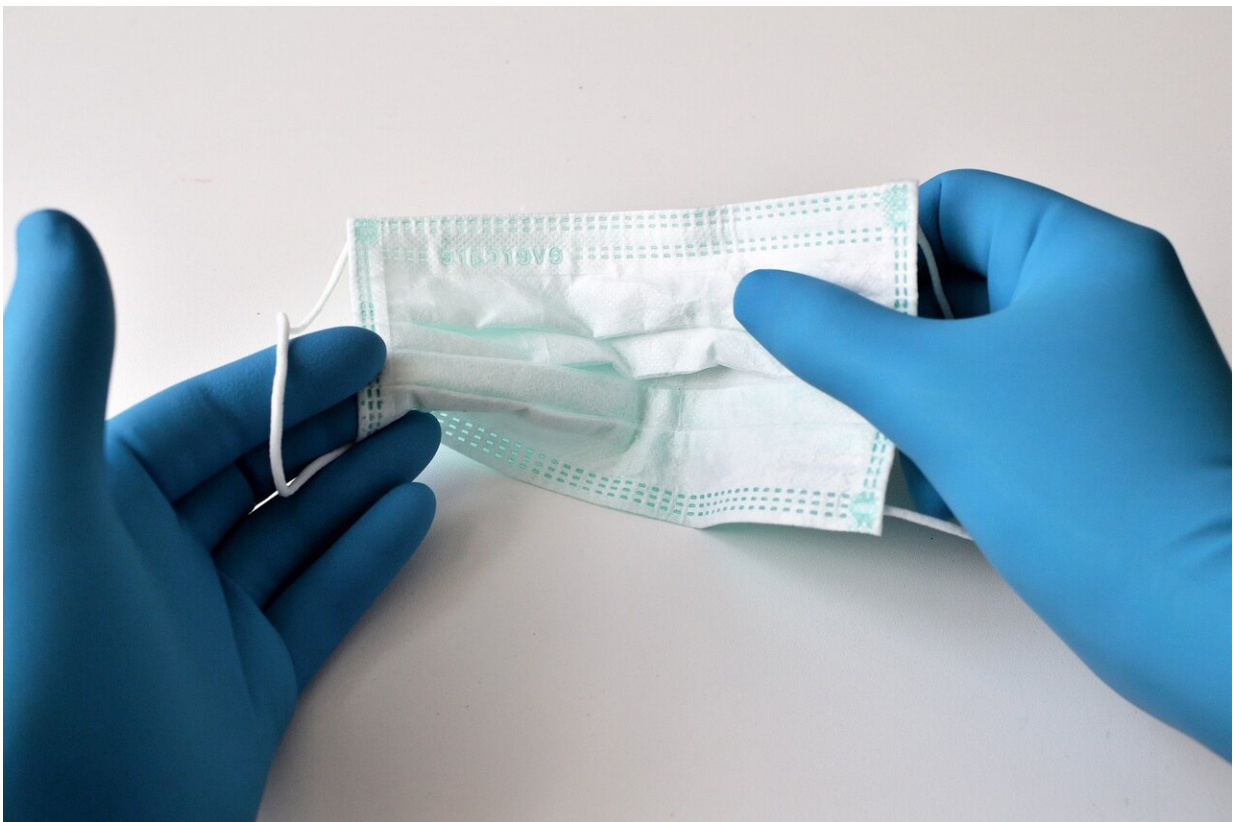


# Study shows that 40% of healthcare workers asymptomatic when COVID-19 positive, raising risk of silent transmission

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A review of studies (meta-analysis) presented at this year's ESCMID Conference on Coronavirus Diseases (ECCVID, online 23-25

September) shows that 40% of healthcare workers who test positive for COVID-19 were asymptomatic, raising the risk of silent transmission in healthcare settings.

The study is by Dr. Sergio Gómez-Ochoa, Cardiovascular Foundation of Colombia, Floridablanca, Colombia, Professor Oscar H Franco and Dr. Taulant Muka from the Institute Of Social And Preventive Medicine (ISPM), University Of Bern, Switzerland, and colleagues, and is to be published in the *American Journal of Epidemiology*.

"Health care workers (HCW) are at the frontline response to the new coronavirus disease 2019 (COVID-19), exposing themselves to a higher risk of acquiring the disease, and subsequently, exposing patients and colleagues," says study co-author Professor Oscar H Franco. The authors aimed to systematically review the evidence on the prevalence, risk factors, clinical characteristics, and prognosis of severe acute respiratory syndrome [coronavirus](#) 2 (SARS-CoV-2) infection among HCW.

Searches in Embase, Pubmed, LILACS, MedxRiv and Google Scholar databases (up to July 8th, 2020) were performed. Preprint and peer-reviewed published articles of any language reporting the prevalence of COVID-19 in HCW and evaluating the [risk factors](#), clinical characteristics, and clinical outcomes of SARS-CoV-2 infection among HCW were included. Two reviewers independently selected the studies, extracted the data, and assessed the quality of evidence. Estimates were pooled using a random-effects meta-analysis.

A total of 97 studies, including 230,398 HCW across 24 countries, met the inclusion criteria. From the screened HCW using PCR testing and the and the presence of antibodies, the estimated prevalence of SARS-CoV-2 infection was 10% and 7%, respectively.

The study shows that 48% of those testing positive for COVID-19 were

nurses, followed by physicians (25%) and other HCW (23%). Most of the COVID-19 positive medical personnel were working in regular/non-surgical/non-COVID wards during the screening (43%), followed by 24% in the [operating room](#), 16% in the emergency room and 9% in ICU, with 29% reporting 'other' locations.

"Loss of taste and smell (anosmia), fever and muscle pain were identified as the only symptoms significantly associated with SARS-CoV-2 positivity among HCW," explains co-author Dr. Taulant Muka. Pooled data from 15 studies showed, that among RT-PCR positive HCW, 40% did not show symptoms at time of diagnosis. Finally, 1 in 20 (5%) of the COVID-19 positive HCW developed severe clinical complications, and 1 in 200 (0.5%) died.

Dr. Muka says: "Healthcare workers suffer a significant burden from COVID-19. A significant proportion of [healthcare workers](#) are positive for COVID-19 while asymptomatic, which leads to the silent transmission of the disease. The symptoms associated with COVID-19 in HCW could be used as an indicator for screening in settings with limited testing capacities.

Professor Franco concludes: "Because we might miss a large proportion of COVID-19 cases if screening targets only symptomatic HCW, universal screening for all exposed HCW regardless of symptoms should be the standard strategy. While more research is needed to understand specific interventions that can help reducing SARS-CoV-2 infection among healthcare personnel, it is clear that providing healthcare workers with adequate personal protective equipment and training is essential."

Provided by European Society of Clinical Microbiology and Infectious Diseases

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