

Submission to Independent Electoral Commission Report on ensuring free and fair local government elections during COVID-19 pandemic.

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Background

Justice Dikgang Moseneke accepted an invitation from the Chairperson of the Electoral

Commission of South Africa in May 2021 to lead the Inquiry into Ensuring Free and Fair

Local Government Elections During COVID-19 ("Inquiry"). ("Inquiry").

The salient features of the terms of reference for the Inquiry are:

To enquire into, make findings and report on, and make recommendations

concerning the likelihood that the Electoral Commission would be able to ensure

that the forthcoming 2021 general local government elections will be free and fair,

in view of (i) the challenges posed by the COVID 19 pandemic, and (ii) the

measures promulgated by the government to curb the continued spread of the

pandemic; and

To indicate additional measures that the Electoral Commission may be required to

implement in order to realise free and fair elections within the context of the

COVID-19 pandemic.

In order to facilitate the work of the Inquiry, the office coordinating the enquiry invited key

stakeholders to make submissions to the Inquiry, which may have a bearing on the freeness

and fairness of local government elections earmarked to be held in October 2021.

Right to Care Not-for-Profit Company (RTC NPC), as one of the organizations with

medical expertise was requested to make submissions relevant to the potential risks of

acquisition and spread of COVID infections posed by the upcoming local government

elections. The RTC-NPC submission had to cover the following specific areas:

Any information, details, or data on or about the current state of the COVID-19

pandemic in South Africa.

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• The projected trajectory of the COVID-19 pandemic in South Africa, and during

October 2021 when local government elections are earmarked to be held.

• The nature, extent and features of the vaccination efforts being undertaken in

South Africa.

• When the vaccination efforts being undertaken in South Africa are likely to reach

community immunity, and the likelihood of community immunity being reach by

October 2021, when local government elections are earmarked to take place.

The risk that might be posed to the lives and health of people in South Africa if

the local government elections were to proceed in October 2021.

• Any additional measures that may be taken to reduce the risk posed to the lives

and health of people in South Africa in the event that the local government

elections were to take place during October 2021; and

• Any epidemiological and statistical material and data that may be relevant to the

enquiry whether the 2021 local government elections may be held in a free and

fair manner.

In addition, RTC was requested to make any other submissions deemed necessary and

appropriate.

Introduction

RTC NPC, a not-for-profit company was founded in 2001. The company has 20 years'

experience leading and implementing HIV and TB programmes in Africa and

internationally as well as implementing disaster medicine support e.g., Support for Ebola

Mitigation in Sierra Leone 2014, Cholera outbreak mitigation in Zambia 2018 and recently

mitigation of the COVID-19 pandemic in South Africa, Zambia, and Malawi. The COVID-

19 support activities ranged from Support for the South Africa Disaster Management

Command Centre and Incident Management Team, Support for in patient bed and testing

surge capacity, oxygen capacity, supply and surge assessment, health worker training, support on implementation of the Health Care worker Early Access Sisonke vaccine program, support for the launching and rolling-out of the National vaccine initiatives including data systems, site set up, staff training and vaccine roll-out in the Eastern Cape,

Free State, Mpumalanga and Northern Cape.

RTC Methodology

RTC expertise did bench top literature reviews, on elections conducted across the world

from the onset of COVID-19, looking at studies and or reports on voter turnout, risks,

mitigations. We further compiled data and provided some analytics to plot and guide

projections in response to the specific areas of interest of the Inquiry. In addition, we

reviewed specific information and data relating to the conduction of elections and reviewed

CDC, WHO, IIDEA recommendations on mass gatherings, election associated infection

risk to enable a response the questions posed by the Inquiry.

RTC NPC Inputs

Any information, details, or data on or about the current state of the COVID-

19 pandemic in South Africa.

The current state of the Pandemic cannot be determined with certainty as there are variable

areas of high infections as infections continue to spread. The data presented should be

referenced to the specific period as by the time the report goes out, there may have been

changes to the data being presented. We are dealing with a moving target influenced by

unpredictable human behaviour.

As at 6 June 2021, South Africa had 1 696 564 COVID-19 cases, with 61 557 active cases

and 56 974 deaths. Daily new case numbers have been rising over the last several weeks,

with increases being first seen in the Free State, North West, and the Northern Cape. These

increases are being followed by rising case numbers in other parts of the country, with a

rapid increase being seen in Gauteng. The graphs of daily new cases provide insights into



the current COVID-19 situation of each province. In figure 1 below, we are detailing proportions of cases starting from April 2020 to June 2021. The different wave heights are depicting peaks (waves) of infection time period and estimated numbers of infections at each peak. The period May/June 2021 shows the Northern Cape, North West, and the Free state to be having highest numbers (peaks) relative to their second wave, followed by Gauteng and Mpumalanga.

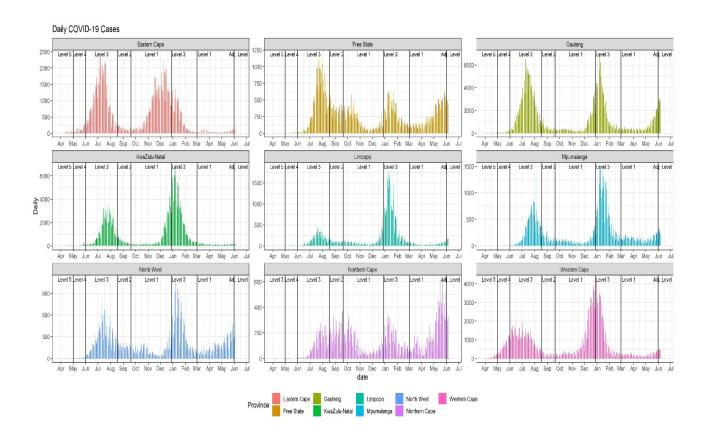


Figure 1: Provincial daily new COVID-19 cases

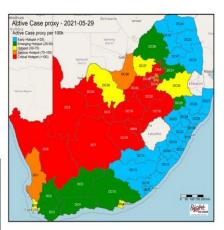
The Western Cape, Eastern Cape, Limpopo, and KwaZulu-Natal are showing small increases during the corresponding period. Their proximity to high case load areas puts them at risk of resurgence over the upcoming weeks. This trend has been seen in the proxy active case maps (Figure 2), which highlight the movement of cases from areas with high incidence to areas of low incidence.





Several districts now classified as hotspots





Case Data Update: May 29

Figure 2: District level active case proxy

• The projected trajectory of the COVID-19 pandemic in South Africa, and during October 2021 when local government elections are earmarked to be held.

Short term projections

Future decision making requires insight into the projected state of COVID-19 at various time-points. While challenging to predict, the South African Modelling consortium provides some estimates of case numbers for both the short and long term. Short term projections show overall increases for both cases and hospital admissions continuing in June (Figure 3). The only provinces expected to see case decreases and limited increases in hospital admissions are North West, the Free State, and the Northern Cape; those who had the third wave surge first (figure 1) above.



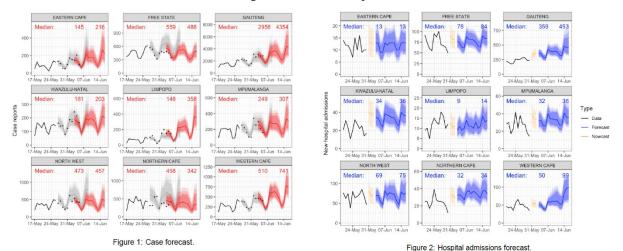
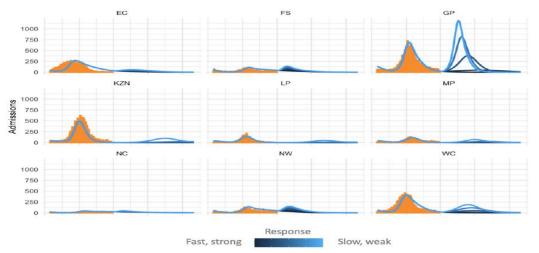


Figure 3: Short Term projection by SA modelling consortium

Long term projections

Long term projections of hospital admissions made by the modelling consortium assume a set of scenarios and the *absence of a new variant*. Under these conditions the potential magnitude of the third wave admissions is estimated. From these graphs, Mpumalanga, the Free State and North West are expected to have third waves of similair magnitudes to the second wave seen earlier in the year, while Gauteng is projected to have a larger third wave (Figure 4).



Source: Orange bars: second wave data from DATCOV/ NICD; blue curves: Model projections

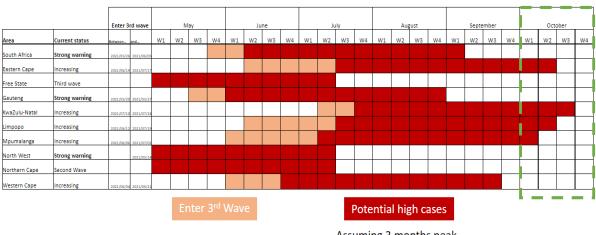
Figure 4: Third wave scenarios: Impact on hospital admissions, by province (comparing 2nd and 3rd wave)



The projections above provide an approximation of the magnitude of the third wave, however it becomes useful to estimate when these third waves may occur and what may come after. Given the great uncertainty around COVID-19 it is not easy to accurately predict what will happen in several months time, however rough estimates can be made based on historical data and the estimated peak dates of the third wave. Figure 5 below assumes a 3 month period of high case numbers, indicated in red, when cases may be high for each province. This shows that there is a potential for cases to be low in the October period, assumming the onset of the third wave in each province within the next month.

This, of course, is heavily reliant on the following assumptions:

- 1. That patterns will be similar to previous time periods in South Africa, and
- 2. That lockdown restrictions will occur and
- 3. That similar timepoints with equally strict measures are put in place.



Source: SACMC 14 May

Assuming 3 months peak after entering 3rd wave

Figure 5: Potential timeline for high COVID-19 cases



• The nature, extent and features of the vaccination efforts being undertaken in South Africa

South Africa aims to vaccinate 40 million (67%) of the current population, to obtain herd immunity, through the rollout of the national COVID-19 vaccine programme in 2021. The vaccination rollout has 3 phases according to a national prioritisation framework. All South Africans that wish to be vaccinated must register on the NDOH central vaccine registration system, Electronic Vaccination Data System (EVDS). Once registered on the EVDS, the system allocates the registered individual and generates an SMS with a vaccine code and the location of the vaccination site for administration.

Phase 1: Healthcare Workers (Sisonke clinical trial): Began on 17 February 2021. 96% (479,768) of the targeted 500,000 in this phase had been successfully vaccinated by 14 May 2021 using the Johnson and Johnson, 1 jab vaccine. The remaining 770,232 of the estimated 1.25 million healthcare workers will be vaccinated during phase 2 of the vaccine rollout.

Phase 2: Population Over 60 years and Healthcare Workers: Began on 17 May 2021 with 16.5 million South Africans prioritised for vaccination based on age using the Pfizer/BioNtech 2 jab vaccine. As at 11th June 2021, 1,207,852 people had received the 1st dose. The 2nd dose will be provided 42 days following the 1st dose. This phase is scheduled to be completed by October 2021. To facilitate this, over 2000 vaccination sites have been identified across the country, and include general practitioners' rooms, community clinics and pharmacies, retail outlets and in some instances, larger facilities like stadiums and conference centres.

Phase 3: Remaining 22.6 million of the adult population will be vaccinated: 5,9 million Pfizer/BioNTech doses are expected to be delivered in weekly shipments of 325,260 until May 31, there after 636.480 doses weekly. An additional 1.4 million doses are expected from Covax. Another 10 million doses are expected between July and September 2021.

Of the 1,1 million Johnson and Johnson vaccine doses that were expected to be delivered

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in May 2021 and two deliveries of 900,000 doses expected by end of June 2021. A large quantity of vaccines has been put on hold relating to possible non GMP practices at the Baltimore plant, this will clearly result in massive delays of the vaccination plans. Further

information regarding how government will source other products is still to be released.

• When the vaccination efforts being undertaken in South Africa are likely to

reach community immunity, and the likelihood of community immunity

being reach by October 2021, when local government elections are

earmarked to take place

The national vaccination rollout has been hampered by several challenges with new

variants resulting in vaccination commencement delays. The third wave of infections

which started as early as April, plus delays in vaccine delivery will result in further

interruptions to the vaccination plans for the year.

As of 11 June 2021, there were 3,491,399 vaccine registrations on the EVDS, with

951,861 being health care workers and 2,539,538 people over 60 years and others. To

date there have been 1,766,572 vaccinations including 479,768 health care workers

vaccinated through the Sisonke trial (JnJ) and 1,286,804 Pfizer 1st dose vaccinations. This

reflects a current cumulative daily vaccination rate of 64,340. A total of 1,587 vaccination

sites have been activated between 17 May and 11 June 2021. Based on the national

vaccination rollout plan projections, a total of 17,4 million people over the age of 40

should be vaccinated by 1st October 2021. The remaining 22,6 million people aged 18-39

years who are eligible to vote, will not be vaccinated by October as they will only have

access to vaccines from November 2021.

To successfully vaccinate 17,4 million people by October 2021, the following vaccination

targets will have to be met:

• 3,48 million people aged 40+ vaccinated per month (current estimate is 1,2

million per month)

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• 4,350 vaccinators, vaccinating 40 people per day for 20 consecutive days (current

estimate 3 148 vaccinators available for an average 12 consecutive days)

Due to limited vaccine availability, load shedding affecting vaccine cold chain

management, communication delays and time required for additional site onboarding, to

date, only one third of the target has been met. If current vaccination performance

prevails, 14,358 572 people will have been vaccinated by October 2021 which is only 36%

of the population required to reach herd immunity. South Africa is therefore unlikely to

reach community immunity by October 2021, when local government elections are

earmarked to take place.

• The risk that might be posed to the lives and health of people in South Africa

if the local government elections were to proceed in October 2021

According to CDC to date, there have been very few reports linking voting arrangements

with community transmission. However, some studies have been carried out and are at

times contradictory. For example, in one study, focusing on the Wisconsin, USA, primary

election showed "statistically and economically significant association between in-person

voting density and the spread of Covid-19 two to three weeks after the election"; whereas

another study focusing on the City of Milwaukee from Wisconsin, CDC found no clear

increase in cases, hospitalizations, or deaths.

Beyond the US, health authorities in South Korea concluded that no local

transmission occurred from the Parliamentary election held in April 2020, and a

scientific article published in August substantiated this claim.

In contrast, a French study on municipal elections in March 2020 suggested an increase

in numbers of hospitalizations due to the polls, but mainly in areas already showing high

transmission levels. They however found that the election did not contribute to virus

transmission in areas with already low levels of Covid-19.

There thus needs to be caution in interpreting this evidence. Without a consistent and

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robust estimation methodology which can link voting arrangements directly as a cause of transmission to individual voters, separate to ordinary community transmission, it is difficult to know when and where the virus was in fact caught. Variations in data availability between countries, and different methods and approaches among studies,

make it very difficult to come to general conclusions.

Media reports could also be less reliable in this respect; focusing on the anecdotal rather

than aggregate picture-and may have the potential to spread

misinformation. Nonetheless, Vote beat, a nonpartisan reporting project, provides some

anecdotal evidence that many US poll workers tested positive during the November 2020

Presidential election.

Although risks remain, it appears that countries are more willing to hold elections because

of an improved understanding of the virus. Time has also elapsed since the pandemic

started, which has enabled lesson drawing from overseas, risk management plans to be

adapted, and election planning to take place.

Potential Contributors to increased Spread of COVID 19 at the time of Elections

> During Campaigning

Mass meetings during campaigns by political parties - CDC continues to recommend

avoiding large events and gatherings. Currently, CDC does not provide numbers to define

small and large events. Political gatherings bring together many people from multiple

households in a private or public space. Large gatherings are often planned events with a

large number of guests and invitations. They sometimes involve lodging, event staff,

security, and long-distance travel.

> Behavior of attendees during an event

Events where people engage in interacting with others from outside their own household,

singing, shouting, not maintaining physical distancing, or not wearing masks consistently

and correctly, can increase risk.

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Researchers¹ in India found that each of the four election-bound states (Assam, Kerala, Tamil Naidu, and West Bengal) in the period March – May 2021 showed a distinct increase

in the effective contact rate and the effective reproduction number during the election-

bound time and continued to increase just after that, as compared to the pre-election time.

Using epidemiological modelling, the impact of pre-election activities including political

rallies, movements, and over-crowded gatherings was demonstrated in the change of

effective reproduction number, with the states that held single-phase elections

comparatively less affected than the states where the election was conducted in multiple

phases.

> Transport to and from Election Sites

Public transport with all its incipient risks - exposure during travel (Airports, airplanes, bus

stations, buses, train stations, trains, public transport, petrol stations, and rest stops) are all

places where physical distancing may be challenging, and ventilation may be poor.

> Queuing at the polling stations

Lack of physical distancing and people not wearing masks, Long time spent in queues,

could increase risk.

> Inside the polling stations themselves

Lack of adequate ventilation, physical distancing and people not wearing masks could

increase risks.

Deciding to postpone or continue with holding an election

According to International Institute for Democracy and Electoral Assistance (IIDEA)

proceeding with an election or postponing an election entails risks for a government, an

Election Monitoring Body such as the IEC and health authorities. While postponing

elections may be the most feasible and responsible option from the public health

perspective, there are several risks associated with such a decision:

¹ medRxiv preprint doi: https://doi.org/10.1101/2021.05.30.21258040; this version posted June 1, 2021.



• reputational risks (for an organization that makes decisions, for trust in democratic

processes and institutions, for international relations).

• political risks (disturbing the level playing field and undermining the incumbent or

opposition).

• financial risks (budgetary implications, e.g., money invested that cannot be

recovered).

• operational risks (alternative dates are not feasible because of other risks, e.g.

monsoon season, winter, other events); and

• legal risks (the decision can be legally challenged).

• If postponing an election, pathways for addressing the electoral issue at hand and

stringent guidelines for caretaker arrangements; and

• Public communication about the issues at stake, the reasons for the decision and the

processes in place to safeguard democracy.

To address the above risks and considerations, IIDEA recommends that interagency

consultation and communication mechanisms should be sought, and these should include

both electoral authorities and public health authorities, this is the process being followed

by this Inquiry.

(Source: International IDEA. Elections and COVID-19. International Institute for

Democracy and Electoral Assistance (International IDEA); 2020.

doi:10.31752/idea.2020.11.)

• Any additional measures that may be taken to reduce the risk posed to the lives

and health of people in South Africa if the local government elections were

to take place during October 2021

If proceeding with an election, health and safety measures will clearly require further

investment in elections to protect the safety of staff, campaigners, and votes. They will

also be needed to assure citizens that voting is safe—so that turnout is not affected. The

early publication of guidelines will help them to be implemented—and mechanisms for



enforcement need to be considered by policy makers.

Risk mitigation measures:

WHO has recommendations for individual and community safety from COVID-19

Individual measures:

• With well-known and effective COVID Preventive measures. Individual measures

are maintaining at least a 1-metre distance between oneself and others to reduce

risk of infection from coughing and sneezing,

Hand washing and keeping unwashed hands away from the face.

• Use of sanitizer at every step of the process by both IEC officials and the voters

• The physical distance should even be greater when indoors.

• The use of face masks or coverings has been recommended in public settings to

minimise the risk of transmissions.

• Masks should be covering both nose and mouth all through the process and

interactions

Environmental measures:

• Avoid the 3Cs - spaces that are closed, crowded, or involve close contact.

Outbreaks have been reported in places where people have gathered, often in

crowded indoor settings where they talk loudly, shout, breathe heavily or sing.

The risks of getting COVID-19 are higher in crowded and inadequately ventilated

spaces where infected people spend long periods of time together in proximity.

Meet people outside

Outdoor gatherings are safer than indoor ones, particularly if indoor spaces are

small and without outdoor air coming in.

• Avoid crowded or indoor settings if not possible then:



- o **Open a window.** *Increase the amount of* 'natural ventilation' when indoors.
- Wear a mask

The above measures are general measures which have been shown to reduce the risk of infection acquisition and spread and, if practiced generally, will result in lowered infection rates.

International IDEA has suggested specific guidelines to following at election polling stations during the COVID-19 pandemic.

Actions for election officials in advance of election day:

- Logistical considerations for alternative voting arrangements.
- Voters should be offered voting methods that minimize direct contact with other people and reduce crowd size at polling stations.
- Postal voting should be encouraged if allowed and feasible in the jurisdiction.
- Early voting should be encouraged, to reduce crowds throughout the day.
- Voters planning to vote in person on election day should be encouraged to arrive at off-peak times.
- Mass gatherings to be regulated with all participants adhering to IPC

Preventive actions polling workers can take for themselves and voters

Voters:

- All voters to wear masks/cloths covering the mouth and nose properly
- Incorporate social distancing strategies, as feasible: more than 1.5 m between voters,
- A limited number of voters allowed to enter the polling station at the same time.
- Provide an alcohol-based hand sanitiser with at least 60 per cent alcohol for use before and after using the pencil, the voting machine, or the final step in the voting process.

Polling workers

• Consider the use of COVID-19 queue marshals at all polling stations.



- Clearly display instructions to distance, wearing of mask and hand sanitization inside the polling station.
- Consider placing the alcohol-based hand sanitiser in visible, frequently used locations such as registration desks and exits.
- Wash hands frequently with soap and water for at least 20 seconds.
- If soap and water are not available, use an alcohol-based hand sanitiser that contains at least 60 per cent alcohol.
- Avoid unnecessary handling of voter identification documents.
- Routinely clean frequently touched surfaces with household cleaning spray, including tables, doorknobs, light switches, handles, desks, toilets, taps and sinks.
- Clean and disinfect voting-associated equipment routinely, such as pencils, voting machines, laptops, tablets, and keyboards.

(Source: International IDEA. Elections and COVID-19. International Institute for Democracy and Electoral Assistance (International IDEA); 2020. doi:10.31752/idea.2020.11)

 Any epidemiological and statistical material and data that may be relevant to the enquiry whether the 2021 local government elections may be held in a free and fair manner.

Epidemiological impact

Elections in COVID-19 hotspots could enhance the spread of the pandemic significantly, this risk is lower in areas with reduced infection levels [1]. If the above WHO recommendations and the IIDEA recommendations are followed and adhered to, elections could be conducted safely with the possibility to avoid adding to the spread.

However, measures are needed to alleviate spread in the face of challenges such as cold weather or rain – where crowding indoors may facilitate spread amidst insufficient ventilation [2]. Despite many preventative measures in place, the contrasting evidence has concluded in some countries such as Germany and New Zealand with offering alternative



methods of casting votes that do not require physical contact such as postal-voting and online-voting for citizens abroad who can upload their documents online [3].

To lower the risk of election polling the following are advised by the CDC [4]:

- A wide variety of voting options (to minimize direct contact)
- Longer voting periods (more days and/or more hours)
- More voting stations (to prevent overcrowding) or other means to reduce the number of voters gathering indoors
- Stations should have handwashing/disinfection readily available

Free and fair elections

Data shows that participation in elections (turnout) during the COVID-19 pandemic was historically low (in France) in March 2020. The turnout of the elderly and vulnerable populations was particularly low, especially in geographical areas with elevated prevalence [5].

The voter considers the cost of voting (standardly comprising voter's time for vote decision and a low cost of action of voting inclusive of time to travel, cueing, etc.); if the cost is affordable then voters will cast. During COVID-19 the cost of voting increases for:

- 1. Infected and fatigued or altruistic individuals choosing to avoid spread by not participating,
- 2. Individuals at higher risk (such as serious heart conditions, weakened immune systems, obesity, sickle cell disease, etc.)

The resultant turnout of the pandemic can have an impact on the outcome of elections, with about 4% increase in vote shares for dominant parties, to the disfavor of smaller factions which may widen the gap between dominant party and oppositions as was demonstrated in Germany [6]. African countries, similarly, to France, may not have alternative voting options such as by

mail or online voting, and without surprise, voter turnout has decreased significantly in African countries such as Guinea and Mali.



With overview of 71 countries that held elections, 30 have experienced an increase in the turnout of voters while 41 have experienced a decrease (Figure 6 below). Although the infection levels in each of the countries when elections took place is not described here.

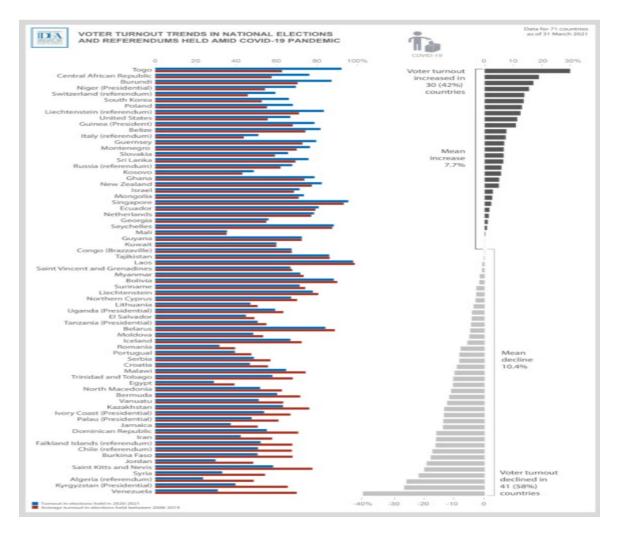


Figure 6: Voter turnout



Conclusion

The data shows that South Africa is in the midst of the third wave of the COVID-19 pandemic. The challenges of ongoing infections, fueled by spread because of human behaviour, makes the prediction of the trajectory of infections very difficult.

Some modelling has been done based on some assumptions to inform the infection trajectory. Using this data, and assuming the onset of the third wave in each province within the next month, and a 3 month period of high case numbers, indicates that there is a potential for cases to be low in the October period. Although the country has made some strides with roll-out of vaccinations, a myriad of challenges have delayed the National roll-out schedule making it impossible to reach Community Immunity by October.

Conducting elections durign a pandemic poses inherent challenges of people movement, the risk of infection, fear of turning up and thus, low polling rates. Several countries have however conducted elections between March 2020 and March 2021. Studies emanating from these have had mixed reactions pertaining to risks of infection. Most of these, however, indicate that if risk mitigaiton measures are put in place, and there is adherevne to these measures, that the risks of acquiring infections from election polling can be reduced.



References:

- 1. Cassan G, Sangnier M. Liberté, Egalité, Fraternité... Contaminé? Estimating the impact of French municipal elections on COVID-19 spread in France. medRxiv. 2020;2020.06.24.20138990.
- 2. Feltham EM, Forastiere L, Alexander M, Christakis NA. No increase in COVID-19 mortality after the 2020 primary elections in the USA. ArXiv201002896 Stat. 2020. http://arxiv.org/abs/2010.02896. Accessed 8 Jun 2021.
- 3. International IDEA. Elections and COVID-19. International Institute for Democracy and Electoral Assistance (International IDEA); 2020. doi:10.31752/idea.2020.11.
- 4. CDC. Community, Work, and School. Centers for Disease Control and Prevention. 2020. https://www.cdc.gov/coronavirus/2019-ncov/community/election-polling-locations.html. Accessed 8 Jun 2021.
- 5. Noury A, François A, Gergaud O, Garel A. How does COVID-19 affect electoral participation? evidence from the French municipal elections. PLOS ONE. 2021;16:e0247026.
- 6. Leininger A, Schaub M. Voting at the dawn of a global pandemic. 2020. doi:10.31235/osf.io/a32r7.