO) and CP/C results are unclear. These findings are consistent with existing research that found conflicting associations between measures of poverty and number/type of health violations in restaurants. Darcey & Quinlan (2011) compared poverty scores to the number of critical health code violations in Philadelphia and found that although facilities in higher poverty areas had more frequent inspections, facilities in lower poverty areas had a higher average number of critical health code violations. Kramer (2016) found that sociodemographic factors had no association with restaurant food safety performance at all, but instead found that the only significant factors were the level of market competition, and the level of food handler training.



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Community Council Areas in Toronto, Ontario

RESULTS – Spatial Analysis – Moran's I



Table 4 – Global Moran's I statistics

RESULTS – Neighborhood Associations