

1 **Title:** South Africa and COVID-19: A Medical Student Perspective

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29
30 **Discussion Points:**

- 31 1. The first COVID-19 case in South Africa.
- 32 2. The impact of COVID-19 on medical students.
- 33 3. HIV, TB, non-communicable disease and COVID-19.
- 34 4. The socioeconomic challenges of online learning.

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1 **THE EXPERIENCE.**

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3 From humble beginnings in a seafood market in Wuhan, the deadly SARS-Cov-2 virus festered to a global
4 pandemic.¹ The seemingly invisible virus was crippling health systems across the world within weeks. First
5 world countries such as the United Kingdom, Germany and France were entering lockdowns to curb the
6 spread of the disease.² News reports documented struggling health care staff and their accounts of futile
7 efforts to treat the disease. Due to a high burden of Human immunodeficiency virus (HIV) and tuberculosis
8 (TB), coupled with a strained public health system and weakening economy, South Africa was set to be
9 severely affected. We anxiously witnessed the world being captured, knowing that our time would soon come.
10 With bated breath, we awaited the arrival of the deadly SARS-Cov-2 virus.

11
12 On March 5th, South Africa reported its first confirmed case of COVID-19.³ It was a 38 year old male who had
13 returned from a ski trip in Italy, one of the epicenters of the disease.⁴ At the time, I was in the neonatal
14 intensive care unit at Greys Hospital, Pietermaritzburg. I was only 3 weeks into my pediatrics rotation when
15 this news broke, spurring a nationwide panic.

16
17 In the following days, fear and doom suffocated the atmosphere. As I walked through the corridors, I watched
18 a darkness veil the once smiling nurses. Preparations were underway for the expected influx of COVID-19
19 patients that would ensue. Resources were being provisioned and stricter hygiene protocols were being
20 enforced. There was uncertainty as to whether medical students would be allowed to continue learning at the
21 hospital. The university had already lost 3 weeks of the academic year due to a student protest in February.
22 Any more time lost would severely impact students and may risk losing the academic year. Ultimately in a bid
23 for student safety, all medical students were sent home on 15 March.

24
25 South Africa hosts the greatest HIV epidemic in the world with 7.7 million infected individuals.⁵ This is
26 complimented by a high prevalence of TB and non-communicable diseases such as cardiovascular disease
27 and diabetes.⁶ Data collected on the COVID-19 disease highlighted an increased risk of mortality amongst
28 these populations.⁷ Coupled with a lack of health care facilities and an already burdened public health system,
29 the country would be unable to cope with the surge in new COVID-19 infections, and many lives would be lost.
30 Consequently, on March 27th, President Cyril Ramaphosa announced a nationwide lockdown for 21 days
31 which was subsequently extended. All operations, with the exception of essential services, had ceased.

32
33 The nationwide lockdown was weakening an already struggling economy. Many South Africans rely on a
34 single source of income, and many more live at or just below the poverty line. Due to lockdown restrictions,
35 many were unable to work and thus provide food for their families. In an effort to mitigate the financial impact,
36 the South African government implemented a risk adjusted approach to the lockdown, advised by the National
37 Department of Health. This strategy involves the gradual easing of lockdown restrictions, progressing from
38 level 5 to level 1.⁸ Each step down allows for greater freedom of movement and for more businesses to open
39 than the previous. The transition to lower levels is guided by local epidemiological trends including infection
40 rate, daily deaths and daily new cases of COVID-19. As of 1 June 2020, South Africa is under level 3 of
41 lockdown.

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Under level 3, only final year medical students have been allowed to return to university. At the end of every year, final year medical students qualify as medical doctors. In the first week of January, these doctors are deployed to mandatory internship posts in the public health system. Due to the delays brought on by the lockdown, final year medical students are now expected to qualify by the end of January 2021. This will result in a significant deficit in the public sector due to the reliance on internship doctors.

The remainder of the medical student population still remain at home since the lockdown began. The university has shifted to an online model of learning to mitigate time lost. We have not had any assessments, and there is no indication from the university on the remainder of the academic year. Due to poor socioeconomic backgrounds, many students have been unable to access online learning and thus remain isolated from their studies, Such is the manner in which COVID-19 highlights the socioeconomic disparities that plague South Africa. To date, the university has successfully engaged with telecommunications companies to provide free mobile data packages to all students. Laptops have also been procured for certain students.

South Africa is walking a tightrope delicately balancing the slowing economy, a strained public health system, return to education and the health of the people. In the time it is most needed, the government has displayed high-quality leadership in reaction to COVID-19. Our response has been lauded by officials from the World Health Organization for the prompt implementation of the lockdown, rapid deployment of mobile screening units and ramping up testing capacity.^{9,10} In unprecedented times such as these, we are all forced to adapt to a new way of life that goes against the very nature of our social being. I am hopeful that we shall emerge from this scourge as a stronger and more united country.

Accepted Article

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