



TOWARDS A SMART LOCKDOWN:

The DA's proposal for managing
the COVID-19 situation to save lives

DA working position paper: Updated 13 April 2020

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EXECUTIVE SUMMARY

- SA's current hard lockdown will necessarily end soon, either through government easing restrictions, or because the pressure build-up explodes public non-compliance.
- In order to save lives we need a sustainable strategy to manage the health risks and the economic risks, guided by evidence and expert opinion.
- SA should immediately begin to implement a “smart lockdown” strategy, consisting of clear lockdown stages coupled with smart interventions.
- These smart interventions include:
 - Build test, trace, track capacity so that infected people can be isolated quickly and so that we can make evidenced-based decisions.
 - Build hospital capacity – ICU beds, ventilators, isolation wards, PPE, systems, personnel.
 - Enable and enforce mandatory wearing of protective face masks in all public areas. Zero tolerance for non-compliance.
 - Enable and enforce basic hygiene regulations (all public facilities to provide hand sanitizer on entrance and exit, specified physical distancing protocols for all public spaces)
 - Massive education campaign around: basic hygiene (all public facilities to provide hand sanitizer on entrance and exit, specified physical distancing protocols for all public spaces); how to tell if one has the virus; what to do if one has the virus; at what point people should go to hospital (hospitals themselves could become hubs for infections and also should not be distracted or infected by non-critical cases).
 - Assist high-risk individuals (age 60+ and/or immune-compromised) to remain isolated.
 - Execute strict border control, testing and isolating all entrants to SA.
- This will enable us to move to successive lower levels of lockdown, while being open to moving back to higher levels of lockdown, including hard lockdown, if the situation warrants it. (Rather like we move between stages of

load-shedding when necessary.) The degree to which “smart interventions” are successful will determine to a large extent the level of lockdown to be applied.

- **Level 4 – hard lockdown (current lockdown restrictions)**
- **Level 3 – soft lockdown**
- **Level 2 – soft open**
- **Level 1 – hard open**
- SA has a short window of opportunity to get these “smart interventions” right. Specifically, our ability to test, trace, and track will be pivotal in determining whether we control this virus or whether it controls us.
- All spheres of South African government should make use of private sector expertise and companies to make these targeted interventions happen rapidly and successfully.
- The government at a national level should also provide a bold stimulus package to act as a “bridge” for poor households and small businesses to get to the other side of this crisis.
 - Massively ramp up direct cash transfers to poor households by significantly increasing all social grants.
 - Expedite UIF cash transfers to the newly unemployed by opening up UIF offices and enlisting private sector support.
 - Expedite TERS cash transfers to struggling small businesses by enlisting private sector support with implementation.
- We should aim to generate a minimum R300 billion budget to fund this “bridge” (social relief / economic stimulus package) and the “smart lockdown” interventions.
 - Reprioritise our current budget (hold a firm line on its commitment to cut R160 billion from the public sector wage bill; liquidate SAA; halt all major infrastructure projects, from education budget while schools are closed etc.)
 - Borrow as much as possible at a low cost from international lenders (IMF, NDB, WB).

- SA government should also implement sweeping economic reforms, both to help people and businesses to survive and to maximise the amount we can borrow from international lenders.
 - Bring down cost of electricity by opening energy market to IPPs / ending Eskom's monopoly.
 - Give small businesses the best chance to survive and save jobs by reforming labour legislation.
 - Bring down communication costs and bring in revenue by immediately auctioning spectrum.
 - Walk away from investment-killing policies such as expropriation without compensation, BEE, asset prescription, SARB nationalisation.

As a working paper, this document will be updated and amended to mirror the changing circumstances surrounding South Africa's fight against Covid-19.

INTRODUCTION

On the 27th March 2020, within three weeks of the Covid-19 virus first being detected in South Africa on 5 March 2020, the government implemented a 3-week hard lockdown until 16 April. It has now extended the hard lockdown by a further 2 weeks until end April and is contemplating what to do thereafter.

This position paper outlines the strategy that we recommend South Africa adopt to manage this virus situation until the pandemic dies down. It has been developed in consultation with a range of leading health and economic experts. We have termed it "smart lockdown". We make this recommendation because we want to contribute. We want government to succeed in its efforts to manage this virus.

OBJECTIVE

Our objective has been to seek a strategy for managing the virus that **saves lives and minimises overall human suffering.**

GUIDING PRINCIPLES

Four fundamental principles have guided our recommendations:

• **The critical need to strike a balance** between:

- (1) the virus' impact on lives: The need for interventions to contain the spread of the virus and keep infection, hospitalisation, and death rates down; and
- (2) the economic impact on lives: The need to ensure we can continue to finance health interventions (no expense can be spared), and the need to ameliorate the effects of the interventions on the welfare of South Africans - particularly the poor and vulnerable - by preventing the failure of businesses, job losses, loss of household income, starvation, malnutrition, and violence.

It is a false choice to distinguish between loss of life and loss of livelihoods. The hard challenge we are facing is loss of life vs loss of life. Lives will be lost if we lose control of the spread of infections and our health system becomes overwhelmed. Lives will also be lost if we lose control of the economy and we cannot finance necessary but expensive health interventions (e.g. health worker salaries, testing kits, ventilators, extra hospital bed capacity). Economic devastation will also undermine our health efforts because the ensuing stress and starvation will compromise people's immune systems.

In striking a balance between health and economic concerns so as to save lives, the two extremes are 1) prolonged hard lockdown and 2) a return to business-as-usual. Neither can be justified. This virus cannot be allowed to spread uncontrolled costing us lives. But we cannot allow a prolonged hard lockdown to devastate our economy also costing us lives. We need to save our healthcare system and save our economy, which in turn saves our health. It is a virtuous cycle and we cannot break it.

- **Flexibility**

SA's approach must enable us to adapt to evolving circumstances and as new information becomes available.

- **Sustainability**

SA will need to manage the situation right up until a treatment and/or vaccine has been widely administered in the country, which in the case of a vaccine is expected to be 18-24 months away. Therefore, our approach must be with this time period in mind. We need to start putting forward strategies which will guide us for the medium to long term. Furthermore, SA has limited resources, so we need to choose targeted, highest-impact measures so that we don't run out of resources to fight the virus. We need to work smart, not just hard.

Implementability

SA will need to opt for policies that are pragmatic and practically implementable given the realities of our unique context. This means that we need to localize our response taking into account our age profile, health system capacity, macro and microeconomic situation, housing, water and sanitation conditions, political risks and social stability etc.

SMART LOCKDOWN

RATIONALE FOR A SMART LOCKDOWN

On the 15th of March 2020, President Ramaphosa declared a nationwide state of disaster which carried with it several restrictions. These included a ban on visitors from high-risk countries, the closure of all schools; the closure of 37 of South Africa's 72 ports of entry; and a prohibition on gatherings of over 100 people. These measures would have contributed significantly to containing the virus.

The ensuing hard lockdown (stage 4 in our model) since 27 March has been a necessary but severe short-term measure intended to buy us time to get infrastructure and systems in place that will help us cope with demand. But it is not a sustainable strategy over 18-24 months.

PRELIMINARY DATA

Although there has been a lack of transparency into the data being used to guide decision making, there are indications that early action has potentially provided an opportunity to move to a different stage of lockdown, with eased restrictions in targeted areas:

- Number of patients requiring ICU is relatively low
- Death rate is low: 25 out of 2 173 confirmed positive cases
- Number of confirmed new infections initially declined and is now relatively stable
- Adherence to state of disaster and lockdown restrictions appears to be crumbling.

We have to bear in mind that South Africa is not yet testing randomly and at the scale required to give us a more accurate reading of how the virus is truly progressing. What we do have a better handle of, however, is the number of confirmed positive cases, those hospitalised and reported deaths. We must focus on these in our assessments to ensure our health system is not overwhelmed.

The above numbers must be read with the following in mind: Targeted testing of only those displaying symptoms means that we do not know how many people have already had COVID-19. Studies from around the world suggest that between 5% and 80% of people testing positive may be asymptomatic.¹ This is important to know because if a large proportion of the population has had COVID-19 already then there is likely less risk of asymptomatic people

¹ Heneghan, C. Brassey, J. and Jefferson, T. (2020) *COVID-19: What proportion are asymptomatic?* [Online]. Available at: <https://www.cebm.net/covid-19/covid-19-what-proportion-are-asymptomatic/> (Accessed: 10 April 2020)

spreading the virus. More studies, however, need to be undertaken for the immune response to COVID-19 to be understood, but many experts think it is likely that most people will develop immunity. If however, a large proportion of the population has not had COVID-19 then asymptomatic carriers pose a significant risk to spreading infection. Almost all the testing being done in South Africa is for infections, in other words active cases, we are a long way away from conducting widespread antibody testing which tell us the numbers of those who have been infected. The true number of total positive cases (higher than the confirmed) would bring the hospitalization and death rates lower. Since at the moment we are dividing the number of hospitalized or dead by the smaller number of confirmed cases, as opposed to the larger number of undiagnosed cases.

Furthermore, much of the testing has been performed by the private sector, meaning that we are mostly getting a picture of the pandemic among the middle class to affluent. We have too small a window of what is happening in poor, densely populated areas which are least able to adhere to the strict lockdown requirements. This is why mass testing is such a critical component to an effective response. That said, we have to work with the numbers we have, otherwise one cannot take any decision at all.

Our health system, overwhelmed at the best of times, is not yet experiencing a massive burden specific to COVID-19 for reasons we still need more data to understand. This is not to say it will not, which is why we need to keep focused on the data and continuously assess.

Lastly, anecdotal evidence points to crumbling adherence to lockdown restrictions. This is to be expected. A paper discussing adherence to strict lockdowns in high density populations published by the London School of Hygiene and Tropical Medicine, states the following:

“It is doubtful that these measures are replicable in low-income and crisis settings, where inadequate surveillance and less-than-sufficient testing may initially obfuscate the true extent of locally driven transmission. Moreover, extreme population-wide social distancing and travel restrictions, if sustained over a long period, could be very

harmful for fragile, export-dependent economies and stretch livelihoods beyond people's coping ability, in turn disincentivising adherence to control measures. In short, a draconian containment strategy may be useful for a limited time to allow countries to better prepare, but risks failing beyond a horizon of weeks."²

By the end April, the pressure build-up will be such that if it isn't released by government moving the economy to a lower lockdown level in early May, it will be released by an explosion of non-compliance.

LOCKDOWN TARGETS

In addition to these preliminary promising numbers, we must consider what the lockdown was meant to achieve:

- Increase the capacity of the healthcare system to respond
- Increase testing and deploy track and trace technology
- Bring the rate of new infections down

The beginning of the national state of disaster through to the 21-day hard lockdown was the runway we needed to give us momentum in achieving these goals, the second phase must be to continue these efforts while opening the economy even if it is very slightly. Opening up the economy is not a linear path; we may need to go back to stricter rules after having relaxed them. We need to keep an appropriate level of lockdown in place in such a way that it achieves the health goals with the minimal amount of economic cost necessary to do so.

The government has gone the route of extending a hard lockdown. The extension is about buying time. Which may very well be time well spent if we need an extra two weeks to achieve our targets. But it is not clear what our

² Dahab et al. (2020) 'COVID-19 control in low-income settings and displaced populations: what can realistically be done?' *London School of Hygiene and Tropical Medicine* [Online] Available at: <https://www.lshtm.ac.uk/research/centres/health-humanitarian-crises-centre/news/102976> (Accessed: 08 April 2020)

targets are, how far we are from reaching them, and whether an extra two weeks of hard lockdown will do enough to help us meet them that it justifies the economic losses.

Having bought more time - we now need to ensure we do not waste it. We need to know what the targets are for the next two weeks and what the plan is once we do/do not meet them. These two weeks have been bought with the pensions, jobs, and emotional distress of millions of South Africans. We dare not waste this immense sacrifice.

Whether it is now or after an extended hard lockdown, a smart lockdown strategy, that is a phased lifting coupled with smart interventions will need to follow.

DRIVEN BY GLOBAL EXPERTISE AND LOCAL CONTEXT

We believe the South African government made the right call when it decided to act quickly and impose a hard lockdown. In fact, a hard lockdown is one of the stages in the smart lockdown approach. We now need to move to a less economically restrictive stage to ensure that economic devastation does not undermine our health efforts.

There is mounting support globally for a phased strategy and moving between different stages of restriction. Numerous countries, including France³ and Austria⁴, as well as Japan, Taiwan, Singapore, UK, are considering a transitional strategy, as the sustainable way to ease out of lockdown. We will have to adopt this strategy sooner than most because our measures to support the economy do not compare to those put in place by some of the world's advanced economies. We need to start our economic engine sooner rather than later or we risk our economy cooling

³ Houeix, R. (2020) 'Lifting lockdown: France looks ahead to options for easing coronavirus restrictions', *France24*, 04 April [online]. Available at: <https://www.france24.com/en/20200404-lifting-lockdown-france-looks-ahead-to-options-for-easing-coronavirus-restrictions> (Accessed: 08 April 2020)

⁴ Weise, Z. Mischke, J. (2020) 'Austria seeks to be first EU country to lift lockdown measures after Easter', *Politico*, 06 April [online]. Available at: <https://www.politico.eu/article/austria-seeks-to-be-first-eu-country-to-lift-lockdown-measures-after-easter/> (Accessed: 08 April 2020)

off to such an extent that it will be near impossible to get it to start up again. The deeper the economic crisis and unemployment the deeper the health and social costs.

It would be irresponsible to call for a complete easing of all restrictions, as it would likely risk a sudden spike in infections. At the same time continued hard lockdown conditions will increase the number of unemployed and closed businesses which will not be in a position to reopen after the crisis, but of course closed businesses also will not reopen if their owners are not alive. A phased strategy gives countries the flexibility to adapt to changing circumstances, and it gives people an incentive to comply with regulations. The question is not if we will need to adopt a phased approach, the question is when.

The only way we can afford to move to a softer lockdown, in other words to take our foot slightly off restrictions, is to put our foot on the accelerator on other proactive interventions.

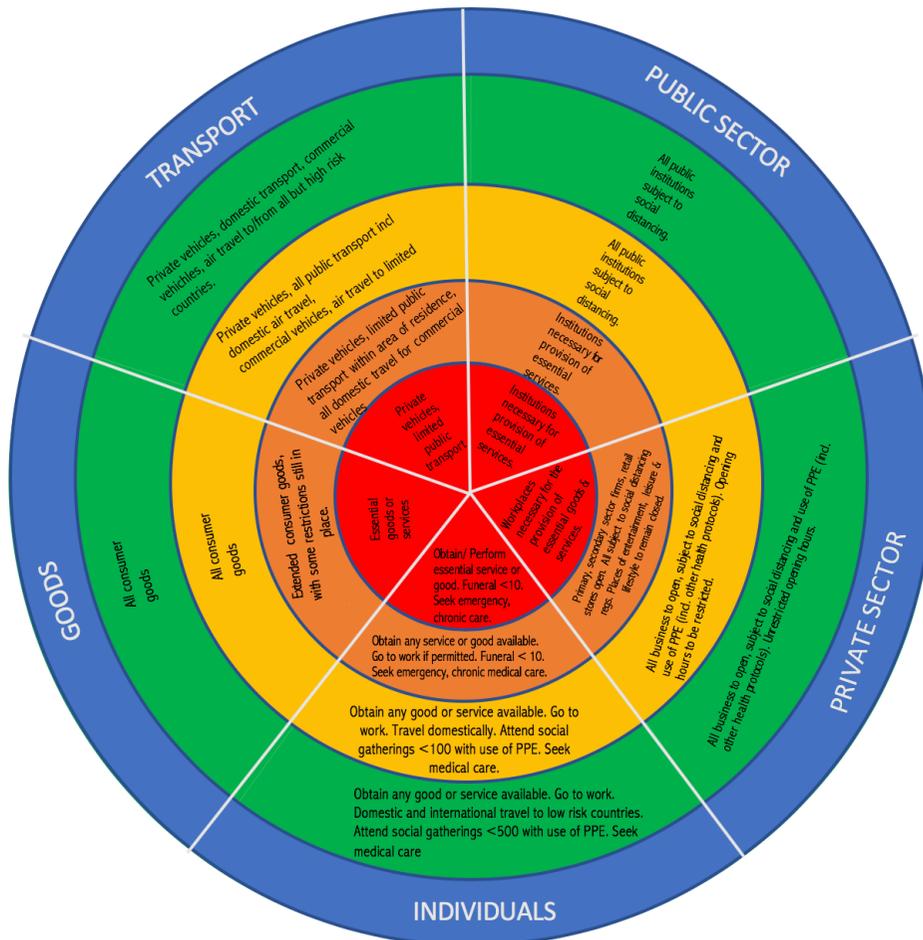
RECOMMENDATION

In general, and beyond just the next two weeks, South Africa should pursue a smart lockdown approach to managing the outbreak until a vaccination or effective treatment is available. This entails stages of lockdown coupled with smart interventions.

1. Moving between lockdown stages (different specified stages of economic and social activity) in response to what the data is telling us e.g. about new daily infections and hospital capacity.
2. Massive rollout of testing, tracking, and tracing coupled with transparent reporting of data.
3. Massive build of healthcare capacity coupled with transparent reporting of progress data.
4. Enabling and strict enforcement of the wearing of protective face masks in all public areas.
5. Education campaign around physical distancing, basic hygiene, diagnosis, handling. Including health protocols for public spaces and workplaces.

6. Assistance to the high-risk group to continue isolating where possible.
7. Strict border control.
8. Bold stimulus/relief package
9. Sweeping policy reforms

STAGES OF A SMART LOCKDOWN APPROACH



- Red:** Stage 4 hard lockdown
- Orange:** Stage 3 soft lockdown
- Yellow:** Stage 2 soft open
- Green:** Stage 1 open

*The content in this table is purely for illustrative purposes to show a lockdown in different stages.

**South Africa will need to develop at a national level stages in consultation with stakeholders.

***Stages are non-linear, country could move from stage 2 back to stage 4 if situation warranted. Amount of time in each stage not necessarily constant.

As currently described, the stages are illustrative of what stages in a smart approach look like. They do not represent our final view on how these stages should be constituted, that will need to be developed in further consultation with stakeholders. We welcome input regarding their makeup.

Red: Stage 4 hard lockdown

Current lockdown restrictions.

Orange: Stage 3 soft lockdown

- All primary and secondary sectors can be opened, where PPE can be provided for workers and social distancing measures adhered to.
- All economic activity in the primary sector (agriculture, mining) to operate as per normal or as per sectoral agreements (such as the mining sector agreement of 9 April).
- Tradesmen (plumbers, electricians) may also operate.
- Informal traders with permits and trading in designated trading areas may operate.
- Some who work in these sectors may not be able to return to work due to childcare and schools remaining closed.
- Opening up of sectors like textiles and manufacturing will enable them to help contribute to the availability of much needed equipment.
- Workers who can work from home, even in these sectors, should still be encouraged to do so.

- The intention is to still keep numbers of people out in public spaces to a minimum. Places of entertainment, leisure & lifestyle activities to remain closed. Restaurants may open but may only fulfil delivery and collection orders.
- Those who work in the tertiary sectors are to remain at home.
- While all retail stores will now be open, encourage home delivery of essential and non-essential goods. Stores to practice adequate hygiene and social distancing.
- Movement between provinces of goods, other domestic travel remains restricted.
- Social gatherings >10 not permitted.
- Masks mandatory in all public areas.
- Quarantine / isolation of high-risk people is highly recommended.

Yellow: Stage 2 soft open

- All businesses to open subject to availability of PPE for employees and strict physical distancing measures adhered to. Restriction of opening hours for restaurants and bars.
- All public institutions to open. Encourage physical distancing at schools e.g. Teachers to ensure breaks at desks situated appropriate distance apart instead of playground.
- Open up social gatherings of <100 where strict distancing measures will be adhered to.
- Permit movement between provinces, including domestic air travel. Flights to low risk countries.
- Ability to seek non-chronic and non-emergency medical care. Virtual consultations encouraged.
- Masks mandatory in all public areas.

- Quarantine / isolation of high-risk people is recommended.

Green: Stage 1 open

- All travel except to and from high risk countries. In-bound travelers must be tested and isolated if necessary.
- Public gatherings of <500 subject to use of PPE and adherence to social distancing. Mechanism to request permission for larger gatherings.
- Masks mandatory in all public areas.
- Quarantine / isolation of high-risk people is recommended.

It is important to remember that the time spent in each stage can differ and that we may need to move back and forth between stages in order to strike that delicate balance between infection suppression and economic activity.

Sectors and activity throughout the economy are deeply interconnected. There are never going to be cut off points which are neat and uncontroversial. The aim is to release some restrictions, monitor how the virus progresses, then repeat. Those caught right at the cut off points may feel it is an injustice that they cannot operate when they are just as capable of putting in place distancing measures or when a very similar sector is permitted to operate. But there have to be cut-offs, or we risk going back too suddenly to a business as usual approach.

DETERMINING HOW WE MOVE BETWEEN STAGES

Our strategy is to find the path that will reduce the number and spread of new infections over time to ensure that our health care system is not overwhelmed. And to do this at the lowest economic cost.

One of the important numbers which tell us whether we are likely to succeed or whether the health system is likely to be overwhelmed is the reproduction number.

The reproduction number is the number of individuals an infected person is expected to infect. A reproduction number of 2 would indicate that every infected person would infect 2 other people with the virus. The ideal is to get the reproduction number below 1, then we would see infections declining.

While hard lockdowns, stage 4 in our model, are very effective in bringing the reproduction number down and lowering the spread of infection, they are also extremely tough on the economy.

Our goal is to save lives by achieving our health goals at the minimum economic cost.

There are other factors, aside from a hard lockdown, which influence how quickly the virus can spread and which can reduce the reproduction number. Where we have control over them, we need to use these to full effect in order to ease lockdown restrictions and allow for greater economic activity.

FACTORS WHICH WILL DETERMINE HOW WE MOVE BETWEEN STAGES:

- Massive rollout of testing, tracking, and tracing coupled with transparent reporting of data.
- Massive build of healthcare capacity coupled with transparent reporting of progress data.
- Enabling and strict enforcement of the wearing of protective face masks in all public areas.
- Education campaign around physical distancing, basic hygiene, diagnosis, handling. Including health protocols for public spaces and workplaces.
- Assistance to the high-risk group to continue isolating where possible.
- Strict border control.

- Weather (warm or cold): While the jury is still out on the effect of seasonality on COVID-19, early studies suggest it may play a part⁵.

We do not have control over the weather, but we can influence the other factors which determine how we move between stages. This is a working paper, and therefore evolving.

For now, we add a few brief notes on testing, tracking, and tracing, the capacity of **the** healthcare system, **and** options for isolating high risk individuals.

TESTING, TRACKING, AND TRACING

Testing will become a pivotal factor in determining to what extent South Africa can move between lockdown restrictions. Without the data generated from these efforts we cannot take swift action and make informed decisions.

In order to improve data collection and our understanding of how the virus is progressing we need to conduct randomized mass testing with 24-hour turnaround times. At present testing in South Africa has been too targeted and at too low a level to provide a clear picture.

To date South Africa has performed 1 350 tests per 1 million people in South Africa.

Countries which have either not had hard lockdown or are now contemplating easing lockdown have the following testing numbers per 1 million people in the population (as of 13 April 2020)⁶:

South Korea: 10 038/ 1M people

⁵ [Here](#), [here](#), and [here](#)

⁶ *Confirmed Cases and Deaths by Country, Territory, or Conveyance* [Online]. Available at: <https://www.worldometers.info/coronavirus/> (Accessed: 13 April 2020)

Sweden: 5 416/ 1M people

France: 5 114/ 1M people

Austria: 16 086/ 1M people

Global experience suggests we need to conduct between 17 000 and 60 000 tests per day in order to raise our prospects of everybody getting back to work soon. The NHLS indicates we can get to 36 000 per day by the end of April. This will greatly accelerate our efforts. We need to ensure we are on track to meet this target. We require frequent updates on our procurement efforts since being able to test at scale will have massive health and economic consequences.

Tracking is an exercise focused on the present- it tells us how people are moving. Testing must be accompanied by extensive efforts to anonymously track the movements of those who have tested positive, as well as that of the general population in order to identify high risk areas.

Tracing is more backwards looking, it attempts to retrace the movements of individuals, specifically those who have tested positive, in order to identify who they have or may have come into contact with.

At its most powerful and in the hands of public citizens track and trace data empowers people to make decisions about their own movements and informs them whether or not they may have come into contact with the virus. It also enhances the ability of health officials to ensure that those who are positive or have been in contact with someone who tested positive self-isolate or alternatively secure a quarantine site for them away from home.

At present we have little insight into the tracking and tracing efforts of the South African government.

The information which is generated by testing, tracking, and tracing needs to be balanced with information about the resilience of the South African healthcare system. There is no transparent reporting of the capacity in the South African health care system either.

HEALTHCARE SYSTEM CAPACITY

There is no official reporting of the capacity of our healthcare system throughout the public and private sectors. Combined with the paucity of information with regards to testing, tracking, and tracing a really dire picture of the state of data and transparency in South Africa becomes apparent.

Overall this points to a lack of data that threatens our ability to save lives.

Frequent reporting of credible and localised data is crucial to making informed decisions. Otherwise South Africa is flying blind through this crisis. Without data we cannot ascertain reliably a) how the virus is spreading, b) which interventions are making an impact and c) which interventions to put in place which are proportionate to the threat faced at different points in time.

The government needs to share the following live information with the public, combined with parliamentary oversight (front line committees like health should meet regularly with the minister and his 9 MECs. This would be over and above the ad hoc committee that has been called for):

- The targets being tracked by government (we cannot know whether an extension of a hard lockdown is justified if we do not know what is being targeted)
- Testing capacity per day at district level
- Actual tests performed per day at a district level by:

Type of test: Infection/Anti-bodies (serological testing)

Type of patient: Symptoms/ No symptoms

Stage of patient: New, never tested/ Repeat, has been tested before but was negative/ Repeat, has been tested before and was positive

- Test results: Positive cases/ Negative cases/ Still in progress/ Faulty
- Number of patients by:
 - New positive cases
 - Total positive cases
 - New deaths
 - Total deaths
 - New recoveries
 - Total recoveries
- Results of continuous random testing for prevalence of COVID-19 and respective symptoms stratified by:
 - Age
 - Gender
 - Urban / rural
 - Race
 - LSM
 - Education level
 - Employment status
 - Income level

- Capacity of health systems to cope with the virus by:
 - number of hospital beds available (general, High care, and ICU) and number used by COVID-19 patients
 - number of ventilators
 - occupancy rates.
- Population mobility at a detailed level: aggregated and anonymised data to help us understand the movement of people and help us identify areas most at risk of infection increases.
- Supply levels of PPE, particularly in the healthcare sector

The above data is not widely available but should be made public information. Whether health system capacity will be sufficient will depend on the trajectory South Africa takes. A model similar to that depicted below could then be used to assess which stage of lockdown we can potentially afford to be in.

Aspirational Assumption:
SA will not exceed a 3.5% ICU-rate

Working Assumption:
SA will have a 10% ICU-rate

# of ICU-beds required	% of active cases requiring intensive care beds														
	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%
5 000	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750
10 000	100	200	300	400	500	600	700	800	900	1 000	1 100	1 200	1 300	1 400	1 500
15 000	150	300	450	600	750	900	1 050	1 200	1 350	1 500	1 650	1 800	1 950	2 100	2 250
20 000	200	400	600	800	1 000	1 200	1 400	1 600	1 800	2 000	2 200	2 400	2 600	2 800	3 000
25 000	250	500	750	1 000	1 250	1 500	1 750	2 000	2 250	2 500	2 750	3 000	3 250	3 500	3 750
30 000	300	600	900	1 200	1 500	1 800	2 100	2 400	2 700	3 000	3 300	3 600	3 900	4 200	4 500
35 000	350	700	1 050	1 400	1 750	2 100	2 450	2 800	3 150	3 500	3 850	4 200	4 550	4 900	5 250
40 000	400	800	1 200	1 600	2 000	2 400	2 800	3 200	3 600	4 000	4 400	4 800	5 200	5 600	6 000
45 000	450	900	1 350	1 800	2 250	2 700	3 150	3 600	4 050	4 500	4 950	5 400	5 850	6 300	6 750
50 000	500	1 000	1 500	2 000	2 500	3 000	3 500	4 000	4 500	5 000	5 500	6 000	6 500	7 000	7 500
55 000	550	1 100	1 650	2 200	2 750	3 300	3 850	4 400	4 950	5 500	6 050	6 600	7 150	7 700	8 250
60 000	600	1 200	1 800	2 400	3 000	3 600	4 200	4 800	5 400	6 000	6 600	7 200	7 800	8 400	9 000
65 000	650	1 300	1 950	2 600	3 250	3 900	4 550	5 200	5 850	6 500	7 150	7 800	8 450	9 100	9 750
70 000	700	1 400	2 100	2 800	3 500	4 200	4 900	5 600	6 300	7 000	7 700	8 400	9 100	9 800	10 500
75 000	750	1 500	2 250	3 000	3 750	4 500	5 250	6 000	6 750	7 500	8 250	9 000	9 750	10 500	11 250
80 000	800	1 600	2 400	3 200	4 000	4 800	5 600	6 400	7 200	8 000	8 800	9 600	10 400	11 200	12 000
85 000	850	1 700	2 550	3 400	4 250	5 100	5 950	6 800	7 650	8 500	9 350	10 200	11 050	11 900	12 750
90 000	900	1 800	2 700	3 600	4 500	5 400	6 300	7 200	8 100	9 000	9 900	10 800	11 700	12 600	13 500
95 000	950	1 900	2 850	3 800	4 750	5 700	6 650	7 600	8 550	9 500	10 450	11 400	12 350	13 300	14 250
100 000	1 000	2 000	3 000	4 000	5 000	6 000	7 000	8 000	9 000	10 000	11 000	12 000	13 000	14 000	15 000

SA must not exceed 20k active cases
Assuming a low ICU-rate, 60k active cases can be tolerated

Assumption on # of ICU-beds in SA

of ICU beds in SA:
Private 4 500
Public 2 500
Total 7 000
of ICU beds unoccupied:
In use 4 000
Available 3 000

colour coding:	below 2 500	higher than 2 500 but lower than 3 000	3 000 and above
	sufficient capacity	sufficient capacity, but border line	insufficient capacity

Source: <https://www.news24.com/South-Africa/News/sas-healthcare-system-has-only-around-3-000-critical-care-hospital-beds-available-and-it-is-not-enough-20200320>

PROTECTING HIGH-RISK INDIVIDUALS

Isolation of individuals >60 and other high-risk individuals is recommended for as many of the stages as possible. We need to explore how we can do this as we move between different stages of economic and social activity.

The table below shows options for housing high risk persons. The paper⁷ from which the options are sourced states that the third option “while an extreme option of resettling large numbers (e.g. many hundreds) of high-risk people in dedicated buildings or neighbourhoods might also be conceivable, we have discounted it due to likely high cost and the risk of large-scale harm if transmission is seeded within such a concentrated ‘green zone’.” It is unlikely to be a viable option for South Africa.

Options for housing high-risk persons into designated ‘green zones

Option	Description	Applicability	Notes
1. Household-level shielding	Each household demarcates a room or shelter for high-risk members. If necessary, a carer from the household is isolated with them.	Settings with multi-shelter compounds or multi-room houses.	Likely preferable to families with space available but also more likely to be ‘leaky’ if isolation is not strictly enforced.
2. Street- or extended family-level shielding	Neighbouring households (e.g. 5-10) or members of an extended family within a defined geographic locale (neighbourhood, district) voluntarily ‘house-swap’ and group their high-risk members into dedicated houses / shelters.	All, but especially urban settings.	Infection control and social distancing measures would also have to be strictly observed within each green zone.
3. Neighbourhood- or sector-level isolation	Sections of the settlement are put aside for groups of high-risk people (e.g. 50-100).	Displaced persons’ / refugee camps, where humanitarian actors can provide supportive services and smaller scale isolation is not possible.	Ideally located at the periphery of camps to facilitate such measures. Infection control and social distancing measures would also have to be strictly observed within each green zone.

⁷ Dahab et al. (2020) ‘COVID-19 control in low-income settings and displaced populations: what can realistically be done?’ *London School of Hygiene and Tropical Medicine* [Online] Available at: <https://www.lshtm.ac.uk/research/centres/health-humanitarian-crises-centre/news/102976> (Accessed: 08 April 2020)

BOLD STIMULUS PACKAGE

CONTEXT: ECONOMIC IMPACT

When thinking about the economy, it is important to remember that a recession is not something that only affects corporations or wealthy people. It leads to reduced fiscal revenue necessary for financing our healthcare interventions, the permanent closure of businesses, retrenchments, a drop in household incomes and loss of business for those still in business. It affects everybody, and the poor will feel it most because they will have less in savings to shield them from hard times.

Before the start of the COVID-19 crisis, South Africa's economic growth was already feeble. The South African economy slipped into recession in 2019 after it contracted by 1.4% in the fourth quarter of 2019 and by 0.8% (revised) in the third quarter.⁸ Economic growth in 2019 was the lowest since the 2008–2009 global financial crisis, with output expanding by just 0.2%.⁹

On Monday, 6 April, the South African Reserve bank changed South Africa's growth forecast from -0.2% in March 2020 to a forecast as low as -4% after the decision to lockdown the economy.¹⁰ SARB predicts that the forecast will be even lower than this if the hard lockdown is extended or if the global economy weakens more than currently projected.

Preliminary estimates suggest that the effects of the current lockdown will be the loss of 370 000 jobs in 2020 and an increase in business insolvencies by roughly 1 600 firms.¹¹

⁸ Statistics South Africa (2020). *Economy Slips into Recession* [Online]. Available at: <http://www.statssa.gov.za/?p=13049> (Accessed: 06 April 2020)

⁹ South African Reserve Bank (2020). *Monetary Policy Review* [Online]. Available at: <https://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/9839/Monetary%20Policy%20Review%20%E2%80%93%20April%202020.pdf> (Accessed: 06 April 2020)

¹⁰ SARB at 3.

¹¹ SARB at 39

These forecasts may, however, be optimistic: the global financial crisis of 2008/2009 saw a contraction in GDP of 1.5% — far less than the current forecast contraction — and yet resulted in more than 900 000 job losses. With South Africa's unemployment rate currently sitting at 29.1%, a loss of hundreds of thousands of jobs will cause notable economic hardship.

Government debt has steadily risen over the past ten years, and South Africa has become a major borrower from the world.¹² In the 2018/19 financial year, our national debt was in excess of R3-trillion and is expected to exceed R4.5-trillion in the next three years. The latest debt-to-GDP ratio is 66%. The ratings agency Fitch sees this rising to 90% in the near future, even without any new government spending due to the Covid-19 pandemic.

Our deteriorating fiscal position has meant that South Africa's sovereign risk premium is high. This is made worse by Moody's decision to downgrade South Africa's sovereign rating to below investment grade at the end of March, and Fitch's decision to further downgrade South Africa into junk status one week later. The result of the downgrade to junk status is that the state's cost of borrowing is now higher than ever before, and less money will be available to the state for spending.

Added to the loss in tax revenue which will result from economic contraction, the increased cost of borrowing and the massive run on government bonds means that the state simply does not have money to implement the kinds of stimulus measures that are being seen in the world's strongest and most resilient economies.

More than 10 000 SMMEs have applied for financial assistance from funds set up by private persons.¹³ The national Solidarity-Fund, led by the private sector, has been seeded with some R150-million of public money and R2-billion from the Rupert and Oppenheimer families.¹⁴ It must, however, be born in mind that this is a relatively small intervention in broader macroeconomic terms.

¹² SARB at 39.

¹³ Van Niekerk, R. (2020) 'More than 10 000 SMEs apply for Rupert's R1bn', *Moneyweb* [Online]. Available at: <https://www.moneyweb.co.za/news/south-africa/more-than-10-000-smes-apply-for-ruperts-r1bn/> (Accessed: 08 April 2020)

¹⁴ Montalto, P. (2020) 'Coronavirus: Cases and Costs', *Intellidex* [Online]. Available at: <https://www.intellidex.co.za/insights/coronavirus-costs-adn-cases/> (Accessed: 06 April 2020)

The value of the Rand has been on a downward spiral since January 2020 and has taken a nosedive since the Covid-19 pandemic turned into a crisis. On 1 January, the Rand was trading at just over R14 to the US Dollar. Just four months later, on 5 April, the Rand closed at R19.27 to the US Dollar. While increased demand for exports would usually ameliorate the negative effects of the decreasing value of our currency (e.g. the increased cost of imported goods), we cannot realise these benefits while manufacturing remains closed due to lockdown.

The Minerals Council of South Africa has predicted a 20% decline in mining production in April and a 4.5% decline for the year, assuming hard lockdown ends on April 17. This figure excludes the costs incurred to maintain halted operations and the R7-billion in wages paid to workers staying at home during the lockdown period. If the current hard lockdown is extended, the Council warns, there will be permanent damage to the country's mining sector.¹⁵

The depth and length of this recession depends on the government's ability to respond with an economic stimulus package, involving both financial and policy stimulus. Our approach is that it is essential to keep as many people employed for as long as possible, and to show unambiguously that government policy will move in favour of growth.

ECONOMIC STIMULUS

In this moment of crisis, government should have been able to inject R500 billion in stimulus spending into the economy without destroying every measure of fiscal sustainability. If we had kept our national debt under control for the past decade, that would have been possible. But a decade of profligate spending, bad policy and rampant corruption has left the government all but impotent to respond financially to this crisis.

It is increasingly unavoidable that we will have to borrow from international financial institutions - the New Development Bank, the IMF and the World Bank - in order to respond properly to this crisis.

¹⁵ Seccombe, A. (2020) 'Mines must return to work on April 17 'or face permanent damage', *Businesslive* [Online]. Available at: <https://www.businesslive.co.za/bd/companies/mining/2020-04-06-mines-must-return-to-work-on-april-17-or-face-permanent-damage/> (Accessed: 07 April 2020)

The ANC has squabbled over approaching international financial institutions, in particular the IMF. This squabbling is wasting valuable time, as other countries get ahead of us in line to access IMF relief funds. If low-interest funds are being offered for Covid-19 relief efforts, we should not hesitate to access these now.

We propose a R300 billion economic stimulus package, designed to offer direct cash support to struggling South Africans and businesses. This will be funded by seeking R200 billion in new borrowings, from low-cost international institutions, like the IMF, NDB and WB.

This should be used as follows:

- R50 billion in direct business support, in the form of a very low interest loan fund for any business, repayment of which will only commence in 12 months. No restrictions on what kind of business will be considered for this loan (no BEE requirements, size or turnover requirements), other than the administrators of the fund must consider the business to be commercially viable and capable of repaying the loan. It will be administered by the private sector but subject to regulations including the criminal prosecution of directors for any corruption or negligence.
- R50 billion in direct cash grants to the poorest South Africans, using the SASSA grant payments system. This means an additional payment of R1000 per month to every grant recipient for 3 months. This will encourage spending rather than saving.
- R50 billion for direct healthcare related costs for fighting Covid-19 - protective gear, ventilators, field hospitals, overtime for medical personal, mass field screening, etc.
- R100 billion to cover the inevitable shortfall in the existing budget created by collapsing tax revenues. This is over and above what was already budgeted to be borrowed, underscoring how important it is that commitments to cut the wage bill are followed through.

- Relaxation of credit requirements to allow banks to offer more smaller loans, using Section 11 of the NCA

POLICY REFORMS

We need sweeping policy reforms to orient the economy for growth. These reforms were essential before Covid, when the economy was already stifled and shrinking. Now, these reforms are fundamental to the survival of South Africa's economy. We will not recover the economy after Covid without them.

The reforms are important of themselves, but they are also necessary to shore up the support of the international funders, who will play an important role in our recovery. Before we can borrow even more money, we need to reassure the bond markets and international investors that we are serious about growth and structural reform.

To reform the state and the economy, and to offer this reassurance to global funding markets, government should:

- Table an emergency budget as soon as lock down is over, to show real commitment to controlling government expenditure and not allowing 'ordinary' debt to explode. This is unavoidable now, since all of the revenue and growth assumptions in the February budget no longer apply. We need a budget that tightly controls expenditure, so as to give maximum credibility to a new borrowing programme ring fenced for the Covid response:
- Immediately liquidate or sell SAA,
- End the Eskom monopoly on electricity generation,
- hold a firm line on the decision to cut at least R160 billion from the state wage bill,
- support the DA's proposed Fiscal Responsibility Bill, which will act as a fiscal anchor for the first time in South Africa,
- Reform labour legislation and end the centralised power of bargaining councils
- Bring down communication costs and bring in revenue by immediately auctioning spectrum.

-Walk away from investment-killing policies such as expropriation without compensation, BEE, asset prescription, SARB nationalisation.