

Countries of impact: Botswana,  
Cameroon, Eswatini,  
Mozambique, Namibia, Nigeria,  
Rwanda, South Africa, Zimbabwe



# Global South AI4COVID Response Program

*Predictive Modeling and Forecasting of  
COVID-19 Transmission in Africa using AI  
(PI: Dr. Jude Kong)*





# Acknowledgement: Africa-Canada AI and data Innovation Consortium (ACADIC) leaders



# Plan

➤ Objectives

➤ Achievements



# Objectives

## Objective 1

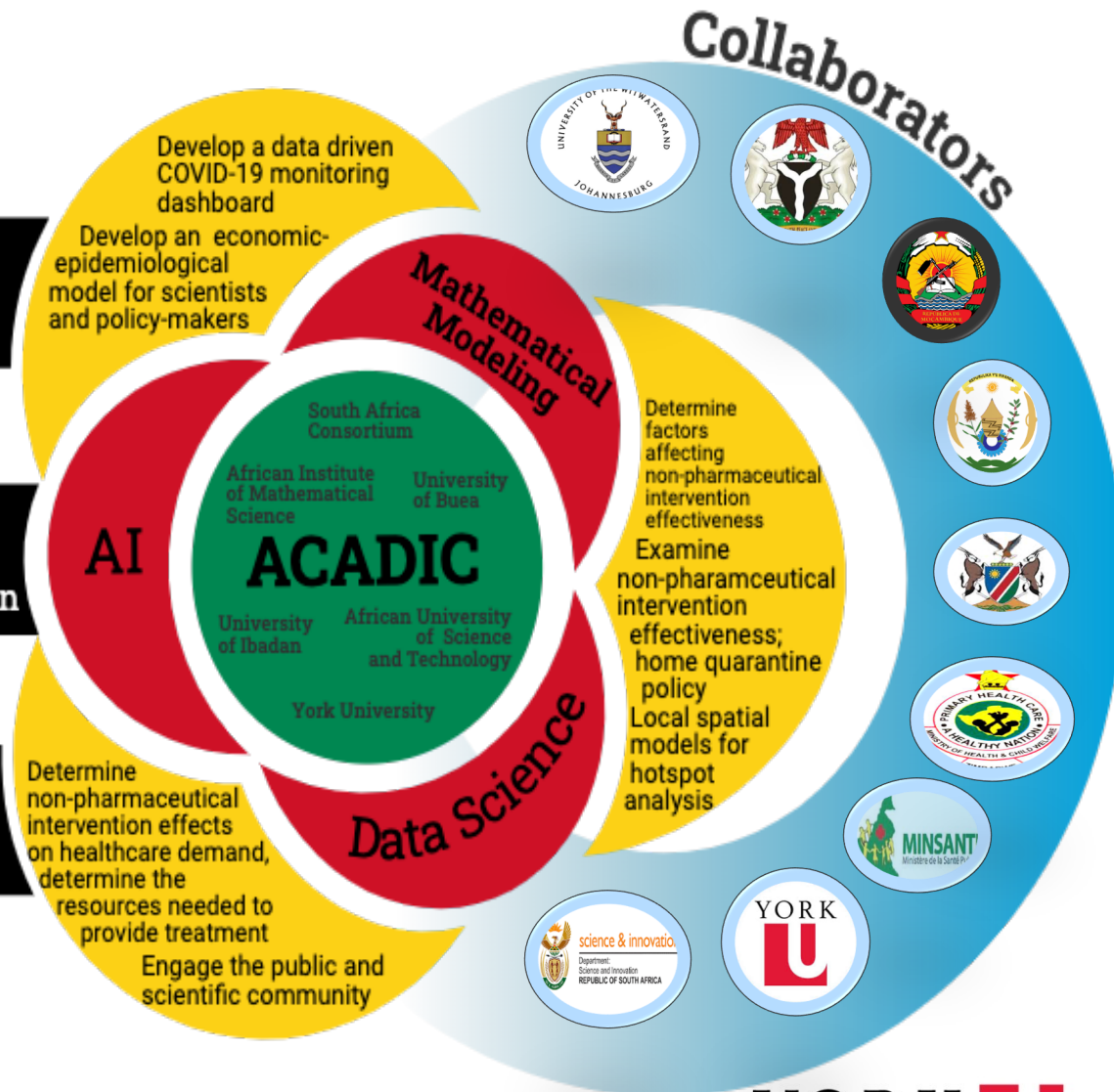
Aid policy makers  
in mitigating/surpressing  
outbreaks

## Objective 2

Evaluate relative  
effectiveness and potential  
biases of non-pharmaceutical intervention

## Objective 3

Support local communication  
strategies to address mis-information  
about prevention and treatment.



Real-time delivery of reliable and comprehensive information to guide governmental strategic policies



# Comprehensive COVID-19 monitoring dashboard

External dashboards built cooperatively with African Universities:

Botswana Dashboard

Eswatini Dashboard

Mozambique Dashboard

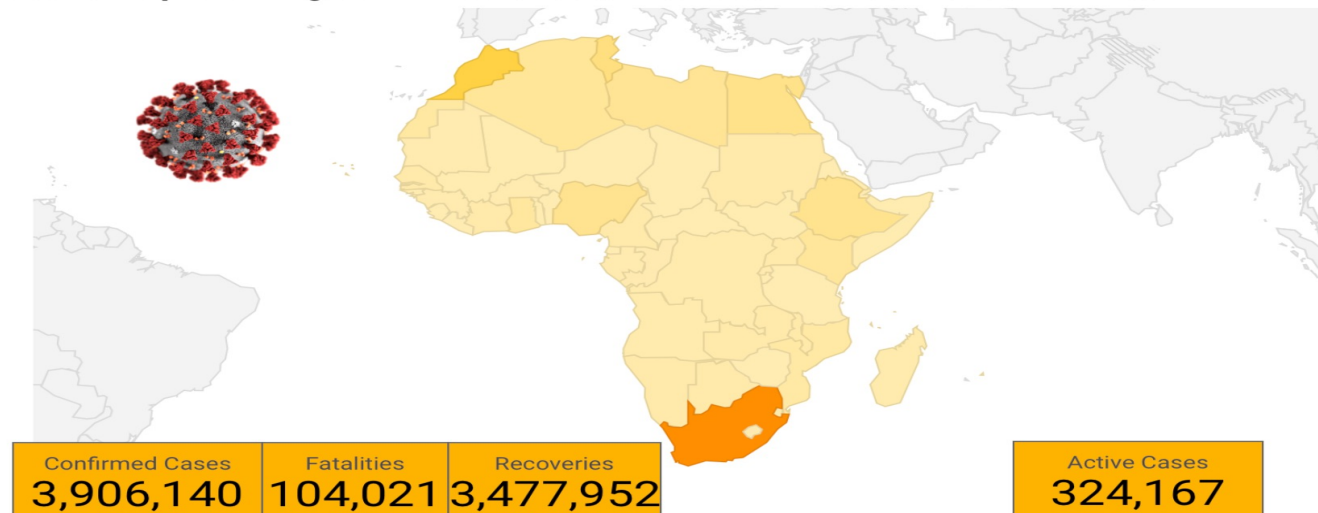
Namibia Dashboard

Nigeria Dashboard

Zimbabwe Dashboard

## OVERVIEW OF CORONA VIRUS IN AFRICA

**Interactive Map Showing Confirmed Cases, Fatalities and Recoveries in Africa**





# Visualizing locally relevant information to the public and policy makers

## COVID-19 South Africa Dashboard

This site serves as a monitoring tool of the development of the coronavirus in South Africa. This data, in conjunction with global inputs and local parameters, are being used to provide predictions for the spread and impact of the coronavirus in the country. The work is performed by an interdisciplinary team of scientists from [Wits University](#) and [iThemba LABS](#) of the [NRF](#) in collaboration with the data analytics team of [DataConvergence](#).

This dashboard is developed and maintained by a team of student volunteers. We request donations to cover stipends for those students experiencing hardships in this time of lockdown. Donations from South African tax payers are tax deductible.

[Donate](#)

[Provincial Breakdown](#)

[Alert Levels And Stringency](#)

[Gauteng Province](#)

[Western Cape Province](#)

[Google Mobility Index](#)

[Facebook Mobility Index](#)

[3rd Wave Risk Index](#)

[3rd Wave Risk Index with AI](#)

Cumulative Cases

1,545,431

Daily change

+ 965

Active Cases

20,869

Relative to Population

2.6294%

Cumulative  
Fatalities

52,663

Mortality Rate

3.41%

Relative to Population

0.089601%

Total Recoveries

1,471,899

Total Tests


9,803,871

Gauteng	Western Cape	KwaZulu Natal	Free State	Eastern Cape	Limpopo	Mpumalanga	North West	Northern Cape
413,491	282,440	333,748	83,006	195,349	63,112	74,659	63,521	36,105
Daily Increase								
226	127	118	121	20	28	159	96	70

# Visualizing locally relevant information to the public and policy makers: Alert Levels

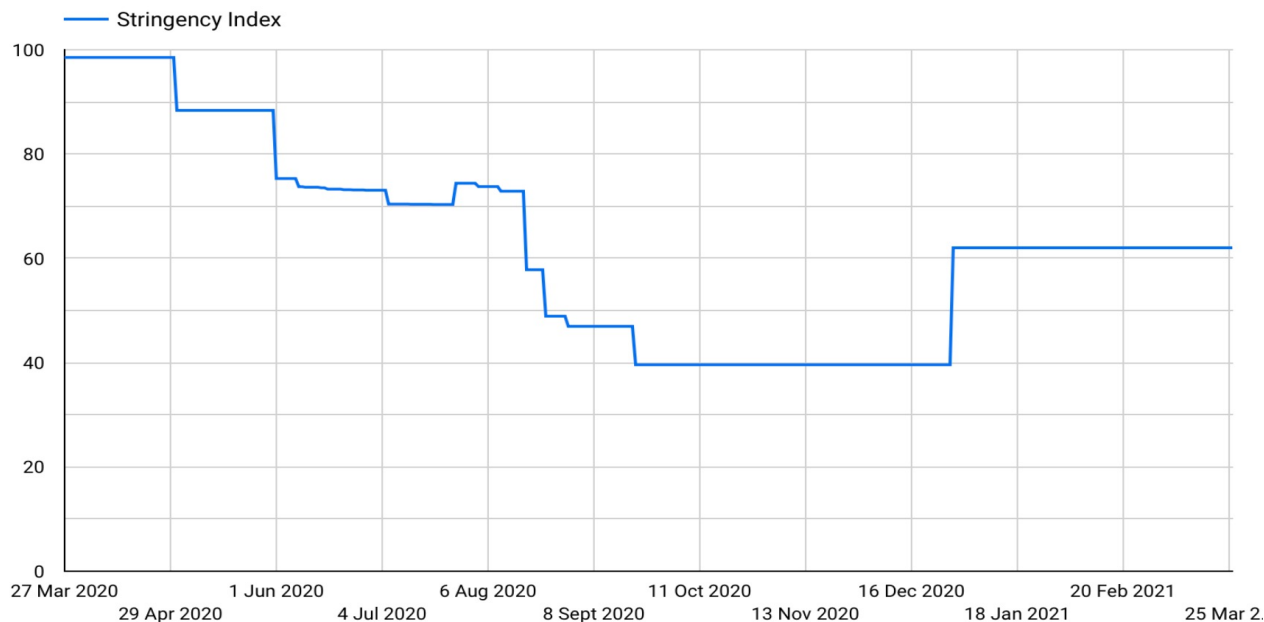
## Time Series Graph of South African Stringency Index for a Specific Municipality

Select Municipality:

Municipality 

Currently, all SA municipalities are following the same Stringency graph that can be seen below. If regulation changes and different municipalities have different alert levels, this will be incorporated to show the differences

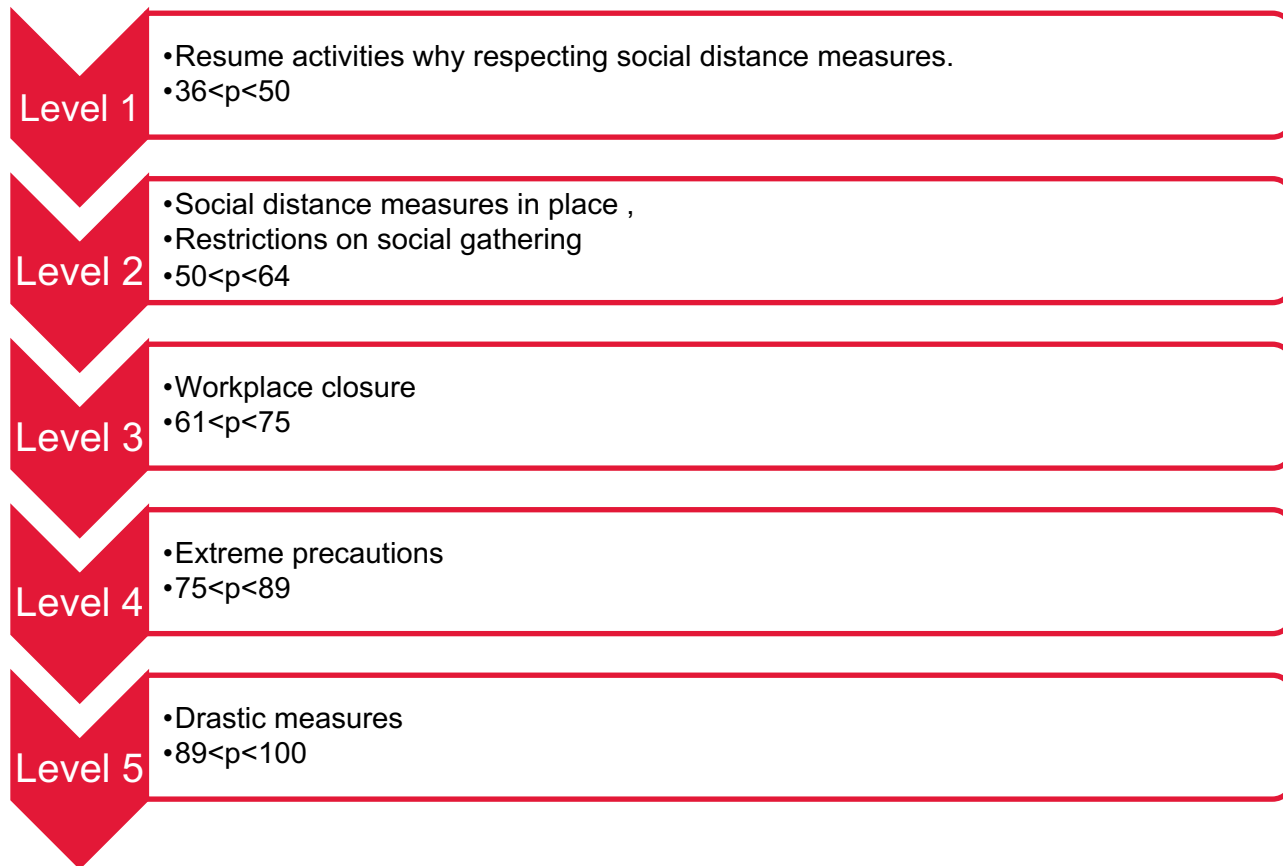
## Time Series Graph of South African Stringency Index



Please note: Future changes are based on announcements made by government and are subject to change. The date of future changes in alert level have not yet been announced.



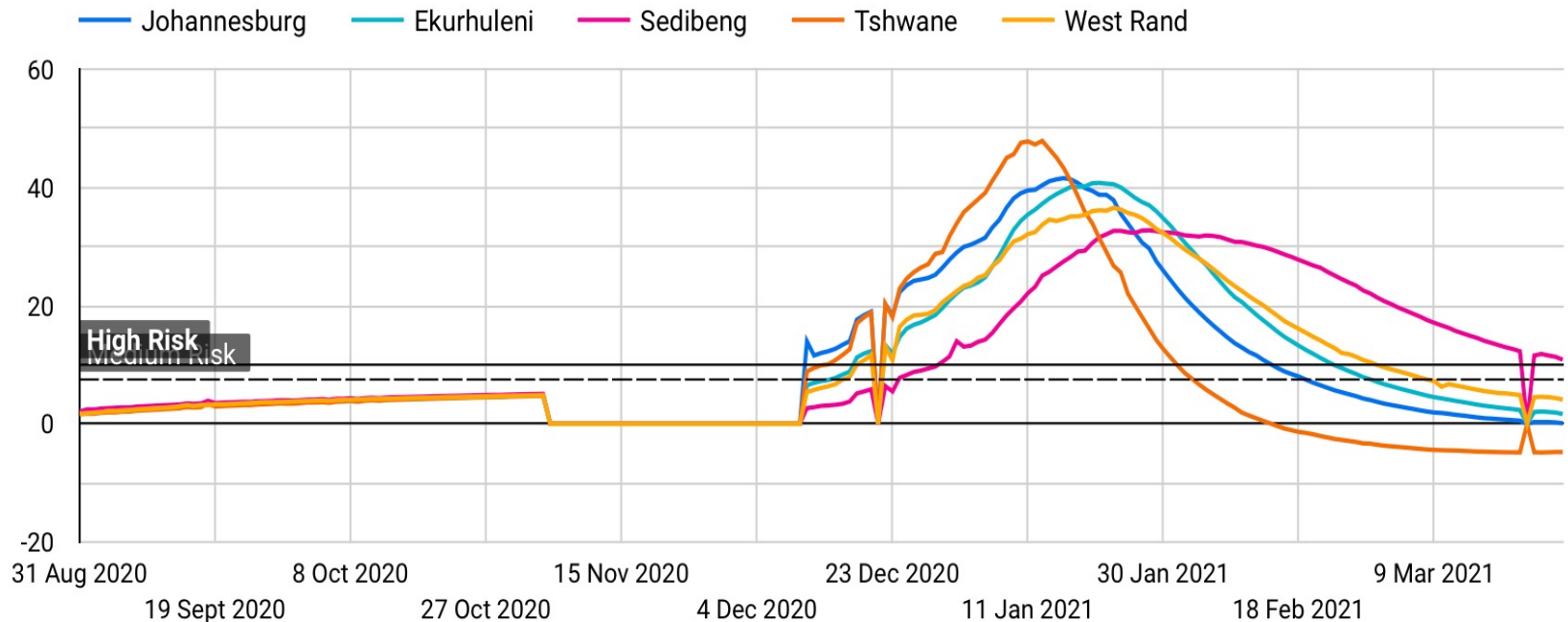
# Visualizing locally relevant information to the public and policy makers: Alert Levels



# Risk Index for the 3rd Wave

## Graph showing the 3rd wave risk index for 5 Districts in Gauteng

From the 05 November 2020 to 10 December 2020, there was no data available. These explains the gap in the graph.

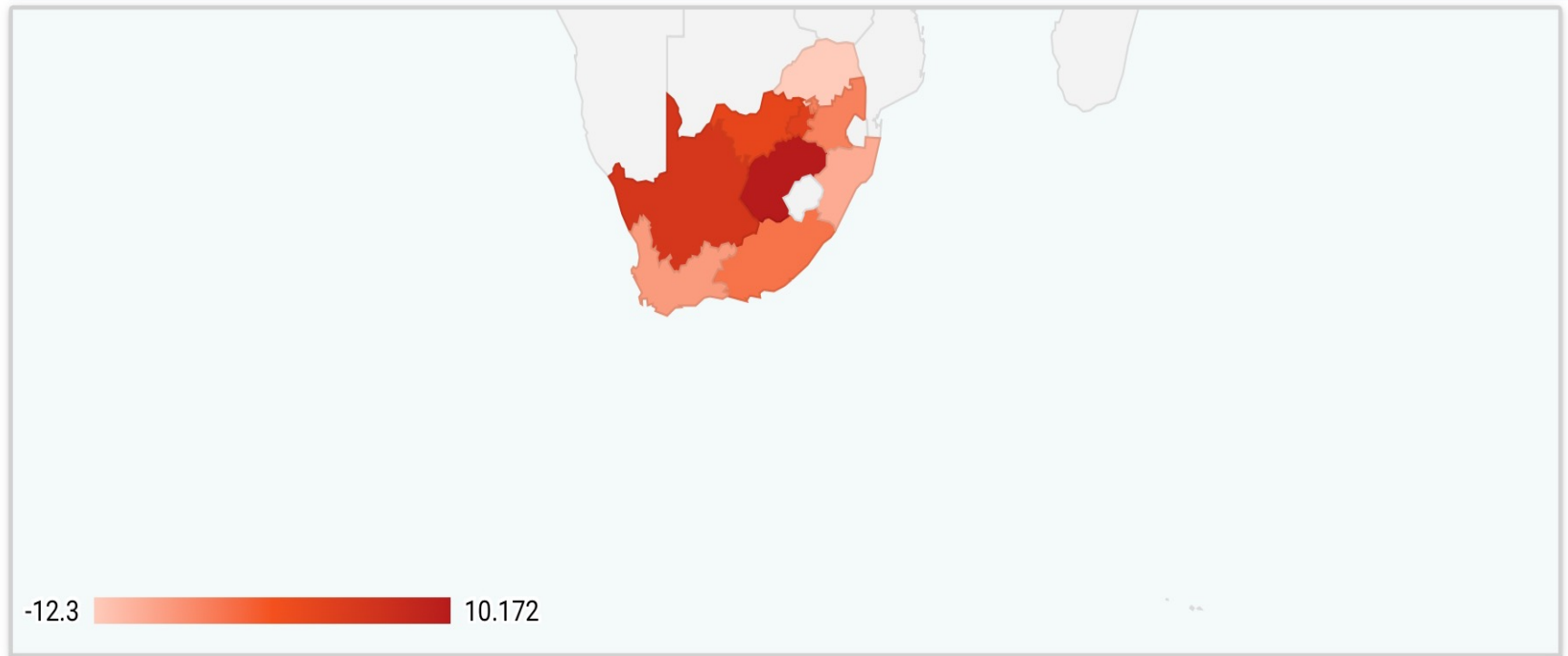


# South Africa Risk Index for the 3rd Wave

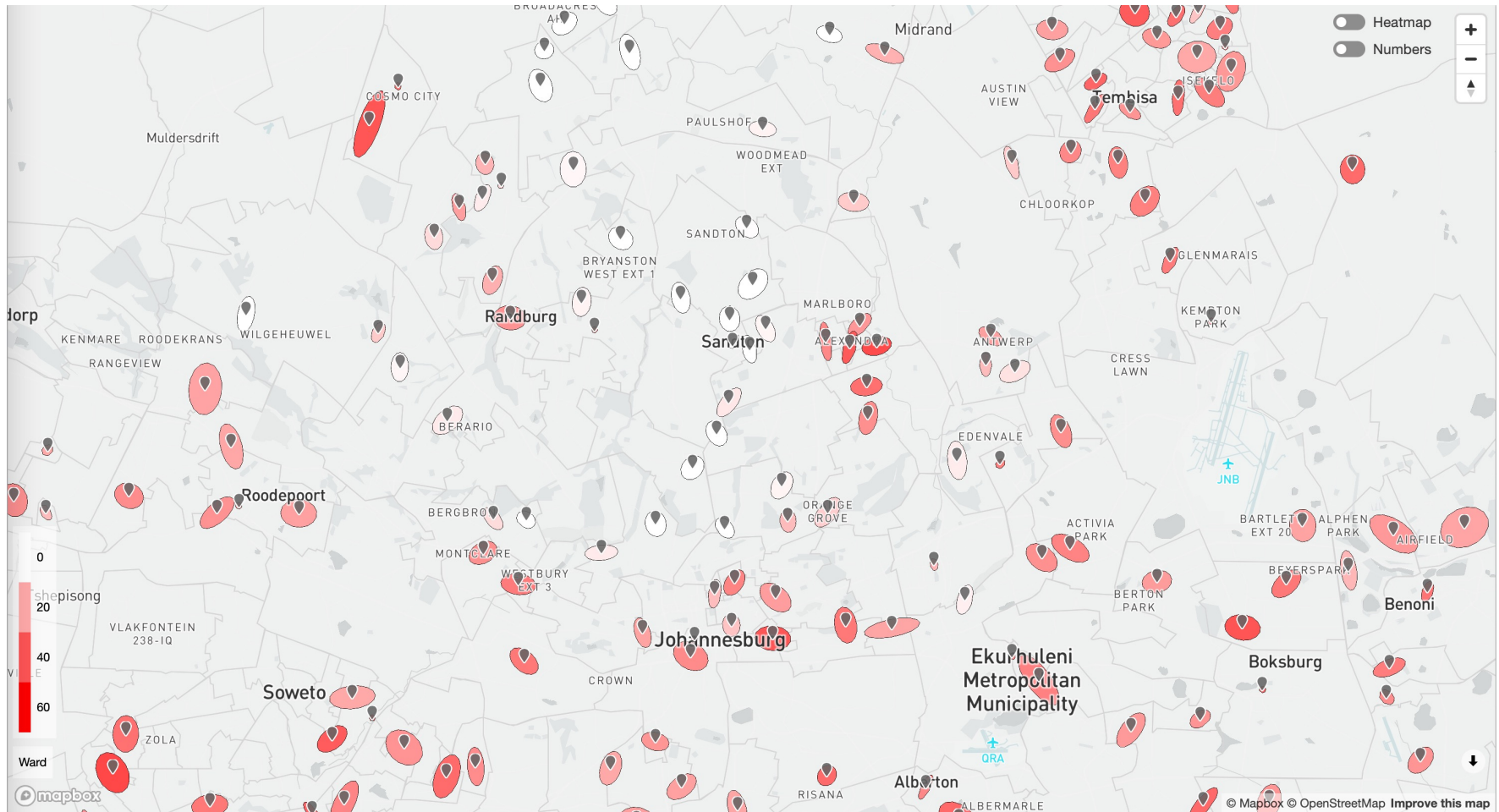
Last Updated:

29 Mar 2021, 11:28

South African Map with Risk Index



# Picture displays geolocation and severity of hot-spots in Johannesburg

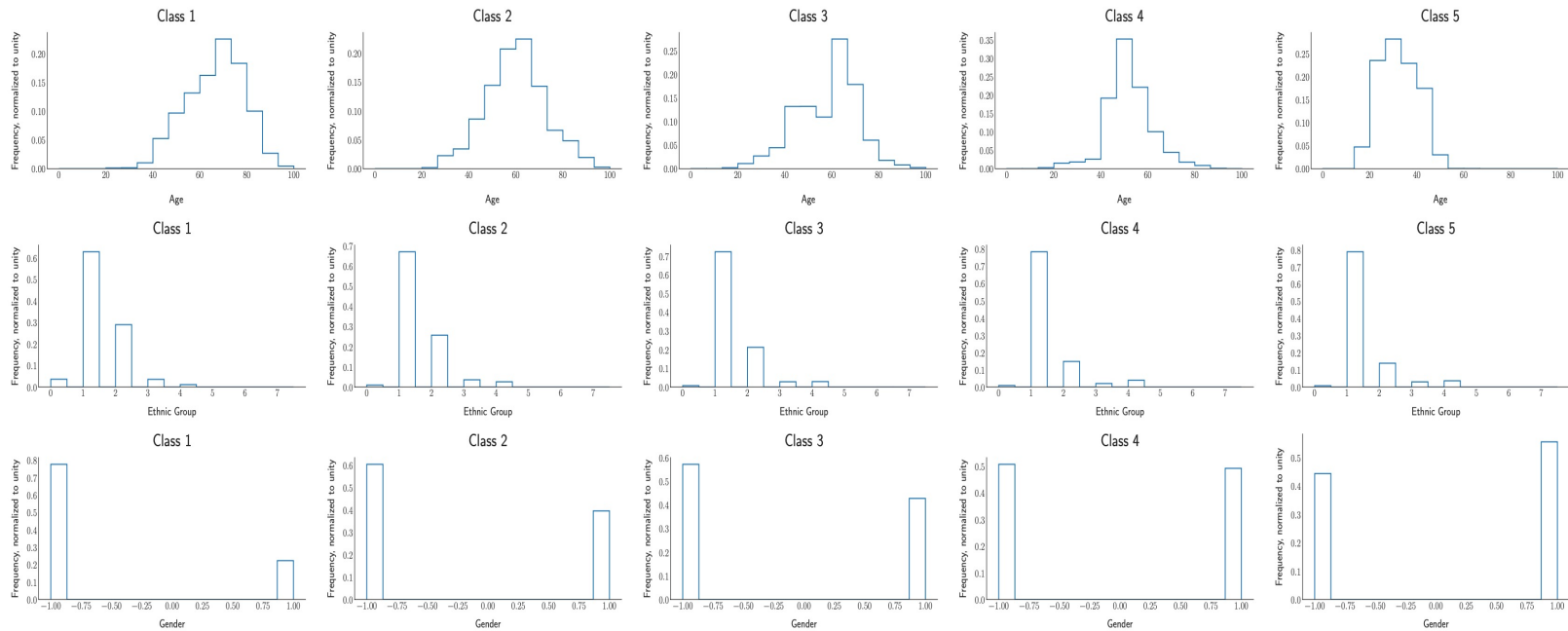




# Vulnerabilities

Most severe

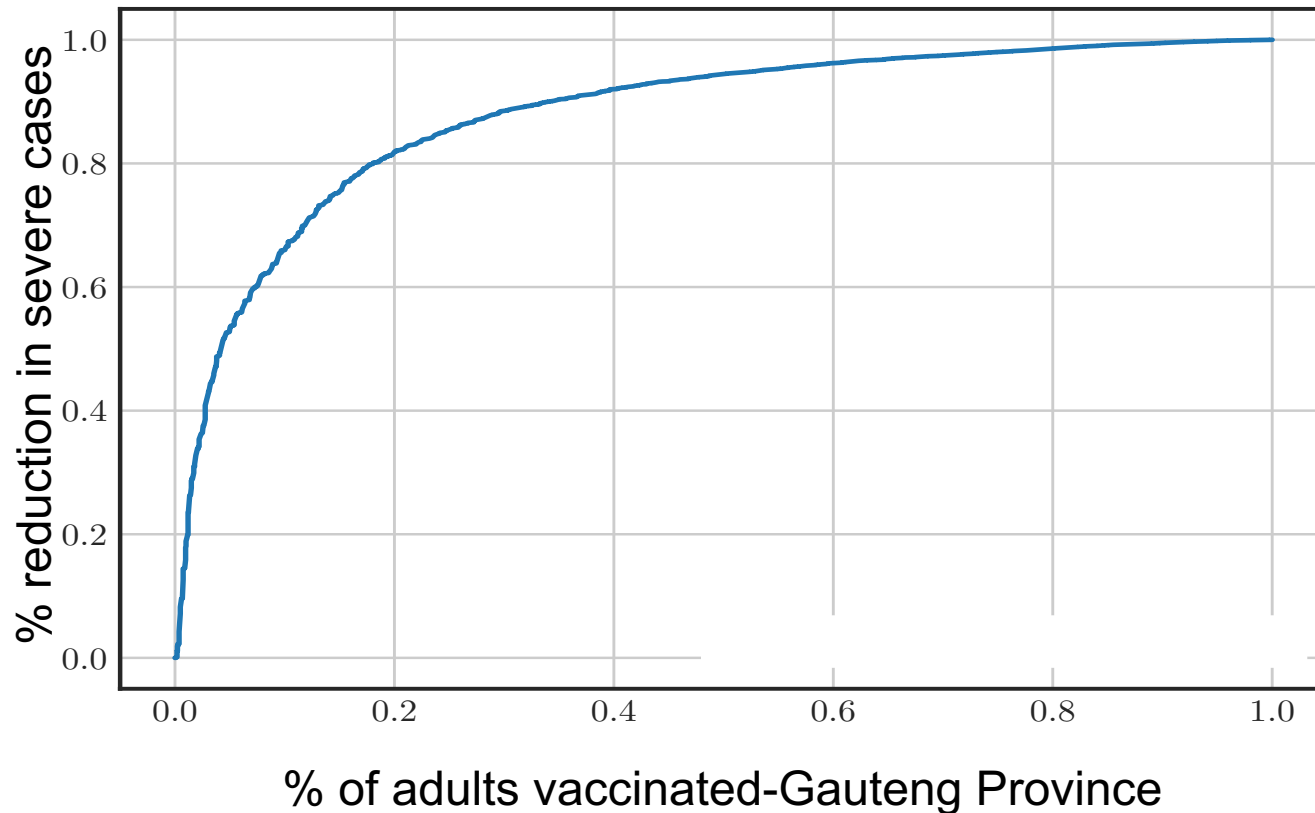
Less severe



# Optimizing COVID-19 clinical public health and vaccination roll-out strategies in Africa

Risk group	Age (years)	Co-morbidities	Population over 18 (%)
1	>60	Hypertension, Diabetes, Cardiac Disease	3.8
2	50-60	Hypertension, Diabetes, Cardiac Disease	3.7
3	40-50	Hypertension, Diabetes, Cardiac Disease	3.7
4	>18	Any co-morbidity	18
5	>18	-	71

# Optimizing COVID-19 clinical public health and vaccination roll-out strategies in Africa



# Addressing mis- and dis-Information







Thank you!