

Potential Impact of Family Medicine Practice Closures During COVID-19 Pandemic

Background

In the shadow of the COVID-19 pandemic, family physicians are concerned about their ability to keep practices open in light of stay-at-home orders issued by governors, patient concerns about visiting doctors' offices, limited access to personal protective equipment for staff, and some providers potentially be reassigned to hospital-based care. These and other factors may lead to drastic reduction in practice hours and staff.

Methodology

The "Coronavirus Pandemic-Related Potential Family Medicine Office Closures and Economic Impact, April through June 2020" visualization (<https://healthlandscape.org/covid19/>) presents a "what-if" scenario of Family Medicine provider attrition. Data were derived from the National Plan and Provider Enumeration System (NPPES)¹, the American Medical Association (AMA) Physician Economic Impact Study² and the Robert Graham Center Social Deprivation Index (SDI)³. Initial provider counts, by US county, for the number of Family Physicians comes from the February 2020 NPPES including all Family Medicine typologies. Initial total number of jobs supported by the physician and the amount of wages and salaries are derived from the AMA Physician Economic Impact Study. We used estimates shown in Table 3 in each of the state reports to calculate the number of jobs per family medicine physician and the wages and salaries attributable to a family medicine physician. State-by-state reports are available online⁴. These multipliers were then applied to counts of family medicine physicians from the NPPES and summed to get estimated Jobs and Wages & Salaries numbers.

The model assumes three to four percent attrition (loss) of individual Family Medicine physicians each week. In the model, each county loses a minimum of three percent of its physicians per week. Then an additional percentage is attributed (allowed for additional attrition) based on SDI scores which range from 0 to 100 where 0 has the lowest social and economic deprivation and 100 has the highest. SDI is included because populations with higher SDI scores may have higher community risk. No additional attrition above the 3% is included for counties that have an SDI score of 0, while a county with an SDI score of 100 will have the maximum level of 4% attrition. Counties with an SDI score of 43 saw weekly attrition of 3.43% and those with an SDI score of 65 saw total attrition of 3.65%, as examples.

Results

At the end of March 2020, there were 138,707 family physicians, whose practices supported 1,872,907 jobs including those of the physicians for a total of wages and salaries of \$154,283,373,121. At that time, 750 counties had ratios of population to family physicians greater than 3,500:1. Using constant losses across the time period, there will be 58,025 fewer family physicians working in their practices, resulting in a total jobs loss of 784,133 and lost wages and salaries of \$64,645,325,573. Furthermore 1,841 counties would have greater than shortage-level ratios of 3500:1 for population to family physicians.

About HealthLandscape

HealthLandscape develops, administers, and markets geospatial analysis software tools and professional services. HealthLandscape is a division of the American Academy of Family Physicians. HealthLandscape has extensive experience in GIS applications relating to health centers and primary care and works closely on all projects as a team. Mark Carrozza, MA; Jene Grandmont, MA; Dave Grolling, MS; Jessica McCann, MS; Jennifer Rankin, PhD; Michael Topmiller, PhD.

¹ https://download.cms.gov/nppes/NPI_Files.html. Data accessed February 17, 2020.

² <https://www.physicianeconomicimpact.org/>. Accessed March 16, 2020.

³ <https://www.graham-center.org/rgc/maps-data-tools/sdi/social-deprivation-index.html>. 2017 SDI uses data from 2013-2017 American Community Survey.

⁴ For an example, see the Ohio report: <https://www.physicianeconomicimpact.org/pdf/FullStateReports/OH-Study.pdf>.