



Independent observer
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THE RATIO OF HEALTH WORKERS TO POPULATION THREATENED BY COVID-19

Health workers play an important role in the health system and are in the frontline to combat the coronavirus disease 2019 (COVID-19). They have been praised for their personal sacrifices and for putting their lives at risk at the forefront in the fight against a highly infectious disease. However, the impact of the increasing infection rate among health workers is alarming, due to its negative impact on health systems, particularly in the struggle to increase the health worker-to-population ratio. Africa has 13 skilled health workers—the total number of physicians, nurses, and midwives—for every 10 000 people, is below the minimum of 23 skilled health workers per 10 000 population recommended by the [World Health Organization \(WHO\)](#). Furthermore, Africa is far from the [threshold of 45 skilled health workers per 10 000 population](#) required to achieve universal health coverage (UHC) by 2030.

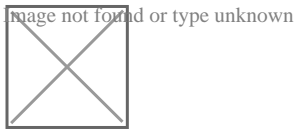
Infections and deaths among health workers due to COVID-19

Due to the fact that there is no systematic global tracking of COVID-19 infections and subsequent deaths among health workers, publicly available information is fragmented. The lack of this vital information underestimates both the plight of health workers in combating COVID-19, and the development of prevention strategies.

According to the WHO, [health workers constitute at least 10% of global coronavirus infection](#). Estimates released by the [International Council of Nurses](#) indicate that at around 450 000 health workers have tested positive for COVID-19, and more than 600 nurses have died worldwide. According to [Amnesty International's report](#) published on 13 July 2020, up until 5 July 2020, over 3 000 health workers from 79 countries across the world died due to COVID-19. Five countries account for over a half of the deaths of health workers globally. These are Brazil, Mexico, Russia, the United Kingdom (UK), and the United

States (US) (as shown in Figure 1 below).

Figure 1: Leading countries in deaths among health workers due to COVID-19



Source: Aidsplan, using data from [Amnesty International](#)

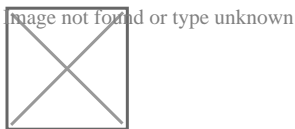
According to the [Centers for Disease Control and Prevention](#) (CDC), more than 116 721 out of 716 556 health workers in the US have tested positive for COVID-19. Of those who tested positive, more than 578 have died. According to the [Guardian and Kaiser Health News](#), about 600 US health workers have died of COVID-19. [Data from Amnesty International](#) indicates that 507 health workers in the US have died of COVID-19.

According to information obtained by Amnesty International from associations of health professionals and Medscape, 545 health workers have died of COVID-19 in Russia. About 540 health workers died of COVID-19 in the UK, 268 of them were social care workers. Brazil has the highest deaths of health workers due to COVID-19 in South America. The country confirmed 31 700 positive cases of COVID-19 among health workers in May. Amnesty International obtained data from the Federal Nursing Council and PEBMED, which indicated that 351 health workers died of COVID-19, 113 were doctors.

In Mexico, on 13 May, health authorities confirmed 8 544 positive cases and 111 COVID-19 related deaths among health workers. However, unofficial data from Medscape indicated that there were 248 deaths of health workers due to COVID-19 in Mexico. In Southeast Asia, Indonesia has the highest number of COVID-19 related deaths among health workers. According to Amnesty International, the country has lost at least 61 health workers to COVID-19, 34 were doctors, 21 were nurses, and six were dentists.

The [WHO African Region External Situation Report 22](#), issued on 29 July 2020, reported that in 47 African countries, 734 783 people tested positive for COVID-19. There were 14 184 (2%) health workers among them and of the 14 184, 4 821 (34%) were in South Africa, followed by Algeria with 2 300 (16.2%), Ghana with 2 065 (14.6%), and Nigeria with 987 (7%) (Figure 2). The rest of the countries contribute less than five percent of the total reported COVID-19 positive cases among health workers in Africa.

Figure 2: The distribution of the 14 184 health workers infected with COVID-19 in Africa



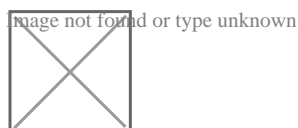
Source: Aidsplan, using data from the situation update for the WHO Africa region, [External Situation Report 22](#)

Just as there are fewer numbers of COVID-19 cases reported in Africa, compared to the other parts of the world, there are fewer deaths reported (which may not reflect the actual situation). Egypt had the highest number of deaths. According to Amnesty International, up until 2 July 2020, the Egyptian Medical Syndicate had reported over 3 000 infections among doctors, which resulted in 111 deaths. According to Dr Zwele Mkhize, South Africa's Minister of Health, 34 South African health workers had died due to COVID-19 by 23 June. By 30 June 2020, nine [Ghanaian health workers](#) had succumbed to the pandemic, while 44 [Algerian health workers](#) had died of COVID-19 by 22 July 2020. Information obtained from [Medscape](#) indicate that Nigeria had five deaths, Morocco had three, Cameroon had two, while Mauritius and Zimbabwe had one death each of health workers due to COVID-19.

COVID-19 implications on density of health workers

According to the WHO's [Global Health Observatory data](#), there is an average of 53 skilled health workers for every 10 000 people. Europe has the highest density of health workers, with 115 skilled health professionals for every 10 000 people. Africa, with 13 skilled health professionals for every 10 000 people, has the lowest density of health workers. The death of over 3 000 health workers due to COVID-19 reduces the density of health workers and the number of health professionals accessible to the population. Continued loss of health workers has huge implications for the health system, especially for Africa, with its low density of health workers.

Figure 3: Skilled health professional density per 10 000 population



Source: Aidsplan, using data from the [Global Health Observatory data repository](#)

The scare in losing the frontline workers

The increase in COVID-19 infection amongst health workers shows unsafe operating environments and a lack of proper protection. The loss of key fighters at the frontline, occurs at a critical time when more numbers are needed to combat the virus. Other than causing a shortage of health workers, it also instils the fear that health facilities are unsafe, discouraging those who need it from seeking health care.

Weak infection prevention and control measures have contributed to the spread of COVID-19 among health workers; specifically, the global shortage of personal protective equipment (PPEs).

A glimmer of hope from the ACT Accelerator partnership

WHO and other global actors, through the Access to COVID-19 Tools (ACT) Accelerator partnership, have come together to ensure new tools are developed and delivered to fight COVID-19 globally (see [GFO July 2020 article on the ACT Accelerator partnership](#)). Their call that no one is left behind will go a long way to combat COVID-19. There is an urgent need of a steady supply of PPE for frontline workers to accelerate the fight against the pandemic.

Further reading

- The External Situation Report 21, "[COVID-19 Situation Update for the WHO Region](#)", 22 July 2020
- Amnesty International report, "[Exposed, Silence, Attacked: Failures to Protect Health and Essential Workers During the COVID-19 Pandemic](#)", 13 July 2020

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