

No Correlations were Found between the efforts made by the Staff of Toronto’s Central Intake Line and Toronto’s Homeless Death Counts*

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For the City of Toronto, the physical well-being of its local homeless population has always been one of its primary focuses. Numerous social efforts, funded by the City, were made in attempts to reduce the death rate of the local homeless population. In order to visualize the magnitude of social impact enforced by the City of Toronto, analyses were performed to investigate the correlation between the efforts made by the staff of Toronto’s Central Intake Line and the monthly homeless death counts between November 2020 to June 2023 using data from OpenDataToronto. Staff efforts such as the number of calls coded, number of referral to shelter, and number of information for homelessness prevention, were documented and compared against the monthly homeless death counts. No discernible correlations were found between each of these efforts to the monthly homeless death counts.

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*Code and data are available at: https://github.com/Jingying-yu/central_intake_calls_and_homeless_death_count.git

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1 Introduction

The City of Toronto has been consistently providing funding and staff in an effort to reduce the active homeless population within its governing district. One of the key aspects of reducing homelessness is the assignment of sheltering space. Amongst numerous city efforts, the 24/7 helpline — Toronto Central Intake Line — was created to offer referrals to emergency shelters, sleeping accommodations, and provide general information about homelessness and prevention. (Shelter 2020). Starting in 2020, detailed data about the Central Intake Line became available on the OpenDataToronto portal (Sharla Gelfand 2022).

In this paper, we want to measure the magnitude of positive impact created by the Central Intake Line in relation to the monthly cumulative number of deaths in the homeless community. Using Central Intake Call Wrap-up Codes data (Shelter 2020) from OpenDataToronto (Sharla Gelfand 2022), three different aspects of the Central Intake Line efforts were isolated: total calls coded, referral to shelter, and homelessness prevention information provided. These three key aspects were measured against the monthly cumulative Deaths of People Experiencing Homelessness Data (Health 2017) documented by the Toronto Public Health (Toronto 2024). The analyses yielded no discernible correlation between each of the three efforts and the monthly death counts. Further investigation could be conducted in the future if more detailed tracking data of the individual callers became available.

Analyses and findings in this paper are structured into several sections: Section 2 – Data, Section 3 – Result, Section 4 – Discussion, and Section 5 – Conclusion. The Data section examines all datasets and variables kept for analysis, followed by an explanation of their data cleaning processes. The Result section focuses on visualizing and presenting the correlation between desired variables. The Discussion sections further evaluate the meaning behind the correlation presented in the previous section. Lastly, the arguments presented in all previous sections are wrapped up by the Conclusion section which summarizes the main findings in this paper.

2 Data

All data used in this paper are obtained through OpenDataToronto Portal (Sharla Gelfand 2022). Two different datasets, Central Intake Call Wrap-Up Codes Data (Shelter 2020) and Deaths of People Experiencing Homelessness(Health 2017), are retrieved to analyze the correlation between different factors of Toronto’s Central Call Line efforts and the monthly cumulative death counts of homeless individuals in Toronto. Data was cleaned and analyzed using the open source statistical programming language R (R Core Team 2022) and supporting packages tidyverse (Wickham et al. 2019), janitor (Firke 2023), dplyr (Wickham et al. 2023), lubridate (Grolemund and Wickham 2011), zoo (Zeileis and Grothendieck 2005), ggplot2 (Wickham 2016), and knitr (Xie 2023). Detailed process of data extracting and cleaning can be found in the subsections below.

Talk more about it.

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Talk way more about it.

3 Results

Our results are summarized in **?@tbl-modelresults**.

4 Discussion

4.1 First discussion point

If my paper were 10 pages, then should be be at least 2.5 pages. The discussion is a chance to show off what you know and what you learnt from all this.

4.2 Second discussion point

4.3 Third discussion point

4.4 Weaknesses and next steps

Weaknesses and next steps should also be included.

Examining how the model fits, and is affected
by, the data

Figure 1: ?(caption)

5 Conclusion

?@fig-stanareyouokay-1 is a trace plot. It shows... This suggests...

?@fig-stanareyouokay-2 is a Rhat plot. It shows... This suggests...

Checking the convergence of the MCMC
algorithm

Figure 2: ?(caption)

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