

A call to action: Temporal trends of COVID-19 deaths in the South African Muslim community

To the Editor: South Africa (SA) is currently experiencing a third epidemic wave of COVID-19, with COVID-19 cases, hospitalisations and deaths increasing across the country. The highest number of new cases of COVID-19 are being reported in Gauteng Province, where a quarter of South Africans live.

Using DATCOV, a national hospital surveillance system established by the National Institute for Communicable Diseases, risk factors for COVID-19 mortality have been identified among individuals hospitalised in SA, including older age, male sex and comorbidities such as hypertension, diabetes, chronic cardiac disease, chronic kidney disease, malignancy, HIV/AIDS, TB and obesity. Furthermore, analysis of mortality by race group reveals that compared with whites, South Africans of Indian ancestry have a 35% increased risk of dying of COVID-19 when hospitalised, while black Africans and coloured people have a 23 - 24% higher risk of death following COVID-19 hospitalisation.^[1] This heightened risk is independent of other underlying risk factors such as diabetes, which is highly prevalent in people of Indian ancestry compared with whites. Compared with all other race groups, South Africans of Indian ancestry have an 11% increased risk of death following COVID-19 hospitalisation.

Muslim community organisations across the country report daily numbers of known COVID-19 deaths to a co-ordinating group known as Muslim Stats South Africa. By 10 June 2021, 2 826 COVID-19 deaths were recorded in the Muslim community (predominantly of Indian/Malay descent in SA) which constitutes 4.9% of 57 474 recorded COVID-19 deaths nationally. The proportion of deaths in the Muslim community is disproportionate when considering Muslims represent approximately 1.1 million (1.9%) of SA's 59.6 million population.^[2] It is acknowledged that there are limitations with national COVID-19 death reporting – the SA Medical Research Council (MRC) reported 166 794 excess natural deaths in SA for the same time period,^[3] suggesting that reported COVID-19 deaths are likely underestimated by three-fold across the country.

Comparing the weekly numbers of deaths reported to DATCOV and Muslim Stats nationally, it is evident that the increase in

deaths reported in the Muslim community with the current resurgence has preceded and risen more steeply than the trend observed nationally (Fig. 1). Deaths from COVID-19 usually lag behind an increase in SARS-CoV-2 infections/mild COVID-19 by approximately 2 weeks, indicating that the deaths observed during the last 3 weeks from 20 May to 10 June 2021, likely materialised due to infections that coincided with the last third of the fasting month (Ramadaan) that is observed by Muslims, which culminated in the observation of Eid-ul-Fitr (Ramadaan was observed from 20 April to 13 May, and Eid-ul-Fitr on 14 May 2021.) Although reasons for this are multifactorial, it is likely to include higher attendance in places of worship and social gatherings

over the Eid celebration period. Notably, no such differences between the trajectory of deaths in the Muslim community relative to national trends was evident in 2020, when all places of worship were restricted from operating.

Comparing weekly Muslim deaths in Gauteng, where the third wave has preceded that in the Western Cape, KwaZulu-Natal and Eastern Cape provinces,^[4] the weekly numbers of hospital deaths in Gauteng reported to DATCOV (Fig. 2A) and excess natural deaths in Gauteng reported by the MRC (Fig. 2B), the sharp and steeply rising increase in deaths among Muslims after Ramadaan is even more evident. The current weekly number of deaths in the Gauteng Muslim communities has

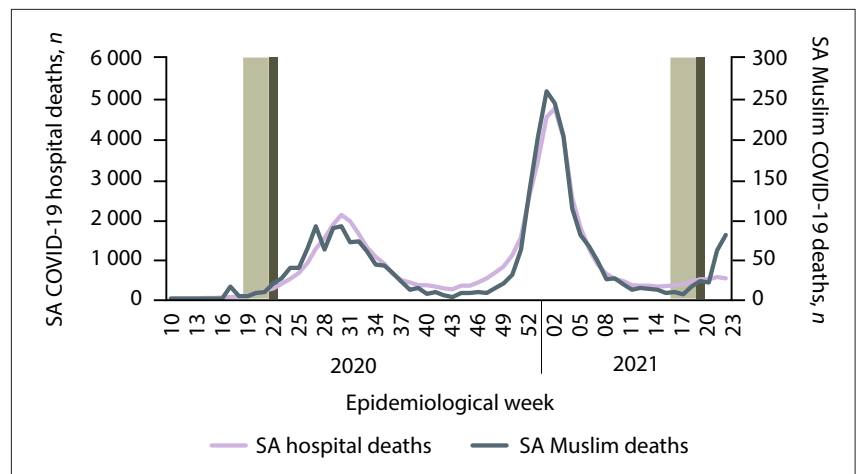


Fig. 1. Weekly number of COVID-19 hospital and Muslim deaths, per epidemiological week, South Africa, 5 March 2020 - 5 June 2021 (light shading indicates first 3 weeks of Ramadaan, dark shading indicates last week of Ramadaan and Eid-ul-Fitr).

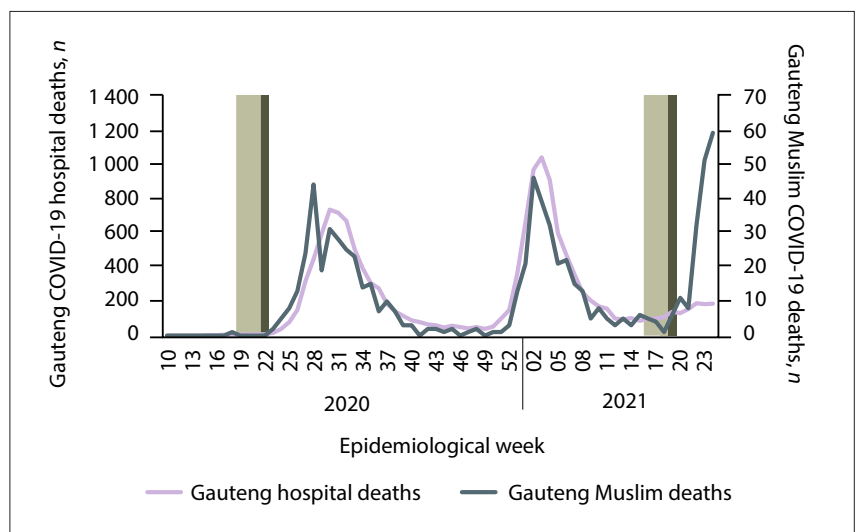


Fig. 2A. Weekly number of COVID-19 hospital and Muslim deaths, per epidemiological week, Gauteng Province, 5 March 2020 - 5 June 2021 (light shading indicates first 3 weeks of Ramadaan, dark shading indicates last week of Ramadaan and Eid-ul-Fitr).

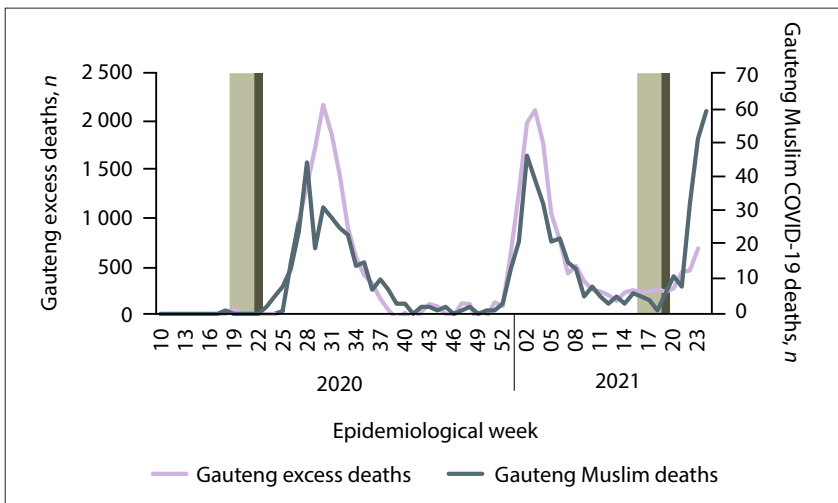


Fig. 2B. Weekly number of excess natural deaths and Muslim COVID-19 deaths, per epidemiological week, Gauteng Province, 5 March 2020 - 5 June 2021 (light shading indicates first 3 weeks of Ramadaan, dark shading indicates last week of Ramadaan and Eid-ul-Fitr).

already surpassed the peak weekly deaths reported in the community during the first and second waves. These findings provide circumstantial evidence that gatherings at the end of Ramadaan and Eid-ul-Fitr likely led to superspreader events among Muslims in Gauteng, which has resulted in a large number of avoidable deaths. It is unclear whether the SARS-CoV-2 Delta variant (first identified in India) may have contributed to the early outbreak in this community, as the variant is ~60% more transmissible and likely more virulent than ancestry SARS-CoV-2.^[5] To date, the Delta variant has only been sequenced in SA among a small number of individuals with known travel to or contact with individuals who travelled from India.^[6,7]

As COVID-19 cases continue to increase, it is important that adequate mitigation strategies be adopted nationally, including in the Muslim and other religious communities, to avoid further preventable COVID-19 deaths. Public health and social measures to limit transmission, such as mask-wearing, physical distancing and hand-sanitising are important. Notably, superspreader events are directly or indirectly responsible for >80% of SARS-CoV-2 infection. Such superspreader events can occur owing to gatherings of even a few people in poorly ventilated indoor spaces, particularly in the absence of face mask-wearing (including when socialising). Close social interactions during the period leading up to and including on the Eid day are likely to have inadvertently precipitated this crisis in the Muslim community. To mitigate further avoidable occurrences of this unfortunate experience, we strongly advise the following:

- Isolate for 10 days if you have tested positive

for SARS-CoV-2 or are symptomatic, or until 10 days after you have recovered if you have had severe COVID-19. Quarantine for 10 days if you have had a close and unprotected (no mask) exposure to a person who tested positive.

- Avoid all indoor social gatherings if possible, but particularly avoid visiting homes of people who are ill or who have died of COVID-19, and attending funerals, which are known to be events that are linked to transmission. If you choose to engage in any such activities, do so in the outdoors or ensure good ventilation indoors, and ensure that everyone wears face masks.
- During the wave, we strongly advise that people at high risk for death (aged >60 years and with comorbidities) and their immediate household contacts avoid visiting places of worship. If such activities are embarked on, ensure the facility is well ventilated, there is no socialising and everyone is wearing a mask.
- The Muslim Festival of Sacrifice, Eid-ul-Adha, will take place on 21 July 2021. Gatherings are part of the celebrations, but need to be avoided. Additionally, gatherings centred around the ritual slaughter of sheep, which is part of this Eid, even if held outdoors, have the potential to be superspreading events, and also need to be reconsidered in this time of crisis.
- If you test positive for SARS-CoV-2, you should seek medical care early, and follow medical advice from healthcare professionals with regard to clinical management and the use of steroids and home oxygen. General practitioners should

ensure timely referral of patients to hospital where required.

- The community and its leadership should combat misinformation being spread that seeks to undermine sound medical and preventive measures, including vaccination.

Most importantly, we cannot emphasise enough the importance of those who are at most risk (people aged >60 years) seizing the opportunity to be vaccinated. The COVID-19 vaccines have been demonstrated to be safe, and have close to 100% effectiveness in preventing severe disease and death. Achieving high vaccination coverage remains the most important goal to ensure that we reduce hospitalisation and deaths from COVID-19.

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S Afr Med J 2021;111(8):692-694. <https://doi.org/10.7196/SAMJ.2021.v111i8.15878>