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Any information, details or data on or about the current state of the COVID-19 pandemic in South Africa;

Currently 5 of the nine Provinces in SA are experiencing a third wave, many of which are on track to exceed the number of cases that occurred during the first two waves. Provinces which are yet to experience the start of the third wave, including EC, WC and KZN, are likely being relatively spared due to the higher rates of infection that occurred during the course of the first two waves –which has possibly resulted in widespread evolution of immunity in the population. Although these provinces are still likely to experience a resurgence of Covid over the next 4-6 weeks, it is likely that it will be less severe than experienced in the past- unless there are further mutations of the virus that makes it relatively resistant to immunity induced by past infection.

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

Its difficult to predict what the status of Covid would be by October 2021, as its dependent on multiple factors including:

- i. Further mutations of the virus which could make it relatively resistant to immunity induced by past infection, and even immunity induced by current vaccines
- ii. Behaviour of citizens and regulations by Gvt to avoid super-spreader events. In particular, allowing for mass gatherings (irrespective of number) in indoor spaces would lead itself to further rapid spread of the virus- even after this wave has subsidised
- iii. The proportion of the population who have developed immunity either by vaccination or past infection (i.e. % who are infected over the course of the waves) , and the extent to which such immunity protects against infection and mild Covid. Its possible that immunity can protect against severe disease, but much less so against infection and mild Covid- which is what drives the spread.
- iv. Speed of vaccine deployment, and coverage in different groups. Vaccination of high risk groups could ensure reductions in hospitalization and death, but may not necessarily prevent another resurgence.
- v. Type of Covid vaccine deployed in SA. Although all vaccines are likely to have high protection against severe disease and death, they likely to vary significantly in protecting against infection and mild disease.
- vi. Durability of protection against infection and mild Covid following either natural infection or vaccination (and may also differ between vaccines)

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

South Africa lags behind the global rate of vaccination, as well as compared to its peers such as Chile and other middle income countries. Although there is likely to be an upswing in vaccination rates over the next 2-3 months as more vaccines become available, it's unlikely that there will be high coverage outside of select high-risk groups.

- 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;

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The targets set out by NDoH are already not being achieved. Also, as indicated above, the type of vaccine used will influence the extent to which vaccination can mitigate a resurgence of Covid and magnitude thereof later in the year (as not all vaccines will induce good protection against infection and mild disease). That being said, recalibrating our expectation of Covid vaccines and the future control of the virus in SA and other countries also affected by the beta variant is warranted. Even with the aspirational goal of vaccinating 40 million (now by March 2021) in SA, it is unlikely that “herd immunity” will be reached. Instead, the goal needs to be maximal protection of high risk individuals to protect them from severe disease and death, which itself would enable a return to normalcy- even with ongoing circulation of the virus and occasional resurgences.

- 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;

The major risk probably exist in ten period leading to the run up to the elections, rather than actual election day. Allowing for political parties to engage in electioneering, especially large outdoor gatherings and any sizeable (e.g. >20) indoor gathering poses the main challenge to expediting the timing and magnitude of a future resurgence. It is difficult to predict where we will be in October 2021, however, based on the pattern of past waves in SA- it might well be that October is period of relative calm in the pandemic experience in SA, with a resurgence more likely to occur later in the year (December onward). If Gvt can ensure high coverage of the high risk groups (e.g. >70% coverage of anyone older than 50 years of age), even with ongoing circulation of the virus, the major deleterious effects of a resurgence (hospitalization and death) can be largely mitigated.

- 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

The day of the election will need to be managed according to prescribed Covid protocol –including ensuring that the election stations are manly stationed outdoors as the preferred option, and there is no socialising in the vicinity.

- 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.

The modelling done on Covid1-9 has at best been modestly predictive.