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Thermal Screening in COVID-19: Why Is It Commonplace?



To the Editor: Coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2, disrupted human life as we know it and brought us to a standstill in a matter of months. Considering fever is one of the earliest and most common symptoms, temperature-based screening promptly became the focus for identifying infected cases and for checking the spread of the virus.¹ This was, and still is, being performed using noncontact infrared thermometers and/or thermal scanners at entry/exit points (eg, airports) and doorways to different establishments such as hospitals, workplaces, grocery stores, and restaurants. This was meant to be applied as part of a composite program in combination with self-reporting of relevant symptoms, contact, and travel history. The idea was that people who have a rise in body temperature be treated as a suspected case of COVID-19 and be isolated until definite test results are obtained.

Per contra, what seemed like a simple yet effective measure to identify cases then has now transpired to be a futile endeavor. More than a year into the pandemic, we now know that almost half the patients with COVID-19 do not have fever.² Consequently, asymptomatic and presymptomatic cases might go undetected. Among cases that present with fever, the use of antipyretic drugs (which is oftentimes not self-reported) can result in false-negative results. Furthermore, readings obtained with these devices are influenced by a myriad of factors. These include the person's age, sex and race, alcohol consumption,

application of cosmetics, and physical activity preceding measurement. Environmental factors such as subject-to-sensor distance, ambient temperature, and humidity also affect the readings.³ Such factors may lead to an underestimation of febrile cases, leading to a false sense of security; conversely, it may also overestimate the number of febrile patients generating unnecessary further testing, increased cost, and undue stress for individuals and authorities involved.⁴

Nowadays, temperature checks have come to be a daily ritual for many of us. Although not particularly resource intensive, the propensity to miss a substantial proportion of the cases and the multitude of variables that could render the results unreliable compel us to consider the cost-benefit of this screening measure. A review of the evidence of noncontact thermal screening for identifying cases of COVID-19 concluded that thermal screening is ineffective in limiting the spread of severe acute respiratory syndrome coronavirus 2.⁴ With little discernible benefit, it begs the question: Why do we allow thermal screening to be commonplace?

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COVID-19 Vaccine Effectiveness in a Diverse Urban Health Care Worker Population



To the Editor: Whereas there is emerging, real-world research investigating COVID-19 vaccine effectiveness (VE) on health care workers (HCWs),^{1,2} specific VE data from hospital settings with diverse urban employee populations are lacking. In addition, most studies have not controlled for demographic characteristics, including race and background community COVID-19 incidence, which are risk factors among HCWs.³

We investigated the COVID-19 VE among employees in our ethnically diverse community health care system in Massachusetts (44% of our HCWs are non-White) during its initial immunization campaign. The HCWs of the system were retrospectively included from the beginning of a COVID-19 vaccination program (December 16, 2020) until March 31, 2021. Those with a prior COVID-19 infection before December 15 were excluded. The Occupational Health department of the system ran a COVID-19 screening and testing referral program for workers, consistently throughout the study period. A master database comprising the demographic characteristics,