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# Morning Brief: Scientific Review

1 June 2020

The purpose of the Morning Brief is to summarize and present key information, research articles and other relevant publications pertaining to critical care and COVID-19.

Stellenbosch University Research Response Team

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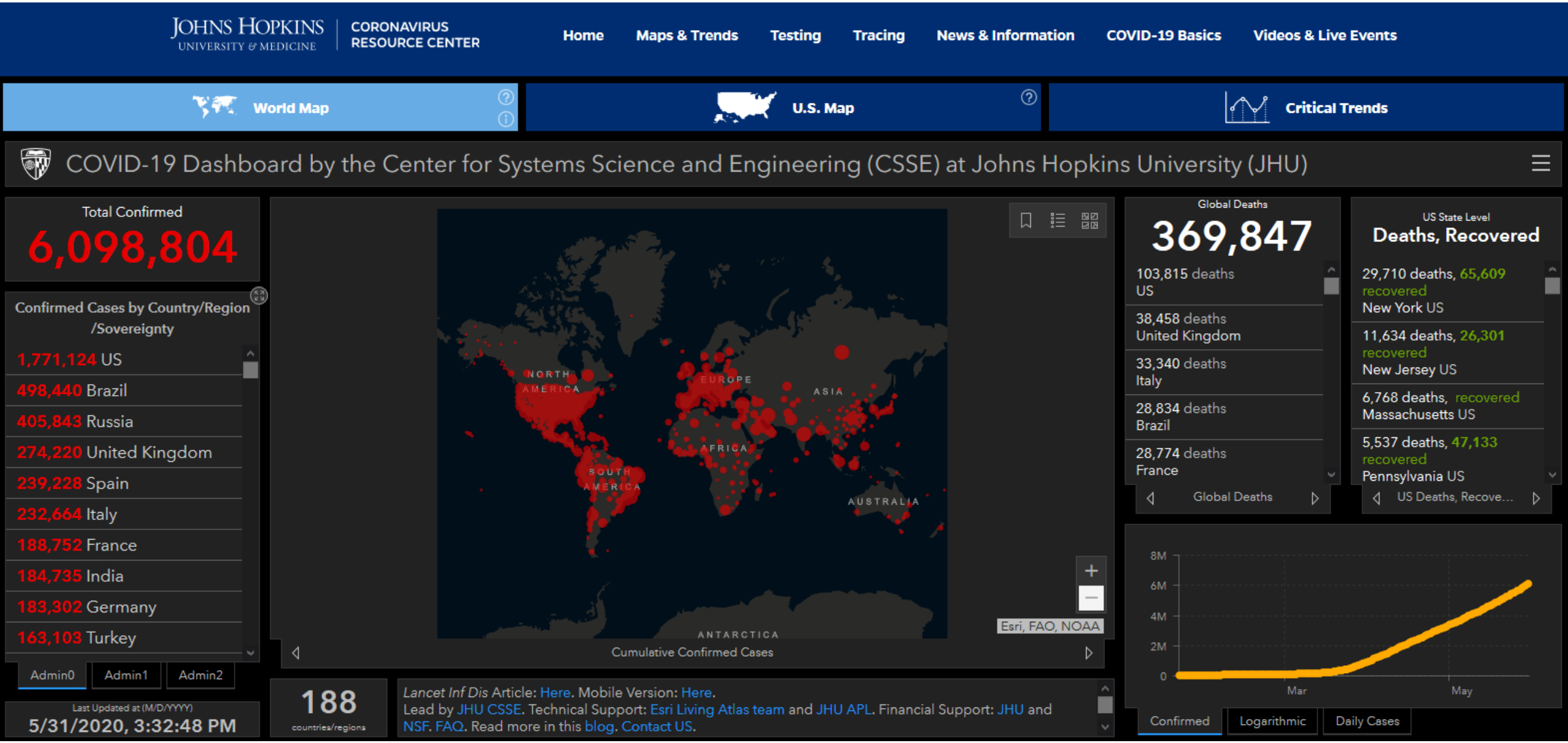
# Content of the brief

- Global Statistics
- South African Statistics
- Topics:
  - Brief reports




Source: https://coronavirus.jhu.edu/map.html

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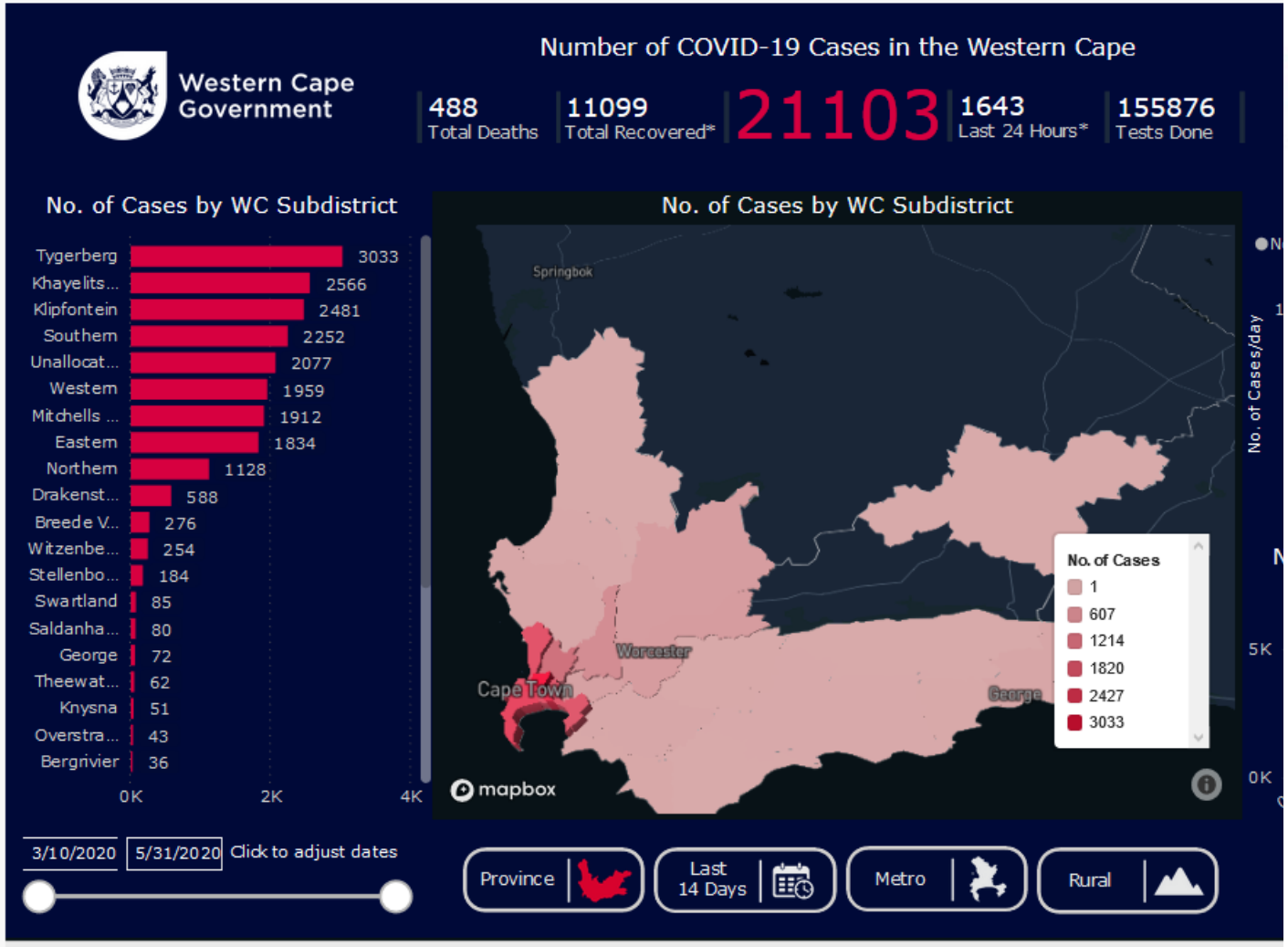
# South African Statistics





Sources: https://sacoronavirus.co.za

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# Articles of Interest

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JOURNAL OF MEDICAL VIROLOGY

LETTER TO THE EDITOR | Free Access

# Clinical features and outcome of HIV/SARS-CoV-2 co-infected patients in the Bronx, New York City

Kulachanya Suwanwongse MD, MSc, Nehad Shabarek MD

First published:28 May 2020 | https://doi.org/10.1002/jmv.26077

Case series

9 Hospitalised HIV co-infected patients in one hospital in the Bronx, N

Median age 58 y (range 31-76). 7 males

All patients had multiple comorbidities

- 1 obese, 4 hypertension, 3 diabetes, 4 COPD

CD4+ T cell count range 179 to 1827

HIV viral load was very low to undetectable.

Eight patients were on highly active antiretroviral therapy (HAART)

HAART was discontinued during hospital admission in four patients, two of which was due to acute kidney injury (AKI), and the other two were for an unclear reason.

Seven patients died (78%)

- four due to hypoxemic respiratory failure
- three from septic shock and multi-organ failure

The two young patients (31 and 37) did not die.

Others who died were all above 50. 4 of them had more than 3 comorbidities.

Suwanwongse K, et al. Clinical features and outcome of HIV/SARS-CoV-2 co-infected patients in the Bronx, New York City, Journal of Medical Virology, 28 May 2020 https://doi.org/10.1002/jmv.26077

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## Cross-sectional

Similar to Wolfel et al.

Canada

90 PCR positive samples attempted viral culture

Sampled day 0 to day 21 since symptom onset

Median age 45 (30 – 59)

49% male

26/90 (28.9%) cultures positive

No positive cultures after day 8 (as in Wolfel et al)

No positive cultures for CT above 24

Positive culture samples CT value median 17 (16 – 18) vs Negative culture samples CT value median 27 (22 – 33) $p < 0.001$

Positive culture day after symptom onset median 3 (2 – 4) vs 7 (4 – 11) $p < 0.001$

Probability of positive culture peaked on day 3

Figure 1

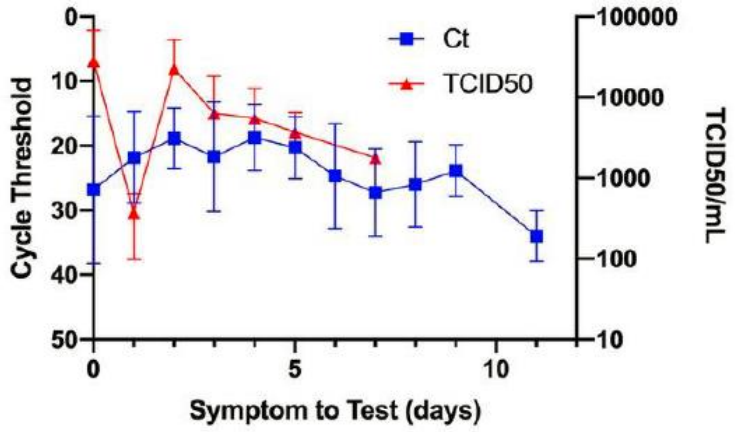
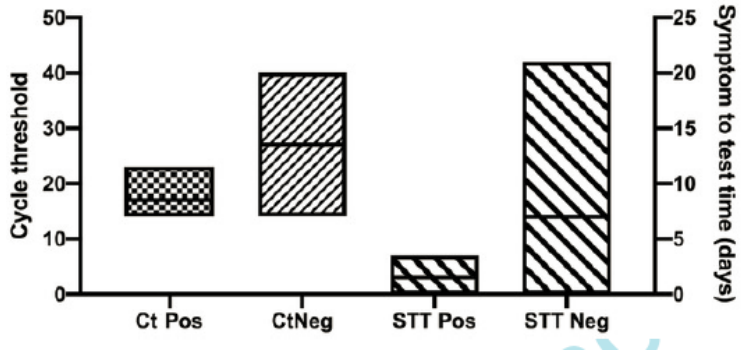



Figure 2




Clinical Infectious Diseases

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Article Contents

Abstract

ACCEPTED MANUSCRIPT

**Predicting infectious SARS-CoV-2 from diagnostic samples**

Jared Bullard, MD, Kerry Dust, PhD, Duane Funk, MD, James E Strong, MD, PhD, David Alexander, PhD, Lauren Garnett, BSc, Carl Boodman, MD, Alexander Bello, PhD, Adam Hedley, BSc, Zachary Schiffman, BSc ... Show more

*Clinical Infectious Diseases*, ciaa638, https://doi.org/10.1093/cid/ciaa638

**Published:** 22 May 2020 **Article history**

Limitations

PCR with only E gene

No serial samples from the same patients – comparing different patients at different times after symptom start

No information on how many samples per cycle threshold value or how many per day after symptom onset, but wide error bars suggest small number

Bullard J, et al. Predicting infectious SARS-CoV-2 from diagnostic samples, *Clinical Infectious Diseases*, , ciaa638, https://doi.org/10.1093/cid/ciaa638

*This summary was prepared by Dr E Maasdorp as part of the daily brief to the TBH ICU team.*