

Comparison finds considerable differences on estimates of future physician workforce supply

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Compared with a source of data often used regarding physician workforce supply and projected changes, data from the U.S. Census Bureau suggests that the future physician workforce may be younger but fewer in number than previously projected, according to a study in the October 21 issue of *JAMA*.

Recent projections have indicated that the supply of physicians may soon decrease below recommended requirements, with some projecting a shortfall as high as 200,000 by 2020. "Although debate over potential shortages has focused largely on the number and type of physicians needed in the future, concerns have also been raised about data used in [physician](#) supply estimates and projections," the authors write.

The American Medical Association Physician Masterfile (Masterfile) data, although frequently used by workforce analysts, are believed to overestimate the number of active physicians at older ages, attributed to delays in updating the Masterfile data when a physician retires or experiences a change in status, according to background information in the article.

Douglas O. Staiger, Ph.D., of Dartmouth College, Hanover, N.H., and colleagues conducted an analysis of employment trends of physicians using the Masterfile data and the U.S. [Census Bureau](#) Current Population Survey (CPS), a data source used extensively by the U.S. Department of

Labor to estimate current trends in employment. The researchers used data from between 1979 and 2008. Physician supply through 2040 was also projected using both data sources.

The researchers found that in an average year, the CPS estimated 67,000 (10 percent) fewer active physicians than did the Masterfile during the sample period. Estimates from the Masterfile and CPS data were similar for physicians between the ages of 35 and 54 years, but differed markedly at both younger and older ages. Older physicians accounted almost entirely for the lower estimates of active physicians in the CPS. During the sample period, on average, the CPS estimated 22,000 (20 percent) fewer active physicians per year ages 55 to 64 years than did the Masterfile, and estimated 35,000 (51 percent) fewer active physicians per year 65 years or older than the Masterfile. The CPS estimated more young physicians (ages 25-34 years) than did the Masterfile, with the difference increasing to an average of 17,000 (12 percent) during the final 15 years.

"The CPS estimates of more young physicians were consistent with historical growth observed in the number of first-year residents, and the CPS estimates of fewer older physicians were consistent with lower Medicare billing by older physicians," the authors write.

Regarding projections for the future physician workforce supply, both the CPS and the Masterfile data indicate that the number of active physicians will increase by approximately 20 percent between 2005 and 2020. However, projections for 2020 using CPS data estimate nearly 100,000 (9 percent) fewer active physicians than projections using the Masterfile data (957,000 vs. 1,050,000), and estimate that a smaller proportion of active physicians will be 65 years or older.

"The CPS-based projection indicates that 71 percent of active physicians will be younger than 55 years and only 9 percent will be older than 65

years, whereas the Masterfile-based projection indicates that 61 percent of active physicians will be younger than 55 years and 18 percent will be older than 65 years," the researchers note.

"Although this analysis was restricted to physician supply, projections of physician requirements also rely on estimates of the current number of physicians as a starting point for projections. Thus, without more accurate estimates of the size and age distribution of the current workforce, projections of physician supply, requirements, and potential shortages may mislead policymakers as they try to anticipate and prepare for the health care needs of the population," the authors conclude.

More information: *JAMA*. 2009;302[15]:1674-1680.

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