S Afr Gen Pract. 2024;5(2):86-91
https://doi.org/10.36303/SAGP.0432

S Afr Gen Pract
ISSN 2706-9613 EISSN 2706-9621

REVIEW

Self-reported practices and learning needs of private general practitioners during the pandemic in South Africa

JM Musonda,[1] JS Musonda[2]

[1] *Department of Family Medicine and Primary Care, University of the Witwatersrand, South Africa*
[2] *Department of Family Medicine and Primary Care, University of Pretoria, South Africa*
Corresponding author, email: *johnmusonda82@gmail.com*

Background: General practitioners (GPs) are the first contact when seeking medical treatment for any symptom. However, their clinical practices and learning needs in the pandemic remain unknown in South Africa. We aimed to evaluate private GP practices and learning needs during the pandemic in South Africa. The objectives described and determined participant characteristics, skills, and roles and identified gaps.

Methods: The online survey conducted a cross-sectional descriptive study of private general GPs in South Africa between 30 June and 30 July 2021. Overall, 7 782 subscribed to the e-mail marketing network, which conducted a single-stage cluster sampling. A validated data collection tool and COVID-19 scorecard on the Likert scale were utilised. Data analyses used R and R Studio (v 2021.09.0+351) (R Core Team, 2019) and Microsoft Excel (v 2019).

Results: Respondents completed 88 questionnaires (40 males, 48 females, median age 47 years). The median clinical practice was 60%. The best-performing domain was medical products and technologies, at 69% (n = 61). The lowest was service delivery, at 47% (n = 41). Most reported training and practice in administration, communication, consultation, women's health, and emergencies. Most did not practice obstetrics and paediatrics and lacked forensic medicine training and skills. Significant GP roles were competent clinician, capacity builder, and critical thinker. The minors were collaborators, community advocates, and the slightest change agents.

Conclusion: Most private GPs are trained in most disciplines with limited exposure to forensic medicine. Similarly, most competencies are performed except as change agents. However, gaps exist in obstetrics, paediatrics, and forensic medicine skills. Further research is recommended.

Keywords: private, general practitioners, skills, roles, competencies, learning needs, COVID-19 pandemic, South Africa

Introduction

The COVID-19 pandemic emphasised the need for a coordinated national response that harnesses the resources of the current two-tier health system in South Africa.[1] Success in managing the spread of the coronavirus was achieved with a coordinated and integrated health systems approach involving private general practitioners (GPs). A coordinated national response may have provided a framework for future public health emergencies.[2] Improving the efficiency and effectiveness of the healthcare system by allocating adequate resources, particularly during a pandemic, promotes a better quality of service for everyone in South Africa.[3,4]

Universal health coverage (UHC) is one of the health targets of the Sustainable Development Goals set by the United Nations. It is core to achieving improved quality and distribution of health-care by GPs and others.[5,6,7] National Health Insurance (NHI) is a funding designed to guarantee access to quality health services for everyone in South Africa, irrespective of socioeconomic status, and based on individual healthcare needs.[8,9] The World Health Organization (WHO) member states commit to realising universal health coverage.[10] Hence, the priority in South Africa is to re-engineer the primary healthcare system to address the burden of diseases and prepare for future pandemics. The private GPs are vital to those aspirations.[3,4] The skills and learning needs of private GPs in the pandemic remain unknown. Understanding that may prepare the healthcare system better for the future.

The study aimed to evaluate private GP practices and learning needs during the COVID-19 pandemic in South Africa. The objectives described and determined participant characteristics, clinical skills, and roles and identified gaps considering the pandemic.

Materials and methods

Research design

This was a cross-sectional descriptive study of primary care doctors, specifically private GPs in South Africa.

Study site

We recruited private GPs in South Africa from the Medpages healthcare database. It actively managed 509 258 healthcare provider records (public and private sector) across Africa. There were 14 456 registered private GPs in the South Africa Medpages database.[11]

Study population

Private GPs registered on the Medpages database across all provinces in South Africa were surveyed.

Sampling strategy

Overall, 7 782 private GPs were subscribed to the e-mail marketing network on the Medpages database, which provided a once-off opportunity to survey 7 782 GPs using a single-stage cluster sampling.[11]

Data collection tool/instrument

The survey tool addressed the study objectives and adapted relevant publications. The GPs' practice changes during the pandemic were described by adopting a COVID-19 - Score designed to gauge the healthcare system's response during the pandemic.[2] For each statement on the scorecard, respondents were asked to select one response on a Likert scale: 1 – I strongly disagree with this statement; 2 – I disagree with this statement; 3 – I feel neutral towards this statement; 4 – I agree with this statement; 5 – I strongly agree with this statement. The statements were scored in six domains: leadership and governance, health workforce, health information systems, medical products and technologies, financing, and service delivery.[12,13,14.]

Relevant skills were extracted from the national list related to training family physicians in South Africa to describe skills needed during the pandemic.[10] The skills focused on emergency care, communication and consultation, administrative, forensic, maternal health, and paediatric care. We asked GPs to assess their ability to perform the skills by selecting each skill category from a Likert scale: 1 – I have not had training in the skill; 2 – I have received training but have not performed the skill in the last year; 3 – I have performed the skill in the previous year; 4 – I have taught the skill to others in the past year.

The competencies were described by adapting the blueprint for the National Diploma in Family Medicine.[13,15,16] We asked GPs to rate their confidence in performing competencies related to the six roles for each role from a Likert scale: 1 – Not confident (I have never taken on this role); 2 – Some confidence (I have taken on this role in the past, but not in the previous year); 3 – Confident (I have taken on this role in the last year); 4 – Very confident (I could be a role model to others).

Data collection process

We contacted GPs through the healthcare provider contact information supplied by the Medpages database and invited the 7 782 private GPs to participate in the survey. We requested that they complete the survey electronically on a secure online platform using Google Forms. The survey questionnaire was distributed once to each GP, and access to the survey link was open between 30 June 2021 and 30 July 2021 (Figure 1).

Pilot study for testing the measurement tool.

We tested the feasibility of the survey with members of the research team and a biostatistician at the Faculty of Health Sciences, University of the Witwatersrand. The pilot study was conducted between January and February 2021, validated the survey's content and construct, identified unanticipated problems, and thoroughly checked the planned analytical and statistical procedures.

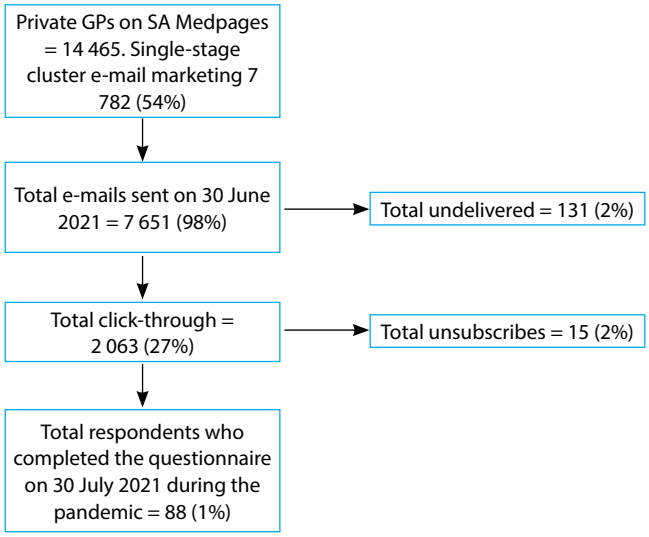

Figure 1: A flow diagram depicting the data collection process.

Statistical methods

The sociodemographic details of the participating GPs and data on an ordinal Likert scale, were scored from 1 to 5 and 1 to 4 for each entry. We included six sociodemographic variables: age (years); gender (female, male, non-binary); population group (Black African, Coloured, White, Indian/Asian); practice type (solo, group, independent practitioner association or IPA); community served (lower income; lower-middle income; middle-upper income; and not applicable); and the year of graduation.

The population groups were assigned based on self-identified ancestry, such as Black African (African ancestry), White (European ancestry), Coloured (mixed ancestry, this is a uniquely South African classification), and Indian/Asian (East Asian ancestry, predominantly the Indian subcontinent). Those who did not fall into the above were designated "other". Categorical data was reported as frequencies and numbers. Data was analysed using descriptive statistics with the help of a biostatistician at the Faculty of Health Sciences, University of the Witwatersrand. The ordinal data was reported as frequencies. All statistical analyses were computed using R and R Studio (v 2021.09.0+351) and plotted in Microsoft Excel.[17]

Results

Sociodemographics

The respondents who completed the online survey questionnaire were 88 (males 40, females 48, median age 47 years), with 440 potential responses. The majority were White (72%, *n* = 63), followed by Black Africans (18%, *n* = 16), and Indians/Asians (10%, *n* = 9). The most frequent age group of respondents was between 37 and 57, with a median age of 47 years, and most having graduated between 1986 and 2005. Nearly 40% (*n* = 35) of respondents were based in Gauteng Province, followed by the Western Cape 26% (*n* = 23), KwaZulu-Natal 10% (*n* = 9),

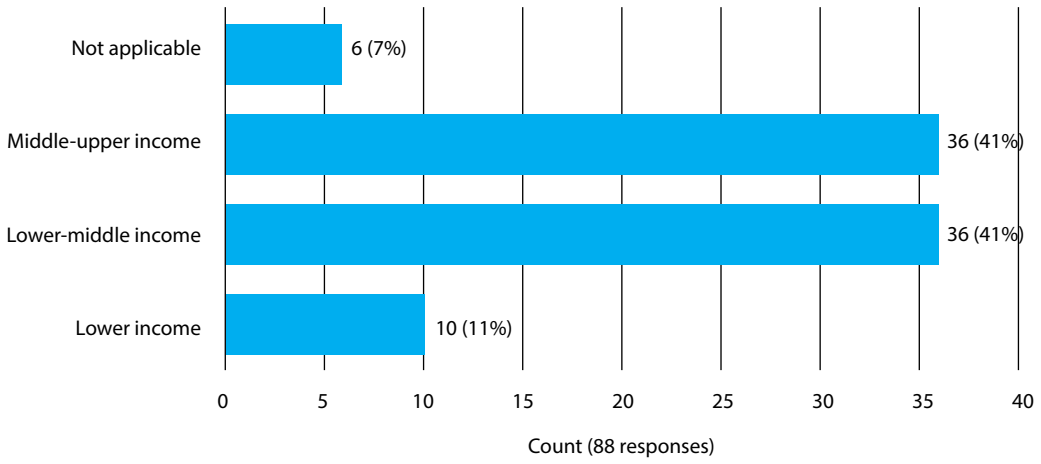

Figure 2: Distribution of private general practitioners by the community they served.

Table I: The pandemic health systems domain scores by private general practitioners

No	Domain	Median score	Upper quartile	Lower quartile
1	Leadership and Governance	61%	72%	52%
2	Health Workforce	60%	72%	48%
3	Health Information Systems	61%	71%	47%
4	Finance	56%	67%	46%
5	Medical Products and Technologies	69%	80%	60%
6	Service delivery	47%	58%	38%

The highest median score was for medical products and technologies. The lowest was service delivery.

Mpumalanga 7% (*n* = 6), Eastern Cape 6% (*n* = 5), Free State 6% (*n* = 5), Limpopo 3% (*n* = 3), and North west 2% (*n* = 2).

For the practice type, 55% (*n* = 48) of respondents worked in solo practices, 10% (*n* = 9) in independent practitioner associations, and 35% (*n* = 31) in group practices. Regarding the type of community served, 11% (*n* = 10) of respondents reported the lower income community, 41% (*n* = 36) the lower-middle income community, and 41% (*n* = 36) the middle-upper income group (Figure 2).

Clinical practice and the pandemic

The overall median score for the clinical practice response was 60%, with most scores falling between 50% and 70%. However, some scores were as low as 36% and as high as 94%.

The domains derived from the Likert scorecard showed medical products and technologies had a median score of 69% (the highest) with an upper quartile of 80% and a lower quartile of 60%. In contrast, service delivery had a median of 47% (the lowest), with an upper quartile of 58% and a lower quartile of 38% (Table I).

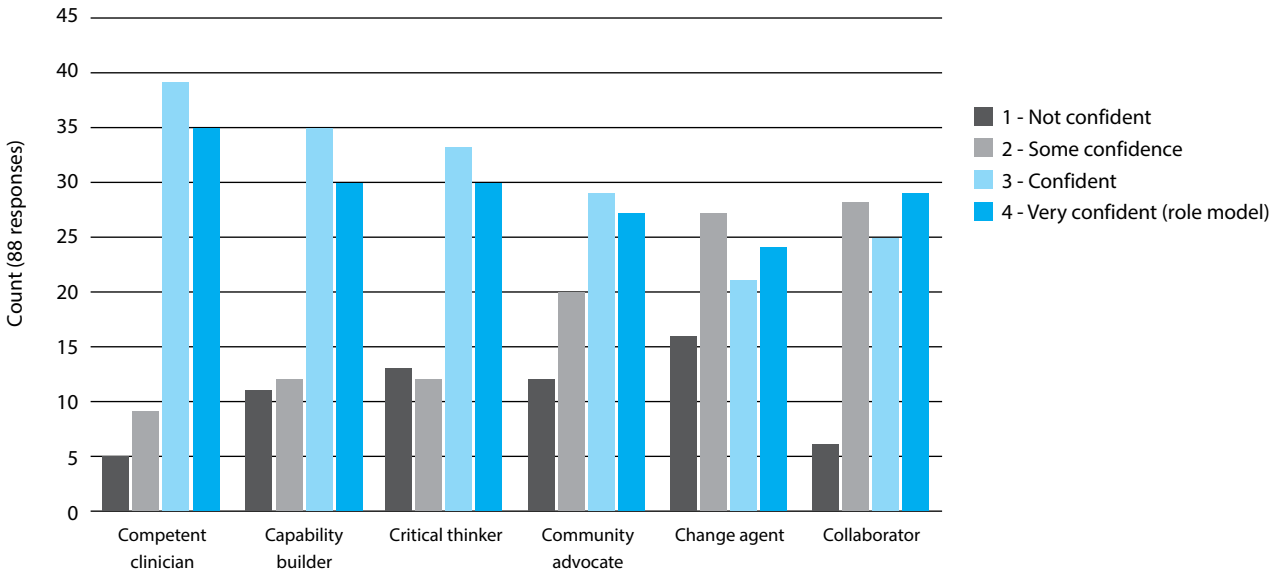

Figure 3: A cluster bar chart depicting each competency category's frequency of Likert options.

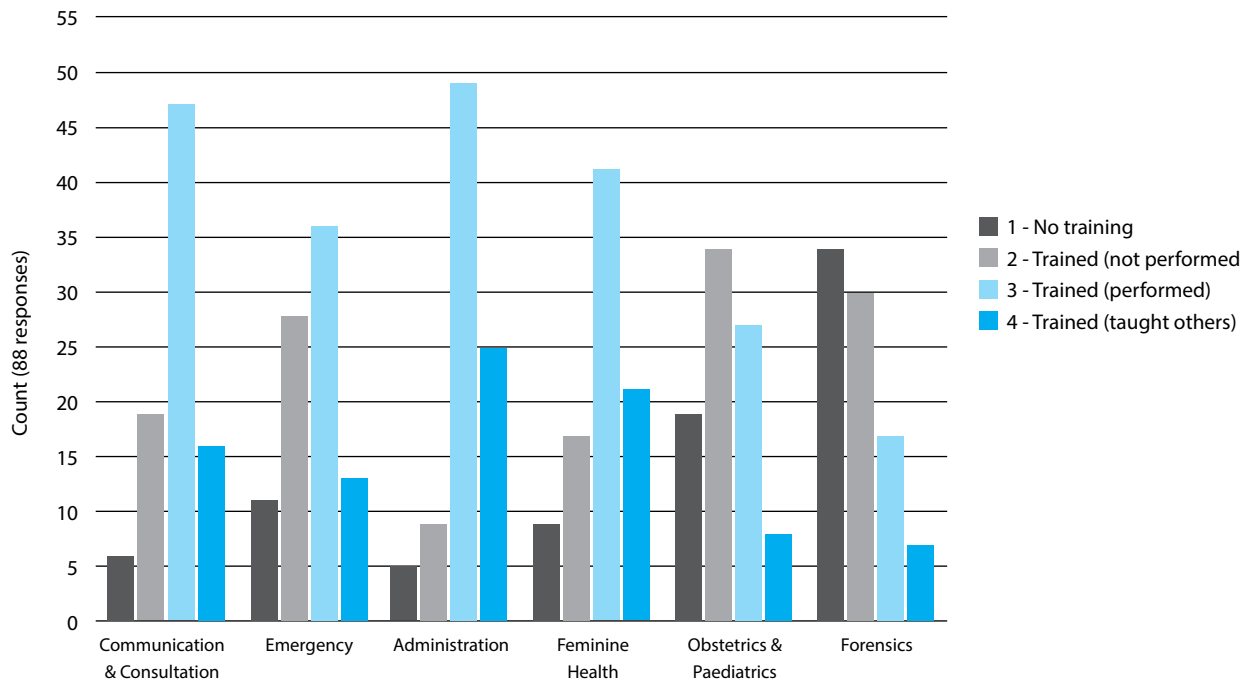

Figure 4: A clustered bar chart depicting the frequency of Likert options of the clinical skills category and learning needs.

Roles and competencies of general practitioners

For the overall rating of performing the roles collectively, the median score was 75%, with most falling between 54% and 91%. However, some scores were as low as 25% and others as high as 100%. Most GP role scores were relatively high, with a broader variability than the clinical skills categories.

Similarly, the Likert options of the GP roles showed the most confidence in performing them as competent clinicians, followed by capability builders, critical thinkers, community advocates, and collaborators. The least confidence in GP roles was as a change agent (Figure III).

Learning needs of general practitioners

For the overall ability to perform clinical skills collectively, the median score was 65%, with most falling between 54% and 75%. However, some scores were as low as 33% and as high as 100%.

The frequency of the Likert options in each clinical skills category showed that the taught skill category was administration, followed by communication and consultation, feminine or women's health, and emergency. Similarly, private GPs had the most training and clinical performance in those skills. In the obstetrics and paediatrics skills category, most respondents indicated that they had been trained but had not performed the skill the previous year. Significantly, most respondents indicated lacking training in the forensic skill category (Figure 4).

Discussion

Main study findings

Overall, 7 782 private GPs were requested to complete the survey, and 88 completed the questionnaire. The best-performing domain was medical products and technologies, at 69% (n = 61), and the lowest was service delivery, at 47% (n = 41). Most reported training and performance or practice in administration, communication, consultation, women's health, and emergency care. Despite training, the majority did not practice obstetrics and paediatrics. However, most reported lack of training post-graduation from medical school. Significant GP roles included competent clinician, capacity builder, and critical thinker. The minor roles were a collaborator and community advocate; the least was a change agent, in that order.

Interpretation of findings

Sociodemographics

According to one study, 59.4% of medical doctors in South Africa were male, and 40.6% were female.[17] The converse is true of the present survey responses, where the majority are female. As of 2019, the doctor population in South Africa was 44.8% white, 28.7% black, and 15.4% Indian/Asian.[15] It follows that respondents in the current study were not aligned with the reported distribution of doctors by race in South Africa because nearly three-quarters of respondents were white, meaning black African and Indian/Asian doctors were under-represented for different reasons, which may range from lack of interest in the topic, time constraints, connectivity challenges or lack of equipment and so forth.

The lack of data hardly describes the distribution of private GPs by type of practice and population group served in South Africa. The current study adds value to that understanding. The finding that most private GPs work in solo practice and serve middle-income groups is not surprising but may provide some insight into private GP distribution because a significant number of GP practices are found in urban areas of South Africa. Furthermore, the distribution of respondents by SA provinces in the current study showed the majority practised in Gauteng and the Western Cape, as reported previously.[18]

Less than two-thirds of respondents reported readiness in different aspects of healthcare provision in a pandemic, with five out of the six category medians above 60%. The finding may suggest most GPs consider themselves capable of performing duties during a pandemic because there is sufficient access to services and the use of the necessary medical supplies and equipment. On the contrary, most GPs perceive that service delivery may be compromised during the pandemic because the doctor-to-patient ratio and quality of care may decrease. Ideally, comparison to health systems from other countries may give us insight into the level of preparedness of South African doctors, evaluating health issues and the need for changes to the national healthcare framework. While the overall median shows a relatively low level of preparation and readiness for the pandemic, it remains unclear what specific improvements need to be made in the relevant areas of the pandemic.[20, 21.]

Clinical skills and the pandemic

The finding that most respondents reported having trained and practised in four of the six clinical skills surveyed is interesting. However, only 17% of respondents reported that all six skills were learned and practised, and GPs could confidently teach the skills to others. That observation suggests most GPs in the current study are competent in the necessary and relevant clinical skills but may not teach the same. Lack of knowledge in those fields, thus preventing teaching or the workload pressure during the pandemic, may be the reason. The above may also provide some insight into the learning needs of GPs during a pandemic. Furthermore, confidence in teaching, availability of time to teach, and accessibility of trainees may have contributed to the weak findings.

Although most private GPs are trained in obstetrics and paediatrics, they do not practise those clinical skills. It is unclear whether that is due to insufficient training, clinical exposure, lack of opportunity, or necessity to perform them. However, the finding suggests that a curriculum change focusing on obstetric and paediatric clinical skills may be beneficial. Most GPs ultimately had no training in forensic medicine skills. While more significant and inclusive studies must be conducted to confirm this finding, it preliminarily suggests a clear need in the education system to include more comprehensive forensic medicine training to ensure more competent healthcare providers.

General practitioners' roles or competencies

Family physicians are required to master several clinical roles or competencies to become competent healthcare providers.[12,13,14] While the study specifically focused on postgraduate training, the roles apply to all primary care doctors, including GPs, in assessing their competencies as clinicians in a primary care setting. Private GPs were, at minimum, competent in five out of the six roles, as highlighted in Figure 3. The observation correlates well with previous reports and implies that the majority of private GPs in South Africa can provide quality healthcare that is holistic and collaborative when they are trained on a variety of skills and competencies.[12,13,14] However, in the role of "change agent," most respondents indicated they had "some confidence" in performing a given skill. The finding suggests that most doctors surveyed may have had some confidence in the change process, both on practical and administrative levels.

Learning needs of general practitioners

Generally, medical doctors in South Africa contribute to and are champions of improved healthcare for better healthcare. Most respondents reported that they practised the role of "collaborator" very confidently. That may imply that private GPs "champion collaborative practice and change", essential to successful healthcare reforms. Besides, the finding supports a study that reported that the medical school curriculum in South Africa provided adequate training. Other studies that focused on the learning needs of family physicians in South Africa confirmed that medical education in South Africa was sufficient regarding clinical roles.[12,13,14.]

Moreover, private GPs show competencies in most clinical roles, except for the lack of practise in obstetrics and paediatrics, despite having participated in theoretical training. Additionally, there is a lack of training in and practise in clinical forensic medicine. There are several reasons for the findings. However, the standard features across obstetrics, paediatrics, and clinical forensic medicine are that they are all highly specialised and prone to medicolegal risk, and less attractive GPs. Reasonable exposure and targeted training at both undergraduate and postgraduate levels may help to mitigate the apparent gap in the private GP practice and roles.[14,15,16]

Potential strengths and limitations

The study did have some strengths. Perspectives from GPs may provide insights into parts of a health system framework, such as service delivery, financing, leadership and governance, health information systems, and medical products and technologies. The views may have highlighted critical inadequacies in the health system resilience and pandemic preparedness.[2, 20,21] Therefore, addressing the shortcomings may improve the healthcare system's response to future pandemics and strengthen it to implement the NHI.[9,10,19]

The study did have some limitations. The low response rate may be attributed to the peak of the COVID-19 pandemic. The small sample size affected the power of the study and did not represent all private GPs. Hence, our study findings are not generalisable to all private GPs. Moreover, the single-stage cluster sampling may have affected our chances of reaching more private GPs because we were limited to one mode of communication. Furthermore, our limited period for data collection and lack of reminders may have reduced our chances of reaching a high response rate.

Performing a clinical skill recently does not imply the performance is at a level of competence. Direct observation may be the only acceptable assessment technique. It is plausible that GPs may have overestimated their competencies, particularly the scope of practice and clinical skills, in a self-reported scoring system. Although we aimed to select a diversity of GPs, we may

have missed GPs who could have contributed more viewpoints to our findings.

Conclusion

The study shows that most private GPs adequately practise most clinical disciplines besides obstetrics, paediatrics, and forensic medicine. Similarly, most roles or competencies are performed except as change agents. The identified gaps suggest learning needs, which may be addressed through continuous professional development. Further research to understand specific experiences by private general practitioners is recommended.

Acknowledgements

The study emanated from a research project. The authors thank the participants, Medpages, and the University of the Witwatersrand, Department of Family Medicine, and Primary Care. Special thanks to Prince Chikezie, Meghan Britz, Gabriel Desjardins, Muhammad Essack, Mpumelelo Ngele, and Lesego Phiri, who participated in the data collection and report compilation.

Conflict of interest

No conflict of interest is to be declared.

Funding source

No funding source is to be declared.

Ethical approval

The ethical approval for the study protocol was obtained from the Human Research Ethics Committee of the University of the Witwatersrand certificate no. M200817. Each respondent was availed of participant information and an option to consent and opt out at any stage of the study. Information collected was anonymous, confidential, and secured by the researchers, who acknowledged that respondents may have experienced discomfort and lost time when completing the questionnaires.

ORCID

JM Musonda https://orcid.org/0000-0003-2942-1039
JS Musonda https://orcid.org/0000-0002-8125-6723

References

1. Rispel LC, Shisana O, Dhai A, et al. Achieving high-quality and accountable universal health coverage in South Africa: a synopsis of the Lancet National Commission Report. South African Health Review. 2019;69-80.
2. Lazarus JV, Binagwaho A, El-Mohandes AE, et al. Keeping governments accountable: the COVID-19 Assessment Scorecard (COVID-SCORE). Nature Medicine. 2020;1-4. https://doi.org/10.1038/s41591-020-0950-0.
3. Mayosi BM, Lawn JE, van Niekerk A, et al. Health in South Africa: changes and challenges since 2009. Lancet. 2012;380(9858):2029-2043. https://doi.org/10.1016/S0140-6736(12)61814-5
4. Van Rensburg HCJ. South Africa's protracted struggle for equal distribution and equitable access - still not there, Human Resources for Health, BioMed Central. 2014;12(1),26. https://doi.org/10.1186/1478-4491-12-26
5. Smith A, Ranchod S, Strugnell D, Wishnia J. Human resources for health planning and National Health Insurance: the urgency and the opportunity. South African Health Review. 2018;23-31.
6. Kavanagh MM, Erondu NA, Tomori O, et al. Access to lifesaving medical resources for African countries: COVID-19 testing and response, ethics, and politics. Lancet. 2020;395(10238):1735-1738. https://doi.org/10.1016/S0140-6736(20)31093-X.
7. Tangcharoensathien V, Mills A, Palu T. Accelerating health equity: the key role of universal health coverage in the Sustainable Development Goals. BMC Medicine. 2015;13(1):101. https://doi.org/10.1186/s12916-015-0342-3.
8. South African Government. National Health Insurance - NHI. Pretoria; South Africa. 2015. Available at: http://www.health.gov.za/index.php/nhi. Accessed 5 July 2020.
9. Department of Health. White paper: National Health Insurance for South Africa: Towards universal health coverage. Government Gazette. Version 40. Friday, 11 December 2015. http://www.gpwonline.co.za. Accessed 5 July 2015.
10. Mathew S, Mash R. Exploring the beliefs and attitudes of private general practitioners towards national health insurance in Cape Town, South Africa. Afr J Prim Health Care Fam Med. 2019;11(1):e1-e10. https://doi.org/10.4102/phcfm.v11i1.2189.
11. Medpages. Statistics - medical professionals in South Africa. 2020. Available from: http://www.medpages.info/sf/index.php? page = category stats & country id = 1&categoryid = 1. Accessed 20 July 2020.
12. Malan Z, Cooke R, Mash R. The self-reported learning needs of primary care doctors in South Africa: A descriptive survey. S Afr Fam Pract. 2015;57(1):35-43. https://doi.org/10.1080/20786190.2014.1002677.
13. Mash R, Malan Z, von Pressentin K, Blitz J. Strengthening primary health care through primary care doctors: designing a national postgraduate diploma in family medicine. S Afr Fam Pract. 2016;58(1):32-36. https://doi.org/10.1080/20786190.2015.1083719.
14. Akoojee Y, Mash R. Reaching national consensus on the core clinical skill outcomes for family medicine postgraduate training programs in South Africa. Afr J Prim Health Care Fam Med. 2017;9(1):a1353. https://doi.org/10.4102/phcfm.v9i1.1353.
15. Couper I, Mash R. Obtaining consensus on core clinical skills for training in family medicine. S Afr Fam Pract. 2008;50(6):69-73. https://doi.org/10.1080/20786204.2008.10873796.
16. Mash B, Couper I, Hugo J. Building consensus on clinical procedural skills for South Africa family medicine training using Delphi technique. S Afr Fam Pract. 2006;48(10):14a-e. https://doi.org/10.1080/20786204.2006.10873475.
17. R Core Team. A Language and Environment for Statistical Computing. Vienna: R Foundation for Statistical Computing. 2019. Available from: https://www.r-project.org/ Accessed 18 July 2020.
18. Tiwari R, Wildschut-February A, Nkonki L, et al. Reflecting on the current scenario and forecasting the future demand for medical doctors in South Africa up to 2030: towards equal representation of women, Human Resources for Health. 2021;19(1):27. https://doi.org/10.1186/s12960-021-00567-2.
19. Mofolo N, Heunis C, Kigozi GN. Towards national health insurance: Alignment of strategic human resources in South Africa. Afr J Prim Health Care Fam Med. 2019;11(1):7. https://doi.org/10.4102/phcfm.v11i1.1928.
20. Corlette S, Wengle E, Houston M, Thomas TW. The impact of the COVID-19 pandemic and recent federal policies on small business health insurance. 2021. Available from: https://www.urban.org/research/publication/impact-covid-19-pandemic-and-recent-federal-policies-small-business-health-insurance. Accessed 2 October 2021.
21. Verhoeven V, Tsakitzidis G, Philips H, van Royen P. Impact of the COVID-19 pandemic on the core functions of primary care: Will the cure be worse than the disease? A qualitative interview study in Flemish GPs, BMJ Open. 2020;10(6):e039674. https://doi.org/10.1136/bmjopen-2020-039674.