

Mortality Descriptives

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0.1 Descriptive Statistics

The following document is an exploratory data analysis of global data from the World Bank describing conflict related mortality (i.e., maternal, neonate, under-5, and Infant mortality) between the years 2000-2019.

0.2 There are 186 countries represented in this data

The following table shows the countries with the greatest number of annual conflicts between 2000-2019...

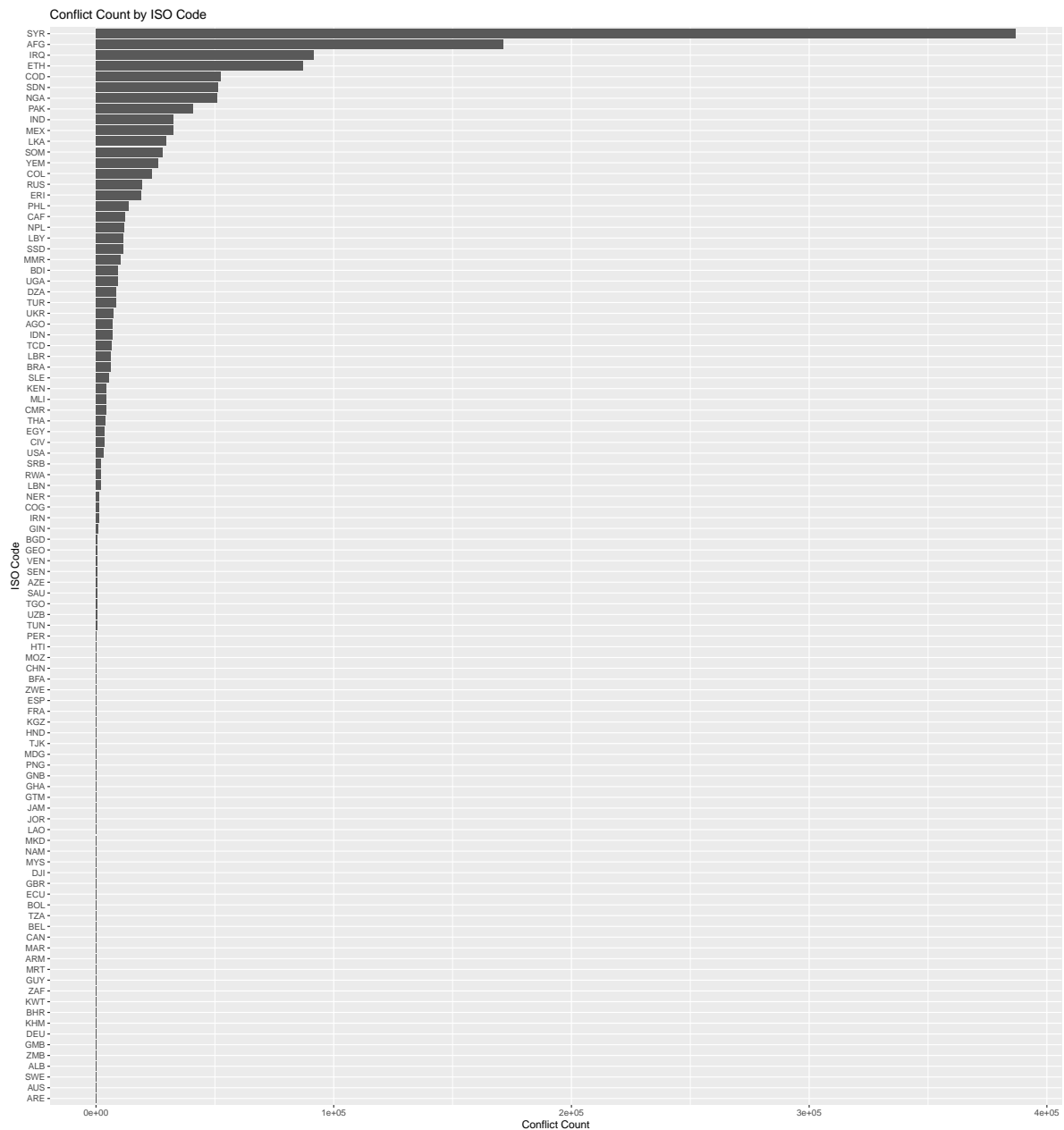
Table 1: Top 25 countries with the highest number of conflicts

ISO	conflict_count
AFG	20
COD	20
COL	20
DZA	20
ETH	20
IND	20
IRQ	20
MMR	20
NGA	20
PAK	20
PHL	20
RUS	20
SDN	20
SOM	20
KEN	18
TUR	18
THA	17
MEX	16
BDI	15
TCD	15
VEN	15
BRA	14
CAF	14
IRN	13
UGA	13

ISO	total_best_sum
YEM	26234
COL	23339
RUS	19322
ERI	19078
PHL	13660
CAF	12299
NPL	11854
LBY	11498
SSD	11304
MMR	10405
BDI	9281
UGA	9038
DZA	8648

0.4 The top 3 countries with the highest number of conflict related deaths between 2000-2019 are :

1. Syria
2. Afghanistan
3. Iraq



0.4.1 In total there were 1343366 conflict-related deaths between 2000-2019... Before we analyze other trends, it will be worth it to analyze our data structure and missingness trends

In total there are 21 variables in our dataset with the following structure:

- Character: country_name, iSO, region
- Integer: year, OECD, OECD2023, Matmor, conflict_flag, drought, earthquake
- Numeric: gdp1000, popdens, urban, agedep, male_edu, temp, rainfall1000, InfMor, Neo-Mor, Under5Mor

0.5 Let's check the missingness for all our variables and identify the type of missingness

Let us determine which type of missing data we have in this dataset...

```
# A tibble: 1 x 4
  statistic    df p.value missing.patterns
    <dbl> <dbl>   <dbl>         <int>
1    1597.   125     0             8
```

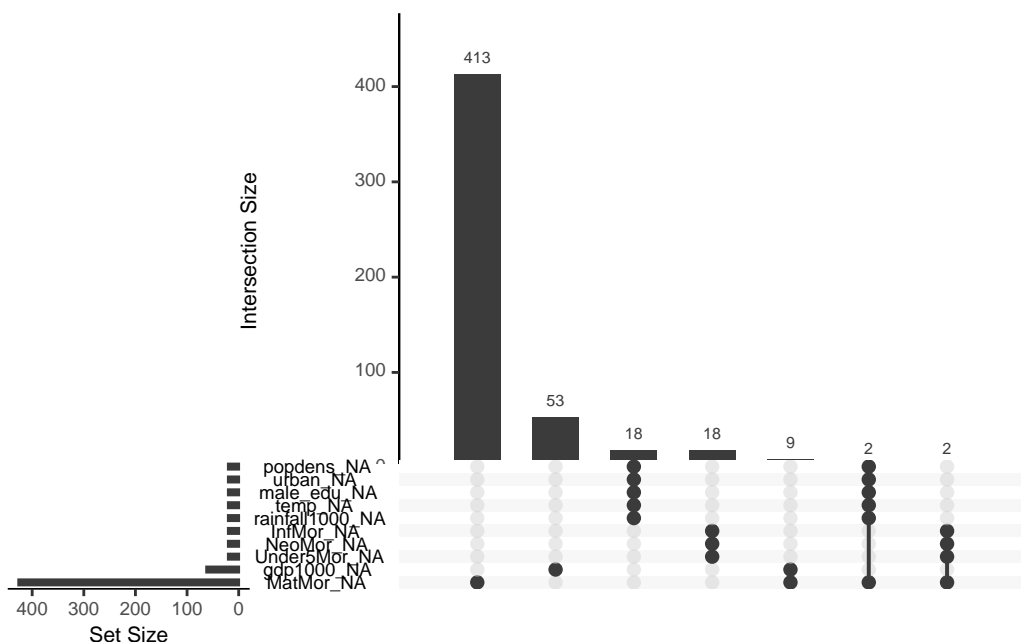
According to this Missing Completely At Random test, there is sufficient evidence at the 5% level to suggest that our data is not MCAR. This means that our data is either missing at random or missing not at random. Let us take a closer look...

It is apparent from the plot above that missingness is not a significant concern in our dataset with approximately **87%** not having any missing data across any of the 21 variables. Maternal mortality seems to have the highest level of missingness (413 observations, 12.9%).

From this plot, it is evident that some countries have complete missingness observations for maternal mortality. These countries include:

- ALB: Albania
- CIV: Côte d'Ivoire (Ivory Coast)
- MHL: Marshall Islands

It may be worthwhile to look at the connectedness of missingness across various variables...



There seems to be two unique trends in missing values across variables— each of which show 18 separate observations of these two trends!

1. Urban, male_edu, temp, rainfall1000
2. Infant mortality, neonatal mortality, and under-5 mortality.

1 Looking at variable specific trends:

Summarizing the number of conflicts and deaths by region:

Table 3: Regions with the greatest number of conflict related deaths

region	total_region
Western Asia	516770
Sub-Saharan Africa	329930
Southern Asia	288238
Northern Africa	75563
Latin America and the Caribbean	64156
South-eastern Asia	34948
Eastern Europe	26489
Northern America	3045
Southern Europe	2514

region	total_region
Central Asia	851
Eastern Asia	299
Western Europe	291
Melanesia	202
Northern Europe	68
Australia and New Zealand	2
Micronesia	0
Polynesia	0

It is apparent that African regions have the greatest conflict attributed mortality in the world. Does the same trend occur with the number of conflicts observed between 2000-2019?

Table 4: Regions with the greatest number of conflicts in the world

region	total_cregion
Sub-Saharan Africa	258
Southern Asia	101
Latin America and the Caribbean	84
Western Asia	84
South-eastern Asia	67
Northern Africa	64
Eastern Europe	25
Central Asia	8
Melanesia	3
Southern Europe	3
Western Europe	3
Eastern Asia	2
Northern America	1
Northern Europe	1
Australia and New Zealand	0
Micronesia	0
Polynesia	0

1.0.1 Let's take a look at more specific types of mortality and relationships of other variables...

Table 5: Countries with the greatest most number of droughts

ISO	total_dISO
CHN	14
THA	9
USA	9
BRA	8
HND	8
KEN	8
SOM	8
BOL	7
ETH	7
MDG	7
MOZ	7
NER	6
PRY	6
AFG	5
BDI	5
GTM	5
IND	5