Toronto death registry*

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In Toronto, there are many people died each year. The data of death registry supports the City's operational requirements and business functions. In this project we will make a table of number of death in Toronto for each month in 2023. By analyzing this, we can find months with high number of death and make conjectures with factors like weather, poicies or incidents of that particular month.

```
# A tibble: 6 x 3
  time_period place_of_death death_number
  <chr>       <chr>                 <int>
1 2023-01     Toronto                  51
2 2023-02     Toronto                  46
3 2023-03     Toronto                  48
4 2023-04     Toronto                  64
5 2023-05     Toronto                  69
6 2023-06     Toronto                  53
```

```
# A tibble: 6 x 5
  `_id` CIVIC_CENTRE DEATH_LICENSES PLACE_OF_DEATH      TIME_PERIOD
  <dbl> <chr>                <dbl> <chr>               <chr>
1 19435 ET                      69 Outside City Limits 2011-01
2 19436 ET                     341 Toronto             2011-01
3 19437 NY                     141 Outside City Limits 2011-01
4 19438 NY                     540 Toronto             2011-01
5 19439 SC                     129 Outside City Limits 2011-01
6 19440 SC                     545 Toronto             2011-01
```

```
# A tibble: 6 x 2
  time_period death_licenses
```

*Code and data are available at: LINK.

```
  <date>                <dbl>
1 2023-01-01              20
2 2023-01-01            1015
3 2023-01-01              48
4 2023-02-01              12
5 2023-02-01             446
6 2023-02-01              27
```

Table 1

Table 1: Number of death in Toronto for each month in 2023

Month	Number of death
January	1083
February	485
March	1012
April	1677
May	2008
June	1928
July	417
August	912
September	1268
October	1182
November	1458
December	611

Introduction

You can and should cross-reference sections and sub-sections.

The remainder of this paper is structured as follows. Section ….

Data

Some of our data is of penguins (**?@fig-bills**), from (**palmerpenguins?**).

Talk more about it.

And also planes (**?@fig-planes**). (You can change the height and width, but don't worry about doing that until you have finished every other aspect of the paper - Quarto will try to make it look nice and the defaults usually work well once you have enough text.)

Talk way more about it.

Discussion

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.

Second discussion point

Third discussion point

Weaknesses and next steps

Weaknesses and next steps should also be included.

Appendix

Additional data details

Model details

Posterior predictive check

In **?@fig-ppcheckandposteriorvsprior-1** we implement a posterior predictive check. This shows…

In **?@fig-ppcheckandposteriorvsprior-2** we compare the posterior with the prior. This shows…

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

Figure 1: **?(caption)**

Diagnostics

?@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)**

References

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