

The Ministerial Advisory Committees and 3 years of COVID-19 expertise – is the Department of Health’s model for information-sharing pandemic-ready?

M Richter,¹ LLM, PhD; Y Nokhepheyi,² BCom, MSc

¹ School of Public Health, Faculty of Health Sciences, University of Cape Town, South Africa, and African Centre for Migration and Society, University of the Witwatersrand, Johannesburg, South Africa. Former researcher at the Health Justice Initiative, Cape Town, South Africa

² Former researcher at the Health Justice Initiative, Cape Town, South Africa

Corresponding author: M Richter (marlise.richter@gmail.com)

Effective pandemic decision-making depends on scientific expert evidence, transparency about public health policy decision-making, its rationales and the evidence on which it is based. The South African government laudably committed its COVID-19 response to be guided by science and evidence. Yet, the expert advice that it received was not always readily made available to the public. This submission analyses the time elapsed between the submission of COVID-19 Ministerial Advisory Committees memoranda to the Minister of Health, and the Department of Health’s subsequent publication of these for the period August 2020 - January 2024. It also summarises the outcomes of the Health Justice Initiative’s access to information legal action against the department on expert advice and government decision-making during the pandemic.

Keywords: pandemic decision-making, access to information, COVID-19, expert advice, transparency

S Afr Med J 2024;114(8):e1943. <https://doi.org/10.7196/SAMJ.2024.v114i8.1943>

The COVID-19 pandemic had a devastating impact on South Africa (SA). It resulted in at least 102 595 COVID-19 deaths from January 2020 to January 2024, with some authors estimating that the number of ‘excess deaths’ is likely to be several times higher.^[1] It caused immense economic disruptions, with an estimated 3 million jobs lost in the first few months of lockdown alone.^[2] More than half a million children dropped out of school, and ~2,8 million households with 10.6 million residents were affected by hunger in the last 7 days in April/May 2021.^[3] There has been both praise and criticism of the SA government’s response during this period.

Since the beginning of the COVID-19 pandemic, the SA government stated that its response will be rooted in science and evidence.^[4] In April 2020, President Cyril Ramaphosa remarked that the World Health Organization (WHO) had commended SA for its ‘rapid response to the [COVID-19] pandemic’ because it ‘followed scientific advice’. He also assured the public that government’s risk-adjusted strategy (or lockdown levels) ‘is guided by the advice from scientists.’^[5] A month later, he stated that ‘our considerations [for Lockdown Level 4] are based on empirical evidence, scientific and economic data and international best practice.’^[6]

This laudable approach is substantially different from the government’s initial handling of the AIDS crisis in the late 1990s to mid-2000s. The latter was characterised by state-supported AIDS denialism and pseudo-science^[7,8] that led to >330 000 preventable deaths because an antiretroviral programme was not initially implemented when the evidence for it was unequivocal.^[9]

History and expert consensus are clear: the management of public health threats requires scientific and evidence-based policy formation. In turn, transparency about policy decision-making, its rationales, and the evidence on which it is based (what evidence was used, who were the experts providing the evidence, and did they

have any conflict of interest) increases the public’s confidence in and support of the public health measures implemented. During a global pandemic, timely information-sharing, and making expert scientific advice publicly available, are even more critical, as they help mitigate opposition to often far-reaching public health measures that can keep people safe. Ultimately, the public’s trust in government’s pandemic decision-making depends on transparency, democratic accountability, evidence – as well as autonomous advice to government.^[10,11] In fact, access to information, transparency and accountability have emerged internationally as central to pandemic preparedness, and some of these aspects are included in the May 2024 draft of the WHO Pandemic Agreement.^[12,13]

How open, then, was the SA government about the expert advice it received to inform the management of SA’s COVID-19 pandemic, and how long did it take to share this expert advice with the public?

Methodology of time analysis

In an earlier editorial,^[14] we analysed the time between expert committees submitting COVID-19 advice to the Minister of Health, and the National Department of Health (NDoH)’s publication of their memoranda.^[15] We focused on advisories by the Ministerial Advisory Committee on COVID-19 (C-19 MAC), the Vaccine Ministerial Advisory Committee (VMAC) and the Chair MAC Social and Behavioural Change (SBC MAC) between August 2020 and August 2021 to assess the timely publication of evidence related to key decisions in the country’s COVID-19 vaccine programme. We also provided an overview of a Health Justice Initiative (HJI)’s access to information request to the NDoH for all MAC advisories, the names of experts providing the NDoH with advice and the NDoH’s decision-making on COVID-19 vaccine selection and prioritisation. The HJI is a health equity non-governmental organisation.

Here we update the initial analysis^[14] by extending the date range to January 2024 and by summarising new information that has since come to light through HJI’s legal action on access-to-information requests.

Researchers accessed the NDoH’s official COVID-19 online resource (the portal) to search for all published MAC advisories.^[16,17] All of these, published during the period 25 August 2020 - 31 January 2024, were downloaded and catalogued according to the date of the respective MAC chairpersons’ sign-off. Website page analytic tools were employed to determine each advisory’s last date of upload to the portal – this served as the proxy date of when the particular advisory was made publicly available. Only advisories in official MAC memorandum format, and signed by the chairperson, were included. This excluded additional appendices and reports.

On 21 February 2024, the NDoH announced over X (formerly Twitter) that the portal will not be updated regularly as it would be migrated to the NDoH website.^[18] At the time of publication of this article in July 2024, the portal information was not yet available on the NDoH website and no new MAC advisories had been added since the January 2024 cut-off. We assume that this article thus contains an analysis of all MAC advisories in the public domain.

Table 1 summarises the main findings of the time analysis, and appendices A - C (<https://www.samedical.org/file/2269>) catalogue the MAC advisories by date.

In a recent article the C-19 MAC noted that it had produced 154 ‘advisory documents’ during the period March 2020 - July 2022, and that ‘only 113 of the 154 advisories provided by the MAC on COVID-19 were eventually published on the dedicated website.’^[19] This confirms our analysis, while also indicating that the NDoH had failed to make available a sizable number of expert advisories. The C-19 MAC’s article does not mention the topics of the 41 unpublished advisories, nor does it speculate on why this information was likely withheld.

Access to information case on MAC advisories

After March 2021, the HJI engaged the NDoH to release all MAC advisories and expert advice related to vaccine selection for SA.^[14] It became clear that the NDoH refused to share all information voluntarily. On 20 July 2021, HJI then submitted a formal request under the Promotion of Access to Information Act No. 2 of 2000 (PAIA).^[20] Within a couple of days, 26 advisories were uploaded to the Department’s portal.

The NDoH did not respond formally to the PAIA request nor to the HJI’s internal PAIA appeal. In April 2022, the HJI was obliged to initiate legal process against the Minister of Health and the NDoH to access this information.

The NDoH resisted. In July 2022, its deputy director-general filed an opposing affidavit.^[21] In it he claimed that much of the information was already in the public domain. Certain other information was not within the power of the NDoH but with National Treasury. And PAIA protected some under mandatory non-disclosure provisions. Some was locked in Cabinet decisions – and PAIA protects Cabinet minutes.

In Table 2, we analyse the information the NDoH’s opposing affidavit provided after HJI’s PAIA request, and highlight key issues not yet resolved.

Conclusion and recommendations

The HJI’s PAIA litigation brought important new information to light. In October 2022, the HJI withdrew the challenge, after its counsel advised that protracted litigation was unlikely to produce substantially more information.

How long does it take to publish expert advice? The answer is a median of 53 and 127 days, respectively, for the C-19 MAC and VMAC. This delay is alarming. Withholding some of the advisories, and a truculent response to access to information requests, suggest that the NDoH does not pay enough heed to the public’s constitutional right of access to information. Nor does it fully recognise the essential connections between robust information-sharing, reliable and consistent communication of evidence-based pandemic decision-making and building public trust during a global pandemic.

These components are pivotal not only to future pandemic readiness, but also to the new National Health Insurance scheme’s advisory and benefit selection structures.^[28]

Based on these findings, we recommend that with any current and future MAC structure, or any equivalent expert advice provision, the names of all expert advisors, their listed expertise and any conflicts of interest are published and regularly updated. In addition, all pandemic advisories should be published within 72 hours of submission to the Minister. Here, the framework and best practice policies of the UK’s Scientific Advisory Group for Emergencies (SAGE) are informative.^[28]

Finally, where the government has not sought independent expert advice and/or does not follow the recommendations of independent experts in making pandemic policy decisions, it should say so clearly and explain its health, ethics, economic or other rationale for doing so. This would mean that government decision-making processes that have a far-reaching impact on lives and livelihoods are transparent, accessible and accountable and, thus, more likely to inspire confidence in an anxious public.

Table 1. Findings of time analysis of publication of MAC advisories for the period August 2020 - January 2024

Total MAC advisories published on NDoH coronavirus portal <i>n</i> =158
C-19 MAC advisories published <i>n</i> =113
VMAC advisories published <i>n</i> =43
SBC MAC advisories published <i>n</i> =0
Joint MAC advisories published <i>n</i> =2
C-19 MAC: median number of days between sign-off by MAC Chair and publication: 53 days (4=minimum; 143=maximum)
VMAC: median number of days between sign-off by MAC Chair and publication: 127 days (19=minimum; 599=maximum)
Date of last C-19 MAC advisory published: 15 June 2022
Date of last VMAC advisory published: 20 December 2022
Date of last joint MAC published: 11 January 2023

MAC = Ministerial Advisory Committee; NDoH = National Department of Health; C-19 MAC = Ministerial Advisory Committee on COVID-19; VMAC = Vaccine Ministerial Advisory Committee; SBC MAC = Chair MAC Social and Behavioural Change.

Table 2. Summary of PAIA requests from the HJI to the NDoH (July 2021), the department’s response in its answering affidavit (July 2022), and outstanding issues

The HJI PAIA request to the NDoH	Response from the NDoH (with reference to relevant paragraph in Deputy Director-General answering affidavit)	Outstanding questions and additional information
A.) To provide a list of the names of all local and international expert advisors on COVID-19, irrespective of whether they also serve on a/any MAC for COVID-19.	‘The applicant [HJI] is aware of the names of all the ministerial advisory committee COVID-19. The attention of the Court is drawn to p.62 of the founding affidavit. This is a list of the names of the Ministerial Advisory Committee for COVID-19 (“MAC”): (Para 22)	Because of the unreliable uploading of information to the portal, it is not clear whether the list of the members of the three MACs released in 2020 was up to date. To ascertain this, the HJI wrote to the Department in November 2021 to request the updated composition of the C-19 MAC and VMAC for a Briefing Paper. The HJI was informed that ‘the request [needs to] be submitted through the Office of the Minister of Health’. A list of C-19 members dated 16 February 2022 was eventually uploaded to the portal on 24 June 2022, while a list of VMAC members entitled ‘Membership 2022’ was published on the same day. ^[22,23] It is not clear if the composition of the MACs after 2022 is the same or whether they have been disbanded.
B.) To provide copies of all C-19 MAC and VMAC advisories and other expert advice that are currently not in the public domain.	‘The copies of the MAC and VMAC advisories are matters of public knowledge. These advisories are in the public domain. They are accessible in the DoH’s website.’ (para 23) ‘The applicant should perhaps indicate a specific advisory that it would like to access which cannot be found on the website. The NDoH will make the advisory available.’ (para 24)	It is unclear how the public would know whether a specific MAC advisory existed in order to request it from the NDoH. Particularly if MAC meeting minutes are not published and MAC members have to sign confidentiality agreements. Advisories were sporadically uploaded to the portal – often months or years after submission to the minister – with no indication in the portal whether all the advisories submitted to the minister were in fact in the public domain. Legal action had to be taken to ascertain this, while a subsequent article by the C-19 MAC noted that only 113 of the 154 advisories were published on the portal. At least one C-19 MAC meeting was held in August 2023 on the BA.2.86 variant ^[24] and for which no advisory has been uploaded to the portal at the time of writing in February 2024.
C.) To provide copies of all memoranda and advisories that relate to options and recommendations for vaccinating all people with comorbidities.	‘The advisories [published] include the advisory relating to the recommendations for vaccinating people with comorbidities.’ (para 24)	See below
D.) To provide copies of all written advice and recommendations related to the vaccine selection and priority group eligibility criteria for SA from December 2020 onwards.	‘The NDoH’s view is that the record [on vaccine selection and priority group eligibility] contains advice, opinion, report, or recommendation obtained or prepared, or on account of a consultation, discussion for the purposes of assisting to formulate a policy or take a decision in the exercise of power or performance of duty conferred or imposed by law. The NDoH has considered the request and decided that in line with section 44(1) of PAIA the information requested could not be made available to the applicant.’ (Para 25)	Section 44 of PAIA provides for the possibility for information officers to refuse a request for information if it hampers the operation of a public body. Information that could be refused in this instance includes records pertaining to the formulation of policies or recommendations. However, an override exists to above if the record is in the interest of the public. We would argue that information pertaining to the selection of life-saving vaccines and the considerations informing eligibility would unequivocally be in the public interest.

... continued

Table 2. (continued) Summary of PAIA requests from the HJI to the NDoH (July 2021), the department's response in its answering affidavit (July 2022), and outstanding issues

<p>E.) To provide a copy of the risk and priority group framework and timeline or similar, and the timeline, that the NDoH was using for vaccinations and to make vaccine allocation and eligibility decisions.</p>	<p>'Our understanding of the virus and the best manner of dealing with it changed constantly during 2020, and continues to do so, as the result of additional scientific studies and investigations become available. In this context no government can have fixed or required strategies for distributors of vaccines. Instead, what is required is a constantly evolving vaccine strategy that takes account of the latest scientific developments.' (para 26) 'Due to the diversity of the strategy, the national health department also adopted a flexible approach to deal with vaccinations. A framework for rational COVID-19 vaccine allocation in SA and prioritisation of fair allocation of COVID-19 vaccines, identification of risk groups and the supporting documents are available on the website.' (Para 27)</p>	<p>Certainly, a fast-changing environment in a new and devastating pandemic requires a flexible government approach. Yet, detailed rationales for not prioritising particularly vulnerable groups at first, such as people who are immunocompromised or those with comorbidities for vaccination should be published, particularly if they diverge from international guidelines issued by the WHO and run counter to the expert advice provided to the government. The VMAC, for example, recommended the prioritisation of people with existing vulnerabilities in several advisories, while initial public statements by President Ramaphosa and the minister of health supported their prioritisation. Yet, the initial vaccine roll-out did not provide for preferential vaccination for these groups – it opted for a strict age cohort model.</p>
<p>E.) To provide copies of all C-19 MAC and VMAC advisories on the use or non-use in SA of the AstraZeneca/COVISHIELD vaccine including any recommendation by SAHPRA or other experts setting out the basis for pausing the use of this vaccine.</p>	<p>'The information relating to the use and the non-use of the AstraZeneca/COVISHIELD vaccine is available on the website. This is part of the advisories made as a recommendation to the government. This information includes the advice indicating that AstraZeneca/COVISHIELD vaccine had an efficacy of 22% as against the 501Y.V2 variant.' (para 29) 'The decision to pause the use of the AstraZeneca in South Africa was based on the recommendation of the VMAC and the MAC and other experts. However, the decision was made by Cabinet, thus the minutes of Cabinet are protected from disclosure, in terms of PAIA. The national health department is not at liberty to divulge this information to the applicant.' (para 30)</p>	<p>A two-page VMAC advisory on 7 February 2021 stated that there was 'insufficient data to assess the efficacy of any of the vaccines with regard to protection against serious infection and hospitalisation with the 501Y.V2 variant'. It also noted that a high-level meeting would take place on 8 February 2021 to 'develop a considered advisory on the way forward'.^[25] No minutes of this meeting have been published (if indeed it took place). It is probable that a far-reaching decision to pause the first vaccines that South Africa could access in a global crisis would include more discussion and advice than the two-page document of 7 February 2021. It is also incongruous for Cabinet to make such a decision as they are not experts on vaccines and vaccinology.</p>
<p>G.) To provide a copy of the contract and details of the sale of the AstraZeneca vaccine.</p>	<p>'The Astra-Zeneca vaccines were sold to the African Union. The national health department is not in possession of the sale agreement between the African Union and the government. This information falls within the province is the national treasury. Thus, the national health department is unable to provide this information requested.' (Para 31)</p>	<p>Elswhere the HJI argued that all contracts related to procurement and selling of COVID-19 vaccines should be in the public domain and filed additional litigation on the vaccine contracts. It secured a High Court order on 17 Aug 2023 that all COVID-19 vaccine contracts should be released.^[26] In an analysis of these contracts, researchers found that SA paid 2.5 times more for the AstraZeneca vaccines than its EU counterparts.^[27]</p>

HJI = Health Justice Initiative; NDoH = National Department of Health; PAIA = Promotion of Access to Information Act No. 2 of 2000; MAC = Ministerial Advisory Committee; VMAC = Vaccine MAC; C-19 MAC = MAC on COVID-19; SA = South Africa; SAHPRA = SA Health Products Regulatory Authority.

Data availability. The data are available from the corresponding author on request.

Declaration. None.

Acknowledgements. We would like to thank Leslie London and Fatima Hassan for suggestions and advice.

Author contributions. MR and YN conceptualised the study and performed the data analysis. MR wrote the manuscript and all authors edited and approved the final manuscript.

Funding. None.

Conflicts of interest. None.

- Bradshaw D, Dorrington R, Laubscher R, Groenewald P, Moultrie, T. COVID-19 and all-cause mortality in South Africa – the hidden deaths in the first four waves. *S Afr J Sci* 2022;118(5/6):1-7.
- Spaull N, Oyenubi A, Kerr A, et al. Overview and Findings National Income Dynamics Study – Coronavirus Rapid Mobile Survey (NIDS-CRAM) Wave 1, 15 July 2020. <https://cramsury.org/wp-content/uploads/2020/07/Spaull-et-al.-NIDS-CRAM-Wave-1-Synthesis-Report-Overview-and-Findings-1.pdf> (accessed 7 February 2024).
- Spaull N, Oyenubi A, Kerr A, et al. Synthesis Report: National Income Dynamics Study – Coronavirus Rapid Mobile Survey NIDS-CRAM Wave 5, 8 July 2021. <https://cramsury.org/wp-content/uploads/2021/07/1.-Spaull-N.-Daniels-R.-C-et-al.-2021-NIDS-CRAM-Wave-5-Synthesis-Report.pdf> (accessed 7 February 2024).
- Alam U, Nabyonga-Orem J, Mohammed A-A, Malac DR. Redesigning health systems for global health security. *Lancet Glob Health* 2021;9(4):E393-E394. [https://doi.org/10.1016/S2214-109X\(20\)30545-3](https://doi.org/10.1016/S2214-109X(20)30545-3)
- Ramaphosa C. SA's response to Coronavirus COVID-19 pandemic. 23 April 2020. <https://www.gov.za/speeches/president-cyril-ramaphosa-south-africas-response-coronavirus-covid-19-pandemic-23-apr-2020> (accessed 14 December 2021).
- Ramaphosa C. From the Desk of the President. 4 May 2020. <https://www.thepresidency.gov.za/from-the-desk-of-the-president/desk-president%2C-monday%2C-4-may-2020> (accessed 14 December 2021).
- Cullinan K, Thom A. The Virus, Vitamins & Vegetables – the South African HIV/AIDS Mystery. Pretoria: Jacana Media (Pty) Ltd., 2009.
- Nattrass N. The Moral Economy of AIDS in South Africa. Cambridge: Cambridge University Press, 2003.
- Chigwedere P, Seage GR 3rd, Gruskun S, Lee TH, Essex M. Estimating the lost benefits of antiretroviral drug use in South Africa. *J Acquir Immune Defic Syndr* 2008;49(4):410-415. <https://doi.org/10.1097/qai.0b013e31818a6cd5>
- Singh JA. How SA's Ministerial Advisory Committee on Covid-19 can be optimised. *S Afr Med J* 2020;110(6) 439-442. <https://doi.org/10.7196/SAMJ.2020.v110i6.14911>
- Jarman H, Rozenblum S, Falkenbach M, Rockwell O, Greer S L. Role of scientific advice in Covid-19 policy. *BMJ* 2022;378:e070572. <https://doi.org/10.1136/bmj-2022-070572>
- Intergovernmental Negotiating Body to draft and negotiate a WHO convention, agreement or other international instrument on pandemic prevention, preparedness and response, 77th World Health Assembly A77/10, Provisional agenda item 13.4 on 27 May 2024, available https://apps.who.int/ebwha/pdf_files/WHA77/A77_10-en.pdf (accessed: 24 July 2024)
- Morich D, Strobeyko A, Moon S, Burci GL, et al The Pandemic Agreement: Why What Has Been Achieved So Far Matters. *Health Policy Watch* 24/05/2024, available <https://healthpolicy-watch.news/the-pandemic-agreement-why-what-has-been-achieved-so-far-matters/> (accessed 24 July 2024).
- Richter M, Nokhpehi Y, Hassan F. When secrecy and expert advice collide in a pandemic: Access to information and the National Department of Health's tardy publication of Ministerial Advisory Committee advisories. *S Afr Med J* 2022;112(3):190-191. <https://doi.org/10.7196/>
- Nokhpehi Y, Richter M, Hassan F. Tracking the South African 'MAC' Advisories – when expert advice and secrecy collide in a pandemic: Assessing government transparency in public health decision making and vaccine prioritisation and selection. August 2020 - August 2021. Briefing Paper No 1. Cape Town: Health Justice Initiative, 2021. <https://healthjusticeinitiative.org.za/2021/12/15/mac-advisories/> (accessed 2 February 2022).
- National Department of Health, South Africa. MAC Advisories – Vaccinations. <https://sacoronavirus.co.za/category/mac-advisories-vaccinations/> (accessed 27 September 2023).
- National Department of Health <https://x.com/HealthZA/status/1760393735928430777> 21 Feb 2024 (accessed 24 July 2024).
- Gray A, Miot J, Mokgatle M, Rees H. 'Following the science': The role of an independent advisory structure in the COVID-19 pandemic response and beyond. *S Afr Health Review* 2022;1:25. <https://hdl.handle.net/10520/ejc-health-v2022-n1-a4> (accessed 23 July 2024).
- HJI v Minister of Health et al 2022. <https://healthjusticeinitiative.org.za/wp-content/uploads/2022/06/220331-HJI-MAC-Founding-Papers-served.pdf> (accessed 24 July 2024).
- Crisp N. Answering affidavit in HJI v Minister of Health et al., 2022 <https://healthjusticeinitiative.org.za/wp-content/uploads/2022/04/19323-22-MAC-Answering-Affidavit-2.pdf> (accessed 23 July 2024).
- SA Coronavirus. Ministerial Advisory Committee (MAC). <https://sacoronavirus.co.za/2022/02/16/mac-on-covid-19-members-as-of-february-2022/> (accessed 2 February 2022).
- SA Coronavirus. Vaccines Ministerial Advisory Committee (VMAC). <https://sacoronavirus.co.za/2022/06/24/vaccine-vaccines-ministerial-advisory-committee-vmac/> (accessed 2 February 2022).
- De Oliveira T. 31 August 2023. <https://twitter.com/Tuliodna/status/1697252420940927154> (accessed 26 July 2024).
- VMAC Advisory developments around indications that Astra-Zeneca Covid-19 Vaccine may be deficient in its protectivity against the 501y.V2 Variant virus. Memorandum dated 7 Feb 2021, signed-off by Chairperson on 18 March 2021. https://sacoronavirus.co.za/wp-content/uploads/2021/07/12-Advisory_AstraZeneca-retrospective-publish_V2.pdf (accessed 7 February 2022).
- HJI v Minister of Health and others (Case no 10009/22) <https://healthjusticeinitiative.org.za/wp-content/uploads/2023/08/F-1000922-the-health-justice-vs-min-of-health-judgm.pdf> (accessed 2 February 2022).
- Health Justice Initiative. 'One-sided': The big pharma bullies: Secrecy for vaccine supplies in a pandemic - A multi-stakeholder analysis; South African COVID-19 vaccine procurement contracts' HJI & multi-stakeholder group, 5 September 2023. https://healthjusticeinitiative.org.za/pandemic-transparency/#dearlip-df_531711/ (accessed 3 October 2023).
- Health Justice Initiative. South Africa's National Health Insurance Bill and the future of medicine selection, pricing and procurement – some critical questions for affordable patient access. National Health Insurance Series: Issue Paper 1, October 2022. https://healthjusticeinitiative.org.za/wp-content/uploads/2022/10/National-Health-Insurance-Series_Issue-Paper-1_3rd-draft.pdf (accessed 7 February 2022).
- Richter M. Why access to information and expert advice given to government is important in a pandemic. A case study of the Covid-19 Ministerial Advisory Committees in SA's pandemic response transparency matters. In: Health Justice Initiative Edited Volume. Pandemics and the Illumination of 'Hidden Things' – Lessons from South Africa on the Global Response to COVID-19. HJI, June 2023. <https://healthjusticeinitiative.org.za/2023/09/18/pandemic-lessons-compedium/> (accessed 7 February 2022).

Received 13 February 2024; accepted 22 February 2024.