

Become



with
gganimate

Peter Kamerman



@painblogR

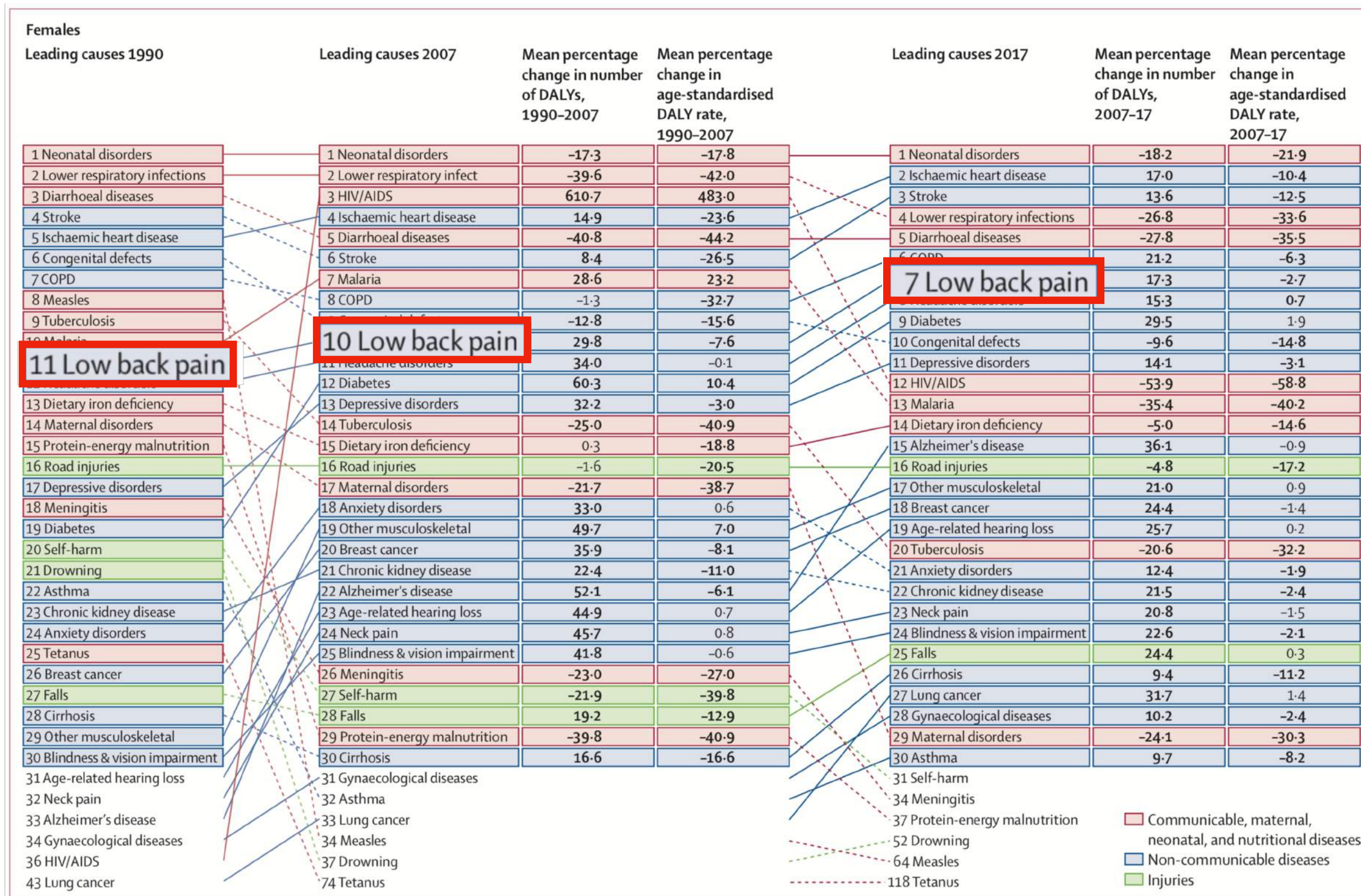


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Joburg 2019

The template



The data source

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GBD Results Tool

Default results are deaths and DALYs for 2017 with trends since 1990. Refer to the [GBD Results Tool User Guide](#) for help with common questions and troubleshooting. [Download additional GBD 2017 results](#) from the GHDx.

[Terms defined](#) | [Codebook](#) | [Tools Overview](#)

Base

Single

Change

PoD

Location

Add/Remove... (1)

x

Year

Add/Remove... (28)

x

Context

Cause

Age

Add/Remove... (1)

x

Metric

Add/Remove... (1)

x

Measure

Add/Remove... (1)

x

Sex

Add/Remove... (1)

x

Cause

Add/Remove... (169)

x

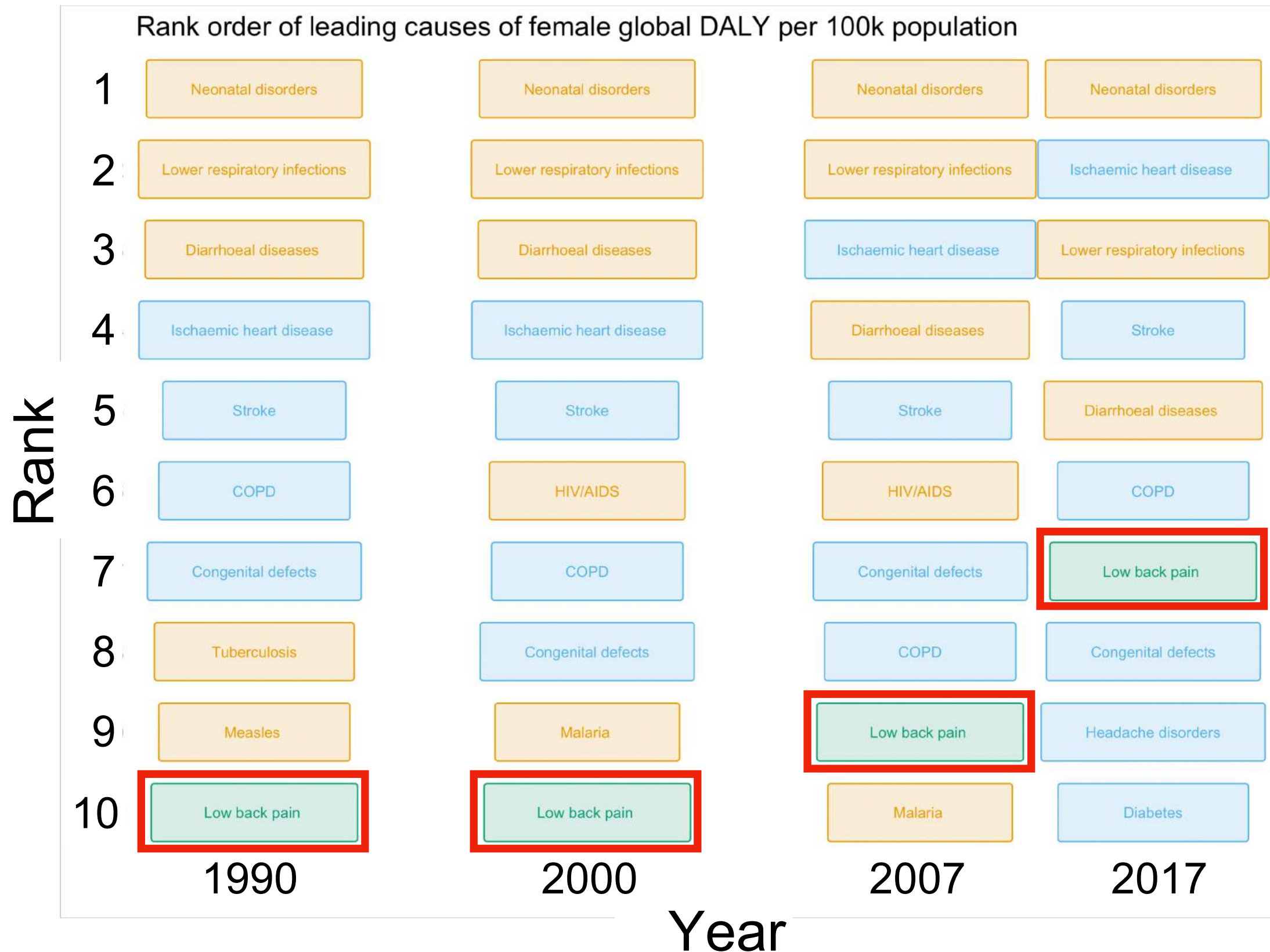
Search

Permalink

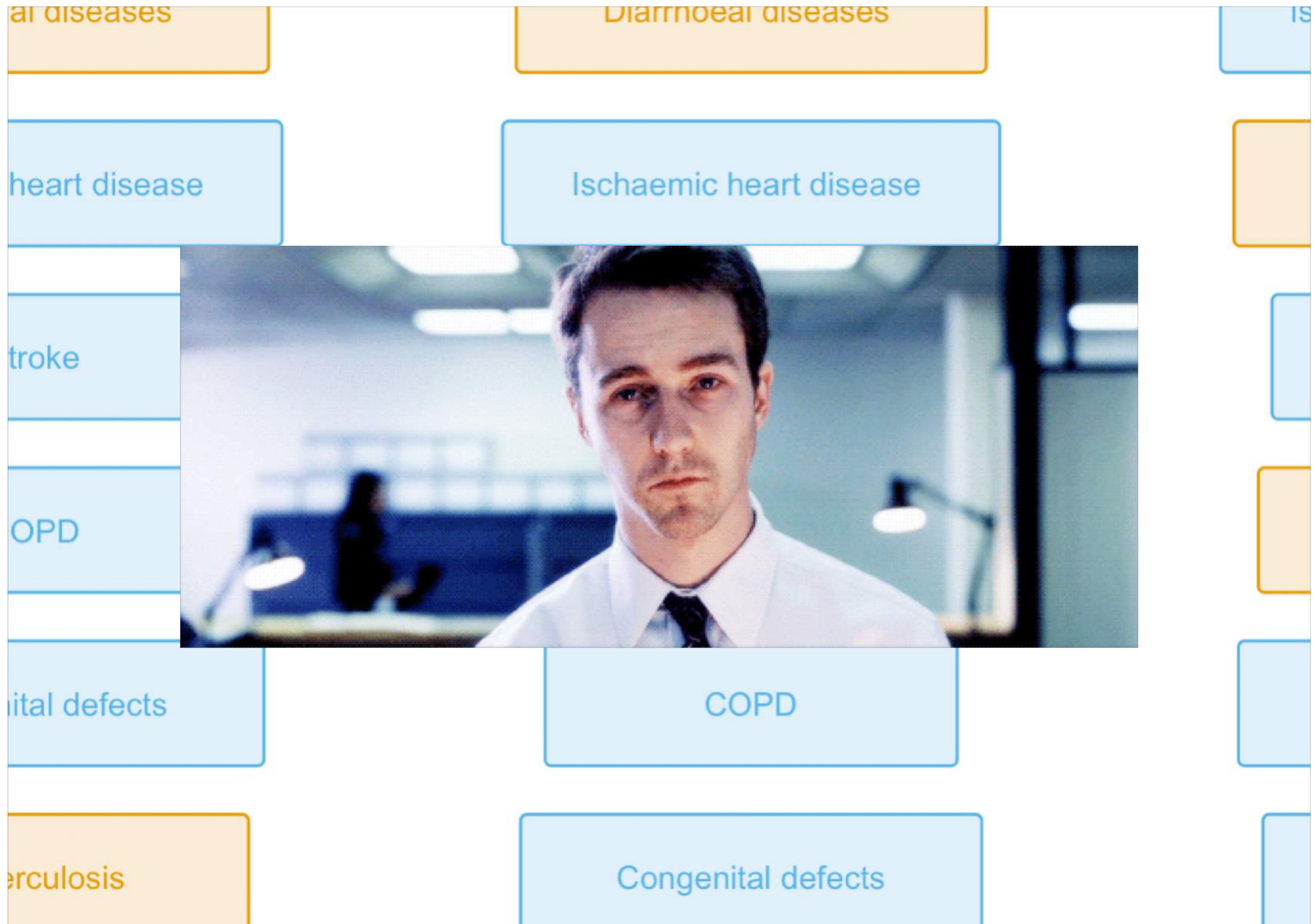
Download CSV

MEASURE	LOCATION	SEX	AGE	CAUSE	METRIC	YEAR	VAL	UPPER	LOWER
DALYs (Disability-Adjusted Life Years)	Global	Both sexes	Age-standa...	Tuberculosis	Rate	1990	1,344.09	1,429.68	1,258.26
DALYs (Disability-Adjusted Life Years)	Global	Both sexes	Age-standa...	HIV/AIDS	Rate	1990	380.22	422.14	342.46
DALYs (Disability-Adjusted Life Years)	Global	Both sexes	Age-standa...	Diarrheal d...	Rate	1990	2,972.45	3,412.92	2,542.74
DALYs (Disability-Adjusted Life Years)	Global	Both sexes	Age-standa...	Other intes...	Rate	1990	6.15	9.61	4.16
DALYs (Disability-Adjusted Life Years)	Global	Both sexes	Age-standa...	Lower respi...	Rate	1990	3,830.85	4,100.79	3,517.19
DALYs (Disability-Adjusted Life Years)	Global	Both sexes	Age-standa...	Upper respi...	Rate	1990	106.75	156.78	69.82
DALYs (Disability-Adjusted Life Years)	Global	Both sexes	Age-standa...	Otitis media	Rate	1990	34.16	52.30	21.81
DALYs (Disability-Adjusted Life Years)	Global	Both sexes	Age-standa...	Meningitis	Rate	1990	584.63	648.03	501.45
DALYs (Disability-Adjusted Life Years)	Global	Both sexes	Age-standa...	Protein-ene...	Rate	1990	670.23	759.73	569.15
DALYs (Disability-Adjusted Life Years)	Global	Both sexes	Age-standa...	Iodine defi...	Rate	1990	60.45	96.98	36.85

What I got



...was boring



Adding some action

🔗 gganimate



build passing build passing CRAN 1.0.2 – 25 days ago downloads 8848/month coverage 30%

gganimate extends the grammar of graphics as implemented by [ggplot2](#) to include the description of animation. It does this by providing a range of new grammar classes that can be added to the plot

- `transition_*()`
- `view_*()`
- `shadow_*()`
- `enter_*()` / `exit_*()`
- `ease_aes()`



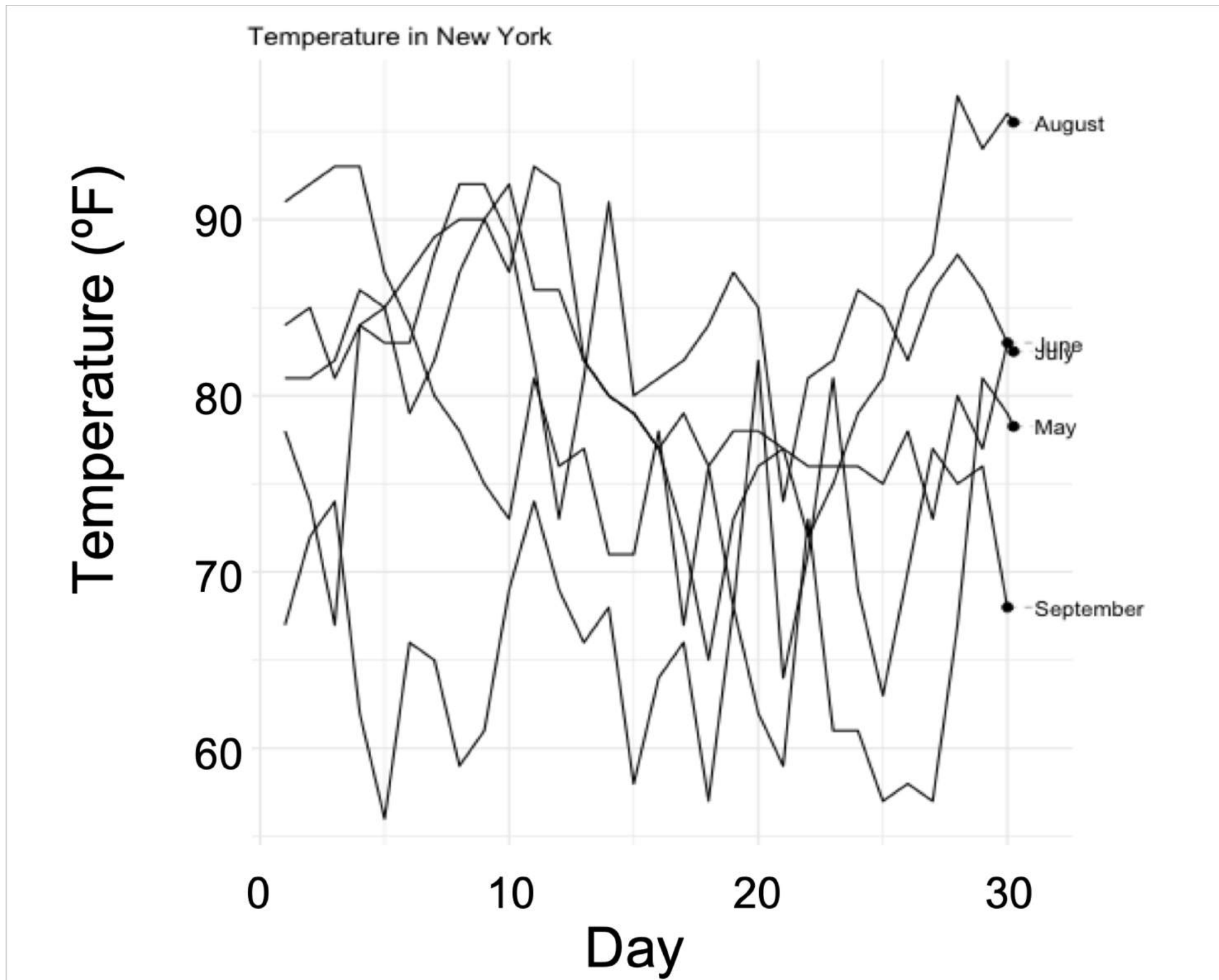
Focusing: ragg development

Thomas Lin Pedersen
thomasp85



David Robinson
dgrtwo

transition_reveal



transition_reveal + ggrepel

Line plot
+ points

Repelling labels

p1

```
<- ggplot(data = data) +  
  aes(x = year,  
      y = val,  
      group = cause) +  
  geom_line(aes(colour = colour),  
            size = 1) +  
  geom_point(aes(fill = colour,  
                 colour = colour),  
             size = 6) +  
  geom_text_repel(aes(label = cause,  
                      colour = colour),  
                  size = 8,  
                  hjust = 0,  
                  direction = 'y',  
                  nudge_x = 2) +  
  scale_colour_manual(values = pal) +  
  scale_x_continuous(limits = c(1990, 2045),  
                     expand = c(0, 0),  
                     breaks = c(1990, 2000, 2010, 2020)) +  
  labs(subtitle = 'Trends for the leading causes of female  
x = 'Year',  
       y = 'DALY per 100k population') +  
  theme_minimal(base_size = 20) +  
  theme(legend.position = 'none',  
        panel.grid = element_blank())
```

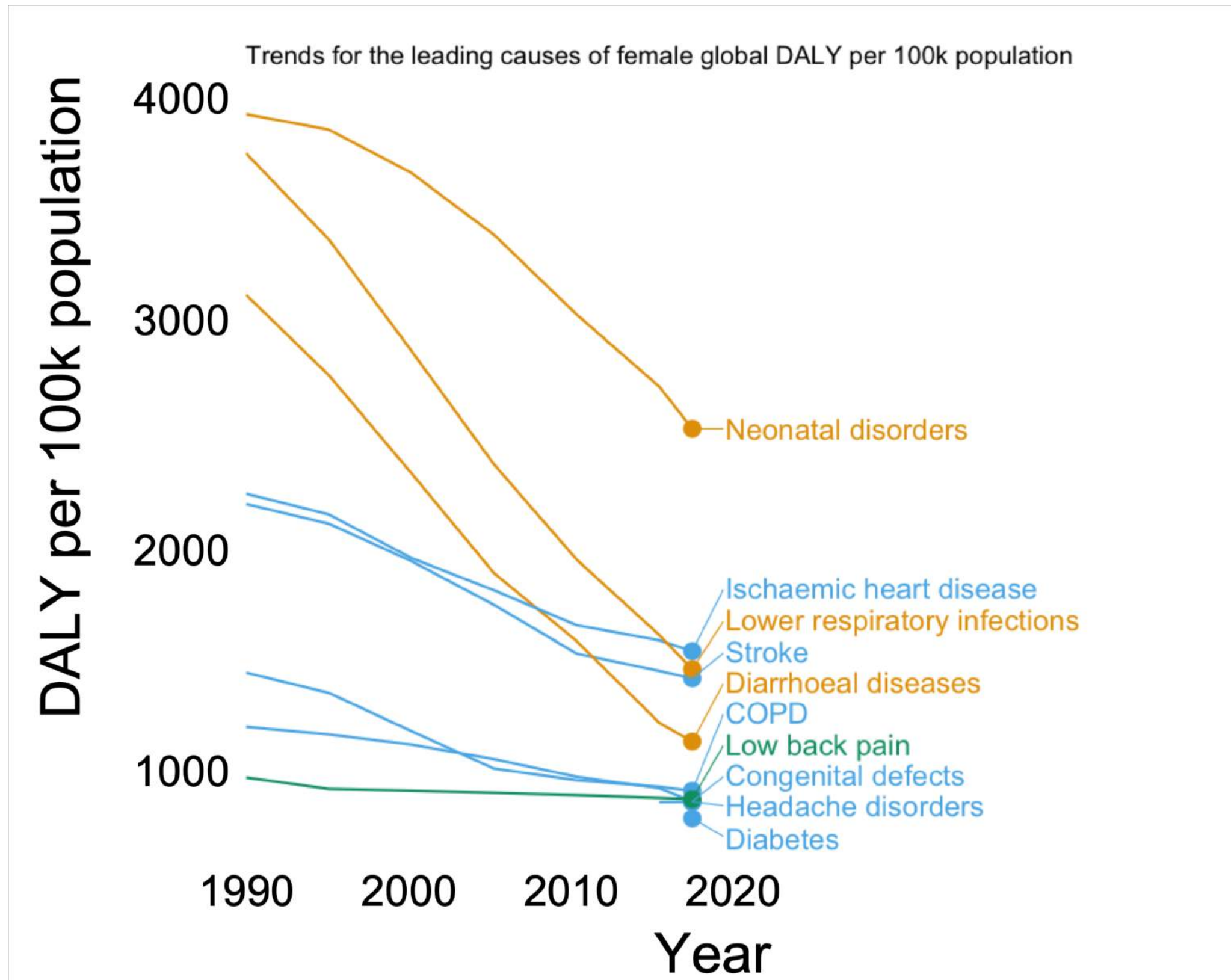

transition_reveal + *ggrepel*



P1_reveal <- **p1** + transition_reveal(along = year)

animate(**P1_reveal**
 res = 72,
 width = 800,
 height = 700,
 nframe = 100,
 end_pause = 50,
 duration = 20)

transition_reveal + *ggrepel*





Scripts and data to reproduce animated plots
kamermanpr/satRday2019