

WHO REGIONAL OFFICE FOR AFRICA COVID-19 RAPID POLICY BRIEF SERIES

SERIES 11: COVID-19 RESPONSE CAPACITY WITH THE HEALTH SYSTEM

**NUMBER 011-04: COVID-19 related mortality and morbidity among healthcare
providers**

Based on information as at 14 February 2021

WHO/AF/ARD/DAK/31/2021

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Designed and printed in the WHO Regional Office for Africa, Brazzaville, Congo

1	RAPID POLICY BRIEF NUMBER: 011-04
2	RESEARCH DOMAIN: COVID-19 RESPONSE CAPACITY WITH THE HEALTH SYSTEM
3	TITLE: COVID-19 related mortality and morbidity among healthcare providers
4	DATE OF PUBLICATION: 02/03/2021
5	BACKGROUND <p>The COVID-19 pandemic has increased health systems burden due to high infection rates, morbidity, and mortality [1–3]. With healthcare systems under pressure to limit the spread of the novel coronavirus, a huge part of this responsibility is being shouldered by frontline health care workers [4,5]. Hence HCWs are inevitably exposed to the virus [4,5], are at high risk of infection and possible mortality [4–6]. This policy brief aims to summarize evidence on COVID-19 related mortality and morbidity among healthcare providers. In this brief, healthcare providers, health care workers are used interchangeably.</p>
6	SEARCH STRATEGY / RESEARCH METHODS <p>Five databases were searched for studies conducted between December 2019 and 9th February 2021, including PUBMED, WHO COVID-19 database, Cochrane COVID-19 Study Register, and Google scholar. The search terms used were: “healthcare providers,” “health care workers,” “physicians,” “doctors,” “nurses,” “COVID-19,” “SARS-CoV-2,” “Coronavirus,” using relevant Boolean operators. A further search was done, which included “Africa” and a search string of all countries in Africa to identify studies specific to the continent. A total of 11 articles were used to synthesize findings summarized in this policy brief.</p>
7	SUMMARY OF GLOBALLY PUBLISHED LITERATURE RELATED TO THE SUBJECT <p>As of 24th February 2020, a total of 3387 of the 77,262 patients infected with COVID-19 (4.4%) in China were health care workers or others who worked in medical facilities. By April 3, 23 of these had died. The median age of the 23 health care workers who died was 55 years (range, 29 to 72); 17 were men, and 6 were women. [7]. As of 15th April 2020, a systematic review reported countries with the most physician deaths (n=278) were from Italy (44%), Iran (15%), Philippines 8%, Indonesia 6%, China 6%, Spain 4%, USA 4%, and the UK 4%) [6].</p> <p>A systematic review that estimated global COVID-19 infections and deaths among HCWs showed that as of 8th May 2020, a total of 152 888 infections and 1413 deaths were reported. Although the infections were more among women (71.6%, n=14 058) and nurses (38.6%, n=10 706), majority of deaths occurred in men (70.8%, n=550) and doctors (51.4%, n=525). This review also demonstrated that general practitioners and</p>

mental health nurses were at the highest risk for deaths. In HCWs aged over 70 years, deaths occurred in 37.2 per 100 infections. Furthermore, the highest number of deaths occurred in Europe, with 119 628 infections and 712 deaths [8].

A survey among members of the Infectious Diseases International Research Initiative (ID-RI) was conducted between 22nd July and 15th August 2020 for 37 nations. This report showed Mexico with the highest number of deaths (1162), followed by the US. The UK and Italy had 106 and 214 deaths, respectively. Pakistan had 70 deaths, while Afghanistan had 50 deaths. Countries like Botswana, Croatia, Czech republic reported zero deaths [4].

As of 2nd September 2020, the Pan American Health Organization report showed that the Americas had the highest number of health care workers infected globally, with nearly 570,000 health workers being ill and over 2,500 deaths due to the virus. This report also showed that “in the US and Mexico—which have some of the highest case counts in the world—health workers represent one in every seventh case,” and these two countries account for nearly 85% of all COVID deaths among health care workers in the Americas [9].

8 SUMMARY OF AFRICA-SPECIFIC LITERATURE ON THE SUBJECT

COVID-19 related mortality and morbidity in Africa seem to be lower in Africa than in other parts of the world. Despite the lower rate, data on health worker infections is still limited in Africa. As of July 2020, WHO Africa reported that 10,000 health care workers in 40 countries were infected with COVID-19 [10]. Preliminary data as of July 2020 suggested that 5% of all cases in 14 sub-Saharan countries are among HCWs. In four of these countries, 10% of all cases were among HCWs [10].

In KwaZulu-Natal Province of South Africa, as of 21st December 2020, a total of 7 891 HCWs had been infected with COVID-19 in the public sector since the beginning of the pandemic. Of these, 91 died from the disease, with nurses being the most infected workers [11]. On the other hand, in Uganda, as of 24th November 2020, there were 1238 infections among health workers, and 10 died from the disease [8].

According to WHO Africa, infections among health care workers have been attributed to inadequate access to personal protective equipment or weak infection prevention and control (IPC) measures, weak infection prevention and control measures, increased workload, fatigue, inadequate training, especially among health care workers who were repurposed for COVID-19 response, lack of infrastructure to implement key IPC measures or to prevent overcrowding [10].

9 POLICY FINDINGS

	<ul style="list-style-type: none"> • Health care workers are at risk of being infected and dying from COVID-19 • Poor access to PPEs, poor training, inadequate IPC, fatigue, and many other factors predispose HCWs to become infected with COVID-19 • Data on COVID-19 related mortality and morbidity among healthcare providers in Africa are scarce
10	ONGOING RESEARCH IN THE AFRICAN REGION None was identified
11	AFRO RECOMMENDATIONS FOR FURTHER RESEARCH More recent data is required on the actual number of COVID related mortality and morbidity among health care workers in Africa. Data should, if possible, delineate the infections contracted during work and in the community.

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BRIEF PRODUCED BY: Information Management Cell, of the WHO Regional Office IMST and the Cochrane Africa Network