

# STANDARD DEVIATIONS: What You Can't See Can Kill You

Greetings,



*The end may not be near.*

{The New Yorker}

Staying safe in the workplace is certainly a big part of what we do in the lab. For decades, the lab has understood that pathogens are clever, sneaky, and ubiquitous. SARS CoV2 is no exception; it may test our understanding of biosafety and the paradigms we've trusted up until this pandemic.

Understanding that we are facing risks that we have not seen before and adapting to new strategies in response may test our patience, but is essential to keeping us in the business of health care. COVID-19 is an occupational disease.

While there is currently no systematic global tracking of how many health and essential workers have died after contracting COVID-19, a study by Amnesty International shows that over 3000 health workers are known to have died after contracting COVID-19 in 79 countries around the world.



The countries with the highest numbers of health worker deaths thus far include the **USA (507)**, Russia (545), UK (540, including 262 social care workers), Brazil (351), Mexico (248), Italy (188), Egypt (111), Iran (91), Ecuador (82) and Spain (63) [7/6/20].

The overall figure is likely to be a significant underestimate due to under-reporting, as accurate comparisons across countries are difficult due to differences in counting. Many countries are not prepared to monitor this kind of data and some governments suppress the statistics.

Why are we allowing health care workers to become infected?

If it were just exposure to a novel pathogen then we might be able to mitigate the problem. The issues are more involved.

Lack of PPE is one of the most dramatic and obvious breaches in in the biosafety hierarchy. Masks, gowns, and gloves are essentials that we take for granted but are not readily available to a large portion of the world's health providers. But that only describes a single piece of the puzzle.

Politics, pay, anxiety, stress, and overtime are contributing to the dilemma. These unseen but tangible factors contribute to our level of risk, whether we see them as risk or not.

Politically, health care workers suffer because governments compete with each other to look good. This can mean ignoring or understating the facts of the pandemic and not responding with the speed or resources to protect workers taking care of the hidden ill. It can also aggravate trade between countries that affect supply of PPE and medications. We know that China and Russia have under-reported case numbers and cover their situations with bravado. They aren't the only countries to hide and others follow this lead without the attention they deserve. By looking the other way or fabricating a healthier picture, these political shenanigans impede our ability to fully address the risks in health care settings. It keeps us from reacting like one people to a global problem.

Many countries just can't afford health care for the sick. In addition to unsafe working conditions, some health and essential workers are being unfairly paid or in some cases not paid at all.

In South Sudan for example, doctors on the government's payroll have not received their salaries since February and do not receive welfare packages or medical coverage. In Guatemala, at least 46 facilities' staff were not paid for the time they spent working at a COVID-19 hospital.

In some countries, there are no additional benefits for health and essential workers in the context of the Covid-19 pandemic, and in other countries benefits exclude certain categories of workers. We need to consider COVID-19 an occupational illness.

We're all stressed and anxious about COVID-19. The health care profession is doubly vulnerable with the work that is required to manage the ill and the fears for their own safety and their families. These stressors are factors that affect our mental health and immune status.



And, lastly, we know that health care does not punch a clock. 24/7 has always been our routine. But, even then, there is usually some relief. Not this time. Health care workers affected by overtime work have become icons of the demands put on the system. Burnout, fatigue, and exhaustion are commonplace in areas that are struggling with high case loads. These, again, are factors that undermine our safety.

PPE is one thing. The demands on health care workers from these outside obstacles are another. When we look at the risks involved with health care for the coronavirus pandemic, we must look at the myriad threats that we cannot hide from behind a mask or handle easily with gloves. This is the time to evaluate the risks involved in our work that are not easy to mitigate but threaten us all.

Have a great week and be safe,

Bryan

