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BRIEF19

A daily review of covid-19 research and policy

RESEARCH BRIEFING

Emergency clinicians took an economic hit during the pandemic.

Frontline workers were in harm's way for much of the covid-19 pandemic. And while some, like the former president, at times claimed that these professionals were somehow making money off of the pandemic by way of billing for the care provided, the reality is economically speaking (in addition to physical and emotional stress) the covid-19 pandemic has not been good for emergency physicians and other emergency clinicians such as physician assistants and nurse practitioners.

A new paper [published](#) in *Annals of Emergency Medicine* provides new, more granular insight on emergency department (EDs) providers nationwide.

Using data from AcuteCare Solutions, a nationwide ED practice organization, the researchers sought to describe the economic impact of visit numbers and case complexity during the pandemic in 2020 as compared to similar metrics from 2019. The data were presented as a ratio of 2020 to 2019 for each outcome, meaning that a ratio equaling 1 corresponded to no change, a ratio greater than 1 corresponded to an "increase" in 2020 compared to 2019, and a ratio of less than 1 corresponded to a "decrease" in 2020 compared to 2019.

A total of 139 EDs across 18 states accounting for 6 million ED visits were included in this study. Here's a synopsis of the results:

- Early in the pandemic, adult ED and pediatric ED visits decreased to 0.6 and 0.3, respectively. Later in the year, visits increased but did not reach 2019 levels.
- Patient complexity (as measured by how much revenue each visit generated) for both adults and children increased to greater than 1.0 for the entirety of the pandemic, peaking at 1.1 and 1.2, respectively.
- ED-related revenue dropped significantly (to around 0.6) by mid-April of 2020, and recovered to 0.9 later in the year. Revenue never fully recovered in 2020 compared to 2019. Notably, however, the recovery in revenue was driven by both the recovering volume of patients visiting EDs, patient complexity, as well costs from *decreased* staffing (i.e. lower financial overhead because staff hours were cut).
- Physician hours decreased to 0.8 during 2020, rebounding to 0.9, though never fully recovering in 2020. Hours worked by physician assistants and nurse practitioners declined to 0.6 and rebounded to between 0.7 and 0.8; similarly, work hours among these care providers did not fully recover in 2020.
- Physician assistant and nurse practitioner hours fell significantly at small EDs and freestanding EDs at 0.5 and 0.3, respectively.
- On average in 2020, emergency physician hours decreased by 15 percent during the pandemic, while physician assistant and nurse practitioner hours decreased by 27 percent.
- The authors note that these changes would approximately "correspond to the loss of 174 emergency physician and 193 [physician assistant and nurse practitioner] full time equivalents."

In other words, the covid-19 pandemic may have cost hundreds of emergency doctors and other emergency care providers their jobs in 2020 in this healthcare system alone.

These data are concerning and compelling. However, AcuteCare Solutions only accounts for about 2 percent of all EDs nationwide and may not be broadly representative. Additionally, costs

were only considered for clinical expenses instead of all expenses needed to run an ED. The authors acknowledge that they were unable to account for financial help from CARES funding, which offset revenues by 30 percent.

Regardless, this well-done study provides the type of granularity needed to assess the economics of emergency care. While patient visits declined, patients were increasingly complex (i.e. more sick and requiring more care). To address declining volume and revenue, this particular corporation decreased physician, physician assistant, and nurse practitioner hours significantly.

The results of this study provide important data on how emergency departments adapted to the covid-19 pandemic—often by cutting the work hours of employees, and therefore their paychecks.

—Joshua Niforatos, MD, MTS

POLICY BRIEFING

US Food and Drug Administration set to expand Pfizer/BioNtech vaccine to adolescents ages 12-15.

As the US approaches [250 million doses](#) of coronavirus vaccines administered to nearly 150 million residents (over 44 percent of all residents and nearly 83 percent of adults 65 years and older), the US Food and Drug Administration is about to expand the pool of available recipients. It is [reported](#) that an Emergency Use Authorization may come next week that would open the vaccine to 12 to 15-year old persons.

The reports come at a time when vaccine equity is being discussed widely. While immunizing children is seen as an important step in reaching herd immunity (so that new variants do not emerge that breakthrough vaccines), the reality is that there are literally billions of adults around the world who do not yet have access.

The Biden administration, the WHO, and the vaccine companies itself are working to increase access. The Trump administration's America First approach did not provide a running start. But changing priorities now does not mean that vaccines can suddenly be delivered magically. As we have learned, both the Pfizer/BioNtech and Moderna vaccines require extremely cold storage. The chain of delivery therefore presents one logistical problem and storage once the vaccines once they have reached their destination is another. Some of these problems will be solved in an *ad hoc* manner. But as ever, this pandemic has revealed the inequities in health delivery systems both in the US and around the world.

—Jeremy Samuel Faust, MD MS

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