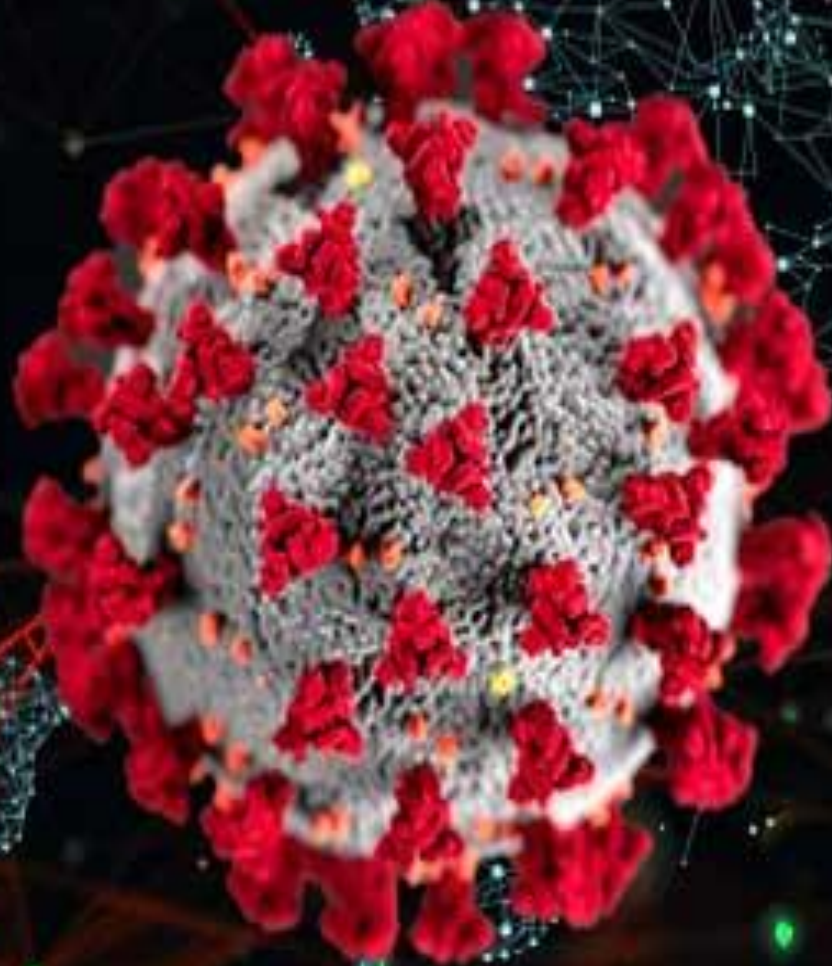


Covid-19 in the Philippines



Introduction

Covid-19 (Although it doesn't need any)

- ▶ My Country Republic of the Philippines, is one of the high-risk countries from the Wuhan coronavirus outbreak, recorded the first death outside China. The government has announced lock-down of Metro Manila and is mulling over more localised lock-downs as the nCoV cases increase gradually and the WHO declaring coronavirus as a pandemic.

Problem Which Tried to Solve:

COVID-19 is wreaking havoc across the globe!!!

- ▶ Well, that's something everyone probably already knows as long as they aren't living under the cave for some reason.
- ▶ But is it really China who's the most affected right now?
- ▶ Or one of those European countries that are literally on fire at the moment because of the virus?
- ▶ How good is the US doing?
- ▶ How on Earth did it spread so far? (See for yourself)
- ▶ Will a public lockdown work?
- ▶ Lessons to learn from China?
- ▶ Should we be worried?

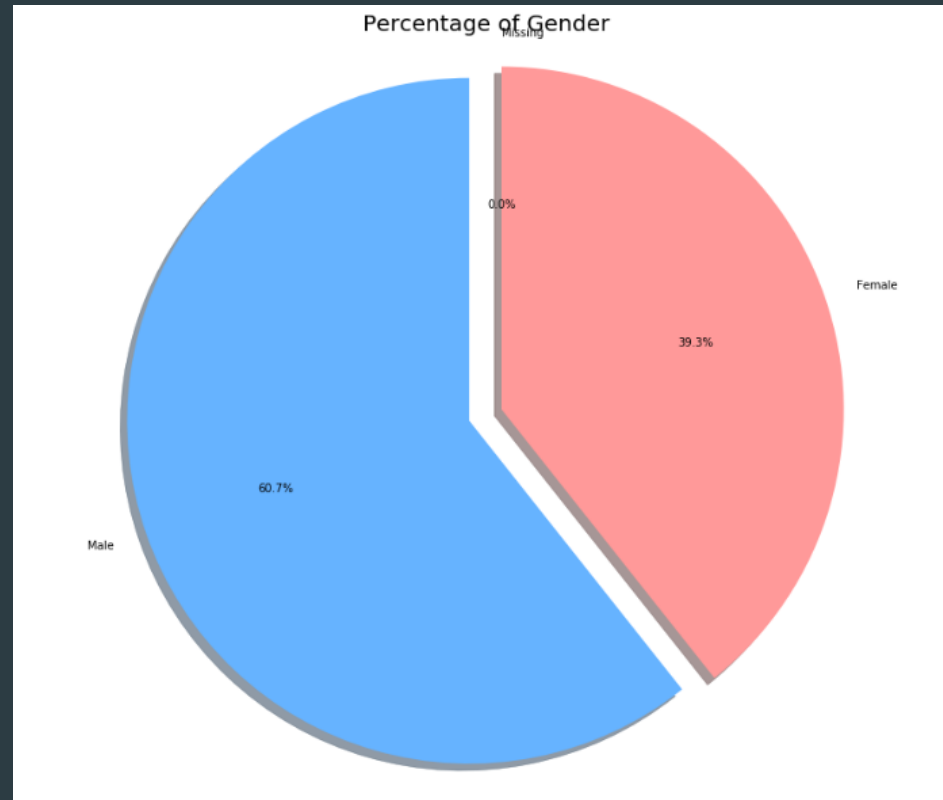
The Location and The Audience

- ▶ **The Philippines and the World**
- ▶ **Everyone specially the Filipinos**

The Data

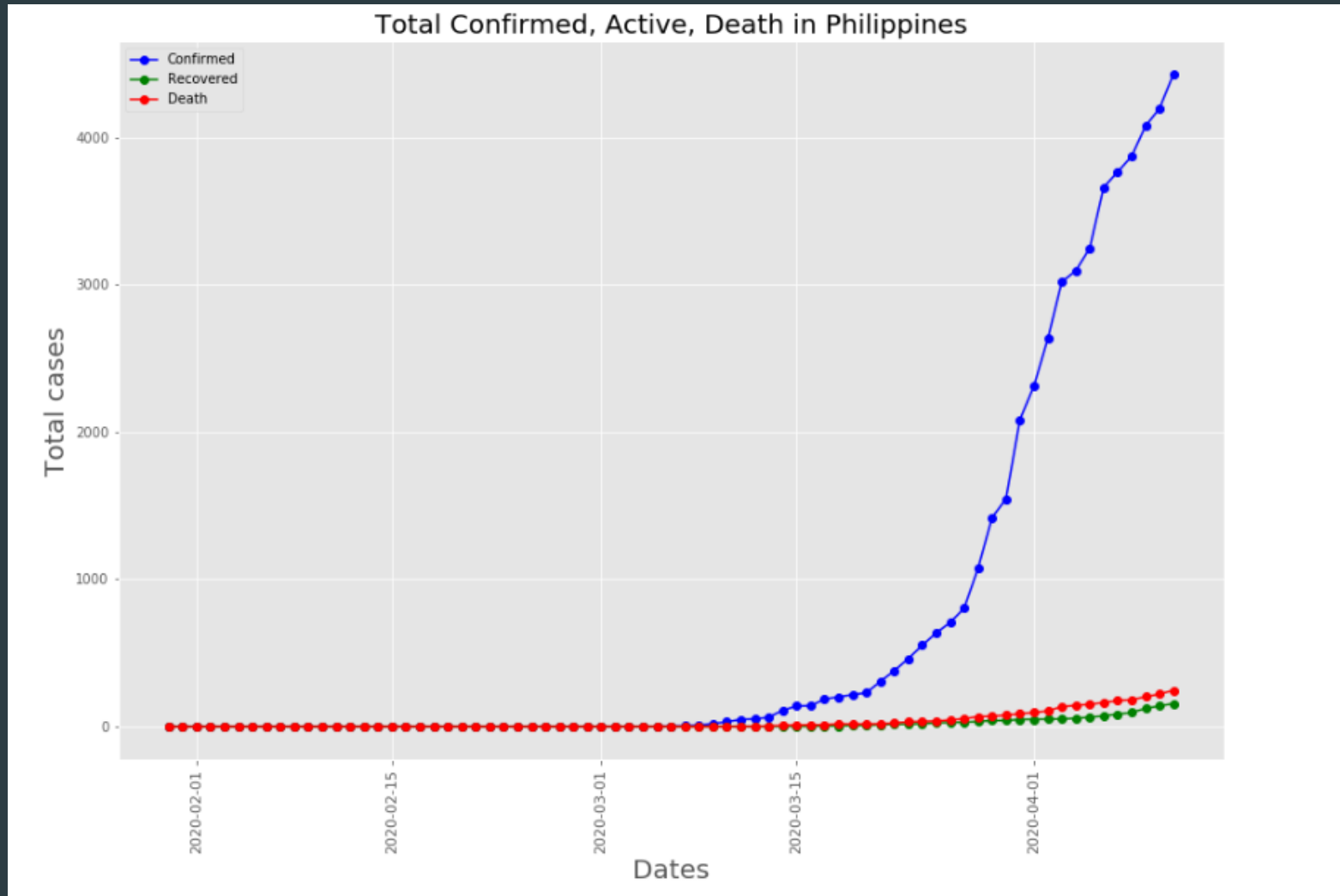
- ▶ The data below are gather from the COVID-19 repository by Johns Hopkins CSSE
- ▶ The data below are downloaded from Kaggle Novel Coronavirus Philippine Dataset

Gender Analysis

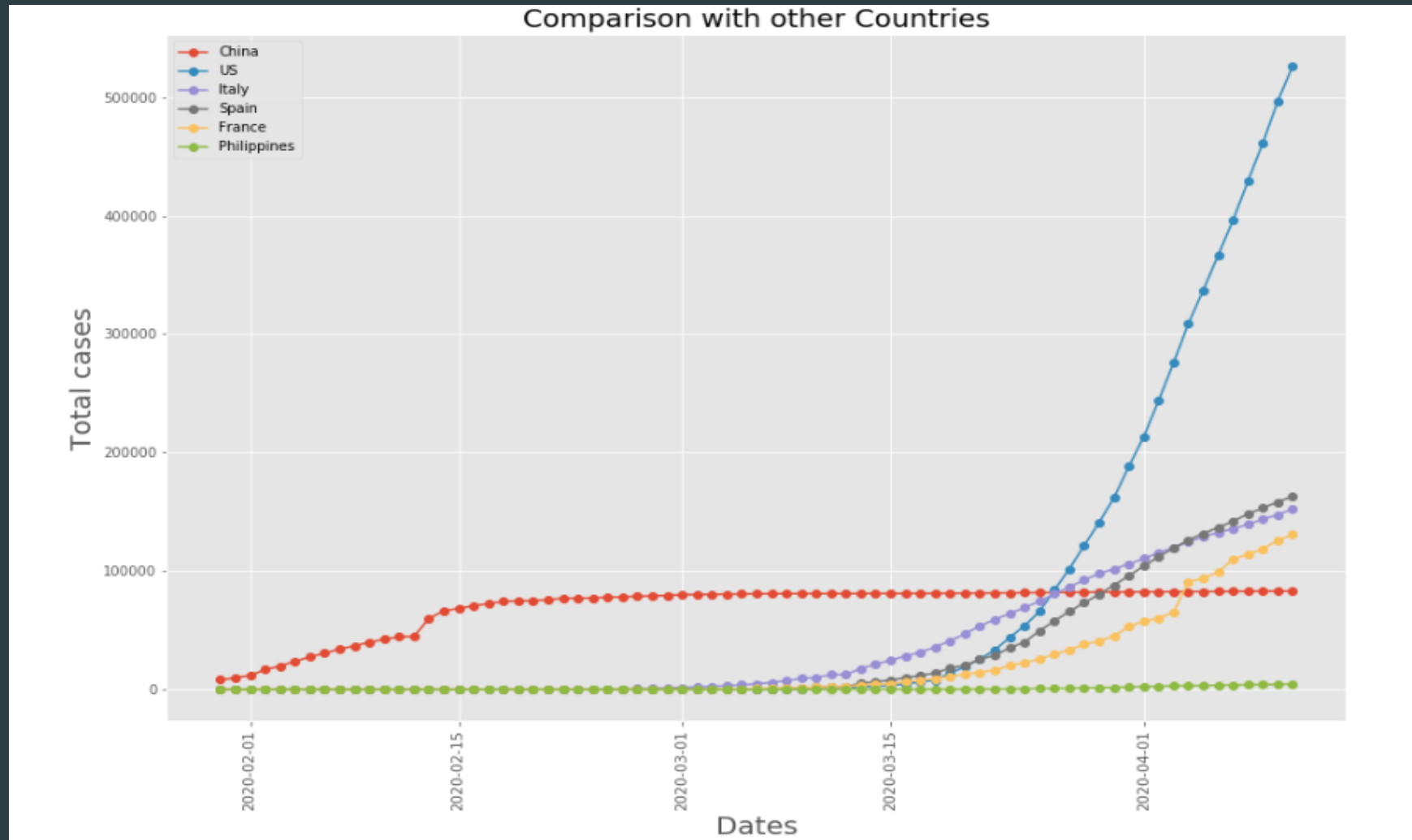


60.7% of COVID-19 positive patients are male. Men are the most most likely affected.

The Philippines vs the other countries



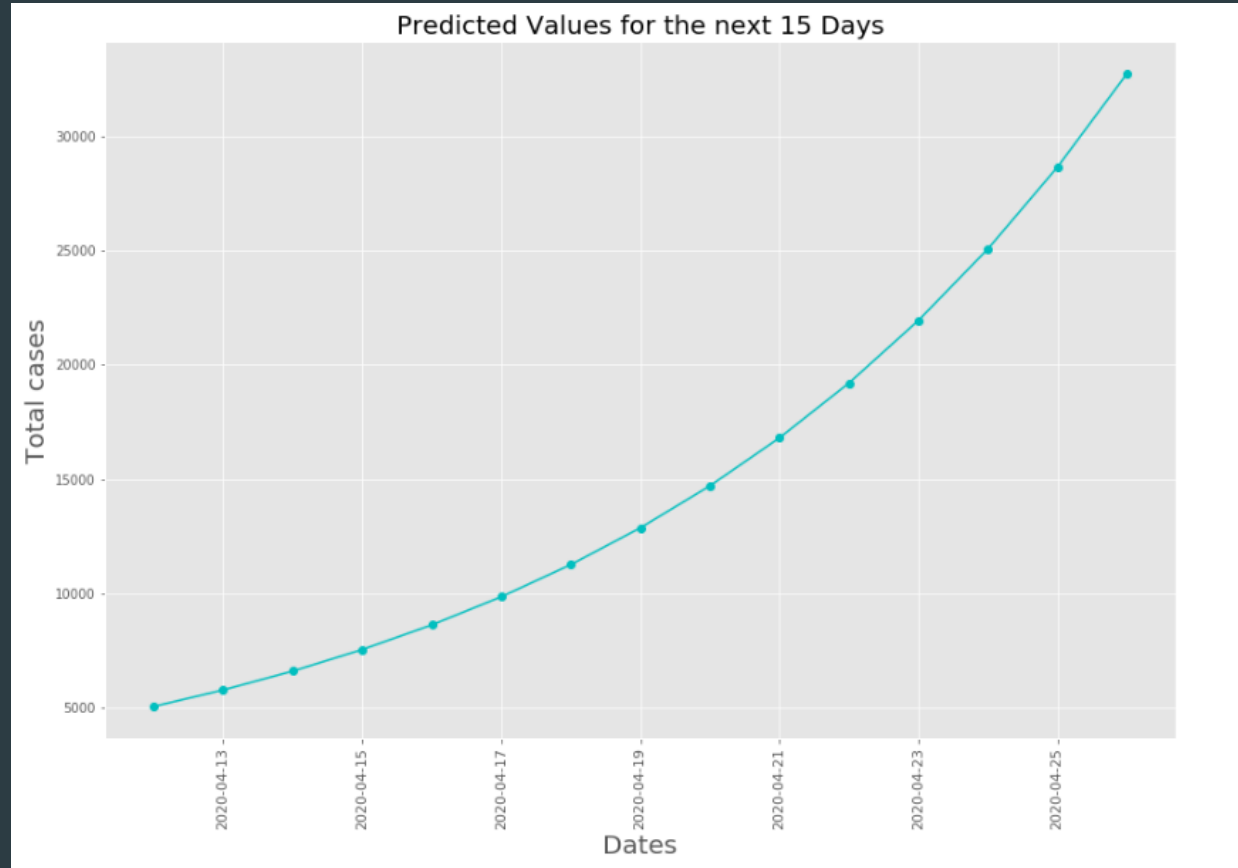
The Philippines vs the other countries



Though being highly populated the relative confirmed cases of Philippines is low compared to other countries. This could be because of two reasons

- ▶ One month Enhanced Community Quarantine imposed by Pres. Rodrigo Duterte
- ▶ Low testing rate

Prediction



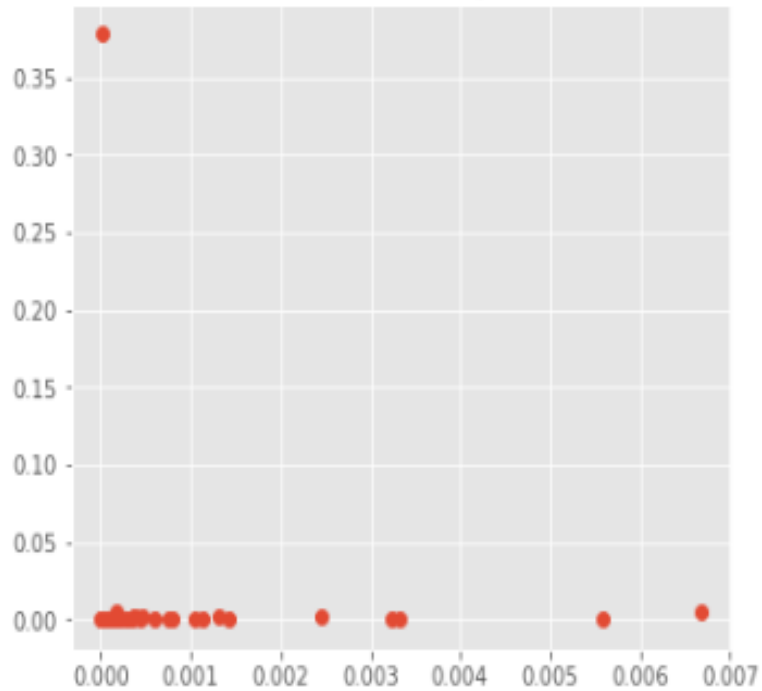
We could see that the graph is increasing exponentially if the average growth factor doesn't decrease. It is important that the growth factor is reduced to flatten the curve.

Correlating the Metadata

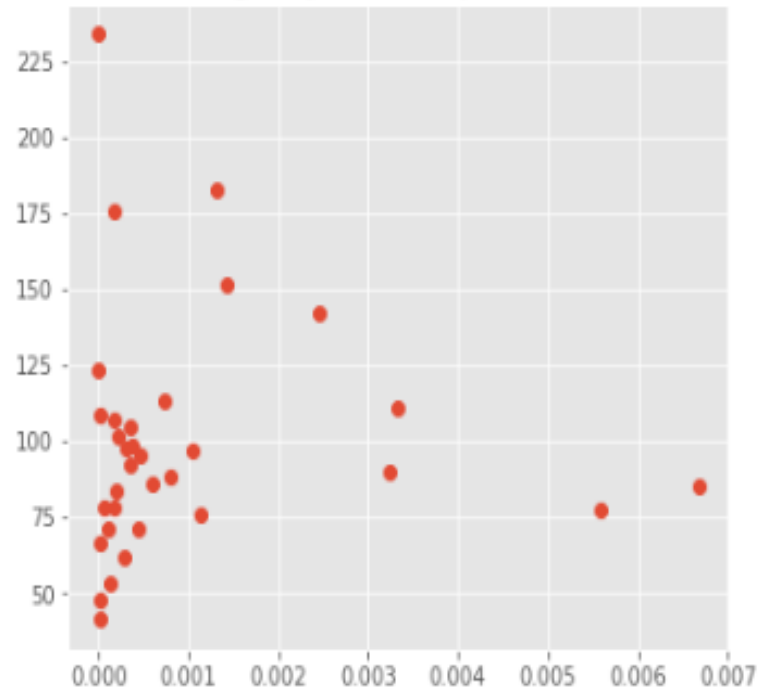
	Total Cases	Longevity	Rate of Spread
Tests per Citizen	0.510695	0.189505	0.497326
Hospital Beds per Citizen	0.343409	-0.0995061	0.418315
Population Density	0.242876	0.180737	0.26655
Median Age	0.505136	0.178294	0.515536
Urban Poulation %	0.263908	0.0854773	0.244264
days_to_quarantine	0.379991	0.459851	0.446687
days_to_schools	0.507512	0.425689	0.500262
days_to_publicplace	0.744776	0.460255	0.753145
days_to_gathering	0.299407	0.38324	0.347312
days_to_nonessential	0.4	0.8	0.4

Correlating the Metadata

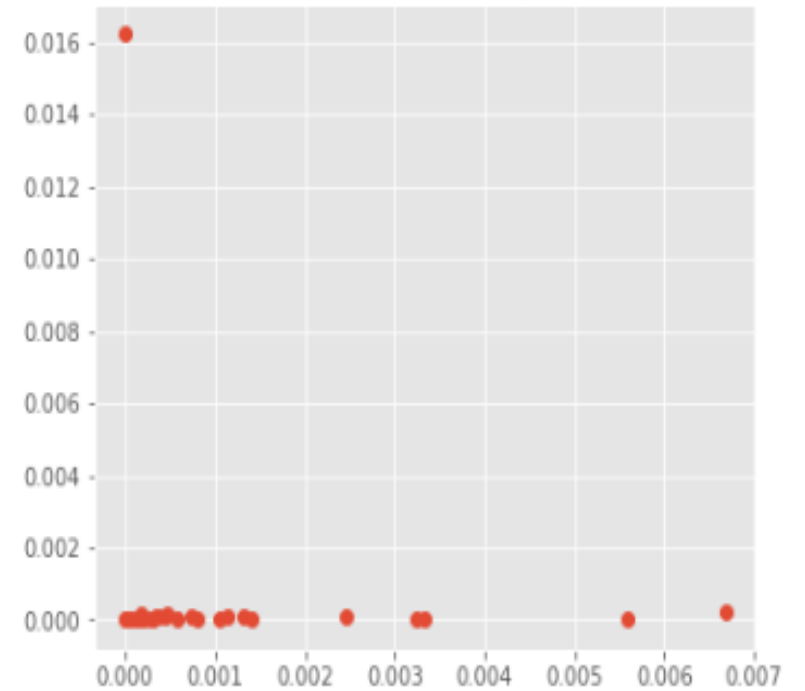
Total Cases vs Tests per Citizen



Longevity vs Tests per Citizen

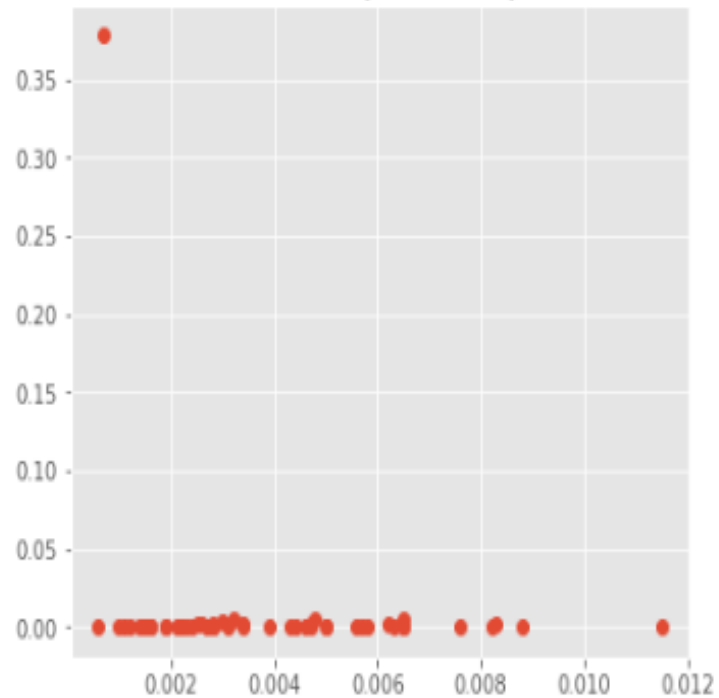


Rate of Spread vs Tests per Citizen

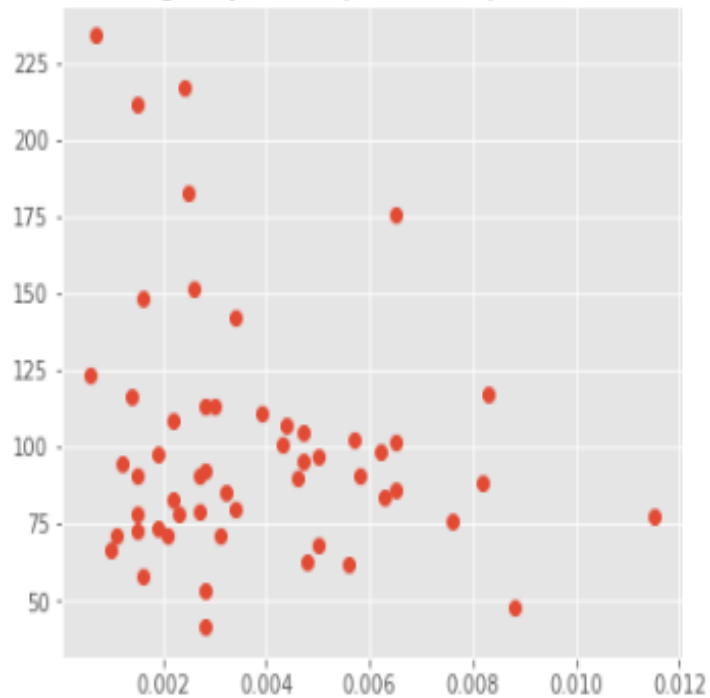


Correlating the Metadata

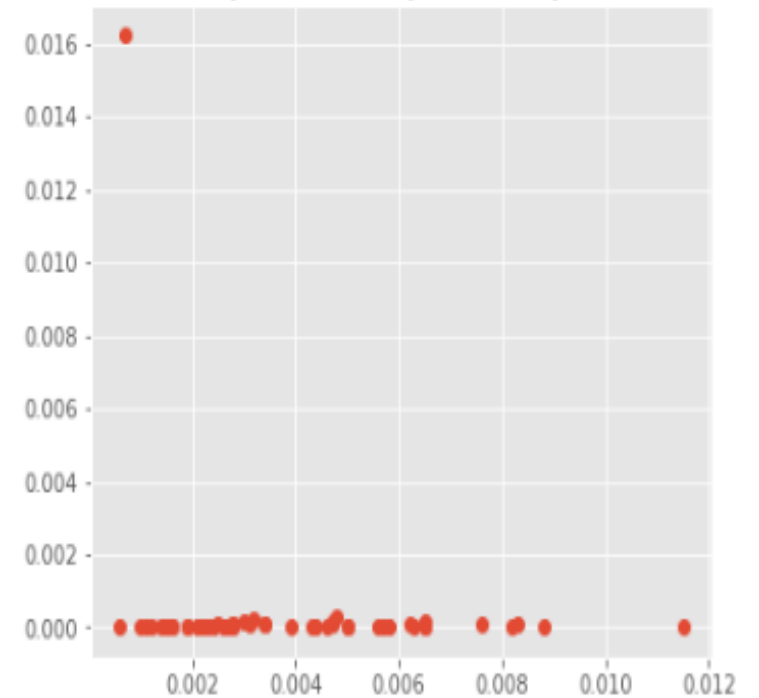
Total Cases vs Hospital Beds per Citizen



Longevity vs Hospital Beds per Citizen

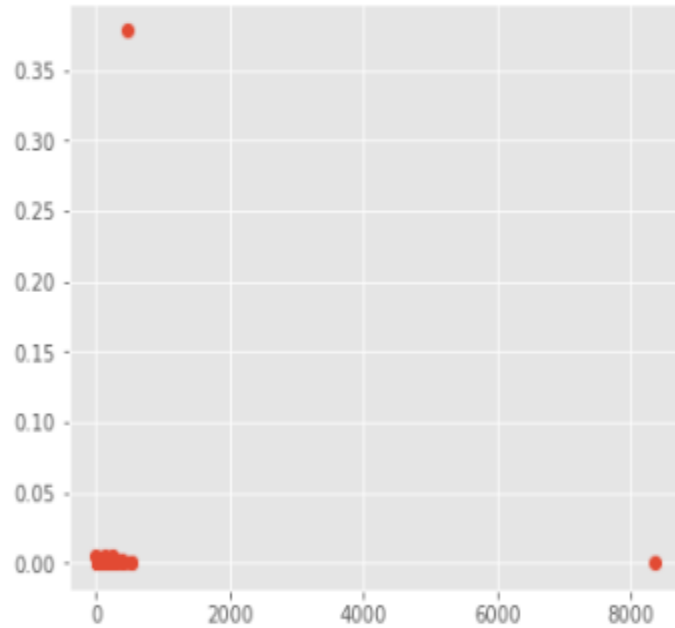


Rate of Spread vs Hospital Beds per Citizen

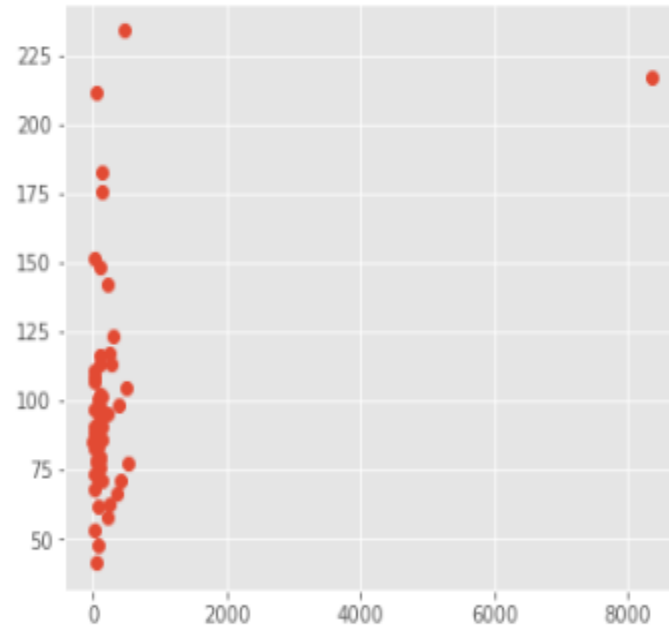


Correlating the Metadata

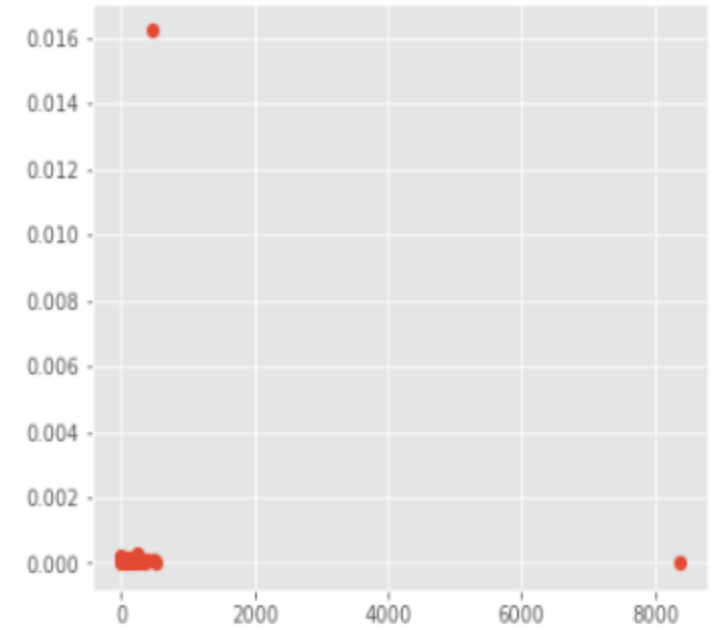
Total Cases vs Population Density



Longevity vs Population Density

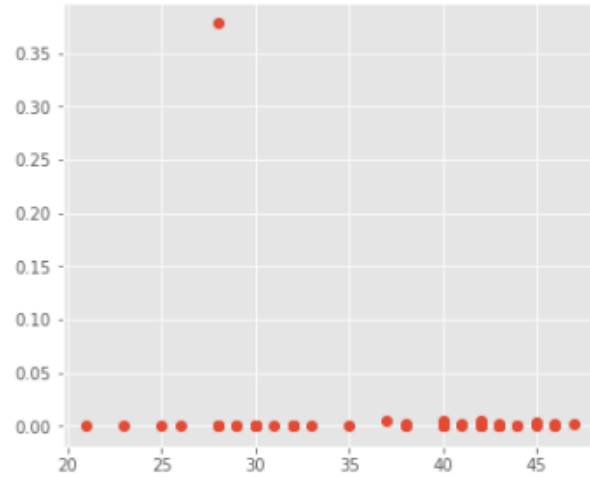


Rate of Spread vs Population Density



Correlating the Metadata

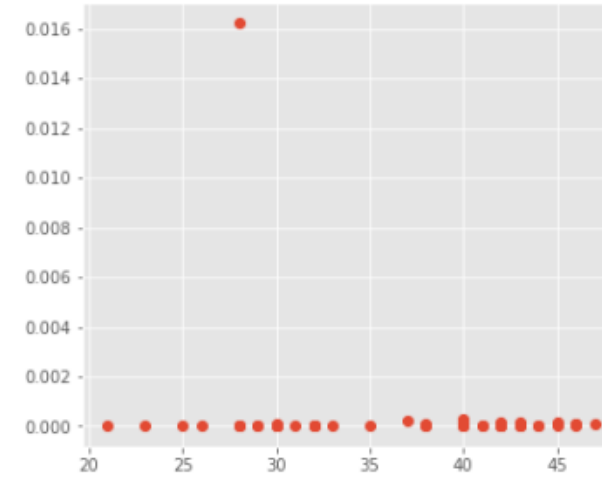
Total Cases vs Median Age



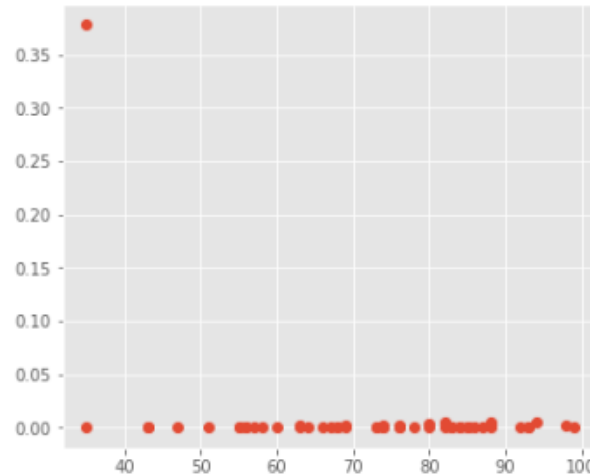
Longevity vs Median Age



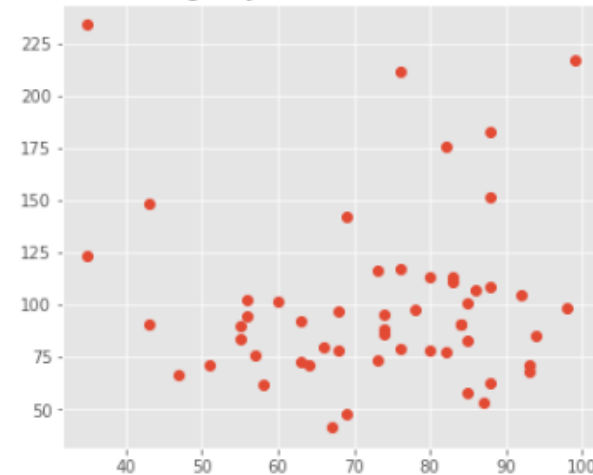
Rate of Spread vs Median Age



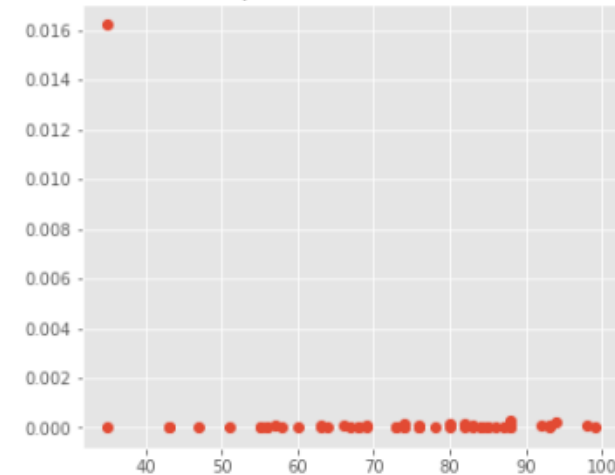
Total Cases vs Urban Poulation %



Longevity vs Urban Poulation %



Rate of Spread vs Urban Poulation %



Correlating the Metadata

	Total Cases	Longevity	Rate of Spread
Tests per Citizen	-3.26345	0	-0.140291
Hospital Beds per Citizen	-3.77459	-0	-0.160774
Population Density	0	0	0
Median Age	-0.00120535	0	-5.14808e-05
Urban Poulation %	-0	-0	-0
days_to_quarantine	0.000955365	0.871074	4.10171e-05
days_to_schools	0.00168586	0.801115	6.4325e-05
days_to_publicplace	0.00245014	1.65361	9.78304e-05
days_to_gathering	0	1.80006	8.46181e-05
days_to_nonessential	0.00239569	2.84491	6.7106e-05

Summary

Several factors were found to have a significant correlation with the impact of the virus, though none of the correlations were overwhelmingly strong. Faster enacted restrictions on movement have the biggest influence. Here are the main factors that were found to reduce the impact of COVID-19:

► Schools Closed

- *on average* one day delay lengthens the impact by 1.1 days, and means means 110 more people per million will become confirmed cases

► Public Venues Closed

- *on average* one day delay lengthens the impact by 2.0 days, and means means 140 more people per million will become confirmed cases

► Social Gatherings Banned

- *on average* one day delay lengthens the impact by 2.1 days, and means means 150 more people per million will become confirmed cases

Summary

Several factors were found to have a significant correlation with the impact of the virus, though none of the correlations were overwhelmingly strong. Faster enacted restrictions on movement have the biggest influence. Here are the main factors that were found to reduce the impact of COVID-19:

- ▶ **Non-Essential House Leaving Banned**

- ▶ *on average* one day delay lengthens the impact by 3.0 days, and means means 150 more people per million will become confirmed cases

- ▶ **Higher temperature**

- ▶ On average one degree celcius higher means 6 fewer people per million will become confirmed cases

- ▶ **Lower humidity**

- ▶ On average one percentage lower humidity means 20 fewer people per million will become confirmed cases

- ▶ **Lower median age**

- ▶ On average one year higher median age means 5 fewer people per million will become confirmed cases

Thank you !!!