

COVID-19

Israel

Created by Tal Levi

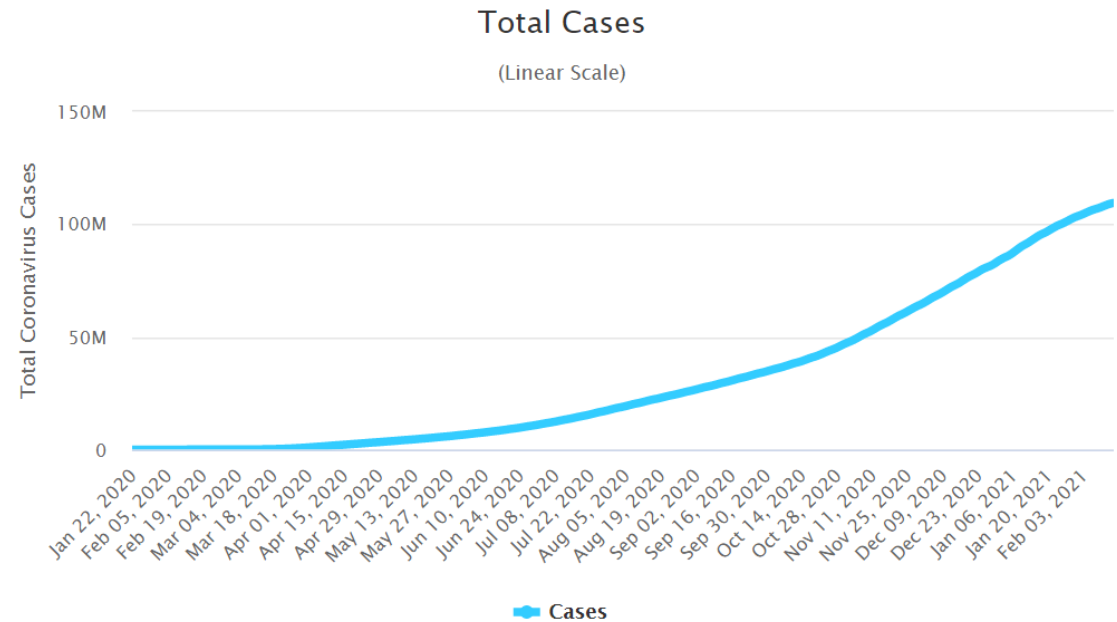
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Introduction

- COVID-19 pandemic has come to the world attention on Dec. 31, 2019.
- The virus was discovered in Wuhan City, Hubei province, China.
- The WHO declared the outbreak a Health Emergency of International Concern in January 2020 and a pandemic in March 2020. 3

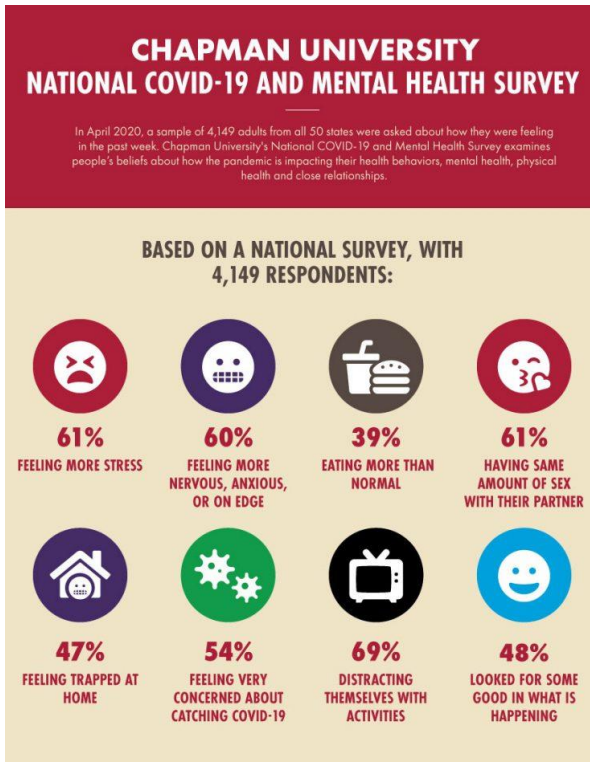
COVID around the world:

- **Reported Cases:** 109,448,052
- **Death toll:** 2,412,813
- **Recovered :** 81,696,365

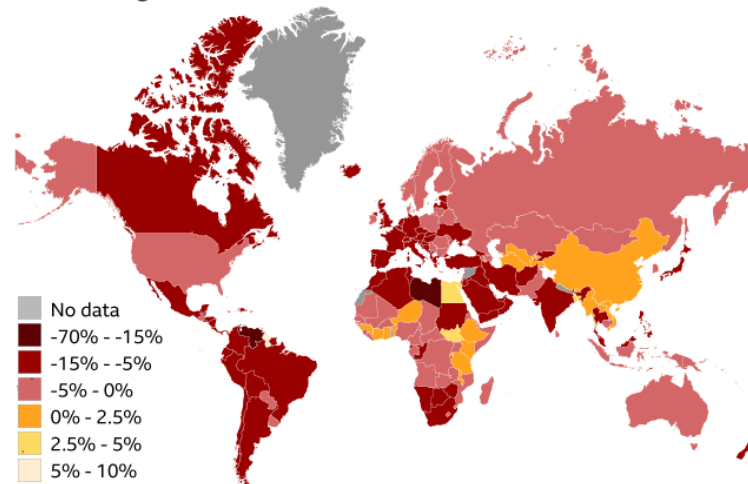


COVID-19 Effects

- Economic shock.
- Raise in mental and physical health related illness .
- Civil unrest.
- Global isolation.



Majority of countries in recession
Real GDP growth



Source: International Monetary Fund

BBC



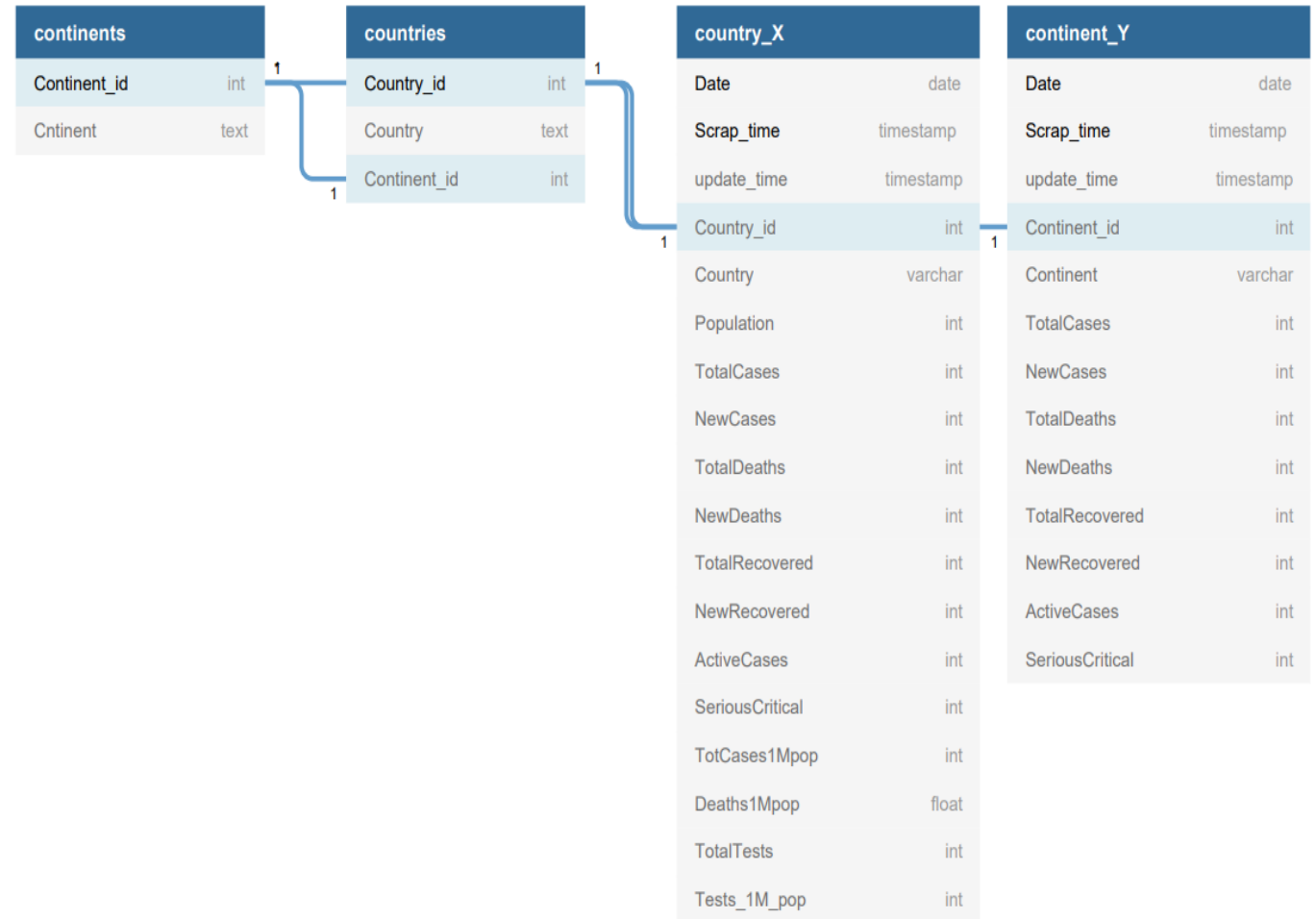
Influencing factors

- Population composition (homogeneous VS heterogeneous).
- Government type.
- State and quality of the health care system.
- Cooperation between citizens and the government.



Data Description

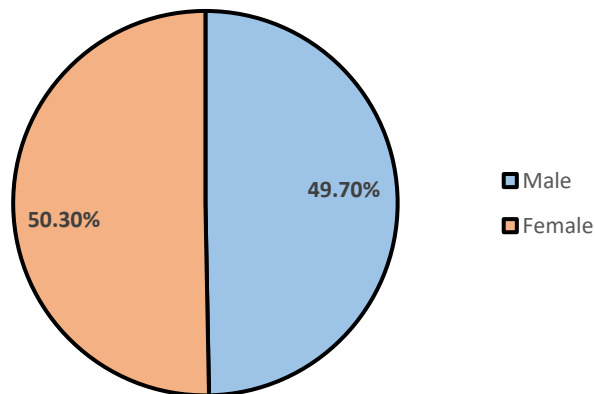
- DB Updates daily from Worldmeter
- Number of Continents: 6
- Number of Countries: 222
- Number of Records: 177 (per table)
- Number of Headers:
 - Continents: 13
 - Countries: 18
- Time period: 16.8.20-13.2.21



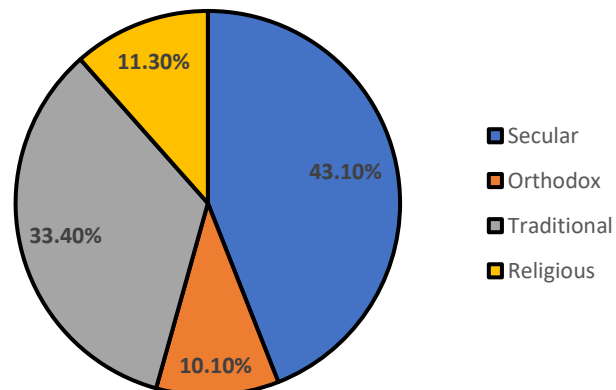
Israel Statistics

- Population size: 9.294 million with a growth rate of 1.9%.
- **Median age: 30.2.**
- Life expectancy: 82.8 (2018).
- Hospital beds per thousand: 2.99.
- GDP: 394.7 billion USD (2019).
- human development index : 0.919

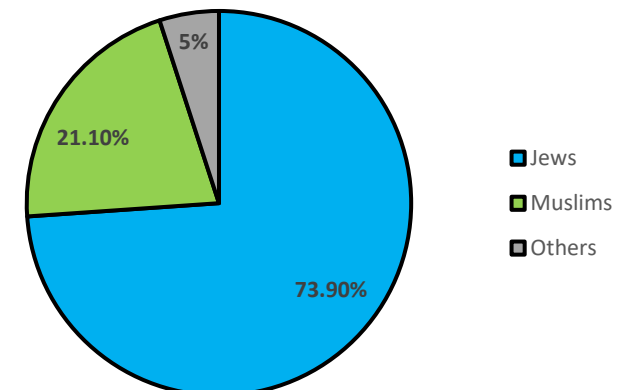
Population by gender



Jewish population segmentation



Israel population segmentation

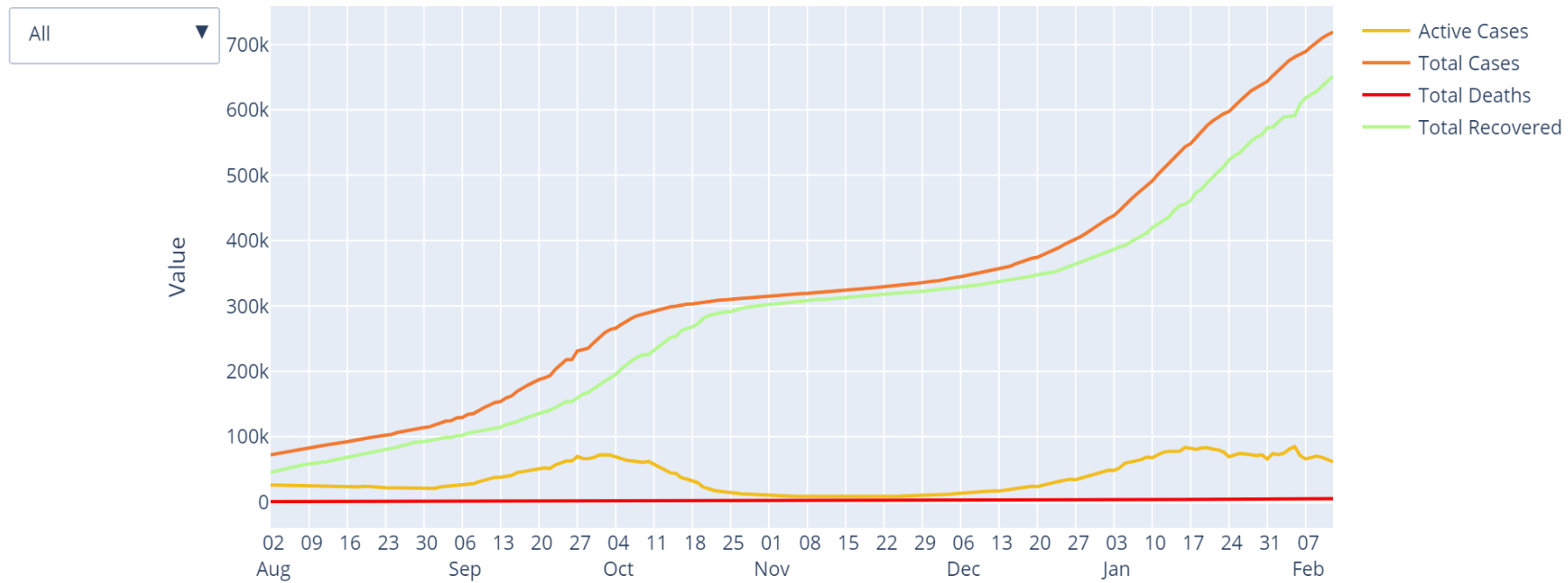


Israel's status

- The growth in **Total Cases** is exponential.
- **Total cases** and **total recovered** are correlated (one-week shifting).
- There is a correlation between **Total cases** and **active cases** (slop).

Israel Cumulative\Active Cases Over Time

Creation date 2021-02-15

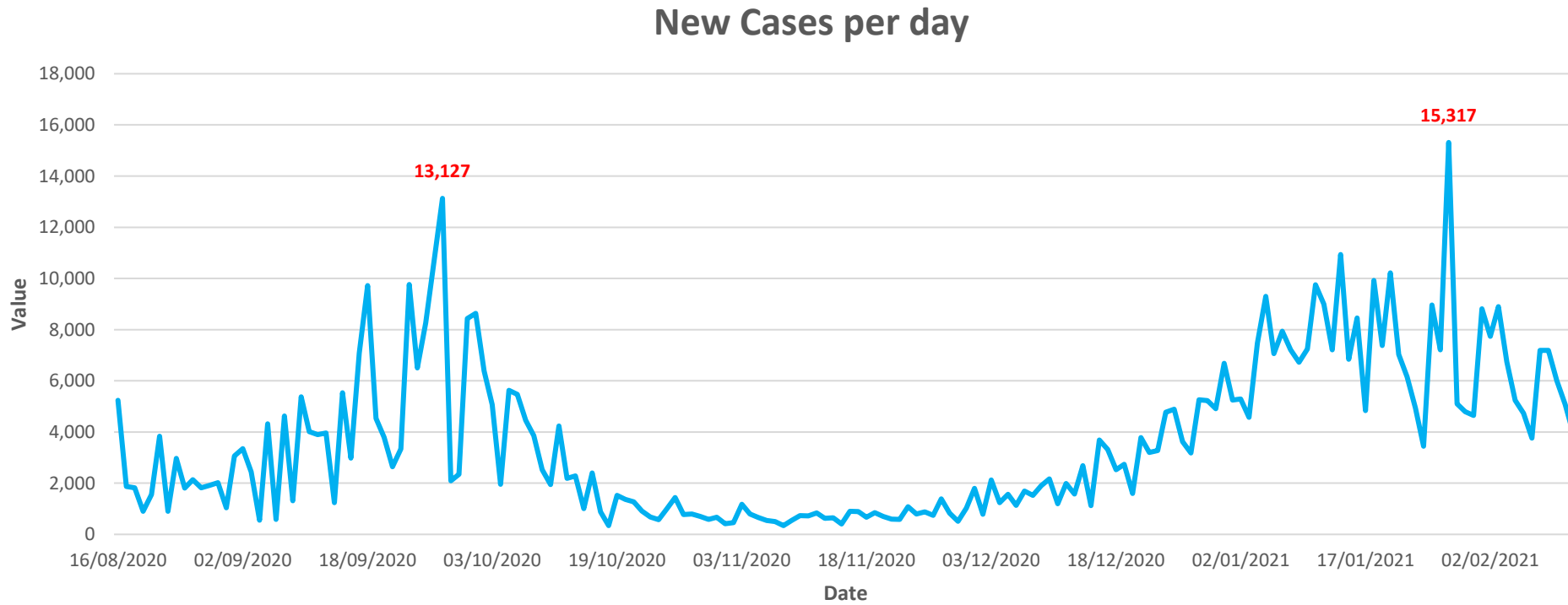


Active Cases: 61,920 | **Total Cases:** 718,746 | **Total Recovered:** 651,522 | **Death Tool:** 5,304

True to 12.02.21

Waves of COVID-19

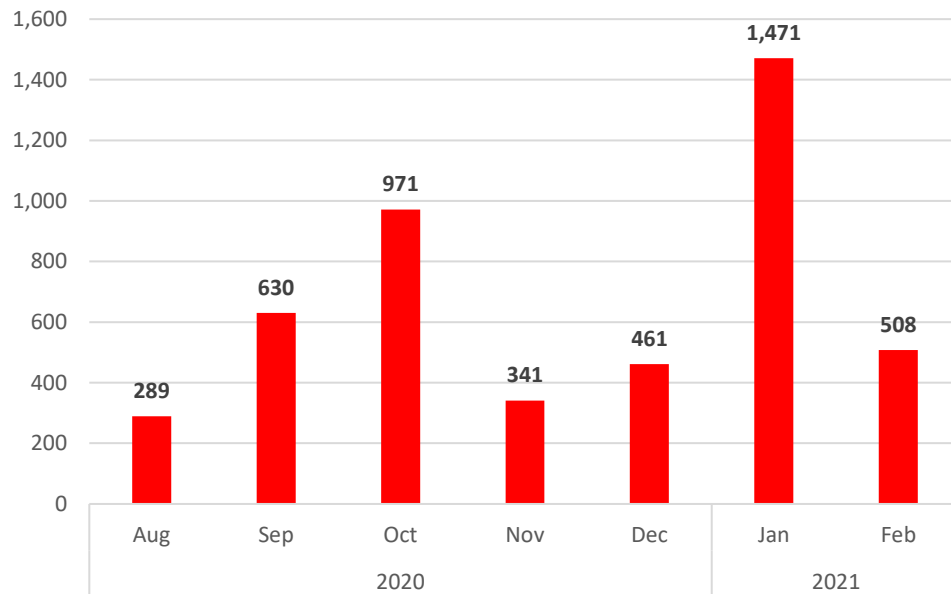
- The second wave started in September and faded in October.
- The third wave started in the middle of December and faded in February.
- In between waves, there were 46 days with an average of 804 new cases.



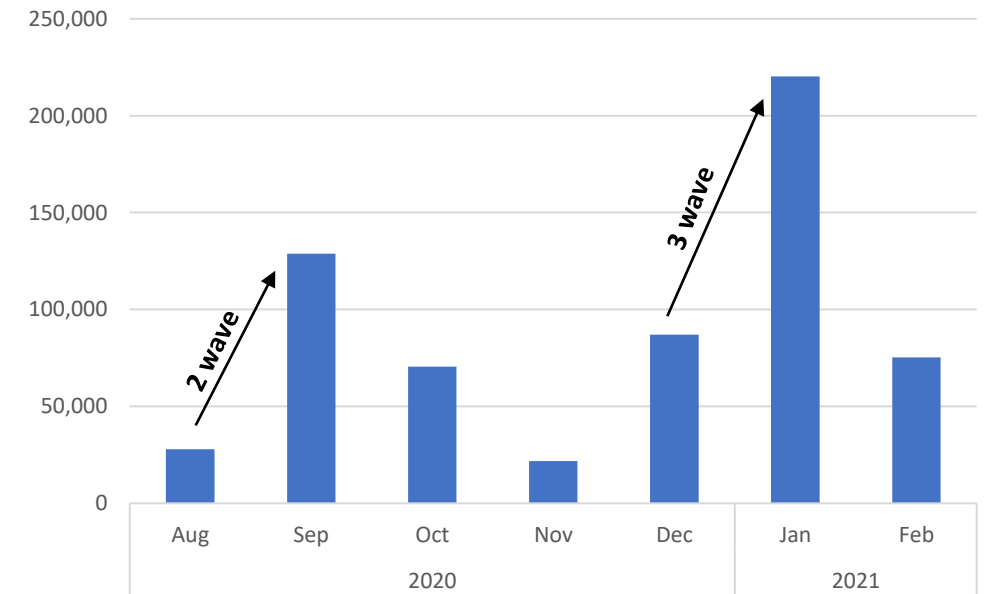
Waves of COVID-19

- The decrease in **deaths** during Oct - Nov is due to the second lockdown.
- The third wave was more **severe** than the second one.
- January showed a steep incline in **deaths**.
- The effect of the rise in **new cases** on **new deaths** takes between one to two weeks.

New Deaths per month



New Cases per month

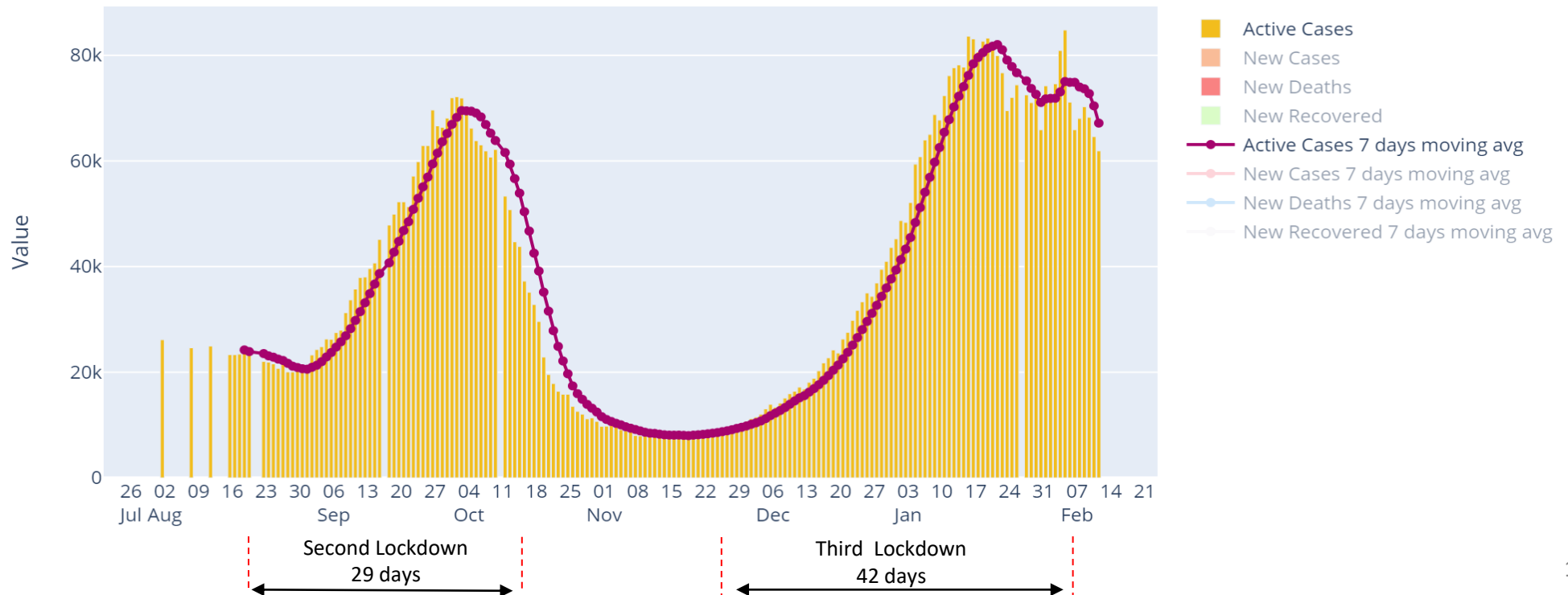


Lockdowns

- It takes between two to three weeks to see the lockdowns effect.
- Lockdown time **increases** between the second and third by 44.83%.
- Avg **active cases** **increased** by 16.74% between lockdowns.
- Avg **deaths** **increased** by 30.3% between lockdowns.
- There were three lockdowns with a cumulative time of 122 days.

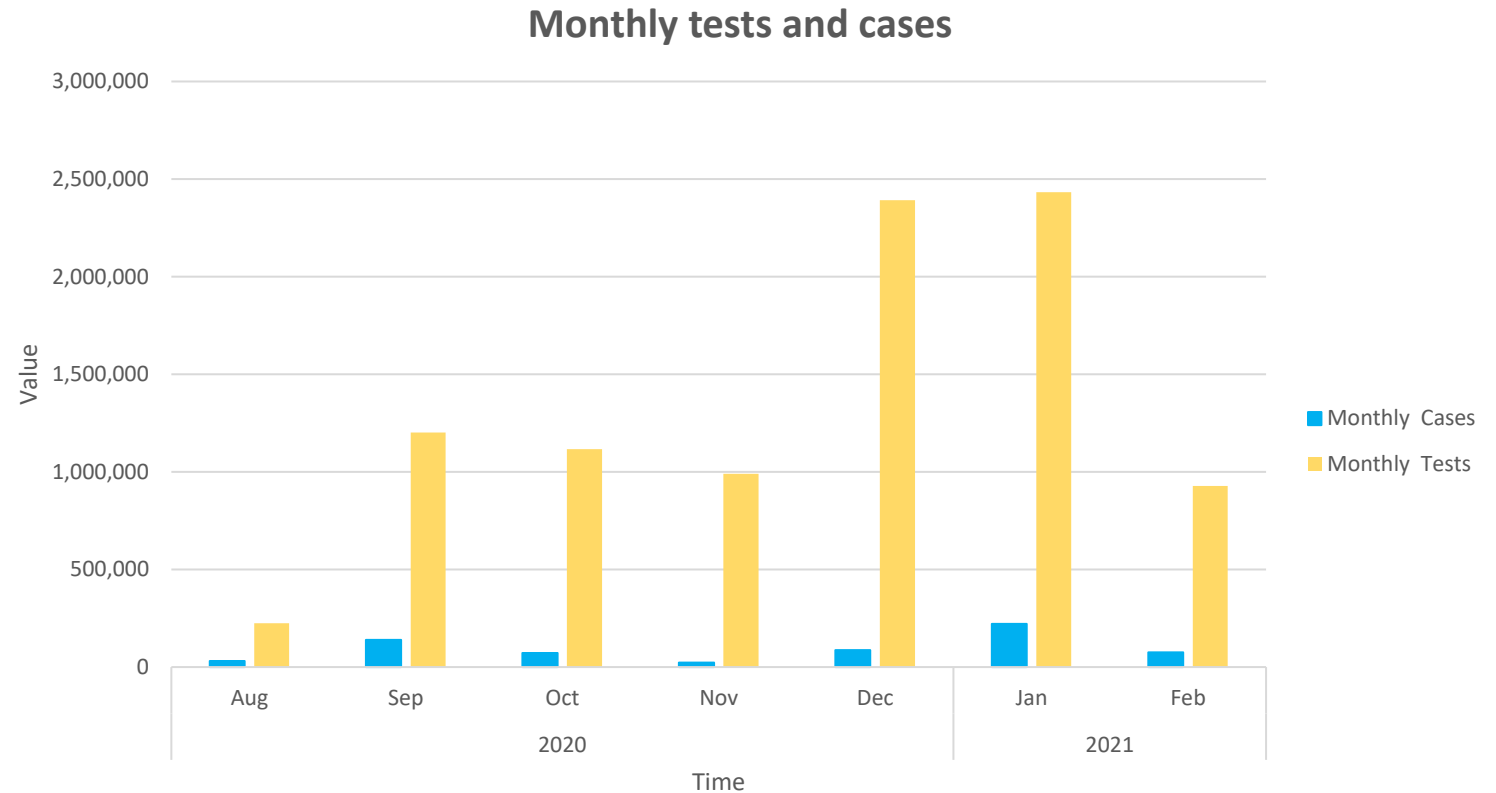
Israel Daily increase

Creation date 2021-02-15



Tests

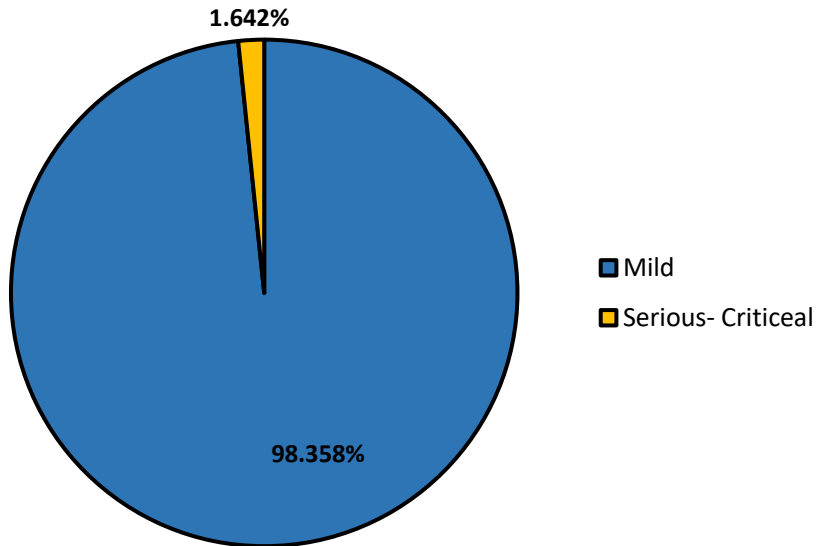
- There is a positive correlation between the number of **tests** and the number of **cases**.
- During the waves of infection, more people performed **tests**.
- The time it takes to get the test answer is between 24 to 48 hours on average.



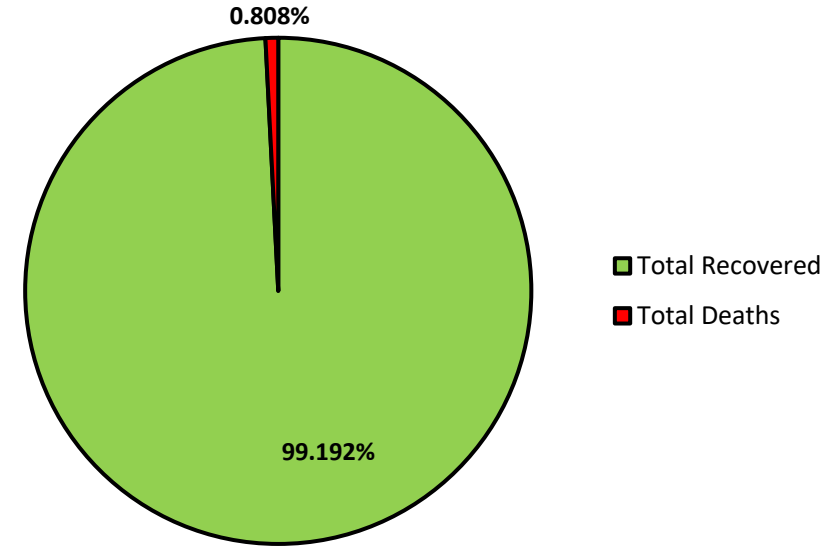
Case's classification

- Most people **recover** from the disease.
- Most patients are classified as **mild** cases.
- **Death** toll and **serious** condition are affected by other factors like medical treatment.

Medical Condition Ratio



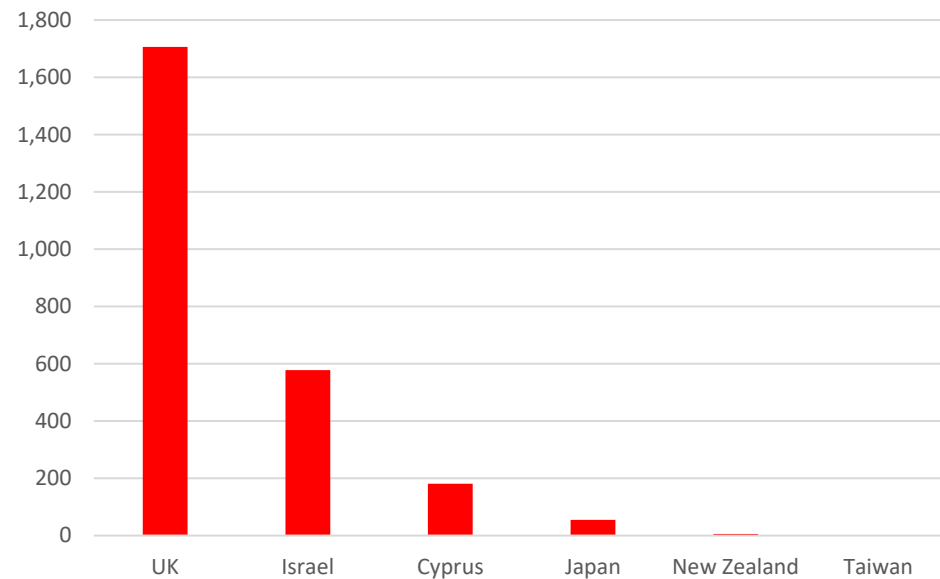
Closed Cases Ratio



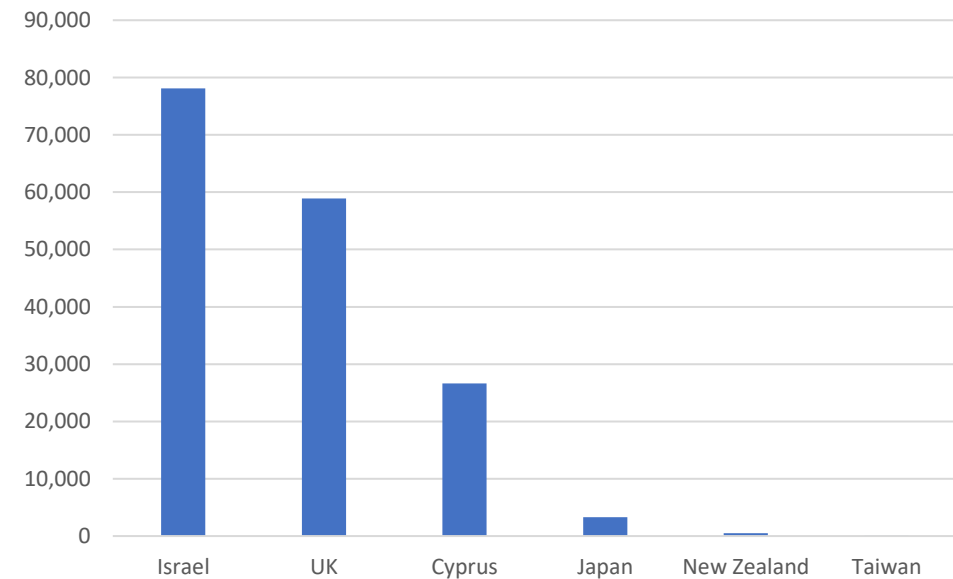
Island nations compression

- Israel main entry point is Ben-Gurion airport.
- The Spread of Covid-19 in Israel is one of the highest among the island countries.
- The amount of **fatalities** in Israel is lower in comparison to the UK (In **total cases** the difference isn't as big)

Island countries – Total Deaths



Island countries – Total Cases

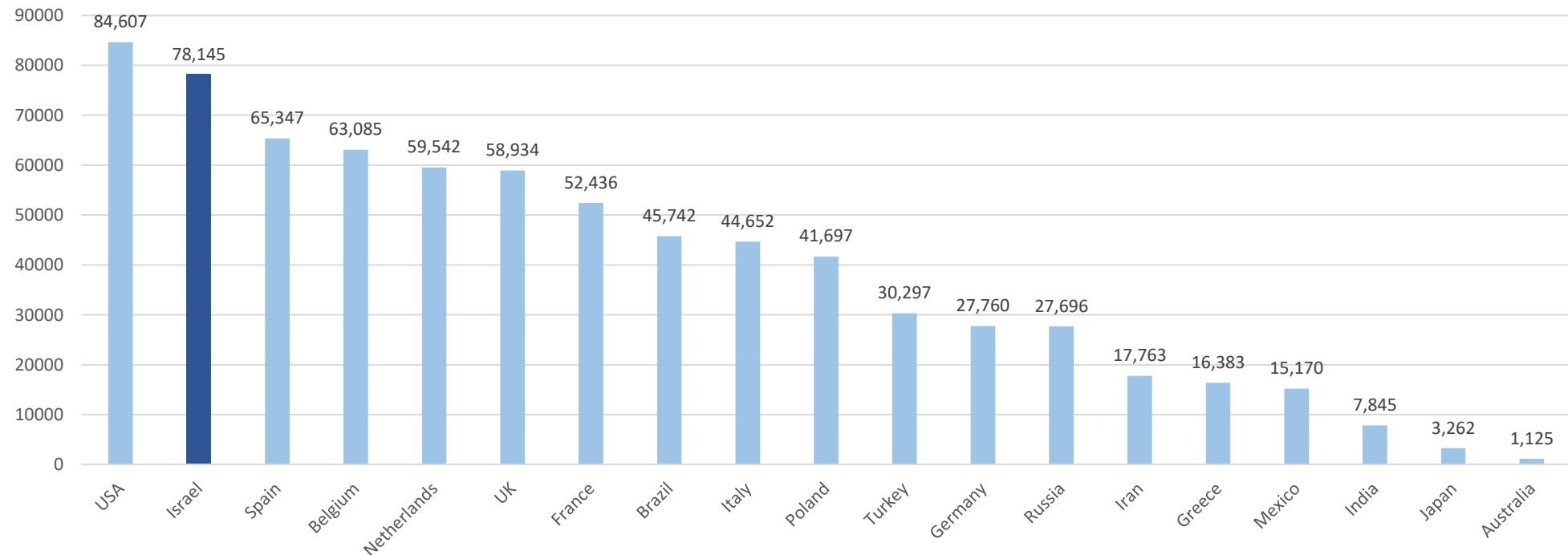


Israel vs the world

Israel's world rank by 1M population:

- Total cases: 9
- Total deaths: 53
- Total tests: 16

Total Cases by country

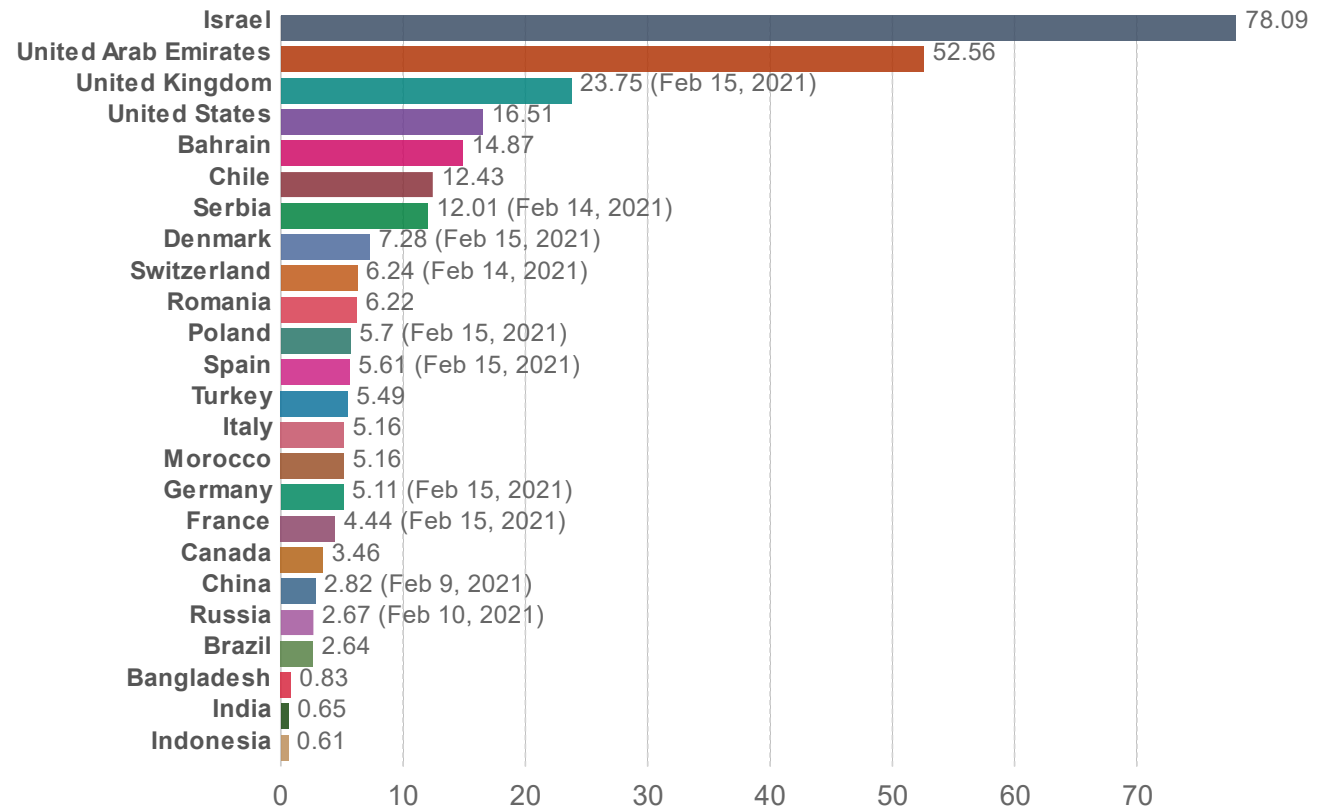


Vaccines

- Total vaccination doses given globally so far: 178,092,680.
- The Chinese and Russian vaccine are more common in developing countries.
- Israel has administered the most COVID-19 vaccine doses per capita in the world.
- Two-thirds of eligible Israelis have received at least 1 dose of COVID vaccine (+4M).
- It will take about a month to see the distinct effect of the vaccines.

COVID-19 vaccine doses administered per 100 people, Feb 16, 2021

Total number of vaccination doses administered per 100 people in the total population. This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).



Summery and conclusions

- Functioning health care system has a direct effect on the death toll.
- The population in Israel is suffering from “COVID-19 fatigue” due to three lockdowns.
- Cooperation between citizens and the government is crucial.
- More tests = more cases.
- Most of the patients will suffer from mild symptoms and recover.
- Lockdowns are effective but only if the population keeps it.

