Lab Week 1

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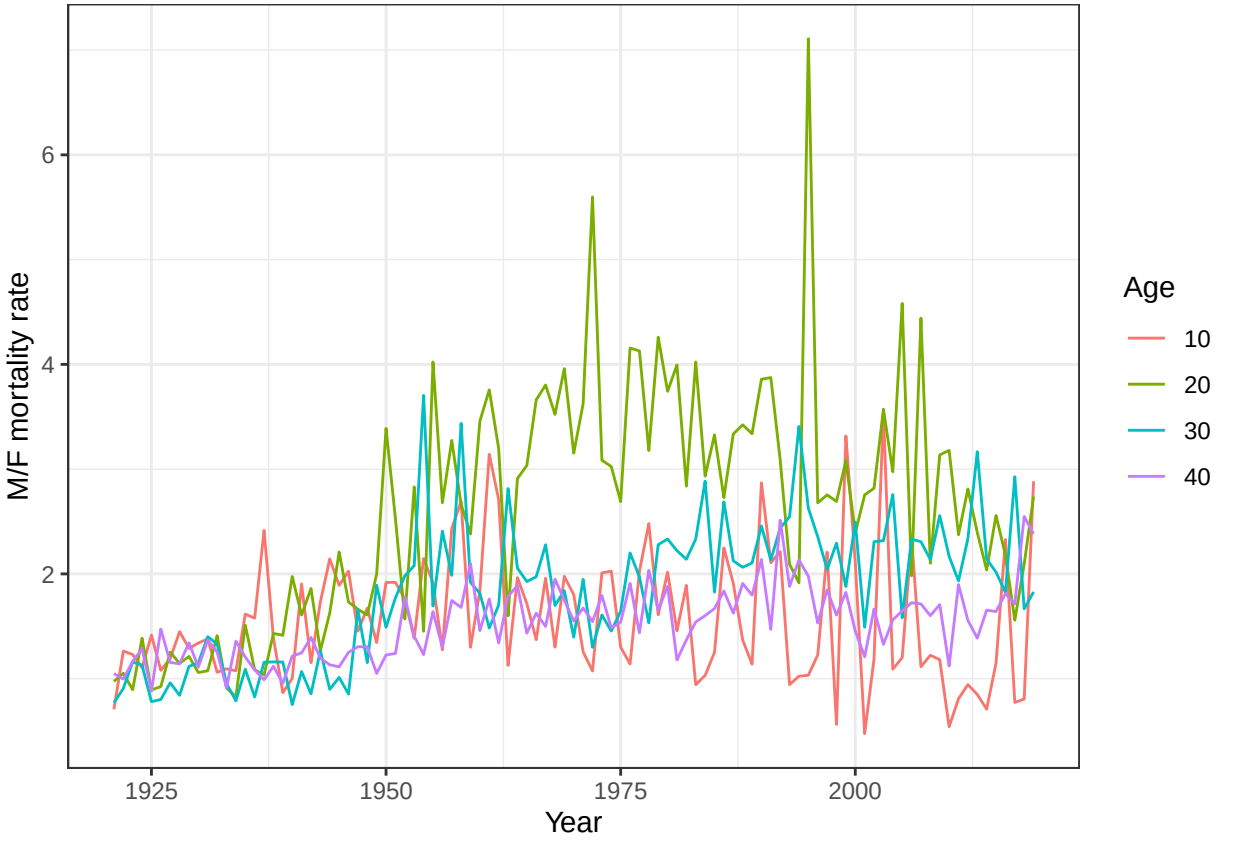
(1)

following displays the plot for the ratio of male to female mortality rates over time for ages 10,20,30 and 40.



(2)

The ages that have the highest female mortality rate each year are shown below:

```
## # A tibble: 102 x 2
## # Groups:   Year [99]
##     Year Age
##    <dbl> <chr>
##  1  1921 106
##  2  1922 98
##  3  1923 104
```

```
##  4  1924 107
##  5  1925 98
##  6  1926 106
##  7  1927 106
##  8  1928 104
##  9  1929 104
## 10  1930 105
## # ... with 92 more rows
```

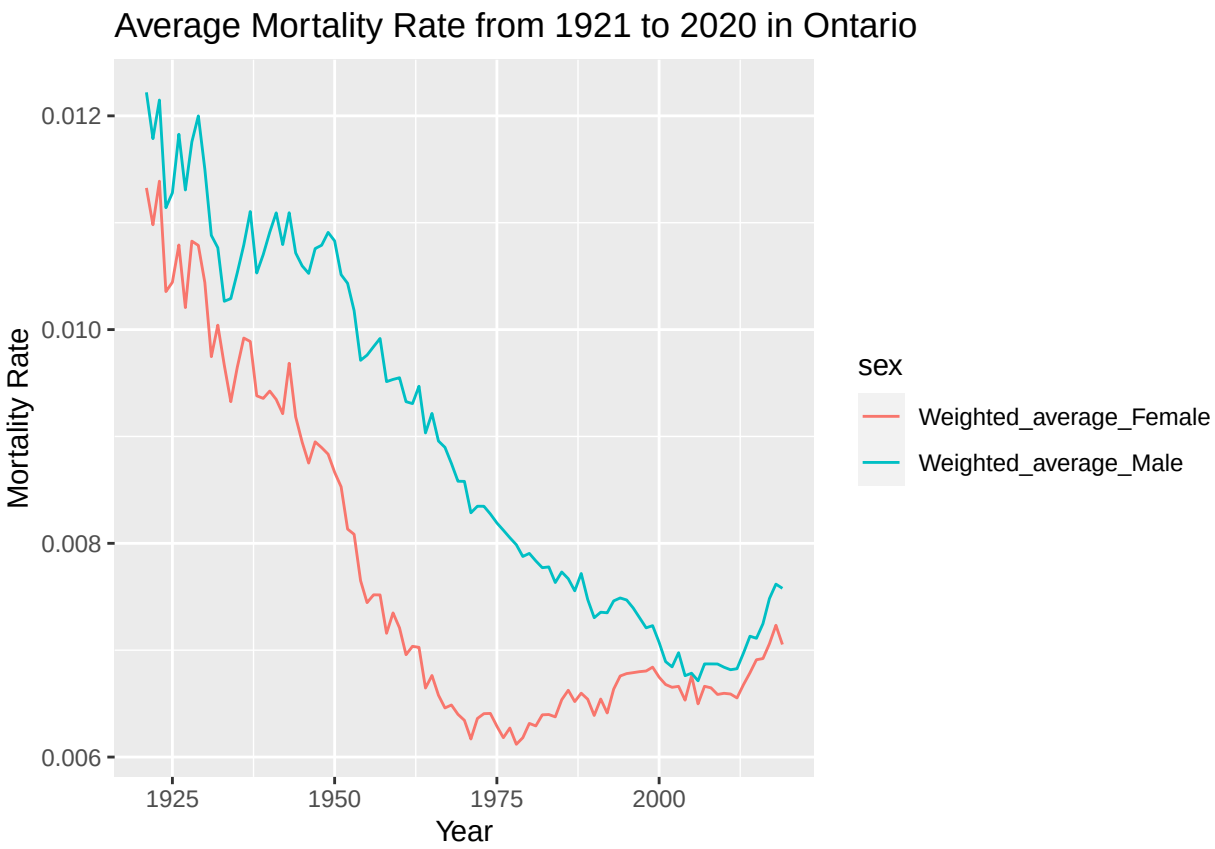
(3)

The standard deviations of mortality rates by age for the Male, Female and Total populations are as following:

```
## # A tibble: 111 x 4
##    Age     Female     Male    Total
##    <chr>    <dbl>    <dbl>    <dbl>
##  1 0     0.0256   0.0330   0.0294
##  2 1     0.00352  0.00396  0.00374
##  3 10    0.000474 0.000561 0.000509
##  4 100   0.0928   0.138    0.0729
##  5 101   0.125    0.158    0.0995
##  6 102   0.143    0.214    0.114
##  7 103   0.252    0.371    0.208
##  8 104   0.449    1.01     0.363
##  9 105   1.27     1.29     1.27
## 10 106   1.21     1.13     1.20
## # ... with 101 more rows
```

(4)

Following represents the population weighted average mortality rate for males and females, for every year:



As the plot displays the average mortality rate for both females and males is decreasing from 1921 to around 2005, while it is increasing after that. It also shows that the males mortality rate is always higher than females.