



POLICY BRIEF

WHADI-AH PARKER, VUYELWA MEHLOMAKULU, INBARANI NAIDOO, TARYLEE REDDY, MUSAWENKOSI MABASO, NOLOYISO VONDO, THEMBILIHLE GINYANA, NOMPUMELELO ZUNGU, SIZULU MOYO | JULY 2023

The State of the People: Long-Term Health Impacts of COVID-19: [Long COVID]



Key Messages

More women than men were infected with COVID-19 in South Africa and are more at risk of long COVID. Recommendations for a gender-sensitive public health strategy to mitigate the potential impact of long COVID on women should include:

1. Access to Healthcare

Fair access to healthcare for individuals with long COVID must be guaranteed. Symptoms of long COVID are extensive and we are still learning about the syndrome. The Department of Health should develop evidence-based, locally relevant clinical guidelines and train healthcare workers to identify, assess and care for patients with long COVID. Multidisciplinary health teams, that include clinicians, rehabilitation services (occupational and physiotherapists) and mental health practitioners, should be established to provide holistic treatment for individuals with long COVID. A patient-centred approach has been recommended. A two-pronged approach could be implemented such as face-to-face and remote follow-up consultations – the latter being easier to scale up.

2. Public Awareness and Education Campaigns

The Department of Health should be on the forefront of awareness campaigns that inform and educate the general public about the existence and the potential impact of long COVID, especially on women. This can involve educational campaigns to increase the understanding and promote early detection and appropriate management of long COVID symptoms.

Prevention of new COVID-19 infections remains critical. The Department of Health should continue to steer vaccination and booster campaigns within local communities.

3. Employment and Workplace Support

Employers in both the formal and informal sector should also raise awareness of long COVID with their employees as well as accommodate and provide support for individuals with long COVID. Measures can include the protection of employment rights and a safe and supportive work environment.

4. Community Empowerment

Community organisations should provide information and support to people with long COVID through peer or online support groups as well as community health worker networks.

5. Surveillance and Research

Continued surveillance, evaluation of case reports, research, and data collection efforts should be prioritised to better understand long COVID and its impact on different populations. It is also important that the collection and analysis of this data and research accounts for differences by sex. This could help to inform evidence-based policies and interventions.

Introduction

Three years after the onset of the global COVID-19 pandemic, its impact continues to be seen. COVID-19 had a major impact on social, economic and health indicators worldwide. The catchphrase "we're all in this together" became popular. However, this was soon replaced by "we're all in the same storm but we're not all in the same boat". In essence, it meant that COVID-19 has impacted everyone, but to varying degrees. While there are many interpretations of this phrase, it could be extended to gender disparities in relation to the impact of COVID-19.

Globally, more men than women have been infected with COVID-19. However, in South Africa, **more women than men** have been infected with COVID-19. Many social factors increase women's vulnerability to COVID-19 infection. This includes the gendered nature of employment or occupation, where women dominate in occupations that often involve a higher level of personto-person contact such as healthcare work, education, early childhood development, care for both the elderly and for those who are ill at home, and other public-facing occupations.

A recent review conducted by private medical aid companies has shown that sickness claims for long

COVID have started to increase.¹ The South African Ministerial Advisory Committee (SAMAC) supported the World Health Organizations definition of **Long COVID** as "the continuation or development of new symptoms 3 months after the initial SARS-CoV-2 infection, with these symptoms lasting for at least 2 months with no other explanation".²-3 The risk factors for long COVID include being a woman, being elderly and being obese.⁴ In 2016 the Demographic and Health Survey reported that more than two-thirds of women in South Africa are overweight and obese.⁵ The National Food and Nutrition Security Survey conducted in 2022 showed a similar proportion of 68%.⁶ South African women are at a greater risk of long COVID than men.

There are currently no gender-responsive health policies addressing COVID-19 in South Africa. While it remains important to develop and implement policies aimed at the prevention and control of COVID-19 transmission, it is equally important to develop policies that will aim to manage the varied impact of COVID-19. Given their elevated risk, long-term health management for women with long COVID should be a priority. This brief highlights the need for gender focused interventions for long COVID in South Africa.

COVID-19 Global and South Africa Statistics by 22 May 20237



Policy Landscape

International policy briefs that call for gender-responsive COVID-19 policies have been published in Asia, Europe, the Americas, Africa, Australia, by the United Nations (UN), and the World Health Organization (WHO). These policy briefs are centered on the social and economic impact, and to a limited degree the health impacts of COVID-19 on women during the onset and height of the pandemic.

The policy brief by the United Nations highlights concerns that COVID-19 has undermined the gains towards *gender equality*. The brief states that COVID-19 has worsened pre-existing inequalities, which are unfavorable to women in social, political and economic systems. The WHO further confirms that women and men are affected differently by the effects of COVID-19.9

The International Labour Organization (ILO) policy brief focuses on the *economic impact* of COVID-19 on women. It states that women have suffered more job and income losses compared to men, due to the gendered nature of their work/occupation as front-line workers and in sectors where lockdown had to be implemented.¹⁰

The results from the first wave of the National Income Dynamics Study — Coronavirus Rapid Mobile Survey done in South Africa (NIDS-CRAM) confirmed that net job losses were higher for women than for men. ¹¹ The NIDS-CRAM survey further reported that women were more likely to live in households that reported running out of money for food, in April 2020 which was soon after South Africa entered its first hard lockdown period. ¹¹

Health-related policy briefs have highlighted the effect COVID-19 has had on women's sexual and reproductive health. During lockdown periods women were denied or were unable to access family planning, pre-and-post natal care and psychosocial interventions related to gender-based violence.^{8-9, 12}

During the lockdown periods in **South Africa**, Women in Informal Employment: Globalizing and Organizing (WIEGO) called for gender-sensitive policies aimed at the:

- Increase of social support through existing social grants; introduction of the social relief of distress grant and extension of unemployment relief to informal wage workers.
- Support for small business to continue or restart work and inject income into low-income households.
- 3. Expansion of publicly funded childcare services.
- 4. The inclusion of informal workers in the vaccination roll-out plan.¹³

Post lockdown, South African researchers have published policy briefs in response to building back after COVID-19. These policy briefs have concentrated more on the impact of COVID-19 on the economy and psychosocial aspects of life.

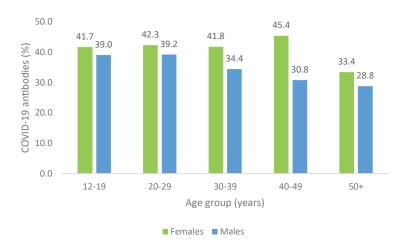
The policy brief by the Faculty of Economic and Management Sciences at the University of the Western Cape, titled "Building back better after COVID-19" focuses on the need for food security which has been threatened by lockdown restrictions while the Institution for Economic Justice focused on the introduction of a Universal Basic Income Guarantee to rebuild after COVID-19. 14-15 Policy briefs by the Trade and Industrial Policy Strategies also recommended economic and small business strategies to rebuild South Africa after COVID-19. 16-17

On the other hand, the National Development Agency highlighted promoting healthy community behaviours and providing social protection to vulnerable populations.¹⁸

Similarly, the South African Medical Research Council, through their HERStory series, focused on addressing the structural drivers of poor mental health after COVID-19. 19 The brief by the Human Sciences Research Council (HSRC) focused on the adequacy of existing psychosocial strategies in schools to deal with the ongoing pandemic. 20 The University of KwaZulu Natal and the African Physical Activity Network (AFPAN) looked at COVID-19 and beyond, by providing policy recommendations for physical activity for health in Africa for children and adolescents as well as the community. 21-22

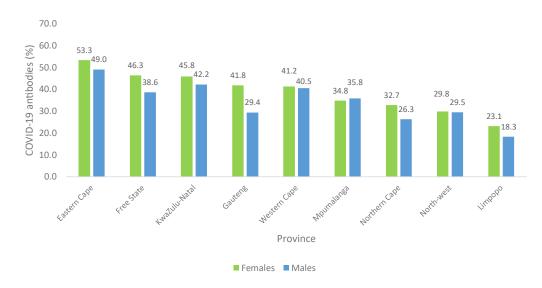
Most of the policy briefs recommend rebuilding after COVID-19 by targeting the social and economic wellbeing of citizens, with no policy briefs that specifically address long COVID and more specifically amongst women. This is an important gap as long COVID is one of the issues that remain with those who were infected with COVID-19. A policy brief addressing the long-lasting effects of COVID-19 should form part of the series of policy briefs addressing the effects of COVID-19 in South Africa.

The HSRC conducted the first National COVID-19 Antibody Survey (NCAS) between November 2020 to June 2021.²³ The main objective of the survey was to determine the extent of COVID-19 infection in the general population by testing participants' blood for COVID-19 antibodies. A secondary objective was to compare the percentage of males and females who were infected with COVID-19. A total of 13 288 people over the age of 12 participated in the survey. The survey presents useful data to understand the possible burden of long COVID-19 in women and to prepare a response to address the potential need for care. This aligns with the core lesson of healthcare preparedness for unseen events learned from the acute phases of the pandemic.



COVID-19 antibodies by age and sex: In the NCAS more women than men tested positive for COVID-19 (Figure 1). Among both males and females, fewer older adults (aged 50+ years) tested positive than younger adults. Among women who tested positive, the majority were aged 40-49 years. However, among men, more young men (aged ≤ 29 years) tested positive than older men.

Figure 1: Proportion of COVID-19 positive males and females by age groups among people aged ≥12 years, (South Africa, 2021 Roche assay results).



COVID-19 antibodies by province and

sex: Across 8 of the 9 provinces, more women than men tested positive, with Mpumalanga being the only exception. Gauteng showed the largest gap between women and men who tested positive (12.4%), where 41.8% of women and 29.4% of men tested positive (Figure 2).

Figure 2 Proportion of COVID-19 positive males and females by province among people aged ≥12 years, (South Africa, 2021, Roche assay results).

Discussion

Globally, more men than women have been infected and up to three times more men than women died from COVID-19.²⁴ The NCAS study results were different as more women than men tested positive for COVID-19. This is consistent with other data reported for South Africa. In the COVID-19 weekly epidemiology brief, for the week ending 17 December 2022, the National Institute for Communicable Diseases (NICD) reported more than 4 million laboratory-confirmed COVID-19 cases.²⁵ Of these, more than half (55.7%) were females. Since the start of the pandemic until December 2022, more than 300 000 females and less than 245 000 males were admitted to hospital.²⁶ Despite the higher infection rates in women in South Africa, the NICD's COVID-19 hospital surveillance

data shows that more men (20.8%) were reported to have died of COVID-19 compared to women (17.8%).²⁶

The NCAS findings also show that among men, younger men had the highest number of COVID-19 infections. While among women, those aged 40-49 years, had a higher number of COVID-19 infections. This is similar to findings from studies in China and Europe, where women in the working age group had higher COVID-19 infections than men in the same age group.²⁷ This suggests that for women, the type of work and their roles and responsibilities in society, puts them at risk of being easily exposed to and infected with COVID-19.²⁸⁻³⁰ However, women also tend to be more conscious of their health and are more likely to seek healthcare, which could have led to more women contributing greater numbers of reported COVID-19 infections.



Long COVID among women in South Africa

Common symptoms of long COVID include fatigue, shortness of breath and reduced cognitive function (memory loss and poor concentration). However, more than 200 different symptoms that can impact everyday life have also been reported as part of the syndrome. New symptoms may occur following initial recovery from an acute COVID-19 episode; or persist from the initial illness. Symptoms may also fluctuate or relapse over time. The WHO has estimated that 10-20% of people infected with COVID-19 can develop long COVID. ²

With more COVID-19 cases and fewer women dying from COVID than men in South Africa, women in our country are more likely than men to live with long COVID. In addition to identifying women and the elderly as having a higher risk for long COVID, the NICD also identified obesity (Body mass index >30kg/m2) as another risk factor.⁴ This is a significant finding since women in South Africa have one of the highest obesity rates in the world.³¹ Therefore, women in South Africa are likely to have an even more inflated risk of developing long COVID. A recent review unpacked the impact of long COVID on female reproductive health and highlighted related research priorities.³²

The gender profile of COVID-19 infection and death rates in South Africa, mirror the country's long-standing HIV epidemic. In 2021, new HIV infections in women (124 400) were nearly double those in men (63 500), while nearly twice as many women (5 million) compared to men (2.7 million) were living with HIV.³³ This highlights the disease burden on women in our country and the significance of advocating for gender sensitive policies and interventions for all our major public health issues.

South African studies have shown that people with mild COVID-19 infection as well as people that had been hospitalised with severe infection, are both at risk of developing long COVID. ³⁴⁻³⁶ The household-based NCAS study likely detected mild cases and estimated that more than 5 million females over the age of 12 were infected with COVID-19 by July 2021.²³ Given that 10-20% of people develop long COVID, this means that between 500 000 and 1 million females could develop long COVID.

People with long COVID may need to take additional time off work, school, and other day-to-day activities for health reasons which impacts their work productivity, income and their social wellbeing. Mendelsohn et al. conducted a study on the prevalence of long COVID and the impact of COVID-19 on patients' wellbeing, work, and access to long COVID treatment. They reported that more than half of the employed patients in their study missed work due to long COVID and that nearly one quarter of patients had additional follow-up clinic visits afterwards. However, only 7% follow-up visits took place in public primary healthcare services. ³⁴ One private medical insurer reported that that it recorded more than 10 000 COVID-19-related sick claims in 2021 and 7 700 in 2022.1 This number only reflects one medical insurer, and it is important to remember that only 20% of South African citizens have access to private healthcare as the majority of the population use public health services. If the projected numbers of long COVID materialise, they will place an additional burden on an already overburdened public health system.

Policies to prevent and manage COVID-19 should consider a more gender-responsive approach to address long COVID as outlined in the key messages of this policy brief.

References

- Juta Medical Brief. Sickness claims hint at long-term impact of Covid. Available at https://www.medicalbrief.co.za/sickness-claims-hint-at-long-term-impact-of-covid/ Accessed 17 May 2023.
- WHO. Factsheet. Post COVID-19 condition (Long COVID). 2022.
 Available at https://who.canto.global/v/JJA37JMFLT/album/S5ERC?viewIndex=0 Accessed 17 May 2023.
- Perumal R, Shunmugam L, Naidoo K. Long COVID: An approach to clinical assessment and management in primary care. South African Family Practice. 2023;65(1).
- NICD. Long COVID. 2022. Available at https://www.nicd.ac.za/diseases-a-z-index/disease-index-covid-19/long-covid/ Accessed 17

 May 2023
- National Department of Health (NDoH), Statistics South Africa (Stats SA), South African Medical Research Council (SAMRC), and ICF. 2019.
 South Africa Demographic and Health Survey 2016. Pretoria, South Africa, and Rockville, Maryland, USA: NDoH, Stats SA, SAMRC, and ICF.
- Mutanga S, Simelane T, Hongoro C, Parker W, Mjimba V, Zuma K, Kajombo R, Ngidi M, Masamha B, Mokhele T, Ngungu M. 2023. South Africa National Food and Nutrition Security Survey 2022. HSRC: Pretoria (in press).
- WHO Coronavirus (COVID-19) Dashboard. Available at https://covid19.who.int/ Accessed 22 May 2023
- United Nations. The impact of COVID-19 on women. Policy Brief.
 April 2020. Available at https://www.un.org/sexualviolenceinconflict/wp-content/uploads/2020/06/report/policy-brief-the-impact-of-covid-19-on-women-en-1.pdf.

 Accessed 23 May 2023
- WHO. Gender and COVID-19: Advocacy brief. May 2020. Available at https://www.who.int/publications/i/item/WHO-2019-nCoV-Advocacy_ brief-Gender-2020.1
- International Labour Organization. An uneven and gender-unequal COVID-19 recovery: Update on gender and employment trends 2021. Policy Brief October 2021. Available at https://www.ilo.org/employment/Whatwedo/Publications/WCMS_824865/lang-en/index.htm
- Spaull N, Daniels RC, et al. NIDS-CRAM Wave 5 Synthesis
 Report. July 2021 Available at https://cramsurvey.org/wp-content/uploads/2021/07/1.-Spaull-N.-Daniels-R.-C-et-al.-2021-NIDS-CRAM-Wave-5-Synthesis-Report.pdf. Accessed 23 May 2023
- Centre for Reproductive Rights. COVID-19 Landscape: SRHR and Gender Issues in Asia. September 2020. Available at http://reproductiverights.org/wp-content/uploads/2021/02/COVID-19-Landscape-SRHR-and-Gender-Issues-in-Asia.pdf
- Skinner C, Barrett J, Alfers L, Rogan M. Informal work in South Africa and COVID-19: Gendered impacts and priority interventions. WIEGO Policy Brief. 2021 Feb;22. Available at https://www.wiego.org/sites/default/files/publications/file/WIEGO_PoliciyBrief_N22%20 UN%20South%20Africa%20COVID%20for%20web.pdf
- 14. Hall R, Wegerif M. Building back better after Covid-19: Why South Africa needs an equitable food system for small-scale farmers and fishers, street traders and consumers—and how to build it. Policy Brief 56. 2021.
- IEJ 2021. Introducing a Universal Basic Income Guarantee for South Africa. Institute for Economic Justice. Social Protection Series Policy Brief 1. March 2021
- Makgetla N, Maseko N, Mataba K. COVID-19 and the economy: Lockdowns, recession and policy responses. Trade and Industrial Policy Strategies (TIPS) Policy Brief 3. January 2020
- Levin S. Covid-19 and small business support: South Africa needs a credit guarantee scheme. Trade and Industrial Policy Strategies (TIPS) Policy Brief 5. April 2020
- Magongo B, Lam J, del Busto I, Chibwana C, Rametse L, Li S, Coppel E. South Africa's social development sector response to COVID-19.
 ID Insight/National Development Agency. 2020. Available at https://www.academia.edu/42744436/South-Africa-social-sector-responses-to-COVID-19-Policy-Brief20200415_54024_108qulx. Accessed 20 August 2022
- Duby Z, Bunce B, Fowler C, Bergh K, Maruping K, Jonas K, Dietrich J, Govindasamy D, Kuo C, Mathews C. Intersections between COVID-19 and socio-economic mental health stressors in the lives

- of South African adolescent girls and young women. HERStory. Research Brief Series. Health Systems Research Unit, South African Medical Research Council. April 2022
- Namome CA, Winnaar LO, Arends FA. Improving psychosocial support in SA schools during and after COVID-19 as part of a recovery plan. Human Sciences Research Council. February 2021.
- Naidoo R, Chetty V, Draper C, et al. Physical Activity for Health in children and adolescents in Africa: COVID and beyond-Home, School and Communities. Policy Brief. September 2020
- African Physical Activity Network (AFPAN) and Academic Consortium.
 Physical Activity for Health in Africa: Guidance During and Beyond the COVID-19 Pandemic. Policy Brief. September 2020
- Simbayi L, Moyo S, Zuma K, Zungu M, Marinda E, Jooste S, Mabaso S, Reddy TM, Parker W, Naidoo I, Manda S. A national household-based population seroprevalence survey of SARS-CoV-2 antibodies in South Africa in 2020-2021. Human Sciences Research Council 2023. Cape Town.
- 24. Dehingia N, Raj A. **Sex differences in COVID-19 case fatality: do we know enough?** The Lancet Global Health. 2021 Jan 1:9(1):e14-5.
- National Institute for Communicable Diseases. COVID-19 Weekly Epidemiology Brief-week 50 2022. Available at https://www.nicd.ac.za/wp-content/uploads/2022/12/COVID-19-Weekly-Epidemiology-Brief-week-50-2022-.pdf
- National Institute for Communicable Diseases. Weekly hospital surveillance (DATCOV) update. Available at https://www.nicd.ac.za/ diseases-a-z-index/disease-index-covid-19/surveillance-reports/weeklyhospital-surveillance-datcov-update/ Accessed 10 February 2023.
- Doerre A, Doblhammer G. The influence of gender on COVID-19 infections and mortality in Germany: Insights from age-and gender-specific modeling of contact rates, infections, and deaths in the early phase of the pandemic. Plos one. 2022 May 6;17(5):e0268119.
- Chandler R, Guillaume D, Parker AG, Mack A, Hamilton J, Dorsey J, Hernandez ND. The impact of COVID-19 among Black women: evaluating perspectives and sources of information. Ethnicity & health. 2021 Jan 2;26(1):80-93.
- Phaswana-Mafuya N, Shisana O, Jassat W, Baral SD, Makofane K, Phalane E, Zuma K, Zungu N, Chadyiwa M. Understanding the differential impacts of COVID-19 among hospitalised patients in South Africa for equitable response. South African Medical Journal. 2021 Nov 1;111(11):1084-91.
- Flor LS, Friedman J, Spencer CN, Cagney J, Arrieta A, Herbert ME, Stein C, Mullany EC, Hon J, Patwardhan V, Barber RM. Quantifying the effects of the COVID-19 pandemic on gender equality on health, social, and economic indicators: a comprehensive review of data from March, 2020, to September, 2021. The Lancet. 2022 Jun 25:399(10344):2381-97.
- 31. https://worldpopulationreview.com/country-rankings/most-obesecountries. Accessed 23May 2023
- Pollack B, von Saltza E, McCorkell L, Santos L, Hultman A, Cohen AK, Soares L. Female reproductive health impacts of Long COVID and associated illnesses including ME/CFS, POTS, and connective tissue disorders: a literature review. Frontiers in Rehabilitation Sciences. 2023 Apr 28;4:1122673
- Spotlight on HIV: Six graphs that tell the story. Available at https://www.spotlightnsp.co.za/2022/07/26/spotlight-on-hiv-six-graphs-that-tell-the-story/ Accessed 23 May 2023
- Mendelsohn AS, Nath N, De Sá A, Von Pressentin KB. Two months follow-up of patients with non-critical COVID-19 in Cape Town, South Africa. South African family practice. 2022 Feb 10;64(1).
- Jassat W, Mudara C, Vika C, Welch R, Arendse T, Dryden M, Blumberg L, Mayet N, Tempia S, Parker A, Nel J. A cohort study of post-COVID-19 condition across the Beta, Delta, and Omicron waves in South Africa: 6-month follow-up of hospitalized and nonhospitalized participants. International Journal of Infectious Diseases. 2023 Mar 1;128:102-11.
- Dryden M, Mudara C, Vika C, Blumberg L, Mayet N, Cohen C, Tempia S, Parker A, Nel J, Perumal R, Groome MJ. Post-COVID-19 condition 3 months after hospitalisation with SARS-CoV-2 in South Africa: a prospective cohort study. The Lancet Global Health. 2022 Sep 1;10(9):e1247-56.