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US COVID-19 LESSONS

US workers during the covid-19 pandemic: uneven risks, inadequate protections, and predictable consequences

David Michaels, **Emily A Spieler**, and **Gregory R Wagner** consider how covid-19 affected frontline workers in the US and what needs to be done to ensure they are better protected in future

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Working away from home was an important contributor to the differential effects of covid-19, both illuminating and exacerbating pre-existing social, economic, and health disparities in the US.[1-4] The regulatory system, presumably designed to protect the safety and health of the nation's workers, failed to prevent thousands of deaths. Furthermore, while some time limited efforts were made to address underlying structural problems, these also had limited effect on the safety and health of workers. In this article, the first of a BMJ series on lessons from covid-19 for the US (http://bmj.com/collections/us-covid-series), we examine the reasons for the failings and suggest how to protect the health of workers both now and in future pandemics.

Differential effects

From the outset of the pandemic, workers quickly separated into three categories: those who lost their jobs entirely, particularly in the hospitality and leisure industries; those who could work from home, concentrated in the information, financial, and professional service sectors; and those who had to show up to work outside their homes. Here we focus on the last category, whom we call "frontline" workers.

Workplace exposure had a major role in the spread of SARS-CoV-2, and frontline workers were at particularly high risk of illness and death.[1,2,3,4] Because Black and Hispanic workers, as well as immigrant workers, were over-represented in "essential industries" where risk of exposure was greatest—including healthcare and long term care, animal slaughter and processing, agricultural production, and public transportation—they were more likely to die from covid-19 than white workers.[5-8]

At the start of the pandemic, social, legal, and economic supports for low wage workers were weak. The US is one of only six countries, and one of only two in the Organisation for Economic Cooperation and Development (OECD), without a national universal paid sick leave policy.[9] It is also the only OECD country without universal health insurance or healthcare access.[10] Further, legal protections supporting workers who identify health and safety problems at work are inadequate. There is no general unjust dismissal law in the US, and only 6% of private sector workers are covered by union contracts that provide general protection from unjust discipline or dismissal.[11]

In addition to the increased risks of work related injury and illness faced by workers in lower wage jobs,[12,13] they were less likely to have access to employer paid medical and family leave and to employer subsidized health insurance, and they were more likely to have precarious work arrangements with unpredictable scheduling and less control over the conditions of work.[14] This lack of underlying protections created a perfect storm for vulnerable workers that was only partially mitigated by emergency measures during the early stages of the pandemic.

During the pandemic, temporary social and economic interventions provided some relief to these workers. These included direct income supports for unemployed and low wage workers and expansion of the child tax credit, which temporarily lifted 5.3 million people, including 2.9 million children, out of poverty in 2021.[15] Critical for workers without employer subsidized health insurance, federal subsidies for health insurance premiums were expanded, and enrollment in the income based Medicaid program rose by 5.2 million people.[16] Improved access to health insurance resulted in expanded access to testing (and thus isolation) and to healthcare; groups with higher rates of health insurance coverage had substantially fewer covid-19 cases, hospital admissions, and deaths during the pandemic.[17] In addition, workers who worked for employers with fewer than 500 employees received increased access to limited paid medical leave until the end of 2020, a policy estimated to have prevented one covid-19 case a day for every 1300 workers covered by the law.[18]

Laws and regulations inadequately protected frontline workers

From the outset, frontline workers were a factor in the spread of SARS-CoV-2, and they and others were made ill or died as a result of exposures at work. The first US reported multicenter outbreak was in long term care facilities in Washington state.[19] A pattern of disease spread associated with workplace exposure continued through the pandemic, as frontline workers, including those employed in healthcare, manufacturing, retail trade, animal slaughter and processing, and transportation, consistently had disproportionately high covid-19 mortality.[3]

Nevertheless, frontline workers were rarely seen as a population that needed special attention, and

workplaces were largely ignored as a source of exposure. Federal policies on workplace exposure were developed to protect the supply chain of food or other vital products, or to prevent staff shortages at healthcare facilities, rather than to protect frontline workers from virus exposure. Some employers, with the support (and encouragement) of elected officials, put production and profits ahead of worker safety and health. For example, in the summer of 2020, when large outbreaks were occurring in animal slaughter plants across the country, the Trump administration exhorted meatpacking and distribution companies to keep these factories running at full capacity.[20]

The underlying US systems to ensure the health and safety of workers are not strong, and these systems and structures failed during the pandemic.[21 22] The Occupational Safety and Health Act does, theoretically, require employers to provide a work environment free of recognized serious hazards. But the Occupational Safety and Health Administration (OSHA), the federal regulatory agency of the US Department of Labor overseeing workplaces, does not have a national standard or requirement for employers to conduct workplace risk assessments and consult workers "on all questions relating to safety and health at work," which are requirements in the European Union, for example.[23]

OSHA has historically been structured by Congress and successive administrations as a weak agency, both in terms of resources and its ability to insist that workplaces be made safe, reflecting the limited political power of unions and other worker advocacy organizations. On a national level, OSHA has only enough inspectors to visit every workplace once every 190 years.[24] Some workers—particularly those who work on small farms and those employed by some state and local governments—receive no routine health and safety protection from federal agencies. OSHA has enforceable permissible exposure limits for only about 500 chemicals, and more than 90% of these date to the 1960s or earlier.[25] So many of the agency's standards are insufficiently protective that it has taken the unusual step of recommending that employers adhere to standards developed by other agencies and organisations.[26]

The penalties the agency can levy following an employer's violation of a standard are a small fraction of those available to the Environmental Protection Agency or the Securities and Exchange Commission, and the maximum criminal penalty, which can only be applied if a worker has been killed at work and the employer was cited for a willful violation, is a misdemeanor against the corporation (which cannot be jailed). These penalties, which have limited deterrent effect, show the low value placed by Congress and successive administrations on the lives and health of workers.

During 2020, when a federal administration hostile to workers' protections was in charge, assessed penalties were extremely low. For example, OSHA cited Smithfield Foods in Sioux Falls, South Dakota, "for failing to protect employees from exposure to the coronavirus." OSHA concluded that at least 1294 Smithfield workers contracted the coronavirus and four employees died. Yet the agency fined the company only $13 494 (£10 700; €12 500).[27] Once the Biden administration took office in early 2021, enforcement efforts and penalties were increased, but these efforts were still constrained by the available inspectorate and limited penalties.

At the start of 2020, OSHA had no enforceable standards specifically focused on preventing airborne transmission of viral diseases at work and faced several barriers to issuing protective regulations and guidance once the pandemic started. OSHA has always had to overcome numerous political and bureaucratic obstacles to issue standards. Even when it is appropriate to issue an emergency standard, political roadblocks can prevent or slow down the process. Throughout 2020, the Trump administration resisted issuing any regulation that would have required employers take immediate steps to protect exposed workers. Even after the Biden administration took office in early 2021, OSHA issued only an emergency temporary standard that was limited to healthcare, and it was rescinded after six months.[28] Some states have their own OSHA programs, and California OSHA has a standard to protect workers from airborne illness, but there is still no federal regulation on this hazard.

A second obstacle was that early in the pandemic, the Centers for Disease Control and Prevention (CDC) and OSHA held different views regarding precautions necessary to protect frontline workers, particularly those in healthcare facilities. CDC disseminated guidance documents supporting individually focused prevention strategies directed toward reducing droplet transmission and cleaning surfaces to avoid contact with fomites. Traditional OSHA strategies for controlling airborne exposures, which emphasize improved ventilation and air cleansing in places where people congregated, were not incorporated.[29] It is now clear that the CDC (as well as the World Health Organization) erred in clinging to the droplet dogma.[30] CDC's insistence that the virus could be controlled by limiting exposure to droplets through surgical masks, distancing, and handwashing contributed to OSHA's inability to promote optimal control measures.

Meanwhile, federal and state OSHA programs received many thousands of complaints and referrals related to SARS-CoV-2 exposure, including myriad complaints from workers who faced retaliation for raising concerns about exposures and the lack of personal protective equipment (PPE). The agencies responded to only a tiny fraction of them, issuing small penalties that could have little deterrent effect.[31]

And at least one other opportunity was completely lost. The US president has the authority under the Defense Production Act to order the expansion of production from the US industrial base. During the pandemic President Trump invoked this power only once, in April 2020, in an attempt to order the meatpacking plants to continue to operate. The act could—and should—have been used instead to deal with the shortage of PPE early in the pandemic.

In the US, the protection of general public health is primarily within the purview of state and local health departments that are almost universally strapped for resources. These agencies have focused little attention on workers' health. When workplace outbreaks of covid-19 were first reported, these health departments had little expertise or experience that would have enabled them to intervene effectively. In addition, some were blocked from involvement by politicians more sympathetic to the needs of employers than workers.[32]

Furthermore, US workers are inadequately protected against retaliation when they raise health and safety concerns at work. Thousands of complaints about retaliation were made to federal and state agencies during the pandemic. Shortages of PPE and supply chain problems fed tensions between workers and management. Many workers' complaints remain in litigation today. The underlying legal regime simply did not provide adequate protection to workers who faced serious risks.[33]

The consequences of these failures were appalling. Worker safety and public health agencies did not protect frontline workers adequately. That these protections disproportionately affected Black

and Hispanic workers shows how these failures exacerbated underlying racial and economic inequalities in the US.[4-8]

Action plan for the future

Acknowledging the lack of effectiveness of their actions against covid-19, public health agencies and occupational health regulators, working with employers' and workers' representatives, need to develop comprehensive plans for governmental action to address the workplace health and safety issues created by future pandemics. To increase worker protections, OSHA should issue two new standards, one focused on preventing workplace exposure to airborne pathogens and a second on pandemic preparedness, requiring each employer to develop an establishment specific plan to protect its workers, and to implement the plan when it becomes necessary. Both the nation's and employers' pandemic preparedness plans should include provisions to ensure the availability and distribution of essential personal protective equipment, as well as vaccines and other health interventions, without regard to the economic capacity of individuals or organizations. These plans need to be updated regularly to reflect the latest scientific information.

To decrease transmission of airborne infections, priority must be given to developing federal and state policies to enable workers to stay at home if potentially infectious. Although some employers currently provide limited paid medical leave, others give little or no financial support to stay at home when sick, and it will require legislation, and perhaps financial subsidies, to establish universal paid leave. Given the importance of keeping infectious workers out of the workplace, OSHA's future airborne infection prevention standard should require employers covered by that standard to provide paid medical leave when appropriate.

Maintaining clean, virus-free air is the most important way to make workplaces safe and has important benefits beyond preventing spread of airborne infections.[34] In the long run, this can be achieved by updating local building codes to require improved performance of heating, ventilation, and air conditioning (HVAC) systems; more immediately, requiring building owners and operators to provide building tenants, workers, and guests with data showing the effectiveness of the building's HVAC systems will help encourage improved functioning.

Successful safety and health programs engage workers in identifying and mitigating health and safety threats at work. Consistent with required practices in the EU and International Labour Organization conventions, OSHA should issue a broad safety and health management standard that requires workers' participation in workplace risk assessment and abatement activities and improves protections against retaliation for those identifying threats to workers' safety or health.

The gap between the mainstream public health and worker safety and health protection systems needs to be filled. Expanding the funding, staffing, and expertise of workplace safety and health agencies as well as state and local health departments would help, but more effort must be made to increase communication and collaboration between these two systems, especially at local level. Improved data collection systems, with data generated by and shared across worker safety agencies and health departments, identifying workplaces and industries where workers are at increased risk, would help fill this gap.

Finally, for workers to be better protected from airborne infections as well as other work hazards, Congress must enable OSHA to develop a faster, more nimble standard setting process, provide the agency with greater resources for inspections, and expand its ability to issue civil and criminal penalties that have a greater deterrent effect.

None of these interventions deal with the underlying structural and institutionalized racism and inequality of the US labor market. During the early phases of the covid-19 pandemic we saw that wage inequality, housing segregation, and lack of employer provided benefits meant that vulnerable workers were at increased risk of disease and death. We also saw that government interventions through cash assistance, tax credits, increased healthcare insurance coverage, and other steps improved the lives of workers and their families, made workplaces safer, and increased social equality. The lapse of these policies has led to increased inequality and poverty.[35] These policies and programs would be beneficial even in the absence of a pandemic, and we should not wait for the next pandemic to introduce them.

Key messages

- Covid-19 disproportionately affected workers who had to leave home and go to work to keep society functioning
- Low wage Black and Hispanic workers were disproportionately represented among workers who could not work from home, and disproportionately affected
- Actions by US occupational and public health agencies fell far short of what was needed to make workplaces safe during the pandemic
- Protecting worker health in the next pandemic requires action now for paid family and medical leave, better social supports, and better workplace protection policies

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