Descriptive Figure

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Packages

```
library(tidyverse)
```

```
-- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
v dplyr     1.1.4     v readr     2.1.5
v forcats   1.0.0     v stringr   1.5.1
v ggplot2   3.5.1     v tibble    3.2.1
v lubridate 1.9.3     v tidyr     1.3.1
v purrr     1.0.2
-- Conflicts ------------------------------------------ tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()    masks stats::lag()
i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to becor
```

```
library(here)
```

```
here() starts at C:/Users/10415/Documents/MSc Biostats/CHL8010/version control/CHL8010_Yanya
```

Read in data

```
data <- read_csv(here("data","merged.csv"))
```

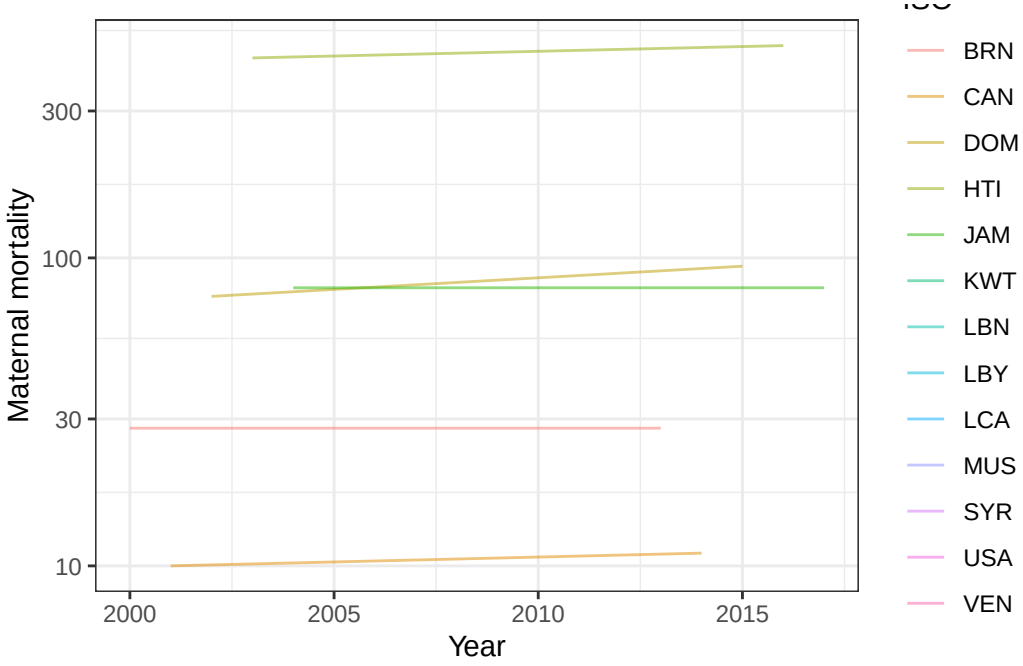
```
Rows: 3720 Columns: 21
-- Column specification --------------------------------------------------------
Delimiter: ","
chr  (3): country_name, ISO, region
```

```
dbl (18): year, gdp1000, OECD, OECD2023, popdens, urban, agedep, male_edu, t...

i Use `spec()` to retrieve the full column specification for this data.
i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

Figure

```
data |>
  dplyr::select(country_name, ISO, year, maternalMor) |>
  dplyr::filter(year < 2018) |>
  arrange(ISO, year) |>
  group_by(ISO) |>
  mutate(diffmatmor = maternalMor - maternalMor[1L]) |>
  filter(year==2017&diffmatmor>0)|>
  select(ISO) -> ISO_increase
ISO_increase <- ISO_increase$ISO

data |>
  dplyr::select(country_name, ISO, year, maternalMor) |>
  dplyr::filter(year < 2018) |>
  arrange(ISO, year) |>
  group_by(ISO) |>
  mutate(diffmatmor = maternalMor - maternalMor[1L]) |>
  filter(ISO == ISO_increase) |>
  ggplot(aes(x = year, y = maternalMor, group = ISO)) +
  geom_line(aes(color = ISO), alpha = 0.5) +
  xlim(c(2000,2017)) +
  scale_y_continuous(trans='log10')+
  labs(y = "Maternal mortality", x = "Year") +
  theme_bw()
```

```
Warning: There were 186 warnings in `filter()`.
The first warning was:
i In argument: `ISO == ISO_increase`.
i In group 1: `ISO = "AFG"`.
Caused by warning in `ISO == ISO_increase`:
!
i Run `dplyr::last_dplyr_warnings()` to see the 185 remaining warnings.
```


Maternal mortality
300
100
30
10
2000
2005
2010
2015
Year
BRN
CAN
DOM
HTI
JAM
KWT
LBN
LBY
LCA
MUS
SYR
USA
VEN