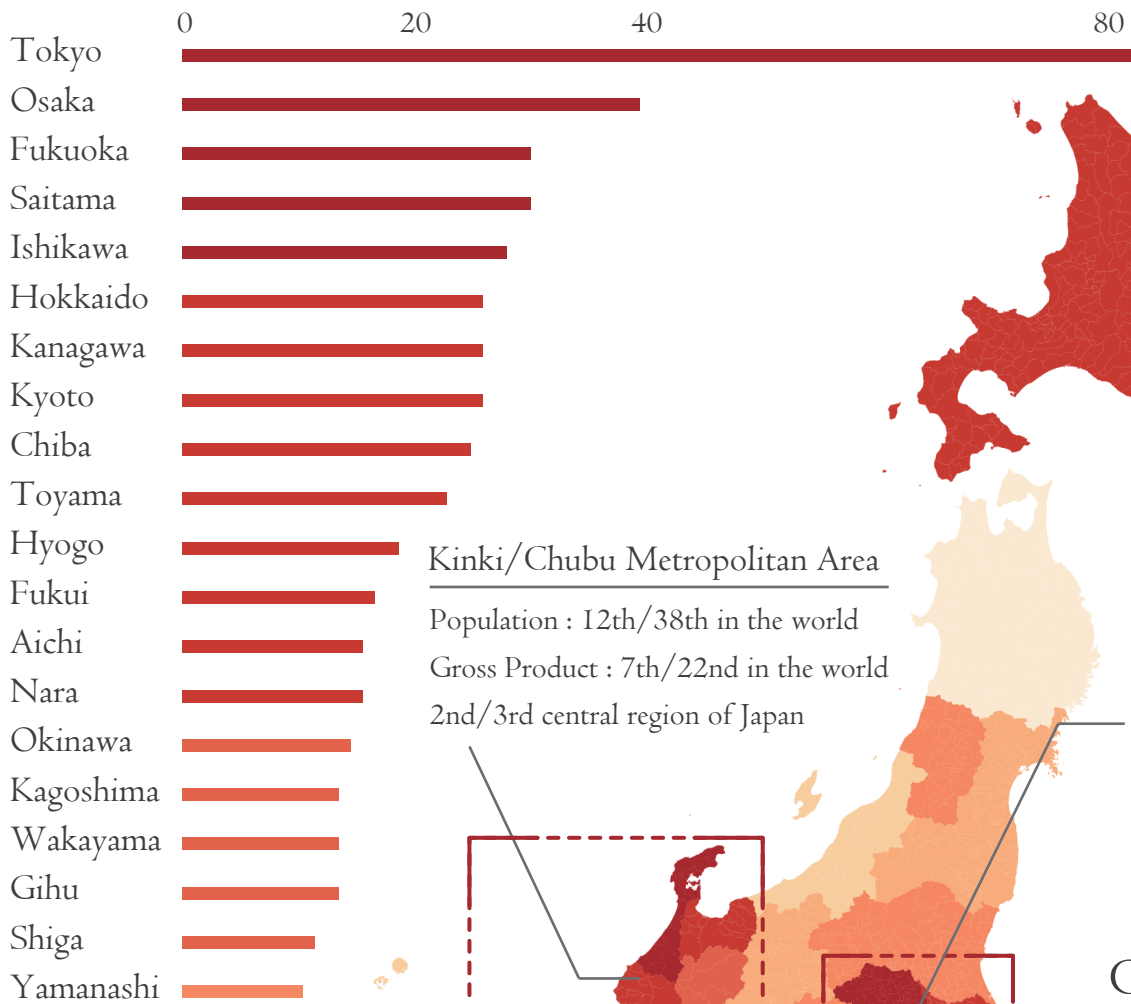# Situation of COVID-19 in Japan

Current status and changes of infection caused by COVID-19 in Japan by prefecture at 2020-07-30

Basic Information

Population : 126,500,000

Confirmed cases : 31,975   Deaths : 1,000

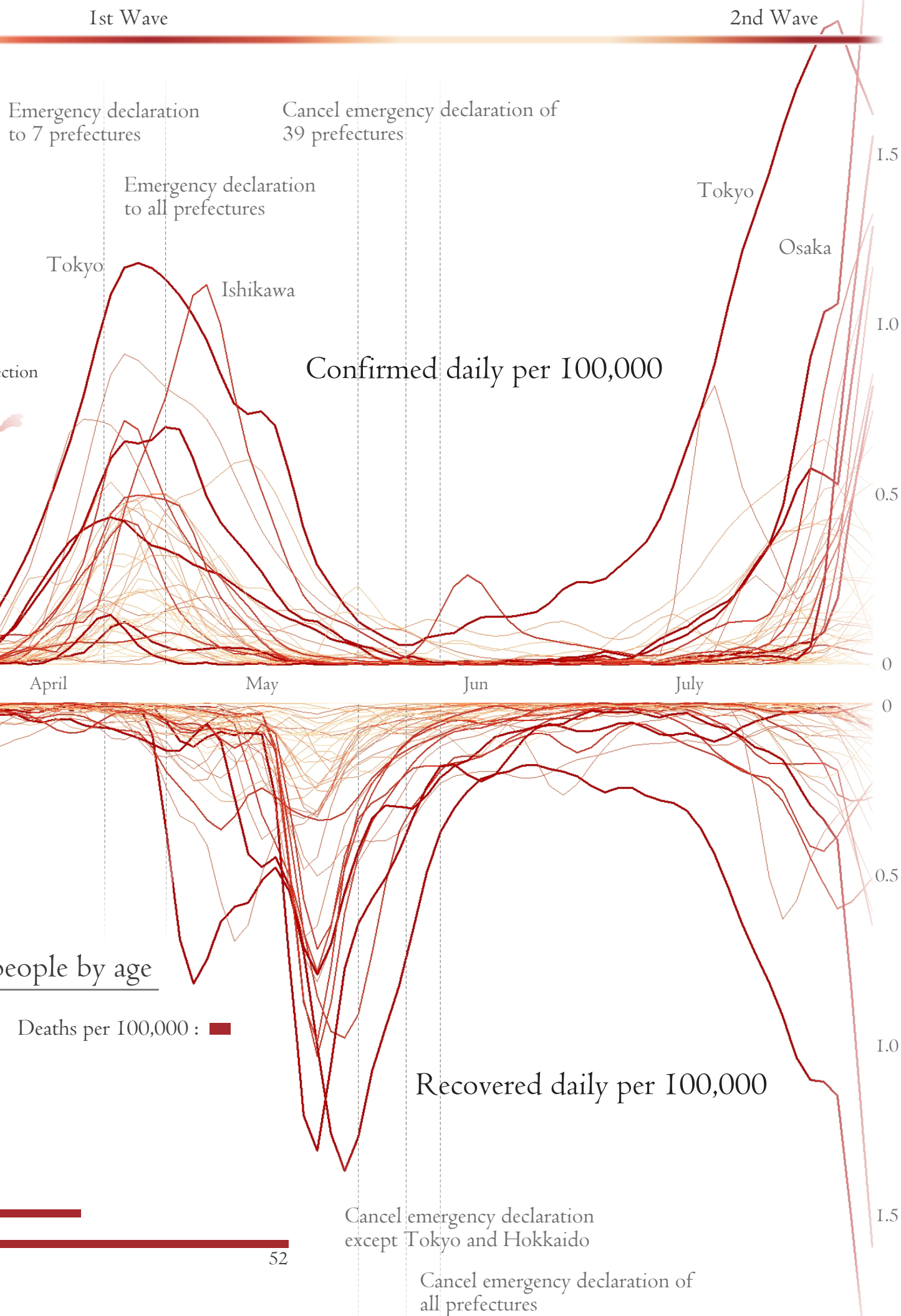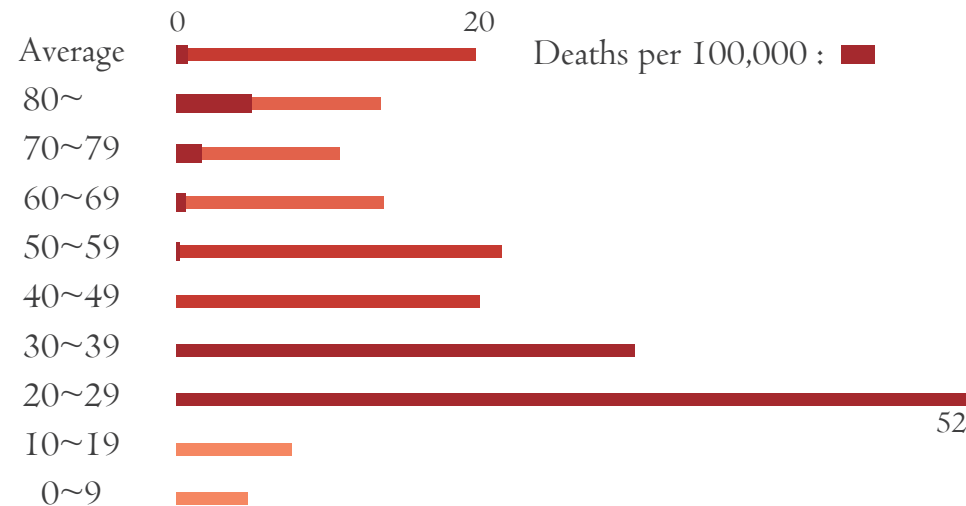Recovered : 23,256   PCR tested : 657,520

Confirmed Total per 100,000 people

Tokyo
Osaka
Fukuoka
Saitama
Ishikawa
Hokkaido
Kanagawa
Kyoto
Chiba
Toyama
Hyogo
Fukui
Aichi
Nara
Okinawa
Kagoshima
Wakayama
Gihu
Shiga
Yamanashi

(axis: 0, 20, 40, 80)

Hokkaido

Population : 5,249,066

Confirmed cases : 1,396

Area with the earliest spread of infection

Kinki/Chubu Metropolitan Area

Population : 12th/38th in the world

Gross Product : 7th/22nd in the world

2nd/3rd central region of Japan

Tokyo Metropolitan Area

Population : 1st in the world

Gross Product : 1st in the world

Central region of Japan

Confirmed per 100,000

low   high

Confirmed per 100,000 people by age

(axis: 0, 20)

Average
80~
70~79
60~69
50~59
40~49
30~39
20~29   52
10~19
0~9

Deaths per 100,000 :

1st Wave   2nd Wave

Emergency declaration   Cancel emergency declaration of
to 7 prefectures   39 prefectures

Emergency declaration
to all prefectures

Tokyo

Osaka

Tokyo

Ishikawa

Confirmed daily per 100,000

April   May   Jun   July

(axis: 0, 0.5, 1.0, 1.5)

Recovered daily per 100,000

Cancel emergency declaration
except Tokyo and Hokkaido

Cancel emergency declaration
of all prefectures
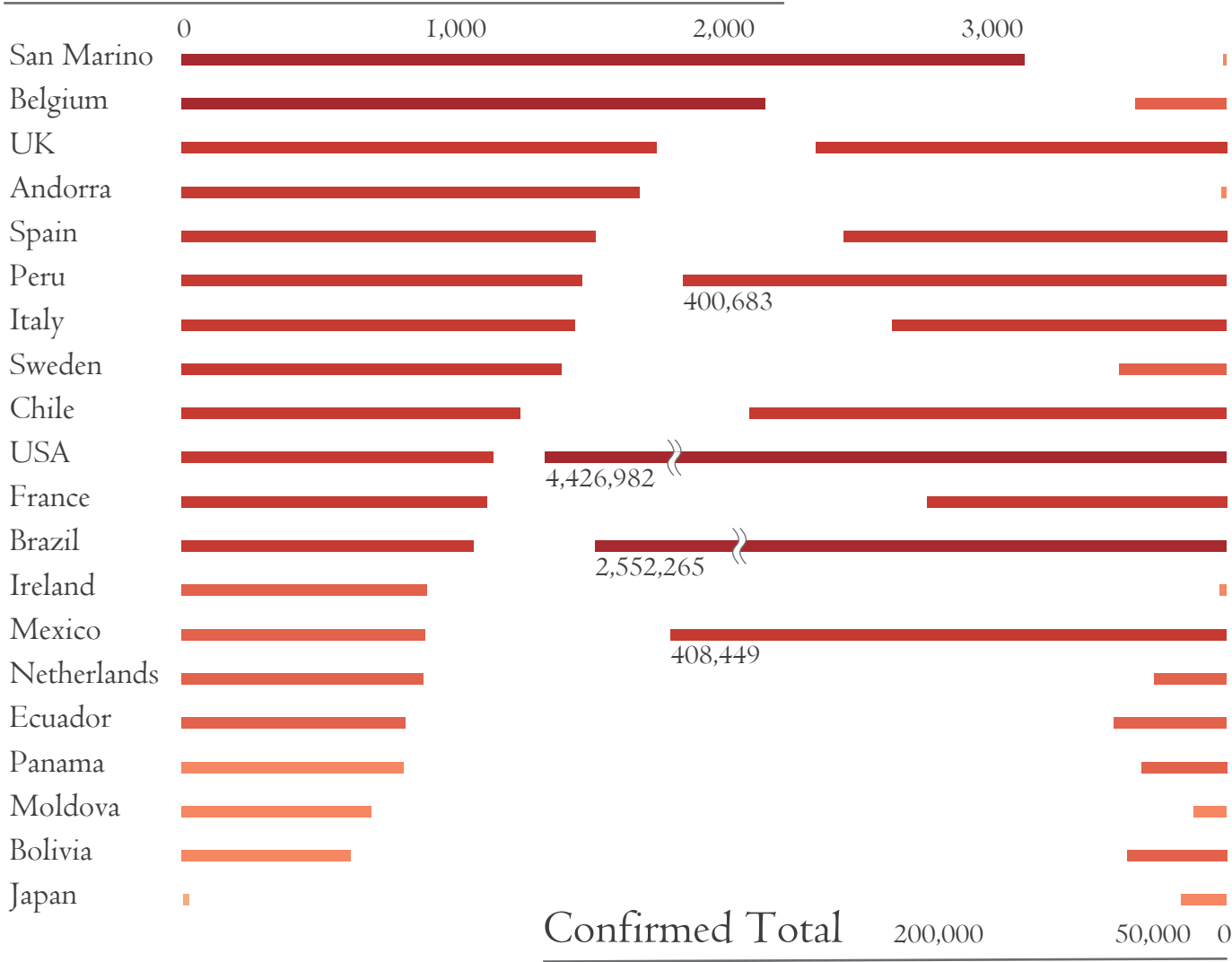
(axis: 0, 0.5, 1.0, 1.5)

Global Situation of COVID-19

Current status and changes of global infection caused by COVID-19 at 2020-07-30
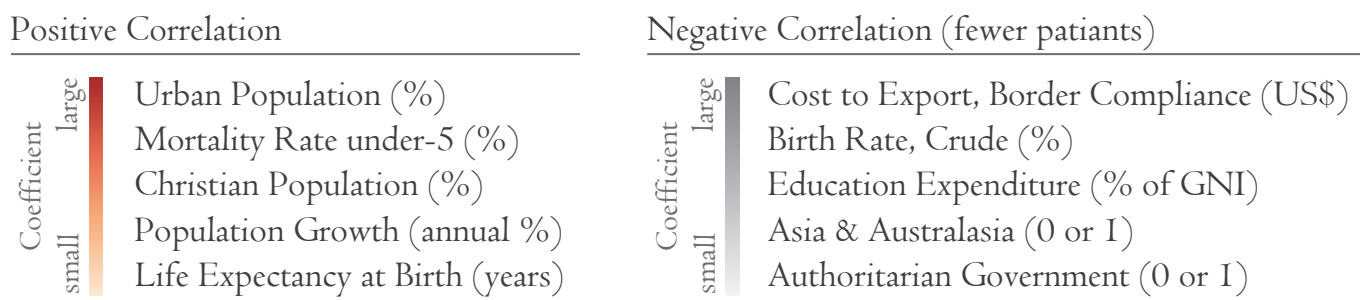
Basic Information

Population : 7,700,000,000

Confirmed cases : 17,039,160   Deaths : 667,084

Recovered : 9,964,678   Confirmed cases per 100,000 people : 219
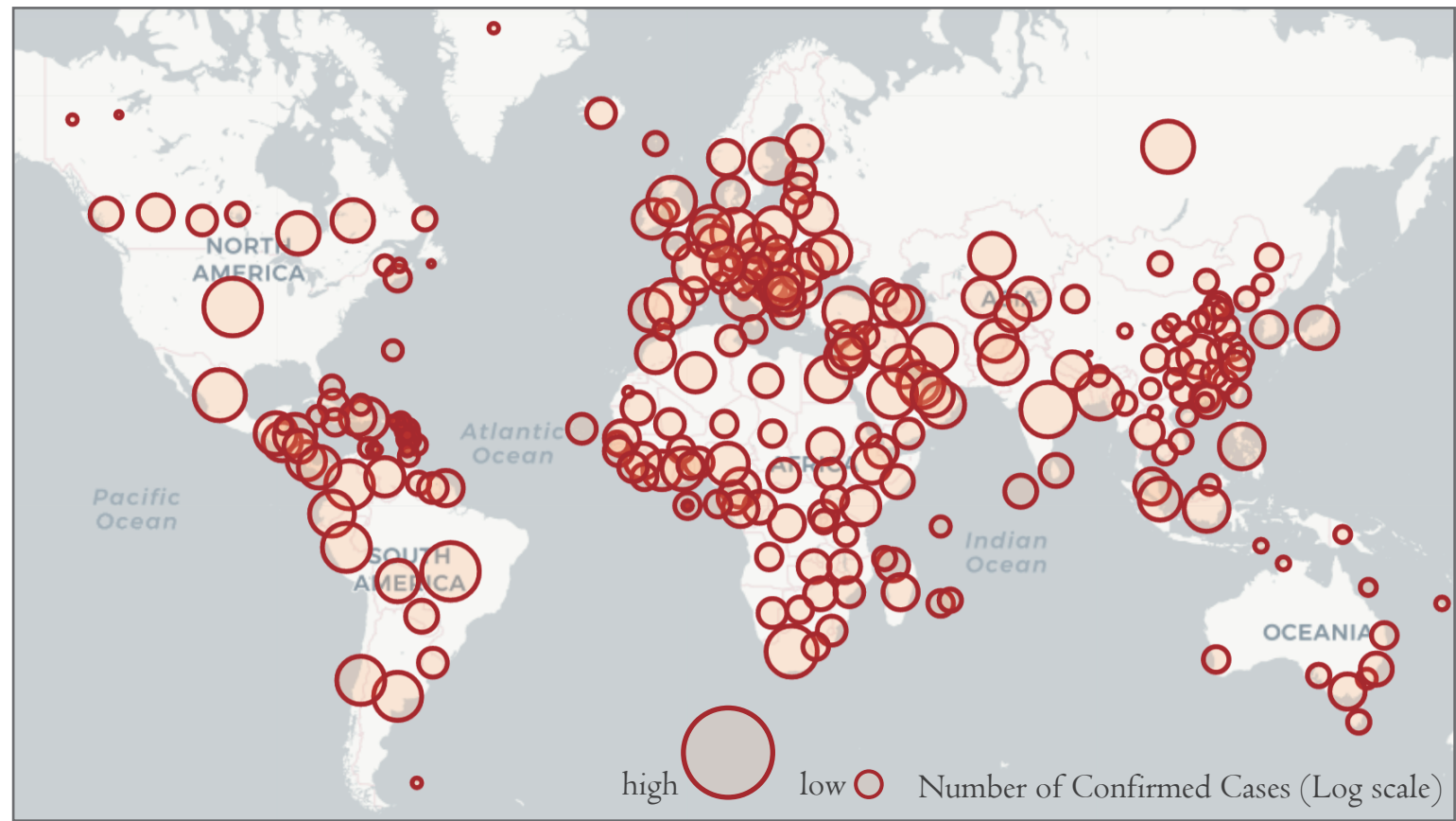
Deaths Total per 100,000 people

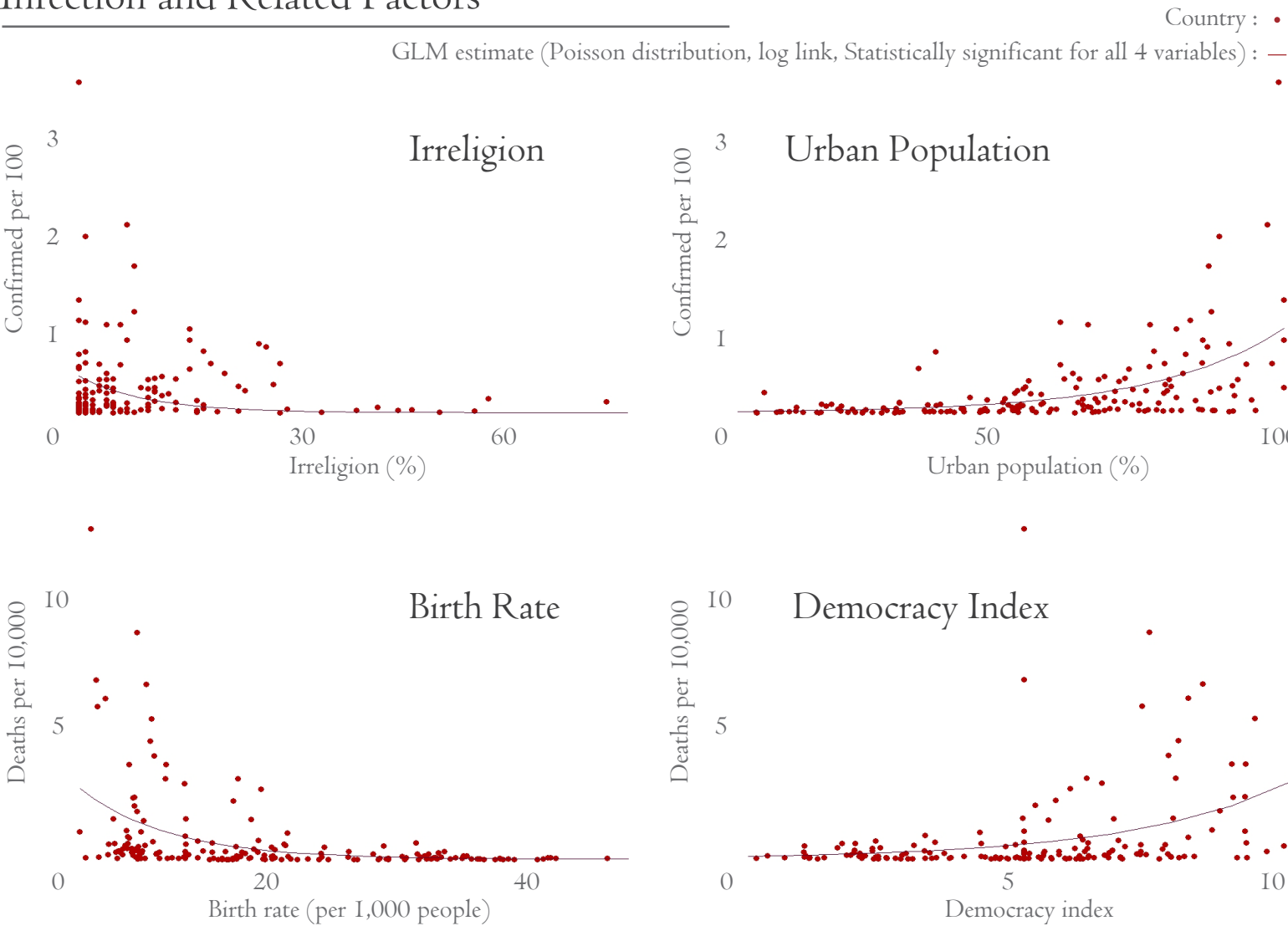|	0	1,000	2,000	3,000
San Marino				
Belgium				
UK				
Andorra				
Spain				
Peru		400,683		
Italy				
Sweden				
Chile				
USA	4,426,982			
France				
Brazil	2,552,265			
Ireland				
Mexico	408,449			
Netherlands				
Ecuador				
Panama				
Moldova				
Bolivia				
Japan				

Confirmed Total

200,000   50,000   0

Global Infection Distribution

high   low   ⭕ Number of Confirmed Cases (Log scale)

Infection and Related Factors

Country : •

GLM estimate (Poisson distribution, log link, Statistically significant for all 4 variables) : —

Irreligion — Confirmed per 100 vs Irreligion (%)

Urban Population — Confirmed per 100 vs Urban population (%)

Birth Rate — Deaths per 10,000 vs Birth rate (per 1,000 people)

Democracy Index — Deaths per 10,000 vs Democracy index

Regression Analysis of Infection

Statistically Significant Variables for the Number of Confirmed Cases (p value < .05)

Positive Correlation

Coefficient: small — large

- Urban Population (%)
- Mortality Rate under-5 (%)
- Christian Population (%)
- Population Growth (annual %)
- Life Expectancy at Birth (years)

Negative Correlation (fewer patients)

Coefficient: small — large

- Cost to Export, Border Compliance (US$)
- Birth Rate, Crude (%)
- Education Expenditure (% of GNI)
- Asia & Australasia (0 or 1)
- Authoritarian Government (0 or 1)

References

Source of data and analysis code

Data Source

This document is based on the data available on the following websites.

Press Information on COVID-19 release by Ministry of Health, Labor and Welfare, Japan
https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000121431_00086.html

2019 Novel Coronavirus COVID-19 (2019-nCoV) Data Repository by Johns Hopkins CSSE
https://github.com/CSSEGISandData/COVID-19

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Population Estimation, e-Stat. Japan
https://www.e-stat.go.jp/stat-search?page=1&toukei=00200524

World statistics 2020, Ministry of Internal Affairs and Communications Statistics Bureau, Japan
https://www.stat.go.jp/data/sekai/0116.html

World Bank Open Data
https://data.worldbank.org/

UNdata, A world of information
https://data.un.org/Default.aspx

Democracy Index 2019
https://www.eiu.com/topic/democracy-index

Global Metro Monitor
https://www.brookings.edu/research/global-metro-monitor/

Analysis Code Source

This document was created using some of the source code or data published below.

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https://github.com/tarunk04/COVID-19-CaseStudy-and-Predictions/blob/master/LICENSE

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