Homeless Shelter Usage Trends and Mortality: A Correlation Analysis*

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This paper investigates the relationship between homeless shelter usage trends and mortality among those experiencing homelessness in Toronto. Using datasets from Open Data Toronto, I analyzed patterns of shelter occupancy and transitions alongside occurrences of death among homeless individuals on a yearly basis. The findings reveal a significant correlation between shelter use patterns such as returns to shelters, and an increased risk of mortality in those months. Understanding these correlations showcases the dynamics between shelter access, economic instability, and mortality risks faced by those experiencing homelessness in Toronto, and helps illuminate these issues, raise awareness, and to prompt reflection on potential avenues for assisting these individuals.

1 Introduction

In Toronto, homelessness remains a persistent social issue with profound implications for public health and social welfare (Ireland 2023). Amidst efforts to address homelessness, understanding the intricate dynamics between shelter usage patterns and mortality risks among individuals experiencing homelessness is crucial. This paper delves into this relationship, aiming to shed light on the underlying factors that contribute to mortality within this vulnerable population.

Using data sets sourced from Open Data Toronto (Gelfand 2022), this study examines the interplay between homeless shelter usage trends and mortality among individuals experiencing homelessness in Toronto. By analyzing patterns of shelter occupancy, transitions, and occurrences of death on a yearly basis, I aim to highlight the connections between shelter access, economic instability, and mortality risks faced by those without stable housing. Additionally,

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*Code and data are available at: https://github.com/Maroosh-Gillani/homeless_mortality.

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I will employ a logistic regression model to further explore the relationships between shelter usage patterns and mortality outcomes, providing statistical insights into these dynamics.

The findings of this study reveal a notable correlation between specific shelter use patterns, such as returning to shelters, and an increased risk of mortality during certain months. This contributes to the understanding of challenges faced by individuals experiencing homelessness and emphasizes the importance of targeted interventions to address mortality risks within this population.

By discussing these issues and raising awareness of the interconnected factors influencing homelessness and mortality, this paper aims to encourage reflection on potential ways to support individuals experiencing homelessness in Toronto. Through this exploration, I aim to underscore the significance of addressing the underlying causes of homelessness and advocating for approaches to safeguard the well-being and dignity of all members of society.

2 Data

All data collection and analysis was done using statistical tools such as R (R Core Team 2023).

3 Measurement

4 Model

4.1 Model set-up

4.1.1 Model justification

5 Results

Figure 1 says this that and whatever.

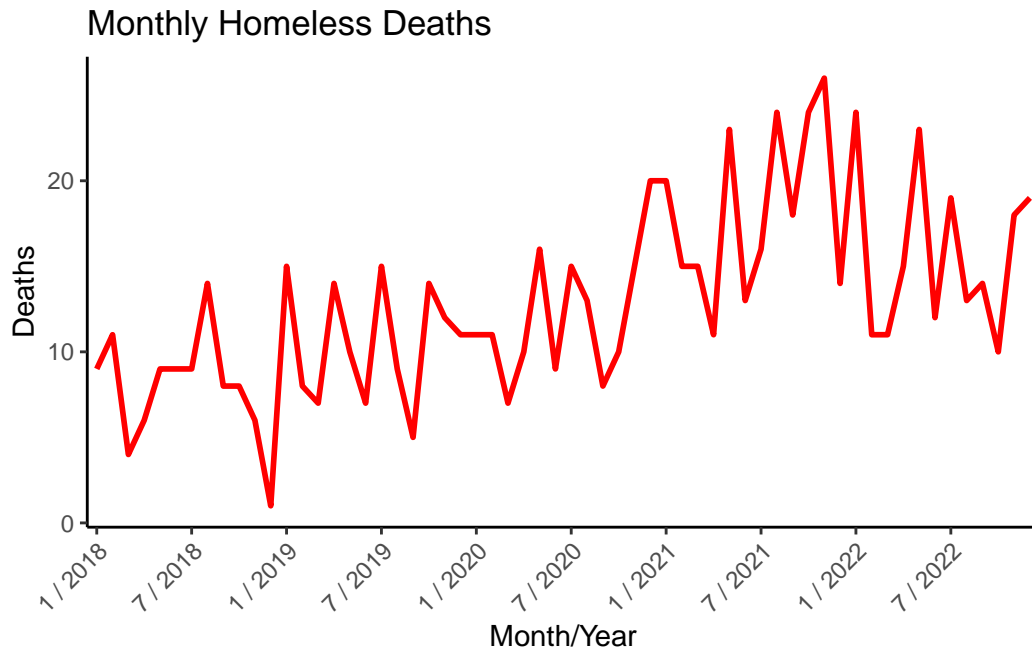Figure 2 says some stuff, other stuff and also stuff
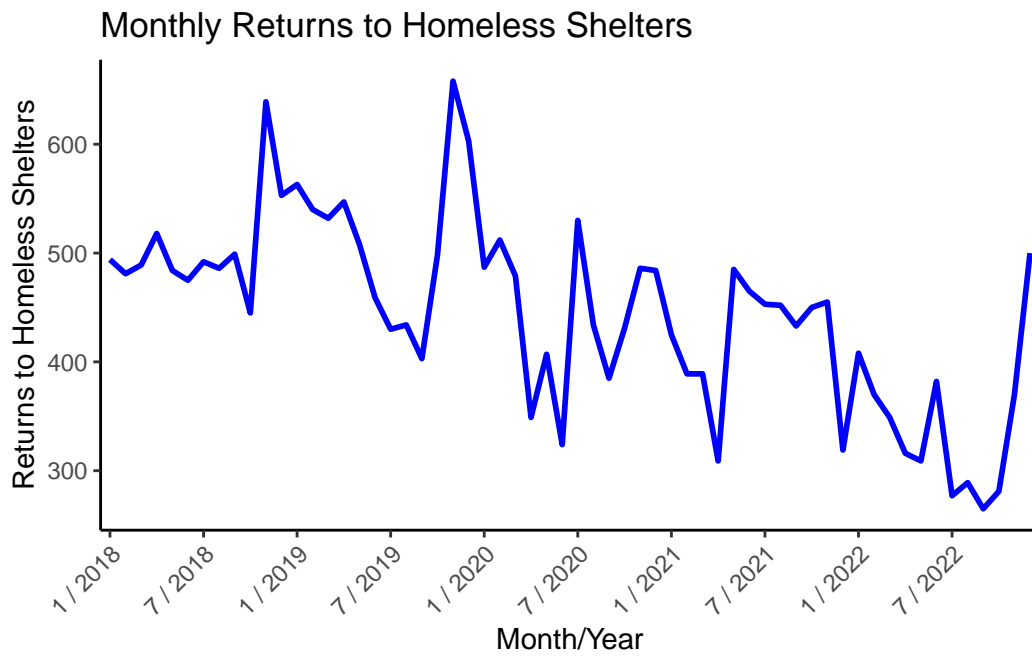
6 Discussion

Figure 1: temp

Figure 2: temp2

References

Gelfand, Sharla. 2022. *opendatatoronto: Access the City of Toronto Open Data Portal.* https://CRAN.R-project.org/package=opendatatoronto.

Ireland, Nicole. 2023. "Growing Number of Homeless People Turning to ERs for Shelter and Warmth in Ontario, Study Says." https://www.cbc.ca/news/canada/toronto/homeless-people-emergency-room-shelter-1.7042041.

R Core Team. 2023. *R: A Language and Environment for Statistical Computing.* Vienna, Austria: R Foundation for Statistical Computing. https://www.R-project.org/.