2016 Suicides vs. Happines Rankings

Question

Does the World Happiness Report have any correlation to country suicide rates?

Using two data sets, Suicides Per 100,000 and 2015/2016 World Happiness Report, we will look to see if there is a connection between the "happiest" countries and amount of suicides. The World Happiness Report uses economic and social development to determine happiness rank. The report negates the fact there is more to happiness than policy and economic well-being. With the help of data collected by the World Health Organization, a more in-depth analysis can be made about happiness per country.

Male to Female Ratio

First, let's take a look at the ratio of male to female suicides per region.

| Region	Male	Female	Year
Australia and New Zealand	17.4	6.1	2016
Central and Eastern Europe	19.4	4.02	2016
Latin America and Caribbean	14.2	3.76	2016
Middle East and Northern Africa	6.25	2.44	2016
North America	18.1	6.1	2016
Southern Asia	12.3	7.07	2016
Southeastern Asia	9.56	4.4	2016
Sub-Saharan Africa	17	7.31	2016
Western Europe	14.4	5.05	2016

Happiness Rankings and Suicides

By rearranging the *HappinessRank* column into numerical order and taking only the top 25 and the bottom 25 ranked countries, the graphs do not look much different. The top 25 ranked countries have a mean of 9.70 suicides per 100000 while the bottom 25 have 11.6 suicides per 100000.

Selecting by HappinessRank
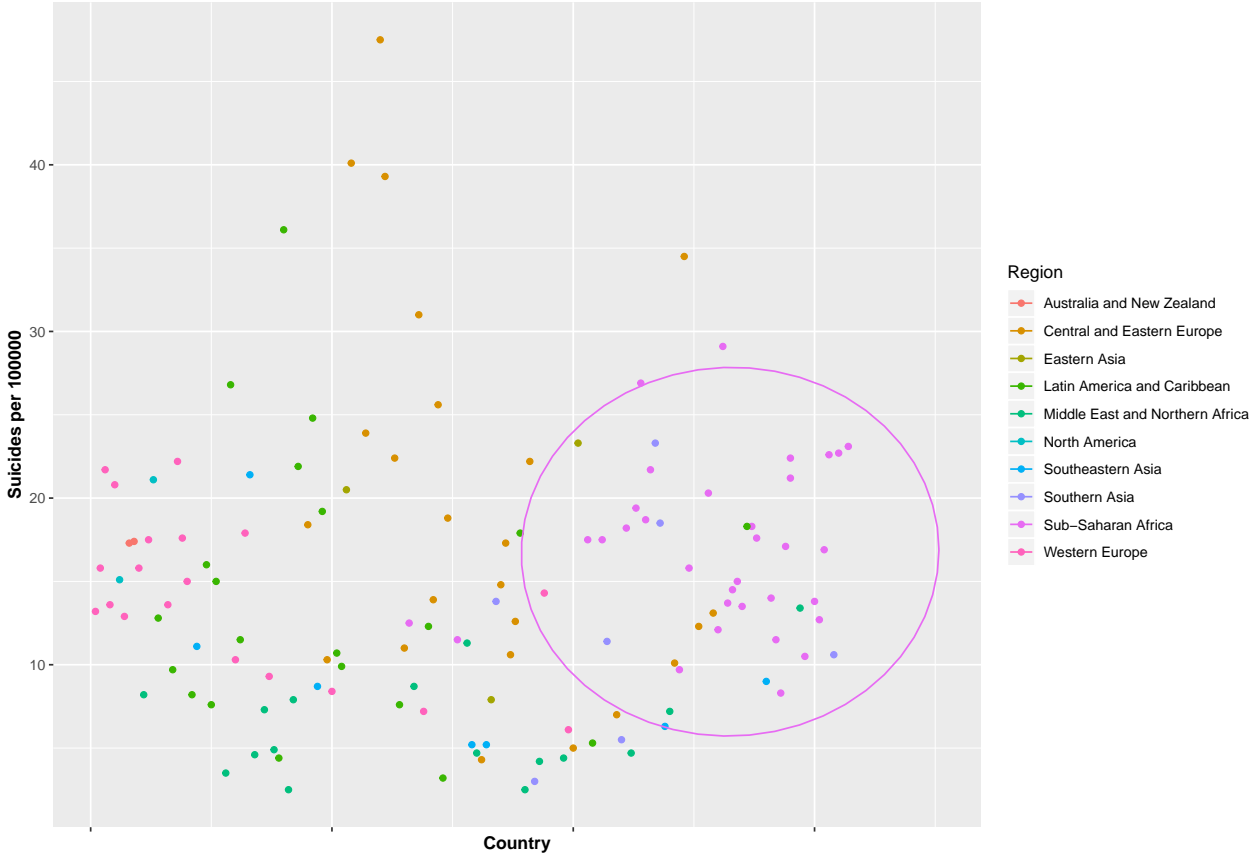
Top 25 Happiness Rank

2016, Ranks 25–1


```
## Selecting by HappinessRank
```

Bottom 25 Happiness Rank

2016, Ranks 157–130
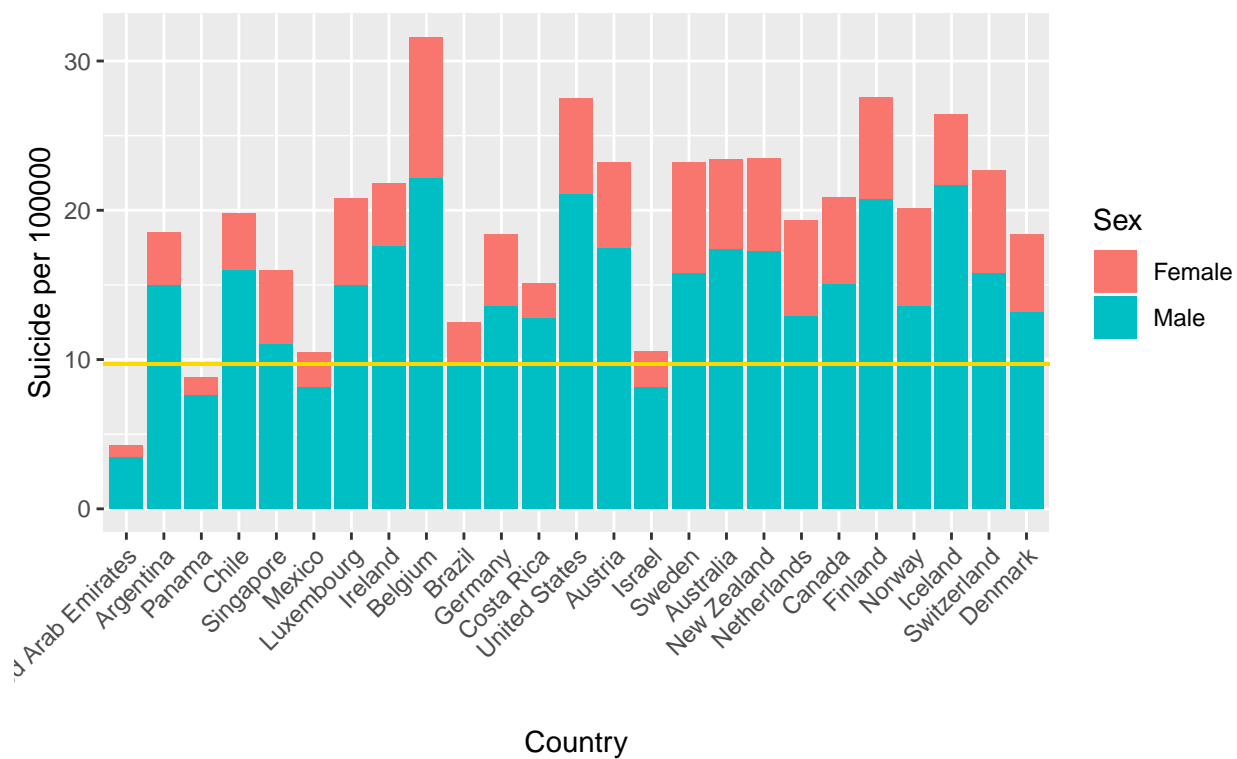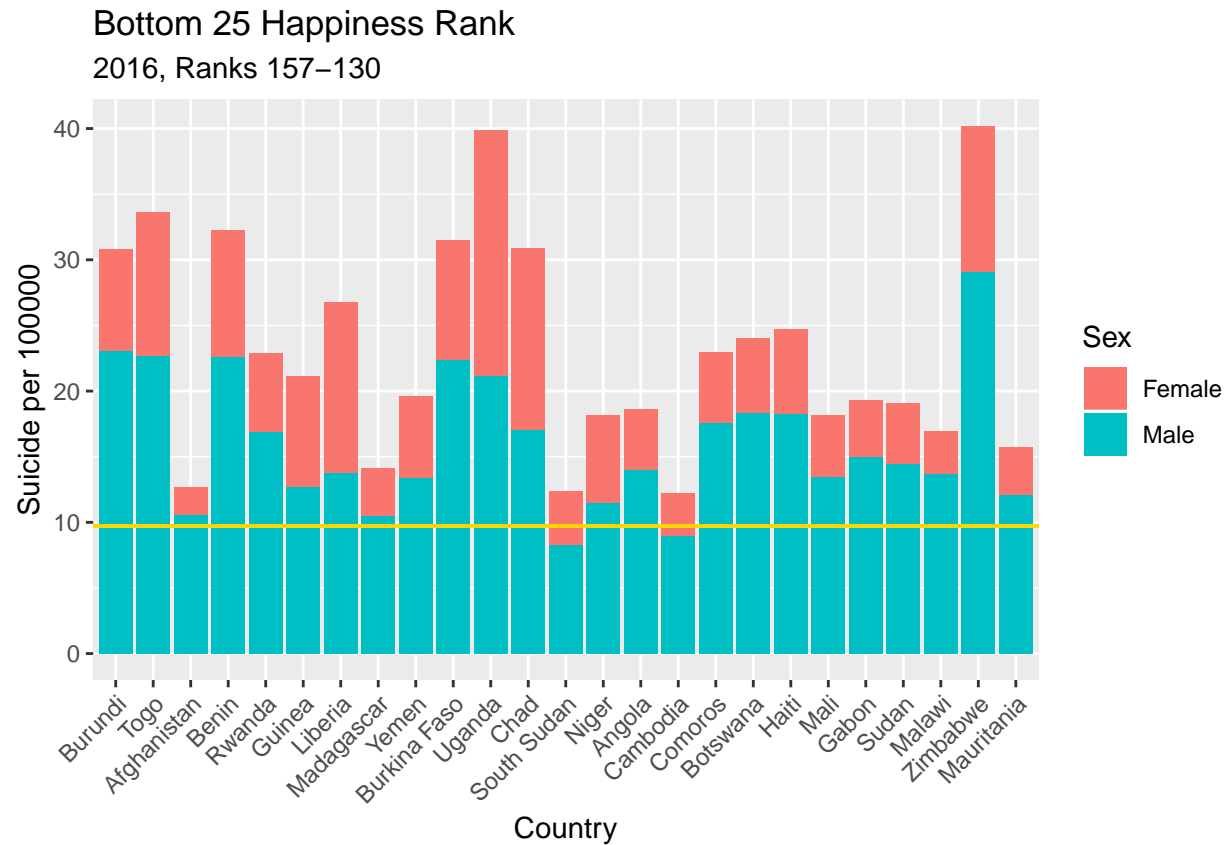
Regions, Ranks, and Suicides

Each region is broken down into tiers of Happiness Rank then separated into graphs. Each graph has the average number of suicides per 100000 based off sex. The only two regions that do not have countries in each tier are Western Europe and North America. Interestingly, the only region with average suicides for male and female below the world average is Middle East and Northern Africa besides one country.

Happiness Rank vs. Suicides
Males, 2016

Happiness Rank vs. Suicides
Females, 2016
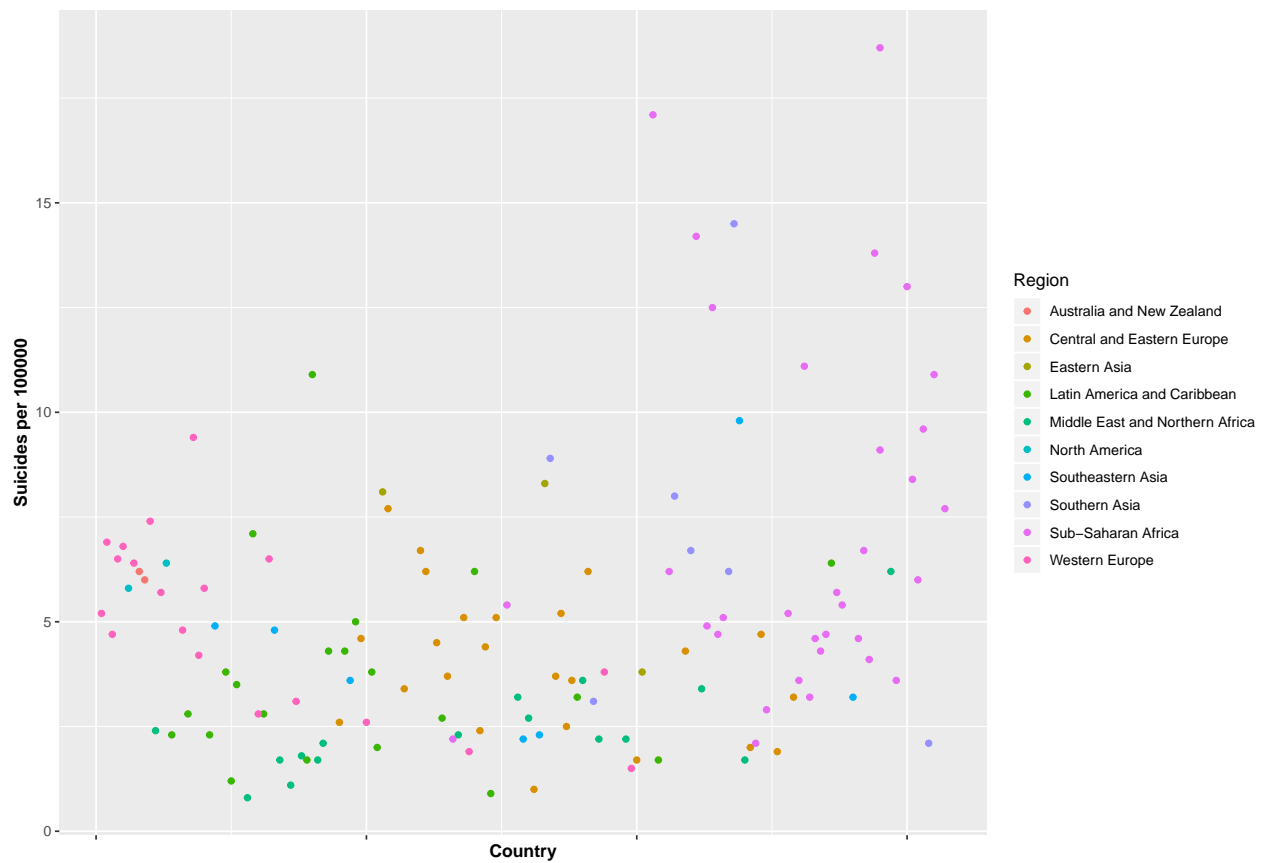
Tibbles for each region in 2016

Each tibble shows the happiness rank of each country with the suicides per 100000 in 2016 broken up by region.

Australia and New Zealand

```
## # A tibble: 4 x 4
##   Country     HappinessRank SuicidePer100000 Sex
##   <chr>               <dbl>            <dbl> <chr>
## 1 Australia               9             17.4 Male
## 2 Australia               9              6   Female
## 3 New Zealand             8             17.3 Male
## 4 New Zealand             8              6.2 Female
```

Central and Eastern Europe

```
## # A tibble: 48 x 4
##    Country       HappinessRank SuicidePer100000 Sex
##    <chr>                 <dbl>            <dbl> <chr>
##  1 Albania                 109              7   Male
##  2 Albania                 109              4.3 Female
```

```
##  3 Armenia                      121          10.1 Male
##  4 Armenia                      121             2  Female
##  5 Azerbaijan                    81           4.3 Male
##  6 Azerbaijan                    81             1  Female
##  7 Belarus                       61          39.3 Male
##  8 Belarus                       61           6.2 Female
##  9 Bosnia and Herzegovina        87          10.6 Male
## 10 Bosnia and Herzegovina        87           2.5 Female
## # ... with 38 more rows
```

Latin America and Caribbean

```
## # A tibble: 42 x 4
##     Country    HappinessRank SuicidePer100000 Sex
##     <chr>              <dbl>            <dbl> <chr>
##  1 Argentina            26              15   Male
##  2 Argentina            26               3.5 Female
##  3 Belize               52               9.9 Male
##  4 Belize               52               2   Female
##  5 Brazil               17               9.7 Male
##  6 Brazil               17               2.8 Female
##  7 Chile                24              16   Male
##  8 Chile                24               3.8 Female
##  9 Colombia             31              11.5 Male
## 10 Colombia             31               2.8 Female
## # ... with 32 more rows
```

Middle Eastern and Nothern Africa

```
## # A tibble: 32 x 4
##     Country HappinessRank SuicidePer100000 Sex
##     <chr>           <dbl>            <dbl> <chr>
##  1 Algeria            38              4.9 Male
##  2 Algeria            38              1.8 Female
##  3 Bahrain            42              7.9 Male
##  4 Bahrain            42              2.1 Female
##  5 Egypt             120              7.2 Male
##  6 Egypt             120              1.7 Female
##  7 Iraq              112              4.7 Male
##  8 Iraq              112              3.4 Female
##  9 Israel             11              8.2 Male
## 10 Israel             11              2.4 Female
## # ... with 22 more rows
```

North America

```
## # A tibble: 4 x 4
##     Country        HappinessRank SuicidePer100000 Sex
##     <chr>                  <dbl>            <dbl> <chr>
## 1 Canada                     6             15.1 Male
## 2 Canada                     6              5.8 Female
## 3 United States             13             21.1 Male
## 4 United States             13              6.4 Female
```

Southern Asia

```
## # A tibble: 14 x 4
##    Country     HappinessRank SuicidePer100000 Sex
##    <chr>               <dbl>            <dbl> <chr>
##  1 Afghanistan           154             10.6 Male
##  2 Afghanistan           154              2.1 Female
##  3 Bangladesh            110              5.5 Male
##  4 Bangladesh            110              6.7 Female
##  5 Bhutan                 84             13.8 Male
##  6 Bhutan                 84              8.9 Female
##  7 India                 118             18.5 Male
##  8 India                 118             14.5 Female
##  9 Nepal                 107             11.4 Male
## 10 Nepal                 107              8   Female
## 11 Pakistan               92              3   Male
## 12 Pakistan               92              3.1 Female
## 13 Sri Lanka             117             23.3 Male
## 14 Sri Lanka             117              6.2 Female
```

Southeastern Asia

```
## # A tibble: 14 x 4
##    Country     HappinessRank SuicidePer100000 Sex
##    <chr>               <dbl>            <dbl> <chr>
##  1 Cambodia              140              9   Male
##  2 Cambodia              140              3.2 Female
##  3 Indonesia              79              5.2 Male
##  4 Indonesia              79              2.2 Female
##  5 Malaysia               47              8.7 Male
##  6 Malaysia               47              3.6 Female
##  7 Myanmar               119              6.3 Male
##  8 Myanmar               119              9.8 Female
##  9 Philippines            82              5.2 Male
## 10 Philippines            82              2.3 Female
## 11 Singapore              22             11.1 Male
## 12 Singapore              22              4.9 Female
## 13 Thailand               33             21.4 Male
## 14 Thailand               33              4.8 Female
```

Sub-Saharan Africa

```
## # A tibble: 66 x 4
##    Country       HappinessRank SuicidePer100000 Sex
##    <chr>                 <dbl>            <dbl> <chr>
##  1 Angola                  141             14   Male
##  2 Angola                  141              4.6 Female
##  3 Benin                   153             22.6 Male
##  4 Benin                   153              9.6 Female
##  5 Botswana                137             18.3 Male
##  6 Botswana                137              5.7 Female
##  7 Burkina Faso            145             22.4 Male
```

```
##  8 Burkina Faso          145              9.1 Female
##  9 Burundi               157             23.1 Male
## 10 Burundi               157              7.7 Female
## # ... with 56 more rows
```

Western Europe

```
## # A tibble: 38 x 4
##    Country HappinessRank SuicidePer100000 Sex
##    <chr>           <dbl>            <dbl> <chr>
##  1 Austria            12             17.5 Male
##  2 Austria            12              5.7 Female
##  3 Belgium            18             22.2 Male
##  4 Belgium            18              9.4 Female
##  5 Cyprus             69              7.2 Male
##  6 Cyprus             69              1.9 Female
##  7 Denmark             1             13.2 Male
##  8 Denmark             1              5.2 Female
##  9 Finland             5             20.8 Male
## 10 Finland             5              6.8 Female
## # ... with 28 more rows
```

Conclusion

Using the World Happiness Report and the Suicides Per 100000 from the World Health Organization it is determined that Happiness Rank and Suicides have no correlation. For example the United States is ranked 14th but have 21.1 suicides per 100000 for males when the average is 14.7. On the other hand Iraq is ranked 112th but males only have 4.7 suicides per 100000.