

SA's Covid-19 epidemic: Trends & Next steps

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Chair: Ministerial Advisory Group on Covid-19

Director: CAPRISA – Centre for the AIDS Program of Research in South Africa; CAPRISA Professor in Global Health: Columbia University; Adjunct Professor of Immunology and Infectious Diseases: Harvard University; Adjunct Professor of Medicine: Cornell University; Pro Vice-Chancellor (Research): University of KwaZulu-Natal; Director: DSI-NRF Centre of Excellence in HIV Prevention

South Africa's COVID-19 Response

President Cyril Ramaphosa

1. Declared a national state of disaster in terms of the Disaster Management Act On 15th March 2020: .

2. Established an Inter Ministerial **National Command Council** consisting of:
 - Minister of Health
 - Minister of Social Development
 - Minister of Economic Development
 - Minister of Higher Education, Science and Technology
 - Minister of Basic Education
 - Minister of Finance
 - Ministers of Cooperative Governance and Traditional Affairs,
 - Minister of Justice and Correctional Services
 - Minister of Police
 - Minister of Energy.

South Africa's COVID-19 Expert team

1. Ministerial Advisory Committee?

Lead by **Prof Abdool Karim**, consists of specialists in infectious diseases, virologists, epidemiologists, public health practitioners, mathematical modellers, laboratory specialists, social scientists and health care experts from across the country.

2. Sub committees

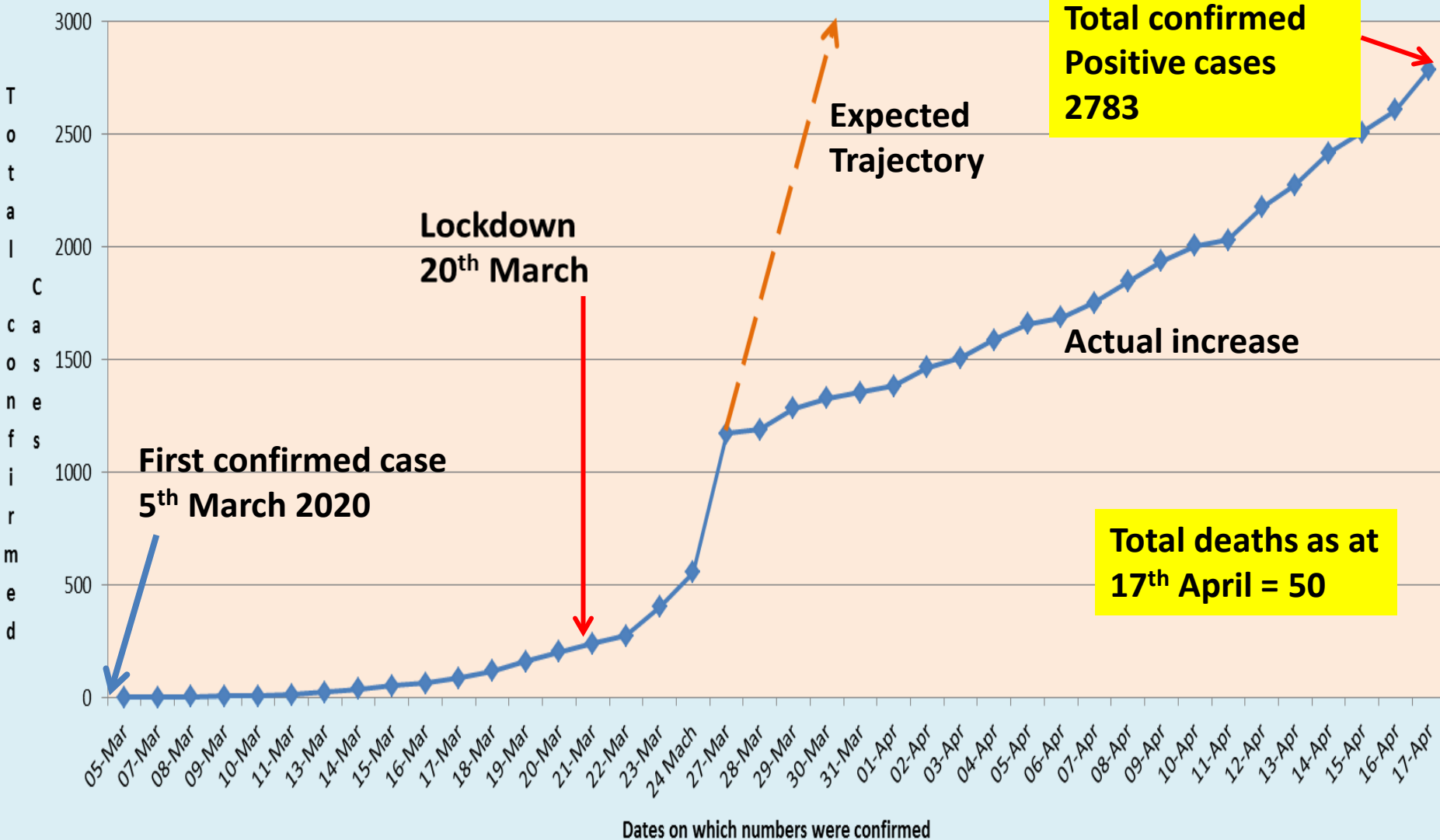
i. The committee of clinicians, chaired by **Professor Marc Mendelson** of the University of Cape Town, is working on the guidelines which includes how to determine what is a case, deciding on admission criteria, what approaches should be taken as to who gets a ventilator.

ii. The laboratory testing committee, chaired by **Professor Koleka Mlisana** of the National Health Laboratory Service, is advising on how to scale up testing and what test kits are best.

iii. The public health committee, chaired by **Professor Shabir Madhi** of Wits University, is focusing on what the public health response should be. This committee's advice was sought on the plan to deploy 10 000 community health workers who will go out to do field screening and testing.

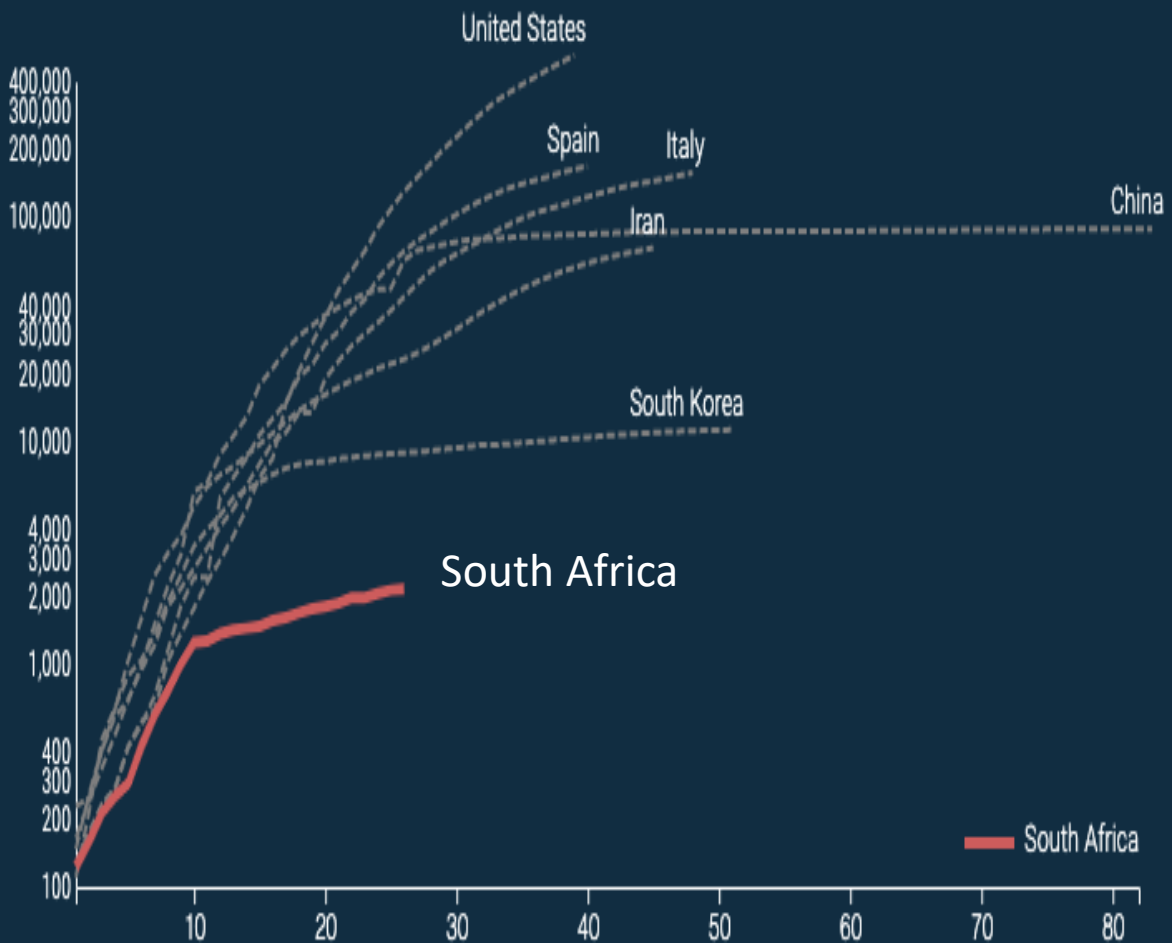
iv. The fourth committee is the research committee, chaired by **Professor Glenda Gray** of the Medical Research Council.

South Africa's Covid-19 epidemic: Trends - 17th April 2020



Daily infection increases from first 100

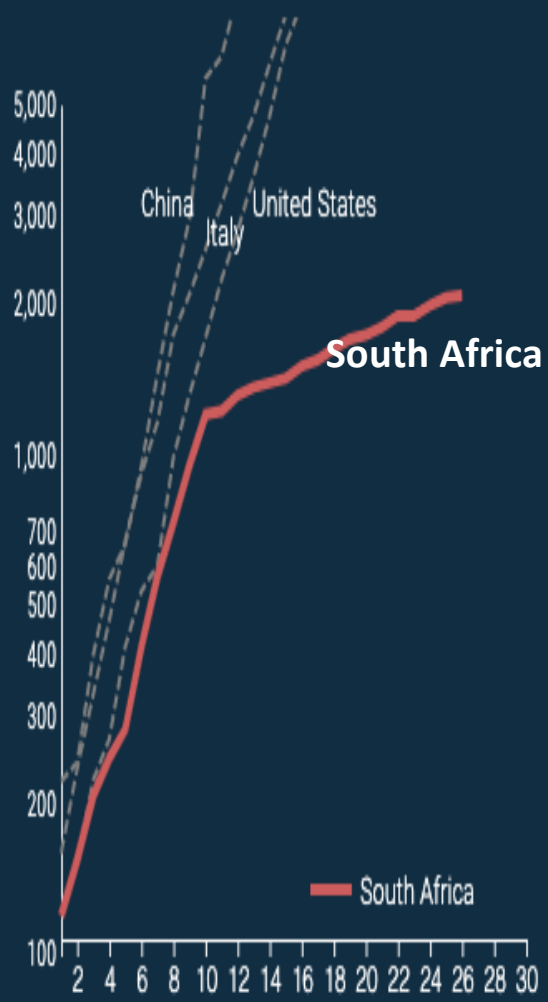
Comparison of cumulative reported infections. Day 0 is the day the first 100 infections were reported. This chart has been switched to a logarithmic scale to better illustrate the changes over time.



Updated: 10-04-2020

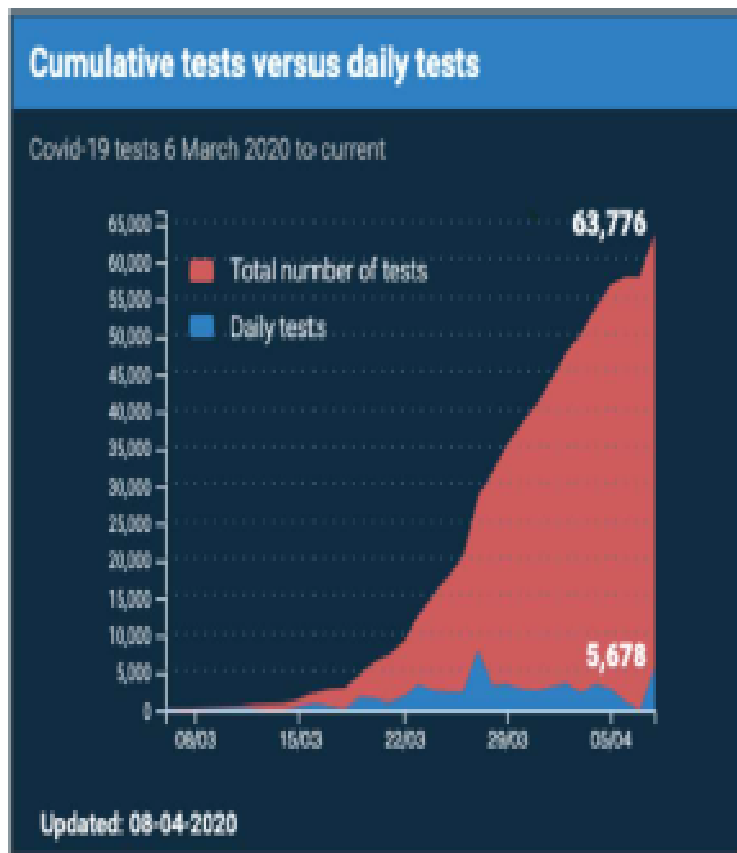
Daily infection increases from first 100

Comparison of cumulative reported infections. 0 = day when first 100 infections were reported. (Zoomed in)

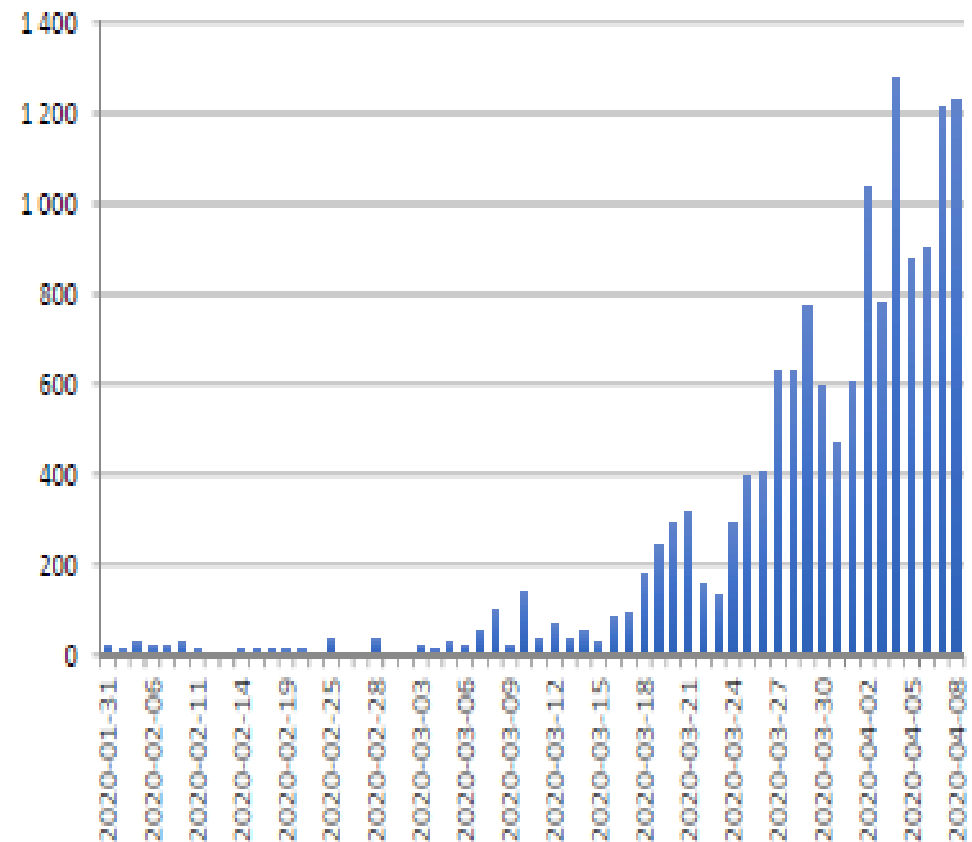


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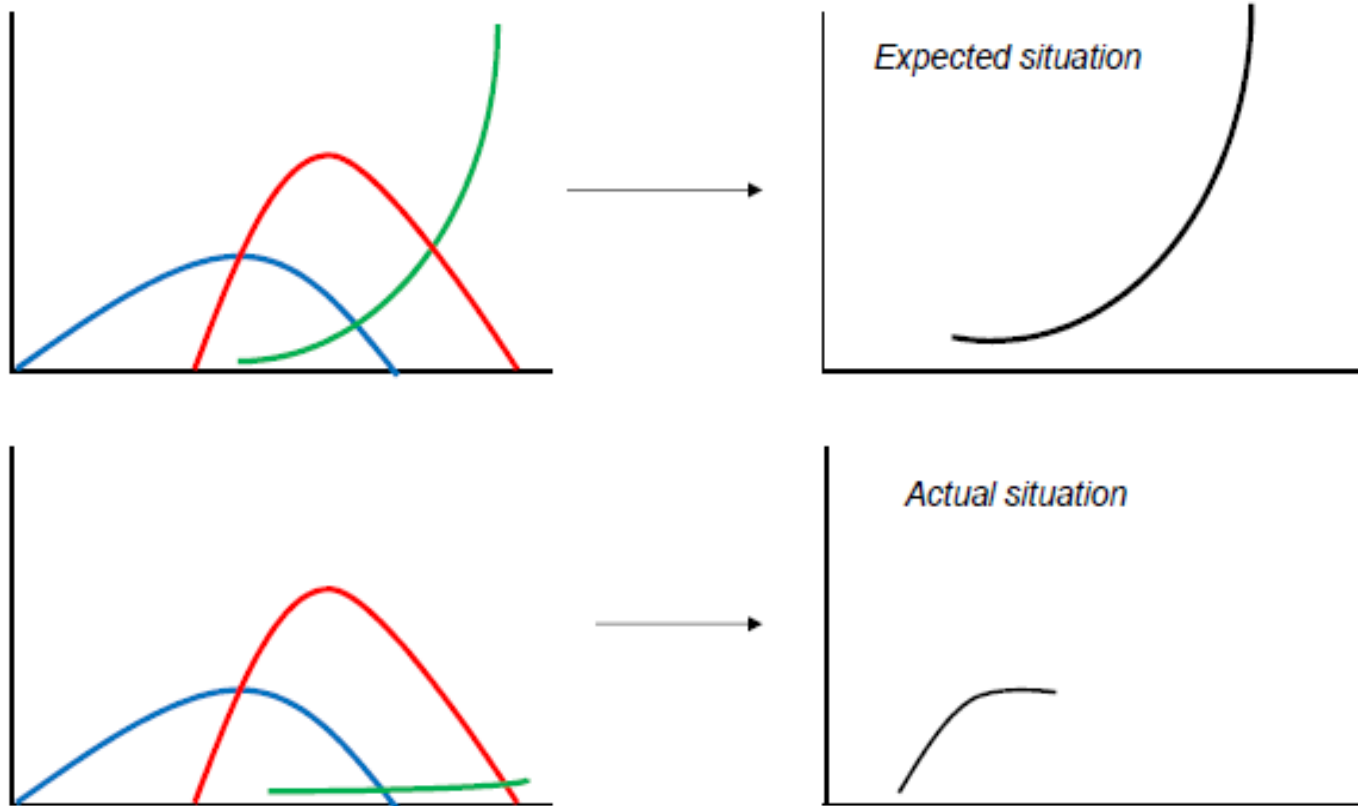
Trends in cumulative private & NHLS Covid-19 tests show steady increase



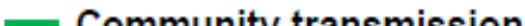


Total Number of Tests Per Day



The 3 waves of the SA epidemic



-  Travelers
-  Contacts and nosocomial transmissions
-  Community transmission

South Africa's Covid-19 epidemic

The majority of the patients in South Africa are mild.

1. As of 15th April 2020, there are a total of **241 hospitalized** patients in the private and public sectors.
2. There are 36 patients in ICU of which 27 are in the private sector.
3. There are 23 patients of these patients are on a ventilator of which 15 are in the private sector.

South Africa's Covid-19 epidemic

Current stages of SA's response

Stage 1: Preparation

- Community education
- Establishing lab capacity
- Surveillance

Stage 2: Primary prevention

- Social distancing & hand-washing
- Closing schools and reduced gathering
- Close the borders to international travel

Stage 3: Lockdown

- Intensifying curtailment of human interaction

Stage 4: Surveillance & active case-finding

- The Community response: door-to-door screening, testing, isolation and contact tracing

South Africa's Covid-19 response

Stage 4: surveillance and active case finding

Community Screening:

1. South Africa has a unique component to its response: active case finding.
2. 10 000 Community Health Workers have been deployed to do door-to-door case finding. By 15th April, 886 225 people have been screened in the community and 11 043 have been referred. The target is 1 million screened by 19th April 2020.
3. The focus is on high burden and surrounding areas i.e. hotspots.

Contact tracing:

1. As of 15 th April, 12 845 contacts have been screened and 10 950 have been traced across the provinces.

Next stages of South Africa's response

Stage 5: Hotspots

- Surveillance to identify & intervene in hotspots
- Spatial monitoring of new cases
- Outbreak investigation & intervention teams

Stage 6: Medical Care (for the peak)

- Surveillance on case load & capacity
- Managing staff exposures and infections
- Building field hospitals for triage
- Expand ICU bed and ventilator numbers

Field hospital in
Central Park, New York



Stage 7: Bereavement & the Aftermath

- Expanding burial capacity
- Regulations on funerals
- Managing psychological and social impact

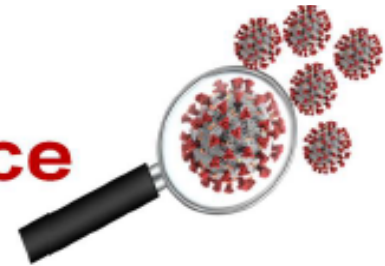
Stage 8: Ongoing Vigilance

- Monitoring Ab levels
- Administer vaccines, if available
- Ongoing surveillance for new cases



Next stages of South Africa's response

Stage 8: Vigilance / surveillance



- **Need to stay one step ahead of viral spread and not wait for patients to arrive in hospitals to act**
- **3 components to surveillance:**
 - Ongoing CHW house-to-house screening and testing especially in vulnerable communities
 - One day each month – health worker surveillance
 - One day each month - National surveillance day for schools, mines, prisons & big companies
 - For now self-taken swabs (later change to fingerprick) from a small sample of people in each setting