

# Life Expectancy: An Analysis and Prediction Based on Key Influencing Factors

\*\* Import Library\*\*

```
##  
## Attaching package: 'dplyr'  
  
## The following objects are masked from 'package:stats':  
##  
##     filter, lag  
  
## The following objects are masked from 'package:base':  
##  
##     intersect, setdiff, setequal, union
```

\*\* Read Data File\*\*

```
##          Country             Region Year Infant_deaths  
## 1        Turkiye      Middle East Y2015    11.1  
## 2         Spain European Union Y2015     2.7  
## 3         India            Asia Y2007    51.5  
## 4        Guyana South America Y2006    32.8  
## 5        Israel      Middle East Y2012     3.4  
## 6 Costa Rica Central America and Caribbean Y2006    9.8  
## 7 Russian Federation           Rest of Europe Y2015    6.6  
## 8        Hungary European Union Y2000    8.7  
## 9        Jordan      Middle East Y2001   22.0  
## 10       Moldova           Rest of Europe Y2008   15.3  
## Under_five_deaths Adult_mortality Alcohol_consumption Hepatitis_B Measles  
## 1            13.0        105.8240        1.32        97        65  
## 2            3.3         57.9025        10.35       97        94  
## 3           67.9        201.0765        1.57        60        35  
## 4            40.5        222.1965        5.68        93        74  
## 5            4.3         57.9510        2.89        97        89  
## 6           11.2        95.2200        4.19        88        86  
## 7            8.2         223.0000        8.06        97        97  
## 8           10.1        192.9690       12.23       88        99  
## 9           26.1        129.7640        0.52        97        87  
## 10          17.8        217.8570        7.72        97        92  
##          BMI Polio Diphtheria Incidents_HIV GDP_per_capita Population_mln  
## 1 27.8    97     97     0.08      11006     78.53  
## 2 26.0    97     97     0.09      25742     46.44  
## 3 21.2    67     64     0.13      1076     1183.21  
## 4 25.3    92     93     0.79      4146      0.75  
## 5 27.0    94     94     0.08      33995      7.91
```

```

## 6 26.4 89 89 0.16 9110 4.35
## 7 26.2 97 97 0.08 9313 144.10
## 8 25.9 99 99 0.08 8971 10.21
## 9 27.9 97 99 0.13 3708 5.22
## 10 26.5 96 90 0.43 2235 2.87
##   Thinness_ten_nineteen_years Thinness_five_nine_years Schooling
## 1 4.9 4.8 7.8
## 2 0.6 0.5 9.7
## 3 27.1 28.0 5.0
## 4 5.7 5.5 7.9
## 5 1.2 1.1 12.8
## 6 2.0 1.9 7.9
## 7 2.3 2.3 12.0
## 8 2.3 2.3 10.2
## 9 4.0 3.9 9.6
## 10 2.9 3.1 10.9
##   Economy_status_Developed Economy_status_Developing Life_expectancy
## 1 No 1 76.5
## 2 Yes 0 82.8
## 3 No 1 65.4
## 4 No 1 67.0
## 5 Yes 0 81.7
## 6 No 1 78.2
## 7 No 1 71.2
## 8 Yes 0 71.2
## 9 No 1 71.9
## 10 No 1 68.7

##   Life_expectancy Infant_deaths Adult_mortality Economy_status_Developed
## Min.    :39.40  Min.    : 1.80  Min.    :49.38  Length:2864
## 1st Qu.:62.70  1st Qu.: 8.10  1st Qu.:106.91 Class  :character
## Median :71.40  Median :19.60  Median :163.84 Mode   :character
## Mean   :68.86  Mean   :30.36  Mean   :192.25
## 3rd Qu.:75.40  3rd Qu.:47.35  3rd Qu.:246.79
## Max.   :83.80  Max.   :138.10 Max.   :719.36

```

## Data Distribution:

```

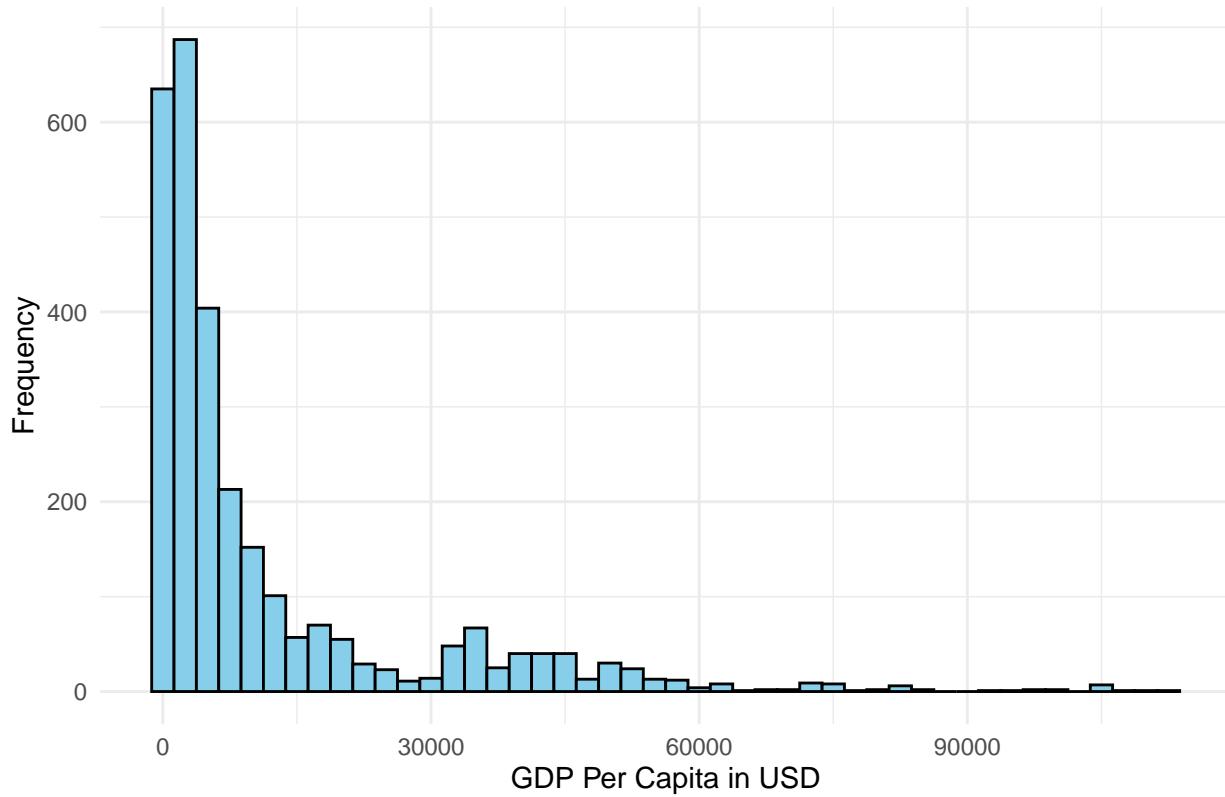
# Create the plot
plot <- ggplot(data, aes_string(x = 'GDP_per_capita')) +
  geom_histogram(binwidth = 2500, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of GDP Per Capita"), x = "GDP Per Capita in USD", y = "Frequency") +
  theme_minimal()

## Warning: `aes_string()` was deprecated in ggplot2 3.0.0.
## i Please use tidy evaluation idioms with `aes()`.
## i See also `vignette("ggplot2-in-packages")` for more information.
## This warning is displayed once every 8 hours.
## Call `lifecycle::last_lifecycle_warnings()` to see where this warning was
## generated.

```

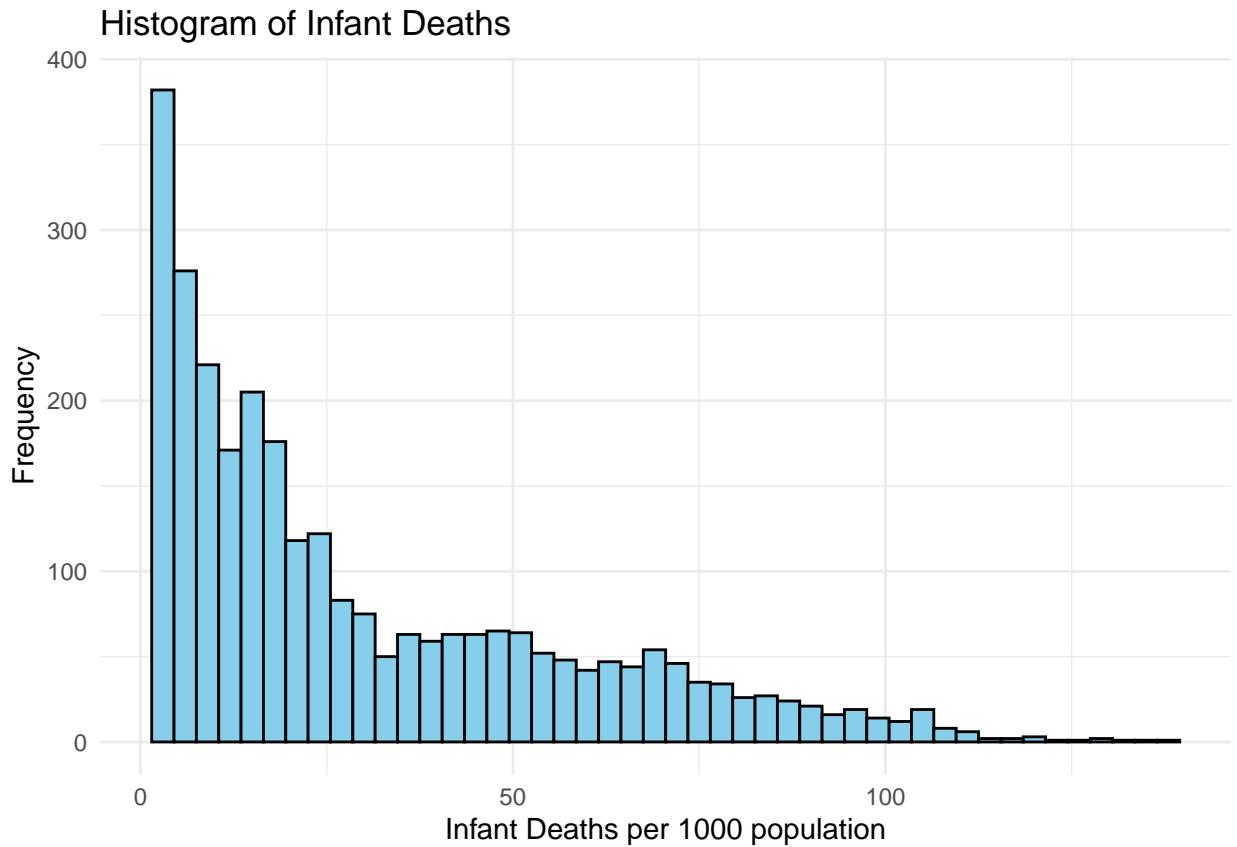
```
# Print the plot
print(plot)
```

Histogram of GDP Per Capita



```
# Create the plot
plot <- ggplot(data, aes_string(x = 'Infant_deaths')) +
  geom_histogram(binwidth = 3, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of Infant Deaths"), x = "Infant Deaths per 1000 population", y = "Frequency")
  theme_minimal()

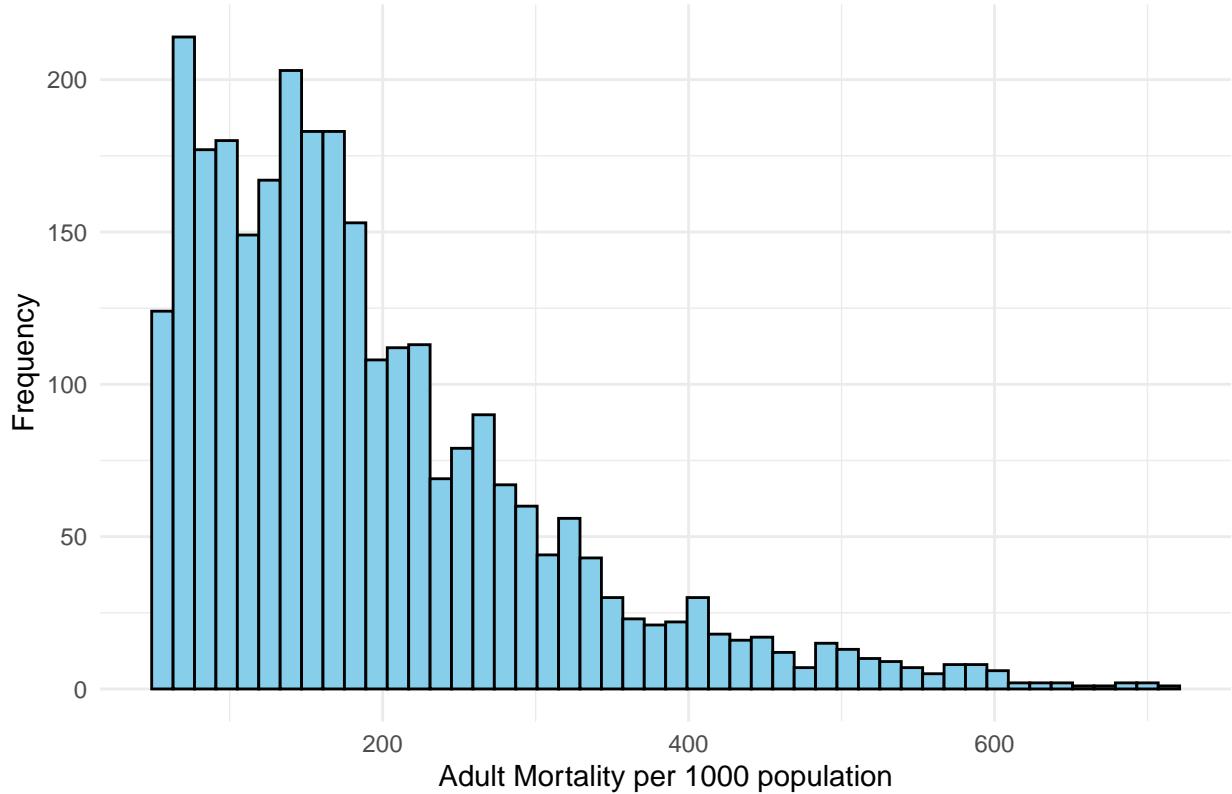
# Print the plot
print(plot)
```



```
# Create the plot
plot <- ggplot(data, aes_string(x = "Adult_mortality")) +
  geom_histogram(binwidth = 14, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of Adult Mortality"), x = "Adult Mortality per 1000 population", y = "Frequency")
  theme_minimal()

# Print the plot
print(plot)
```

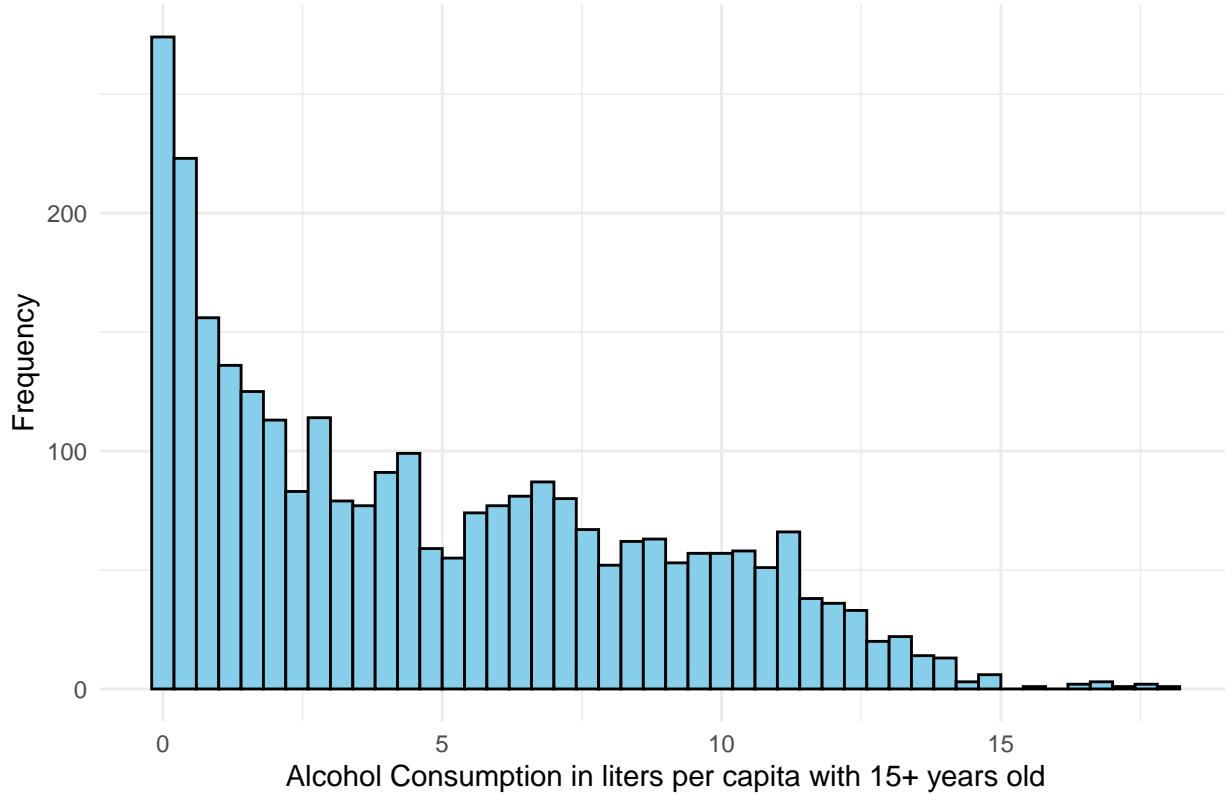
## Histogram of Adult Mortality



```
# Create the plot
plot <- ggplot(data, aes_string(x = "Alcohol_consumption")) +
  geom_histogram(binwidth = 0.4, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of", "Alcohol Consumption"), x = "Alcohol Consumption in liters per cap",
       theme_minimal())

# Print the plot
print(plot)
```

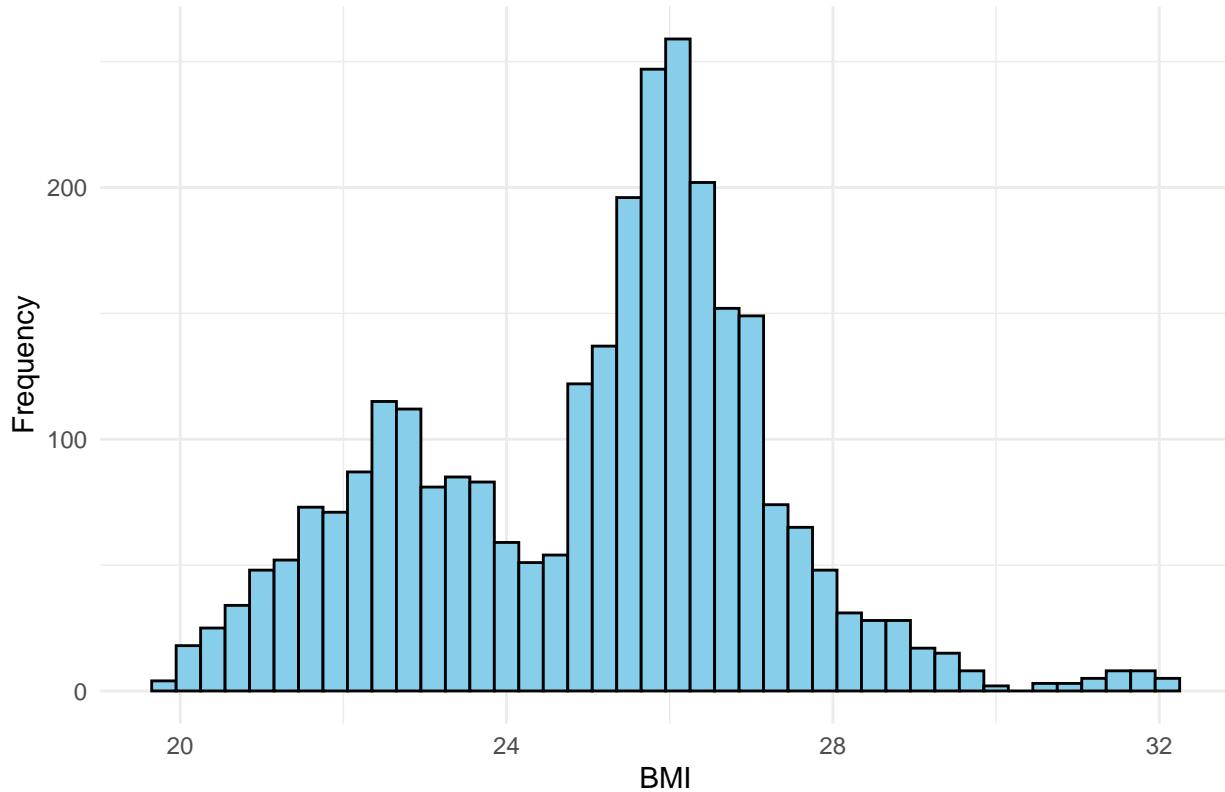
## Histogram of Alcohol Consumption



```
# Create the plot
plot <- ggplot(data, aes_string(x = "BMI")) +
  geom_histogram(binwidth = 0.3, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of BMI"), x = "BMI", y = "Frequency") +
  theme_minimal()

# Print the plot
print(plot)
```

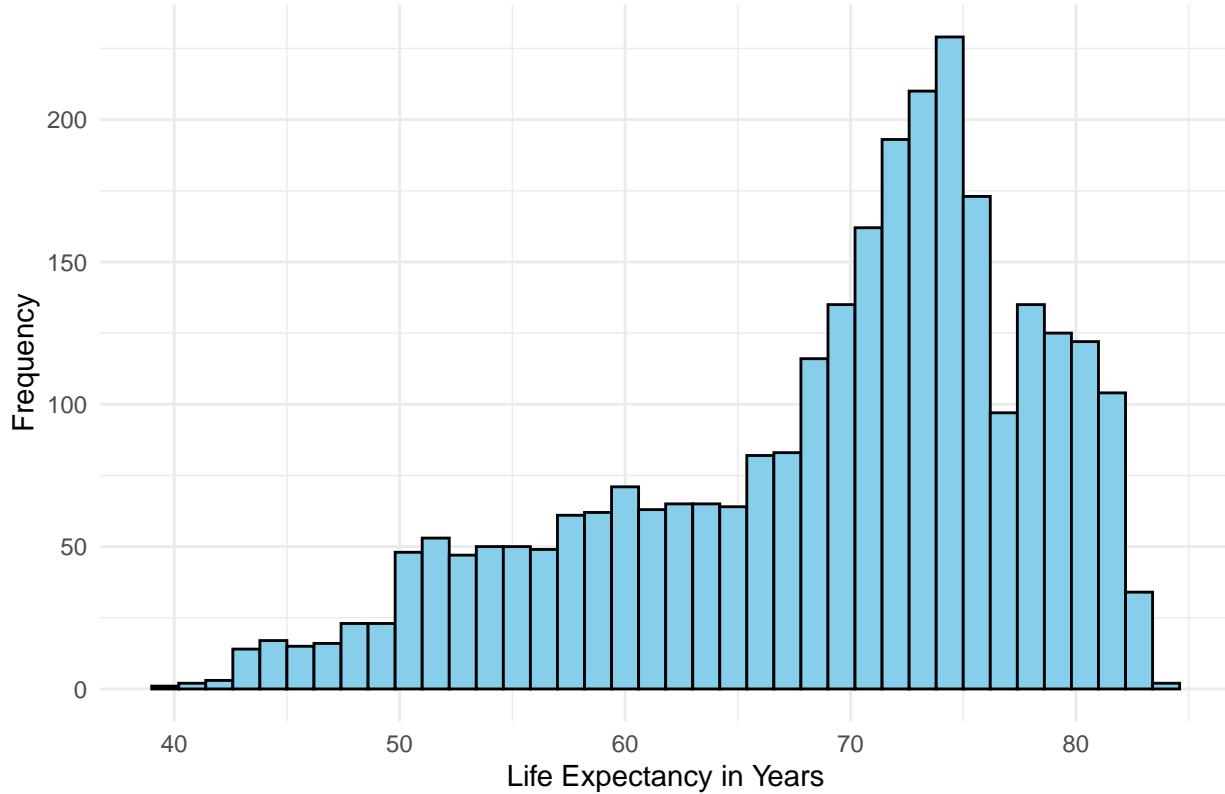
## Histogram of BMI



```
# Create the plot
plot <- ggplot(data, aes_string(x = "Life_expectancy")) +
  geom_histogram(binwidth = 1.2, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of Life Expectancy"), x = "Life Expectancy in Years", y = "Frequency") +
  theme_minimal()

# Print the plot
print(plot)
```

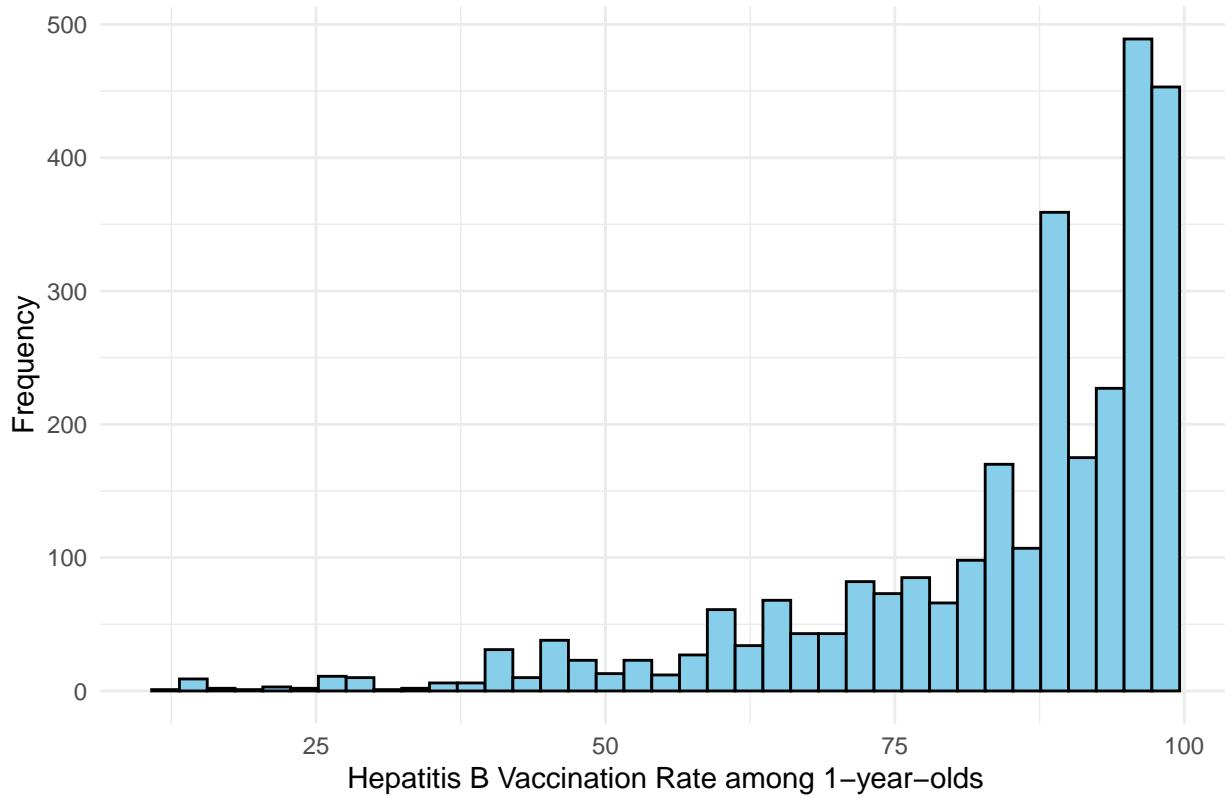
## Histogram of Life Expectancy



```
# Create the plot
plot <- ggplot(data, aes_string(x = 'Hepatitis_B')) +
  geom_histogram(binwidth = 2.4, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of Hepatitis B"), x = "Hepatitis B Vaccination Rate among 1-year-olds",
       theme_minimal())

# Print the plot
print(plot)
```

## Histogram of Hepatitis B

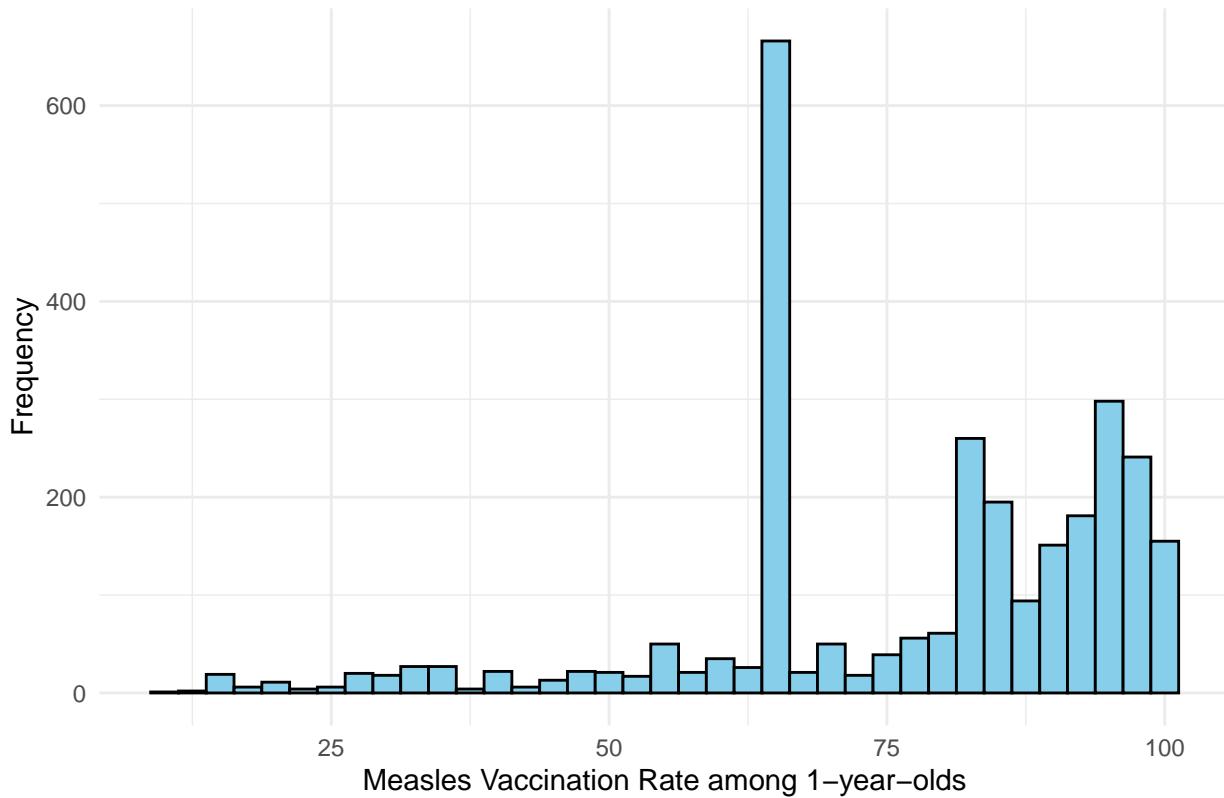


```
# List of numeric columns for histograms
columns <- c(
  "Measles"
)

# Create the plot
plot <- ggplot(data, aes_string(x = "Measles")) +
  geom_histogram(binwidth = 2.5, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of Measles"), x = "Measles Vaccination Rate among 1-year-olds", y = "Frequency")
  theme_minimal()

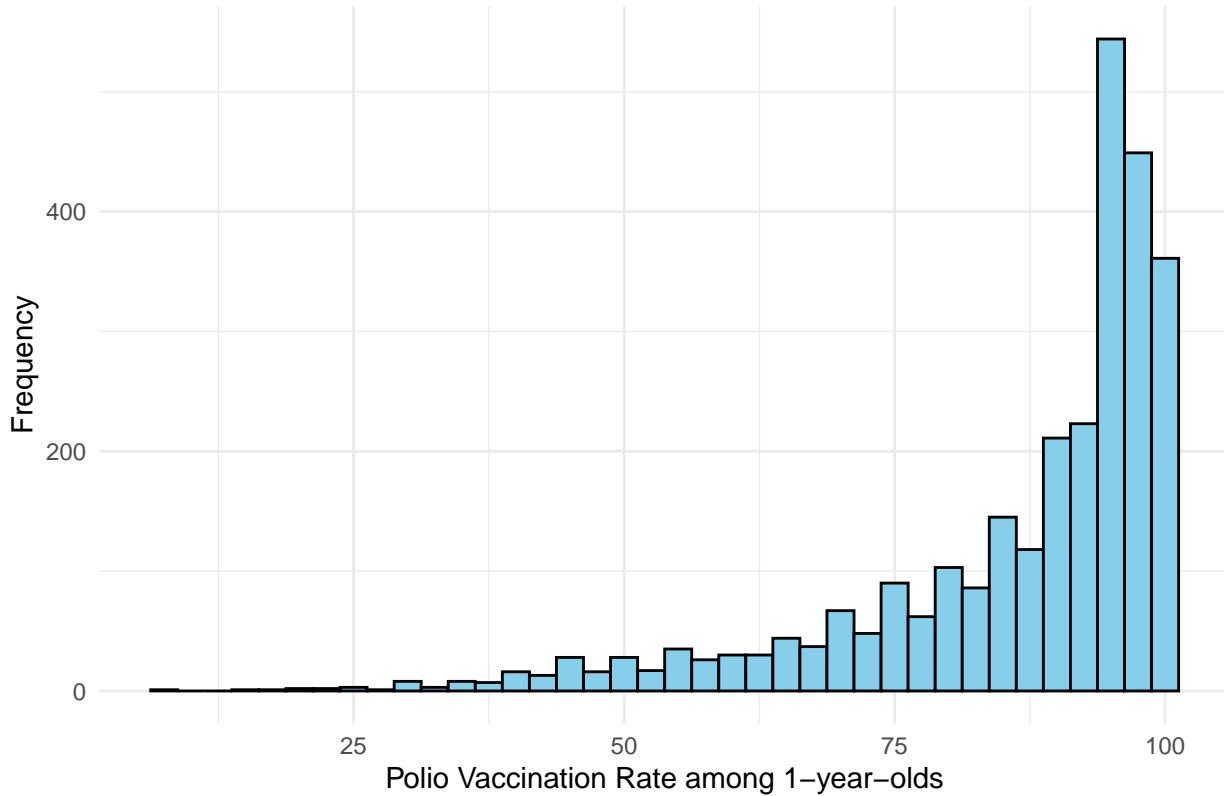
# Print the plot
print(plot)
```

## Histogram of Measles



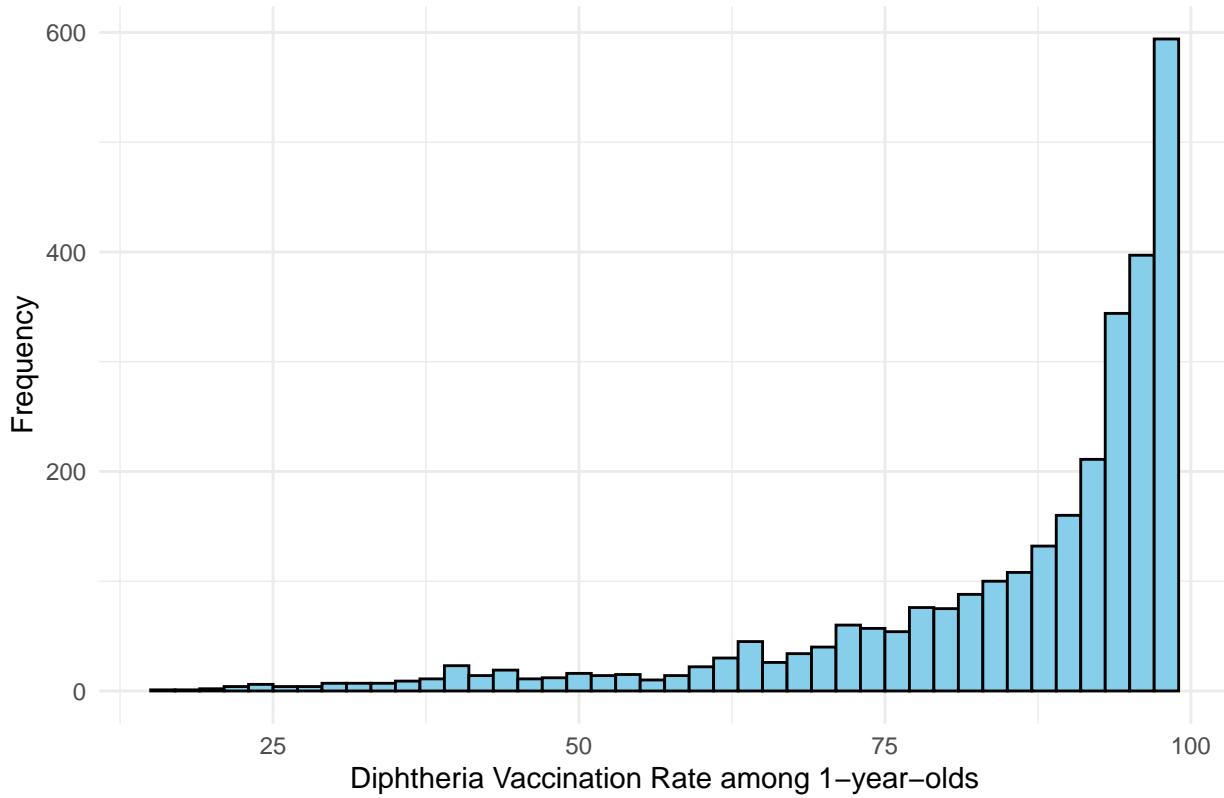
```
# Create the plot
plot <- ggplot(data, aes_string(x = "Polio")) +
  geom_histogram(binwidth = 2.5, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of Polio"), x = "Polio Vaccination Rate among 1-year-olds", y = "Frequency")
# Print the plot
print(plot)
```

## Histogram of Polio



```
# Create the plot
plot <- ggplot(data, aes_string(x = "Diphtheria")) +
  geom_histogram(binwidth = 2, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of Diphtheria"), x = "Diphtheria Vaccination Rate among 1-year-olds", y =
    "Frequency")
# Print the plot
print(plot)
```

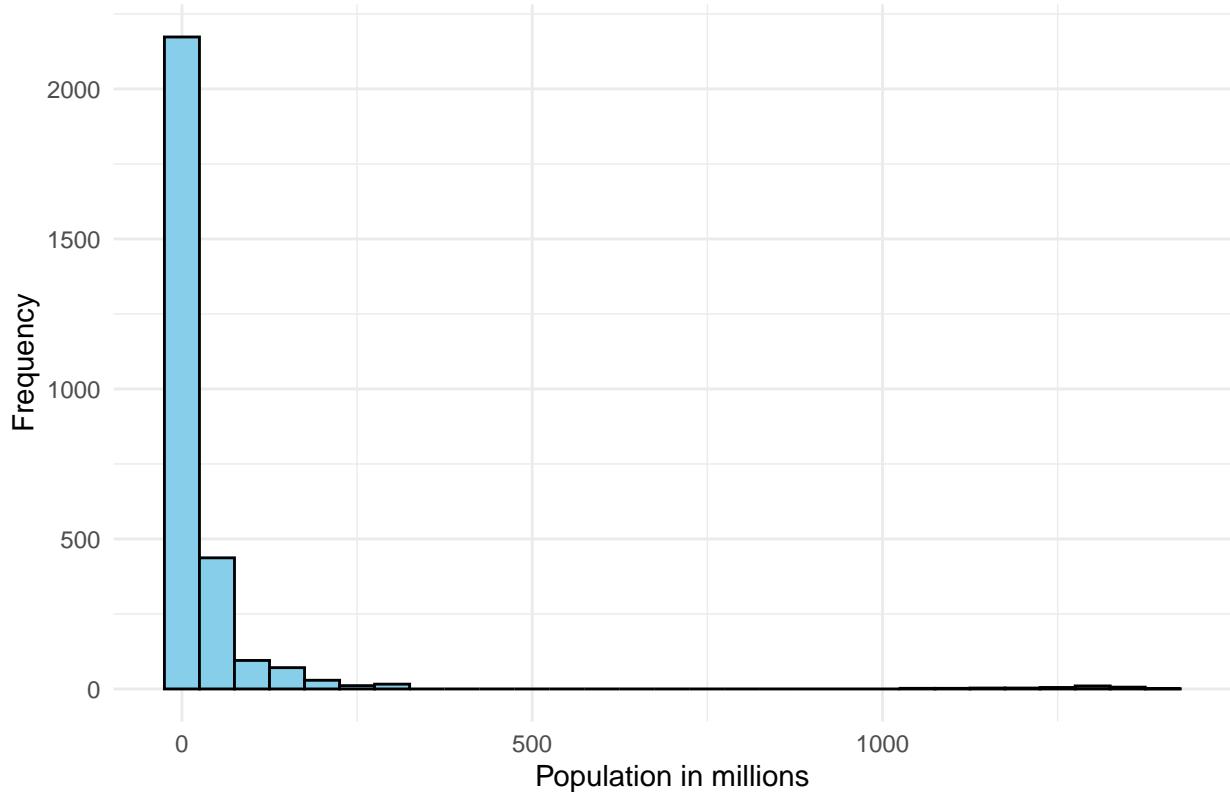
## Histogram of Diphtheria



```
# Create the plot
plot <- ggplot(data, aes_string(x = "Population_mln")) +
  geom_histogram(binwidth = 50, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of Population"), x = "Population in millions", y = "Frequency") +
  theme_minimal()

# Print the plot
print(plot)
```

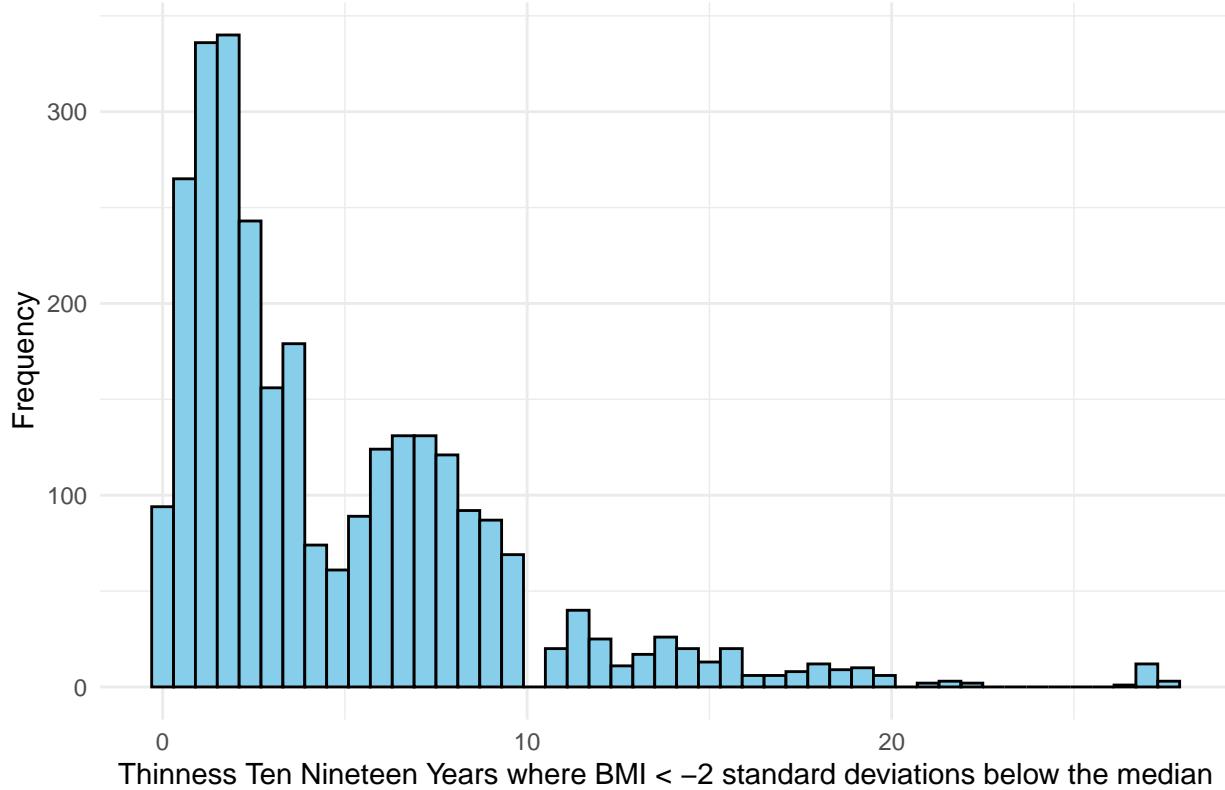
### Histogram of Population



```
# Create the plot
plot <- ggplot(data, aes_string(x = "Thinness_ten_nineteen_years")) +
  geom_histogram(binwidth = 0.6, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of Thinness Ten Nineteen Years"), x = "Thinness Ten Nineteen Years where",
       theme_minimal())

# Print the plot
print(plot)
```

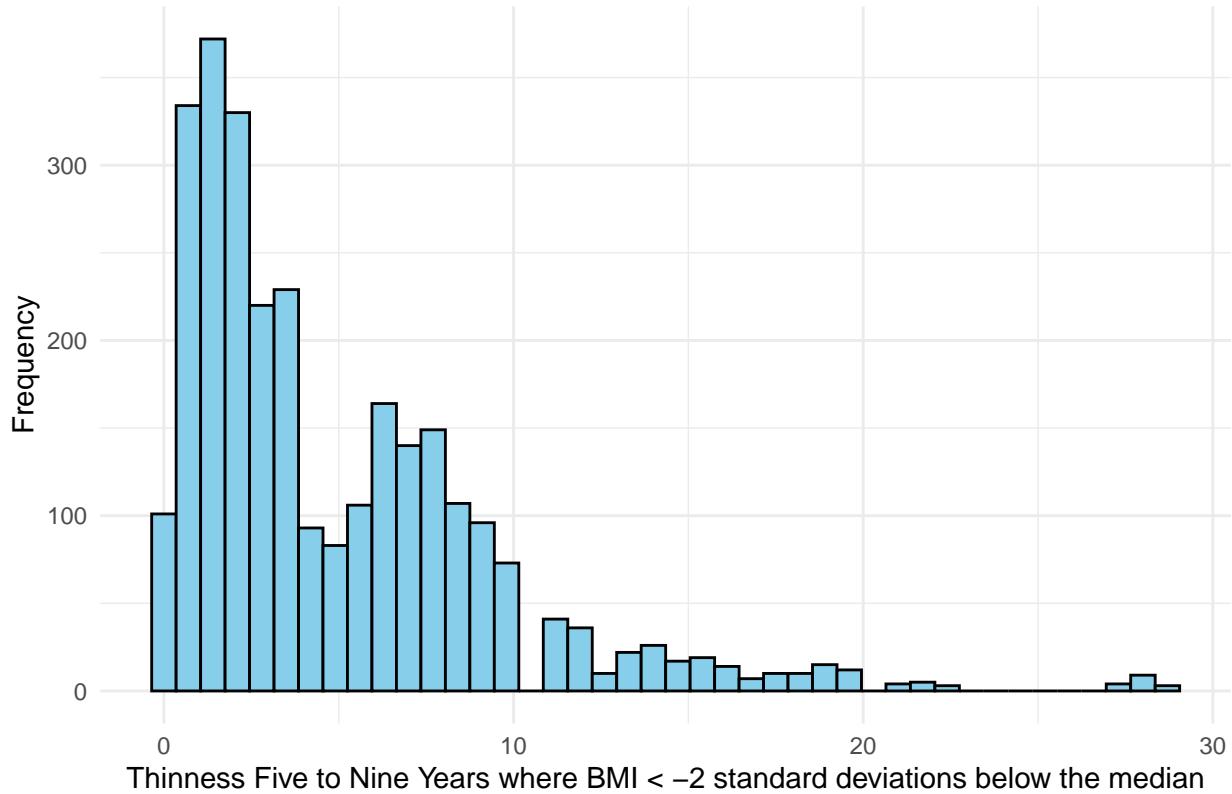
## Histogram of Thinness Ten Nineteen Years



```
# Create the plot
plot <- ggplot(data, aes_string(x = "Thinness_five_nine_years")) +
  geom_histogram(binwidth = 0.7, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of Thinness Ten Nineteen Years"), x = "Thinness Five to Nine Years where BMI < -2 standard deviations below the median", y = "Frequency") +
  theme_minimal()

# Print the plot
print(plot)
```

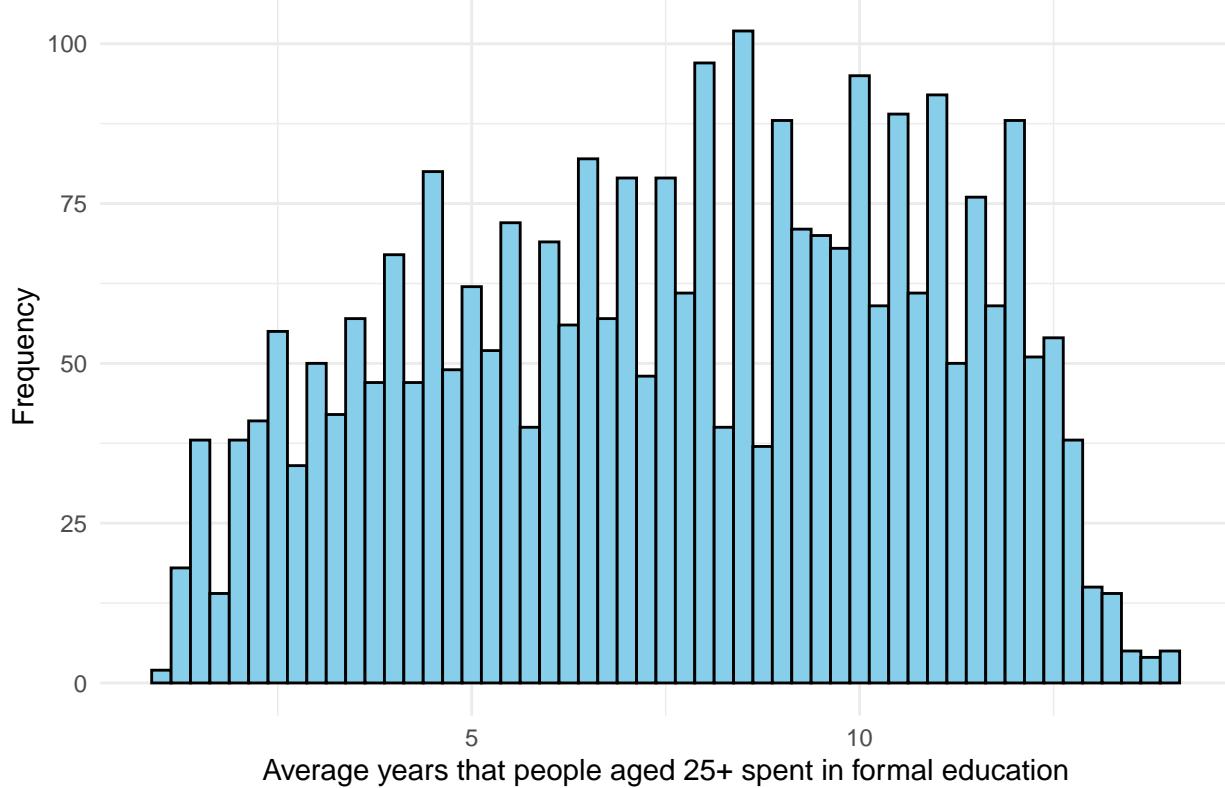
## Histogram of Thinnness Ten Nineteen Years



```
# Create the plot
plot <- ggplot(data, aes_string(x = "Schooling")) +
  geom_histogram(binwidth = 0.25, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of Schooling"), x = "Average years that people aged 25+ spent in formal
  theme_minimal()

# Print the plot
print(plot)
```

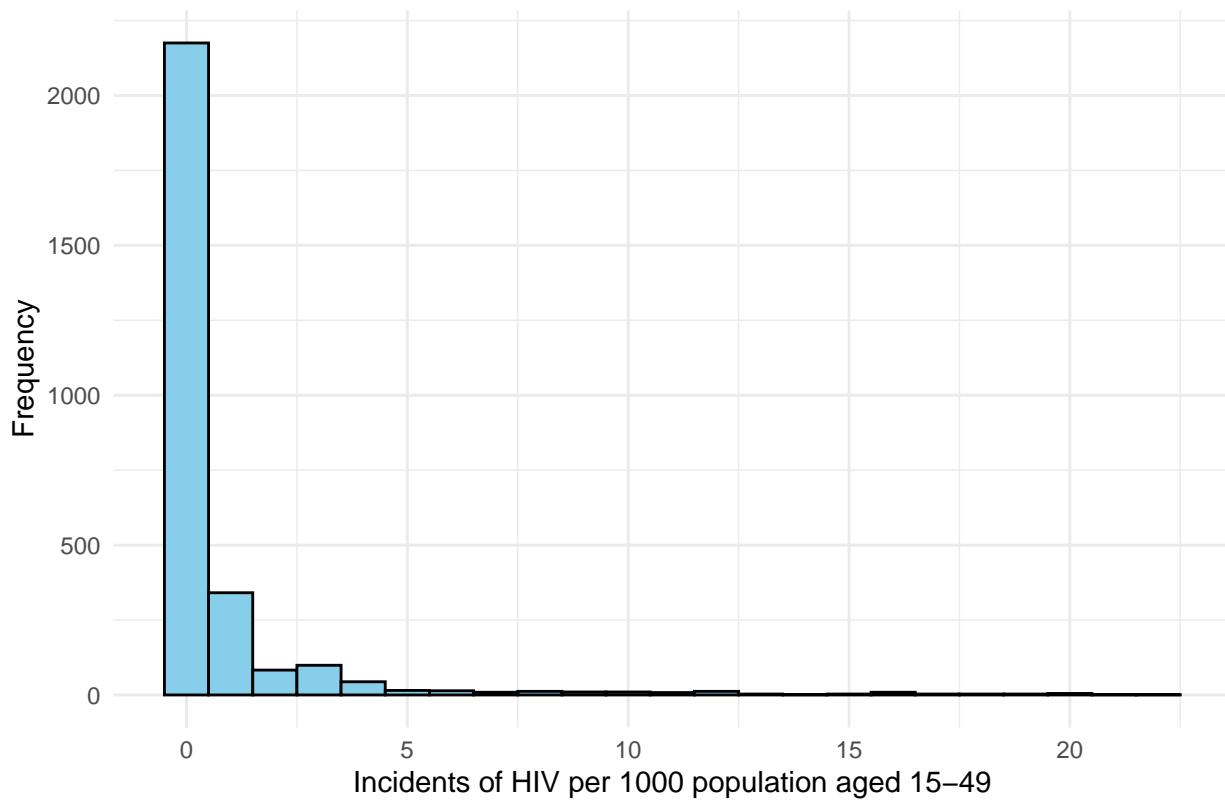
## Histogram of Schooling



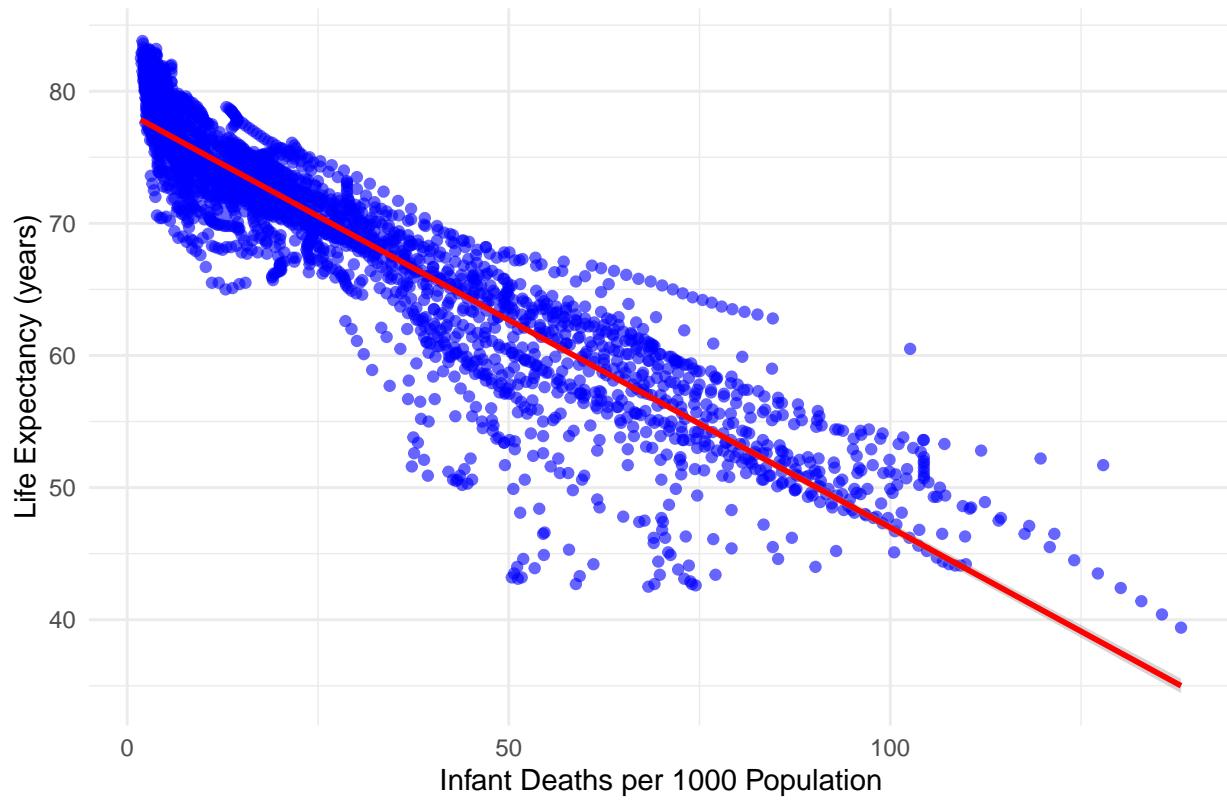
```
# Create the plot
plot <- ggplot(data, aes_string(x = "Incidents_HIV")) +
  geom_histogram(binwidth = 1, fill = "skyblue", color = "black") +
  labs(title = paste("Histogram of HIV Incidents"), x = "Incidents of HIV per 1000 population aged 15-49")
  theme_minimal()

# Print the plot
print(plot)
```

### Histogram of HIV Incidents



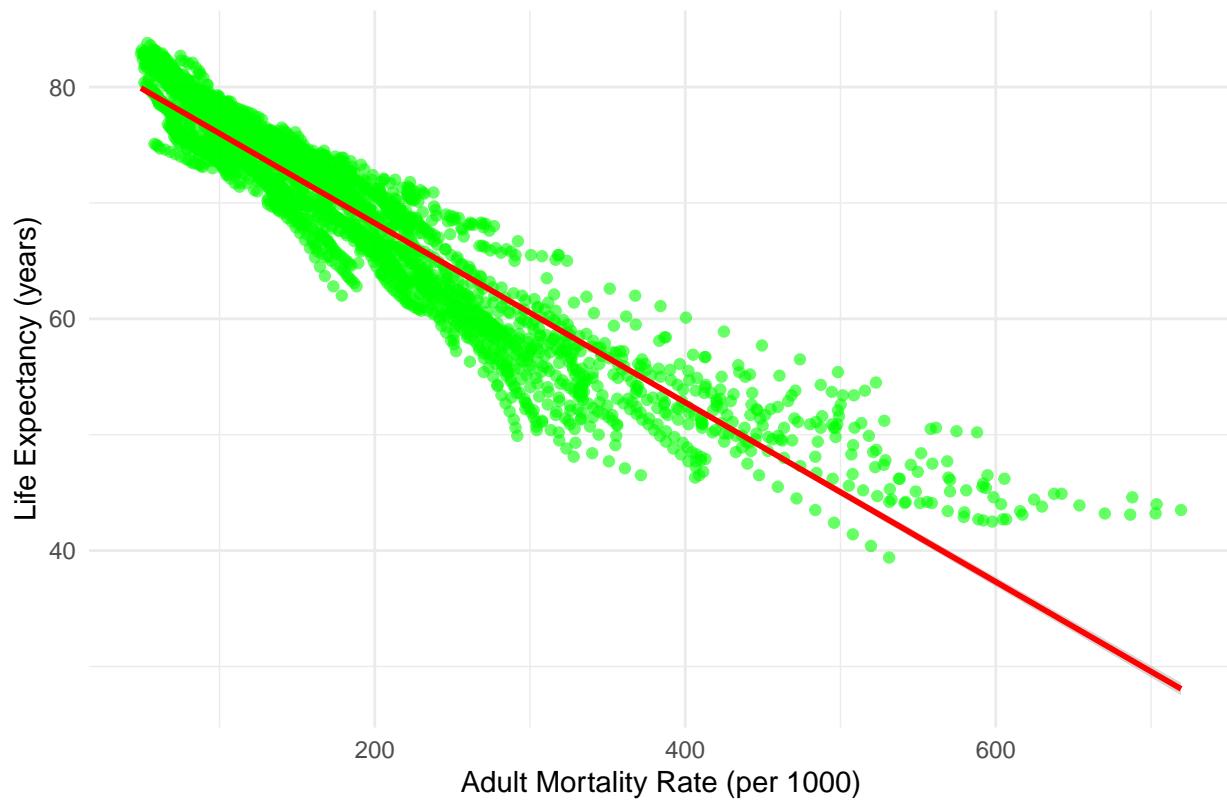
## Life Expectancy vs. Infant Deaths



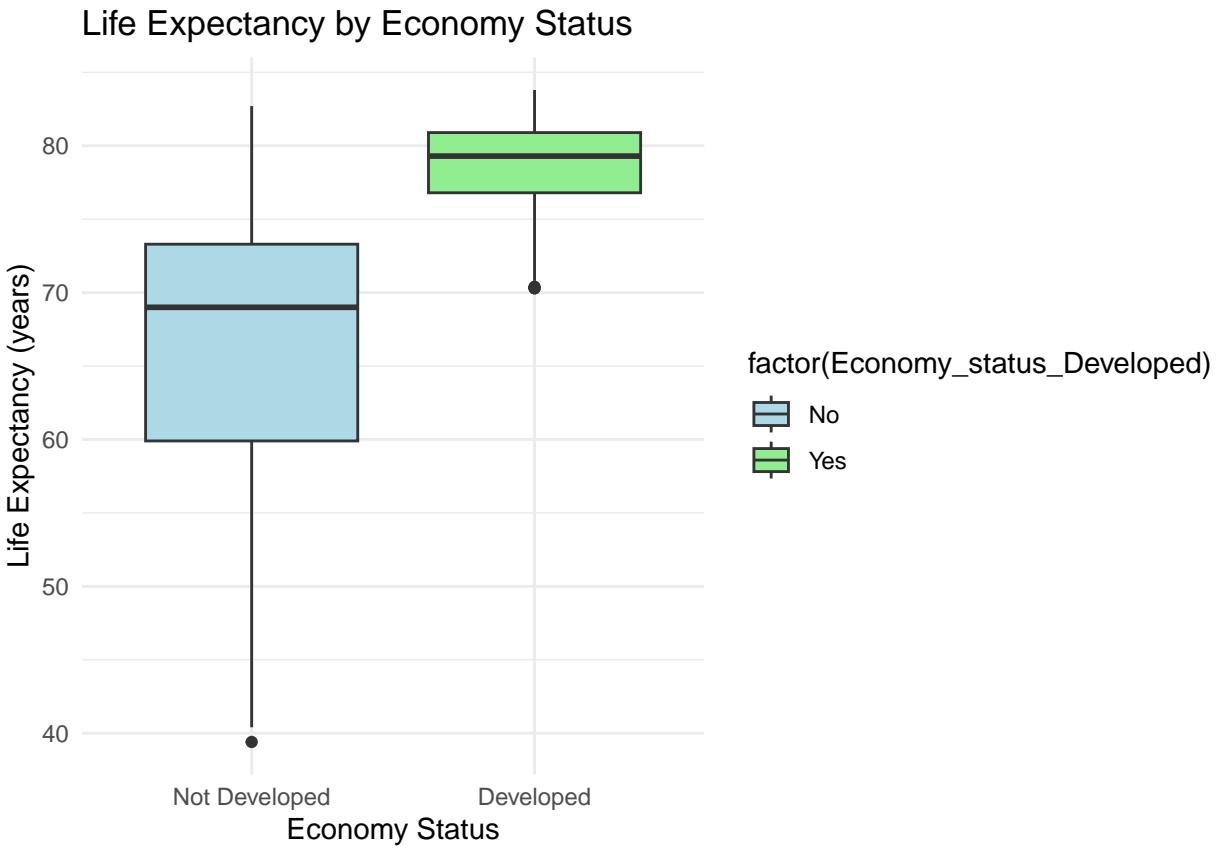
Relationship between life Expectancy and Adult Mortality

```
## `geom_smooth()` using formula = 'y ~ x'
```

## Life Expectancy vs. Adult Mortality



Relationship between life Expectancy and economy status (Developed vs. Developing)



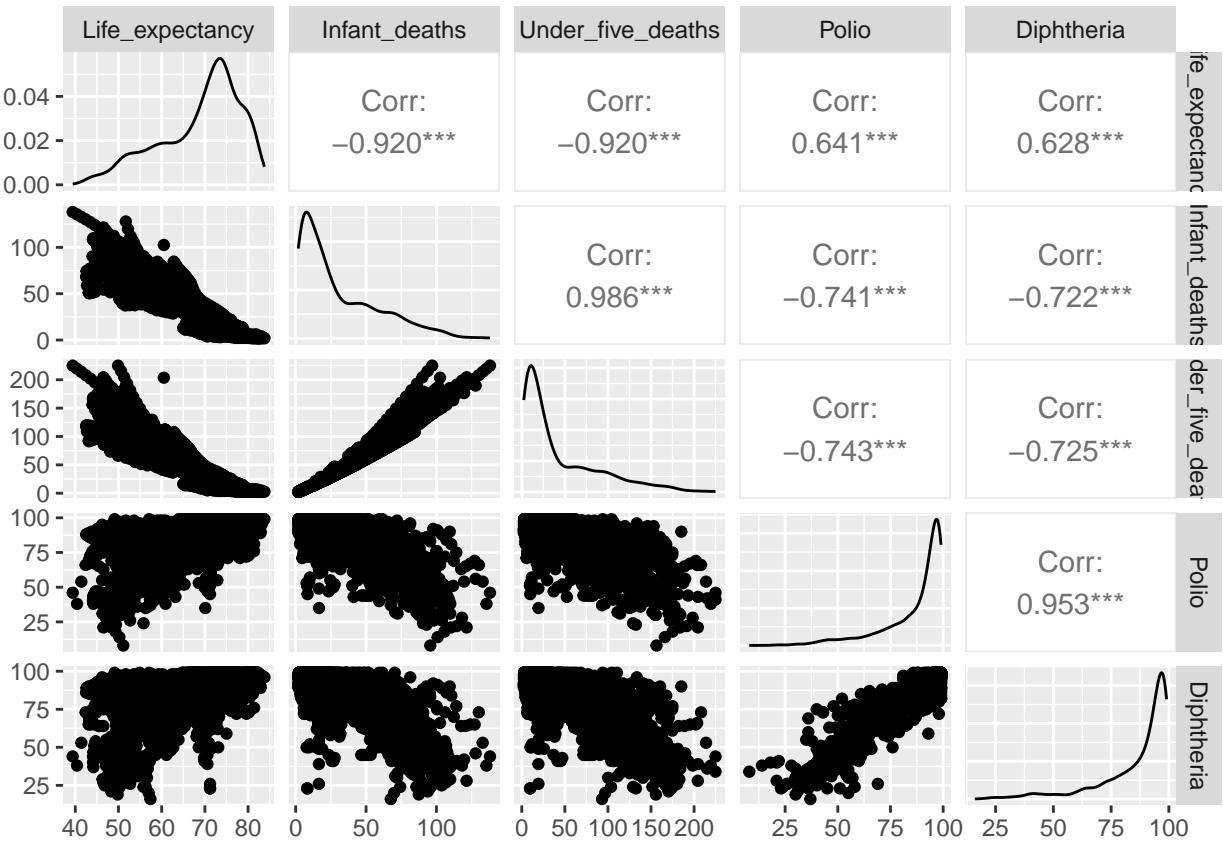
```
##
## Call:
## imcdiag(mod = model, method = "VIF")
##
##
## VIF Multicollinearity Diagnostics
##
##                                     VIF detection
## RegionAsia                  2.6230      0
## RegionCentral America and Caribbean 2.2181      0
## RegionEuropean Union          6.6204      0
## RegionMiddle East             2.2448      0
## RegionNorth America           1.5346      0
## RegionOceania                 1.9782      0
## RegionRest of Europe          2.4437      0
## RegionSouth America            1.9035      0
## YearY2001                     1.8761      0
## YearY2002                     1.8801      0
## YearY2003                     1.8815      0
## YearY2004                     1.8852      0
## YearY2005                     1.8911      0
## YearY2006                     1.8967      0
## YearY2007                     1.9024      0
## YearY2008                     1.9066      0
## YearY2009                     1.9137      0
## YearY2010                     1.9186      0
## YearY2011                     1.9262      0
```

```

## YearY2012           1.9340    0
## YearY2013           1.9437    0
## YearY2014           1.9519    0
## YearY2015           1.9588    0
## Infant_deaths       48.2026   1
## Under_five_deaths   50.0525   1
## Adult_mortality     8.1421    0
## Hepatitis_B          2.7445    0
## Alcohol_consumption 3.3884    0
## Measles              1.6634    0
## BMI                  3.9027    0
## Polio                 12.2016   1
## Diphtheria            13.2644   1
## Incidents_HIV         3.0411    0
## GDP_per_capita        2.6502    0
## Population_mln         1.2131   0
## Thinness_ten_nineteen_years 9.0115   0
## Thinness_five_nine_years 9.2297   0
## Schooling             5.5301    0
## Economy_status_DevelopedYes 7.2835   0
##
## Multicollinearity may be due to Infant_deaths Under_five_deaths Polio Diphtheria regressors
##
## 1 --> COLLINEARITY is detected by the test
## 0 --> COLLINEARITY is not detected by the test
##
## =====

## Registered S3 method overwritten by 'GGally':
##   method from
##   +.gg   ggplot2

```



```
##
## Call:
## imcdiag(mod = model, method = "VIF")
##
##
## VIF Multicollinearity Diagnostics
##
##                                     VIF detection
## RegionAsia                  2.4534      0
## RegionCentral America and Caribbean 2.1513      0
## RegionEuropean Union          6.5419      0
## RegionMiddle East             2.2283      0
## RegionNorth America           1.5147      0
## RegionOceania                 1.9019      0
## RegionRest of Europe          2.4140      0
## RegionSouth America           1.8480      0
## YearY2001                     1.8761      0
## YearY2002                     1.8794      0
## YearY2003                     1.8813      0
## YearY2004                     1.8851      0
## YearY2005                     1.8909      0
## YearY2006                     1.8967      0
## YearY2007                     1.9020      0
## YearY2008                     1.9064      0
## YearY2009                     1.9135      0
## YearY2010                     1.9185      0
## YearY2011                     1.9251      0
```

```

## YearY2012           1.9334    0
## YearY2013           1.9430    0
## YearY2014           1.9510    0
## YearY2015           1.9580    0
## Infant_deaths       8.6365    0
## Adult_mortality     8.0123    0
## Hepatitis_B          2.3251    0
## Alcohol_consumption 3.3720    0
## Measles              1.6604    0
## BMI                  3.8322    0
## Polio                3.7884    0
## Incidents_HIV        3.0380    0
## GDP_per_capita       2.6070    0
## Population_mln        1.2126    0
## Thinness_ten_nineteen_years 8.9921    0
## Thinness_five_nine_years 9.2034    0
## Schooling             5.4809    0
## Economy_status_DevelopedYes 7.2274    0
##
## NOTE: VIF Method Failed to detect multicollinearity
##
##
## 0 --> COLLINEARITY is not detected by the test
##
## =====
## Analysis of Variance Table
##
## Model 1: Life_expectancy ~ 1
## Model 2: Life_expectancy ~ Region + Year + Infant_deaths + Adult_mortality +
##            Hepatitis_B + Alcohol_consumption + Measles + BMI + Polio +
##            Incidents_HIV + GDP_per_capita + Population_mln + Thinness_ten_nineteen_years +
##            Thinness_five_nine_years + Schooling + Economy_status_Developed
##   Res.Df   RSS Df Sum of Sq   F   Pr(>F)
## 1    2863 253277
## 2    2826  4336 37   248940 4384.9 < 2.2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

*FullF – Test(AnovaTest)*

```

##
## Call:
## lm(formula = Life_expectancy ~ Region + Year + Infant_deaths +
##      Adult_mortality + Hepatitis_B + Alcohol_consumption + Measles +
##      BMI + Polio + Incidents_HIV + GDP_per_capita + Population_mln +
##      Thinness_ten_nineteen_years + Thinness_five_nine_years +
##      Schooling + Economy_status_Developed, data = data)
##
## Residuals:
##      Min        1Q    Median        3Q        Max
## -4.3028 -0.8304 -0.0081  0.8192  3.8779

```

```

## 
## Coefficients:
##                               Estimate Std. Error t value Pr(>|t|)    
## (Intercept)             8.210e+01  5.923e-01 138.612 < 2e-16 ***
## RegionAsia              7.432e-01  1.013e-01   7.337 2.84e-13 ***
## RegionCentral America and Caribbean 2.209e+00  1.102e-01  20.047 < 2e-16 ***
## RegionEuropean Union      -4.085e-01  1.654e-01  -2.469 0.013591 *  
## RegionMiddle East          4.179e-01  1.287e-01   3.248 0.001177 ** 
## RegionNorth America        8.398e-01  2.219e-01   3.785 0.000157 *** 
## RegionOceania              -4.462e-01  1.329e-01  -3.357 0.000798 *** 
## RegionRest of Europe       4.779e-01  1.298e-01   3.682 0.000236 *** 
## RegionSouth America         2.030e+00  1.258e-01  16.136 < 2e-16 *** 
## YearY2001                  7.653e-02  1.310e-01   0.584 0.559039  
## YearY2002                  9.121e-02  1.311e-01   0.696 0.486608  
## YearY2003                  1.344e-02  1.312e-01   0.102 0.918393  
## YearY2004                  4.213e-02  1.313e-01   0.321 0.748326  
## YearY2005                  1.204e-03  1.315e-01   0.009 0.992692  
## YearY2006                  2.442e-02  1.317e-01   0.185 0.852928  
## YearY2007                  5.754e-02  1.319e-01   0.436 0.662611  
## YearY2008                  1.138e-01  1.320e-01   0.862 0.388895  
## YearY2009                  1.737e-01  1.323e-01   1.313 0.189129  
## YearY2010                  2.492e-01  1.324e-01   1.881 0.060043 .  
## YearY2011                  2.983e-01  1.327e-01   2.248 0.024645 *  
## YearY2012                  3.259e-01  1.330e-01   2.451 0.014305 *  
## YearY2013                  4.432e-01  1.333e-01   3.325 0.000895 *** 
## YearY2014                  5.417e-01  1.336e-01   4.056 5.13e-05 *** 
## YearY2015                  5.639e-01  1.338e-01   4.214 2.59e-05 *** 
## Infant_deaths               -1.261e-01 2.471e-03  -51.059 < 2e-16 *** 
## Adult_mortality              -4.758e-02 5.703e-04  -83.440 < 2e-16 *** 
## Hepatitis_B                  -1.162e-02 2.207e-03  -5.265 1.51e-07 *** 
## Alcohol_consumption           -1.400e-02 1.068e-02  -1.311 0.189900  
## Measles                      1.778e-03 1.599e-03   1.112 0.266042  
## BMI                          -1.043e-01 2.066e-02  -5.047 4.77e-07 *** 
## Polio                         1.045e-02 2.988e-03   3.499 0.000475 *** 
## Incidents_HIV                9.640e-02 1.694e-02   5.689 1.41e-08 *** 
## GDP_per_capita                 1.632e-05 2.207e-06   7.393 1.88e-13 *** 
## Population_mln                -2.653e-04 1.868e-04  -1.420 0.155654  
## Thinness_ten_nineteen_years    -3.666e-02 1.564e-02  -2.344 0.019167 *  
## Thinness_five_nine_years        3.384e-02 1.552e-02   2.180 0.029304 *  
## Schooling                     1.232e-01 1.709e-02   7.208 7.27e-13 *** 
## Economy_status_DevelopedYes   2.335e+00 1.537e-01  15.198 < 2e-16 *** 
## --- 
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## 
## Residual standard error: 1.239 on 2826 degrees of freedom
## Multiple R-squared:  0.9829, Adjusted R-squared:  0.9827 
## F-statistic:  4385 on 37 and 2826 DF,  p-value: < 2.2e-16

## 
## Call:
## lm(formula = Life_expectancy ~ Region + Year + Infant_deaths +
##     Adult_mortality + Hepatitis_B + BMI + Polio + Incidents_HIV +
##     GDP_per_capita + Thinness_ten_nineteen_years + Thinness_five_nine_years +
##     Schooling + Economy_status_Developed, data = data)

```

```

##
## Residuals:
##      Min     1Q Median     3Q    Max
## -4.2893 -0.8378 -0.0017  0.8299  3.9110
##
## Coefficients:
##                               Estimate Std. Error t value Pr(>|t|)
## (Intercept)                8.207e+01  5.880e-01 139.571 < 2e-16 ***
## RegionAsia                 7.341e-01  9.935e-02   7.389 1.94e-13 ***
## RegionCentral America and Caribbean 2.177e+00  1.077e-01  20.221 < 2e-16 ***
## RegionEuropean Union        -4.559e-01  1.608e-01  -2.835 0.004612 **
## RegionMiddle East           4.552e-01  1.261e-01   3.610 0.000312 ***
## RegionNorth America          7.933e-01  2.200e-01   3.606 0.000317 ***
## RegionOceania                -4.529e-01  1.321e-01  -3.429 0.000614 ***
## RegionRest of Europe         4.508e-01  1.275e-01   3.535 0.000415 ***
## RegionSouth America          1.973e+00  1.225e-01  16.104 < 2e-16 ***
## YearY2001                    7.632e-02  1.310e-01   0.582 0.560288
## YearY2002                    9.150e-02  1.311e-01   0.698 0.485415
## YearY2003                    1.356e-02  1.312e-01   0.103 0.917697
## YearY2004                    4.222e-02  1.313e-01   0.321 0.747879
## YearY2005                    -8.614e-04 1.315e-01  -0.007 0.994774
## YearY2006                    2.313e-02  1.317e-01   0.176 0.860611
## YearY2007                    5.391e-02  1.319e-01   0.409 0.682784
## YearY2008                    1.098e-01  1.321e-01   0.831 0.405943
## YearY2009                    1.713e-01  1.323e-01   1.295 0.195336
## YearY2010                    2.462e-01  1.324e-01   1.859 0.063137 .
## YearY2011                    2.964e-01  1.327e-01   2.234 0.025551 *
## YearY2012                    3.230e-01  1.329e-01   2.430 0.015177 *
## YearY2013                    4.416e-01  1.333e-01   3.314 0.000931 ***
## YearY2014                    5.420e-01  1.335e-01   4.059 5.06e-05 ***
## YearY2015                    5.654e-01  1.338e-01   4.226 2.45e-05 ***
## Infant_deaths                -1.257e-01 2.461e-03 -51.080 < 2e-16 ***
## Adult_mortality               -4.771e-02 5.582e-04 -85.464 < 2e-16 ***
## Hepatitis_B                  -1.120e-02 2.187e-03 -5.123 3.22e-07 ***
## BMI                           -1.004e-01 2.060e-02 -4.876 1.14e-06 ***
## Polio                          1.108e-02 2.966e-03  3.736 0.000190 ***
## Incidents_HIV                 9.647e-02 1.692e-02  5.700 1.32e-08 ***
## GDP_per_capita                1.625e-05 2.201e-06  7.382 2.04e-13 ***
## Thinnness_ten_nineteen_years -3.628e-02 1.554e-02 -2.334 0.019661 *
## Thinnness_five_nine_years     3.035e-02 1.539e-02  1.972 0.048710 *
## Schooling                      1.188e-01 1.643e-02  7.229 6.24e-13 ***
## Economy_status_DevelopedYes  2.293e+00 1.515e-01  15.141 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.239 on 2829 degrees of freedom
## Multiple R-squared:  0.9828, Adjusted R-squared:  0.9826
## F-statistic:  4768 on 34 and 2829 DF,  p-value: < 2.2e-16

##
## Attaching package: 'olsrr'

## The following object is masked from 'package:datasets':
##

```

```

##      rivers

##
## Call:
## lm(formula = paste(response, "~", paste(preds, collapse = " + ")),
##      data = l)
##
## Residuals:
##      Min      1Q Median      3Q     Max
## -4.2748 -0.8392 -0.0013  0.8338  3.9131
##
## Coefficients:
##                               Estimate Std. Error t value Pr(>|t|)
## (Intercept)                 8.197e+01  5.458e-01 150.175 < 2e-16 ***
## Adult_mortality            -4.768e-02  5.581e-04 -85.437 < 2e-16 ***
## Infant_deaths              -1.258e-01  2.460e-03 -51.154 < 2e-16 ***
## Economy_status_DevelopedYes 2.295e+00  1.511e-01 15.192 < 2e-16 ***
## GDP_per_capita              1.617e-05  2.198e-06  7.356 2.46e-13 ***
## RegionAsia                  7.300e-01  9.571e-02  7.628 3.25e-14 ***
## RegionCentral America and Caribbean 2.183e+00  1.077e-01 20.280 < 2e-16 ***
## RegionEuropean Union         -4.495e-01  1.608e-01 -2.795 0.005225 **
## RegionMiddle East            4.435e-01  1.244e-01  3.565 0.000370 ***
## RegionNorth America          7.960e-01  2.201e-01  3.616 0.000305 ***
## RegionOceania                -4.388e-01  1.319e-01 -3.326 0.000892 ***
## RegionRest of Europe         4.555e-01  1.276e-01  3.571 0.000362 ***
## RegionSouth America           1.983e+00  1.218e-01 16.290 < 2e-16 ***
## Schooling                    1.226e-01  1.616e-02  7.584 4.52e-14 ***
## Incidents_HIV                9.585e-02  1.676e-02  5.719 1.18e-08 ***
## BMI                          -9.818e-02  1.974e-02 -4.973 6.99e-07 ***
## Hepatitis_B                  -1.133e-02  2.187e-03 -5.180 2.37e-07 ***
## Polio                         1.107e-02  2.967e-03  3.732 0.000193 ***
## YearY2001                     7.683e-02  1.311e-01  0.586 0.557896
## YearY2002                     8.562e-02  1.312e-01  0.653 0.514060
## YearY2003                     1.319e-02  1.313e-01  0.100 0.919967
## YearY2004                     4.103e-02  1.314e-01  0.312 0.754868
## YearY2005                     -3.394e-03  1.315e-01 -0.026 0.979420
## YearY2006                     1.834e-02  1.317e-01  0.139 0.889276
## YearY2007                     4.603e-02  1.319e-01  0.349 0.727149
## YearY2008                     1.049e-01  1.321e-01  0.794 0.427017
## YearY2009                     1.635e-01  1.323e-01  1.236 0.216389
## YearY2010                     2.402e-01  1.324e-01  1.814 0.069821 .
## YearY2011                     2.901e-01  1.327e-01  2.186 0.028899 *
## YearY2012                     3.176e-01  1.329e-01  2.389 0.016975 *
## YearY2013                     4.335e-01  1.332e-01  3.254 0.001151 **
## YearY2014                     5.398e-01  1.335e-01  4.043 5.41e-05 ***
## YearY2015                     5.595e-01  1.337e-01  4.184 2.95e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.24 on 2831 degrees of freedom
## Multiple R-squared:  0.9828, Adjusted R-squared:  0.9826
## F-statistic:  5059 on 32 and 2831 DF,  p-value: < 2.2e-16
##

```

```

## Call:
## lm(formula = Life_expectancy ~ (Region + Year + Infant_deaths +
##     Adult_mortality + Hepatitis_B + BMI + Polio + Incidents_HIV +
##     GDP_per_capita + Thinness_ten_nineteen_years + Thinness_five_nine_years +
##     Schooling + Economy_status_Developed)^2, data = data)
##
## Residuals:
##      Min      1Q   Median      3Q      Max 
## -3.01068 -0.48196 -0.01241  0.45843  2.66540 
##
## Coefficients: (4 not defined because of singularities)
##                                     Estimate
## (Intercept)                      1.018e+02
## RegionAsia                         5.743e+00
## RegionCentral America and Caribbean -4.756e+00
## RegionEuropean Union                  2.840e+01
## RegionMiddle East                   -9.743e+00
## RegionNorth America                 -8.056e+00
## RegionOceania                        1.510e+00
## RegionRest of Europe                  2.196e+01
## RegionSouth America                  1.350e+01
## YearY2001                            -9.320e-01
## YearY2002                            -1.814e-01
## YearY2003                            2.070e+00
## YearY2004                            3.426e+00
## YearY2005                            2.946e+00
## YearY2006                            2.175e+00
## YearY2007                            2.860e+00
## YearY2008                            3.491e+00
## YearY2009                            5.049e+00
## YearY2010                            4.552e+00
## YearY2011                            3.994e+00
## YearY2012                            3.227e+00
## YearY2013                            3.926e+00
## YearY2014                            4.674e+00
## YearY2015                            3.737e+00
## Infant_deaths                       -6.111e-01
## Adult_mortality                     -3.096e-02
## Hepatitis_B                          -9.361e-02
## BMI                                 -4.821e-01
## Polio                               -7.093e-02
## Incidents_HIV                      3.129e-01
## GDP_per_capita                      1.005e-04
## Thinness_ten_nineteen_years          1.357e+00
## Thinness_five_nine_years             -1.478e+00
## Schooling                           -1.356e+00
## Economy_status_DevelopedYes        -7.913e+00
## RegionAsia:YearY2001                -1.707e-01
## RegionCentral America and Caribbean:YearY2001 -1.618e-02
## RegionEuropean Union:YearY2001       -8.529e-02
## RegionMiddle East:YearY2001         -9.587e-02
## RegionNorth America:YearY2001        4.796e-01
## RegionOceania:YearY2001              -9.376e-02
## RegionRest of Europe:YearY2001       3.776e-02

```

## RegionSouth America:YearY2001	-9.538e-02
## RegionAsia:YearY2002	1.234e-01
## RegionCentral America and Caribbean:YearY2002	1.576e-01
## RegionEuropean Union:YearY2002	2.472e-01
## RegionMiddle East:YearY2002	2.152e-01
## RegionNorth America:YearY2002	1.447e+00
## RegionOceania:YearY2002	1.943e-01
## RegionRest of Europe:YearY2002	3.288e-01
## RegionSouth America:YearY2002	1.866e-01
## RegionAsia:YearY2003	3.812e-03
## RegionCentral America and Caribbean:YearY2003	1.614e-02
## RegionEuropean Union:YearY2003	-7.526e-02
## RegionMiddle East:YearY2003	1.764e-01
## RegionNorth America:YearY2003	1.901e+00
## RegionOceania:YearY2003	3.611e-01
## RegionRest of Europe:YearY2003	2.151e-01
## RegionSouth America:YearY2003	-3.103e-02
## RegionAsia:YearY2004	-1.958e-01
## RegionCentral America and Caribbean:YearY2004	-2.981e-01
## RegionEuropean Union:YearY2004	-3.260e-05
## RegionMiddle East:YearY2004	-7.009e-02
## RegionNorth America:YearY2004	2.475e+00
## RegionOceania:YearY2004	2.386e-01
## RegionRest of Europe:YearY2004	1.326e-02
## RegionSouth America:YearY2004	-1.293e-01
## RegionAsia:YearY2005	-3.950e-01
## RegionCentral America and Caribbean:YearY2005	-4.067e-01
## RegionEuropean Union:YearY2005	-1.536e-01
## RegionMiddle East:YearY2005	-1.413e-01
## RegionNorth America:YearY2005	3.066e+00
## RegionOceania:YearY2005	1.900e-01
## RegionRest of Europe:YearY2005	4.686e-02
## RegionSouth America:YearY2005	-1.193e-01
## RegionAsia:YearY2006	-4.496e-01
## RegionCentral America and Caribbean:YearY2006	-4.496e-01
## RegionEuropean Union:YearY2006	2.470e-02
## RegionMiddle East:YearY2006	-1.749e-01
## RegionNorth America:YearY2006	3.550e+00
## RegionOceania:YearY2006	3.027e-01
## RegionRest of Europe:YearY2006	1.660e-01
## RegionSouth America:YearY2006	5.928e-02
## RegionAsia:YearY2007	-4.762e-01
## RegionCentral America and Caribbean:YearY2007	-7.416e-01
## RegionEuropean Union:YearY2007	-6.383e-02
## RegionMiddle East:YearY2007	-3.616e-01
## RegionNorth America:YearY2007	3.944e+00
## RegionOceania:YearY2007	2.375e-01
## RegionRest of Europe:YearY2007	2.730e-01
## RegionSouth America:YearY2007	-1.431e-01
## RegionAsia:YearY2008	-2.417e-01
## RegionCentral America and Caribbean:YearY2008	-6.940e-01
## RegionEuropean Union:YearY2008	2.787e-01
## RegionMiddle East:YearY2008	-1.872e-01
## RegionNorth America:YearY2008	4.331e+00

## RegionOceania:YearY2008	3.988e-01
## RegionRest of Europe:YearY2008	5.090e-01
## RegionSouth America:YearY2008	1.297e-01
## RegionAsia:YearY2009	-1.032e-01
## RegionCentral America and Caribbean:YearY2009	-8.259e-01
## RegionEuropean Union:YearY2009	1.990e-01
## RegionMiddle East:YearY2009	-1.971e-01
## RegionNorth America:YearY2009	3.799e+00
## RegionOceania:YearY2009	4.327e-01
## RegionRest of Europe:YearY2009	4.103e-01
## RegionSouth America:YearY2009	1.510e-01
## RegionAsia:YearY2010	9.902e-02
## RegionCentral America and Caribbean:YearY2010	-5.728e-01
## RegionEuropean Union:YearY2010	6.885e-01
## RegionMiddle East:YearY2010	-8.730e-02
## RegionNorth America:YearY2010	4.657e+00
## RegionOceania:YearY2010	6.348e-01
## RegionRest of Europe:YearY2010	9.230e-01
## RegionSouth America:YearY2010	4.593e-01
## RegionAsia:YearY2011	6.138e-02
## RegionCentral America and Caribbean:YearY2011	-7.774e-01
## RegionEuropean Union:YearY2011	1.011e+00
## RegionMiddle East:YearY2011	-7.987e-02
## RegionNorth America:YearY2011	4.911e+00
## RegionOceania:YearY2011	7.375e-01
## RegionRest of Europe:YearY2011	1.142e+00
## RegionSouth America:YearY2011	5.195e-01
## RegionAsia:YearY2012	8.572e-02
## RegionCentral America and Caribbean:YearY2012	-9.097e-01
## RegionEuropean Union:YearY2012	9.558e-01
## RegionMiddle East:YearY2012	-2.749e-01
## RegionNorth America:YearY2012	5.374e+00
## RegionOceania:YearY2012	8.292e-01
## RegionRest of Europe:YearY2012	1.178e+00
## RegionSouth America:YearY2012	5.635e-01
## RegionAsia:YearY2013	2.317e-01
## RegionCentral America and Caribbean:YearY2013	-9.045e-01
## RegionEuropean Union:YearY2013	1.288e+00
## RegionMiddle East:YearY2013	7.432e-03
## RegionNorth America:YearY2013	5.831e+00
## RegionOceania:YearY2013	9.477e-01
## RegionRest of Europe:YearY2013	1.439e+00
## RegionSouth America:YearY2013	6.867e-01
## RegionAsia:YearY2014	3.692e-01
## RegionCentral America and Caribbean:YearY2014	-8.285e-01
## RegionEuropean Union:YearY2014	1.528e+00
## RegionMiddle East:YearY2014	1.035e-01
## RegionNorth America:YearY2014	6.132e+00
## RegionOceania:YearY2014	1.339e+00
## RegionRest of Europe:YearY2014	1.714e+00
## RegionSouth America:YearY2014	8.972e-01
## RegionAsia:YearY2015	2.690e-01
## RegionCentral America and Caribbean:YearY2015	-9.099e-01
## RegionEuropean Union:YearY2015	1.507e+00

## RegionMiddle East:YearY2015	1.082e-01
## RegionNorth America:YearY2015	6.617e+00
## RegionOceania:YearY2015	1.411e+00
## RegionRest of Europe:YearY2015	1.731e+00
## RegionSouth America:YearY2015	8.288e-01
## RegionAsia:Infant_deaths	-1.758e-02
## RegionCentral America and Caribbean:Infant_deaths	3.362e-02
## RegionEuropean Union:Infant_deaths	3.122e-01
## RegionMiddle East:Infant_deaths	-7.524e-02
## RegionNorth America:Infant_deaths	1.669e-01
## RegionOceania:Infant_deaths	-1.793e-02
## RegionRest of Europe:Infant_deaths	2.346e-02
## RegionSouth America:Infant_deaths	-3.688e-02
## RegionAsia:Adult_mortality	1.146e-02
## RegionCentral America and Caribbean:Adult_mortality	-1.759e-02
## RegionEuropean Union:Adult_mortality	-2.036e-02
## RegionMiddle East:Adult_mortality	3.373e-02
## RegionNorth America:Adult_mortality	8.493e-02
## RegionOceania:Adult_mortality	8.112e-03
## RegionRest of Europe:Adult_mortality	1.773e-02
## RegionSouth America:Adult_mortality	-1.671e-02
## RegionAsia:Hepatitis_B	3.501e-02
## RegionCentral America and Caribbean:Hepatitis_B	4.849e-02
## RegionEuropean Union:Hepatitis_B	-8.149e-03
## RegionMiddle East:Hepatitis_B	2.753e-02
## RegionNorth America:Hepatitis_B	3.194e-02
## RegionOceania:Hepatitis_B	4.934e-02
## RegionRest of Europe:Hepatitis_B	3.984e-02
## RegionSouth America:Hepatitis_B	5.062e-02
## RegionAsia:BMI	-2.514e-01
## RegionCentral America and Caribbean:BMI	5.471e-01
## RegionEuropean Union:BMI	-8.348e-01
## RegionMiddle East:BMI	3.872e-01
## RegionNorth America:BMI	-3.992e-01
## RegionOceania:BMI	1.998e-02
## RegionRest of Europe:BMI	-7.356e-01
## RegionSouth America:BMI	-2.153e-01
## RegionAsia:Polio	-3.767e-02
## RegionCentral America and Caribbean:Polio	-6.554e-02
## RegionEuropean Union:Polio	-3.904e-02
## RegionMiddle East:Polio	-4.186e-02
## RegionNorth America:Polio	3.184e-03
## RegionOceania:Polio	-3.910e-02
## RegionRest of Europe:Polio	-4.302e-02
## RegionSouth America:Polio	-3.355e-02
## RegionAsia:Incidents_HIV	-9.842e-01
## RegionCentral America and Caribbean:Incidents_HIV	-1.347e+00
## RegionEuropean Union:Incidents_HIV	-2.890e+00
## RegionMiddle East:Incidents_HIV	-2.046e+01
## RegionNorth America:Incidents_HIV	-4.320e+00
## RegionOceania:Incidents_HIV	-4.761e+00
## RegionRest of Europe:Incidents_HIV	-6.145e-01
## RegionSouth America:Incidents_HIV	-2.388e-01
## RegionAsia:GDP_per_capita	4.469e-05

## RegionCentral America and Caribbean:GDP_per_capita	6.647e-05
## RegionEuropean Union:GDP_per_capita	-1.054e-04
## RegionMiddle East:GDP_per_capita	5.548e-05
## RegionNorth America:GDP_per_capita	-5.262e-04
## RegionOceania:GDP_per_capita	-1.301e-04
## RegionRest of Europe:GDP_per_capita	-1.049e-04
## RegionSouth America:GDP_per_capita	-9.580e-06
## RegionAsia:Thinness_ten_nineteen_years	5.037e-02
## RegionCentral America and Caribbean:Thinness_ten_nineteen_years	-7.408e-01
## RegionEuropean Union:Thinness_ten_nineteen_years	-2.435e+00
## RegionMiddle East:Thinness_ten_nineteen_years	2.113e-02
## RegionNorth America:Thinness_ten_nineteen_years	3.193e+00
## RegionOceania:Thinness_ten_nineteen_years	1.716e-02
## RegionRest of Europe:Thinness_ten_nineteen_years	1.467e+00
## RegionSouth America:Thinness_ten_nineteen_years	3.534e+00
## RegionAsia:Thinness_five_nine_years	8.737e-02
## RegionCentral America and Caribbean:Thinness_five_nine_years	6.382e-01
## RegionEuropean Union:Thinness_five_nine_years	7.579e-01
## RegionMiddle East:Thinness_five_nine_years	1.885e-01
## RegionNorth America:Thinness_five_nine_years	3.718e+00
## RegionOceania:Thinness_five_nine_years	2.338e-01
## RegionRest of Europe:Thinness_five_nine_years	-2.505e+00
## RegionSouth America:Thinness_five_nine_years	-3.327e+00
## RegionAsia:Schooling	-3.148e-01
## RegionCentral America and Caribbean:Schooling	-5.111e-01
## RegionEuropean Union:Schooling	-2.993e-01
## RegionMiddle East:Schooling	-3.554e-01
## RegionNorth America:Schooling	-8.578e-01
## RegionOceania:Schooling	-8.876e-01
## RegionRest of Europe:Schooling	-5.037e-01
## RegionSouth America:Schooling	-7.925e-01
## RegionAsia:Economy_status_DevelopedYes	-3.566e+00
## RegionCentral America and Caribbean:Economy_status_DevelopedYes	NA
## RegionEuropean Union:Economy_status_DevelopedYes	NA
## RegionMiddle East:Economy_status_DevelopedYes	-2.905e+00
## RegionNorth America:Economy_status_DevelopedYes	2.903e+01
## RegionOceania:Economy_status_DevelopedYes	6.731e+00
## RegionRest of Europe:Economy_status_DevelopedYes	NA
## RegionSouth America:Economy_status_DevelopedYes	NA
## YearY2001:Infant_deaths	-2.572e-03
## YearY2002:Infant_deaths	-4.516e-03
## YearY2003:Infant_deaths	-8.307e-03
## YearY2004:Infant_deaths	-1.230e-02
## YearY2005:Infant_deaths	-1.231e-02
## YearY2006:Infant_deaths	-7.589e-03
## YearY2007:Infant_deaths	-1.452e-02
## YearY2008:Infant_deaths	-1.105e-02
## YearY2009:Infant_deaths	-6.286e-03
## YearY2010:Infant_deaths	-2.043e-03
## YearY2011:Infant_deaths	6.922e-04
## YearY2012:Infant_deaths	-7.407e-05
## YearY2013:Infant_deaths	-2.667e-05
## YearY2014:Infant_deaths	5.471e-03
## YearY2015:Infant_deaths	6.988e-03

## YearY2001:Adult_mortality	8.872e-04
## YearY2002:Adult_mortality	2.062e-03
## YearY2003:Adult_mortality	7.774e-04
## YearY2004:Adult_mortality	-1.724e-04
## YearY2005:Adult_mortality	-1.834e-04
## YearY2006:Adult_mortality	-2.379e-04
## YearY2007:Adult_mortality	3.494e-04
## YearY2008:Adult_mortality	5.045e-05
## YearY2009:Adult_mortality	-1.819e-03
## YearY2010:Adult_mortality	-2.444e-03
## YearY2011:Adult_mortality	-2.012e-03
## YearY2012:Adult_mortality	-2.637e-03
## YearY2013:Adult_mortality	-1.898e-03
## YearY2014:Adult_mortality	-2.352e-03
## YearY2015:Adult_mortality	-1.468e-03
## YearY2001:Hepatitis_B	-1.594e-03
## YearY2002:Hepatitis_B	3.896e-03
## YearY2003:Hepatitis_B	1.468e-04
## YearY2004:Hepatitis_B	-1.987e-03
## YearY2005:Hepatitis_B	-1.864e-03
## YearY2006:Hepatitis_B	-4.606e-03
## YearY2007:Hepatitis_B	-1.541e-02
## YearY2008:Hepatitis_B	-1.427e-02
## YearY2009:Hepatitis_B	-1.422e-02
## YearY2010:Hepatitis_B	-5.875e-03
## YearY2011:Hepatitis_B	-7.362e-03
## YearY2012:Hepatitis_B	2.760e-03
## YearY2013:Hepatitis_B	-1.658e-02
## YearY2014:Hepatitis_B	-1.730e-02
## YearY2015:Hepatitis_B	2.523e-03
## YearY2001:BM $I$	4.177e-02
## YearY2002:BM $I$	3.853e-03
## YearY2003:BM $I$	-7.894e-02
## YearY2004:BM $I$	-1.020e-01
## YearY2005:BM $I$	-7.464e-02
## YearY2006:BM $I$	-7.868e-02
## YearY2007:BM $I$	-7.709e-02
## YearY2008:BM $I$	-1.102e-01
## YearY2009:BM $I$	-1.513e-01
## YearY2010:BM $I$	-1.229e-01
## YearY2011:BM $I$	-1.400e-01
## YearY2012:BM $I$	-1.201e-01
## YearY2013:BM $I$	-1.442e-01
## YearY2014:BM $I$	-1.965e-01
## YearY2015:BM $I$	-2.000e-01
## YearY2001:Polio	-1.178e-03
## YearY2002:Polio	-6.604e-03
## YearY2003:Polio	-2.926e-03
## YearY2004:Polio	-7.972e-03
## YearY2005:Polio	-1.126e-02
## YearY2006:Polio	-2.765e-03
## YearY2007:Polio	2.324e-03
## YearY2008:Polio	2.786e-03
## YearY2009:Polio	1.002e-03

## YearY2010:Polio	-1.165e-02
## YearY2011:Polio	1.065e-03
## YearY2012:Polio	-3.955e-03
## YearY2013:Polio	1.555e-02
## YearY2014:Polio	1.945e-02
## YearY2015:Polio	8.213e-03
## YearY2001:Incidents_HIV	-4.181e-02
## YearY2002:Incidents_HIV	-5.802e-02
## YearY2003:Incidents_HIV	-6.663e-02
## YearY2004:Incidents_HIV	-1.015e-01
## YearY2005:Incidents_HIV	-1.203e-01
## YearY2006:Incidents_HIV	-1.581e-01
## YearY2007:Incidents_HIV	-1.513e-01
## YearY2008:Incidents_HIV	-1.458e-01
## YearY2009:Incidents_HIV	-1.173e-01
## YearY2010:Incidents_HIV	-7.220e-02
## YearY2011:Incidents_HIV	-6.628e-02
## YearY2012:Incidents_HIV	-8.982e-03
## YearY2013:Incidents_HIV	5.453e-02
## YearY2014:Incidents_HIV	1.442e-01
## YearY2015:Incidents_HIV	1.375e-01
## YearY2001:GDP_per_capita	-3.851e-06
## YearY2002:GDP_per_capita	-2.275e-07
## YearY2003:GDP_per_capita	-8.665e-06
## YearY2004:GDP_per_capita	-5.480e-06
## YearY2005:GDP_per_capita	-6.026e-06
## YearY2006:GDP_per_capita	-3.958e-06
## YearY2007:GDP_per_capita	-6.062e-06
## YearY2008:GDP_per_capita	-3.382e-06
## YearY2009:GDP_per_capita	-2.918e-06
## YearY2010:GDP_per_capita	-1.845e-06
## YearY2011:GDP_per_capita	-1.605e-06
## YearY2012:GDP_per_capita	-3.848e-07
## YearY2013:GDP_per_capita	-2.327e-06
## YearY2014:GDP_per_capita	-1.668e-06
## YearY2015:GDP_per_capita	-1.678e-07
## YearY2001:Thinness_ten_nineteen_years	3.929e-02
## YearY2002:Thinness_ten_nineteen_years	4.869e-02
## YearY2003:Thinness_ten_nineteen_years	2.123e-01
## YearY2004:Thinness_ten_nineteen_years	2.199e-01
## YearY2005:Thinness_ten_nineteen_years	2.039e-01
## YearY2006:Thinness_ten_nineteen_years	2.265e-01
## YearY2007:Thinness_ten_nineteen_years	2.113e-01
## YearY2008:Thinness_ten_nineteen_years	1.835e-01
## YearY2009:Thinness_ten_nineteen_years	8.128e-02
## YearY2010:Thinness_ten_nineteen_years	1.675e-01
## YearY2011:Thinness_ten_nineteen_years	1.290e-01
## YearY2012:Thinness_ten_nineteen_years	2.545e-01
## YearY2013:Thinness_ten_nineteen_years	2.778e-01
## YearY2014:Thinness_ten_nineteen_years	2.850e-01
## YearY2015:Thinness_ten_nineteen_years	2.315e-01
## YearY2001:Thinness_five_nine_years	-1.243e-02
## YearY2002:Thinness_five_nine_years	-4.499e-02
## YearY2003:Thinness_five_nine_years	-2.100e-01

## YearY2004:Thinness_five_nine_years	-1.978e-01
## YearY2005:Thinness_five_nine_years	-1.857e-01
## YearY2006:Thinness_five_nine_years	-1.933e-01
## YearY2007:Thinness_five_nine_years	-1.808e-01
## YearY2008:Thinness_five_nine_years	-1.651e-01
## YearY2009:Thinness_five_nine_years	-9.590e-02
## YearY2010:Thinness_five_nine_years	-1.730e-01
## YearY2011:Thinness_five_nine_years	-1.383e-01
## YearY2012:Thinness_five_nine_years	-2.554e-01
## YearY2013:Thinness_five_nine_years	-3.004e-01
## YearY2014:Thinness_five_nine_years	-3.156e-01
## YearY2015:Thinness_five_nine_years	-2.604e-01
## YearY2001:Schooling	6.488e-03
## YearY2002:Schooling	-1.125e-02
## YearY2003:Schooling	2.989e-02
## YearY2004:Schooling	6.022e-02
## YearY2005:Schooling	7.059e-02
## YearY2006:Schooling	8.465e-02
## YearY2007:Schooling	7.948e-02
## YearY2008:Schooling	7.247e-02
## YearY2009:Schooling	7.441e-02
## YearY2010:Schooling	6.310e-02
## YearY2011:Schooling	4.386e-02
## YearY2012:Schooling	2.985e-02
## YearY2013:Schooling	5.183e-03
## YearY2014:Schooling	2.775e-02
## YearY2015:Schooling	4.554e-02
## YearY2001:Economy_status_DevelopedYes	3.153e-01
## YearY2002:Economy_status_DevelopedYes	2.808e-01
## YearY2003:Economy_status_DevelopedYes	3.850e-01
## YearY2004:Economy_status_DevelopedYes	2.365e-01
## YearY2005:Economy_status_DevelopedYes	3.632e-01
## YearY2006:Economy_status_DevelopedYes	4.376e-01
## YearY2007:Economy_status_DevelopedYes	3.915e-01
## YearY2008:Economy_status_DevelopedYes	2.454e-01
## YearY2009:Economy_status_DevelopedYes	2.768e-01
## YearY2010:Economy_status_DevelopedYes	2.199e-01
## YearY2011:Economy_status_DevelopedYes	3.161e-01
## YearY2012:Economy_status_DevelopedYes	2.626e-01
## YearY2013:Economy_status_DevelopedYes	2.529e-01
## YearY2014:Economy_status_DevelopedYes	2.422e-01
## YearY2015:Economy_status_DevelopedYes	4.201e-02
## Infant_deaths:Adult_mortality	2.905e-04
## Infant_deaths:Hepatitis_B	-3.665e-04
## Infant_deaths:BMI	1.962e-02
## Infant_deaths:Polio	-1.402e-04
## Infant_deaths:Incidents_HIV	7.246e-04
## Infant_deaths:GDP_per_capita	-1.647e-06
## Infant_deaths:Thinness_ten_nineteen_years	-2.912e-04
## Infant_deaths:Thinness_five_nine_years	1.497e-03
## Infant_deaths:Schooling	-1.395e-03
## Infant_deaths:Economy_status_DevelopedYes	-4.285e-01
## Adult_mortality:Hepatitis_B	2.184e-04
## Adult_mortality:BMI	-2.639e-03

## Adult_mortality:Polio	1.906e-04
## Adult_mortality:Incidents_HIV	6.815e-04
## Adult_mortality:GDP_per_capita	-6.155e-07
## Adult_mortality:Thinness_ten_nineteen_years	-5.892e-04
## Adult_mortality:Thinness_five_nine_years	2.508e-04
## Adult_mortality:Schooling	7.185e-04
## Adult_mortality:Economy_status_DevelopedYes	3.265e-02
## Hepatitis_B:BMI	1.709e-05
## Hepatitis_B:Polio	2.965e-04
## Hepatitis_B:Incidents_HIV	-4.707e-03
## Hepatitis_B:GDP_per_capita	2.144e-07
## Hepatitis_B:Thinness_ten_nineteen_years	-4.762e-04
## Hepatitis_B:Thinness_five_nine_years	2.547e-03
## Hepatitis_B:Schooling	-1.053e-03
## Hepatitis_B:Economy_status_DevelopedYes	4.921e-02
## BMI:Polio	1.722e-03
## BMI:Incidents_HIV	1.080e-02
## BMI:GDP_per_capita	-6.383e-06
## BMI:Thinness_ten_nineteen_years	-5.381e-02
## BMI:Thinness_five_nine_years	5.393e-02
## BMI:Schooling	6.405e-02
## BMI:Economy_status_DevelopedYes	2.987e-01
## Polio:Incidents_HIV	-1.100e-02
## Polio:GDP_per_capita	5.598e-07
## Polio:Thinness_ten_nineteen_years	-1.892e-03
## Polio:Thinness_five_nine_years	1.248e-03
## Polio:Schooling	2.105e-03
## Polio:Economy_status_DevelopedYes	-2.285e-02
## Incidents_HIV:GDP_per_capita	7.785e-05
## Incidents_HIV:Thinness_ten_nineteen_years	4.456e-02
## Incidents_HIV:Thinness_five_nine_years	-3.606e-02
## Incidents_HIV:Schooling	1.350e-02
## Incidents_HIV:Economy_status_DevelopedYes	7.173e+00
## GDP_per_capita:Thinness_ten_nineteen_years	-1.783e-05
## GDP_per_capita:Thinness_five_nine_years	1.389e-05
## GDP_per_capita:Schooling	3.001e-06
## GDP_per_capita:Economy_status_DevelopedYes	1.217e-04
## Thinness_ten_nineteen_years:Thinness_five_nine_years	-2.339e-03
## Thinness_ten_nineteen_years:Schooling	-7.727e-03
## Thinness_ten_nineteen_years:Economy_status_DevelopedYes	1.857e+00
## Thinness_five_nine_years:Schooling	6.775e-03
## Thinness_five_nine_years:Economy_status_DevelopedYes	-7.211e-01
## Schooling:Economy_status_DevelopedYes	-3.207e-01
##	Std. Error
## (Intercept)	7.058e+00
## RegionAsia	2.218e+00
## RegionCentral America and Caribbean	2.757e+00
## RegionEuropean Union	1.332e+01
## RegionMiddle East	4.247e+00
## RegionNorth America	6.304e+01
## RegionOceania	3.278e+00
## RegionRest of Europe	6.981e+00
## RegionSouth America	6.230e+00
## YearY2001	2.357e+00

## YearY2002	2.370e+00
## YearY2003	2.340e+00
## YearY2004	2.352e+00
## YearY2005	2.360e+00
## YearY2006	2.424e+00
## YearY2007	2.421e+00
## YearY2008	2.473e+00
## YearY2009	2.454e+00
## YearY2010	2.407e+00
## YearY2011	2.378e+00
## YearY2012	2.415e+00
## YearY2013	2.408e+00
## YearY2014	2.419e+00
## YearY2015	2.424e+00
## Infant_deaths	5.034e-02
## Adult_mortality	1.263e-02
## Hepatitis_B	5.891e-02
## BMI	2.912e-01
## Polio	6.707e-02
## Incidents_HIV	3.721e-01
## GDP_per_capita	1.182e-04
## Thinness_ten_nineteen_years	4.597e-01
## Thinness_five_nine_years	4.460e-01
## Schooling	4.152e-01
## Economy_status_DevelopedYes	1.362e+01
## RegionAsia:YearY2001	3.956e-01
## RegionCentral America and Caribbean:YearY2001	4.207e-01
## RegionEuropean Union:YearY2001	6.653e-01
## RegionMiddle East:YearY2001	4.856e-01
## RegionNorth America:YearY2001	1.009e+00
## RegionOceania:YearY2001	5.124e-01
## RegionRest of Europe:YearY2001	4.987e-01
## RegionSouth America:YearY2001	4.783e-01
## RegionAsia:YearY2002	4.006e-01
## RegionCentral America and Caribbean:YearY2002	4.233e-01
## RegionEuropean Union:YearY2002	6.847e-01
## RegionMiddle East:YearY2002	4.906e-01
## RegionNorth America:YearY2002	1.289e+00
## RegionOceania:YearY2002	5.223e-01
## RegionRest of Europe:YearY2002	5.048e-01
## RegionSouth America:YearY2002	4.853e-01
## RegionAsia:YearY2003	3.982e-01
## RegionCentral America and Caribbean:YearY2003	4.244e-01
## RegionEuropean Union:YearY2003	7.654e-01
## RegionMiddle East:YearY2003	4.941e-01
## RegionNorth America:YearY2003	1.630e+00
## RegionOceania:YearY2003	5.199e-01
## RegionRest of Europe:YearY2003	5.177e-01
## RegionSouth America:YearY2003	4.889e-01
## RegionAsia:YearY2004	4.007e-01
## RegionCentral America and Caribbean:YearY2004	4.258e-01
## RegionEuropean Union:YearY2004	8.479e-01
## RegionMiddle East:YearY2004	4.986e-01
## RegionNorth America:YearY2004	2.211e+00

## RegionOceania:YearY2004	5.279e-01
## RegionRest of Europe:YearY2004	5.259e-01
## RegionSouth America:YearY2004	4.980e-01
## RegionAsia:YearY2005	4.010e-01
## RegionCentral America and Caribbean:YearY2005	4.255e-01
## RegionEuropean Union:YearY2005	8.951e-01
## RegionMiddle East:YearY2005	4.995e-01
## RegionNorth America:YearY2005	2.564e+00
## RegionOceania:YearY2005	5.299e-01
## RegionRest of Europe:YearY2005	5.323e-01
## RegionSouth America:YearY2005	5.088e-01
## RegionAsia:YearY2006	4.045e-01
## RegionCentral America and Caribbean:YearY2006	4.303e-01
## RegionEuropean Union:YearY2006	9.567e-01
## RegionMiddle East:YearY2006	5.031e-01
## RegionNorth America:YearY2006	2.926e+00
## RegionOceania:YearY2006	5.335e-01
## RegionRest of Europe:YearY2006	5.483e-01
## RegionSouth America:YearY2006	5.078e-01
## RegionAsia:YearY2007	4.075e-01
## RegionCentral America and Caribbean:YearY2007	4.332e-01
## RegionEuropean Union:YearY2007	1.048e+00
## RegionMiddle East:YearY2007	5.073e-01
## RegionNorth America:YearY2007	3.474e+00
## RegionOceania:YearY2007	5.431e-01
## RegionRest of Europe:YearY2007	5.696e-01
## RegionSouth America:YearY2007	5.139e-01
## RegionAsia:YearY2008	4.139e-01
## RegionCentral America and Caribbean:YearY2008	4.351e-01
## RegionEuropean Union:YearY2008	1.159e+00
## RegionMiddle East:YearY2008	5.130e-01
## RegionNorth America:YearY2008	3.774e+00
## RegionOceania:YearY2008	5.462e-01
## RegionRest of Europe:YearY2008	5.815e-01
## RegionSouth America:YearY2008	5.196e-01
## RegionAsia:YearY2009	4.113e-01
## RegionCentral America and Caribbean:YearY2009	4.381e-01
## RegionEuropean Union:YearY2009	1.249e+00
## RegionMiddle East:YearY2009	5.152e-01
## RegionNorth America:YearY2009	3.927e+00
## RegionOceania:YearY2009	5.495e-01
## RegionRest of Europe:YearY2009	5.939e-01
## RegionSouth America:YearY2009	5.328e-01
## RegionAsia:YearY2010	4.147e-01
## RegionCentral America and Caribbean:YearY2010	4.442e-01
## RegionEuropean Union:YearY2010	1.343e+00
## RegionMiddle East:YearY2010	5.178e-01
## RegionNorth America:YearY2010	4.329e+00
## RegionOceania:YearY2010	5.536e-01
## RegionRest of Europe:YearY2010	6.118e-01
## RegionSouth America:YearY2010	5.336e-01
## RegionAsia:YearY2011	4.166e-01
## RegionCentral America and Caribbean:YearY2011	4.472e-01
## RegionEuropean Union:YearY2011	1.404e+00

## RegionMiddle East:YearY2011	5.300e-01
## RegionNorth America:YearY2011	4.819e+00
## RegionOceania:YearY2011	5.634e-01
## RegionRest of Europe:YearY2011	6.354e-01
## RegionSouth America:YearY2011	5.507e-01
## RegionAsia:YearY2012	4.210e-01
## RegionCentral America and Caribbean:YearY2012	4.474e-01
## RegionEuropean Union:YearY2012	1.515e+00
## RegionMiddle East:YearY2012	5.336e-01
## RegionNorth America:YearY2012	5.185e+00
## RegionOceania:YearY2012	5.705e-01
## RegionRest of Europe:YearY2012	6.495e-01
## RegionSouth America:YearY2012	5.579e-01
## RegionAsia:YearY2013	4.202e-01
## RegionCentral America and Caribbean:YearY2013	4.506e-01
## RegionEuropean Union:YearY2013	1.549e+00
## RegionMiddle East:YearY2013	5.407e-01
## RegionNorth America:YearY2013	5.409e+00
## RegionOceania:YearY2013	5.768e-01
## RegionRest of Europe:YearY2013	6.633e-01
## RegionSouth America:YearY2013	5.724e-01
## RegionAsia:YearY2014	4.267e-01
## RegionCentral America and Caribbean:YearY2014	4.591e-01
## RegionEuropean Union:YearY2014	1.620e+00
## RegionMiddle East:YearY2014	5.480e-01
## RegionNorth America:YearY2014	5.760e+00
## RegionOceania:YearY2014	5.993e-01
## RegionRest of Europe:YearY2014	6.907e-01
## RegionSouth America:YearY2014	5.800e-01
## RegionAsia:YearY2015	4.238e-01
## RegionCentral America and Caribbean:YearY2015	4.637e-01
## RegionEuropean Union:YearY2015	1.672e+00
## RegionMiddle East:YearY2015	5.520e-01
## RegionNorth America:YearY2015	5.982e+00
## RegionOceania:YearY2015	6.068e-01
## RegionRest of Europe:YearY2015	7.092e-01
## RegionSouth America:YearY2015	5.904e-01
## RegionAsia:Infant_deaths	9.300e-03
## RegionCentral America and Caribbean:Infant_deaths	1.416e-02
## RegionEuropean Union:Infant_deaths	5.111e-01
## RegionMiddle East:Infant_deaths	2.889e-02
## RegionNorth America:Infant_deaths	5.515e-01
## RegionOceania:Infant_deaths	1.841e-02
## RegionRest of Europe:Infant_deaths	2.051e-02
## RegionSouth America:Infant_deaths	3.139e-02
## RegionAsia:Adult_mortality	1.976e-03
## RegionCentral America and Caribbean:Adult_mortality	3.081e-03
## RegionEuropean Union:Adult_mortality	3.987e-02
## RegionMiddle East:Adult_mortality	7.198e-03
## RegionNorth America:Adult_mortality	1.604e-01
## RegionOceania:Adult_mortality	5.648e-03
## RegionRest of Europe:Adult_mortality	3.023e-03
## RegionSouth America:Adult_mortality	1.005e-02
## RegionAsia:Hepatitis_B	8.842e-03

## RegionCentral America and Caribbean:Hepatitis_B	1.263e-02
## RegionEuropean Union:Hepatitis_B	7.617e-02
## RegionMiddle East:Hepatitis_B	1.405e-02
## RegionNorth America:Hepatitis_B	7.161e-02
## RegionOceania:Hepatitis_B	1.511e-02
## RegionRest of Europe:Hepatitis_B	1.249e-02
## RegionSouth America:Hepatitis_B	1.305e-02
## RegionAsia:BMI	9.554e-02
## RegionCentral America and Caribbean:BMI	9.255e-02
## RegionEuropean Union:BMI	5.210e-01
## RegionMiddle East:BMI	1.375e-01
## RegionNorth America:BMI	2.662e+00
## RegionOceania:BMI	1.350e-01
## RegionRest of Europe:BMI	2.837e-01
## RegionSouth America:BMI	2.464e-01
## RegionAsia:Polio	1.036e-02
## RegionCentral America and Caribbean:Polio	1.358e-02
## RegionEuropean Union:Polio	4.801e-02
## RegionMiddle East:Polio	1.742e-02
## RegionNorth America:Polio	1.087e-01
## RegionOceania:Polio	1.570e-02
## RegionRest of Europe:Polio	1.743e-02
## RegionSouth America:Polio	1.603e-02
## RegionAsia:Incidents_HIV	4.558e-01
## RegionCentral America and Caribbean:Incidents_HIV	3.095e-01
## RegionEuropean Union:Incidents_HIV	8.362e+00
## RegionMiddle East:Incidents_HIV	2.778e+00
## RegionNorth America:Incidents_HIV	7.300e+01
## RegionOceania:Incidents_HIV	1.221e+00
## RegionRest of Europe:Incidents_HIV	8.575e-01
## RegionSouth America:Incidents_HIV	8.837e-01
## RegionAsia:GDP_per_capita	3.172e-05
## RegionCentral America and Caribbean:GDP_per_capita	3.124e-05
## RegionEuropean Union:GDP_per_capita	7.484e-05
## RegionMiddle East:GDP_per_capita	3.099e-05
## RegionNorth America:GDP_per_capita	3.122e-04
## RegionOceania:GDP_per_capita	7.174e-05
## RegionRest of Europe:GDP_per_capita	7.103e-05
## RegionSouth America:GDP_per_capita	4.143e-05
## RegionAsia:Thinness_ten_nineteen_years	6.613e-02
## RegionCentral America and Caribbean:Thinness_ten_nineteen_years	6.337e-01
## RegionEuropean Union:Thinness_ten_nineteen_years	2.040e+00
## RegionMiddle East:Thinness_ten_nineteen_years	7.881e-01
## RegionNorth America:Thinness_ten_nineteen_years	5.703e+00
## RegionOceania:Thinness_ten_nineteen_years	1.197e-01
## RegionRest of Europe:Thinness_ten_nineteen_years	1.234e+00
## RegionSouth America:Thinness_ten_nineteen_years	9.219e-01
## RegionAsia:Thinness_five_nine_years	6.848e-02
## RegionCentral America and Caribbean:Thinness_five_nine_years	6.082e-01
## RegionEuropean Union:Thinness_five_nine_years	2.239e+00
## RegionMiddle East:Thinness_five_nine_years	7.649e-01
## RegionNorth America:Thinness_five_nine_years	6.340e+00
## RegionOceania:Thinness_five_nine_years	1.381e-01
## RegionRest of Europe:Thinness_five_nine_years	1.258e+00

## RegionSouth America:Thinness_five_nine_years	9.508e-01
## RegionAsia:Schooling	6.925e-02
## RegionCentral America and Caribbean:Schooling	8.810e-02
## RegionEuropean Union:Schooling	3.913e-01
## RegionMiddle East:Schooling	1.135e-01
## RegionNorth America:Schooling	1.223e+00
## RegionOceania:Schooling	1.395e-01
## RegionRest of Europe:Schooling	1.088e-01
## RegionSouth America:Schooling	1.359e-01
## RegionAsia:Economy_status_DevelopedYes	2.760e+00
## RegionCentral America and Caribbean:Economy_status_DevelopedYes	NA
## RegionEuropean Union:Economy_status_DevelopedYes	NA
## RegionMiddle East:Economy_status_DevelopedYes	2.203e+00
## RegionNorth America:Economy_status_DevelopedYes	1.891e+01
## RegionOceania:Economy_status_DevelopedYes	2.143e+00
## RegionRest of Europe:Economy_status_DevelopedYes	NA
## RegionSouth America:Economy_status_DevelopedYes	NA
## YearY2001:Infant_deaths	8.078e-03
## YearY2002:Infant_deaths	8.165e-03
## YearY2003:Infant_deaths	8.435e-03
## YearY2004:Infant_deaths	8.638e-03
## YearY2005:Infant_deaths	8.811e-03
## YearY2006:Infant_deaths	9.127e-03
## YearY2007:Infant_deaths	9.358e-03
## YearY2008:Infant_deaths	9.778e-03
## YearY2009:Infant_deaths	9.796e-03
## YearY2010:Infant_deaths	9.582e-03
## YearY2011:Infant_deaths	1.015e-02
## YearY2012:Infant_deaths	1.070e-02
## YearY2013:Infant_deaths	1.119e-02
## YearY2014:Infant_deaths	1.106e-02
## YearY2015:Infant_deaths	1.120e-02
## YearY2001:Adult_mortality	2.004e-03
## YearY2002:Adult_mortality	1.997e-03
## YearY2003:Adult_mortality	2.004e-03
## YearY2004:Adult_mortality	2.020e-03
## YearY2005:Adult_mortality	2.052e-03
## YearY2006:Adult_mortality	2.084e-03
## YearY2007:Adult_mortality	2.105e-03
## YearY2008:Adult_mortality	2.163e-03
## YearY2009:Adult_mortality	2.249e-03
## YearY2010:Adult_mortality	2.294e-03
## YearY2011:Adult_mortality	2.396e-03
## YearY2012:Adult_mortality	2.475e-03
## YearY2013:Adult_mortality	2.538e-03
## YearY2014:Adult_mortality	2.531e-03
## YearY2015:Adult_mortality	2.567e-03
## YearY2001:Hepatitis_B	6.274e-03
## YearY2002:Hepatitis_B	6.359e-03
## YearY2003:Hepatitis_B	6.890e-03
## YearY2004:Hepatitis_B	7.508e-03
## YearY2005:Hepatitis_B	7.270e-03
## YearY2006:Hepatitis_B	8.225e-03
## YearY2007:Hepatitis_B	9.327e-03

## YearY2008:Hepatitis_B	9.034e-03
## YearY2009:Hepatitis_B	9.771e-03
## YearY2010:Hepatitis_B	1.082e-02
## YearY2011:Hepatitis_B	1.023e-02
## YearY2012:Hepatitis_B	1.176e-02
## YearY2013:Hepatitis_B	1.126e-02
## YearY2014:Hepatitis_B	1.237e-02
## YearY2015:Hepatitis_B	1.243e-02
## YearY2001:BMI	8.723e-02
## YearY2002:BMI	8.838e-02
## YearY2003:BMI	8.629e-02
## YearY2004:BMI	8.679e-02
## YearY2005:BMI	8.673e-02
## YearY2006:BMI	8.722e-02
## YearY2007:BMI	8.768e-02
## YearY2008:BMI	8.765e-02
## YearY2009:BMI	8.756e-02
## YearY2010:BMI	8.739e-02
## YearY2011:BMI	8.786e-02
## YearY2012:BMI	8.786e-02
## YearY2013:BMI	8.774e-02
## YearY2014:BMI	8.863e-02
## YearY2015:BMI	8.846e-02
## YearY2001:Polio	9.511e-03
## YearY2002:Polio	9.538e-03
## YearY2003:Polio	9.888e-03
## YearY2004:Polio	9.958e-03
## YearY2005:Polio	1.051e-02
## YearY2006:Polio	1.080e-02
## YearY2007:Polio	1.279e-02
## YearY2008:Polio	1.311e-02
## YearY2009:Polio	1.276e-02
## YearY2010:Polio	1.388e-02
## YearY2011:Polio	1.308e-02
## YearY2012:Polio	1.510e-02
## YearY2013:Polio	1.346e-02
## YearY2014:Polio	1.445e-02
## YearY2015:Polio	1.541e-02
## YearY2001:Incidents_HIV	5.610e-02
## YearY2002:Incidents_HIV	5.887e-02
## YearY2003:Incidents_HIV	6.051e-02
## YearY2004:Incidents_HIV	5.955e-02
## YearY2005:Incidents_HIV	6.144e-02
## YearY2006:Incidents_HIV	6.306e-02
## YearY2007:Incidents_HIV	6.363e-02
## YearY2008:Incidents_HIV	6.452e-02
## YearY2009:Incidents_HIV	6.727e-02
## YearY2010:Incidents_HIV	6.869e-02
## YearY2011:Incidents_HIV	7.288e-02
## YearY2012:Incidents_HIV	7.347e-02
## YearY2013:Incidents_HIV	7.479e-02
## YearY2014:Incidents_HIV	7.637e-02
## YearY2015:Incidents_HIV	7.924e-02
## YearY2001:GDP_per_capita	8.846e-06

## YearY2002:GDP_per_capita	9.016e-06
## YearY2003:GDP_per_capita	9.131e-06
## YearY2004:GDP_per_capita	9.196e-06
## YearY2005:GDP_per_capita	9.497e-06
## YearY2006:GDP_per_capita	9.479e-06
## YearY2007:GDP_per_capita	9.598e-06
## YearY2008:GDP_per_capita	1.012e-05
## YearY2009:GDP_per_capita	1.042e-05
## YearY2010:GDP_per_capita	1.039e-05
## YearY2011:GDP_per_capita	1.061e-05
## YearY2012:GDP_per_capita	1.079e-05
## YearY2013:GDP_per_capita	1.110e-05
## YearY2014:GDP_per_capita	1.127e-05
## YearY2015:GDP_per_capita	1.154e-05
## YearY2001:Thinness_ten_nineteen_years	5.727e-02
## YearY2002:Thinness_ten_nineteen_years	5.568e-02
## YearY2003:Thinness_ten_nineteen_years	8.751e-02
## YearY2004:Thinness_ten_nineteen_years	9.756e-02
## YearY2005:Thinness_ten_nineteen_years	6.129e-02
## YearY2006:Thinness_ten_nineteen_years	6.292e-02
## YearY2007:Thinness_ten_nineteen_years	6.307e-02
## YearY2008:Thinness_ten_nineteen_years	6.811e-02
## YearY2009:Thinness_ten_nineteen_years	8.096e-02
## YearY2010:Thinness_ten_nineteen_years	8.806e-02
## YearY2011:Thinness_ten_nineteen_years	9.329e-02
## YearY2012:Thinness_ten_nineteen_years	7.621e-02
## YearY2013:Thinness_ten_nineteen_years	7.641e-02
## YearY2014:Thinness_ten_nineteen_years	7.954e-02
## YearY2015:Thinness_ten_nineteen_years	1.053e-01
## YearY2001:Thinness_five_nine_years	5.623e-02
## YearY2002:Thinness_five_nine_years	5.467e-02
## YearY2003:Thinness_five_nine_years	8.689e-02
## YearY2004:Thinness_five_nine_years	9.598e-02
## YearY2005:Thinness_five_nine_years	6.208e-02
## YearY2006:Thinness_five_nine_years	6.205e-02
## YearY2007:Thinness_five_nine_years	6.101e-02
## YearY2008:Thinness_five_nine_years	6.607e-02
## YearY2009:Thinness_five_nine_years	7.821e-02
## YearY2010:Thinness_five_nine_years	8.650e-02
## YearY2011:Thinness_five_nine_years	9.281e-02
## YearY2012:Thinness_five_nine_years	7.612e-02
## YearY2013:Thinness_five_nine_years	7.669e-02
## YearY2014:Thinness_five_nine_years	8.162e-02
## YearY2015:Thinness_five_nine_years	1.053e-01
## YearY2001:Schooling	6.112e-02
## YearY2002:Schooling	6.194e-02
## YearY2003:Schooling	6.272e-02
## YearY2004:Schooling	6.334e-02
## YearY2005:Schooling	6.442e-02
## YearY2006:Schooling	6.498e-02
## YearY2007:Schooling	6.593e-02
## YearY2008:Schooling	6.676e-02
## YearY2009:Schooling	6.682e-02
## YearY2010:Schooling	6.718e-02

## YearY2011:Schooling	6.753e-02
## YearY2012:Schooling	6.872e-02
## YearY2013:Schooling	6.877e-02
## YearY2014:Schooling	6.936e-02
## YearY2015:Schooling	6.863e-02
## YearY2001:Economy_status_DevelopedYes	6.272e-01
## YearY2002:Economy_status_DevelopedYes	6.502e-01
## YearY2003:Economy_status_DevelopedYes	7.413e-01
## YearY2004:Economy_status_DevelopedYes	8.251e-01
## YearY2005:Economy_status_DevelopedYes	8.819e-01
## YearY2006:Economy_status_DevelopedYes	9.416e-01
## YearY2007:Economy_status_DevelopedYes	1.042e+00
## YearY2008:Economy_status_DevelopedYes	1.160e+00
## YearY2009:Economy_status_DevelopedYes	1.253e+00
## YearY2010:Economy_status_DevelopedYes	1.350e+00
## YearY2011:Economy_status_DevelopedYes	1.416e+00
## YearY2012:Economy_status_DevelopedYes	1.528e+00
## YearY2013:Economy_status_DevelopedYes	1.564e+00
## YearY2014:Economy_status_DevelopedYes	1.632e+00
## YearY2015:Economy_status_DevelopedYes	1.685e+00
## Infant_deaths:Adult_mortality	2.710e-05
## Infant_deaths:Hepatitis_B	1.830e-04
## Infant_deaths:BMI	2.233e-03
## Infant_deaths:Polio	1.640e-04
## Infant_deaths:Incidents_HIV	1.460e-03
## Infant_deaths:GDP_per_capita	7.738e-07
## Infant_deaths:Thinness_ten_nineteen_years	1.247e-03
## Infant_deaths:Thinness_five_nine_years	1.257e-03
## Infant_deaths:Schooling	1.543e-03
## Infant_deaths:Economy_status_DevelopedYes	5.110e-01
## Adult_mortality:Hepatitis_B	5.186e-05
## Adult_mortality:BMI	5.192e-04
## Adult_mortality:Polio	5.932e-05
## Adult_mortality:Incidents_HIV	1.522e-04
## Adult_mortality:GDP_per_capita	1.340e-07
## Adult_mortality:Thinness_ten_nineteen_years	4.557e-04
## Adult_mortality:Thinness_five_nine_years	4.443e-04
## Adult_mortality:Schooling	3.558e-04
## Adult_mortality:Economy_status_DevelopedYes	3.996e-02
## Hepatitis_B:BMI	2.236e-03
## Hepatitis_B:Polio	1.309e-04
## Hepatitis_B:Incidents_HIV	1.952e-03
## Hepatitis_B:GDP_per_capita	3.969e-07
## Hepatitis_B:Thinness_ten_nineteen_years	1.203e-03
## Hepatitis_B:Thinness_five_nine_years	1.197e-03
## Hepatitis_B:Schooling	1.500e-03
## Hepatitis_B:Economy_status_DevelopedYes	7.684e-02
## BMI:Polio	2.598e-03
## BMI:Incidents_HIV	1.349e-02
## BMI:GDP_per_capita	3.638e-06
## BMI:Thinness_ten_nineteen_years	1.880e-02
## BMI:Thinness_five_nine_years	1.869e-02
## BMI:Schooling	1.456e-02
## BMI:Economy_status_DevelopedYes	5.324e-01

## Polio:Incidents_HIV	2.199e-03
## Polio:GDP_per_capita	5.673e-07
## Polio:Thinness_ten_nineteen_years	1.446e-03
## Polio:Thinness_five_nine_years	1.428e-03
## Polio:Schooling	1.952e-03
## Polio:Economy_status_DevelopedYes	4.967e-02
## Incidents_HIV:GDP_per_capita	9.806e-06
## Incidents_HIV:Thinness_ten_nineteen_years	1.324e-02
## Incidents_HIV:Thinness_five_nine_years	1.318e-02
## Incidents_HIV:Schooling	1.217e-02
## Incidents_HIV:Economy_status_DevelopedYes	8.278e+00
## GDP_per_capita:Thinness_ten_nineteen_years	1.576e-05
## GDP_per_capita:Thinness_five_nine_years	1.595e-05
## GDP_per_capita:Schooling	2.731e-06
## GDP_per_capita:Economy_status_DevelopedYes	6.812e-05
## Thinnness_ten_nineteen_years:Thinness_five_nine_years	1.099e-03
## Thinnness_ten_nineteen_years:Schooling	1.243e-02
## Thinnness_ten_nineteen_years:Economy_status_DevelopedYes	2.043e+00
## Thinnness_five_nine_years:Schooling	1.270e-02
## Thinnness_five_nine_years:Economy_status_DevelopedYes	2.296e+00
## Schooling:Economy_status_DevelopedYes	3.983e-01
##	
## (Intercept)	14.420
## RegionAsia	2.590
## RegionCentral America and Caribbean	-1.725
## RegionEuropean Union	2.133
## RegionMiddle East	-2.294
## RegionNorth America	-0.128
## RegionOceania	0.461
## RegionRest of Europe	3.146
## RegionSouth America	2.167
## YearY2001	-0.395
## YearY2002	-0.077
## YearY2003	0.884
## YearY2004	1.457
## YearY2005	1.248
## YearY2006	0.897
## YearY2007	1.181
## YearY2008	1.411
## YearY2009	2.058
## YearY2010	1.892
## YearY2011	1.680
## YearY2012	1.336
## YearY2013	1.630
## YearY2014	1.933
## YearY2015	1.542
## Infant_deaths	-12.140
## Adult_mortality	-2.451
## Hepatitis_B	-1.589
## BMI	-1.656
## Polio	-1.058
## Incidents_HIV	0.841
## GDP_per_capita	0.850
## Thinness_ten_nineteen_years	2.952

## Thinness_five_nine_years	-3.315
## Schooling	-3.265
## Economy_status_DevelopedYes	-0.581
## RegionAsia:YearY2001	-0.432
## RegionCentral America and Caribbean:YearY2001	-0.038
## RegionEuropean Union:YearY2001	-0.128
## RegionMiddle East:YearY2001	-0.197
## RegionNorth America:YearY2001	0.476
## RegionOceania:YearY2001	-0.183
## RegionRest of Europe:YearY2001	0.076
## RegionSouth America:YearY2001	-0.199
## RegionAsia:YearY2002	0.308
## RegionCentral America and Caribbean:YearY2002	0.372
## RegionEuropean Union:YearY2002	0.361
## RegionMiddle East:YearY2002	0.439
## RegionNorth America:YearY2002	1.122
## RegionOceania:YearY2002	0.372
## RegionRest of Europe:YearY2002	0.651
## RegionSouth America:YearY2002	0.384
## RegionAsia:YearY2003	0.010
## RegionCentral America and Caribbean:YearY2003	0.038
## RegionEuropean Union:YearY2003	-0.098
## RegionMiddle East:YearY2003	0.357
## RegionNorth America:YearY2003	1.166
## RegionOceania:YearY2003	0.695
## RegionRest of Europe:YearY2003	0.415
## RegionSouth America:YearY2003	-0.063
## RegionAsia:YearY2004	-0.489
## RegionCentral America and Caribbean:YearY2004	-0.700
## RegionEuropean Union:YearY2004	0.000
## RegionMiddle East:YearY2004	-0.141
## RegionNorth America:YearY2004	1.120
## RegionOceania:YearY2004	0.452
## RegionRest of Europe:YearY2004	0.025
## RegionSouth America:YearY2004	-0.260
## RegionAsia:YearY2005	-0.985
## RegionCentral America and Caribbean:YearY2005	-0.956
## RegionEuropean Union:YearY2005	-0.172
## RegionMiddle East:YearY2005	-0.283
## RegionNorth America:YearY2005	1.196
## RegionOceania:YearY2005	0.359
## RegionRest of Europe:YearY2005	0.088
## RegionSouth America:YearY2005	-0.235
## RegionAsia:YearY2006	-1.111
## RegionCentral America and Caribbean:YearY2006	-1.045
## RegionEuropean Union:YearY2006	0.026
## RegionMiddle East:YearY2006	-0.348
## RegionNorth America:YearY2006	1.214
## RegionOceania:YearY2006	0.567
## RegionRest of Europe:YearY2006	0.303
## RegionSouth America:YearY2006	0.117
## RegionAsia:YearY2007	-1.169
## RegionCentral America and Caribbean:YearY2007	-1.712
## RegionEuropean Union:YearY2007	-0.061

## RegionMiddle East:YearY2007	-0.713
## RegionNorth America:YearY2007	1.135
## RegionOceania:YearY2007	0.437
## RegionRest of Europe:YearY2007	0.479
## RegionSouth America:YearY2007	-0.278
## RegionAsia:YearY2008	-0.584
## RegionCentral America and Caribbean:YearY2008	-1.595
## RegionEuropean Union:YearY2008	0.241
## RegionMiddle East:YearY2008	-0.365
## RegionNorth America:YearY2008	1.148
## RegionOceania:YearY2008	0.730
## RegionRest of Europe:YearY2008	0.875
## RegionSouth America:YearY2008	0.250
## RegionAsia:YearY2009	-0.251
## RegionCentral America and Caribbean:YearY2009	-1.885
## RegionEuropean Union:YearY2009	0.159
## RegionMiddle East:YearY2009	-0.382
## RegionNorth America:YearY2009	0.967
## RegionOceania:YearY2009	0.787
## RegionRest of Europe:YearY2009	0.691
## RegionSouth America:YearY2009	0.283
## RegionAsia:YearY2010	0.239
## RegionCentral America and Caribbean:YearY2010	-1.290
## RegionEuropean Union:YearY2010	0.513
## RegionMiddle East:YearY2010	-0.169
## RegionNorth America:YearY2010	1.076
## RegionOceania:YearY2010	1.147
## RegionRest of Europe:YearY2010	1.509
## RegionSouth America:YearY2010	0.861
## RegionAsia:YearY2011	0.147
## RegionCentral America and Caribbean:YearY2011	-1.738
## RegionEuropean Union:YearY2011	0.720
## RegionMiddle East:YearY2011	-0.151
## RegionNorth America:YearY2011	1.019
## RegionOceania:YearY2011	1.309
## RegionRest of Europe:YearY2011	1.797
## RegionSouth America:YearY2011	0.943
## RegionAsia:YearY2012	0.204
## RegionCentral America and Caribbean:YearY2012	-2.033
## RegionEuropean Union:YearY2012	0.631
## RegionMiddle East:YearY2012	-0.515
## RegionNorth America:YearY2012	1.036
## RegionOceania:YearY2012	1.454
## RegionRest of Europe:YearY2012	1.814
## RegionSouth America:YearY2012	1.010
## RegionAsia:YearY2013	0.551
## RegionCentral America and Caribbean:YearY2013	-2.008
## RegionEuropean Union:YearY2013	0.831
## RegionMiddle East:YearY2013	0.014
## RegionNorth America:YearY2013	1.078
## RegionOceania:YearY2013	1.643
## RegionRest of Europe:YearY2013	2.170
## RegionSouth America:YearY2013	1.200
## RegionAsia:YearY2014	0.865

## RegionCentral America and Caribbean:YearY2014	-1.804
## RegionEuropean Union:YearY2014	0.943
## RegionMiddle East:YearY2014	0.189
## RegionNorth America:YearY2014	1.065
## RegionOceania:YearY2014	2.235
## RegionRest of Europe:YearY2014	2.482
## RegionSouth America:YearY2014	1.547
## RegionAsia:YearY2015	0.635
## RegionCentral America and Caribbean:YearY2015	-1.962
## RegionEuropean Union:YearY2015	0.901
## RegionMiddle East:YearY2015	0.196
## RegionNorth America:YearY2015	1.106
## RegionOceania:YearY2015	2.324
## RegionRest of Europe:YearY2015	2.440
## RegionSouth America:YearY2015	1.404
## RegionAsia:Infant_deaths	-1.891
## RegionCentral America and Caribbean:Infant_deaths	2.375
## RegionEuropean Union:Infant_deaths	0.611
## RegionMiddle East:Infant_deaths	-2.605
## RegionNorth America:Infant_deaths	0.303
## RegionOceania:Infant_deaths	-0.974
## RegionRest of Europe:Infant_deaths	1.144
## RegionSouth America:Infant_deaths	-1.175
## RegionAsia:Adult_mortality	5.800
## RegionCentral America and Caribbean:Adult_mortality	-5.710
## RegionEuropean Union:Adult_mortality	-0.511
## RegionMiddle East:Adult_mortality	4.687
## RegionNorth America:Adult_mortality	0.530
## RegionOceania:Adult_mortality	1.436
## RegionRest of Europe:Adult_mortality	5.866
## RegionSouth America:Adult_mortality	-1.663
## RegionAsia:Hepatitis_B	3.960
## RegionCentral America and Caribbean:Hepatitis_B	3.840
## RegionEuropean Union:Hepatitis_B	-0.107
## RegionMiddle East:Hepatitis_B	1.959
## RegionNorth America:Hepatitis_B	0.446
## RegionOceania:Hepatitis_B	3.266
## RegionRest of Europe:Hepatitis_B	3.189
## RegionSouth America:Hepatitis_B	3.878
## RegionAsia:BMI	-2.631
## RegionCentral America and Caribbean:BMI	5.911
## RegionEuropean Union:BMI	-1.602
## RegionMiddle East:BMI	2.815
## RegionNorth America:BMI	-0.150
## RegionOceania:BMI	0.148
## RegionRest of Europe:BMI	-2.593
## RegionSouth America:BMI	-0.874
## RegionAsia:Polio	-3.636
## RegionCentral America and Caribbean:Polio	-4.825
## RegionEuropean Union:Polio	-0.813
## RegionMiddle East:Polio	-2.403
## RegionNorth America:Polio	0.029
## RegionOceania:Polio	-2.491
## RegionRest of Europe:Polio	-2.469

## RegionSouth America:Polio	-2.093
## RegionAsia:Incidents_HIV	-2.159
## RegionCentral America and Caribbean:Incidents_HIV	-4.353
## RegionEuropean Union:Incidents_HIV	-0.346
## RegionMiddle East:Incidents_HIV	-7.365
## RegionNorth America:Incidents_HIV	-0.059
## RegionOceania:Incidents_HIV	-3.900
## RegionRest of Europe:Incidents_HIV	-0.717
## RegionSouth America:Incidents_HIV	-0.270
## RegionAsia:GDP_per_capita	1.409
## RegionCentral America and Caribbean:GDP_per_capita	2.127
## RegionEuropean Union:GDP_per_capita	-1.409
## RegionMiddle East:GDP_per_capita	1.790
## RegionNorth America:GDP_per_capita	-1.685
## RegionOceania:GDP_per_capita	-1.813
## RegionRest of Europe:GDP_per_capita	-1.477
## RegionSouth America:GDP_per_capita	-0.231
## RegionAsia:Thinness_ten_nineteen_years	0.762
## RegionCentral America and Caribbean:Thinness_ten_nineteen_years	-1.169
## RegionEuropean Union:Thinness_ten_nineteen_years	-1.194
## RegionMiddle East:Thinness_ten_nineteen_years	0.027
## RegionNorth America:Thinness_ten_nineteen_years	0.560
## RegionOceania:Thinness_ten_nineteen_years	0.143
## RegionRest of Europe:Thinness_ten_nineteen_years	1.188
## RegionSouth America:Thinness_ten_nineteen_years	3.833
## RegionAsia:Thinness_five_nine_years	1.276
## RegionCentral America and Caribbean:Thinness_five_nine_years	1.049
## RegionEuropean Union:Thinness_five_nine_years	0.338
## RegionMiddle East:Thinness_five_nine_years	0.246
## RegionNorth America:Thinness_five_nine_years	0.586
## RegionOceania:Thinness_five_nine_years	1.693
## RegionRest of Europe:Thinness_five_nine_years	-1.991
## RegionSouth America:Thinness_five_nine_years	-3.500
## RegionAsia:Schooling	-4.547
## RegionCentral America and Caribbean:Schooling	-5.801
## RegionEuropean Union:Schooling	-0.765
## RegionMiddle East:Schooling	-3.131
## RegionNorth America:Schooling	-0.701
## RegionOceania:Schooling	-6.361
## RegionRest of Europe:Schooling	-4.632
## RegionSouth America:Schooling	-5.830
## RegionAsia:Economy_status_DevelopedYes	-1.292
## RegionCentral America and Caribbean:Economy_status_DevelopedYes	NA
## RegionEuropean Union:Economy_status_DevelopedYes	NA
## RegionMiddle East:Economy_status_DevelopedYes	-1.319
## RegionNorth America:Economy_status_DevelopedYes	1.535
## RegionOceania:Economy_status_DevelopedYes	3.141
## RegionRest of Europe:Economy_status_DevelopedYes	NA
## RegionSouth America:Economy_status_DevelopedYes	NA
## YearY2001:Infant_deaths	-0.318
## YearY2002:Infant_deaths	-0.553
## YearY2003:Infant_deaths	-0.985
## YearY2004:Infant_deaths	-1.424
## YearY2005:Infant_deaths	-1.397

## YearY2006:Infant_deaths	-0.831
## YearY2007:Infant_deaths	-1.552
## YearY2008:Infant_deaths	-1.130
## YearY2009:Infant_deaths	-0.642
## YearY2010:Infant_deaths	-0.213
## YearY2011:Infant_deaths	0.068
## YearY2012:Infant_deaths	-0.007
## YearY2013:Infant_deaths	-0.002
## YearY2014:Infant_deaths	0.495
## YearY2015:Infant_deaths	0.624
## YearY2001:Adult_mortality	0.443
## YearY2002:Adult_mortality	1.033
## YearY2003:Adult_mortality	0.388
## YearY2004:Adult_mortality	-0.085
## YearY2005:Adult_mortality	-0.089
## YearY2006:Adult_mortality	-0.114
## YearY2007:Adult_mortality	0.166
## YearY2008:Adult_mortality	0.023
## YearY2009:Adult_mortality	-0.809
## YearY2010:Adult_mortality	-1.065
## YearY2011:Adult_mortality	-0.839
## YearY2012:Adult_mortality	-1.066
## YearY2013:Adult_mortality	-0.748
## YearY2014:Adult_mortality	-0.930
## YearY2015:Adult_mortality	-0.572
## YearY2001:Hepatitis_B	-0.254
## YearY2002:Hepatitis_B	0.613
## YearY2003:Hepatitis_B	0.021
## YearY2004:Hepatitis_B	-0.265
## YearY2005:Hepatitis_B	-0.256
## YearY2006:Hepatitis_B	-0.560
## YearY2007:Hepatitis_B	-1.652
## YearY2008:Hepatitis_B	-1.580
## YearY2009:Hepatitis_B	-1.456
## YearY2010:Hepatitis_B	-0.543
## YearY2011:Hepatitis_B	-0.720
## YearY2012:Hepatitis_B	0.235
## YearY2013:Hepatitis_B	-1.473
## YearY2014:Hepatitis_B	-1.398
## YearY2015:Hepatitis_B	0.203
## YearY2001:BMI	0.479
## YearY2002:BMI	0.044
## YearY2003:BMI	-0.915
## YearY2004:BMI	-1.175
## YearY2005:BMI	-0.861
## YearY2006:BMI	-0.902
## YearY2007:BMI	-0.879
## YearY2008:BMI	-1.257
## YearY2009:BMI	-1.728
## YearY2010:BMI	-1.406
## YearY2011:BMI	-1.594
## YearY2012:BMI	-1.366
## YearY2013:BMI	-1.643
## YearY2014:BMI	-2.217

## YearY2015:BMI	-2.261
## YearY2001:Polio	-0.124
## YearY2002:Polio	-0.692
## YearY2003:Polio	-0.296
## YearY2004:Polio	-0.801
## YearY2005:Polio	-1.072
## YearY2006:Polio	-0.256
## YearY2007:Polio	0.182
## YearY2008:Polio	0.213
## YearY2009:Polio	0.079
## YearY2010:Polio	-0.839
## YearY2011:Polio	0.081
## YearY2012:Polio	-0.262
## YearY2013:Polio	1.156
## YearY2014:Polio	1.346
## YearY2015:Polio	0.533
## YearY2001:Incidents_HIV	-0.745
## YearY2002:Incidents_HIV	-0.986
## YearY2003:Incidents_HIV	-1.101
## YearY2004:Incidents_HIV	-1.704
## YearY2005:Incidents_HIV	-1.957
## YearY2006:Incidents_HIV	-2.507
## YearY2007:Incidents_HIV	-2.378
## YearY2008:Incidents_HIV	-2.259
## YearY2009:Incidents_HIV	-1.744
## YearY2010:Incidents_HIV	-1.051
## YearY2011:Incidents_HIV	-0.909
## YearY2012:Incidents_HIV	-0.122
## YearY2013:Incidents_HIV	0.729
## YearY2014:Incidents_HIV	1.888
## YearY2015:Incidents_HIV	1.736
## YearY2001:GDP_per_capita	-0.435
## YearY2002:GDP_per_capita	-0.025
## YearY2003:GDP_per_capita	-0.949
## YearY2004:GDP_per_capita	-0.596
## YearY2005:GDP_per_capita	-0.635
## YearY2006:GDP_per_capita	-0.418
## YearY2007:GDP_per_capita	-0.632
## YearY2008:GDP_per_capita	-0.334
## YearY2009:GDP_per_capita	-0.280
## YearY2010:GDP_per_capita	-0.178
## YearY2011:GDP_per_capita	-0.151
## YearY2012:GDP_per_capita	-0.036
## YearY2013:GDP_per_capita	-0.210
## YearY2014:GDP_per_capita	-0.148
## YearY2015:GDP_per_capita	-0.015
## YearY2001:Thinness_ten_nineteen_years	0.686
## YearY2002:Thinness_ten_nineteen_years	0.875
## YearY2003:Thinness_ten_nineteen_years	2.427
## YearY2004:Thinness_ten_nineteen_years	2.254
## YearY2005:Thinness_ten_nineteen_years	3.327
## YearY2006:Thinness_ten_nineteen_years	3.600
## YearY2007:Thinness_ten_nineteen_years	3.351
## YearY2008:Thinness_ten_nineteen_years	2.694

## YearY2009:Thinness_ten_nineteen_years	1.004
## YearY2010:Thinness_ten_nineteen_years	1.902
## YearY2011:Thinness_ten_nineteen_years	1.383
## YearY2012:Thinness_ten_nineteen_years	3.339
## YearY2013:Thinness_ten_nineteen_years	3.636
## YearY2014:Thinness_ten_nineteen_years	3.584
## YearY2015:Thinness_ten_nineteen_years	2.199
## YearY2001:Thinness_five_nine_years	-0.221
## YearY2002:Thinness_five_nine_years	-0.823
## YearY2003:Thinness_five_nine_years	-2.417
## YearY2004:Thinness_five_nine_years	-2.060
## YearY2005:Thinness_five_nine_years	-2.992
## YearY2006:Thinness_five_nine_years	-3.116
## YearY2007:Thinness_five_nine_years	-2.963
## YearY2008:Thinness_five_nine_years	-2.499
## YearY2009:Thinness_five_nine_years	-1.226
## YearY2010:Thinness_five_nine_years	-1.999
## YearY2011:Thinness_five_nine_years	-1.490
## YearY2012:Thinness_five_nine_years	-3.355
## YearY2013:Thinness_five_nine_years	-3.918
## YearY2014:Thinness_five_nine_years	-3.867
## YearY2015:Thinness_five_nine_years	-2.474
## YearY2001:Schooling	0.106
## YearY2002:Schooling	-0.182
## YearY2003:Schooling	0.477
## YearY2004:Schooling	0.951
## YearY2005:Schooling	1.096
## YearY2006:Schooling	1.303
## YearY2007:Schooling	1.206
## YearY2008:Schooling	1.086
## YearY2009:Schooling	1.114
## YearY2010:Schooling	0.939
## YearY2011:Schooling	0.650
## YearY2012:Schooling	0.434
## YearY2013:Schooling	0.075
## YearY2014:Schooling	0.400
## YearY2015:Schooling	0.664
## YearY2001:Economy_status_DevelopedYes	0.503
## YearY2002:Economy_status_DevelopedYes	0.432
## YearY2003:Economy_status_DevelopedYes	0.519
## YearY2004:Economy_status_DevelopedYes	0.287
## YearY2005:Economy_status_DevelopedYes	0.412
## YearY2006:Economy_status_DevelopedYes	0.465
## YearY2007:Economy_status_DevelopedYes	0.376
## YearY2008:Economy_status_DevelopedYes	0.211
## YearY2009:Economy_status_DevelopedYes	0.221
## YearY2010:Economy_status_DevelopedYes	0.163
## YearY2011:Economy_status_DevelopedYes	0.223
## YearY2012:Economy_status_DevelopedYes	0.172
## YearY2013:Economy_status_DevelopedYes	0.162
## YearY2014:Economy_status_DevelopedYes	0.148
## YearY2015:Economy_status_DevelopedYes	0.025
## Infant_deaths:Adult_mortality	10.718
## Infant_deaths:Hepatitis_B	-2.003

## Infant_deaths:BMI	8.786
## Infant_deaths:Polio	-0.855
## Infant_deaths:Incidents_HIV	0.496
## Infant_deaths:GDP_per_capita	-2.129
## Infant_deaths:Thinness_ten_nineteen_years	-0.234
## Infant_deaths:Thinness_five_nine_years	1.191
## Infant_deaths:Schooling	-0.904
## Infant_deaths:Economy_status_DevelopedYes	-0.838
## Adult_mortality:Hepatitis_B	4.211
## Adult_mortality:BMI	-5.082
## Adult_mortality:Polio	3.214
## Adult_mortality:Incidents_HIV	4.477
## Adult_mortality:GDP_per_capita	-4.594
## Adult_mortality:Thinness_ten_nineteen_years	-1.293
## Adult_mortality:Thinness_five_nine_years	0.564
## Adult_mortality:Schooling	2.020
## Adult_mortality:Economy_status_DevelopedYes	0.817
## Hepatitis_B:BMI	0.008
## Hepatitis_B:Polio	2.266
## Hepatitis_B:Incidents_HIV	-2.411
## Hepatitis_B:GDP_per_capita	0.540
## Hepatitis_B:Thinness_ten_nineteen_years	-0.396
## Hepatitis_B:Thinness_five_nine_years	2.128
## Hepatitis_B:Schooling	-0.702
## Hepatitis_B:Economy_status_DevelopedYes	0.640
## BMI:Polio	0.663
## BMI:Incidents_HIV	0.800
## BMI:GDP_per_capita	-1.755
## BMI:Thinness_ten_nineteen_years	-2.862
## BMI:Thinness_five_nine_years	2.886
## BMI:Schooling	4.400
## BMI:Economy_status_DevelopedYes	0.561
## Polio:Incidents_HIV	-5.002
## Polio:GDP_per_capita	0.987
## Polio:Thinness_ten_nineteen_years	-1.308
## Polio:Thinness_five_nine_years	0.874
## Polio:Schooling	1.078
## Polio:Economy_status_DevelopedYes	-0.460
## Incidents_HIV:GDP_per_capita	7.939
## Incidents_HIV:Thinness_ten_nineteen_years	3.367
## Incidents_HIV:Thinness_five_nine_years	-2.736
## Incidents_HIV:Schooling	1.109
## Incidents_HIV:Economy_status_DevelopedYes	0.866
## GDP_per_capita:Thinness_ten_nineteen_years	-1.131
## GDP_per_capita:Thinness_five_nine_years	0.871
## GDP_per_capita:Schooling	1.099
## GDP_per_capita:Economy_status_DevelopedYes	1.786
## Thinness_ten_nineteen_years:Thinness_five_nine_years	-2.129
## Thinness_ten_nineteen_years:Schooling	-0.622
## Thinness_ten_nineteen_years:Economy_status_DevelopedYes	0.909
## Thinness_five_nine_years:Schooling	0.534
## Thinness_five_nine_years:Economy_status_DevelopedYes	-0.314
## Schooling:Economy_status_DevelopedYes	-0.805
##	Pr(> t )

## (Intercept)	< 2e-16 ***
## RegionAsia	0.009661 **
## RegionCentral America and Caribbean	0.084668 .
## RegionEuropean Union	0.033045 *
## RegionMiddle East	0.021881 *
## RegionNorth America	0.898328
## RegionOceania	0.644980
## RegionRest of Europe	0.001673 **
## RegionSouth America	0.030336 *
## YearY2001	0.692576
## YearY2002	0.939001
## YearY2003	0.376624
## YearY2004	0.145318
## YearY2005	0.212044
## YearY2006	0.369595
## YearY2007	0.237578
## YearY2008	0.158254
## YearY2009	0.039724 *
## YearY2010	0.058672 .
## YearY2011	0.093179 .
## YearY2012	0.181553
## YearY2013	0.103187
## YearY2014	0.053407 .
## YearY2015	0.123311
## Infant_deaths	< 2e-16 ***
## Adult_mortality	0.014306 *
## Hepatitis_B	0.112173
## BMI	0.097906 .
## Polio	0.290325
## Incidents_HIV	0.400414
## GDP_per_capita	0.395469
## Thinness_ten_nineteen_years	0.003192 **
## Thinness_five_nine_years	0.000931 ***
## Schooling	0.001109 **
## Economy_status_DevelopedYes	0.561145
## RegionAsia:YearY2001	0.666108
## RegionCentral America and Caribbean:YearY2001	0.969318
## RegionEuropean Union:YearY2001	0.898006
## RegionMiddle East:YearY2001	0.843499
## RegionNorth America:YearY2001	0.634455
## RegionOceania:YearY2001	0.854829
## RegionRest of Europe:YearY2001	0.939640
## RegionSouth America:YearY2001	0.841955
## RegionAsia:YearY2002	0.758138
## RegionCentral America and Caribbean:YearY2002	0.709696
## RegionEuropean Union:YearY2002	0.718069
## RegionMiddle East:YearY2002	0.660912
## RegionNorth America:YearY2002	0.261970
## RegionOceania:YearY2002	0.709916
## RegionRest of Europe:YearY2002	0.514923
## RegionSouth America:YearY2002	0.700713
## RegionAsia:YearY2003	0.992362
## RegionCentral America and Caribbean:YearY2003	0.969672
## RegionEuropean Union:YearY2003	0.921682

## RegionMiddle East:YearY2003	0.721165
## RegionNorth America:YearY2003	0.243615
## RegionOceania:YearY2003	0.487382
## RegionRest of Europe:YearY2003	0.677872
## RegionSouth America:YearY2003	0.949410
## RegionAsia:YearY2004	0.625203
## RegionCentral America and Caribbean:YearY2004	0.483953
## RegionEuropean Union:YearY2004	0.999969
## RegionMiddle East:YearY2004	0.888210
## RegionNorth America:YearY2004	0.263009
## RegionOceania:YearY2004	0.651394
## RegionRest of Europe:YearY2004	0.979893
## RegionSouth America:YearY2004	0.795162
## RegionAsia:YearY2005	0.324653
## RegionCentral America and Caribbean:YearY2005	0.339248
## RegionEuropean Union:YearY2005	0.863736
## RegionMiddle East:YearY2005	0.777371
## RegionNorth America:YearY2005	0.231902
## RegionOceania:YearY2005	0.719939
## RegionRest of Europe:YearY2005	0.929853
## RegionSouth America:YearY2005	0.814554
## RegionAsia:YearY2006	0.266518
## RegionCentral America and Caribbean:YearY2006	0.296249
## RegionEuropean Union:YearY2006	0.979404
## RegionMiddle East:YearY2006	0.728171
## RegionNorth America:YearY2006	0.225042
## RegionOceania:YearY2006	0.570480
## RegionRest of Europe:YearY2006	0.762131
## RegionSouth America:YearY2006	0.907066
## RegionAsia:YearY2007	0.242677
## RegionCentral America and Caribbean:YearY2007	0.087028 .
## RegionEuropean Union:YearY2007	0.951449
## RegionMiddle East:YearY2007	0.476098
## RegionNorth America:YearY2007	0.256372
## RegionOceania:YearY2007	0.661957
## RegionRest of Europe:YearY2007	0.631729
## RegionSouth America:YearY2007	0.780744
## RegionAsia:YearY2008	0.559245
## RegionCentral America and Caribbean:YearY2008	0.110798
## RegionEuropean Union:YearY2008	0.809963
## RegionMiddle East:YearY2008	0.715268
## RegionNorth America:YearY2008	0.251270
## RegionOceania:YearY2008	0.465407
## RegionRest of Europe:YearY2008	0.381432
## RegionSouth America:YearY2008	0.802986
## RegionAsia:YearY2009	0.801943
## RegionCentral America and Caribbean:YearY2009	0.059551 .
## RegionEuropean Union:YearY2009	0.873398
## RegionMiddle East:YearY2009	0.702156
## RegionNorth America:YearY2009	0.333437
## RegionOceania:YearY2009	0.431097
## RegionRest of Europe:YearY2009	0.489730
## RegionSouth America:YearY2009	0.776848
## RegionAsia:YearY2010	0.811276

## RegionCentral America and Caribbean:YearY2010	0.197325
## RegionEuropean Union:YearY2010	0.608108
## RegionMiddle East:YearY2010	0.866119
## RegionNorth America:YearY2010	0.282138
## RegionOceania:YearY2010	0.251618
## RegionRest of Europe:YearY2010	0.131469
## RegionSouth America:YearY2010	0.389531
## RegionAsia:YearY2011	0.882881
## RegionCentral America and Caribbean:YearY2011	0.082270 .
## RegionEuropean Union:YearY2011	0.471777
## RegionMiddle East:YearY2011	0.880220
## RegionNorth America:YearY2011	0.308289
## RegionOceania:YearY2011	0.190706
## RegionRest of Europe:YearY2011	0.072432 .
## RegionSouth America:YearY2011	0.345636
## RegionAsia:YearY2012	0.838681
## RegionCentral America and Caribbean:YearY2012	0.042131 *
## RegionEuropean Union:YearY2012	0.528220
## RegionMiddle East:YearY2012	0.606449
## RegionNorth America:YearY2012	0.300090
## RegionOceania:YearY2012	0.146177
## RegionRest of Europe:YearY2012	0.069824 .
## RegionSouth America:YearY2012	0.312589
## RegionAsia:YearY2013	0.581457
## RegionCentral America and Caribbean:YearY2013	0.044804 *
## RegionEuropean Union:YearY2013	0.405799
## RegionMiddle East:YearY2013	0.989035
## RegionNorth America:YearY2013	0.281081
## RegionOceania:YearY2013	0.100499
## RegionRest of Europe:YearY2013	0.030131 *
## RegionSouth America:YearY2013	0.230356
## RegionAsia:YearY2014	0.386955
## RegionCentral America and Caribbean:YearY2014	0.071281 .
## RegionEuropean Union:YearY2014	0.345714
## RegionMiddle East:YearY2014	0.850248
## RegionNorth America:YearY2014	0.287151
## RegionOceania:YearY2014	0.025531 *
## RegionRest of Europe:YearY2014	0.013139 *
## RegionSouth America:YearY2014	0.122024
## RegionAsia:YearY2015	0.525762
## RegionCentral America and Caribbean:YearY2015	0.049837 *
## RegionEuropean Union:YearY2015	0.367607
## RegionMiddle East:YearY2015	0.844577
## RegionNorth America:YearY2015	0.268766
## RegionOceania:YearY2015	0.020184 *
## RegionRest of Europe:YearY2015	0.014742 *
## RegionSouth America:YearY2015	0.160488
## RegionAsia:Infant_deaths	0.058799 .
## RegionCentral America and Caribbean:Infant_deaths	0.017650 *
## RegionEuropean Union:Infant_deaths	0.541320
## RegionMiddle East:Infant_deaths	0.009255 **
## RegionNorth America:Infant_deaths	0.762209
## RegionOceania:Infant_deaths	0.330259
## RegionRest of Europe:Infant_deaths	0.252944

## RegionSouth America:Infant_deaths	0.240075
## RegionAsia:Adult_mortality	7.48e-09 ***
## RegionCentral America and Caribbean:Adult_mortality	1.27e-08 ***
## RegionEuropean Union:Adult_mortality	0.609579
## RegionMiddle East:Adult_mortality	2.93e-06 ***
## RegionNorth America:Adult_mortality	0.596438
## RegionOceania:Adult_mortality	0.151042
## RegionRest of Europe:Adult_mortality	5.09e-09 ***
## RegionSouth America:Adult_mortality	0.096389 .
## RegionAsia:Hepatitis_B	7.72e-05 ***
## RegionCentral America and Caribbean:Hepatitis_B	0.000126 ***
## RegionEuropean Union:Hepatitis_B	0.914810
## RegionMiddle East:Hepatitis_B	0.050234 .
## RegionNorth America:Hepatitis_B	0.655609
## RegionOceania:Hepatitis_B	0.001105 **
## RegionRest of Europe:Hepatitis_B	0.001447 **
## RegionSouth America:Hepatitis_B	0.000108 ***
## RegionAsia:BMI	0.008561 **
## RegionCentral America and Caribbean:BMI	3.87e-09 ***
## RegionEuropean Union:BMI	0.109226
## RegionMiddle East:BMI	0.004916 **
## RegionNorth America:BMI	0.880807
## RegionOceania:BMI	0.882390
## RegionRest of Europe:BMI	0.009573 **
## RegionSouth America:BMI	0.382321
## RegionAsia:Polio	0.000283 ***
## RegionCentral America and Caribbean:Polio	1.49e-06 ***
## RegionEuropean Union:Polio	0.416246
## RegionMiddle East:Polio	0.016341 *
## RegionNorth America:Polio	0.976640
## RegionOceania:Polio	0.012801 *
## RegionRest of Europe:Polio	0.013620 *
## RegionSouth America:Polio	0.036498 *
## RegionAsia:Incidents_HIV	0.030949 *
## RegionCentral America and Caribbean:Incidents_HIV	1.40e-05 ***
## RegionEuropean Union:Incidents_HIV	0.729617
## RegionMiddle East:Incidents_HIV	2.42e-13 ***
## RegionNorth America:Incidents_HIV	0.952815
## RegionOceania:Incidents_HIV	9.87e-05 ***
## RegionRest of Europe:Incidents_HIV	0.473664
## RegionSouth America:Incidents_HIV	0.787016
## RegionAsia:GDP_per_capita	0.158983
## RegionCentral America and Caribbean:GDP_per_capita	0.033489 *
## RegionEuropean Union:GDP_per_capita	0.159044
## RegionMiddle East:GDP_per_capita	0.073555 .
## RegionNorth America:GDP_per_capita	0.092064 .
## RegionOceania:GDP_per_capita	0.069913 .
## RegionRest of Europe:GDP_per_capita	0.139928
## RegionSouth America:GDP_per_capita	0.817136
## RegionAsia:Thinness_ten_nineteen_years	0.446352
## RegionCentral America and Caribbean:Thinness_ten_nineteen_years	0.242533
## RegionEuropean Union:Thinness_ten_nineteen_years	0.232675
## RegionMiddle East:Thinness_ten_nineteen_years	0.978617
## RegionNorth America:Thinness_ten_nineteen_years	0.575605

## RegionOceania:Thinness_ten_nineteen_years	0.886044
## RegionRest of Europe:Thinness_ten_nineteen_years	0.234801
## RegionSouth America:Thinness_ten_nineteen_years	0.000130 ***
## RegionAsia:Thinness_five_nine_years	0.202092
## RegionCentral America and Caribbean:Thinness_five_nine_years	0.294100
## RegionEuropean Union:Thinness_five_nine_years	0.735070
## RegionMiddle East:Thinness_five_nine_years	0.805391
## RegionNorth America:Thinness_five_nine_years	0.557677
## RegionOceania:Thinness_five_nine_years	0.090549 .
## RegionRest of Europe:Thinness_five_nine_years	0.046555 *
## RegionSouth America:Thinness_five_nine_years	0.000474 ***
## RegionAsia:Schooling	5.72e-06 ***
## RegionCentral America and Caribbean:Schooling	7.44e-09 ***
## RegionEuropean Union:Schooling	0.444407
## RegionMiddle East:Schooling	0.001762 **
## RegionNorth America:Schooling	0.483144
## RegionOceania:Schooling	2.39e-10 ***
## RegionRest of Europe:Schooling	3.82e-06 ***
## RegionSouth America:Schooling	6.28e-09 ***
## RegionAsia:Economy_status_DevelopedYes	0.196511
## RegionCentral America and Caribbean:Economy_status_DevelopedYes	NA
## RegionEuropean Union:Economy_status_DevelopedYes	NA
## RegionMiddle East:Economy_status_DevelopedYes	0.187417
## RegionNorth America:Economy_status_DevelopedYes	0.124829
## RegionOceania:Economy_status_DevelopedYes	0.001706 **
## RegionRest of Europe:Economy_status_DevelopedYes	NA
## RegionSouth America:Economy_status_DevelopedYes	NA
## YearY2001:Infant_deaths	0.750170
## YearY2002:Infant_deaths	0.580235
## YearY2003:Infant_deaths	0.324853
## YearY2004:Infant_deaths	0.154638
## YearY2005:Infant_deaths	0.162551
## YearY2006:Infant_deaths	0.405814
## YearY2007:Infant_deaths	0.120900
## YearY2008:Infant_deaths	0.258475
## YearY2009:Infant_deaths	0.521113
## YearY2010:Infant_deaths	0.831205
## YearY2011:Infant_deaths	0.945656
## YearY2012:Infant_deaths	0.994476
## YearY2013:Infant_deaths	0.998098
## YearY2014:Infant_deaths	0.620847
## YearY2015:Infant_deaths	0.532852
## YearY2001:Adult_mortality	0.657983
## YearY2002:Adult_mortality	0.301768
## YearY2003:Adult_mortality	0.698157
## YearY2004:Adult_mortality	0.931992
## YearY2005:Adult_mortality	0.928777
## YearY2006:Adult_mortality	0.909144
## YearY2007:Adult_mortality	0.868198
## YearY2008:Adult_mortality	0.981396
## YearY2009:Adult_mortality	0.418738
## YearY2010:Adult_mortality	0.286851
## YearY2011:Adult_mortality	0.401274
## YearY2012:Adult_mortality	0.286752

## YearY2013:Adult_mortality	0.454727
## YearY2014:Adult_mortality	0.352700
## YearY2015:Adult_mortality	0.567564
## YearY2001:Hepatitis_B	0.799478
## YearY2002:Hepatitis_B	0.540192
## YearY2003:Hepatitis_B	0.983002
## YearY2004:Hepatitis_B	0.791305
## YearY2005:Hepatitis_B	0.797708
## YearY2006:Hepatitis_B	0.575584
## YearY2007:Hepatitis_B	0.098630 .
## YearY2008:Hepatitis_B	0.114281
## YearY2009:Hepatitis_B	0.145607
## YearY2010:Hepatitis_B	0.587321
## YearY2011:Hepatitis_B	0.471669
## YearY2012:Hepatitis_B	0.814453
## YearY2013:Hepatitis_B	0.140913
## YearY2014:Hepatitis_B	0.162162
## YearY2015:Hepatitis_B	0.839113
## YearY2001:BMI	0.632148
## YearY2002:BMI	0.965230
## YearY2003:BMI	0.360334
## YearY2004:BMI	0.240198
## YearY2005:BMI	0.389555
## YearY2006:BMI	0.367092
## YearY2007:BMI	0.379366
## YearY2008:BMI	0.208928
## YearY2009:BMI	0.084179 .
## YearY2010:BMI	0.159738
## YearY2011:BMI	0.111154
## YearY2012:BMI	0.171926
## YearY2013:BMI	0.100501
## YearY2014:BMI	0.026689 *
## YearY2015:BMI	0.023856 *
## YearY2001:Polio	0.901468
## YearY2002:Polio	0.488781
## YearY2003:Polio	0.767365
## YearY2004:Polio	0.423433
## YearY2005:Polio	0.283827
## YearY2006:Polio	0.797991
## YearY2007:Polio	0.855899
## YearY2008:Polio	0.831720
## YearY2009:Polio	0.937423
## YearY2010:Polio	0.401532
## YearY2011:Polio	0.935150
## YearY2012:Polio	0.793382
## YearY2013:Polio	0.247893
## YearY2014:Polio	0.178348
## YearY2015:Polio	0.594088
## YearY2001:Incidents_HIV	0.456190
## YearY2002:Incidents_HIV	0.324395
## YearY2003:Incidents_HIV	0.270979
## YearY2004:Incidents_HIV	0.088424 .
## YearY2005:Incidents_HIV	0.050406 .
## YearY2006:Incidents_HIV	0.012239 *

```

## YearY2007:Incidents_HIV          0.017462 *
## YearY2008:Incidents_HIV          0.023967 *
## YearY2009:Incidents_HIV          0.081258 .
## YearY2010:Incidents_HIV          0.293320
## YearY2011:Incidents_HIV          0.363240
## YearY2012:Incidents_HIV          0.902707
## YearY2013:Incidents_HIV          0.466000
## YearY2014:Incidents_HIV          0.059161 .
## YearY2015:Incidents_HIV          0.082760 .
## YearY2001:GDP_per_capita         0.663341
## YearY2002:GDP_per_capita         0.979874
## YearY2003:GDP_per_capita         0.342733
## YearY2004:GDP_per_capita         0.551281
## YearY2005:GDP_per_capita         0.525785
## YearY2006:GDP_per_capita         0.676342
## YearY2007:GDP_per_capita         0.527721
## YearY2008:GDP_per_capita         0.738388
## YearY2009:GDP_per_capita         0.779570
## YearY2010:GDP_per_capita         0.859099
## YearY2011:GDP_per_capita         0.879736
## YearY2012:GDP_per_capita         0.971564
## YearY2013:GDP_per_capita         0.833978
## YearY2014:GDP_per_capita         0.882393
## YearY2015:GDP_per_capita         0.988397
## YearY2001:Thinness_ten_nineteen_years 0.492746
## YearY2002:Thinness_ten_nineteen_years 0.381929
## YearY2003:Thinness_ten_nineteen_years 0.015317 *
## YearY2004:Thinness_ten_nineteen_years 0.024303 *
## YearY2005:Thinness_ten_nineteen_years 0.000891 ***
## YearY2006:Thinness_ten_nineteen_years 0.000324 ***
## YearY2007:Thinness_ten_nineteen_years 0.000818 ***
## YearY2008:Thinness_ten_nineteen_years 0.007114 **
## YearY2009:Thinness_ten_nineteen_years 0.315524
## YearY2010:Thinness_ten_nineteen_years 0.057325 .
## YearY2011:Thinness_ten_nineteen_years 0.166759
## YearY2012:Thinness_ten_nineteen_years 0.000854 ***
## YearY2013:Thinness_ten_nineteen_years 0.000283 ***
## YearY2014:Thinness_ten_nineteen_years 0.000346 ***
## YearY2015:Thinness_ten_nineteen_years 0.027982 *
## YearY2001:Thinness_five_nine_years   0.825005
## YearY2002:Thinness_five_nine_years   0.410672
## YearY2003:Thinness_five_nine_years   0.015725 *
## YearY2004:Thinness_five_nine_years   0.039470 *
## YearY2005:Thinness_five_nine_years   0.002803 **
## YearY2006:Thinness_five_nine_years   0.001857 **
## YearY2007:Thinness_five_nine_years   0.003080 **
## YearY2008:Thinness_five_nine_years   0.012525 *
## YearY2009:Thinness_five_nine_years   0.220250
## YearY2010:Thinness_five_nine_years   0.045674 *
## YearY2011:Thinness_five_nine_years   0.136470
## YearY2012:Thinness_five_nine_years   0.000806 ***
## YearY2013:Thinness_five_nine_years   9.19e-05 ***
## YearY2014:Thinness_five_nine_years   0.000113 ***
## YearY2015:Thinness_five_nine_years   0.013442 *

```

## YearY2001:Schooling	0.915470
## YearY2002:Schooling	0.855825
## YearY2003:Schooling	0.633726
## YearY2004:Schooling	0.341854
## YearY2005:Schooling	0.273286
## YearY2006:Schooling	0.192813
## YearY2007:Schooling	0.228121
## YearY2008:Schooling	0.277798
## YearY2009:Schooling	0.265545
## YearY2010:Schooling	0.347697
## YearY2011:Schooling	0.516048
## YearY2012:Schooling	0.664016
## YearY2013:Schooling	0.939936
## YearY2014:Schooling	0.689097
## YearY2015:Schooling	0.507014
## YearY2001:Economy_status_DevelopedYes	0.615204
## YearY2002:Economy_status_DevelopedYes	0.665923
## YearY2003:Economy_status_DevelopedYes	0.603531
## YearY2004:Economy_status_DevelopedYes	0.774465
## YearY2005:Economy_status_DevelopedYes	0.680454
## YearY2006:Economy_status_DevelopedYes	0.642176
## YearY2007:Economy_status_DevelopedYes	0.707091
## YearY2008:Economy_status_DevelopedYes	0.832533
## YearY2009:Economy_status_DevelopedYes	0.825189
## YearY2010:Economy_status_DevelopedYes	0.870559
## YearY2011:Economy_status_DevelopedYes	0.823361
## YearY2012:Economy_status_DevelopedYes	0.863539
## YearY2013:Economy_status_DevelopedYes	0.871536
## YearY2014:Economy_status_DevelopedYes	0.882049
## YearY2015:Economy_status_DevelopedYes	0.980116
## Infant_deaths:Adult_mortality	< 2e-16 ***
## Infant_deaths:Hepatitis_B	0.045310 *
## Infant_deaths:BMI	< 2e-16 ***
## Infant_deaths:Polio	0.392688
## Infant_deaths:Incidents_HIV	0.619824
## Infant_deaths:GDP_per_capita	0.033397 *
## Infant_deaths:Thinness_ten_nineteen_years	0.815323
## Infant_deaths:Thinness_five_nine_years	0.233610
## Infant_deaths:Schooling	0.366182
## Infant_deaths:Economy_status_DevelopedYes	0.401851
## Adult_mortality:Hepatitis_B	2.63e-05 ***
## Adult_mortality:BMI	4.02e-07 ***
## Adult_mortality:Polio	0.001328 **
## Adult_mortality:Incidents_HIV	7.92e-06 ***
## Adult_mortality:GDP_per_capita	4.56e-06 ***
## Adult_mortality:Thinness_ten_nineteen_years	0.196110
## Adult_mortality:Thinness_five_nine_years	0.572518
## Adult_mortality:Schooling	0.043543 *
## Adult_mortality:Economy_status_DevelopedYes	0.413957
## Hepatitis_B:BMI	0.993901
## Hepatitis_B:Polio	0.023552 *
## Hepatitis_B:Incidents_HIV	0.015978 *
## Hepatitis_B:GDP_per_capita	0.589157
## Hepatitis_B:Thinness_ten_nineteen_years	0.692329

```

## Hepatitis_B:Thinness_five_nine_years          0.033407 *
## Hepatitis_B:Schooling                      0.482773
## Hepatitis_B:Economy_status_DevelopedYes    0.521963
## BMI:Polio                                0.507623
## BMI:Incidents_HIV                         0.423560
## BMI:GDP_per_capita                        0.079438 .
## BMI:Thinness_ten_nineteen_years            0.004247 **
## BMI:Thinness_five_nine_years                0.003938 **
## BMI:Schooling                            1.13e-05 ***
## BMI:Economy_status_DevelopedYes           0.574842
## Polio:Incidents_HIV                      6.09e-07 ***
## Polio:GDP_per_capita                     0.323837
## Polio:Thinness_ten_nineteen_years          0.190958
## Polio:Thinness_five_nine_years              0.382433
## Polio:Schooling                           0.280930
## Polio:Economy_status_DevelopedYes         0.645609
## Incidents_HIV:GDP_per_capita             3.10e-15 ***
## Incidents_HIV:Thinness_ten_nineteen_years 0.000773 ***
## Incidents_HIV:Thinness_five_nine_years     0.006273 **
## Incidents_HIV:Schooling                  0.267350
## Incidents_HIV:Economy_status_DevelopedYes 0.386306
## GDP_per_capita:Thinness_ten_nineteen_years 0.258086
## GDP_per_capita:Thinness_five_nine_years    0.383704
## GDP_per_capita:Schooling                 0.271824
## GDP_per_capita:Economy_status_DevelopedYes 0.074158 .
## Thinness_ten_nineteen_years:Thinness_five_nine_years 0.033359 *
## Thinness_ten_nineteen_years:Schooling       0.534205
## Thinness_ten_nineteen_years:Economy_status_DevelopedYes 0.363411
## Thinness_five_nine_years:Schooling          0.593723
## Thinness_five_nine_years:Economy_status_DevelopedYes 0.753470
## Schooling:Economy_status_DevelopedYes      0.420785
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8388 on 2405 degrees of freedom
## Multiple R-squared:  0.9933, Adjusted R-squared:  0.992
## F-statistic: 780.7 on 458 and 2405 DF,  p-value: < 2.2e-16

##
## Call:
## lm(formula = Life_expectancy ~ Region + Year + Infant_deaths +
##     Adult_mortality + Hepatitis_B + BMI + Polio + Incidents_HIV +
##     GDP_per_capita + Thinness_ten_nineteen_years + Thinness_five_nine_years +
##     Schooling + Economy_status_Developed + Region:Year + Region:Infant_deaths +
##     Region:Adult_mortality + Region:Hepatitis_B + Region:BMI +
##     Region:Polio + Region:Incidents_HIV + Region:GDP_per_capita +
##     Region:Thinness_ten_nineteen_years + Region:Thinness_five_nine_years +
##     Region:Schooling + Region:Economy_status_Developed + Year:BMI +
##     Year:Incidents_HIV + Year:Thinness_ten_nineteen_years + Year:Thinness_five_nine_years +
##     Infant_deaths:Adult_mortality + Infant_deaths:Hepatitis_B +
##     Infant_deaths:BMI + Infant_deaths:GDP_per_capita + Adult_mortality:Hepatitis_B +
##     Adult_mortality:BMI + Adult_mortality:Polio + Adult_mortality:Incidents_HIV +
##     Adult_mortality:GDP_per_capita + Adult_mortality:Schooling +
##     Hepatitis_B:Polio + Hepatitis_B:Incidents_HIV + Hepatitis_B:Thinness_five_nine_years +

```

```

## BMI:Thinness_ten_nineteen_years + BMI:Thinness_five_nine_years +
## BMI:Schooling + Polio:Incidents_HIV + Incidents_HIV:GDP_per_capita +
## Incidents_HIV:Thinness_ten_nineteen_years + Incidents_HIV:Thinness_five_nine_years +
## Thinness_ten_nineteen_years:Thinness_five_nine_years, data = data)
##
## Residuals:
##      Min       1Q     Median      3Q      Max
## -2.68690 -0.47715  0.00361  0.46853  3.12442
##
## Coefficients: (4 not defined because of singularities)
##                                     Estimate
## (Intercept)                      9.976e+01
## RegionAsia                        8.619e+00
## RegionCentral America and Caribbean -3.531e+00
## RegionEuropean Union                2.104e+01
## RegionMiddle East                  -3.728e+00
## RegionNorth America                 7.492e+00
## RegionOceania                       1.460e+00
## RegionRest of Europe                 2.313e+01
## RegionSouth America                  1.319e+01
## YearY2001                          -6.925e-01
## YearY2002                          8.999e-01
## YearY2003                          6.548e-01
## YearY2004                          3.761e-01
## YearY2005                          3.174e-01
## YearY2006                          4.182e-01
## YearY2007                          2.461e-01
## YearY2008                          1.122e+00
## YearY2009                          2.275e+00
## YearY2010                          2.291e+00
## YearY2011                          2.953e+00
## YearY2012                          2.243e+00
## YearY2013                          3.205e+00
## YearY2014                          4.366e+00
## YearY2015                          4.333e+00
## Infant_deaths                     -5.858e-01
## Adult_mortality                   -3.003e-02
## Hepatitis_B                        -8.161e-02
## BMI                                -4.532e-01
## Polio                               -1.656e-02
## Incidents_HIV                      6.417e-01
## GDP_per_capita                      3.640e-05
## Thinness_ten_nineteen_years          1.018e+00
## Thinness_five_nine_years             -1.312e+00
## Schooling                           -1.676e+00
## Economy_status_DevelopedYes        2.177e+00
## RegionAsia:YearY2001                 -1.526e-01
## RegionCentral America and Caribbean:YearY2001 2.320e-02
## RegionEuropean Union:YearY2001      1.911e-01
## RegionMiddle East:YearY2001         -1.156e-01
## RegionNorth America:YearY2001       4.433e-01
## RegionOceania:YearY2001              -4.469e-02
## RegionRest of Europe:YearY2001      1.122e-01
## RegionSouth America:YearY2001       -8.145e-02

```

## RegionAsia:YearY2002	6.870e-02
## RegionCentral America and Caribbean:YearY2002	2.004e-01
## RegionEuropean Union:YearY2002	4.780e-01
## RegionMiddle East:YearY2002	2.328e-01
## RegionNorth America:YearY2002	1.034e+00
## RegionOceania:YearY2002	3.592e-01
## RegionRest of Europe:YearY2002	3.323e-01
## RegionSouth America:YearY2002	1.880e-01
## RegionAsia:YearY2003	1.851e-01
## RegionCentral America and Caribbean:YearY2003	1.931e-01
## RegionEuropean Union:YearY2003	5.064e-01
## RegionMiddle East:YearY2003	2.464e-01
## RegionNorth America:YearY2003	1.371e+00
## RegionOceania:YearY2003	4.322e-01
## RegionRest of Europe:YearY2003	4.473e-01
## RegionSouth America:YearY2003	1.637e-01
## RegionAsia:YearY2004	2.890e-01
## RegionCentral America and Caribbean:YearY2004	3.382e-02
## RegionEuropean Union:YearY2004	8.097e-01
## RegionMiddle East:YearY2004	2.411e-01
## RegionNorth America:YearY2004	1.712e+00
## RegionOceania:YearY2004	3.809e-01
## RegionRest of Europe:YearY2004	5.122e-01
## RegionSouth America:YearY2004	2.208e-01
## RegionAsia:YearY2005	1.798e-01
## RegionCentral America and Caribbean:YearY2005	-7.897e-02
## RegionEuropean Union:YearY2005	7.747e-01
## RegionMiddle East:YearY2005	2.736e-01
## RegionNorth America:YearY2005	2.000e+00
## RegionOceania:YearY2005	3.471e-01
## RegionRest of Europe:YearY2005	5.472e-01
## RegionSouth America:YearY2005	2.346e-01
## RegionAsia:YearY2006	1.232e-01
## RegionCentral America and Caribbean:YearY2006	-1.957e-01
## RegionEuropean Union:YearY2006	9.941e-01
## RegionMiddle East:YearY2006	2.009e-01
## RegionNorth America:YearY2006	2.190e+00
## RegionOceania:YearY2006	3.263e-01
## RegionRest of Europe:YearY2006	6.608e-01
## RegionSouth America:YearY2006	2.868e-01
## RegionAsia:YearY2007	1.786e-01
## RegionCentral America and Caribbean:YearY2007	-4.204e-01
## RegionEuropean Union:YearY2007	9.493e-01
## RegionMiddle East:YearY2007	1.029e-01
## RegionNorth America:YearY2007	2.341e+00
## RegionOceania:YearY2007	2.964e-01
## RegionRest of Europe:YearY2007	7.563e-01
## RegionSouth America:YearY2007	1.625e-01
## RegionAsia:YearY2008	3.895e-01
## RegionCentral America and Caribbean:YearY2008	-4.745e-01
## RegionEuropean Union:YearY2008	1.057e+00
## RegionMiddle East:YearY2008	1.971e-01
## RegionNorth America:YearY2008	2.519e+00
## RegionOceania:YearY2008	3.857e-01

## RegionRest of Europe:YearY2008	8.897e-01
## RegionSouth America:YearY2008	3.583e-01
## RegionAsia:YearY2009	5.146e-01
## RegionCentral America and Caribbean:YearY2009	-6.132e-01
## RegionEuropean Union:YearY2009	1.031e+00
## RegionMiddle East:YearY2009	2.372e-01
## RegionNorth America:YearY2009	2.542e+00
## RegionOceania:YearY2009	4.321e-01
## RegionRest of Europe:YearY2009	8.273e-01
## RegionSouth America:YearY2009	3.321e-01
## RegionAsia:YearY2010	5.865e-01
## RegionCentral America and Caribbean:YearY2010	-4.570e-01
## RegionEuropean Union:YearY2010	1.273e+00
## RegionMiddle East:YearY2010	3.244e-01
## RegionNorth America:YearY2010	2.777e+00
## RegionOceania:YearY2010	6.069e-01
## RegionRest of Europe:YearY2010	1.105e+00
## RegionSouth America:YearY2010	5.702e-01
## RegionAsia:YearY2011	5.201e-01
## RegionCentral America and Caribbean:YearY2011	-6.634e-01
## RegionEuropean Union:YearY2011	1.569e+00
## RegionMiddle East:YearY2011	2.936e-01
## RegionNorth America:YearY2011	2.819e+00
## RegionOceania:YearY2011	6.695e-01
## RegionRest of Europe:YearY2011	1.242e+00
## RegionSouth America:YearY2011	5.700e-01
## RegionAsia:YearY2012	6.384e-01
## RegionCentral America and Caribbean:YearY2012	-7.677e-01
## RegionEuropean Union:YearY2012	1.500e+00
## RegionMiddle East:YearY2012	1.823e-01
## RegionNorth America:YearY2012	2.973e+00
## RegionOceania:YearY2012	6.455e-01
## RegionRest of Europe:YearY2012	1.288e+00
## RegionSouth America:YearY2012	6.255e-01
## RegionAsia:YearY2013	7.335e-01
## RegionCentral America and Caribbean:YearY2013	-8.207e-01
## RegionEuropean Union:YearY2013	1.683e+00
## RegionMiddle East:YearY2013	3.491e-01
## RegionNorth America:YearY2013	3.088e+00
## RegionOceania:YearY2013	7.646e-01
## RegionRest of Europe:YearY2013	1.464e+00
## RegionSouth America:YearY2013	6.263e-01
## RegionAsia:YearY2014	9.021e-01
## RegionCentral America and Caribbean:YearY2014	-8.131e-01
## RegionEuropean Union:YearY2014	1.920e+00
## RegionMiddle East:YearY2014	4.793e-01
## RegionNorth America:YearY2014	3.282e+00
## RegionOceania:YearY2014	1.087e+00
## RegionRest of Europe:YearY2014	1.685e+00
## RegionSouth America:YearY2014	8.159e-01
## RegionAsia:YearY2015	8.119e-01
## RegionCentral America and Caribbean:YearY2015	-9.131e-01
## RegionEuropean Union:YearY2015	1.643e+00
## RegionMiddle East:YearY2015	4.035e-01

## RegionNorth America:YearY2015	3.270e+00
## RegionOceania:YearY2015	1.017e+00
## RegionRest of Europe:YearY2015	1.588e+00
## RegionSouth America:YearY2015	7.619e-01
## RegionAsia:Infant_deaths	-1.841e-02
## RegionCentral America and Caribbean:Infant_deaths	3.208e-02
## RegionEuropean Union:Infant_deaths	-1.210e-01
## RegionMiddle East:Infant_deaths	-7.336e-02
## RegionNorth America:Infant_deaths	5.290e-02
## RegionOceania:Infant_deaths	-1.205e-02
## RegionRest of Europe:Infant_deaths	1.784e-02
## RegionSouth America:Infant_deaths	-4.988e-02
## RegionAsia:Adult_mortality	1.486e-02
## RegionCentral America and Caribbean:Adult_mortality	-1.379e-02
## RegionEuropean Union:Adult_mortality	1.609e-02
## RegionMiddle East:Adult_mortality	3.169e-02
## RegionNorth America:Adult_mortality	4.042e-02
## RegionOceania:Adult_mortality	7.117e-03
## RegionRest of Europe:Adult_mortality	1.976e-02
## RegionSouth America:Adult_mortality	-1.312e-02
## RegionAsia:Hepatitis_B	3.324e-02
## RegionCentral America and Caribbean:Hepatitis_B	4.136e-02
## RegionEuropean Union:Hepatitis_B	2.737e-02
## RegionMiddle East:Hepatitis_B	2.187e-02
## RegionNorth America:Hepatitis_B	4.829e-02
## RegionOceania:Hepatitis_B	2.906e-02
## RegionRest of Europe:Hepatitis_B	2.196e-02
## RegionSouth America:Hepatitis_B	3.732e-02
## RegionAsia:BMI	-4.351e-01
## RegionCentral America and Caribbean:BMI	4.362e-01
## RegionEuropean Union:BMI	-7.809e-01
## RegionMiddle East:BMI	1.487e-01
## RegionNorth America:BMI	-6.414e-01
## RegionOceania:BMI	1.743e-02
## RegionRest of Europe:BMI	-8.030e-01
## RegionSouth America:BMI	-2.309e-01
## RegionAsia:Polio	-3.616e-02
## RegionCentral America and Caribbean:Polio	-4.708e-02
## RegionEuropean Union:Polio	-2.354e-02
## RegionMiddle East:Polio	-2.808e-02
## RegionNorth America:Polio	-2.818e-05
## RegionOceania:Polio	-1.115e-02
## RegionRest of Europe:Polio	-2.133e-02
## RegionSouth America:Polio	-1.320e-02
## RegionAsia:Incidents_HIV	-1.177e+00
## RegionCentral America and Caribbean:Incidents_HIV	-1.478e+00
## RegionEuropean Union:Incidents_HIV	3.936e+00
## RegionMiddle East:Incidents_HIV	-1.769e+01
## RegionNorth America:Incidents_HIV	-1.082e+01
## RegionOceania:Incidents_HIV	-4.870e+00
## RegionRest of Europe:Incidents_HIV	-1.280e-01
## RegionSouth America:Incidents_HIV	-3.550e-01
## RegionAsia:GDP_per_capita	6.145e-05
## RegionCentral America and Caribbean:GDP_per_capita	7.318e-05

## RegionEuropean Union:GDP_per_capita	2.704e-05
## RegionMiddle East:GDP_per_capita	2.647e-05
## RegionNorth America:GDP_per_capita	-1.997e-05
## RegionOceania:GDP_per_capita	3.777e-05
## RegionRest of Europe:GDP_per_capita	1.295e-05
## RegionSouth America:GDP_per_capita	-3.803e-06
## RegionAsia:Thinness_ten_nineteen_years	4.309e-02
## RegionCentral America and Caribbean:Thinness_ten_nineteen_years	-8.078e-01
## RegionEuropean Union:Thinness_ten_nineteen_years	-6.106e-01
## RegionMiddle East:Thinness_ten_nineteen_years	5.777e-01
## RegionNorth America:Thinness_ten_nineteen_years	2.351e+00
## RegionOceania:Thinness_ten_nineteen_years	3.130e-02
## RegionRest of Europe:Thinness_ten_nineteen_years	3.488e-01
## RegionSouth America:Thinness_ten_nineteen_years	3.517e+00
## RegionAsia:Thinness_five_nine_years	6.622e-02
## RegionCentral America and Caribbean:Thinness_five_nine_years	5.952e-01
## RegionEuropean Union:Thinness_five_nine_years	-4.842e-02
## RegionMiddle East:Thinness_five_nine_years	-4.663e-01
## RegionNorth America:Thinness_five_nine_years	1.840e+00
## RegionOceania:Thinness_five_nine_years	2.257e-01
## RegionRest of Europe:Thinness_five_nine_years	-1.429e+00
## RegionSouth America:Thinness_five_nine_years	-3.361e+00
## RegionAsia:Schooling	-2.067e-01
## RegionCentral America and Caribbean:Schooling	-4.450e-01
## RegionEuropean Union:Schooling	-5.024e-01
## RegionMiddle East:Schooling	-3.532e-01
## RegionNorth America:Schooling	-8.520e-01
## RegionOceania:Schooling	-9.876e-01
## RegionRest of Europe:Schooling	-5.334e-01
## RegionSouth America:Schooling	-7.869e-01
## RegionAsia:Economy_status_DevelopedYes	6.942e-01
## RegionCentral America and Caribbean:Economy_status_DevelopedYes	NA
## RegionEuropean Union:Economy_status_DevelopedYes	NA
## RegionMiddle East:Economy_status_DevelopedYes	6.537e-01
## RegionNorth America:Economy_status_DevelopedYes	8.469e+00
## RegionOceania:Economy_status_DevelopedYes	3.930e+00
## RegionRest of Europe:Economy_status_DevelopedYes	NA
## RegionSouth America:Economy_status_DevelopedYes	NA
## YearY2001:BMI	2.703e-02
## YearY2002:BMI	-4.360e-02
## YearY2003:BMI	-3.686e-02
## YearY2004:BMI	-2.546e-02
## YearY2005:BMI	-2.205e-02
## YearY2006:BMI	-2.653e-02
## YearY2007:BMI	-1.734e-02
## YearY2008:BMI	-5.198e-02
## YearY2009:BMI	-9.001e-02
## YearY2010:BMI	-9.649e-02
## YearY2011:BMI	-1.208e-01
## YearY2012:BMI	-9.430e-02
## YearY2013:BMI	-1.302e-01
## YearY2014:BMI	-1.774e-01
## YearY2015:BMI	-1.728e-01
## YearY2001:Incidents_HIV	-1.965e-02

## YearY2002:Incidents_HIV	-1.418e-02
## YearY2003:Incidents_HIV	-6.255e-02
## YearY2004:Incidents_HIV	-1.110e-01
## YearY2005:Incidents_HIV	-1.155e-01
## YearY2006:Incidents_HIV	-1.487e-01
## YearY2007:Incidents_HIV	-1.283e-01
## YearY2008:Incidents_HIV	-1.333e-01
## YearY2009:Incidents_HIV	-1.425e-01
## YearY2010:Incidents_HIV	-1.114e-01
## YearY2011:Incidents_HIV	-9.220e-02
## YearY2012:Incidents_HIV	-4.986e-02
## YearY2013:Incidents_HIV	3.249e-02
## YearY2014:Incidents_HIV	1.231e-01
## YearY2015:Incidents_HIV	1.342e-01
## YearY2001:Thinness_ten_nineteen_years	3.057e-02
## YearY2002:Thinness_ten_nineteen_years	7.194e-02
## YearY2003:Thinness_ten_nineteen_years	1.776e-01
## YearY2004:Thinness_ten_nineteen_years	1.951e-01
## YearY2005:Thinness_ten_nineteen_years	1.714e-01
## YearY2006:Thinness_ten_nineteen_years	1.781e-01
## YearY2007:Thinness_ten_nineteen_years	1.703e-01
## YearY2008:Thinness_ten_nineteen_years	1.890e-01
## YearY2009:Thinness_ten_nineteen_years	7.694e-02
## YearY2010:Thinness_ten_nineteen_years	1.515e-01
## YearY2011:Thinness_ten_nineteen_years	8.086e-02
## YearY2012:Thinness_ten_nineteen_years	2.645e-01
## YearY2013:Thinness_ten_nineteen_years	3.002e-01
## YearY2014:Thinness_ten_nineteen_years	2.745e-01
## YearY2015:Thinness_ten_nineteen_years	2.289e-01
## YearY2001:Thinness_five_nine_years	-1.013e-02
## YearY2002:Thinness_five_nine_years	-7.015e-02
## YearY2003:Thinness_five_nine_years	-1.765e-01
## YearY2004:Thinness_five_nine_years	-1.881e-01
## YearY2005:Thinness_five_nine_years	-1.780e-01
## YearY2006:Thinness_five_nine_years	-1.790e-01
## YearY2007:Thinness_five_nine_years	-1.822e-01
## YearY2008:Thinness_five_nine_years	-2.089e-01
## YearY2009:Thinness_five_nine_years	-1.284e-01
## YearY2010:Thinness_five_nine_years	-1.948e-01
## YearY2011:Thinness_five_nine_years	-1.280e-01
## YearY2012:Thinness_five_nine_years	-3.062e-01
## YearY2013:Thinness_five_nine_years	-3.581e-01
## YearY2014:Thinness_five_nine_years	-3.418e-01
## YearY2015:Thinness_five_nine_years	-2.971e-01
## Infant_deaths:Adult_mortality	2.823e-04
## Infant_deaths:Hepatitis_B	-5.370e-04
## Infant_deaths:BM $I$	1.882e-02
## Infant_deaths:GDP_per_capita	-2.514e-06
## Adult_mortality:Hepatitis_B	2.472e-04
## Adult_mortality:BM $I$	-2.652e-03
## Adult_mortality:Polio	1.126e-04
## Adult_mortality:Incidents_HIV	7.966e-04
## Adult_mortality:GDP_per_capita	-7.417e-07
## Adult_mortality:Schooling	7.719e-04

## Hepatitis_B:Polio	2.224e-04
## Hepatitis_B:Incidents_HIV	-6.730e-03
## Hepatitis_B:Thinness_five_nine_years	1.420e-03
## BMI:Thinness_ten_nineteen_years	-5.501e-02
## BMI:Thinness_five_nine_years	6.297e-02
## BMI:Schooling	8.031e-02
## Polio:Incidents_HIV	-7.770e-03
## Incidents_HIV:GDP_per_capita	8.795e-05
## Incidents_HIV:Thinness_ten_nineteen_years	1.842e-02
## Incidents_HIV:Thinness_five_nine_years	-2.468e-02
## Thinness_ten_nineteen_years:Thinness_five_nine_years	-1.135e-03
##	Std. Error
## (Intercept)	3.066e+00
## RegionAsia	1.834e+00
## RegionCentral America and Caribbean	2.450e+00
## RegionEuropean Union	3.283e+00
## RegionMiddle East	3.801e+00
## RegionNorth America	5.771e+01
## RegionOceania	2.897e+00
## RegionRest of Europe	5.063e+00
## RegionSouth America	6.073e+00
## YearY2001	1.549e+00
## YearY2002	1.595e+00
## YearY2003	1.581e+00
## YearY2004	1.604e+00
## YearY2005	1.653e+00
## YearY2006	1.697e+00
## YearY2007	1.710e+00
## YearY2008	1.729e+00
## YearY2009	1.721e+00
## YearY2010	1.712e+00
## YearY2011	1.712e+00
## YearY2012	1.731e+00
## YearY2013	1.749e+00
## YearY2014	1.768e+00
## YearY2015	1.757e+00
## Infant_deaths	3.452e-02
## Adult_mortality	7.994e-03
## Hepatitis_B	1.698e-02
## BMI	1.173e-01
## Polio	1.637e-02
## Incidents_HIV	1.266e-01
## GDP_per_capita	2.957e-05
## Thinness_ten_nineteen_years	2.777e-01
## Thinness_five_nine_years	2.693e-01
## Schooling	2.610e-01
## Economy_status_DevelopedYes	6.641e-01
## RegionAsia:YearY2001	3.266e-01
## RegionCentral America and Caribbean:YearY2001	3.886e-01
## RegionEuropean Union:YearY2001	3.713e-01
## RegionMiddle East:YearY2001	4.589e-01
## RegionNorth America:YearY2001	9.216e-01
## RegionOceania:YearY2001	4.881e-01
## RegionRest of Europe:YearY2001	4.193e-01

## RegionSouth America:YearY2001	4.405e-01
## RegionAsia:YearY2002	3.227e-01
## RegionCentral America and Caribbean:YearY2002	3.883e-01
## RegionEuropean Union:YearY2002	3.741e-01
## RegionMiddle East:YearY2002	4.599e-01
## RegionNorth America:YearY2002	1.162e+00
## RegionOceania:YearY2002	4.896e-01
## RegionRest of Europe:YearY2002	4.228e-01
## RegionSouth America:YearY2002	4.454e-01
## RegionAsia:YearY2003	3.278e-01
## RegionCentral America and Caribbean:YearY2003	3.911e-01
## RegionEuropean Union:YearY2003	3.759e-01
## RegionMiddle East:YearY2003	4.616e-01
## RegionNorth America:YearY2003	1.457e+00
## RegionOceania:YearY2003	4.924e-01
## RegionRest of Europe:YearY2003	4.305e-01
## RegionSouth America:YearY2003	4.514e-01
## RegionAsia:YearY2004	3.224e-01
## RegionCentral America and Caribbean:YearY2004	3.912e-01
## RegionEuropean Union:YearY2004	3.788e-01
## RegionMiddle East:YearY2004	4.622e-01
## RegionNorth America:YearY2004	1.981e+00
## RegionOceania:YearY2004	4.949e-01
## RegionRest of Europe:YearY2004	4.371e-01
## RegionSouth America:YearY2004	4.612e-01
## RegionAsia:YearY2005	3.223e-01
## RegionCentral America and Caribbean:YearY2005	3.937e-01
## RegionEuropean Union:YearY2005	3.838e-01
## RegionMiddle East:YearY2005	4.656e-01
## RegionNorth America:YearY2005	2.285e+00
## RegionOceania:YearY2005	4.991e-01
## RegionRest of Europe:YearY2005	4.416e-01
## RegionSouth America:YearY2005	4.734e-01
## RegionAsia:YearY2006	3.252e-01
## RegionCentral America and Caribbean:YearY2006	3.982e-01
## RegionEuropean Union:YearY2006	3.854e-01
## RegionMiddle East:YearY2006	4.682e-01
## RegionNorth America:YearY2006	2.643e+00
## RegionOceania:YearY2006	5.034e-01
## RegionRest of Europe:YearY2006	4.511e-01
## RegionSouth America:YearY2006	4.728e-01
## RegionAsia:YearY2007	3.281e-01
## RegionCentral America and Caribbean:YearY2007	3.991e-01
## RegionEuropean Union:YearY2007	3.874e-01
## RegionMiddle East:YearY2007	4.690e-01
## RegionNorth America:YearY2007	3.114e+00
## RegionOceania:YearY2007	5.069e-01
## RegionRest of Europe:YearY2007	4.614e-01
## RegionSouth America:YearY2007	4.744e-01
## RegionAsia:YearY2008	3.323e-01
## RegionCentral America and Caribbean:YearY2008	4.012e-01
## RegionEuropean Union:YearY2008	3.879e-01
## RegionMiddle East:YearY2008	4.734e-01
## RegionNorth America:YearY2008	3.401e+00

## RegionOceania:YearY2008	5.100e-01
## RegionRest of Europe:YearY2008	4.653e-01
## RegionSouth America:YearY2008	4.791e-01
## RegionAsia:YearY2009	3.343e-01
## RegionCentral America and Caribbean:YearY2009	4.043e-01
## RegionEuropean Union:YearY2009	3.903e-01
## RegionMiddle East:YearY2009	4.767e-01
## RegionNorth America:YearY2009	3.540e+00
## RegionOceania:YearY2009	5.132e-01
## RegionRest of Europe:YearY2009	4.729e-01
## RegionSouth America:YearY2009	4.939e-01
## RegionAsia:YearY2010	3.357e-01
## RegionCentral America and Caribbean:YearY2010	4.112e-01
## RegionEuropean Union:YearY2010	3.908e-01
## RegionMiddle East:YearY2010	4.786e-01
## RegionNorth America:YearY2010	3.923e+00
## RegionOceania:YearY2010	5.159e-01
## RegionRest of Europe:YearY2010	4.818e-01
## RegionSouth America:YearY2010	4.942e-01
## RegionAsia:YearY2011	3.378e-01
## RegionCentral America and Caribbean:YearY2011	4.098e-01
## RegionEuropean Union:YearY2011	3.945e-01
## RegionMiddle East:YearY2011	4.845e-01
## RegionNorth America:YearY2011	4.318e+00
## RegionOceania:YearY2011	5.223e-01
## RegionRest of Europe:YearY2011	4.885e-01
## RegionSouth America:YearY2011	5.066e-01
## RegionAsia:YearY2012	3.363e-01
## RegionCentral America and Caribbean:YearY2012	4.109e-01
## RegionEuropean Union:YearY2012	3.949e-01
## RegionMiddle East:YearY2012	4.863e-01
## RegionNorth America:YearY2012	4.647e+00
## RegionOceania:YearY2012	5.282e-01
## RegionRest of Europe:YearY2012	4.971e-01
## RegionSouth America:YearY2012	5.143e-01
## RegionAsia:YearY2013	3.360e-01
## RegionCentral America and Caribbean:YearY2013	4.121e-01
## RegionEuropean Union:YearY2013	3.980e-01
## RegionMiddle East:YearY2013	4.908e-01
## RegionNorth America:YearY2013	4.844e+00
## RegionOceania:YearY2013	5.313e-01
## RegionRest of Europe:YearY2013	5.035e-01
## RegionSouth America:YearY2013	5.250e-01
## RegionAsia:YearY2014	3.395e-01
## RegionCentral America and Caribbean:YearY2014	4.188e-01
## RegionEuropean Union:YearY2014	4.037e-01
## RegionMiddle East:YearY2014	4.940e-01
## RegionNorth America:YearY2014	5.142e+00
## RegionOceania:YearY2014	5.461e-01
## RegionRest of Europe:YearY2014	5.174e-01
## RegionSouth America:YearY2014	5.339e-01
## RegionAsia:YearY2015	3.410e-01
## RegionCentral America and Caribbean:YearY2015	4.234e-01
## RegionEuropean Union:YearY2015	4.070e-01

## RegionMiddle East:YearY2015	4.986e-01
## RegionNorth America:YearY2015	5.319e+00
## RegionOceania:YearY2015	5.517e-01
## RegionRest of Europe:YearY2015	5.269e-01
## RegionSouth America:YearY2015	5.460e-01
## RegionAsia:Infant_deaths	7.042e-03
## RegionCentral America and Caribbean:Infant_deaths	1.283e-02
## RegionEuropean Union:Infant_deaths	2.962e-02
## RegionMiddle East:Infant_deaths	2.549e-02
## RegionNorth America:Infant_deaths	5.074e-01
## RegionOceania:Infant_deaths	1.433e-02
## RegionRest of Europe:Infant_deaths	1.674e-02
## RegionSouth America:Infant_deaths	3.046e-02
## RegionAsia:Adult_mortality	1.442e-03
## RegionCentral America and Caribbean:Adult_mortality	2.650e-03
## RegionEuropean Union:Adult_mortality	2.735e-03
## RegionMiddle East:Adult_mortality	6.489e-03
## RegionNorth America:Adult_mortality	1.441e-01
## RegionOceania:Adult_mortality	4.858e-03
## RegionRest of Europe:Adult_mortality	2.305e-03
## RegionSouth America:Adult_mortality	9.883e-03
## RegionAsia:Hepatitis_B	6.684e-03
## RegionCentral America and Caribbean:Hepatitis_B	1.165e-02
## RegionEuropean Union:Hepatitis_B	9.523e-03
## RegionMiddle East:Hepatitis_B	1.238e-02
## RegionNorth America:Hepatitis_B	2.522e-02
## RegionOceania:Hepatitis_B	1.178e-02
## RegionRest of Europe:Hepatitis_B	9.301e-03
## RegionSouth America:Hepatitis_B	1.171e-02
## RegionAsia:BMI	7.494e-02
## RegionCentral America and Caribbean:BMI	8.457e-02
## RegionEuropean Union:BMI	1.103e-01
## RegionMiddle East:BMI	1.217e-01
## RegionNorth America:BMI	2.446e+00
## RegionOceania:BMI	1.125e-01
## RegionRest of Europe:BMI	2.013e-01
## RegionSouth America:BMI	2.404e-01
## RegionAsia:Polio	8.248e-03
## RegionCentral America and Caribbean:Polio	1.189e-02
## RegionEuropean Union:Polio	1.381e-02
## RegionMiddle East:Polio	1.530e-02
## RegionNorth America:Polio	7.646e-02
## RegionOceania:Polio	1.232e-02
## RegionRest of Europe:Polio	1.254e-02
## RegionSouth America:Polio	1.418e-02
## RegionAsia:Incidents_HIV	4.218e-01
## RegionCentral America and Caribbean:Incidents_HIV	2.975e-01
## RegionEuropean Union:Incidents_HIV	1.123e+00
## RegionMiddle East:Incidents_HIV	2.640e+00
## RegionNorth America:Incidents_HIV	6.741e+01
## RegionOceania:Incidents_HIV	1.141e+00
## RegionRest of Europe:Incidents_HIV	6.438e-01
## RegionSouth America:Incidents_HIV	8.746e-01
## RegionAsia:GDP_per_capita	2.750e-05

## RegionCentral America and Caribbean:GDP_per_capita	2.632e-05
## RegionEuropean Union:GDP_per_capita	2.810e-05
## RegionMiddle East:GDP_per_capita	2.699e-05
## RegionNorth America:GDP_per_capita	2.504e-04
## RegionOceania:GDP_per_capita	3.326e-05
## RegionRest of Europe:GDP_per_capita	2.942e-05
## RegionSouth America:GDP_per_capita	3.792e-05
## RegionAsia:Thinness_ten_nineteen_years	3.093e-02
## RegionCentral America and Caribbean:Thinness_ten_nineteen_years	5.915e-01
## RegionEuropean Union:Thinness_ten_nineteen_years	5.299e-01
## RegionMiddle East:Thinness_ten_nineteen_years	6.838e-01
## RegionNorth America:Thinness_ten_nineteen_years	5.229e+00
## RegionOceania:Thinness_ten_nineteen_years	9.852e-02
## RegionRest of Europe:Thinness_ten_nineteen_years	8.540e-01
## RegionSouth America:Thinness_ten_nineteen_years	9.087e-01
## RegionAsia:Thinness_five_nine_years	3.092e-02
## RegionCentral America and Caribbean:Thinness_five_nine_years	5.660e-01
## RegionEuropean Union:Thinness_five_nine_years	4.631e-01
## RegionMiddle East:Thinness_five_nine_years	6.647e-01
## RegionNorth America:Thinness_five_nine_years	5.847e+00
## RegionOceania:Thinness_five_nine_years	1.162e-01
## RegionRest of Europe:Thinness_five_nine_years	8.475e-01
## RegionSouth America:Thinness_five_nine_years	9.373e-01
## RegionAsia:Schooling	4.955e-02
## RegionCentral America and Caribbean:Schooling	7.320e-02
## RegionEuropean Union:Schooling	7.554e-02
## RegionMiddle East:Schooling	8.720e-02
## RegionNorth America:Schooling	1.108e+00
## RegionOceania:Schooling	1.167e-01
## RegionRest of Europe:Schooling	9.086e-02
## RegionSouth America:Schooling	1.251e-01
## RegionAsia:Economy_status_DevelopedYes	7.257e-01
## RegionCentral America and Caribbean:Economy_status_DevelopedYes	NA
## RegionEuropean Union:Economy_status_DevelopedYes	NA
## RegionMiddle East:Economy_status_DevelopedYes	7.826e-01
## RegionNorth America:Economy_status_DevelopedYes	1.560e+01
## RegionOceania:Economy_status_DevelopedYes	1.150e+00
## RegionRest of Europe:Economy_status_DevelopedYes	NA
## RegionSouth America:Economy_status_DevelopedYes	NA
## YearY2001:BMI	6.546e-02
## YearY2002:BMI	6.656e-02
## YearY2003:BMI	6.624e-02
## YearY2004:BMI	6.706e-02
## YearY2005:BMI	6.830e-02
## YearY2006:BMI	6.972e-02
## YearY2007:BMI	6.999e-02
## YearY2008:BMI	7.080e-02
## YearY2009:BMI	7.059e-02
## YearY2010:BMI	7.035e-02
## YearY2011:BMI	7.054e-02
## YearY2012:BMI	7.104e-02
## YearY2013:BMI	7.156e-02
## YearY2014:BMI	7.250e-02
## YearY2015:BMI	7.222e-02

## YearY2001:Incidents_HIV	3.520e-02
## YearY2002:Incidents_HIV	3.688e-02
## YearY2003:Incidents_HIV	3.863e-02
## YearY2004:Incidents_HIV	3.828e-02
## YearY2005:Incidents_HIV	3.999e-02
## YearY2006:Incidents_HIV	4.147e-02
## YearY2007:Incidents_HIV	4.248e-02
## YearY2008:Incidents_HIV	4.427e-02
## YearY2009:Incidents_HIV	4.652e-02
## YearY2010:Incidents_HIV	4.869e-02
## YearY2011:Incidents_HIV	5.189e-02
## YearY2012:Incidents_HIV	5.331e-02
## YearY2013:Incidents_HIV	5.461e-02
## YearY2014:Incidents_HIV	5.653e-02
## YearY2015:Incidents_HIV	5.894e-02
## YearY2001:Thinness_ten_nineteen_years	5.660e-02
## YearY2002:Thinness_ten_nineteen_years	5.164e-02
## YearY2003:Thinness_ten_nineteen_years	8.196e-02
## YearY2004:Thinness_ten_nineteen_years	8.667e-02
## YearY2005:Thinness_ten_nineteen_years	5.602e-02
## YearY2006:Thinness_ten_nineteen_years	5.782e-02
## YearY2007:Thinness_ten_nineteen_years	5.586e-02
## YearY2008:Thinness_ten_nineteen_years	6.353e-02
## YearY2009:Thinness_ten_nineteen_years	7.376e-02
## YearY2010:Thinness_ten_nineteen_years	8.147e-02
## YearY2011:Thinness_ten_nineteen_years	8.594e-02
## YearY2012:Thinness_ten_nineteen_years	6.486e-02
## YearY2013:Thinness_ten_nineteen_years	6.705e-02
## YearY2014:Thinness_ten_nineteen_years	7.297e-02
## YearY2015:Thinness_ten_nineteen_years	9.676e-02
## YearY2001:Thinness_five_nine_years	5.507e-02
## YearY2002:Thinness_five_nine_years	4.992e-02
## YearY2003:Thinness_five_nine_years	8.134e-02
## YearY2004:Thinness_five_nine_years	8.534e-02
## YearY2005:Thinness_five_nine_years	5.582e-02
## YearY2006:Thinness_five_nine_years	5.697e-02
## YearY2007:Thinness_five_nine_years	5.356e-02
## YearY2008:Thinness_five_nine_years	6.090e-02
## YearY2009:Thinness_five_nine_years	7.133e-02
## YearY2010:Thinness_five_nine_years	7.976e-02
## YearY2011:Thinness_five_nine_years	8.486e-02
## YearY2012:Thinness_five_nine_years	6.497e-02
## YearY2013:Thinness_five_nine_years	6.709e-02
## YearY2014:Thinness_five_nine_years	7.426e-02
## YearY2015:Thinness_five_nine_years	9.653e-02
## Infant_deaths:Adult_mortality	1.986e-05
## Infant_deaths:Hepatitis_B	1.219e-04
## Infant_deaths:BMI	1.485e-03
## Infant_deaths:GDP_per_capita	5.399e-07
## Adult_mortality:Hepatitis_B	3.934e-05
## Adult_mortality:BMI	3.089e-04
## Adult_mortality:Polio	4.176e-05
## Adult_mortality:Incidents_HIV	1.259e-04
## Adult_mortality:GDP_per_capita	9.596e-08

## Adult_mortality:Schooling	1.900e-04
## Hepatitis_B:Polio	1.198e-04
## Hepatitis_B:Incidents_HIV	1.636e-03
## Hepatitis_B:Thinness_five_nine_years	3.385e-04
## BMI:Thinness_ten_nineteen_years	1.344e-02
## BMI:Thinness_five_nine_years	1.310e-02
## BMI:Schooling	1.097e-02
## Polio:Incidents_HIV	1.681e-03
## Incidents_HIV:GDP_per_capita	6.089e-06
## Incidents_HIV:Thinness_ten_nineteen_years	8.301e-03
## Incidents_HIV:Thinness_five_nine_years	8.337e-03
## Thinness_ten_nineteen_years:Thinness_five_nine_years	9.527e-04
##	t value
## (Intercept)	32.536
## RegionAsia	4.699
## RegionCentral America and Caribbean	-1.441
## RegionEuropean Union	6.410
## RegionMiddle East	-0.981
## RegionNorth America	0.130
## RegionOceania	0.504
## RegionRest of Europe	4.569
## RegionSouth America	2.173
## YearY2001	-0.447
## YearY2002	0.564
## YearY2003	0.414
## YearY2004	0.234
## YearY2005	0.192
## YearY2006	0.246
## YearY2007	0.144
## YearY2008	0.649
## YearY2009	1.322
## YearY2010	1.338
## YearY2011	1.725
## YearY2012	1.296
## YearY2013	1.833
## YearY2014	2.469
## YearY2015	2.466
## Infant_deaths	-16.971
## Adult_mortality	-3.756
## Hepatitis_B	-4.806
## BMI	-3.863
## Polio	-1.012
## Incidents_HIV	5.068
## GDP_per_capita	1.231
## Thinness_ten_nineteen_years	3.666
## Thinness_five_nine_years	-4.873
## Schooling	-6.424
## Economy_status_DevelopedYes	3.278
## RegionAsia:YearY2001	-0.467
## RegionCentral America and Caribbean:YearY2001	0.060
## RegionEuropean Union:YearY2001	0.515
## RegionMiddle East:YearY2001	-0.252
## RegionNorth America:YearY2001	0.481
## RegionOceania:YearY2001	-0.092

## RegionRest of Europe:YearY2001	0.268
## RegionSouth America:YearY2001	-0.185
## RegionAsia:YearY2002	0.213
## RegionCentral America and Caribbean:YearY2002	0.516
## RegionEuropean Union:YearY2002	1.278
## RegionMiddle East:YearY2002	0.506
## RegionNorth America:YearY2002	0.890
## RegionOceania:YearY2002	0.734
## RegionRest of Europe:YearY2002	0.786
## RegionSouth America:YearY2002	0.422
## RegionAsia:YearY2003	0.565
## RegionCentral America and Caribbean:YearY2003	0.494
## RegionEuropean Union:YearY2003	1.347
## RegionMiddle East:YearY2003	0.534
## RegionNorth America:YearY2003	0.941
## RegionOceania:YearY2003	0.878
## RegionRest of Europe:YearY2003	1.039
## RegionSouth America:YearY2003	0.363
## RegionAsia:YearY2004	0.896
## RegionCentral America and Caribbean:YearY2004	0.086
## RegionEuropean Union:YearY2004	2.138
## RegionMiddle East:YearY2004	0.522
## RegionNorth America:YearY2004	0.865
## RegionOceania:YearY2004	0.770
## RegionRest of Europe:YearY2004	1.172
## RegionSouth America:YearY2004	0.479
## RegionAsia:YearY2005	0.558
## RegionCentral America and Caribbean:YearY2005	-0.201
## RegionEuropean Union:YearY2005	2.019
## RegionMiddle East:YearY2005	0.588
## RegionNorth America:YearY2005	0.875
## RegionOceania:YearY2005	0.695
## RegionRest of Europe:YearY2005	1.239
## RegionSouth America:YearY2005	0.496
## RegionAsia:YearY2006	0.379
## RegionCentral America and Caribbean:YearY2006	-0.491
## RegionEuropean Union:YearY2006	2.579
## RegionMiddle East:YearY2006	0.429
## RegionNorth America:YearY2006	0.829
## RegionOceania:YearY2006	0.648
## RegionRest of Europe:YearY2006	1.465
## RegionSouth America:YearY2006	0.607
## RegionAsia:YearY2007	0.544
## RegionCentral America and Caribbean:YearY2007	-1.053
## RegionEuropean Union:YearY2007	2.450
## RegionMiddle East:YearY2007	0.219
## RegionNorth America:YearY2007	0.752
## RegionOceania:YearY2007	0.585
## RegionRest of Europe:YearY2007	1.639
## RegionSouth America:YearY2007	0.343
## RegionAsia:YearY2008	1.172
## RegionCentral America and Caribbean:YearY2008	-1.183
## RegionEuropean Union:YearY2008	2.724
## RegionMiddle East:YearY2008	0.416

## RegionNorth America:YearY2008	0.741
## RegionOceania:YearY2008	0.756
## RegionRest of Europe:YearY2008	1.912
## RegionSouth America:YearY2008	0.748
## RegionAsia:YearY2009	1.539
## RegionCentral America and Caribbean:YearY2009	-1.516
## RegionEuropean Union:YearY2009	2.641
## RegionMiddle East:YearY2009	0.498
## RegionNorth America:YearY2009	0.718
## RegionOceania:YearY2009	0.842
## RegionRest of Europe:YearY2009	1.749
## RegionSouth America:YearY2009	0.672
## RegionAsia:YearY2010	1.747
## RegionCentral America and Caribbean:YearY2010	-1.111
## RegionEuropean Union:YearY2010	3.258
## RegionMiddle East:YearY2010	0.678
## RegionNorth America:YearY2010	0.708
## RegionOceania:YearY2010	1.176
## RegionRest of Europe:YearY2010	2.294
## RegionSouth America:YearY2010	1.154
## RegionAsia:YearY2011	1.540
## RegionCentral America and Caribbean:YearY2011	-1.619
## RegionEuropean Union:YearY2011	3.976
## RegionMiddle East:YearY2011	0.606
## RegionNorth America:YearY2011	0.653
## RegionOceania:YearY2011	1.282
## RegionRest of Europe:YearY2011	2.543
## RegionSouth America:YearY2011	1.125
## RegionAsia:YearY2012	1.898
## RegionCentral America and Caribbean:YearY2012	-1.868
## RegionEuropean Union:YearY2012	3.798
## RegionMiddle East:YearY2012	0.375
## RegionNorth America:YearY2012	0.640
## RegionOceania:YearY2012	1.222
## RegionRest of Europe:YearY2012	2.592
## RegionSouth America:YearY2012	1.216
## RegionAsia:YearY2013	2.183
## RegionCentral America and Caribbean:YearY2013	-1.992
## RegionEuropean Union:YearY2013	4.229
## RegionMiddle East:YearY2013	0.711
## RegionNorth America:YearY2013	0.637
## RegionOceania:YearY2013	1.439
## RegionRest of Europe:YearY2013	2.907
## RegionSouth America:YearY2013	1.193
## RegionAsia:YearY2014	2.657
## RegionCentral America and Caribbean:YearY2014	-1.942
## RegionEuropean Union:YearY2014	4.756
## RegionMiddle East:YearY2014	0.970
## RegionNorth America:YearY2014	0.638
## RegionOceania:YearY2014	1.991
## RegionRest of Europe:YearY2014	3.258
## RegionSouth America:YearY2014	1.528
## RegionAsia:YearY2015	2.381
## RegionCentral America and Caribbean:YearY2015	-2.156

## RegionEuropean Union:YearY2015	4.036
## RegionMiddle East:YearY2015	0.809
## RegionNorth America:YearY2015	0.615
## RegionOceania:YearY2015	1.844
## RegionRest of Europe:YearY2015	3.014
## RegionSouth America:YearY2015	1.395
## RegionAsia:Infant_deaths	-2.614
## RegionCentral America and Caribbean:Infant_deaths	2.499
## RegionEuropean Union:Infant_deaths	-4.085
## RegionMiddle East:Infant_deaths	-2.878
## RegionNorth America:Infant_deaths	0.104
## RegionOceania:Infant_deaths	-0.841
## RegionRest of Europe:Infant_deaths	1.066
## RegionSouth America:Infant_deaths	-1.637
## RegionAsia:Adult_mortality	10.304
## RegionCentral America and Caribbean:Adult_mortality	-5.205
## RegionEuropean Union:Adult_mortality	5.884
## RegionMiddle East:Adult_mortality	4.883
## RegionNorth America:Adult_mortality	0.280
## RegionOceania:Adult_mortality	1.465
## RegionRest of Europe:Adult_mortality	8.571
## RegionSouth America:Adult_mortality	-1.328
## RegionAsia:Hepatitis_B	4.973
## RegionCentral America and Caribbean:Hepatitis_B	3.551
## RegionEuropean Union:Hepatitis_B	2.874
## RegionMiddle East:Hepatitis_B	1.767
## RegionNorth America:Hepatitis_B	1.914
## RegionOceania:Hepatitis_B	2.467
## RegionRest of Europe:Hepatitis_B	2.361
## RegionSouth America:Hepatitis_B	3.187
## RegionAsia:BM <sup>I</sup>	-5.807
## RegionCentral America and Caribbean:BM <sup>I</sup>	5.157
## RegionEuropean Union:BM <sup>I</sup>	-7.083
## RegionMiddle East:BM <sup>I</sup>	1.222
## RegionNorth America:BM <sup>I</sup>	-0.262
## RegionOceania:BM <sup>I</sup>	0.155
## RegionRest of Europe:BM <sup>I</sup>	-3.990
## RegionSouth America:BM <sup>I</sup>	-0.960
## RegionAsia:Polio	-4.384
## RegionCentral America and Caribbean:Polio	-3.958
## RegionEuropean Union:Polio	-1.705
## RegionMiddle East:Polio	-1.836
## RegionNorth America:Polio	0.000
## RegionOceania:Polio	-0.905
## RegionRest of Europe:Polio	-1.702
## RegionSouth America:Polio	-0.931
## RegionAsia:Incidents_HIV	-2.790
## RegionCentral America and Caribbean:Incidents_HIV	-4.969
## RegionEuropean Union:Incidents_HIV	3.504
## RegionMiddle East:Incidents_HIV	-6.701
## RegionNorth America:Incidents_HIV	-0.161
## RegionOceania:Incidents_HIV	-4.269
## RegionRest of Europe:Incidents_HIV	-0.199
## RegionSouth America:Incidents_HIV	-0.406

## RegionAsia:GDP_per_capita	2.234
## RegionCentral America and Caribbean:GDP_per_capita	2.780
## RegionEuropean Union:GDP_per_capita	0.962
## RegionMiddle East:GDP_per_capita	0.981
## RegionNorth America:GDP_per_capita	-0.080
## RegionOceania:GDP_per_capita	1.136
## RegionRest of Europe:GDP_per_capita	0.440
## RegionSouth America:GDP_per_capita	-0.100
## RegionAsia:Thinness_ten_nineteen_years	1.393
## RegionCentral America and Caribbean:Thinness_ten_nineteen_years	-1.366
## RegionEuropean Union:Thinness_ten_nineteen_years	-1.152
## RegionMiddle East:Thinness_ten_nineteen_years	0.845
## RegionNorth America:Thinness_ten_nineteen_years	0.450
## RegionOceania:Thinness_ten_nineteen_years	0.318
## RegionRest of Europe:Thinness_ten_nineteen_years	0.408
## RegionSouth America:Thinness_ten_nineteen_years	3.870
## RegionAsia:Thinness_five_nine_years	2.141
## RegionCentral America and Caribbean:Thinness_five_nine_years	1.052
## RegionEuropean Union:Thinness_five_nine_years	-0.105
## RegionMiddle East:Thinness_five_nine_years	-0.701
## RegionNorth America:Thinness_five_nine_years	0.315
## RegionOceania:Thinness_five_nine_years	1.942
## RegionRest of Europe:Thinness_five_nine_years	-1.687
## RegionSouth America:Thinness_five_nine_years	-3.586
## RegionAsia:Schooling	-4.172
## RegionCentral America and Caribbean:Schooling	-6.079
## RegionEuropean Union:Schooling	-6.650
## RegionMiddle East:Schooling	-4.051
## RegionNorth America:Schooling	-0.769
## RegionOceania:Schooling	-8.465
## RegionRest of Europe:Schooling	-5.870
## RegionSouth America:Schooling	-6.291
## RegionAsia:Economy_status_DevelopedYes	0.957
## RegionCentral America and Caribbean:Economy_status_DevelopedYes	NA
## RegionEuropean Union:Economy_status_DevelopedYes	NA
## RegionMiddle East:Economy_status_DevelopedYes	0.835
## RegionNorth America:Economy_status_DevelopedYes	0.543
## RegionOceania:Economy_status_DevelopedYes	3.418
## RegionRest of Europe:Economy_status_DevelopedYes	NA
## RegionSouth America:Economy_status_DevelopedYes	NA
## YearY2001:BMI	0.413
## YearY2002:BMI	-0.655
## YearY2003:BMI	-0.556
## YearY2004:BMI	-0.380
## YearY2005:BMI	-0.323
## YearY2006:BMI	-0.381
## YearY2007:BMI	-0.248
## YearY2008:BMI	-0.734
## YearY2009:BMI	-1.275
## YearY2010:BMI	-1.371
## YearY2011:BMI	-1.712
## YearY2012:BMI	-1.327
## YearY2013:BMI	-1.820
## YearY2014:BMI	-2.447

## YearY2015:BMI	-2.393
## YearY2001:Incidents_HIV	-0.558
## YearY2002:Incidents_HIV	-0.385
## YearY2003:Incidents_HIV	-1.619
## YearY2004:Incidents_HIV	-2.899
## YearY2005:Incidents_HIV	-2.889
## YearY2006:Incidents_HIV	-3.585
## YearY2007:Incidents_HIV	-3.020
## YearY2008:Incidents_HIV	-3.010
## YearY2009:Incidents_HIV	-3.063
## YearY2010:Incidents_HIV	-2.289
## YearY2011:Incidents_HIV	-1.777
## YearY2012:Incidents_HIV	-0.935
## YearY2013:Incidents_HIV	0.595
## YearY2014:Incidents_HIV	2.177
## YearY2015:Incidents_HIV	2.278
## YearY2001:Thinness_ten_nineteen_years	0.540
## YearY2002:Thinness_ten_nineteen_years	1.393
## YearY2003:Thinness_ten_nineteen_years	2.167
## YearY2004:Thinness_ten_nineteen_years	2.251
## YearY2005:Thinness_ten_nineteen_years	3.060
## YearY2006:Thinness_ten_nineteen_years	3.079
## YearY2007:Thinness_ten_nineteen_years	3.048
## YearY2008:Thinness_ten_nineteen_years	2.975
## YearY2009:Thinness_ten_nineteen_years	1.043
## YearY2010:Thinness_ten_nineteen_years	1.859
## YearY2011:Thinness_ten_nineteen_years	0.941
## YearY2012:Thinness_ten_nineteen_years	4.077
## YearY2013:Thinness_ten_nineteen_years	4.478
## YearY2014:Thinness_ten_nineteen_years	3.762
## YearY2015:Thinness_ten_nineteen_years	2.365
## YearY2001:Thinness_five_nine_years	-0.184
## YearY2002:Thinness_five_nine_years	-1.405
## YearY2003:Thinness_five_nine_years	-2.170
## YearY2004:Thinness_five_nine_years	-2.204
## YearY2005:Thinness_five_nine_years	-3.189
## YearY2006:Thinness_five_nine_years	-3.141
## YearY2007:Thinness_five_nine_years	-3.402
## YearY2008:Thinness_five_nine_years	-3.431
## YearY2009:Thinness_five_nine_years	-1.800
## YearY2010:Thinness_five_nine_years	-2.443
## YearY2011:Thinness_five_nine_years	-1.509
## YearY2012:Thinness_five_nine_years	-4.713
## YearY2013:Thinness_five_nine_years	-5.337
## YearY2014:Thinness_five_nine_years	-4.603
## YearY2015:Thinness_five_nine_years	-3.077
## Infant_deaths:Adult_mortality	14.216
## Infant_deaths:Hepatitis_B	-4.407
## Infant_deaths:BMI	12.673
## Infant_deaths:GDP_per_capita	-4.656
## Adult_mortality:Hepatitis_B	6.285
## Adult_mortality:BMI	-8.586
## Adult_mortality:Polio	2.697
## Adult_mortality:Incidents_HIV	6.325

## Adult_mortality:GDP_per_capita	-7.729
## Adult_mortality:Schooling	4.062
## Hepatitis_B:Polio	1.856
## Hepatitis_B:Incidents_HIV	-4.115
## Hepatitis_B:Thinness_five_nine_years	4.196
## BMI:Thinness_ten_nineteen_years	-4.092
## BMI:Thinness_five_nine_years	4.807
## BMI:Schooling	7.319
## Polio:Incidents_HIV	-4.621
## Incidents_HIV:GDP_per_capita	14.444
## Incidents_HIV:Thinness_ten_nineteen_years	2.219
## Incidents_HIV:Thinness_five_nine_years	-2.960
## Thinness_ten_nineteen_years:Thinness_five_nine_years	-1.191
##	Pr(> t )
## (Intercept)	< 2e-16 ***
## RegionAsia	2.76e-06 ***
## RegionCentral America and Caribbean	0.149658
## RegionEuropean Union	1.73e-10 ***
## RegionMiddle East	0.326763
## RegionNorth America	0.896716
## RegionOceania	0.614410
## RegionRest of Europe	5.13e-06 ***
## RegionSouth America	0.029889 *
## YearY2001	0.654936
## YearY2002	0.572558
## YearY2003	0.678863
## YearY2004	0.814648
## YearY2005	0.847721
## YearY2006	0.805351
## YearY2007	0.885533
## YearY2008	0.516202
## YearY2009	0.186434
## YearY2010	0.180983
## YearY2011	0.084689 .
## YearY2012	0.195097
## YearY2013	0.066992 .
## YearY2014	0.013602 *
## YearY2015	0.013723 *
## Infant_deaths	< 2e-16 ***
## Adult_mortality	0.000176 ***
## Hepatitis_B	1.63e-06 ***
## BMI	0.000115 ***
## Polio	0.311866
## Incidents_HIV	4.30e-07 ***
## GDP_per_capita	0.218478
## Thinness_ten_nineteen_years	0.000251 ***
## Thinness_five_nine_years	1.17e-06 ***
## Schooling	1.58e-10 ***
## Economy_status_DevelopedYes	0.001059 **
## RegionAsia:YearY2001	0.640253
## RegionCentral America and Caribbean:YearY2001	0.952393
## RegionEuropean Union:YearY2001	0.606887
## RegionMiddle East:YearY2001	0.801143
## RegionNorth America:YearY2001	0.630537

## RegionOceania:YearY2001	0.927043
## RegionRest of Europe:YearY2001	0.788957
## RegionSouth America:YearY2001	0.853317
## RegionAsia:YearY2002	0.831418
## RegionCentral America and Caribbean:YearY2002	0.605801
## RegionEuropean Union:YearY2002	0.201450
## RegionMiddle East:YearY2002	0.612830
## RegionNorth America:YearY2002	0.373608
## RegionOceania:YearY2002	0.463190
## RegionRest of Europe:YearY2002	0.432001
## RegionSouth America:YearY2002	0.672989
## RegionAsia:YearY2003	0.572395
## RegionCentral America and Caribbean:YearY2003	0.621510
## RegionEuropean Union:YearY2003	0.178032
## RegionMiddle East:YearY2003	0.593534
## RegionNorth America:YearY2003	0.346720
## RegionOceania:YearY2003	0.380145
## RegionRest of Europe:YearY2003	0.298930
## RegionSouth America:YearY2003	0.716863
## RegionAsia:YearY2004	0.370246
## RegionCentral America and Caribbean:YearY2004	0.931123
## RegionEuropean Union:YearY2004	0.032652 *
## RegionMiddle East:YearY2004	0.601878
## RegionNorth America:YearY2004	0.387345
## RegionOceania:YearY2004	0.441559
## RegionRest of Europe:YearY2004	0.241393
## RegionSouth America:YearY2004	0.632100
## RegionAsia:YearY2005	0.576925
## RegionCentral America and Caribbean:YearY2005	0.841044
## RegionEuropean Union:YearY2005	0.043643 *
## RegionMiddle East:YearY2005	0.556824
## RegionNorth America:YearY2005	0.381579
## RegionOceania:YearY2005	0.486848
## RegionRest of Europe:YearY2005	0.215456
## RegionSouth America:YearY2005	0.620260
## RegionAsia:YearY2006	0.704758
## RegionCentral America and Caribbean:YearY2006	0.623196
## RegionEuropean Union:YearY2006	0.009965 **
## RegionMiddle East:YearY2006	0.667849
## RegionNorth America:YearY2006	0.407409
## RegionOceania:YearY2006	0.516927
## RegionRest of Europe:YearY2006	0.143065
## RegionSouth America:YearY2006	0.544184
## RegionAsia:YearY2007	0.586211
## RegionCentral America and Caribbean:YearY2007	0.292252
## RegionEuropean Union:YearY2007	0.014340 *
## RegionMiddle East:YearY2007	0.826306
## RegionNorth America:YearY2007	0.452241
## RegionOceania:YearY2007	0.558738
## RegionRest of Europe:YearY2007	0.101340
## RegionSouth America:YearY2007	0.731970
## RegionAsia:YearY2008	0.241136
## RegionCentral America and Caribbean:YearY2008	0.237005
## RegionEuropean Union:YearY2008	0.006498 **

## RegionMiddle East:YearY2008	0.677116
## RegionNorth America:YearY2008	0.458956
## RegionOceania:YearY2008	0.449620
## RegionRest of Europe:YearY2008	0.055988 .
## RegionSouth America:YearY2008	0.454574
## RegionAsia:YearY2009	0.123826
## RegionCentral America and Caribbean:YearY2009	0.129530
## RegionEuropean Union:YearY2009	0.008316 **
## RegionMiddle East:YearY2009	0.618825
## RegionNorth America:YearY2009	0.472843
## RegionOceania:YearY2009	0.399847
## RegionRest of Europe:YearY2009	0.080345 .
## RegionSouth America:YearY2009	0.501386
## RegionAsia:YearY2010	0.080742 .
## RegionCentral America and Caribbean:YearY2010	0.266566
## RegionEuropean Union:YearY2010	0.001136 **
## RegionMiddle East:YearY2010	0.497921
## RegionNorth America:YearY2010	0.478986
## RegionOceania:YearY2010	0.239528
## RegionRest of Europe:YearY2010	0.021872 *
## RegionSouth America:YearY2010	0.248723
## RegionAsia:YearY2011	0.123784
## RegionCentral America and Caribbean:YearY2011	0.105600
## RegionEuropean Union:YearY2011	7.19e-05 ***
## RegionMiddle East:YearY2011	0.544598
## RegionNorth America:YearY2011	0.513988
## RegionOceania:YearY2011	0.200019
## RegionRest of Europe:YearY2011	0.011052 *
## RegionSouth America:YearY2011	0.260675
## RegionAsia:YearY2012	0.057768 .
## RegionCentral America and Caribbean:YearY2012	0.061844 .
## RegionEuropean Union:YearY2012	0.000149 ***
## RegionMiddle East:YearY2012	0.707842
## RegionNorth America:YearY2012	0.522395
## RegionOceania:YearY2012	0.221777
## RegionRest of Europe:YearY2012	0.009609 **
## RegionSouth America:YearY2012	0.224009
## RegionAsia:YearY2013	0.029118 *
## RegionCentral America and Caribbean:YearY2013	0.046530 *
## RegionEuropean Union:YearY2013	2.43e-05 ***
## RegionMiddle East:YearY2013	0.476993
## RegionNorth America:YearY2013	0.523874
## RegionOceania:YearY2013	0.150239
## RegionRest of Europe:YearY2013	0.003679 **
## RegionSouth America:YearY2013	0.233015
## RegionAsia:YearY2014	0.007935 **
## RegionCentral America and Caribbean:YearY2014	0.052293 .
## RegionEuropean Union:YearY2014	2.09e-06 ***
## RegionMiddle East:YearY2014	0.331998
## RegionNorth America:YearY2014	0.523401
## RegionOceania:YearY2014	0.046611 *
## RegionRest of Europe:YearY2014	0.001138 **
## RegionSouth America:YearY2014	0.126592
## RegionAsia:YearY2015	0.017336 *

## RegionCentral America and Caribbean:YearY2015	0.031143 *
## RegionEuropean Union:YearY2015	5.61e-05 ***
## RegionMiddle East:YearY2015	0.418450
## RegionNorth America:YearY2015	0.538777
## RegionOceania:YearY2015	0.065277 .
## RegionRest of Europe:YearY2015	0.002605 **
## RegionSouth America:YearY2015	0.162995
## RegionAsia:Infant_deaths	0.009001 **
## RegionCentral America and Caribbean:Infant_deaths	0.012503 *
## RegionEuropean Union:Infant_deaths	4.54e-05 ***
## RegionMiddle East:Infant_deaths	0.004039 **
## RegionNorth America:Infant_deaths	0.916974
## RegionOceania:Infant_deaths	0.400294
## RegionRest of Europe:Infant_deaths	0.286637
## RegionSouth America:Infant_deaths	0.101696
## RegionAsia:Adult_mortality	< 2e-16 ***
## RegionCentral America and Caribbean:Adult_mortality	2.10e-07 ***
## RegionEuropean Union:Adult_mortality	4.54e-09 ***
## RegionMiddle East:Adult_mortality	1.11e-06 ***
## RegionNorth America:Adult_mortality	0.779151
## RegionOceania:Adult_mortality	0.143018
## RegionRest of Europe:Adult_mortality	< 2e-16 ***
## RegionSouth America:Adult_mortality	0.184460
## RegionAsia:Hepatitis_B	7.04e-07 ***
## RegionCentral America and Caribbean:Hepatitis_B	0.000390 ***
## RegionEuropean Union:Hepatitis_B	0.004082 **
## RegionMiddle East:Hepatitis_B	0.077398 .
## RegionNorth America:Hepatitis_B	0.055675 .
## RegionOceania:Hepatitis_B	0.013677 *
## RegionRest of Europe:Hepatitis_B	0.018318 *
## RegionSouth America:Hepatitis_B	0.001457 **
## RegionAsia:BMI	7.17e-09 ***
## RegionCentral America and Caribbean:BMI	2.70e-07 ***
## RegionEuropean Union:BMI	1.82e-12 ***
## RegionMiddle East:BMI	0.221763
## RegionNorth America:BMI	0.793178
## RegionOceania:BMI	0.876877
## RegionRest of Europe:BMI	6.80e-05 ***
## RegionSouth America:BMI	0.336947
## RegionAsia:Polio	1.21e-05 ***
## RegionCentral America and Caribbean:Polio	7.77e-05 ***
## RegionEuropean Union:Polio	0.088357 .
## RegionMiddle East:Polio	0.066468 .
## RegionNorth America:Polio	0.999706
## RegionOceania:Polio	0.365459
## RegionRest of Europe:Polio	0.088946 .
## RegionSouth America:Polio	0.352085
## RegionAsia:Incidents_HIV	0.005311 **
## RegionCentral America and Caribbean:Incidents_HIV	7.17e-07 ***
## RegionEuropean Union:Incidents_HIV	0.000467 ***
## RegionMiddle East:Incidents_HIV	2.54e-11 ***
## RegionNorth America:Incidents_HIV	0.872446
## RegionOceania:Incidents_HIV	2.04e-05 ***
## RegionRest of Europe:Incidents_HIV	0.842422

## RegionSouth America:Incidents_HIV	0.684869
## RegionAsia:GDP_per_capita	0.025546 *
## RegionCentral America and Caribbean:GDP_per_capita	0.005472 **
## RegionEuropean Union:GDP_per_capita	0.335977
## RegionMiddle East:GDP_per_capita	0.326730
## RegionNorth America:GDP_per_capita	0.936456
## RegionOceania:GDP_per_capita	0.256240
## RegionRest of Europe:GDP_per_capita	0.659696
## RegionSouth America:GDP_per_capita	0.920122
## RegionAsia:Thinness_ten_nineteen_years	0.163692
## RegionCentral America and Caribbean:Thinness_ten_nineteen_years	0.172116
## RegionEuropean Union:Thinness_ten_nineteen_years	0.249302
## RegionMiddle East:Thinness_ten_nineteen_years	0.398245
## RegionNorth America:Thinness_ten_nineteen_years	0.652992
## RegionOceania:Thinness_ten_nineteen_years	0.750752
## RegionRest of Europe:Thinness_ten_nineteen_years	0.682992
## RegionSouth America:Thinness_ten_nineteen_years	0.000111 ***
## RegionAsia:Thinness_five_nine_years	0.032329 *
## RegionCentral America and Caribbean:Thinness_five_nine_years	0.293061
## RegionEuropean Union:Thinness_five_nine_years	0.916744
## RegionMiddle East:Thinness_five_nine_years	0.483065
## RegionNorth America:Thinness_five_nine_years	0.753001
## RegionOceania:Thinness_five_nine_years	0.052205 .
## RegionRest of Europe:Thinness_five_nine_years	0.091787 .
## RegionSouth America:Thinness_five_nine_years	0.000342 ***
## RegionAsia:Schooling	3.13e-05 ***
## RegionCentral America and Caribbean:Schooling	1.39e-09 ***
## RegionEuropean Union:Schooling	3.57e-11 ***
## RegionMiddle East:Schooling	5.25e-05 ***
## RegionNorth America:Schooling	0.442088
## RegionOceania:Schooling	< 2e-16 ***
## RegionRest of Europe:Schooling	4.91e-09 ***
## RegionSouth America:Schooling	3.71e-10 ***
## RegionAsia:Economy_status_DevelopedYes	0.338852
## RegionCentral America and Caribbean:Economy_status_DevelopedYes	NA
## RegionEuropean Union:Economy_status_DevelopedYes	NA
## RegionMiddle East:Economy_status_DevelopedYes	0.403603
## RegionNorth America:Economy_status_DevelopedYes	0.587159
## RegionOceania:Economy_status_DevelopedYes	0.000642 ***
## RegionRest of Europe:Economy_status_DevelopedYes	NA
## RegionSouth America:Economy_status_DevelopedYes	NA
## YearY2001:BMI	0.679697
## YearY2002:BMI	0.512484
## YearY2003:BMI	0.577997
## YearY2004:BMI	0.704290
## YearY2005:BMI	0.746885
## YearY2006:BMI	0.703544
## YearY2007:BMI	0.804357
## YearY2008:BMI	0.462881
## YearY2009:BMI	0.202369
## YearY2010:BMI	0.170343
## YearY2011:BMI	0.086953 .
## YearY2012:BMI	0.184469
## YearY2013:BMI	0.068899 .

## YearY2014:BMI	0.014489 *
## YearY2015:BMI	0.016781 *
## YearY2001:Incidents_HIV	0.576819
## YearY2002:Incidents_HIV	0.700541
## YearY2003:Incidents_HIV	0.105518
## YearY2004:Incidents_HIV	0.003770 **
## YearY2005:Incidents_HIV	0.003892 **
## YearY2006:Incidents_HIV	0.000344 ***
## YearY2007:Incidents_HIV	0.002555 **
## YearY2008:Incidents_HIV	0.002635 **
## YearY2009:Incidents_HIV	0.002214 **
## YearY2010:Incidents_HIV	0.022163 *
## YearY2011:Incidents_HIV	0.075725 .
## YearY2012:Incidents_HIV	0.349740
## YearY2013:Incidents_HIV	0.551905
## YearY2014:Incidents_HIV	0.029563 *
## YearY2015:Incidents_HIV	0.022825 *
## YearY2001:Thinness_ten_nineteen_years	0.589116
## YearY2002:Thinness_ten_nineteen_years	0.163711
## YearY2003:Thinness_ten_nineteen_years	0.030358 *
## YearY2004:Thinness_ten_nineteen_years	0.024472 *
## YearY2005:Thinness_ten_nineteen_years	0.002240 **
## YearY2006:Thinness_ten_nineteen_years	0.002096 **
## YearY2007:Thinness_ten_nineteen_years	0.002328 **
## YearY2008:Thinness_ten_nineteen_years	0.002958 **
## YearY2009:Thinness_ten_nineteen_years	0.297010
## YearY2010:Thinness_ten_nineteen_years	0.063091 .
## YearY2011:Thinness_ten_nineteen_years	0.346821
## YearY2012:Thinness_ten_nineteen_years	4.69e-05 ***
## YearY2013:Thinness_ten_nineteen_years	7.87e-06 ***
## YearY2014:Thinness_ten_nineteen_years	0.000172 ***
## YearY2015:Thinness_ten_nineteen_years	0.018094 *
## YearY2001:Thinness_five_nine_years	0.854087
## YearY2002:Thinness_five_nine_years	0.160107
## YearY2003:Thinness_five_nine_years	0.030133 *
## YearY2004:Thinness_five_nine_years	0.027648 *
## YearY2005:Thinness_five_nine_years	0.001446 **
## YearY2006:Thinness_five_nine_years	0.001702 **
## YearY2007:Thinness_five_nine_years	0.000678 ***
## YearY2008:Thinness_five_nine_years	0.000611 ***
## YearY2009:Thinness_five_nine_years	0.072054 .
## YearY2010:Thinness_five_nine_years	0.014642 *
## YearY2011:Thinness_five_nine_years	0.131481
## YearY2012:Thinness_five_nine_years	2.57e-06 ***
## YearY2013:Thinness_five_nine_years	1.03e-07 ***
## YearY2014:Thinness_five_nine_years	4.38e-06 ***
## YearY2015:Thinness_five_nine_years	0.002110 **
## Infant_deaths:Adult_mortality	< 2e-16 ***
## Infant_deaths:Hepatitis_B	1.09e-05 ***
## Infant_deaths:BMI	< 2e-16 ***
## Infant_deaths:GDP_per_capita	3.39e-06 ***
## Adult_mortality:Hepatitis_B	3.86e-10 ***
## Adult_mortality:BMI	< 2e-16 ***
## Adult_mortality:Polio	0.007037 **

```

## Adult_mortality:Incidents_HIV           2.99e-10 ***
## Adult_mortality:GDP_per_capita         1.55e-14 ***
## Adult_mortality:Schooling            5.02e-05 ***
## Hepatitis_B:Polio                   0.063606 .
## Hepatitis_B:Incidents_HIV          4.00e-05 ***
## Hepatitis_B:Thinness_five_nine_years 2.82e-05 ***
## BMI:Thinness_ten_nineteen_years     4.41e-05 ***
## BMI:Thinness_five_nine_years        1.62e-06 ***
## BMI:Schooling                      3.32e-13 ***
## Polio:Incidents_HIV                4.00e-06 ***
## Incidents_HIV:GDP_per_capita       < 2e-16 ***
## Incidents_HIV:Thinness_ten_nineteen_years 0.026580 *
## Incidents_HIV:Thinness_five_nine_years 0.003108 **
## Thinness_ten_nineteen_years:Thinness_five_nine_years 0.233817
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8373 on 2544 degrees of freedom
## Multiple R-squared:  0.993, Adjusted R-squared:  0.9921
## F-statistic:  1125 on 319 and 2544 DF, p-value: < 2.2e-16

##
## Call:
## lm(formula = Life_expectancy ~ Region + Year + Infant_deaths +
##      Adult_mortality + Hepatitis_B + BMI + Polio + Incidents_HIV +
##      GDP_per_capita + Thinness_ten_nineteen_years + Thinness_five_nine_years +
##      Schooling + Economy_status_Developed + Region:Year + Region:Infant_deaths +
##      Region:Adult_mortality + Region:Hepatitis_B + Region:BMI +
##      Region:Polio + Region:Incidents_HIV + Region:GDP_per_capita +
##      Region:Thinness_ten_nineteen_years + Region:Thinness_five_nine_years +
##      Region:Schooling + Region:Economy_status_Developed + Year:BMI +
##      Year:Incidents_HIV + Year:Thinness_ten_nineteen_years + Year:Thinness_five_nine_years +
##      Infant_deaths:Adult_mortality + Infant_deaths:Hepatitis_B +
##      Infant_deaths:BMI + Infant_deaths:GDP_per_capita + Adult_mortality:Hepatitis_B +
##      Adult_mortality:BMI + Adult_mortality:Polio + Adult_mortality:Incidents_HIV +
##      Adult_mortality:GDP_per_capita + Adult_mortality:Schooling +
##      Hepatitis_B:Incidents_HIV + Hepatitis_B:Thinness_five_nine_years +
##      BMI:Thinness_ten_nineteen_years + BMI:Thinness_five_nine_years +
##      BMI:Schooling + Polio:Incidents_HIV + Incidents_HIV:GDP_per_capita +
##      Incidents_HIV:Thinness_ten_nineteen_years + Incidents_HIV:Thinness_five_nine_years,
##      data = data)
##
## Residuals:
##      Min        1Q    Median        3Q       Max
## -2.777786 -0.48311  0.00041  0.47212  2.99156
##
## Coefficients: (4 not defined because of singularities)
##                               Estimate
## (Intercept)                  9.792e+01
## RegionAsia                  9.048e+00
## RegionCentral America and Caribbean -3.292e+00
## RegionEuropean Union          2.143e+01
## RegionMiddle East             -2.773e+00
## RegionNorth America            5.725e+00

```

## RegionOceania	1.883e+00
## RegionRest of Europe	2.426e+01
## RegionSouth America	1.305e+01
## YearY2001	-7.252e-01
## YearY2002	9.232e-01
## YearY2003	6.331e-01
## YearY2004	3.067e-01
## YearY2005	3.809e-01
## YearY2006	3.947e-01
## YearY2007	3.043e-01
## YearY2008	1.102e+00
## YearY2009	2.280e+00
## YearY2010	2.255e+00
## YearY2011	2.995e+00
## YearY2012	2.333e+00
## YearY2013	3.328e+00
## YearY2014	4.444e+00
## YearY2015	4.391e+00
## Infant_deaths	-5.803e-01
## Adult_mortality	-2.675e-02
## Hepatitis_B	-5.814e-02
## BMI	-4.671e-01
## Polio	3.444e-03
## Incidents_HIV	5.741e-01
## GDP_per_capita	3.336e-05
## Thinness_ten_nineteen_years	1.021e+00
## Thinness_five_nine_years	-1.379e+00
## Schooling	-1.718e+00
## Economy_status_DevelopedYes	2.171e+00
## RegionAsia:YearY2001	-1.543e-01
## RegionCentral America and Caribbean:YearY2001	3.157e-02
## RegionEuropean Union:YearY2001	1.879e-01
## RegionMiddle East:YearY2001	-1.130e-01
## RegionNorth America:YearY2001	4.476e-01
## RegionOceania:YearY2001	-5.190e-02
## RegionRest of Europe:YearY2001	1.136e-01
## RegionSouth America:YearY2001	-8.303e-02
## RegionAsia:YearY2002	8.836e-02
## RegionCentral America and Caribbean:YearY2002	2.133e-01
## RegionEuropean Union:YearY2002	4.792e-01
## RegionMiddle East:YearY2002	2.507e-01
## RegionNorth America:YearY2002	1.073e+00
## RegionOceania:YearY2002	3.583e-01
## RegionRest of Europe:YearY2002	3.456e-01
## RegionSouth America:YearY2002	1.924e-01
## RegionAsia:YearY2003	1.722e-01
## RegionCentral America and Caribbean:YearY2003	1.883e-01
## RegionEuropean Union:YearY2003	4.982e-01
## RegionMiddle East:YearY2003	2.520e-01
## RegionNorth America:YearY2003	1.421e+00
## RegionOceania:YearY2003	4.217e-01
## RegionRest of Europe:YearY2003	4.465e-01
## RegionSouth America:YearY2003	1.524e-01
## RegionAsia:YearY2004	2.825e-01

## RegionCentral America and Caribbean:YearY2004	1.855e-02
## RegionEuropean Union:YearY2004	7.921e-01
## RegionMiddle East:YearY2004	2.282e-01
## RegionNorth America:YearY2004	1.774e+00
## RegionOceania:YearY2004	3.787e-01
## RegionRest of Europe:YearY2004	5.156e-01
## RegionSouth America:YearY2004	2.064e-01
## RegionAsia:YearY2005	1.692e-01
## RegionCentral America and Caribbean:YearY2005	-8.770e-02
## RegionEuropean Union:YearY2005	7.564e-01
## RegionMiddle East:YearY2005	2.708e-01
## RegionNorth America:YearY2005	2.090e+00
## RegionOceania:YearY2005	3.432e-01
## RegionRest of Europe:YearY2005	5.447e-01
## RegionSouth America:YearY2005	2.183e-01
## RegionAsia:YearY2006	1.070e-01
## RegionCentral America and Caribbean:YearY2006	-2.145e-01
## RegionEuropean Union:YearY2006	9.709e-01
## RegionMiddle East:YearY2006	1.840e-01
## RegionNorth America:YearY2006	2.290e+00
## RegionOceania:YearY2006	3.408e-01
## RegionRest of Europe:YearY2006	6.573e-01
## RegionSouth America:YearY2006	2.689e-01
## RegionAsia:YearY2007	1.772e-01
## RegionCentral America and Caribbean:YearY2007	-4.212e-01
## RegionEuropean Union:YearY2007	9.403e-01
## RegionMiddle East:YearY2007	1.021e-01
## RegionNorth America:YearY2007	2.480e+00
## RegionOceania:YearY2007	3.110e-01
## RegionRest of Europe:YearY2007	7.597e-01
## RegionSouth America:YearY2007	1.631e-01
## RegionAsia:YearY2008	3.713e-01
## RegionCentral America and Caribbean:YearY2008	-4.717e-01
## RegionEuropean Union:YearY2008	1.054e+00
## RegionMiddle East:YearY2008	1.881e-01
## RegionNorth America:YearY2008	2.667e+00
## RegionOceania:YearY2008	3.981e-01
## RegionRest of Europe:YearY2008	9.104e-01
## RegionSouth America:YearY2008	3.600e-01
## RegionAsia:YearY2009	4.866e-01
## RegionCentral America and Caribbean:YearY2009	-6.145e-01
## RegionEuropean Union:YearY2009	1.025e+00
## RegionMiddle East:YearY2009	2.244e-01
## RegionNorth America:YearY2009	2.663e+00
## RegionOceania:YearY2009	4.355e-01
## RegionRest of Europe:YearY2009	8.349e-01
## RegionSouth America:YearY2009	3.262e-01
## RegionAsia:YearY2010	5.565e-01
## RegionCentral America and Caribbean:YearY2010	-4.582e-01
## RegionEuropean Union:YearY2010	1.271e+00
## RegionMiddle East:YearY2010	3.129e-01
## RegionNorth America:YearY2010	2.925e+00
## RegionOceania:YearY2010	6.063e-01
## RegionRest of Europe:YearY2010	1.126e+00

## RegionSouth America:YearY2010	5.634e-01
## RegionAsia:YearY2011	4.918e-01
## RegionCentral America and Caribbean:YearY2011	-6.607e-01
## RegionEuropean Union:YearY2011	1.565e+00
## RegionMiddle East:YearY2011	2.920e-01
## RegionNorth America:YearY2011	2.993e+00
## RegionOceania:YearY2011	6.794e-01
## RegionRest of Europe:YearY2011	1.285e+00
## RegionSouth America:YearY2011	5.644e-01
## RegionAsia:YearY2012	6.075e-01
## RegionCentral America and Caribbean:YearY2012	-7.696e-01
## RegionEuropean Union:YearY2012	1.489e+00
## RegionMiddle East:YearY2012	1.958e-01
## RegionNorth America:YearY2012	3.156e+00
## RegionOceania:YearY2012	6.385e-01
## RegionRest of Europe:YearY2012	1.310e+00
## RegionSouth America:YearY2012	6.118e-01
## RegionAsia:YearY2013	7.030e-01
## RegionCentral America and Caribbean:YearY2013	-8.242e-01
## RegionEuropean Union:YearY2013	1.671e+00
## RegionMiddle East:YearY2013	3.508e-01
## RegionNorth America:YearY2013	3.307e+00
## RegionOceania:YearY2013	7.553e-01
## RegionRest of Europe:YearY2013	1.491e+00
## RegionSouth America:YearY2013	6.106e-01
## RegionAsia:YearY2014	8.665e-01
## RegionCentral America and Caribbean:YearY2014	-8.150e-01
## RegionEuropean Union:YearY2014	1.905e+00
## RegionMiddle East:YearY2014	4.917e-01
## RegionNorth America:YearY2014	3.517e+00
## RegionOceania:YearY2014	1.062e+00
## RegionRest of Europe:YearY2014	1.721e+00
## RegionSouth America:YearY2014	8.014e-01
## RegionAsia:YearY2015	7.723e-01
## RegionCentral America and Caribbean:YearY2015	-9.170e-01
## RegionEuropean Union:YearY2015	1.628e+00
## RegionMiddle East:YearY2015	4.254e-01
## RegionNorth America:YearY2015	3.527e+00
## RegionOceania:YearY2015	9.894e-01
## RegionRest of Europe:YearY2015	1.620e+00
## RegionSouth America:YearY2015	7.449e-01
## RegionAsia:Infant_deaths	-1.876e-02
## RegionCentral America and Caribbean:Infant_deaths	3.084e-02
## RegionEuropean Union:Infant_deaths	-1.232e-01
## RegionMiddle East:Infant_deaths	-7.970e-02
## RegionNorth America:Infant_deaths	6.877e-02
## RegionOceania:Infant_deaths	-1.348e-02
## RegionRest of Europe:Infant_deaths	1.825e-02
## RegionSouth America:Infant_deaths	-5.236e-02
## RegionAsia:Adult_mortality	1.492e-02
## RegionCentral America and Caribbean:Adult_mortality	-1.346e-02
## RegionEuropean Union:Adult_mortality	1.637e-02
## RegionMiddle East:Adult_mortality	3.293e-02
## RegionNorth America:Adult_mortality	4.460e-02

## RegionOceania:Adult_mortality	7.484e-03
## RegionRest of Europe:Adult_mortality	2.040e-02
## RegionSouth America:Adult_mortality	-1.224e-02
## RegionAsia:Hepatitis_B	3.422e-02
## RegionCentral America and Caribbean:Hepatitis_B	4.166e-02
## RegionEuropean Union:Hepatitis_B	2.601e-02
## RegionMiddle East:Hepatitis_B	2.059e-02
## RegionNorth America:Hepatitis_B	4.850e-02
## RegionOceania:Hepatitis_B	2.663e-02
## RegionRest of Europe:Hepatitis_B	2.056e-02
## RegionSouth America:Hepatitis_B	3.564e-02
## RegionAsia:BM1	-4.525e-01
## RegionCentral America and Caribbean:BM1	4.286e-01
## RegionEuropean Union:BM1	-7.863e-01
## RegionMiddle East:BM1	1.296e-01
## RegionNorth America:BM1	-5.913e-01
## RegionOceania:BM1	1.509e-02
## RegionRest of Europe:BM1	-8.100e-01
## RegionSouth America:BM1	-2.238e-01
## RegionAsia:Polio	-3.545e-02
## RegionCentral America and Caribbean:Polio	-4.742e-02
## RegionEuropean Union:Polio	-2.400e-02
## RegionMiddle East:Polio	-3.044e-02
## RegionNorth America:Polio	8.937e-04
## RegionOceania:Polio	-1.325e-02
## RegionRest of Europe:Polio	-2.753e-02
## RegionSouth America:Polio	-1.205e-02
## RegionAsia:Incidents_HIV	-1.184e+00
## RegionCentral America and Caribbean:Incidents_HIV	-1.473e+00
## RegionEuropean Union:Incidents_HIV	3.913e+00
## RegionMiddle East:Incidents_HIV	-1.753e+01
## RegionNorth America:Incidents_HIV	-9.316e+00
## RegionOceania:Incidents_HIV	-5.035e+00
## RegionRest of Europe:Incidents_HIV	-8.713e-02
## RegionSouth America:Incidents_HIV	-4.013e-01
## RegionAsia:GDP_per_capita	6.274e-05
## RegionCentral America and Caribbean:GDP_per_capita	7.492e-05
## RegionEuropean Union:GDP_per_capita	3.020e-05
## RegionMiddle East:GDP_per_capita	2.873e-05
## RegionNorth America:GDP_per_capita	-4.726e-05
## RegionOceania:GDP_per_capita	4.131e-05
## RegionRest of Europe:GDP_per_capita	1.580e-05
## RegionSouth America:GDP_per_capita	-1.703e-06
## RegionAsia:Thinness_ten_nineteen_years	3.522e-02
## RegionCentral America and Caribbean:Thinness_ten_nineteen_years	-7.611e-01
## RegionEuropean Union:Thinness_ten_nineteen_years	-6.190e-01
## RegionMiddle East:Thinness_ten_nineteen_years	5.020e-01
## RegionNorth America:Thinness_ten_nineteen_years	2.331e+00
## RegionOceania:Thinness_ten_nineteen_years	2.408e-02
## RegionRest of Europe:Thinness_ten_nineteen_years	2.144e-01
## RegionSouth America:Thinness_ten_nineteen_years	3.491e+00
## RegionAsia:Thinness_five_nine_years	5.735e-02
## RegionCentral America and Caribbean:Thinness_five_nine_years	5.424e-01
## RegionEuropean Union:Thinness_five_nine_years	-3.207e-02

## RegionMiddle East:Thinness_five_nine_years	-4.129e-01
## RegionNorth America:Thinness_five_nine_years	1.790e+00
## RegionOceania:Thinness_five_nine_years	2.281e-01
## RegionRest of Europe:Thinness_five_nine_years	-1.352e+00
## RegionSouth America:Thinness_five_nine_years	-3.333e+00
## RegionAsia:Schooling	-2.125e-01
## RegionCentral America and Caribbean:Schooling	-4.519e-01
## RegionEuropean Union:Schooling	-5.147e-01
## RegionMiddle East:Schooling	-3.601e-01
## RegionNorth America:Schooling	-9.141e-01
## RegionOceania:Schooling	-9.815e-01
## RegionRest of Europe:Schooling	-5.568e-01
## RegionSouth America:Schooling	-7.961e-01
## RegionAsia:Economy_status_DevelopedYes	6.819e-01
## RegionCentral America and Caribbean:Economy_status_DevelopedYes	NA
## RegionEuropean Union:Economy_status_DevelopedYes	NA
## RegionMiddle East:Economy_status_DevelopedYes	5.457e-01
## RegionNorth America:Economy_status_DevelopedYes	1.020e+01
## RegionOceania:Economy_status_DevelopedYes	3.803e+00
## RegionRest of Europe:Economy_status_DevelopedYes	NA
## RegionSouth America:Economy_status_DevelopedYes	NA
## YearY2001:BMI	2.822e-02
## YearY2002:BMI	-4.480e-02
## YearY2003:BMI	-3.592e-02
## YearY2004:BMI	-2.225e-02
## YearY2005:BMI	-2.377e-02
## YearY2006:BMI	-2.473e-02
## YearY2007:BMI	-1.922e-02
## YearY2008:BMI	-5.121e-02
## YearY2009:BMI	-9.008e-02
## YearY2010:BMI	-9.508e-02
## YearY2011:BMI	-1.223e-01
## YearY2012:BMI	-9.733e-02
## YearY2013:BMI	-1.345e-01
## YearY2014:BMI	-1.798e-01
## YearY2015:BMI	-1.745e-01
## YearY2001:Incidents_HIV	-2.067e-02
## YearY2002:Incidents_HIV	-1.576e-02
## YearY2003:Incidents_HIV	-6.443e-02
## YearY2004:Incidents_HIV	-1.123e-01
## YearY2005:Incidents_HIV	-1.159e-01
## YearY2006:Incidents_HIV	-1.491e-01
## YearY2007:Incidents_HIV	-1.294e-01
## YearY2008:Incidents_HIV	-1.329e-01
## YearY2009:Incidents_HIV	-1.428e-01
## YearY2010:Incidents_HIV	-1.107e-01
## YearY2011:Incidents_HIV	-9.054e-02
## YearY2012:Incidents_HIV	-4.813e-02
## YearY2013:Incidents_HIV	3.295e-02
## YearY2014:Incidents_HIV	1.231e-01
## YearY2015:Incidents_HIV	1.372e-01
## YearY2001:Thinness_ten_nineteen_years	3.182e-02
## YearY2002:Thinness_ten_nineteen_years	8.001e-02
## YearY2003:Thinness_ten_nineteen_years	1.817e-01

## YearY2004:Thinness_ten_nineteen_years	2.033e-01
## YearY2005:Thinness_ten_nineteen_years	1.767e-01
## YearY2006:Thinness_ten_nineteen_years	1.896e-01
## YearY2007:Thinness_ten_nineteen_years	1.801e-01
## YearY2008:Thinness_ten_nineteen_years	1.954e-01
## YearY2009:Thinness_ten_nineteen_years	8.689e-02
## YearY2010:Thinness_ten_nineteen_years	1.609e-01
## YearY2011:Thinness_ten_nineteen_years	9.401e-02
## YearY2012:Thinness_ten_nineteen_years	2.816e-01
## YearY2013:Thinness_ten_nineteen_years	3.186e-01
## YearY2014:Thinness_ten_nineteen_years	2.812e-01
## YearY2015:Thinness_ten_nineteen_years	2.356e-01
## YearY2001:Thinness_five_nine_years	-1.053e-02
## YearY2002:Thinness_five_nine_years	-7.761e-02
## YearY2003:Thinness_five_nine_years	-1.796e-01
## YearY2004:Thinness_five_nine_years	-1.959e-01
## YearY2005:Thinness_five_nine_years	-1.848e-01
## YearY2006:Thinness_five_nine_years	-1.905e-01
## YearY2007:Thinness_five_nine_years	-1.922e-01
## YearY2008:Thinness_five_nine_years	-2.129e-01
## YearY2009:Thinness_five_nine_years	-1.361e-01
## YearY2010:Thinness_five_nine_years	-2.019e-01
## YearY2011:Thinness_five_nine_years	-1.399e-01
## YearY2012:Thinness_five_nine_years	-3.229e-01
## YearY2013:Thinness_five_nine_years	-3.759e-01
## YearY2014:Thinness_five_nine_years	-3.483e-01
## YearY2015:Thinness_five_nine_years	-3.034e-01
## Infant_deaths:Adult_mortality	2.767e-04
## Infant_deaths:Hepatitis_B	-6.437e-04
## Infant_deaths:BMI	1.900e-02
## Infant_deaths:GDP_per_capita	-2.336e-06
## Adult_mortality:Hepatitis_B	2.418e-04
## Adult_mortality:BMI	-2.706e-03
## Adult_mortality:Polio	1.006e-04
## Adult_mortality:Incidents_HIV	8.071e-04
## Adult_mortality:GDP_per_capita	-7.475e-07
## Adult_mortality:Schooling	7.366e-04
## Hepatitis_B:Incidents_HIV	-6.319e-03
## Hepatitis_B:Thinness_five_nine_years	1.469e-03
## BMI:Thinness_ten_nineteen_years	-5.594e-02
## BMI:Thinness_five_nine_years	6.599e-02
## BMI:Schooling	8.235e-02
## Polio:Incidents_HIV	-7.367e-03
## Incidents_HIV:GDP_per_capita	8.731e-05
## Incidents_HIV:Thinness_ten_nineteen_years	1.882e-02
## Incidents_HIV:Thinness_five_nine_years	-2.577e-02
##	Std. Error
## (Intercept)	2.884e+00
## RegionAsia	1.810e+00
## RegionCentral America and Caribbean	2.449e+00
## RegionEuropean Union	3.277e+00
## RegionMiddle East	3.775e+00
## RegionNorth America	5.773e+01
## RegionOceania	2.887e+00

## RegionRest of Europe	5.035e+00
## RegionSouth America	6.075e+00
## YearY2001	1.550e+00
## YearY2002	1.595e+00
## YearY2003	1.581e+00
## YearY2004	1.603e+00
## YearY2005	1.653e+00
## YearY2006	1.698e+00
## YearY2007	1.710e+00
## YearY2008	1.730e+00
## YearY2009	1.722e+00
## YearY2010	1.713e+00
## YearY2011	1.713e+00
## YearY2012	1.731e+00
## YearY2013	1.749e+00
## YearY2014	1.769e+00
## YearY2015	1.757e+00
## Infant_deaths	3.438e-02
## Adult_mortality	7.850e-03
## Hepatitis_B	1.068e-02
## BMI	1.172e-01
## Polio	1.261e-02
## Incidents_HIV	1.219e-01
## GDP_per_capita	2.955e-05
## Thinness_ten_nineteen_years	2.773e-01
## Thinness_five_nine_years	2.661e-01
## Schooling	2.603e-01
## Economy_status_DevelopedYes	6.644e-01
## RegionAsia:YearY2001	3.267e-01
## RegionCentral America and Caribbean:YearY2001	3.887e-01
## RegionEuropean Union:YearY2001	3.715e-01
## RegionMiddle East:YearY2001	4.591e-01
## RegionNorth America:YearY2001	9.221e-01
## RegionOceania:YearY2001	4.883e-01
## RegionRest of Europe:YearY2001	4.195e-01
## RegionSouth America:YearY2001	4.407e-01
## RegionAsia:YearY2002	3.226e-01
## RegionCentral America and Caribbean:YearY2002	3.884e-01
## RegionEuropean Union:YearY2002	3.743e-01
## RegionMiddle East:YearY2002	4.601e-01
## RegionNorth America:YearY2002	1.163e+00
## RegionOceania:YearY2002	4.898e-01
## RegionRest of Europe:YearY2002	4.230e-01
## RegionSouth America:YearY2002	4.456e-01
## RegionAsia:YearY2003	3.279e-01
## RegionCentral America and Caribbean:YearY2003	3.913e-01
## RegionEuropean Union:YearY2003	3.761e-01
## RegionMiddle East:YearY2003	4.617e-01
## RegionNorth America:YearY2003	1.458e+00
## RegionOceania:YearY2003	4.926e-01
## RegionRest of Europe:YearY2003	4.307e-01
## RegionSouth America:YearY2003	4.516e-01
## RegionAsia:YearY2004	3.225e-01
## RegionCentral America and Caribbean:YearY2004	3.914e-01

## RegionEuropean Union:YearY2004	3.789e-01
## RegionMiddle East:YearY2004	4.623e-01
## RegionNorth America:YearY2004	1.981e+00
## RegionOceania:YearY2004	4.951e-01
## RegionRest of Europe:YearY2004	4.373e-01
## RegionSouth America:YearY2004	4.614e-01
## RegionAsia:YearY2005	3.224e-01
## RegionCentral America and Caribbean:YearY2005	3.939e-01
## RegionEuropean Union:YearY2005	3.839e-01
## RegionMiddle East:YearY2005	4.658e-01
## RegionNorth America:YearY2005	2.285e+00
## RegionOceania:YearY2005	4.993e-01
## RegionRest of Europe:YearY2005	4.418e-01
## RegionSouth America:YearY2005	4.735e-01
## RegionAsia:YearY2006	3.252e-01
## RegionCentral America and Caribbean:YearY2006	3.983e-01
## RegionEuropean Union:YearY2006	3.855e-01
## RegionMiddle East:YearY2006	4.684e-01
## RegionNorth America:YearY2006	2.644e+00
## RegionOceania:YearY2006	5.035e-01
## RegionRest of Europe:YearY2006	4.513e-01
## RegionSouth America:YearY2006	4.730e-01
## RegionAsia:YearY2007	3.281e-01
## RegionCentral America and Caribbean:YearY2007	3.993e-01
## RegionEuropean Union:YearY2007	3.876e-01
## RegionMiddle East:YearY2007	4.692e-01
## RegionNorth America:YearY2007	3.114e+00
## RegionOceania:YearY2007	5.070e-01
## RegionRest of Europe:YearY2007	4.617e-01
## RegionSouth America:YearY2007	4.746e-01
## RegionAsia:YearY2008	3.323e-01
## RegionCentral America and Caribbean:YearY2008	4.014e-01
## RegionEuropean Union:YearY2008	3.881e-01
## RegionMiddle East:YearY2008	4.736e-01
## RegionNorth America:YearY2008	3.402e+00
## RegionOceania:YearY2008	5.101e-01
## RegionRest of Europe:YearY2008	4.654e-01
## RegionSouth America:YearY2008	4.793e-01
## RegionAsia:YearY2009	3.342e-01
## RegionCentral America and Caribbean:YearY2009	4.045e-01
## RegionEuropean Union:YearY2009	3.905e-01
## RegionMiddle East:YearY2009	4.770e-01
## RegionNorth America:YearY2009	3.541e+00
## RegionOceania:YearY2009	5.134e-01
## RegionRest of Europe:YearY2009	4.731e-01
## RegionSouth America:YearY2009	4.941e-01
## RegionAsia:YearY2010	3.356e-01
## RegionCentral America and Caribbean:YearY2010	4.114e-01
## RegionEuropean Union:YearY2010	3.910e-01
## RegionMiddle East:YearY2010	4.788e-01
## RegionNorth America:YearY2010	3.924e+00
## RegionOceania:YearY2010	5.161e-01
## RegionRest of Europe:YearY2010	4.820e-01
## RegionSouth America:YearY2010	4.944e-01

## RegionAsia:YearY2011	3.377e-01
## RegionCentral America and Caribbean:YearY2011	4.100e-01
## RegionEuropean Union:YearY2011	3.947e-01
## RegionMiddle East:YearY2011	4.848e-01
## RegionNorth America:YearY2011	4.319e+00
## RegionOceania:YearY2011	5.224e-01
## RegionRest of Europe:YearY2011	4.883e-01
## RegionSouth America:YearY2011	5.069e-01
## RegionAsia:YearY2012	3.361e-01
## RegionCentral America and Caribbean:YearY2012	4.111e-01
## RegionEuropean Union:YearY2012	3.951e-01
## RegionMiddle East:YearY2012	4.864e-01
## RegionNorth America:YearY2012	4.648e+00
## RegionOceania:YearY2012	5.282e-01
## RegionRest of Europe:YearY2012	4.972e-01
## RegionSouth America:YearY2012	5.145e-01
## RegionAsia:YearY2013	3.358e-01
## RegionCentral America and Caribbean:YearY2013	4.123e-01
## RegionEuropean Union:YearY2013	3.982e-01
## RegionMiddle East:YearY2013	4.911e-01
## RegionNorth America:YearY2013	4.845e+00
## RegionOceania:YearY2013	5.315e-01
## RegionRest of Europe:YearY2013	5.035e-01
## RegionSouth America:YearY2013	5.252e-01
## RegionAsia:YearY2014	3.393e-01
## RegionCentral America and Caribbean:YearY2014	4.189e-01
## RegionEuropean Union:YearY2014	4.038e-01
## RegionMiddle East:YearY2014	4.942e-01
## RegionNorth America:YearY2014	5.143e+00
## RegionOceania:YearY2014	5.461e-01
## RegionRest of Europe:YearY2014	5.171e-01
## RegionSouth America:YearY2014	5.341e-01
## RegionAsia:YearY2015	3.406e-01
## RegionCentral America and Caribbean:YearY2015	4.235e-01
## RegionEuropean Union:YearY2015	4.071e-01
## RegionMiddle East:YearY2015	4.986e-01
## RegionNorth America:YearY2015	5.320e+00
## RegionOceania:YearY2015	5.516e-01
## RegionRest of Europe:YearY2015	5.267e-01
## RegionSouth America:YearY2015	5.462e-01
## RegionAsia:Infant_deaths	7.042e-03
## RegionCentral America and Caribbean:Infant_deaths	1.283e-02
## RegionEuropean Union:Infant_deaths	2.962e-02
## RegionMiddle East:Infant_deaths	2.530e-02
## RegionNorth America:Infant_deaths	5.076e-01
## RegionOceania:Infant_deaths	1.431e-02
## RegionRest of Europe:Infant_deaths	1.674e-02
## RegionSouth America:Infant_deaths	3.046e-02
## RegionAsia:Adult_mortality	1.438e-03
## RegionCentral America and Caribbean:Adult_mortality	2.647e-03
## RegionEuropean Union:Adult_mortality	2.733e-03
## RegionMiddle East:Adult_mortality	6.457e-03
## RegionNorth America:Adult_mortality	1.442e-01
## RegionOceania:Adult_mortality	4.852e-03

## RegionRest of Europe:Adult_mortality	2.286e-03
## RegionSouth America:Adult_mortality	9.878e-03
## RegionAsia:Hepatitis_B	6.670e-03
## RegionCentral America and Caribbean:Hepatitis_B	1.165e-02
## RegionEuropean Union:Hepatitis_B	9.426e-03
## RegionMiddle East:Hepatitis_B	1.237e-02
## RegionNorth America:Hepatitis_B	2.522e-02
## RegionOceania:Hepatitis_B	1.164e-02
## RegionRest of Europe:Hepatitis_B	9.244e-03
## RegionSouth America:Hepatitis_B	1.163e-02
## RegionAsia:BMI	7.416e-02
## RegionCentral America and Caribbean:BMI	8.454e-02
## RegionEuropean Union:BMI	1.102e-01
## RegionMiddle East:BMI	1.214e-01
## RegionNorth America:BMI	2.447e+00
## RegionOceania:BMI	1.125e-01
## RegionRest of Europe:BMI	2.013e-01
## RegionSouth America:BMI	2.405e-01
## RegionAsia:Polio	8.182e-03
## RegionCentral America and Caribbean:Polio	1.190e-02
## RegionEuropean Union:Polio	1.381e-02
## RegionMiddle East:Polio	1.524e-02
## RegionNorth America:Polio	7.650e-02
## RegionOceania:Polio	1.228e-02
## RegionRest of Europe:Polio	1.211e-02
## RegionSouth America:Polio	1.416e-02
## RegionAsia:Incidents_HIV	4.194e-01
## RegionCentral America and Caribbean:Incidents_HIV	2.976e-01
## RegionEuropean Union:Incidents_HIV	1.124e+00
## RegionMiddle East:Incidents_HIV	2.640e+00
## RegionNorth America:Incidents_HIV	6.744e+01
## RegionOceania:Incidents_HIV	1.138e+00
## RegionRest of Europe:Incidents_HIV	6.438e-01
## RegionSouth America:Incidents_HIV	8.746e-01
## RegionAsia:GDP_per_capita	2.751e-05
## RegionCentral America and Caribbean:GDP_per_capita	2.632e-05
## RegionEuropean Union:GDP_per_capita	2.808e-05
## RegionMiddle East:GDP_per_capita	2.698e-05
## RegionNorth America:GDP_per_capita	2.501e-04
## RegionOceania:GDP_per_capita	3.324e-05
## RegionRest of Europe:GDP_per_capita	2.940e-05
## RegionSouth America:GDP_per_capita	3.793e-05
## RegionAsia:Thinness_ten_nineteen_years	3.003e-02
## RegionCentral America and Caribbean:Thinness_ten_nineteen_years	5.913e-01
## RegionEuropean Union:Thinness_ten_nineteen_years	5.301e-01
## RegionMiddle East:Thinness_ten_nineteen_years	6.829e-01
## RegionNorth America:Thinness_ten_nineteen_years	5.232e+00
## RegionOceania:Thinness_ten_nineteen_years	9.849e-02
## RegionRest of Europe:Thinness_ten_nineteen_years	8.516e-01
## RegionSouth America:Thinness_ten_nineteen_years	9.091e-01
## RegionAsia:Thinness_five_nine_years	3.025e-02
## RegionCentral America and Caribbean:Thinness_five_nine_years	5.656e-01
## RegionEuropean Union:Thinness_five_nine_years	4.632e-01
## RegionMiddle East:Thinness_five_nine_years	6.641e-01

## RegionNorth America:Thinness_five_nine_years	5.850e+00
## RegionOceania:Thinness_five_nine_years	1.162e-01
## RegionRest of Europe:Thinness_five_nine_years	8.470e-01
## RegionSouth America:Thinness_five_nine_years	9.376e-01
## RegionAsia:Schooling	4.908e-02
## RegionCentral America and Caribbean:Schooling	7.312e-02
## RegionEuropean Union:Schooling	7.530e-02
## RegionMiddle East:Schooling	8.708e-02
## RegionNorth America:Schooling	1.108e+00
## RegionOceania:Schooling	1.165e-01
## RegionRest of Europe:Schooling	9.024e-02
## RegionSouth America:Schooling	1.250e-01
## RegionAsia:Economy_status_DevelopedYes	7.229e-01
## RegionCentral America and Caribbean:Economy_status_DevelopedYes	NA
## RegionEuropean Union:Economy_status_DevelopedYes	NA
## RegionMiddle East:Economy_status_DevelopedYes	7.812e-01
## RegionNorth America:Economy_status_DevelopedYes	1.558e+01
## RegionOceania:Economy_status_DevelopedYes	1.149e+00
## RegionRest of Europe:Economy_status_DevelopedYes	NA
## RegionSouth America:Economy_status_DevelopedYes	NA
## YearY2001:BM <sup>I</sup>	6.549e-02
## YearY2002:BM <sup>I</sup>	6.659e-02
## YearY2003:BM <sup>I</sup>	6.621e-02
## YearY2004:BM <sup>I</sup>	6.703e-02
## YearY2005:BM <sup>I</sup>	6.832e-02
## YearY2006:BM <sup>I</sup>	6.975e-02
## YearY2007:BM <sup>I</sup>	7.002e-02
## YearY2008:BM <sup>I</sup>	7.083e-02
## YearY2009:BM <sup>I</sup>	7.062e-02
## YearY2010:BM <sup>I</sup>	7.038e-02
## YearY2011:BM <sup>I</sup>	7.057e-02
## YearY2012:BM <sup>I</sup>	7.106e-02
## YearY2013:BM <sup>I</sup>	7.156e-02
## YearY2014:BM <sup>I</sup>	7.253e-02
## YearY2015:BM <sup>I</sup>	7.224e-02
## YearY2001:Incidents_HIV	3.521e-02
## YearY2002:Incidents_HIV	3.686e-02
## YearY2003:Incidents_HIV	3.860e-02
## YearY2004:Incidents_HIV	3.829e-02
## YearY2005:Incidents_HIV	4.000e-02
## YearY2006:Incidents_HIV	4.147e-02
## YearY2007:Incidents_HIV	4.249e-02
## YearY2008:Incidents_HIV	4.428e-02
## YearY2009:Incidents_HIV	4.654e-02
## YearY2010:Incidents_HIV	4.871e-02
## YearY2011:Incidents_HIV	5.191e-02
## YearY2012:Incidents_HIV	5.334e-02
## YearY2013:Incidents_HIV	5.464e-02
## YearY2014:Incidents_HIV	5.656e-02
## YearY2015:Incidents_HIV	5.895e-02
## YearY2001:Thinness_ten_nineteen_years	5.662e-02
## YearY2002:Thinness_ten_nineteen_years	5.131e-02
## YearY2003:Thinness_ten_nineteen_years	8.194e-02
## YearY2004:Thinness_ten_nineteen_years	8.660e-02

## YearY2005:Thinness_ten_nineteen_years	5.572e-02
## YearY2006:Thinness_ten_nineteen_years	5.746e-02
## YearY2007:Thinness_ten_nineteen_years	5.562e-02
## YearY2008:Thinness_ten_nineteen_years	6.349e-02
## YearY2009:Thinness_ten_nineteen_years	7.354e-02
## YearY2010:Thinness_ten_nineteen_years	8.132e-02
## YearY2011:Thinness_ten_nineteen_years	8.572e-02
## YearY2012:Thinness_ten_nineteen_years	6.416e-02
## YearY2013:Thinness_ten_nineteen_years	6.624e-02
## YearY2014:Thinness_ten_nineteen_years	7.293e-02
## YearY2015:Thinness_ten_nineteen_years	9.676e-02
## YearY2001:Thinness_five_nine_years	5.510e-02
## YearY2002:Thinness_five_nine_years	4.964e-02
## YearY2003:Thinness_five_nine_years	8.136e-02
## YearY2004:Thinness_five_nine_years	8.530e-02
## YearY2005:Thinness_five_nine_years	5.553e-02
## YearY2006:Thinness_five_nine_years	5.659e-02
## YearY2007:Thinness_five_nine_years	5.332e-02
## YearY2008:Thinness_five_nine_years	6.090e-02
## YearY2009:Thinness_five_nine_years	7.114e-02
## YearY2010:Thinness_five_nine_years	7.964e-02
## YearY2011:Thinness_five_nine_years	8.468e-02
## YearY2012:Thinness_five_nine_years	6.424e-02
## YearY2013:Thinness_five_nine_years	6.625e-02
## YearY2014:Thinness_five_nine_years	7.420e-02
## YearY2015:Thinness_five_nine_years	9.653e-02
## Infant_deaths:Adult_mortality	1.970e-05
## Infant_deaths:Hepatitis_B	1.061e-04
## Infant_deaths:BMI	1.484e-03
## Infant_deaths:GDP_per_capita	5.315e-07
## Adult_mortality:Hepatitis_B	3.918e-05
## Adult_mortality:BMI	3.076e-04
## Adult_mortality:Polio	4.140e-05
## Adult_mortality:Incidents_HIV	1.258e-04
## Adult_mortality:GDP_per_capita	9.556e-08
## Adult_mortality:Schooling	1.890e-04
## Hepatitis_B:Incidents_HIV	1.615e-03
## Hepatitis_B:Thinness_five_nine_years	3.310e-04
## BMI:Thinness_ten_nineteen_years	1.344e-02
## BMI:Thinness_five_nine_years	1.300e-02
## BMI:Schooling	1.094e-02
## Polio:Incidents_HIV	1.671e-03
## Incidents_HIV:GDP_per_capita	6.085e-06
## Incidents_HIV:Thinness_ten_nineteen_years	8.302e-03
## Incidents_HIV:Thinness_five_nine_years	8.309e-03
##	t value
## (Intercept)	33.958
## RegionAsia	4.999
## RegionCentral America and Caribbean	-1.344
## RegionEuropean Union	6.541
## RegionMiddle East	-0.735
## RegionNorth America	0.099
## RegionOceania	0.652
## RegionRest of Europe	4.818

## RegionSouth America	2.149
## YearY2001	-0.468
## YearY2002	0.579
## YearY2003	0.401
## YearY2004	0.191
## YearY2005	0.230
## YearY2006	0.233
## YearY2007	0.178
## YearY2008	0.637
## YearY2009	1.324
## YearY2010	1.316
## YearY2011	1.749
## YearY2012	1.348
## YearY2013	1.903
## YearY2014	2.512
## YearY2015	2.498
## Infant_deaths	-16.881
## Adult_mortality	-3.408
## Hepatitis_B	-5.443
## BMI	-3.986
## Polio	0.273
## Incidents_HIV	4.710
## GDP_per_capita	1.129
## Thinness_ten_nineteen_years	3.683
## Thinness_five_nine_years	-5.181
## Schooling	-6.599
## Economy_status_DevelopedYes	3.268
## RegionAsia:YearY2001	-0.472
## RegionCentral America and Caribbean:YearY2001	0.081
## RegionEuropean Union:YearY2001	0.506
## RegionMiddle East:YearY2001	-0.246
## RegionNorth America:YearY2001	0.485
## RegionOceania:YearY2001	-0.106
## RegionRest of Europe:YearY2001	0.271
## RegionSouth America:YearY2001	-0.188
## RegionAsia:YearY2002	0.274
## RegionCentral America and Caribbean:YearY2002	0.549
## RegionEuropean Union:YearY2002	1.280
## RegionMiddle East:YearY2002	0.545
## RegionNorth America:YearY2002	0.923
## RegionOceania:YearY2002	0.732
## RegionRest of Europe:YearY2002	0.817
## RegionSouth America:YearY2002	0.432
## RegionAsia:YearY2003	0.525
## RegionCentral America and Caribbean:YearY2003	0.481
## RegionEuropean Union:YearY2003	1.325
## RegionMiddle East:YearY2003	0.546
## RegionNorth America:YearY2003	0.975
## RegionOceania:YearY2003	0.856
## RegionRest of Europe:YearY2003	1.037
## RegionSouth America:YearY2003	0.338
## RegionAsia:YearY2004	0.876
## RegionCentral America and Caribbean:YearY2004	0.047
## RegionEuropean Union:YearY2004	2.091

## RegionMiddle East:YearY2004	0.494
## RegionNorth America:YearY2004	0.896
## RegionOceania:YearY2004	0.765
## RegionRest of Europe:YearY2004	1.179
## RegionSouth America:YearY2004	0.447
## RegionAsia:YearY2005	0.525
## RegionCentral America and Caribbean:YearY2005	-0.223
## RegionEuropean Union:YearY2005	1.970
## RegionMiddle East:YearY2005	0.581
## RegionNorth America:YearY2005	0.914
## RegionOceania:YearY2005	0.687
## RegionRest of Europe:YearY2005	1.233
## RegionSouth America:YearY2005	0.461
## RegionAsia:YearY2006	0.329
## RegionCentral America and Caribbean:YearY2006	-0.538
## RegionEuropean Union:YearY2006	2.519
## RegionMiddle East:YearY2006	0.393
## RegionNorth America:YearY2006	0.866
## RegionOceania:YearY2006	0.677
## RegionRest of Europe:YearY2006	1.457
## RegionSouth America:YearY2006	0.568
## RegionAsia:YearY2007	0.540
## RegionCentral America and Caribbean:YearY2007	-1.055
## RegionEuropean Union:YearY2007	2.426
## RegionMiddle East:YearY2007	0.218
## RegionNorth America:YearY2007	0.796
## RegionOceania:YearY2007	0.613
## RegionRest of Europe:YearY2007	1.646
## RegionSouth America:YearY2007	0.344
## RegionAsia:YearY2008	1.117
## RegionCentral America and Caribbean:YearY2008	-1.175
## RegionEuropean Union:YearY2008	2.715
## RegionMiddle East:YearY2008	0.397
## RegionNorth America:YearY2008	0.784
## RegionOceania:YearY2008	0.781
## RegionRest of Europe:YearY2008	1.956
## RegionSouth America:YearY2008	0.751
## RegionAsia:YearY2009	1.456
## RegionCentral America and Caribbean:YearY2009	-1.519
## RegionEuropean Union:YearY2009	2.625
## RegionMiddle East:YearY2009	0.471
## RegionNorth America:YearY2009	0.752
## RegionOceania:YearY2009	0.848
## RegionRest of Europe:YearY2009	1.765
## RegionSouth America:YearY2009	0.660
## RegionAsia:YearY2010	1.659
## RegionCentral America and Caribbean:YearY2010	-1.114
## RegionEuropean Union:YearY2010	3.252
## RegionMiddle East:YearY2010	0.654
## RegionNorth America:YearY2010	0.745
## RegionOceania:YearY2010	1.175
## RegionRest of Europe:YearY2010	2.335
## RegionSouth America:YearY2010	1.139
## RegionAsia:YearY2011	1.456

## RegionCentral America and Caribbean:YearY2011	-1.612
## RegionEuropean Union:YearY2011	3.965
## RegionMiddle East:YearY2011	0.602
## RegionNorth America:YearY2011	0.693
## RegionOceania:YearY2011	1.301
## RegionRest of Europe:YearY2011	2.632
## RegionSouth America:YearY2011	1.114
## RegionAsia:YearY2012	1.807
## RegionCentral America and Caribbean:YearY2012	-1.872
## RegionEuropean Union:YearY2012	3.769
## RegionMiddle East:YearY2012	0.403
## RegionNorth America:YearY2012	0.679
## RegionOceania:YearY2012	1.209
## RegionRest of Europe:YearY2012	2.634
## RegionSouth America:YearY2012	1.189
## RegionAsia:YearY2013	2.094
## RegionCentral America and Caribbean:YearY2013	-1.999
## RegionEuropean Union:YearY2013	4.196
## RegionMiddle East:YearY2013	0.714
## RegionNorth America:YearY2013	0.683
## RegionOceania:YearY2013	1.421
## RegionRest of Europe:YearY2013	2.962
## RegionSouth America:YearY2013	1.163
## RegionAsia:YearY2014	2.554
## RegionCentral America and Caribbean:YearY2014	-1.945
## RegionEuropean Union:YearY2014	4.718
## RegionMiddle East:YearY2014	0.995
## RegionNorth America:YearY2014	0.684
## RegionOceania:YearY2014	1.945
## RegionRest of Europe:YearY2014	3.328
## RegionSouth America:YearY2014	1.500
## RegionAsia:YearY2015	2.267
## RegionCentral America and Caribbean:YearY2015	-2.165
## RegionEuropean Union:YearY2015	3.999
## RegionMiddle East:YearY2015	0.853
## RegionNorth America:YearY2015	0.663
## RegionOceania:YearY2015	1.794
## RegionRest of Europe:YearY2015	3.075
## RegionSouth America:YearY2015	1.364
## RegionAsia:Infant_deaths	-2.665
## RegionCentral America and Caribbean:Infant_deaths	2.404
## RegionEuropean Union:Infant_deaths	-4.161
## RegionMiddle East:Infant_deaths	-3.151
## RegionNorth America:Infant_deaths	0.135
## RegionOceania:Infant_deaths	-0.942
## RegionRest of Europe:Infant_deaths	1.090
## RegionSouth America:Infant_deaths	-1.719
## RegionAsia:Adult_mortality	10.376
## RegionCentral America and Caribbean:Adult_mortality	-5.086
## RegionEuropean Union:Adult_mortality	5.991
## RegionMiddle East:Adult_mortality	5.099
## RegionNorth America:Adult_mortality	0.309
## RegionOceania:Adult_mortality	1.543
## RegionRest of Europe:Adult_mortality	8.923

## RegionSouth America:Adult_mortality	-1.240
## RegionAsia:Hepatitis_B	5.131
## RegionCentral America and Caribbean:Hepatitis_B	3.576
## RegionEuropean Union:Hepatitis_B	2.759
## RegionMiddle East:Hepatitis_B	1.665
## RegionNorth America:Hepatitis_B	1.923
## RegionOceania:Hepatitis_B	2.288
## RegionRest of Europe:Hepatitis_B	2.224
## RegionSouth America:Hepatitis_B	3.063
## RegionAsia:BM <sup>I</sup>	-6.102
## RegionCentral America and Caribbean:BM <sup>I</sup>	5.070
## RegionEuropean Union:BM <sup>I</sup>	-7.133
## RegionMiddle East:BM <sup>I</sup>	1.068
## RegionNorth America:BM <sup>I</sup>	-0.242
## RegionOceania:BM <sup>I</sup>	0.134
## RegionRest of Europe:BM <sup>I</sup>	-4.023
## RegionSouth America:BM <sup>I</sup>	-0.930
## RegionAsia:Polio	-4.332
## RegionCentral America and Caribbean:Polio	-3.985
## RegionEuropean Union:Polio	-1.738
## RegionMiddle East:Polio	-1.998
## RegionNorth America:Polio	0.012
## RegionOceania:Polio	-1.079
## RegionRest of Europe:Polio	-2.273
## RegionSouth America:Polio	-0.851
## RegionAsia:Incidents_HIV	-2.824
## RegionCentral America and Caribbean:Incidents_HIV	-4.950
## RegionEuropean Union:Incidents_HIV	3.482
## RegionMiddle East:Incidents_HIV	-6.639
## RegionNorth America:Incidents_HIV	-0.138
## RegionOceania:Incidents_HIV	-4.424
## RegionRest of Europe:Incidents_HIV	-0.135
## RegionSouth America:Incidents_HIV	-0.459
## RegionAsia:GDP_per_capita	2.281
## RegionCentral America and Caribbean:GDP_per_capita	2.846
## RegionEuropean Union:GDP_per_capita	1.076
## RegionMiddle East:GDP_per_capita	1.065
## RegionNorth America:GDP_per_capita	-0.189
## RegionOceania:GDP_per_capita	1.243
## RegionRest of Europe:GDP_per_capita	0.537
## RegionSouth America:GDP_per_capita	-0.045
## RegionAsia:Thinness_ten_nineteen_years	1.173
## RegionCentral America and Caribbean:Thinness_ten_nineteen_years	-1.287
## RegionEuropean Union:Thinness_ten_nineteen_years	-1.168
## RegionMiddle East:Thinness_ten_nineteen_years	0.735
## RegionNorth America:Thinness_ten_nineteen_years	0.446
## RegionOceania:Thinness_ten_nineteen_years	0.244
## RegionRest of Europe:Thinness_ten_nineteen_years	0.252
## RegionSouth America:Thinness_ten_nineteen_years	3.840
## RegionAsia:Thinness_five_nine_years	1.896
## RegionCentral America and Caribbean:Thinness_five_nine_years	0.959
## RegionEuropean Union:Thinness_five_nine_years	-0.069
## RegionMiddle East:Thinness_five_nine_years	-0.622
## RegionNorth America:Thinness_five_nine_years	0.306

## RegionOceania:Thinness_five_nine_years	1.962
## RegionRest of Europe:Thinness_five_nine_years	-1.597
## RegionSouth America:Thinness_five_nine_years	-3.555
## RegionAsia:Schooling	-4.331
## RegionCentral America and Caribbean:Schooling	-6.181
## RegionEuropean Union:Schooling	-6.835
## RegionMiddle East:Schooling	-4.136
## RegionNorth America:Schooling	-0.825
## RegionOceania:Schooling	-8.425
## RegionRest of Europe:Schooling	-6.170
## RegionSouth America:Schooling	-6.368
## RegionAsia:Economy_status_DevelopedYes	0.943
## RegionCentral America and Caribbean:Economy_status_DevelopedYes	NA
## RegionEuropean Union:Economy_status_DevelopedYes	NA
## RegionMiddle East:Economy_status_DevelopedYes	0.699
## RegionNorth America:Economy_status_DevelopedYes	0.655
## RegionOceania:Economy_status_DevelopedYes	3.310
## RegionRest of Europe:Economy_status_DevelopedYes	NA
## RegionSouth America:Economy_status_DevelopedYes	NA
## YearY2001:BM <sup>I</sup>	0.431
## YearY2002:BM <sup>I</sup>	-0.673
## YearY2003:BM <sup>I</sup>	-0.543
## YearY2004:BM <sup>I</sup>	-0.332
## YearY2005:BM <sup>I</sup>	-0.348
## YearY2006:BM <sup>I</sup>	-0.355
## YearY2007:BM <sup>I</sup>	-0.274
## YearY2008:BM <sup>I</sup>	-0.723
## YearY2009:BM <sup>I</sup>	-1.276
## YearY2010:BM <sup>I</sup>	-1.351
## YearY2011:BM <sup>I</sup>	-1.734
## YearY2012:BM <sup>I</sup>	-1.370
## YearY2013:BM <sup>I</sup>	-1.879
## YearY2014:BM <sup>I</sup>	-2.479
## YearY2015:BM <sup>I</sup>	-2.416
## YearY2001:Incidents_HIV	-0.587
## YearY2002:Incidents_HIV	-0.428
## YearY2003:Incidents_HIV	-1.669
## YearY2004:Incidents_HIV	-2.934
## YearY2005:Incidents_HIV	-2.896
## YearY2006:Incidents_HIV	-3.595
## YearY2007:Incidents_HIV	-3.045
## YearY2008:Incidents_HIV	-3.002
## YearY2009:Incidents_HIV	-3.069
## YearY2010:Incidents_HIV	-2.272
## YearY2011:Incidents_HIV	-1.744
## YearY2012:Incidents_HIV	-0.902
## YearY2013:Incidents_HIV	0.603
## YearY2014:Incidents_HIV	2.177
## YearY2015:Incidents_HIV	2.328
## YearY2001:Thinness_ten_nineteen_years	0.562
## YearY2002:Thinness_ten_nineteen_years	1.559
## YearY2003:Thinness_ten_nineteen_years	2.217
## YearY2004:Thinness_ten_nineteen_years	2.348
## YearY2005:Thinness_ten_nineteen_years	3.170

## YearY2006:Thinness_ten_nineteen_years	3.299
## YearY2007:Thinness_ten_nineteen_years	3.237
## YearY2008:Thinness_ten_nineteen_years	3.078
## YearY2009:Thinness_ten_nineteen_years	1.182
## YearY2010:Thinness_ten_nineteen_years	1.979
## YearY2011:Thinness_ten_nineteen_years	1.097
## YearY2012:Thinness_ten_nineteen_years	4.389
## YearY2013:Thinness_ten_nineteen_years	4.809
## YearY2014:Thinness_ten_nineteen_years	3.856
## YearY2015:Thinness_ten_nineteen_years	2.435
## YearY2001:Thinness_five_nine_years	-0.191
## YearY2002:Thinness_five_nine_years	-1.564
## YearY2003:Thinness_five_nine_years	-2.208
## YearY2004:Thinness_five_nine_years	-2.296
## YearY2005:Thinness_five_nine_years	-3.328
## YearY2006:Thinness_five_nine_years	-3.367
## YearY2007:Thinness_five_nine_years	-3.604
## YearY2008:Thinness_five_nine_years	-3.495
## YearY2009:Thinness_five_nine_years	-1.914
## YearY2010:Thinness_five_nine_years	-2.535
## YearY2011:Thinness_five_nine_years	-1.652
## YearY2012:Thinness_five_nine_years	-5.026
## YearY2013:Thinness_five_nine_years	-5.673
## YearY2014:Thinness_five_nine_years	-4.694
## YearY2015:Thinness_five_nine_years	-3.143
## Infant_deaths:Adult_mortality	14.049
## Infant_deaths:Hepatitis_B	-6.064
## Infant_deaths:BMI	12.804
## Infant_deaths:GDP_per_capita	-4.395
## Adult_mortality:Hepatitis_B	6.170
## Adult_mortality:BMI	-8.796
## Adult_mortality:Polio	2.430
## Adult_mortality:Incidents_HIV	6.418
## Adult_mortality:GDP_per_capita	-7.822
## Adult_mortality:Schooling	3.897
## Hepatitis_B:Incidents_HIV	-3.912
## Hepatitis_B:Thinness_five_nine_years	4.438
## BMI:Thinness_ten_nineteen_years	-4.163
## BMI:Thinness_five_nine_years	5.077
## BMI:Schooling	7.530
## Polio:Incidents_HIV	-4.408
## Incidents_HIV:GDP_per_capita	14.349
## Incidents_HIV:Thinness_ten_nineteen_years	2.267
## Incidents_HIV:Thinness_five_nine_years	-3.102
##	Pr(> t )
## (Intercept)	< 2e-16 ***
## RegionAsia	6.15e-07 ***
## RegionCentral America and Caribbean	0.178989
## RegionEuropean Union	7.36e-11 ***
## RegionMiddle East	0.462650
## RegionNorth America	0.921016
## RegionOceania	0.514352
## RegionRest of Europe	1.54e-06 ***
## RegionSouth America	0.031731 *

## YearY2001	0.639930
## YearY2002	0.562857
## YearY2003	0.688761
## YearY2004	0.848279
## YearY2005	0.817797
## YearY2006	0.816163
## YearY2007	0.858818
## YearY2008	0.524248
## YearY2009	0.185567
## YearY2010	0.188160
## YearY2011	0.080489 .
## YearY2012	0.177775
## YearY2013	0.057132 .
## YearY2014	0.012051 *
## YearY2015	0.012537 *
## Infant_deaths	< 2e-16 ***
## Adult_mortality	0.000665 ***
## Hepatitis_B	5.73e-08 ***
## BMI	6.91e-05 ***
## Polio	0.784801
## Incidents_HIV	2.61e-06 ***
## GDP_per_capita	0.258904
## Thinness_ten_nineteen_years	0.000235 ***
## Thinness_five_nine_years	2.38e-07 ***
## Schooling	5.00e-11 ***
## Economy_status_DevelopedYes	0.001098 **
## RegionAsia:YearY2001	0.636764
## RegionCentral America and Caribbean:YearY2001	0.935285
## RegionEuropean Union:YearY2001	0.613085
## RegionMiddle East:YearY2001	0.805558
## RegionNorth America:YearY2001	0.627394
## RegionOceania:YearY2001	0.915368
## RegionRest of Europe:YearY2001	0.786466
## RegionSouth America:YearY2001	0.850572
## RegionAsia:YearY2002	0.784201
## RegionCentral America and Caribbean:YearY2002	0.582930
## RegionEuropean Union:YearY2002	0.200536
## RegionMiddle East:YearY2002	0.585930
## RegionNorth America:YearY2002	0.356272
## RegionOceania:YearY2002	0.464505
## RegionRest of Europe:YearY2002	0.413956
## RegionSouth America:YearY2002	0.665955
## RegionAsia:YearY2003	0.599637
## RegionCentral America and Caribbean:YearY2003	0.630451
## RegionEuropean Union:YearY2003	0.185414
## RegionMiddle East:YearY2003	0.585274
## RegionNorth America:YearY2003	0.329541
## RegionOceania:YearY2003	0.392001
## RegionRest of Europe:YearY2003	0.300026
## RegionSouth America:YearY2003	0.735725
## RegionAsia:YearY2004	0.381150
## RegionCentral America and Caribbean:YearY2004	0.962195
## RegionEuropean Union:YearY2004	0.036663 *
## RegionMiddle East:YearY2004	0.621613

## RegionNorth America:YearY2004	0.370552
## RegionOceania:YearY2004	0.444403
## RegionRest of Europe:YearY2004	0.238446
## RegionSouth America:YearY2004	0.654648
## RegionAsia:YearY2005	0.599837
## RegionCentral America and Caribbean:YearY2005	0.823816
## RegionEuropean Union:YearY2005	0.048918 *
## RegionMiddle East:YearY2005	0.561010
## RegionNorth America:YearY2005	0.360603
## RegionOceania:YearY2005	0.491904
## RegionRest of Europe:YearY2005	0.217747
## RegionSouth America:YearY2005	0.644868
## RegionAsia:YearY2006	0.742240
## RegionCentral America and Caribbean:YearY2006	0.590291
## RegionEuropean Union:YearY2006	0.011842 *
## RegionMiddle East:YearY2006	0.694491
## RegionNorth America:YearY2006	0.386462
## RegionOceania:YearY2006	0.498570
## RegionRest of Europe:YearY2006	0.145372
## RegionSouth America:YearY2006	0.569785
## RegionAsia:YearY2007	0.589296
## RegionCentral America and Caribbean:YearY2007	0.291562
## RegionEuropean Union:YearY2007	0.015332 *
## RegionMiddle East:YearY2007	0.827782
## RegionNorth America:YearY2007	0.425971
## RegionOceania:YearY2007	0.539733
## RegionRest of Europe:YearY2007	0.099976 .
## RegionSouth America:YearY2007	0.731117
## RegionAsia:YearY2008	0.263979
## RegionCentral America and Caribbean:YearY2008	0.240007
## RegionEuropean Union:YearY2008	0.006666 **
## RegionMiddle East:YearY2008	0.691331
## RegionNorth America:YearY2008	0.433139
## RegionOceania:YearY2008	0.435152
## RegionRest of Europe:YearY2008	0.050577 .
## RegionSouth America:YearY2008	0.452627
## RegionAsia:YearY2009	0.145539
## RegionCentral America and Caribbean:YearY2009	0.128890
## RegionEuropean Union:YearY2009	0.008721 **
## RegionMiddle East:YearY2009	0.638018
## RegionNorth America:YearY2009	0.452170
## RegionOceania:YearY2009	0.396370
## RegionRest of Europe:YearY2009	0.077722 .
## RegionSouth America:YearY2009	0.509192
## RegionAsia:YearY2010	0.097339 .
## RegionCentral America and Caribbean:YearY2010	0.265512
## RegionEuropean Union:YearY2010	0.001162 **
## RegionMiddle East:YearY2010	0.513454
## RegionNorth America:YearY2010	0.456068
## RegionOceania:YearY2010	0.240157
## RegionRest of Europe:YearY2010	0.019599 *
## RegionSouth America:YearY2010	0.254630
## RegionAsia:YearY2011	0.145500
## RegionCentral America and Caribbean:YearY2011	0.107173

## RegionEuropean Union:YearY2011	7.56e-05 ***
## RegionMiddle East:YearY2011	0.546948
## RegionNorth America:YearY2011	0.488336
## RegionOceania:YearY2011	0.193507
## RegionRest of Europe:YearY2011	0.008540 **
## RegionSouth America:YearY2011	0.265564
## RegionAsia:YearY2012	0.070817 .
## RegionCentral America and Caribbean:YearY2012	0.061293 .
## RegionEuropean Union:YearY2012	0.000168 ***
## RegionMiddle East:YearY2012	0.687292
## RegionNorth America:YearY2012	0.497190
## RegionOceania:YearY2012	0.226918
## RegionRest of Europe:YearY2012	0.008483 **
## RegionSouth America:YearY2012	0.234530
## RegionAsia:YearY2013	0.036373 *
## RegionCentral America and Caribbean:YearY2013	0.045705 *
## RegionEuropean Union:YearY2013	2.80e-05 ***
## RegionMiddle East:YearY2013	0.475131
## RegionNorth America:YearY2013	0.494848
## RegionOceania:YearY2013	0.155402
## RegionRest of Europe:YearY2013	0.003086 **
## RegionSouth America:YearY2013	0.245062
## RegionAsia:YearY2014	0.010710 *
## RegionCentral America and Caribbean:YearY2014	0.051828 .
## RegionEuropean Union:YearY2014	2.51e-06 ***
## RegionMiddle East:YearY2014	0.319809
## RegionNorth America:YearY2014	0.494135
## RegionOceania:YearY2014	0.051900 .
## RegionRest of Europe:YearY2014	0.000887 ***
## RegionSouth America:YearY2014	0.133633
## RegionAsia:YearY2015	0.023453 *
## RegionCentral America and Caribbean:YearY2015	0.030472 *
## RegionEuropean Union:YearY2015	6.54e-05 ***
## RegionMiddle East:YearY2015	0.393600
## RegionNorth America:YearY2015	0.507393
## RegionOceania:YearY2015	0.072991 .
## RegionRest of Europe:YearY2015	0.002128 **
## RegionSouth America:YearY2015	0.172698
## RegionAsia:Infant_deaths	0.007756 **
## RegionCentral America and Caribbean:Infant_deaths	0.016291 *
## RegionEuropean Union:Infant_deaths	3.27e-05 ***
## RegionMiddle East:Infant_deaths	0.001647 **
## RegionNorth America:Infant_deaths	0.892243
## RegionOceania:Infant_deaths	0.346175
## RegionRest of Europe:Infant_deaths	0.275801
## RegionSouth America:Infant_deaths	0.085693 .
## RegionAsia:Adult_mortality	< 2e-16 ***
## RegionCentral America and Caribbean:Adult_mortality	3.92e-07 ***
## RegionEuropean Union:Adult_mortality	2.38e-09 ***
## RegionMiddle East:Adult_mortality	3.66e-07 ***
## RegionNorth America:Adult_mortality	0.757085
## RegionOceania:Adult_mortality	0.123061
## RegionRest of Europe:Adult_mortality	< 2e-16 ***
## RegionSouth America:Adult_mortality	0.215241

## RegionAsia:Hepatitis_B	3.09e-07 ***
## RegionCentral America and Caribbean:Hepatitis_B	0.000356 ***
## RegionEuropean Union:Hepatitis_B	0.005833 **
## RegionMiddle East:Hepatitis_B	0.096098 .
## RegionNorth America:Hepatitis_B	0.054604 .
## RegionOceania:Hepatitis_B	0.022220 *
## RegionRest of Europe:Hepatitis_B	0.026232 *
## RegionSouth America:Hepatitis_B	0.002213 **
## RegionAsia:BM <sup>I</sup>	1.21e-09 ***
## RegionCentral America and Caribbean:BM <sup>I</sup>	4.26e-07 ***
## RegionEuropean Union:BM <sup>I</sup>	1.28e-12 ***
## RegionMiddle East:BM <sup>I</sup>	0.285498
## RegionNorth America:BM <sup>I</sup>	0.809093
## RegionOceania:BM <sup>I</sup>	0.893296
## RegionRest of Europe:BM <sup>I</sup>	5.90e-05 ***
## RegionSouth America:BM <sup>I</sup>	0.352225
## RegionAsia:Polio	1.53e-05 ***
## RegionCentral America and Caribbean:Polio	6.94e-05 ***
## RegionEuropean Union:Polio	0.082309 .
## RegionMiddle East:Polio	0.045842 *
## RegionNorth America:Polio	0.990680
## RegionOceania:Polio	0.280535
## RegionRest of Europe:Polio	0.023086 *
## RegionSouth America:Polio	0.394812
## RegionAsia:Incidents_HIV	0.004783 **
## RegionCentral America and Caribbean:Incidents_HIV	7.89e-07 ***
## RegionEuropean Union:Incidents_HIV	0.000506 ***
## RegionMiddle East:Incidents_HIV	3.85e-11 ***
## RegionNorth America:Incidents_HIV	0.890148
## RegionOceania:Incidents_HIV	1.01e-05 ***
## RegionRest of Europe:Incidents_HIV	0.892361
## RegionSouth America:Incidents_HIV	0.646405
## RegionAsia:GDP_per_capita	0.022628 *
## RegionCentral America and Caribbean:GDP_per_capita	0.004460 **
## RegionEuropean Union:GDP_per_capita	0.282172
## RegionMiddle East:GDP_per_capita	0.287015
## RegionNorth America:GDP_per_capita	0.850148
## RegionOceania:GDP_per_capita	0.213997
## RegionRest of Europe:GDP_per_capita	0.591081
## RegionSouth America:GDP_per_capita	0.964197
## RegionAsia:Thinness_ten_nineteen_years	0.240974
## RegionCentral America and Caribbean:Thinness_ten_nineteen_years	0.198131
## RegionEuropean Union:Thinness_ten_nineteen_years	0.243045
## RegionMiddle East:Thinness_ten_nineteen_years	0.462356
## RegionNorth America:Thinness_ten_nineteen_years	0.655928
## RegionOceania:Thinness_ten_nineteen_years	0.806872
## RegionRest of Europe:Thinness_ten_nineteen_years	0.801234
## RegionSouth America:Thinness_ten_nineteen_years	0.000126 ***
## RegionAsia:Thinness_five_nine_years	0.058085 .
## RegionCentral America and Caribbean:Thinness_five_nine_years	0.337685
## RegionEuropean Union:Thinness_five_nine_years	0.944818
## RegionMiddle East:Thinness_five_nine_years	0.534116
## RegionNorth America:Thinness_five_nine_years	0.759679
## RegionOceania:Thinness_five_nine_years	0.049876 *

## RegionRest of Europe:Thinness_five_nine_years	0.110457
## RegionSouth America:Thinness_five_nine_years	0.000385 ***
## RegionAsia:Schooling	1.54e-05 ***
## RegionCentral America and Caribbean:Schooling	7.39e-10 ***
## RegionEuropean Union:Schooling	1.02e-11 ***
## RegionMiddle East:Schooling	3.66e-05 ***
## RegionNorth America:Schooling	0.409584
## RegionOceania:Schooling	< 2e-16 ***
## RegionRest of Europe:Schooling	7.90e-10 ***
## RegionSouth America:Schooling	2.26e-10 ***
## RegionAsia:Economy_status_DevelopedYes	0.345667
## RegionCentral America and Caribbean:Economy_status_DevelopedYes	NA
## RegionEuropean Union:Economy_status_DevelopedYes	NA
## RegionMiddle East:Economy_status_DevelopedYes	0.484898
## RegionNorth America:Economy_status_DevelopedYes	0.512575
## RegionOceania:Economy_status_DevelopedYes	0.000946 ***
## RegionRest of Europe:Economy_status_DevelopedYes	NA
## RegionSouth America:Economy_status_DevelopedYes	NA
## YearY2001:BMI	0.666551
## YearY2002:BMI	0.501136
## YearY2003:BMI	0.587505
## YearY2004:BMI	0.739947
## YearY2005:BMI	0.727958
## YearY2006:BMI	0.722892
## YearY2007:BMI	0.783788
## YearY2008:BMI	0.469752
## YearY2009:BMI	0.202191
## YearY2010:BMI	0.176857
## YearY2011:BMI	0.083126 .
## YearY2012:BMI	0.170886
## YearY2013:BMI	0.060370 .
## YearY2014:BMI	0.013249 *
## YearY2015:BMI	0.015750 *
## YearY2001:Incidents_HIV	0.557225
## YearY2002:Incidents_HIV	0.668987
## YearY2003:Incidents_HIV	0.095160 .
## YearY2004:Incidents_HIV	0.003381 **
## YearY2005:Incidents_HIV	0.003806 **
## YearY2006:Incidents_HIV	0.000330 ***
## YearY2007:Incidents_HIV	0.002349 **
## YearY2008:Incidents_HIV	0.002708 **
## YearY2009:Incidents_HIV	0.002173 **
## YearY2010:Incidents_HIV	0.023187 *
## YearY2011:Incidents_HIV	0.081285 .
## YearY2012:Incidents_HIV	0.366944
## YearY2013:Incidents_HIV	0.546549
## YearY2014:Incidents_HIV	0.029568 *
## YearY2015:Incidents_HIV	0.019985 *
## YearY2001:Thinness_ten_nineteen_years	0.574153
## YearY2002:Thinness_ten_nineteen_years	0.119032
## YearY2003:Thinness_ten_nineteen_years	0.026684 *
## YearY2004:Thinness_ten_nineteen_years	0.018946 *
## YearY2005:Thinness_ten_nineteen_years	0.001541 **
## YearY2006:Thinness_ten_nineteen_years	0.000983 ***

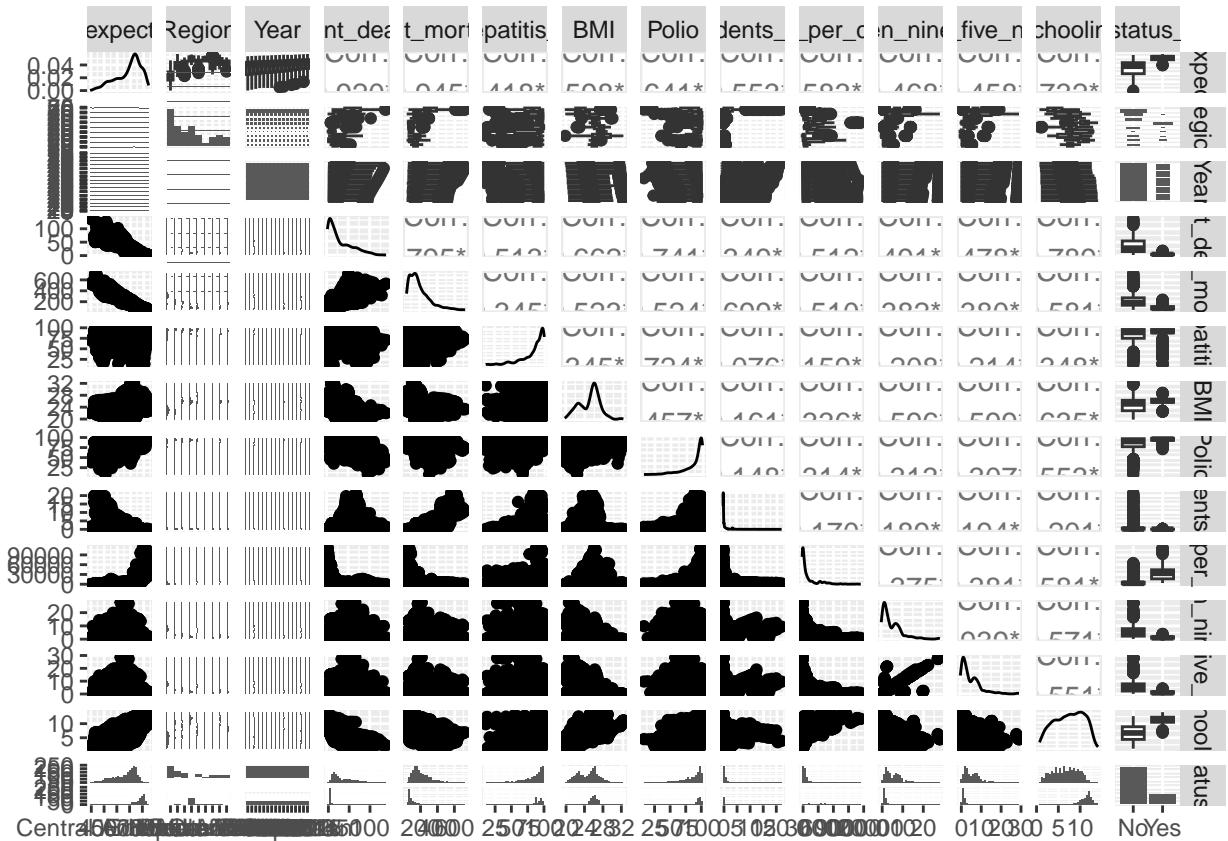
```

## YearY2007:Thinness_ten_nineteen_years          0.001223 **
## YearY2008:Thinness_ten_nineteen_years          0.002109 **
## YearY2009:Thinness_ten_nineteen_years          0.237483
## YearY2010:Thinness_ten_nineteen_years          0.047893 *
## YearY2011:Thinness_ten_nineteen_years          0.272850
## YearY2012:Thinness_ten_nineteen_years          1.19e-05 ***
## YearY2013:Thinness_ten_nineteen_years          1.60e-06 ***
## YearY2014:Thinness_ten_nineteen_years          0.000118 ***
## YearY2015:Thinness_ten_nineteen_years          0.014952 *
## YearY2001:Thinness_five_nine_years             0.848433
## YearY2002:Thinness_five_nine_years             0.118049
## YearY2003:Thinness_five_nine_years             0.027342 *
## YearY2004:Thinness_five_nine_years             0.021735 *
## YearY2005:Thinness_five_nine_years             0.000886 ***
## YearY2006:Thinness_five_nine_years             0.000772 ***
## YearY2007:Thinness_five_nine_years             0.000319 ***
## YearY2008:Thinness_five_nine_years             0.000482 ***
## YearY2009:Thinness_five_nine_years             0.055775 .
## YearY2010:Thinness_five_nine_years             0.011316 *
## YearY2011:Thinness_five_nine_years             0.098596 .
## YearY2012:Thinness_five_nine_years             5.37e-07 ***
## YearY2013:Thinness_five_nine_years             1.56e-08 ***
## YearY2014:Thinness_five_nine_years             2.81e-06 ***
## YearY2015:Thinness_five_nine_years             0.001691 **
## Infant_deaths:Adult_mortality                < 2e-16 ***
## Infant_deaths:Hepatitis_B                    1.52e-09 ***
## Infant_deaths:BMI                           < 2e-16 ***
## Infant_deaths:GDP_per_capita               1.16e-05 ***
## Adult_mortality:Hepatitis_B                7.90e-10 ***
## Adult_mortality:BMI                         < 2e-16 ***
## Adult_mortality:Polio                      0.015149 *
## Adult_mortality:Incidents_HIV              1.64e-10 ***
## Adult_mortality:GDP_per_capita            7.54e-15 ***
## Adult_mortality:Schooling                 9.99e-05 ***
## Hepatitis_B:Incidents_HIV                  9.41e-05 ***
## Hepatitis_B:Thinness_five_nine_years        9.47e-06 ***
## BMI:Thinness_ten_nineteen_years            3.25e-05 ***
## BMI:Thinness_five_nine_years                4.10e-07 ***
## BMI:Schooling                            6.98e-14 ***
## Polio:Incidents_HIV                       1.09e-05 ***
## Incidents_HIV:GDP_per_capita              < 2e-16 ***
## Incidents_HIV:Thinness_ten_nineteen_years  0.023456 *
## Incidents_HIV:Thinness_five_nine_years      0.001945 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.8377 on 2546 degrees of freedom
## Multiple R-squared:  0.9929, Adjusted R-squared:  0.9921
## F-statistic:  1131 on 317 and 2546 DF,  p-value: < 2.2e-16

## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.

```





```

## 
## Call:
## lm(formula = Life_expectancy ~ Region + Year + Infant_deaths +
##     Adult_mortality + I(Adult_mortality^2) + Hepatitis_B + BMI +
##     Polio + Incidents_HIV + GDP_per_capita + Thinnness_ten_nineteen_years +
##     Thinnness_five_nine_years + Schooling + Economy_status_Developed,
##     data = data)
## 
## Residuals:
##      Min        1Q       Median        3Q       Max
## -3.7705 -0.7745   0.0120   0.7747   3.5210
## 
## Coefficients:
##                               Estimate Std. Error t value Pr(>|t|)
## (Intercept)                8.355e+01  5.639e-01 148.165 < 2e-16 ***
## RegionAsia                 5.733e-01  9.466e-02   6.057 1.57e-09 ***
## RegionCentral America and Caribbean 2.166e+00  1.021e-01  21.208 < 2e-16 ***
## RegionEuropean Union        -4.839e-01  1.525e-01  -3.173 0.001527 **
## RegionMiddle East            6.672e-02  1.216e-01   0.549 0.583208
## RegionNorth America          7.467e-01  2.087e-01   3.578 0.000352 ***
## RegionOceania                -4.868e-01  1.253e-01  -3.886 0.000104 ***
## RegionRest of Europe         3.325e-01  1.211e-01   2.745 0.006097 **
## RegionSouth America           1.912e+00  1.162e-01  16.451 < 2e-16 ***
## YearY2001                    4.584e-02  1.243e-01   0.369 0.712282
## YearY2002                    2.901e-02  1.244e-01   0.233 0.815660
## YearY2003                    -3.960e-02  1.245e-01  -0.318 0.750410
## YearY2004                    -2.657e-03  1.246e-01  -0.021 0.982988

```

```

## YearY2005          -4.092e-02  1.248e-01 -0.328  0.742933
## YearY2006          -1.068e-02  1.250e-01 -0.085  0.931909
## YearY2007          2.531e-02  1.251e-01  0.202  0.839690
## YearY2008          8.721e-02  1.253e-01  0.696  0.486306
## YearY2009          1.506e-01  1.255e-01  1.201  0.229996
## YearY2010          2.271e-01  1.256e-01  1.808  0.070647 .
## YearY2011          2.769e-01  1.258e-01  2.200  0.027892 *
## YearY2012          2.968e-01  1.261e-01  2.354  0.018644 *
## YearY2013          4.066e-01  1.264e-01  3.217  0.001310 **
## YearY2014          4.951e-01  1.267e-01  3.908  9.52e-05 ***
## YearY2015          5.126e-01  1.269e-01  4.039  5.52e-05 ***
## Infant_deaths      -1.226e-01  2.341e-03 -52.359 < 2e-16 ***
## Adult_mortality    -6.360e-02  1.038e-03 -61.259 < 2e-16 ***
## I(Adult_mortality^2) 3.003e-05  1.688e-06  17.794 < 2e-16 ***
## Hepatitis_B         -9.904e-03  2.075e-03 -4.772  1.91e-06 ***
## BMI                -9.205e-02  1.954e-02 -4.710  2.59e-06 ***
## Polio               1.037e-02  2.814e-03  3.686  0.000232 ***
## Incidents_HIV       -6.997e-02  1.858e-02 -3.766  0.000169 ***
## GDP_per_capita      6.627e-06  2.157e-06  3.072  0.002144 **
## Thinness_ten_nineteen_years -4.062e-02  1.475e-02 -2.755  0.005914 **
## Thinness_five_nine_years   4.851e-02  1.463e-02  3.315  0.000927 ***
## Schooling            1.281e-01  1.560e-02  8.211  3.29e-16 ***
## Economy_status_DevelopedYes 2.026e+00  1.445e-01  14.027 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.175 on 2828 degrees of freedom
## Multiple R-squared:  0.9846, Adjusted R-squared:  0.9844
## F-statistic:  5157 on 35 and 2828 DF, p-value: < 2.2e-16

##
## Call:
## lm(formula = Life_expectancy ~ Region + Year + Infant_deaths +
##     I(Infant_deaths^2) + Adult_mortality + Hepatitis_B + BMI +
##     Polio + Incidents_HIV + GDP_per_capita + Thinness_ten_nineteen_years +
##     Thinness_five_nine_years + Schooling + Economy_status_Developed,
##     data = data)
##
## Residuals:
##      Min        1Q        Median       3Q        Max
## -4.1942 -0.8240  0.0166  0.8391  3.8965
##
## Coefficients:
##                               Estimate Std. Error t value Pr(>|t|) 
## (Intercept)             8.304e+01  5.799e-01 143.183 < 2e-16 ***
## RegionAsia              7.939e-01  9.713e-02   8.173 4.48e-16 ***
## RegionCentral America and Caribbean 2.140e+00  1.052e-01  20.345 < 2e-16 ***
## RegionEuropean Union     -6.528e-01  1.579e-01  -4.135 3.65e-05 ***
## RegionMiddle East        3.761e-01  1.233e-01   3.050 0.002307 ** 
## RegionNorth America      7.709e-01  2.148e-01   3.588 0.000338 *** 
## RegionOceania             -3.288e-01  1.294e-01  -2.541 0.011098 *  
## RegionRest of Europe      2.762e-01  1.254e-01   2.202 0.027711 *  
## RegionSouth America       1.963e+00  1.196e-01  16.415 < 2e-16 ***
## YearY2001                 9.222e-02  1.279e-01   0.721 0.471085

```

```

## YearY2002          1.164e-01 1.281e-01 0.909 0.363637
## YearY2003          5.180e-02 1.281e-01 0.404 0.686071
## YearY2004          9.565e-02 1.283e-01 0.746 0.456015
## YearY2005          5.296e-02 1.285e-01 0.412 0.680228
## YearY2006          8.639e-02 1.287e-01 0.671 0.502206
## YearY2007          1.221e-01 1.289e-01 0.947 0.343793
## YearY2008          1.781e-01 1.291e-01 1.380 0.167648
## YearY2009          2.420e-01 1.293e-01 1.872 0.061335 .
## YearY2010          3.124e-01 1.294e-01 2.414 0.015832 *
## YearY2011          3.701e-01 1.297e-01 2.854 0.004349 **
## YearY2012          3.970e-01 1.299e-01 3.055 0.002273 **
## YearY2013          5.167e-01 1.303e-01 3.967 7.47e-05 ***
## YearY2014          6.156e-01 1.305e-01 4.717 2.52e-06 ***
## YearY2015          6.363e-01 1.307e-01 4.867 1.20e-06 ***
## Infant_deaths      -1.746e-01 4.787e-03 -36.483 < 2e-16 ***
## I(Infant_deaths^2) 4.292e-04 3.631e-05 11.819 < 2e-16 ***
## Adult_mortality    -4.696e-02 5.486e-04 -85.599 < 2e-16 ***
## Hepatitis_B         -1.408e-02 2.149e-03 -6.553 6.68e-11 ***
## BMI                -1.089e-01 2.012e-02 -5.410 6.81e-08 ***
## Polio               1.590e-02 2.925e-03 5.438 5.84e-08 ***
## Incidents_HIV      1.038e-01 1.654e-02 6.275 4.03e-10 ***
## GDP_per_capita     1.118e-05 2.192e-06 5.101 3.60e-07 ***
## Thinnness_ten_nineteen_years -3.937e-02 1.518e-02 -2.593 0.009553 **
## Thinnness_five_nine_years   4.015e-02 1.505e-02 2.668 0.007683 **
## Schooling           8.133e-02 1.636e-02 4.972 7.01e-07 ***
## Economy_status_DevelopedYes 2.174e+00 1.482e-01 14.666 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.21 on 2828 degrees of freedom
## Multiple R-squared:  0.9837, Adjusted R-squared:  0.9835
## F-statistic:  4863 on 35 and 2828 DF,  p-value: < 2.2e-16

##          rsquare AdjustedR       cp        AIC        BIC
## [1,] 0.8937062 0.8936691 14671.03495 14551.086 -6403.875
## [2,] 0.9710178 0.9709976 1922.03201 10831.245 -10117.756
## [3,] 0.9751387 0.9751126 1244.38250 10287.362 -10549.039
## [4,] 0.9772792 0.9772474  893.33732  9619.966 -10798.939
## [5,] 0.9787456 0.9787084  653.49103  9530.695 -10982.050
## [6,] 0.9797976 0.9797552  481.97571  9500.560 -11119.482
## [7,] 0.9807825 0.9807354  321.54992  9464.634 -11254.652
## [8,] 0.9812176 0.9811650  251.77972  9443.244 -11312.289
## [9,] 0.9816077 0.9815497  189.44460  9418.419 -11364.436
## [10,] 0.9819913 0.9819281  128.18101  9406.586 -11416.837
## [11,] 0.9821105 0.9820415  110.50941  9394.528 -11427.909
## [12,] 0.9822325 0.9821577  92.39530  9394.943 -11439.540
## [13,] 0.9823265 0.9822459   78.88395  9393.009 -11446.780

valid_model = first_order_model

```

### Residual Analysis:

Residual analysis is a critical step in validating and assessing the quality of a regression model. Residuals, which represent the differences between the observed data points and the corresponding values predicted by

the model, provide insights into whether the foundational assumptions of regression analysis are being met. Properly addressing these assumptions is essential to ensure that the model delivers accurate and reliable results.

Key assumptions in regression analysis are given below:

- 1) Linearity Assumption
- 2) Independence Assumption
- 3) Equal Variance Assumption
- 4) Normality Assumption
- 5) Outliers

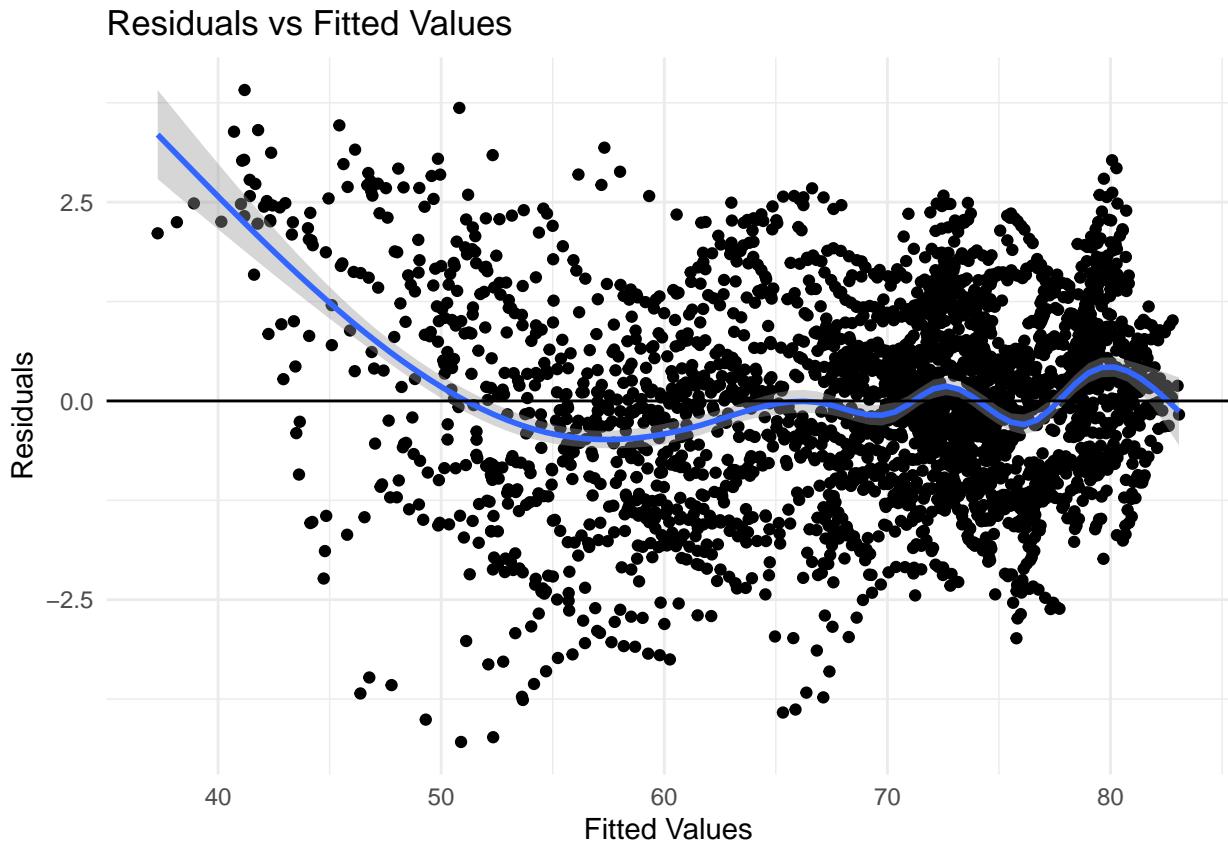
Violations of these assumptions can compromise the model's reliability. Residual analysis involves using visualizations like residual plots and statistical tests to detect issues.

In analyzing life expectancy, residual analysis is crucial due to the intricate relationships between health, economic, and social factors. Ensuring that regression assumptions are satisfied strengthens the model's credibility and enhances the reliability of its predictions. This process provides valuable insights into the key drivers influencing life expectancy, enabling more informed decision-making and targeted interventions.

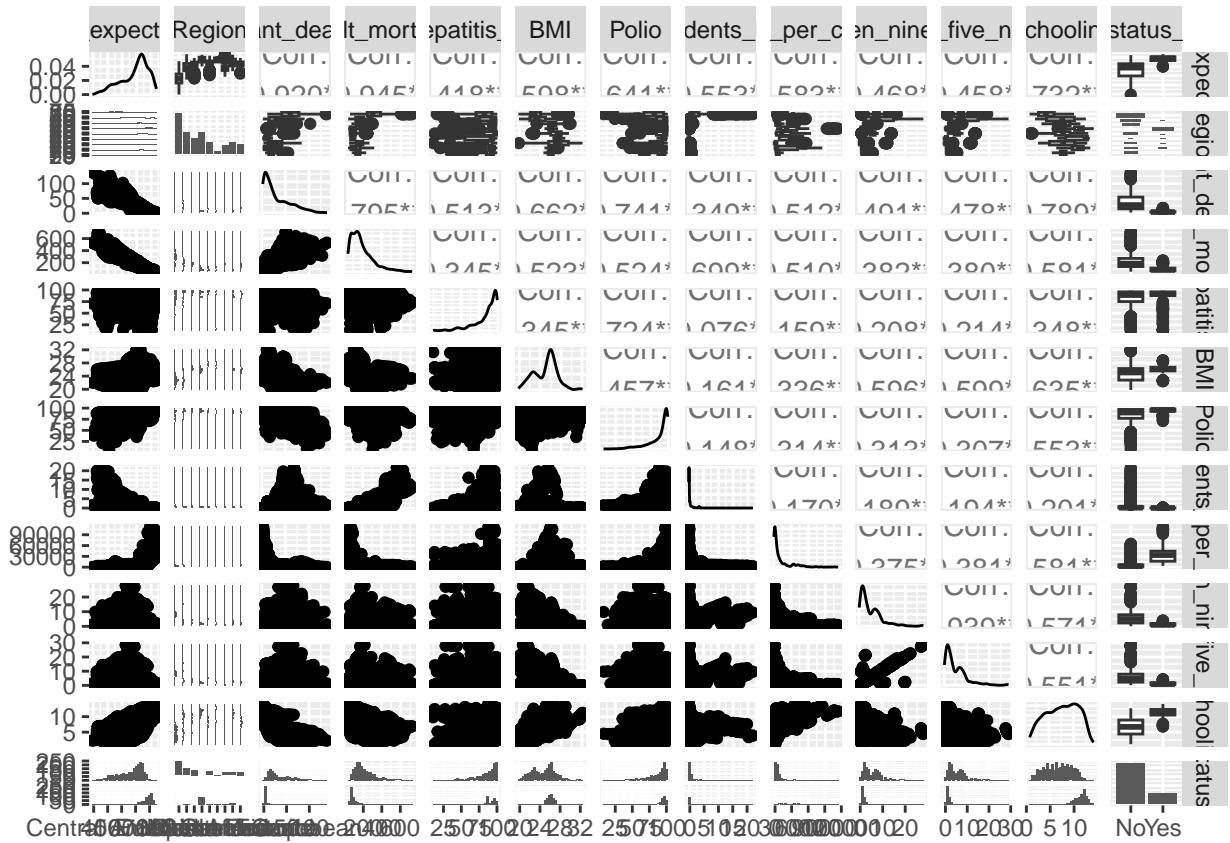
**1) Linearity Assumption:** In regression analysis, the linearity assumption requires that the dependent variable maintains a straight-line relationship with the independent variables. In other words, the predicted values of the dependent variable should change proportionally with the predictors. If the relationship is non-linear, this assumption is violated, potentially resulting in biased estimates and less reliable predictions.

To assess whether this assumption holds, residual plots are frequently utilized. These plots compare the residuals against fitted values or independent variables. When residuals are randomly dispersed around zero without discernible patterns, it suggests the linearity assumption is met. On the other hand, noticeable patterns—such as curves or trends—signal a non-linear relationship that may require adjustments to the model.

```
## `geom_smooth()` using method = 'gam' and formula = 'y ~ s(x, bs = "cs")'
```



Based on this we can say that there is some non linear pattern indicate ath relationship between life expectancy and independent variables are not linear, lets add some higher order term.



Based on this We can say that Adult mortality has higher correlation so that we start with it.

```
##
## Call:
## lm(formula = Life_expectancy ~ Region + Year + Infant_deaths +
##     Adult_mortality + I(Adult_mortality^2) + Hepatitis_B + BMI +
##     Polio + Incidents_HIV + GDP_per_capita + Thinnness_ten_nineteen_years +
##     Thinnness_five_nine_years + Schooling + Economy_status_Developed,
##     data = data)
##
## Residuals:
##      Min        1Q       Median        3Q       Max 
## -3.7705 -0.7745   0.0120   0.7747   3.5210 
##
## Coefficients:
##                                         Estimate Std. Error t value Pr(>|t|)    
## (Intercept)                         8.355e+01  5.639e-01 148.165 < 2e-16 ***
## RegionAsia                          5.733e-01  9.466e-02   6.057 1.57e-09 ***
## RegionCentral America and Caribbean 2.166e+00  1.021e-01  21.208 < 2e-16 ***
## RegionEuropean Union                 -4.839e-01  1.525e-01  -3.173 0.001527 ** 
## RegionMiddle East                   6.672e-02  1.216e-01   0.549 0.583208  
## RegionNorth America                  7.467e-01  2.087e-01   3.578 0.000352 *** 
## RegionOceania                        -4.868e-01  1.253e-01  -3.886 0.000104 *** 
## RegionRest of Europe                3.325e-01  1.211e-01   2.745 0.006097 ** 
## RegionSouth America                  1.912e+00  1.162e-01  16.451 < 2e-16 ***
## YearY2001                            4.584e-02  1.243e-01   0.369 0.712282  
## YearY2002                            2.901e-02  1.244e-01   0.233 0.815660 
```

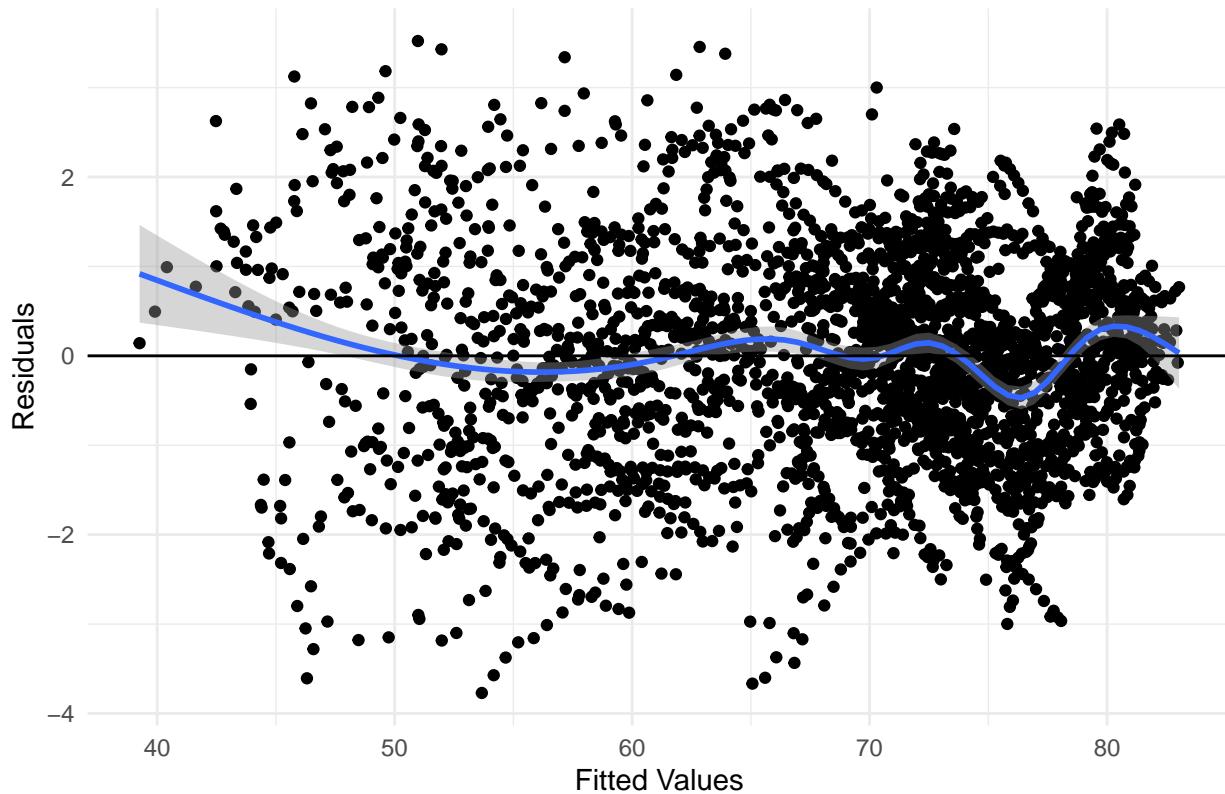
```

## YearY2003          -3.960e-02  1.245e-01 -0.318  0.750410
## YearY2004          -2.657e-03  1.246e-01 -0.021  0.982988
## YearY2005          -4.092e-02  1.248e-01 -0.328  0.742933
## YearY2006          -1.068e-02  1.250e-01 -0.085  0.931909
## YearY2007          2.531e-02  1.251e-01  0.202  0.839690
## YearY2008          8.721e-02  1.253e-01  0.696  0.486306
## YearY2009          1.506e-01  1.255e-01  1.201  0.229996
## YearY2010          2.271e-01  1.256e-01  1.808  0.070647 .
## YearY2011          2.769e-01  1.258e-01  2.200  0.027892 *
## YearY2012          2.968e-01  1.261e-01  2.354  0.018644 *
## YearY2013          4.066e-01  1.264e-01  3.217  0.001310 **
## YearY2014          4.951e-01  1.267e-01  3.908  9.52e-05 ***
## YearY2015          5.126e-01  1.269e-01  4.039  5.52e-05 ***
## Infant_deaths      -1.226e-01  2.341e-03 -52.359 < 2e-16 ***
## Adult_mortality    -6.360e-02  1.038e-03 -61.259 < 2e-16 ***
## I(Adult_mortality^2) 3.003e-05  1.688e-06 17.794 < 2e-16 ***
## Hepatitis_B         -9.904e-03  2.075e-03 -4.772  1.91e-06 ***
## BMI                 -9.205e-02  1.954e-02 -4.710  2.59e-06 ***
## Polio               1.037e-02  2.814e-03  3.686  0.000232 ***
## Incidents_HIV       -6.997e-02  1.858e-02 -3.766  0.000169 ***
## GDP_per_capita      6.627e-06  2.157e-06  3.072  0.002144 **
## Thinness_ten_nineteen_years -4.062e-02  1.475e-02 -2.755  0.005914 **
## Thinness_five_nine_years 4.851e-02  1.463e-02  3.315  0.000927 ***
## Schooling           1.281e-01  1.560e-02  8.211  3.29e-16 ***
## Economy_status_DevelopedYes 2.026e+00  1.445e-01 14.027 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.175 on 2828 degrees of freedom
## Multiple R-squared:  0.9846, Adjusted R-squared:  0.9844
## F-statistic:  5157 on 35 and 2828 DF,  p-value: < 2.2e-16

## `geom_smooth()` using method = 'gam' and formula = 'y ~ s(x, bs = "cs")'

```

## Residuals vs Fitted Values



Based on the graph, we can observe that it is becoming more aligned with the zero line. Let us increase the order and check if the graph aligns even more closely with zero.

```
##
## Call:
## lm(formula = Life_expectancy ~ Region + Year + Infant_deaths +
##     Adult_mortality + I(Adult_mortality^2) + I(Adult_mortality^3) +
##     Hepatitis_B + BMI + Polio + Incidents_HIV + GDP_per_capita +
##     Thinness_ten_nineteen_years + Thinness_five_nine_years +
##     Schooling + Economy_status_Developed, data = data)
##
## Residuals:
##      Min       1Q   Median       3Q      Max 
## -3.6687 -0.7780  0.0273  0.7510  3.6050 
##
## Coefficients:
##                               Estimate Std. Error t value Pr(>|t|)    
## (Intercept)                 8.425e+01  5.673e-01 148.513 < 2e-16 ***
## RegionAsia                  7.100e-01  9.570e-02   7.419 1.56e-13 ***
## RegionCentral America and Caribbean 2.305e+00  1.030e-01  22.374 < 2e-16 ***
## RegionEuropean Union          -3.451e-01  1.524e-01  -2.265 0.023609 *  
## RegionMiddle East              7.326e-02  1.205e-01   0.608 0.543260  
## RegionNorth America             9.081e-01  2.081e-01   4.365 1.32e-05 ***
## RegionOceania                 -3.551e-01  1.255e-01  -2.830 0.004693 ** 
## RegionRest of Europe            4.120e-01  1.206e-01   3.417 0.000642 *** 
## RegionSouth America              2.054e+00  1.169e-01  17.575 < 2e-16 ***
## YearY2001                      4.421e-02  1.232e-01   0.359 0.719696
```

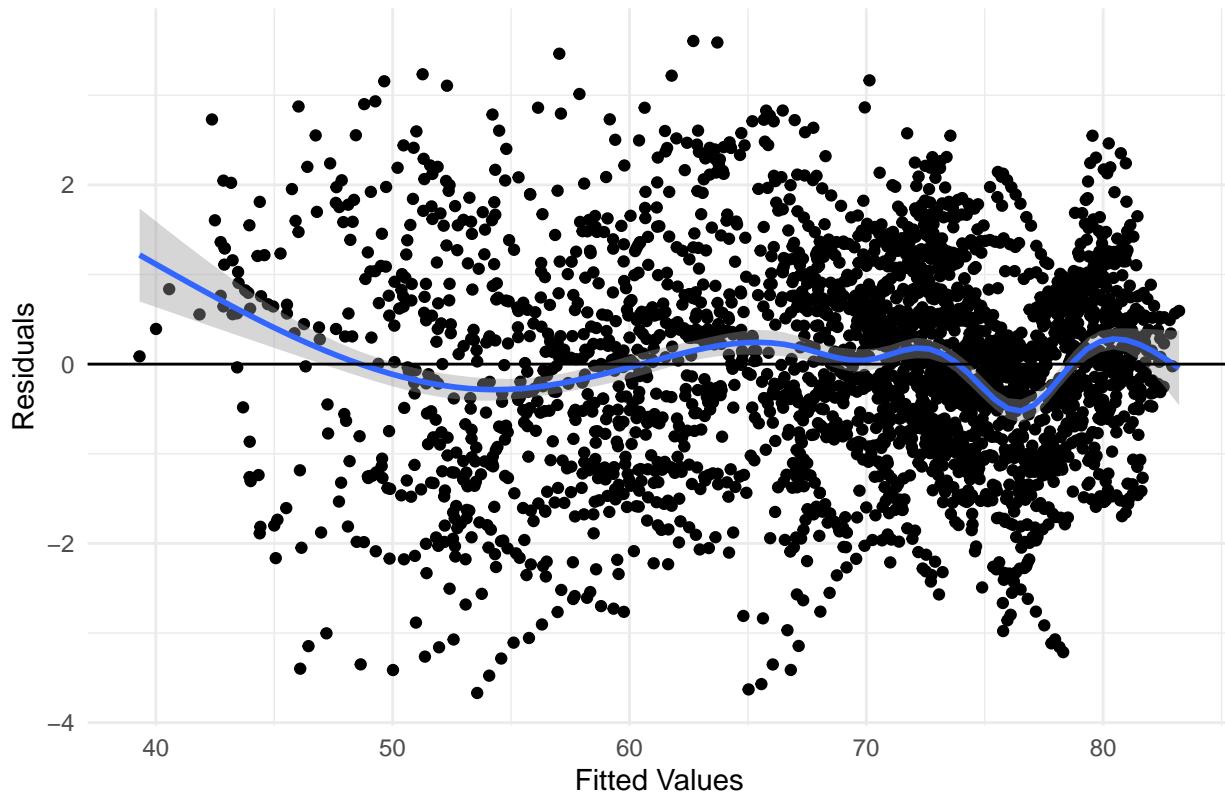
```

## YearY2002          2.812e-02  1.233e-01  0.228  0.819676
## YearY2003          -5.071e-02 1.234e-01 -0.411  0.681074
## YearY2004          -2.129e-02 1.235e-01 -0.172  0.863164
## YearY2005          -6.776e-02 1.237e-01 -0.548  0.583936
## YearY2006          -4.046e-02 1.239e-01 -0.326  0.744079
## YearY2007          -6.840e-03 1.241e-01 -0.055  0.956048
## YearY2008          4.885e-02 1.243e-01  0.393  0.694208
## YearY2009          1.078e-01 1.245e-01  0.866  0.386687
## YearY2010          1.828e-01 1.246e-01  1.467  0.142587
## YearY2011          2.314e-01 1.249e-01  1.853  0.063944 .
## YearY2012          2.511e-01 1.251e-01  2.006  0.044909 *
## YearY2013          3.596e-01 1.254e-01  2.866  0.004183 **
## YearY2014          4.460e-01 1.257e-01  3.547  0.000396 ***
## YearY2015          4.634e-01 1.260e-01  3.679  0.000238 ***
## Infant_deaths      -1.254e-01 2.354e-03 -53.292 < 2e-16 ***
## Adult_mortality    -7.814e-02 2.261e-03 -34.562 < 2e-16 ***
## I(Adult_mortality^2) 8.707e-05 8.070e-06 10.789 < 2e-16 ***
## I(Adult_mortality^3) -5.948e-08 8.233e-09 -7.225 6.44e-13 ***
## Hepatitis_B         -1.004e-02 2.057e-03 -4.881 1.11e-06 ***
## BMI                 -7.807e-02 1.946e-02 -4.011 6.21e-05 ***
## Polio               1.087e-02 2.789e-03  3.896 0.000100 ***
## Incidents_HIV       -7.810e-02 1.845e-02 -4.234 2.37e-05 ***
## GDP_per_capita      2.121e-06 2.227e-06  0.952 0.341030
## Thinness_ten_nineteen_years -4.047e-02 1.461e-02 -2.769 0.005654 **
## Thinness_five_nine_years   5.221e-02 1.451e-02  3.598 0.000326 ***
## Schooling            1.205e-01 1.549e-02  7.777 1.03e-14 ***
## Economy_status_DevelopedYes 1.929e+00 1.438e-01 13.418 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.165 on 2827 degrees of freedom
## Multiple R-squared:  0.9849, Adjusted R-squared:  0.9847
## F-statistic:  5106 on 36 and 2827 DF,  p-value: < 2.2e-16

## `geom_smooth()` using method = 'gam' and formula = 'y ~ s(x, bs = "cs")'

```

## Residuals vs Fitted Values



Based on graph, we can not reduce the non linearity of curve so we can say that there is no further reduction is possible with Adult\_mortality term, lets check with other highly correlated term i.e. Infant\_deaths.

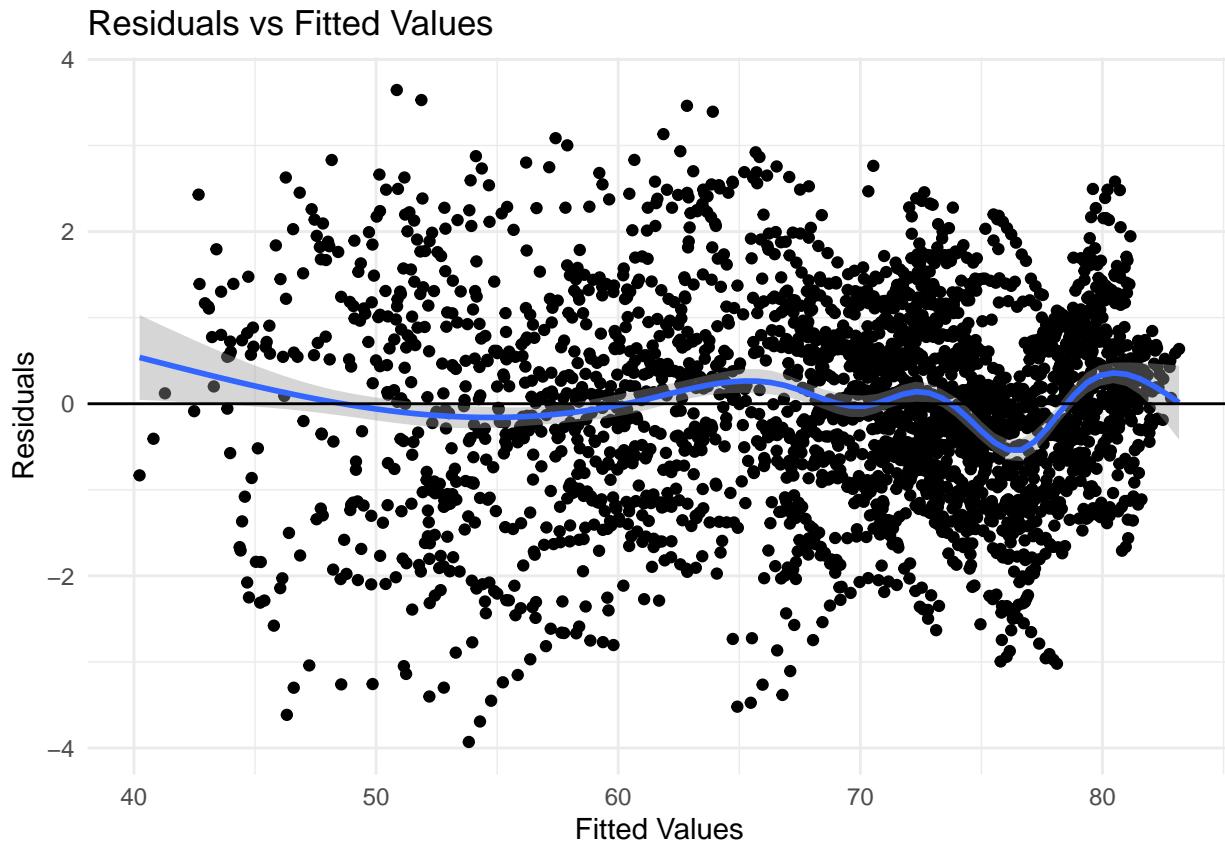
```
##
## Call:
## lm(formula = Life_expectancy ~ Region + Year + Infant_deaths +
##     I(Infant_deaths^2) + Adult_mortality + I(Adult_mortality^2) +
##     Hepatitis_B + BMI + Polio + Incidents_HIV + GDP_per_capita +
##     Thinness_ten_nineteen_years + Thinness_five_nine_years +
##     Schooling + Economy_status_Developed, data = data)
##
## Residuals:
##      Min        1Q     Median        3Q       Max
## -3.9296 -0.7610  0.0282  0.7741  3.6453
##
## Coefficients:
##                               Estimate Std. Error t value Pr(>|t|)    
## (Intercept)                 8.382e+01  5.633e-01 148.795 < 2e-16 ***
## RegionAsia                  6.240e-01  9.466e-02   6.592 5.16e-11 ***
## RegionCentral America and Caribbean 2.149e+00  1.017e-01  21.141 < 2e-16 ***
## RegionEuropean Union          -5.754e-01  1.527e-01  -3.768 0.000168 ***
## RegionMiddle East              8.088e-02  1.210e-01   0.668 0.503978  
## RegionNorth America            7.422e-01  2.077e-01   3.574 0.000358 ***
## RegionOceania                 -4.221e-01  1.252e-01  -3.371 0.000760 ***
## RegionRest of Europe           2.639e-01  1.212e-01   2.177 0.029541 *  
## RegionSouth America             1.916e+00  1.157e-01  16.564 < 2e-16 ***
## YearY2001                      5.765e-02  1.237e-01   0.466 0.641187
```

```

## YearY2002          4.948e-02  1.239e-01  0.399  0.689608
## YearY2003          -1.391e-02 1.239e-01 -0.112  0.910651
## YearY2004          2.927e-02  1.241e-01  0.236  0.813566
## YearY2005          -9.456e-03 1.243e-01 -0.076  0.939359
## YearY2006          2.451e-02  1.245e-01  0.197  0.843941
## YearY2007          6.218e-02  1.247e-01  0.499  0.618090
## YearY2008          1.234e-01  1.248e-01  0.988  0.323083
## YearY2009          1.876e-01  1.250e-01  1.501  0.133522
## YearY2010          2.618e-01  1.251e-01  2.092  0.036536 *
## YearY2011          3.152e-01  1.254e-01  2.513  0.012027 *
## YearY2012          3.362e-01  1.257e-01  2.675  0.007522 **
## YearY2013          4.477e-01  1.260e-01  3.553  0.000387 ***
## YearY2014          5.371e-01  1.263e-01  4.253  2.18e-05 ***
## YearY2015          5.540e-01  1.265e-01  4.379  1.23e-05 ***
## Infant_deaths      -1.467e-01 5.033e-03 -29.146 < 2e-16 ***
## I(Infant_deaths^2) 2.078e-04  3.844e-05  5.406  7.00e-08 ***
## Adult_mortality    -6.109e-02 1.132e-03 -53.958 < 2e-16 ***
## I(Adult_mortality^2) 2.598e-05 1.839e-06  14.125 < 2e-16 ***
## Hepatitis_B         -1.147e-02 2.085e-03 -5.502  4.09e-08 ***
## BMI                -9.727e-02 1.947e-02 -4.996  6.21e-07 ***
## Polio               1.280e-02  2.836e-03  4.514  6.61e-06 ***
## Incidents_HIV       -4.397e-02 1.910e-02 -2.302  0.021406 *
## GDP_per_capita      5.471e-06  2.157e-06  2.537  0.011247 *
## Thinness_ten_nineteen_years -4.153e-02 1.467e-02 -2.830  0.004688 **
## Thinness_five_nine_years 5.080e-02  1.457e-02  3.488  0.000495 ***
## Schooling           1.087e-01 1.593e-02  6.822  1.09e-11 ***
## Economy_status_DevelopedYes 2.004e+00 1.438e-01  13.940 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.17 on 2827 degrees of freedom
## Multiple R-squared:  0.9847, Adjusted R-squared:  0.9845
## F-statistic:  5065 on 36 and 2827 DF,  p-value: < 2.2e-16

## `geom_smooth()` using method = 'gam' and formula = 'y ~ s(x, bs = "cs")'

```



Based on the graph, there appears to be a subtle pattern in the residuals, though it is less pronounced. Lets check for cubic model.

```
##
## Call:
## lm(formula = Life_expectancy ~ Region + Year + Infant_deaths +
##     I(Infant_deaths^2) + I(Infant_deaths^3) + Adult_mortality +
##     I(Adult_mortality^2) + Hepatitis_B + BMI + Polio + Incidents_HIV +
##     GDP_per_capita + Thinness_ten_nineteen_years + Thinness_five_nine_years +
##     Schooling + Economy_status_Developed, data = data)
##
## Residuals:
##      Min       1Q   Median       3Q      Max 
## -3.8769 -0.7892  0.0352  0.7684  3.5875 
##
## Coefficients:
##                               Estimate Std. Error t value Pr(>|t|)    
## (Intercept)                 8.385e+01  5.621e-01 149.156 < 2e-16 ***
## RegionAsia                  5.985e-01  9.471e-02   6.319 3.05e-10 ***
## RegionCentral America and Caribbean 2.134e+00  1.015e-01   21.016 < 2e-16 ***
## RegionEuropean Union          -5.379e-01  1.527e-01  -3.522 0.000435 ***
## RegionMiddle East              7.193e-02  1.208e-01   0.596 0.551511  
## RegionNorth America            7.183e-01  2.073e-01   3.465 0.000539 ***
## RegionOceania                 -4.468e-01  1.251e-01  -3.571 0.000362 ***
## RegionRest of Europe           3.035e-01  1.214e-01   2.500 0.012492 *  
## RegionSouth America             1.885e+00  1.157e-01  16.289 < 2e-16 ***
## YearY2001                      6.593e-02  1.234e-01   0.534 0.593295
```

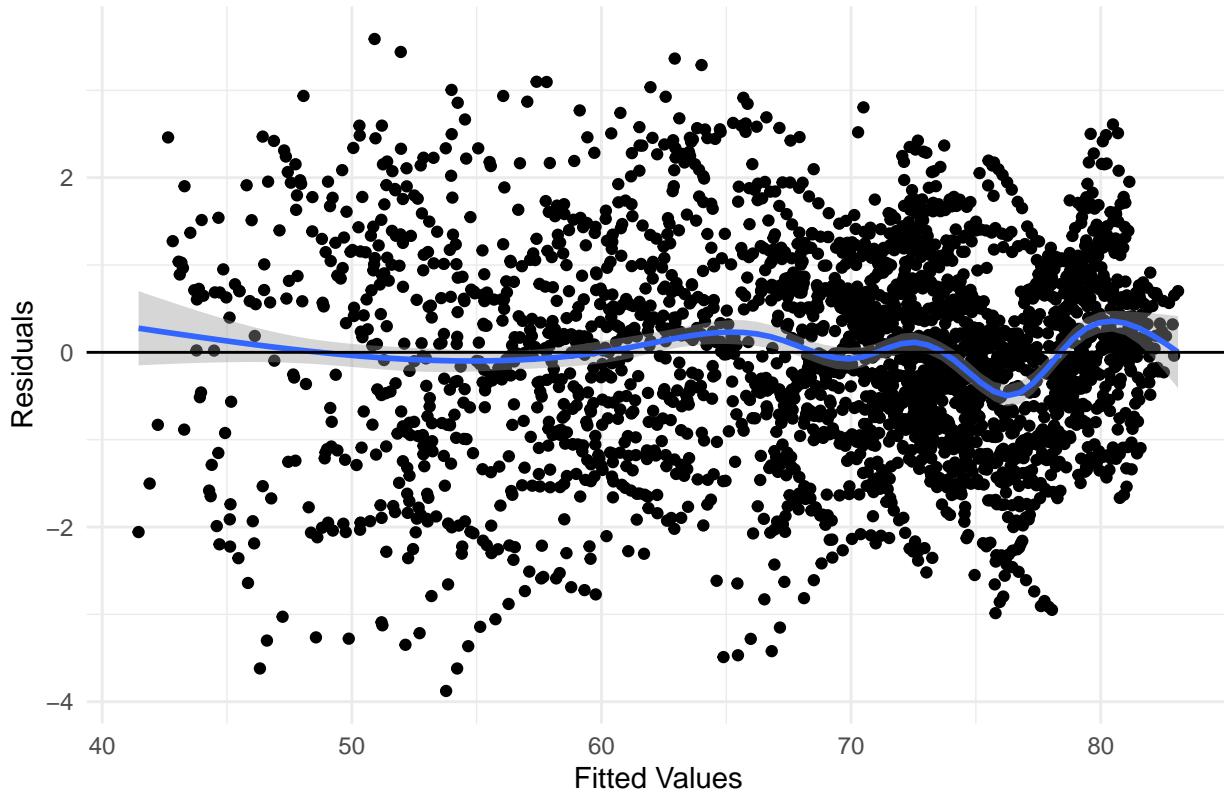
```

## YearY2002          6.393e-02  1.237e-01  0.517  0.605236
## YearY2003          4.886e-03  1.238e-01  0.039  0.968516
## YearY2004          5.015e-02  1.240e-01  0.405  0.685874
## YearY2005          1.471e-02  1.242e-01  0.118  0.905737
## YearY2006          4.960e-02  1.244e-01  0.399  0.690223
## YearY2007          8.880e-02  1.246e-01  0.712  0.476236
## YearY2008          1.522e-01  1.248e-01  1.220  0.222596
## YearY2009          2.178e-01  1.250e-01  1.742  0.081598 .
## YearY2010          2.926e-01  1.252e-01  2.338  0.019475 *
## YearY2011          3.463e-01  1.254e-01  2.761  0.005802 **
## YearY2012          3.679e-01  1.257e-01  2.926  0.003456 **
## YearY2013          4.794e-01  1.260e-01  3.804  0.000145 ***
## YearY2014          5.691e-01  1.263e-01  4.505  6.91e-06 ***
## YearY2015          5.864e-01  1.265e-01  4.634  3.76e-06 ***
## Infant_deaths      -1.189e-01  9.090e-03 -13.086 < 2e-16 ***
## I(Infant_deaths^2) -3.900e-04  1.678e-04 -2.325  0.020146 *
## I(Infant_deaths^3)  3.453e-06  9.433e-07  3.661  0.000256 ***
## Adult_mortality    -6.159e-02  1.138e-03 -54.128 < 2e-16 ***
## I(Adult_mortality^2) 2.649e-05  1.840e-06  14.393 < 2e-16 ***
## Hepatitis_B         -1.159e-02  2.081e-03 -5.569  2.81e-08 ***
## BMI                 -1.046e-01  1.953e-02 -5.357  9.16e-08 ***
## Polio               1.180e-02  2.843e-03  4.152  3.39e-05 ***
## Incidents_HIV       -3.977e-02  1.909e-02 -2.083  0.037360 *
## GDP_per_capita      7.030e-06  2.194e-06  3.204  0.001370 **
## Thinness_ten_nineteen_years -4.017e-02  1.465e-02 -2.743  0.006133 **
## Thinness_five_nine_years   4.967e-02  1.454e-02  3.417  0.000643 ***
## Schooling            1.097e-01  1.590e-02  6.904  6.24e-12 ***
## Economy_status_DevelopedYes 2.084e+00  1.451e-01  14.360 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.167 on 2826 degrees of freedom
## Multiple R-squared:  0.9848, Adjusted R-squared:  0.9846
## F-statistic:  4950 on 37 and 2826 DF,  p-value: < 2.2e-16

## `geom_smooth()` using method = 'gam' and formula = 'y ~ s(x, bs = "cs")'

```

## Residuals vs Fitted Values



The residuals appear to be randomly scattered, showing no discernible pattern, which suggests that the linearity assumption is satisfied. The  $R^2_{adj}$  value of 0.9846 indicates that 98.46% of the variation in life expectancy is explained by this model. Additionally, the Root Mean Squared Error (RMSE) of 1.167 reflects the average deviation of the predicted values from the observed values, demonstrating the model's high accuracy in predicting life expectancy.

### 2) Independence Assumption:

The Independence Assumption in regression analysis states that the residuals (errors) in the model should be independent of each other. This means that the error associated with one observation should not provide any information about the error associated with another observation. This typically occurs when the data for both dependent and independent variables are observed sequentially over a period of time-called time-series data. Since our data does not relate to time, space, or group so we can be pretty sure that their measurements are independent.

### 3) Equal Variance Assumption:

The Equal Variance Assumption, also known as Homoscedasticity, is a fundamental assumption in regression analysis. It states that the variance of the residuals (errors) should be constant across all levels of the independent variables. This is crucial for the validity of statistical tests and confidence intervals, as violations can lead to biased estimates of regression coefficients, incorrect standard errors, and unreliable hypothesis tests.

We will check this using Breusch-Pagan Test,

Null Hypothesis  $H_0$ : There is no heteroscedasticity is present, i.e.  $\sigma_1^2 = \sigma_2^2 = \dots = \sigma_n^2$

Alternative Hypothesis  $H_1$ : heteroscedasticity is present, atleast one  $\sigma_i^2$  is different from others  $i=1,2,\dots,n$ .

```
## Loading required package: zoo
```

```

## 
## Attaching package: 'zoo'

## The following objects are masked from 'package:base':
## 
##     as.Date, as.Date.numeric

## 
## studentized Breusch-Pagan test
## 
## data: valid_model
## BP = 530.63, df = 37, p-value < 2.2e-16

```

A significant result,  $p\text{-value} < 2.2\text{e-}16$  which is less than 0.05 from the Breusch-Pagan test suggests heteroscedasticity, meaning the variance of the residuals is not constant across levels of the independent variables. We reject null hypothesis.

Equal Variance Assumption is violated, a Box-Cox Transformation can stabilize the variance. This method identifies an appropriate transformation for the dependent variable.

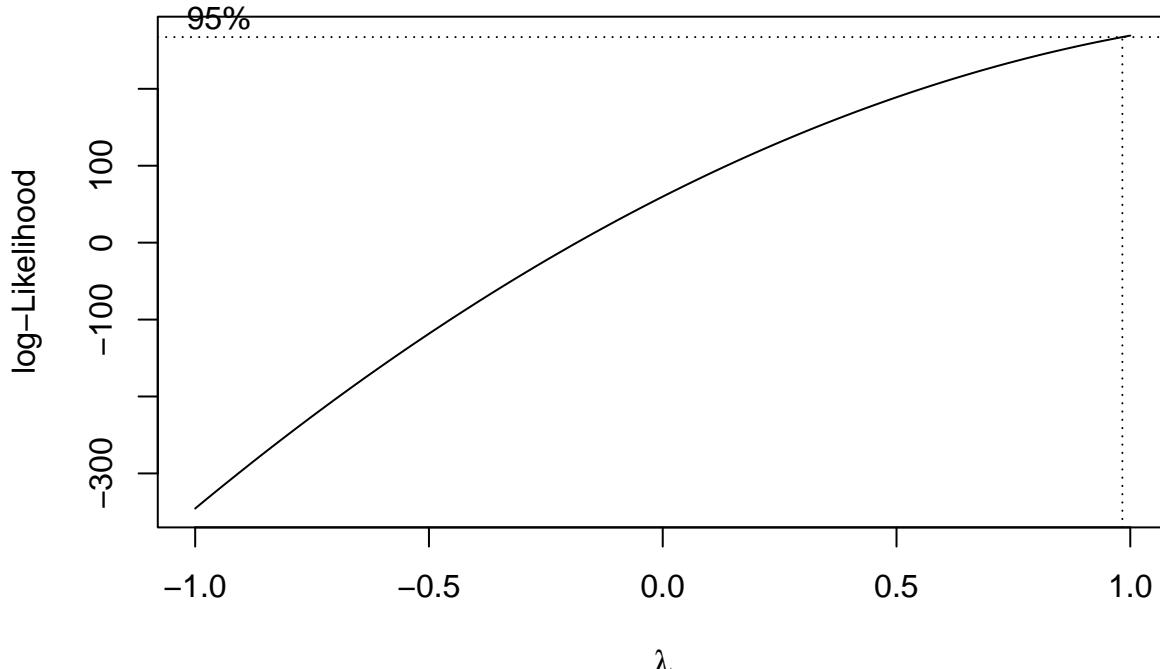
```

## 
## Attaching package: 'MASS'

## The following object is masked from 'package:olsrr':
## 
##     cement

## The following object is masked from 'package:dplyr':
## 
##     select

```



```
## Optimal Lambda for Box-Cox Transformation: 1
```

When the Box-Cox transformation identifies an optimal lambda value of 0.59596, it suggests that the dependent variable (e.g., Life\_Expectancy) requires a power transformation to stabilize variance and meet the regression assumptions.

```
##
## Call:
## lm(formula = (((Life_expectancy^0.59596) - 1)/0.59596) ~ Region +
##     Year + Infant_deaths + I(Infant_deaths^2) + I(Infant_deaths^3) +
##     Adult_mortality + I(Adult_mortality^2) + Hepatitis_B + BMI +
##     Polio + Incidents_HIV + GDP_per_capita + Thinness_ten_nineteen_years +
##     Thinness_five_nine_years + Schooling + Economy_status_Developed,
##     data = data)
##
## Residuals:
##      Min        1Q     Median        3Q       Max
## -0.77101 -0.13967  0.00805  0.13999  0.73489
##
## Coefficients:
##                               Estimate Std. Error t value Pr(>|t|)
## (Intercept)                2.176e+01  1.043e-01 208.561 < 2e-16 ***
## RegionAsia                 1.173e-01  1.758e-02   6.673 3.01e-11 ***
## RegionCentral America and Caribbean 3.849e-01  1.884e-02  20.428 < 2e-16 ***
## RegionEuropean Union        -7.714e-02  2.834e-02  -2.722 0.006531 **
## RegionMiddle East           2.116e-02  2.241e-02   0.944 0.345114
## RegionNorth America         1.338e-01  3.848e-02   3.478 0.000512 ***
## RegionOceania                -7.602e-02  2.323e-02  -3.273 0.001076 **
## RegionRest of Europe        6.538e-02  2.254e-02   2.901 0.003747 **
## RegionSouth America          3.414e-01  2.148e-02  15.895 < 2e-16 ***
## YearY2001                   1.138e-02  2.291e-02   0.497 0.619371
## YearY2002                   1.104e-02  2.295e-02   0.481 0.630606
## YearY2003                  -2.038e-03  2.297e-02  -0.089 0.929309
## YearY2004                   3.790e-03  2.301e-02   0.165 0.869163
## YearY2005                  -3.881e-03  2.305e-02  -0.168 0.866300
## YearY2006                   1.833e-03  2.309e-02   0.079 0.936752
## YearY2007                   9.152e-03  2.313e-02   0.396 0.692395
## YearY2008                   2.035e-02  2.316e-02   0.879 0.379739
## YearY2009                   3.175e-02  2.320e-02   1.368 0.171278
## YearY2010                   4.594e-02  2.323e-02   1.978 0.048036 *
## YearY2011                   5.449e-02  2.328e-02   2.341 0.019306 *
## YearY2012                   5.846e-02  2.333e-02   2.506 0.012273 *
## YearY2013                   7.875e-02  2.339e-02   3.367 0.000771 ***
## YearY2014                   9.480e-02  2.344e-02   4.044 5.41e-05 ***
## YearY2015                   9.846e-02  2.349e-02   4.192 2.85e-05 ***
## Infant_deaths                -1.924e-02  1.687e-03 -11.407 < 2e-16 ***
## I(Infant_deaths^2)            -1.125e-04  3.113e-05  -3.613 0.000308 ***
## I(Infant_deaths^3)              7.115e-07  1.751e-07   4.064 4.95e-05 ***
## Adult_mortality               -1.043e-02  2.112e-04 -49.406 < 2e-16 ***
## I(Adult_mortality^2)            2.997e-06  3.415e-07   8.775 < 2e-16 ***
## Hepatitis_B                  -2.119e-03  3.862e-04  -5.487 4.44e-08 ***
## BMI                          -1.662e-02  3.624e-03  -4.586 4.72e-06 ***
## Polio                         2.214e-03  5.275e-04   4.196 2.80e-05 ***
## Incidents_HIV                -8.647e-03  3.544e-03  -2.440 0.014741 *
```

```

## GDP_per_capita           1.119e-06  4.072e-07   2.749  0.006011 ***
## Thinness_ten_nineteen_years -7.261e-03  2.718e-03  -2.671  0.007600 **
## Thinness_five_nine_years    9.888e-03  2.698e-03   3.665  0.000252 ***
## Schooling                  2.104e-02  2.950e-03   7.132  1.25e-12 ***
## Economy_status_DevelopedYes 3.567e-01  2.693e-02  13.244 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.2166 on 2826 degrees of freedom
## Multiple R-squared:  0.9849, Adjusted R-squared:  0.9847
## F-statistic:  4965 on 37 and 2826 DF,  p-value: < 2.2e-16

```

Let's check homoscedasticity for transformed model using Breusch-Pagan Test, Null Hypothesis  $H_0$ : There is no heteroscedasticity is present, i.e.  $\sigma_1^2 = \sigma_2^2 = \dots = \sigma_n^2$

Alternative Hypothesis  $H_1$ : heteroscedasticity is present, atleast one  $\sigma_i^2$  is different from others  $i= 1,2,\dots,n$ .

```

##
## studentized Breusch-Pagan test
##
## data: model_transformed
## BP = 679.85, df = 37, p-value < 2.2e-16

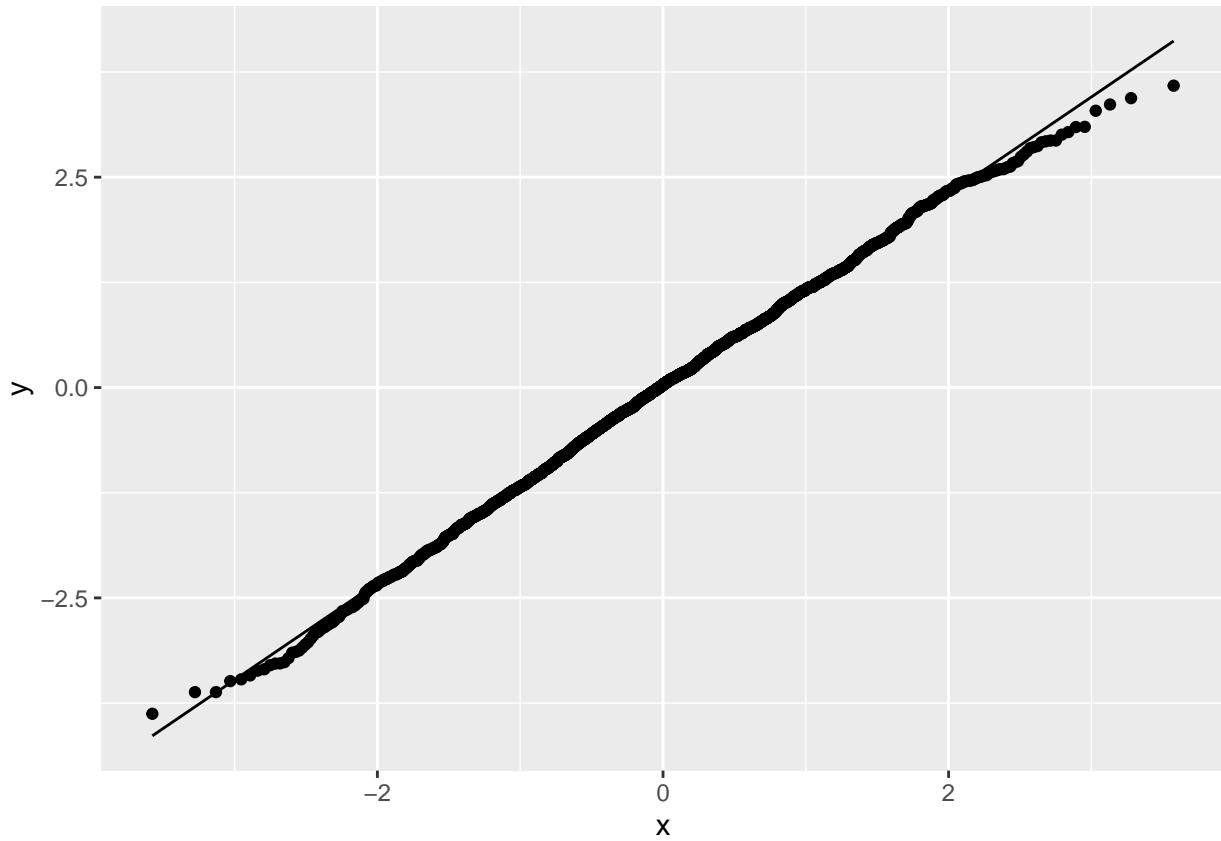
```

A significant result, p-value  $< 2.2e-16$  which is less than 0.05 from the Breusch-Pagan test suggests heteroscedasticity, meaning the variance of the residuals is not constant across levels of the independent variables. We reject null hypothesis.

After applying the Box-Cox transformation in an attempt to resolve the issue of heteroscedasticity, the Breusch-Pagan test confirmed that heteroscedasticity still persists in the residuals, indicating that the transformation was not sufficient to address the variance instability.

#### 4) Normality Assumption:

The Normality Assumption in regression analysis requires that the residuals of the model are normally distributed. We will verify using a Q-Q-Plot.



Plotted Q-Q plot, indicate that the residuals follow a normal distribution. This suggests that the normality assumption of the regression model is satisfied.

Lets perform, Shapiro-Wilk test

Null Hypothesis  $H_0$ : The sample data are significantly normally distributed Alternative Hypothesis  $H_1$ : The sample data are not significantly normally distributed

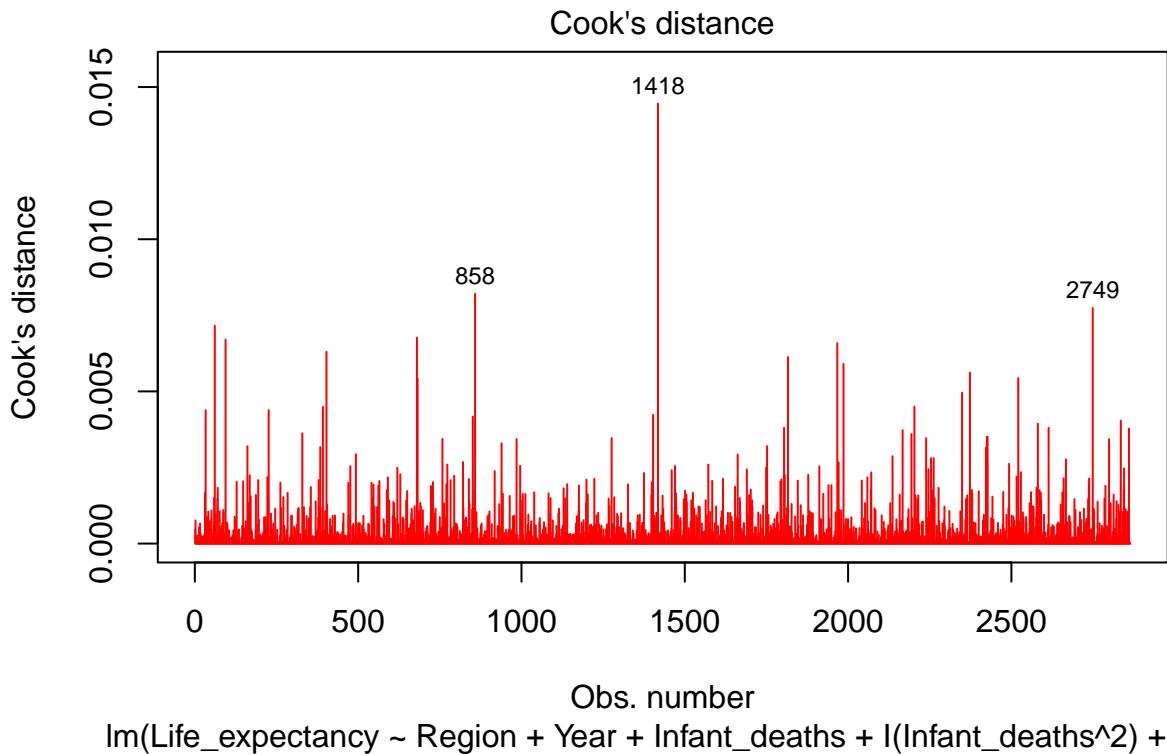
```
##  
##  Shapiro-Wilk normality test  
##  
## data:  residuals(valid_model)  
## W = 0.9989, p-value = 0.06246
```

The Shapiro-Wilk normality test further supports that the residuals are normally distributed, as the p-value (0.06246) is greater than 0.05. Therefore, we fail to reject the null hypothesis, indicating that the residuals follow a normal distribution.

## 5) Outliers:

Outliers are data points that deviate significantly from the overall pattern of the data. In regression analysis, outliers can have a disproportionate influence on the estimated coefficients, residuals, and overall model fit.

We will be using Cook distance to measure of the overall influence an outlying observation.



Based on the graph, there are no outliers identified using Cook's Distance with a threshold of 0.5. This indicates that no observations exceed this threshold and are deemed influential in the context of the model.

---

After reviewing all residual assumptions and making necessary modifications to the model, we can conclude that the final model is valid and satisfies the key regression assumptions, ensuring its reliability for analysis and prediction.

$$\hat{\text{Life\_expectancy}} = 83.846 + 0.5985 * \text{Region}_{\text{Asia}} + 2.134 * \text{Region}_{\text{Central America and Caribbean}} - 0.5379 * \text{Region}_{\text{European Union}} + 0.07193 * \text{Region}_{\text{Middle East}} + 0.7183 * \text{Region}_{\text{North America}} - 0.4468 * \text{Region}_{\text{Oceania}} + 0.3035 * \text{Region}_{\text{Rest of Europe}} - 1.885 * \text{Region}_{\text{South America}} + 0.06593 * \text{Year}_{Y2001} + 0.06393 * \text{Year}_{Y2002} + 0.004886 * \text{Year}_{Y2003} + 0.05015 * \text{Year}_{Y2004} + 0.01471 * \text{Year}_{Y2005} + 0.04960 * \text{Year}_{Y2006} + 0.08880 * \text{Year}_{Y2007} + 0.1522 * \text{Year}_{Y2008} + 0.2178 * \text{Year}_{Y2009} + 0.2926 * \text{Year}_{Y2010} + 0.3463 * \text{Year}_{Y2011} + 0.3679 * \text{Year}_{Y2012} + 0.4794 * \text{Year}_{Y2013} + 0.5691 * \text{Year}_{Y2014} + 0.5864 * \text{Year}_{Y2015} - 0.1189 * \text{InfantDeaths} - 0.0003900 * \text{InfantDeaths}^2 + 0.000003453 * \text{InfantDeaths}^3 - 0.06159 * \text{AdultMortality} + 0.00002649 * \text{AdultMortality}^2 + 0.01159 * \text{HepatitisB} - 0.1046 * \text{BMI} + 0.01180 * \text{Polio} - 0.03977 * \text{IncidentsHIV} + 0.000007030 * \text{GDP_per_capita} - 0.04017 * \text{ThinnessTenNineteenYears} + 0.04967 * \text{ThinnessFiveNineYears} + 0.1097 * \text{Schooling} + 2.084 * \text{EconomyStatusDeveloped}_{Yes}$$

**Prediction:**

```
#Based on Economy Status
# For Canada
newdata = data.frame(Region="North America", Year="Y2014", Infant_deaths=5.3, Under_five_deaths=6.3, Adm...
predict(valid_model, newdata, type="response")

##          1
## 81.34747
```

```
# For Mexico
newdata = data.frame(Region="North America", Year="Y2014", Infant_deaths=19.2, Under_five_deaths=21.5, 
predict(valid_model, newdata, type="response")

##          1
## 73.74891
```

This analysis highlights the significant role that Economy Status plays in determining life expectancy. The model predicts that Canada, with its developed economy and strong healthcare system, has a significantly higher life expectancy than Mexico, a developing country with greater healthcare challenges and lower economic indicators. These predictions reinforce the importance of economic development, healthcare access, and education in shaping a country's overall life-expectancy.