New data resource reveals highly variable staffing at nursing homes

July 1 2019

Researchers who analyzed payroll-based staffing data for U.S. nursing homes discovered large daily staffing fluctuations, low weekend staffing and daily staffing levels that often fall well below the expectations of the Centers for Medicare and Medicaid Services (CMS), all of which can increase the risk of adverse events for residents.

A study published in the July issue of *Health Affairs* paints a clear picture of the staffing levels of nurses and direct care staff at nursing homes based on a new CMS data resource, the Payroll-Based Journal (PBJ). CMS has been collecting data from nursing homes since 2016 to meet a requirement of the Affordable Care Act, and PBJ data have been used in the federal Five-Star Quality Rating System for Nursing Homes since April 2018.

Medicare has no minimum staff-to-resident ratio standard for nursing homes, and the only staffing requirements are that a registered nurse (RN) must be present for eight hours a day, or the equivalent of one shift, and an RN or licensed practical nurse (LPN) must be present at a facility at all times.

As part of its quality rating system, CMS compares nursing homes' actual staffing to expected levels based on the acuity of residents in the facility. Using PBJ data from more than 15,000 nursing homes, the research team discovered that 54% of facilities met the expected level of staffing less than 20% of the time during the one-year study period. For registered nurse staffing, 91% of facilities met the expected staffing

level less than 60% of the time.

"Staffing in the nursing home is one of the most tangible and important elements to ensure high quality care," said study co-author David Stevenson, Ph.D., a Health Policy professor at Vanderbilt University Medical Center. "Anyone who has ever set foot in a nursing home knows how important it is to have sufficient staffing, something the research literature has affirmed again and again. As soon as these new data became available, researchers and journalists started investigating them, and the government now uses the PBJ data in its quality rating system."

Stevenson, along with Harvard University colleagues David Grabowski, Ph.D., professor of Health Care Policy, and lead author Fangli Geng, a Health Policy Ph.D. student, also looked at day-to-day staffing fluctuations over the one-year period, and the findings were troubling, he said.

Relative to weekday staffing, the PBJ data showed a large drop in weekend staffing in every staffing category. On average, weekend staffing time per resident day was just 17 minutes for RNs, nine minutes for LPNs and 12 minutes for nurse aides (NAs).

Unlike previous nursing home staffing data that was self-reported by facilities and covered only a narrow window of time around a facility's annual recertification survey, PBJ data are linked to daily payroll information for several staff categories and cover the entire year. This distinction is critical, the researchers wrote, because the older data were "subject to reporting bias" and "rarely audited to ensure accuracy."

"We found that the newer payroll data showed lower staffing levels than the previous self-reported data," said Grabowski. "The lower levels in the PBJ data likely reflect both the fact that they are based on payroll records as opposed to self-report, and also that staffing levels were

abnormally high around the time of the inspection. In fact, the PBJ data clearly show this bump, followed by a return to normal after inspectors leave."

The new PBJ data offer a more transparent and accurate view of nursing home staffing, and Grabowski is hopeful future research will be better positioned to understand the implications of staffing fluctuations on residents' well-being. Further, he noted that "these new staffing data also offer tools for regulators and other oversight agencies to monitor what nursing homes are doing day in and day out."

Although current and future residents and their families might not be inclined to dive into the PBJ data, staffing information for all Medicare- and Medicaid-certified nursing homes is available on Medicare's Nursing Home Compare website, as well as a wealth of other information searchable by city and by facility, such as inspection reports and other quality measures.

"Hopefully, the general public will gain a broader awareness of the information that is available, not only on staffing but on other aspects of nursing home care," Stevenson said. "The only way nursing homes will change their behavior is if there is value in doing so. Some of that can come through the pressure of regulators, but it also needs to come from incentives in the marketplace, notably from expectations of current and future residents and their families."

Provided by Vanderbilt University Medical Center