By David B. Muhlestein and Nathan J. Smith

DOI: 10.1377/hlthaff.2016.0130
HEALTH AFFAIRS 35,
NO. 9 (2016): 1638–1642

DATAWATCH

Physician Consolidation: Rapid Movement From Small To Large Group Practices, 2013–15

In the past few decades there has been a trend of physicians moving from smaller to larger group practices. We found that this trend continued in the period 2013–15. Primary care physicians have made this change at a much faster pace than specialists have.

David B. Muhlestein (david.muhlestein@leavittpartners.com) is the vice president of research at Leavitt Partners, in Salt Lake City, Utah, and an adjunct assistant professor at the Dartmouth Institute, in Hanover, New Hampshire.

Nathan J. Smith is a senior analyst at Leavitt Partners.

Over the past decade, health care in the United States has been undergoing a tremendous transformation. Medicare and private payers have been increasingly shifting their methods of reimbursing health care providers from fee-for-service to risk-based payments.[1,2] Hospitals, physicians, and other providers have been forming accountable care organizations, in which they share responsibility for both the cost and the outcomes of their patients.[3] During this time there has also been significant movement of physicians from smaller to larger group practices.[4,5]

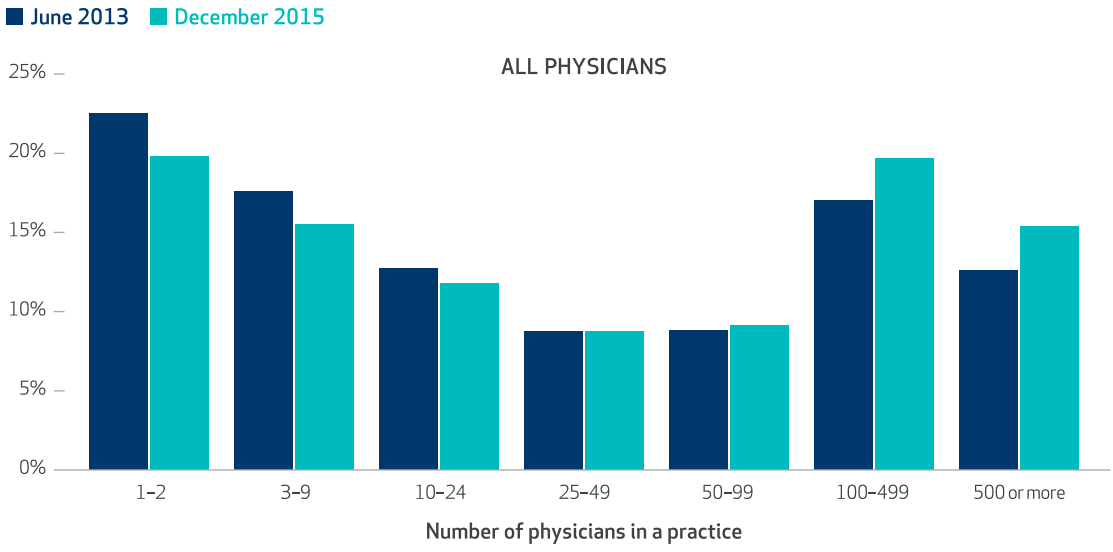
Using data from Medicare's Physician Compare data set,[6] we examined the rate of US physician consolidation from smaller to larger group practices in the period June 2013–December 2015. This period saw significant changes in the makeup of physician groups. The proportion of physicians in groups of nine or fewer dropped from 40.1 percent in 2013 to 35.3 percent in 2015, while the proportion of those in groups of one hundred or more increased from 29.6 percent to 35.1 percent during the same time period (Exhibit 1).

Study Data And Methods

The Centers for Medicare and Medicaid Services began providing Physician Compare public use data sets[7] in mid-2013. The data are derived from

EXHIBIT 1

Percentages of US physicians in practice groups of various sizes, June 2013 and December 2015



SOURCE Authors' analysis of Medicare Physician Compare data. NOTE There were 562,508 physicians in June 2013 and 578,491 in December 2015.

Medicare's Provider Enrollment, Chain, and Ownership System and are validated by claims data.[6] The data sets include information about all physicians who have submitted a Medicare claim within the previous twelve months or are newly enrolled in the system, have at least one specialty, and have at least one practice location.[6] Despite being called Physician Compare, the data sets also contain information on nonphysician providers who participate in Medicare.

Providers are considered to be part of a group practice if they have filed at least one claim with a group practice taxpayer identification number within the past twelve months. A group practice is defined by the number that the physician uses to submit claims, not by employment status. The data are organized at the individual provider level, so a provider who participates in more than one group practice appears multiple times in the data. Consequently, the data include every group practice in which a physician or other provider has practiced during the previous twelve months. Between June 2013 and December 2015, Physician Compare released the public use file forty times—approximately monthly—and we downloaded it from the Physician Compare website.[7]

Physician Compare data are released at the individual provider level. In this analysis we first identified the providers who were physicians, based on their credentials and primary specialties, and we excluded nonphysician providers.

We next calculated the size of each physician group practice. For physicians in multiple group practices, we weighted the physician by 1 divided by the number of practices in which he or she participated, so that no physician was counted more than once.We used the weighted number of physicians within each group to estimate the proportion of total physicians practicing in various group sizes (1–2 physicians, 3–9, 10–24, 25–49, 50–99, 100–499, and 500 or more).

We also estimated the absolute and percentage changes between the June 2013 and December 2015 releases of the data, both overall and comparing primary care physicians to specialists. Traditionally, primary care physicians are those with a primary specialty of family practice, general practice, geriatric medicine, internal medicine, or pediatric medicine. Not all pediatricians participate in Medicare. We included those who did in our analysis so that our population consisted of all Medicare-participating physicians.

Our study had several important limitations. First, physicians who were not enrolled in Medicare were excluded. Thus, the data presented may not be representative of physicians who do not treat Medicare patients, such as some specialists and many pediatricians.

Second, some large physician practices make decisions about how to organize themselves for legal or tax purposes that may mask the actual size of the group. For example, a large group that operates as a single entity may bill under multiple taxpayer identification numbers, which makes the group appear to be smaller than it actually is. Because of data limitations, our findings are limited to the groups of physicians that billed Medicare.

Study Results

In mid-2013 there were 154,726 unique group practice identifying numbers, with a mean group size of 3.8 (standard deviation: 29.0), and the median physician's group size was 8.0 (that is, the median physician was part of a group practice with eight physicians). At the end of 2015 there were 152,328 unique group practice identifying numbers, with a mean group size of 4.0 (SD: 32.4), and the median physician's group size was 10.0.

Overall, large numbers of physicians migrated from smaller to larger groups, with the greatest changes occurring in the smallest and largest group sizes (Exhibits 1 and 2). The changes throughout the study period were highly consistent.

For example, in June 2013, 22.5 percent of physicians were in the smallest group size (1–2 physicians), and 17.6 percent were in the next-smallest group size (3–9). In December 2015 the proportion of physicians in each group size had dropped to 19.8 percent and 15.5 percent, respectively. This equates to a relative decrease of 12.1 percent (absolute difference: −2.7 percentage points) and 11.9 percent (absolute difference: −2.1 percentage points) in the two smallest groups.

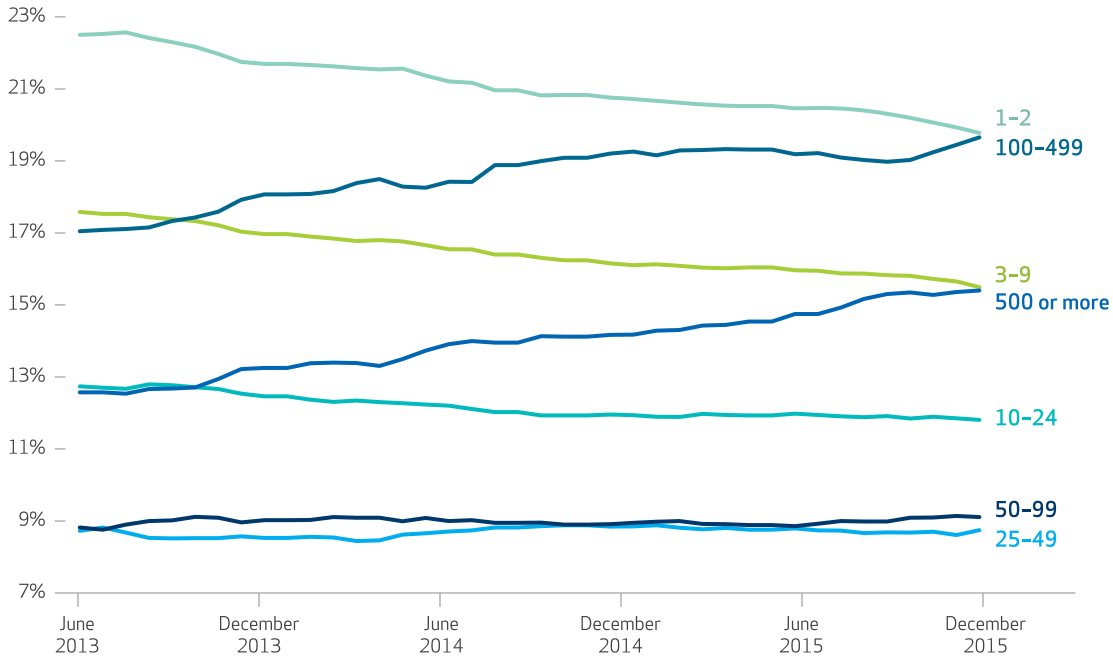
In contrast, in June 2013, 12.6 percent of physicians were in the largest group size (500 or more physicians), and 17.0 percent were in the next-largest group size (100–499). These proportions had grown to 15.4 percent and 19.7 percent, respectively, in December 2015. This equates to a relative increase of 22.5 percent (absolute difference: 2.8 percentage points) and 15.3 percent (absolute difference: 2.6 percentage points) in the two largest groups.

The online Appendix presents the geographic variability we found.[8] It shows estimates of state-level changes in the proportion of physicians in small groups (fewer than ten physicians) and large groups (a hundred physicians or more).

We also noted a stark contrast in practice size changes between primary care physicians and specialists. From June 2013 to December 2015

EXHIBIT 2

Changes in percentages of US physicians in practice groups of various sizes, June 2013–December 2015



SOURCE Authors' analysis of Medicare Physician Compare data. **NOTES** "Groups of various sizes" refers to the number of physicians in a practice. Dates along the *x* axis correspond to releases of Physician Compare data, which occurred approximately monthly during the study period, as discussed in the text.

the percentage of primary care physicians practicing in the smallest group size dropped from 24.8 percent to 19.1 percent (Exhibit 3), whereas the percentage of specialists practicing in the smallest group size decreased from 21.0 percent to 19.9 percent (Exhibit 4)—relative decreases of 29.8 percent and 5.6 percent, respectively. During the same period in the largest group size, the percentage of primary care physicians increased from 11.4 percent to 15.9 percent, while the percentage of specialists increased from 14.0 percent to 15.1 percent—relative increases of 28.3 percent and 7.7 percent, respectively.

Both types of physicians showed shifts. However, the changes were significantly more pronounced among primary care physicians than among specialists.

Discussion

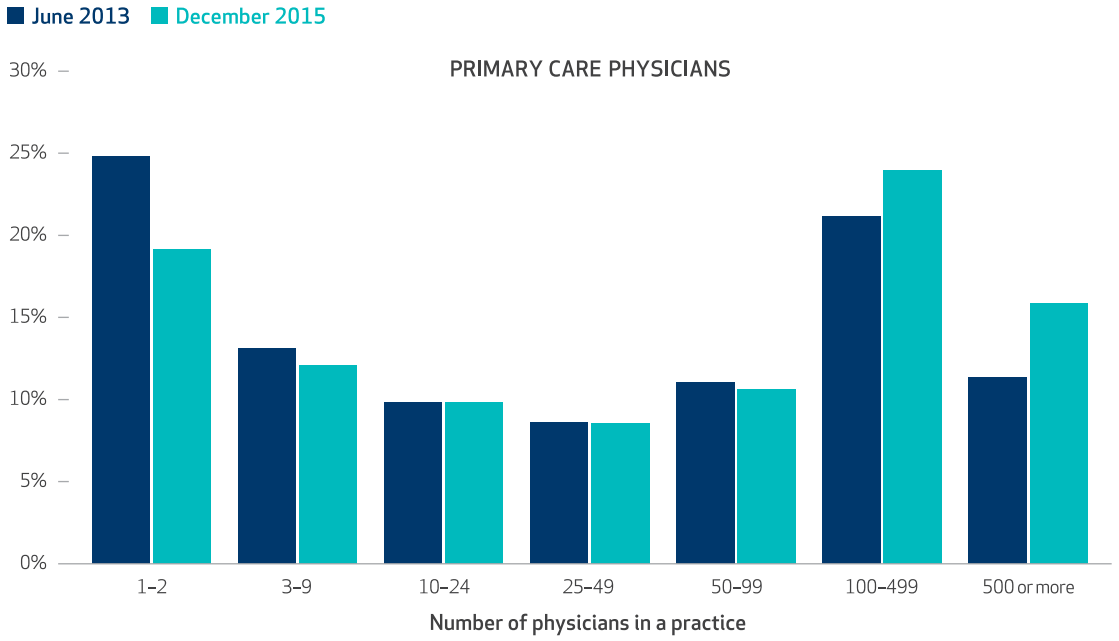
Our findings demonstrate a continuation of physician consolidation. In an earlier study, Pete Welch and coauthors found that the share of physicians in groups of more than fifty grew from 30.9 percent in 2009 to 35.6 percent in 2011.[4] The authors wrote that "this shift occurred across all specialty categories, both sexes, and all age groups."[4(p1659)] Indeed, there has been a gradual decades-long trend of physicians moving toward larger groups from smaller ones.[5,9]

While a variety of factors have contributed to this trend, we believe that it is important to highlight several important trends. First, there are significant financial and technical challenges involved in running a modern medical practice, including the adoption of electronic medical records to comply with meaningful-use requirements—a prerequisite to receiving certain Medicare benefits. This in itself can offer a strong incentive for physicians to move toward larger group practices that have more administrative support than smaller practices can muster.[10] Second, with the broad movement in the health care sector toward population-based contracting arrangements,[11,12] physicians seeking to become involved in these arrangements may feel the need to be part of large groups that can aggregate the necessary number of patients.[13] Third, younger physicians tend to prefer working in larger, instead of smaller, group practices, and older physicians in smaller practices are moving out of the workforce into retirement.[14–16]

Despite the trend among physicians to move toward larger practices, smaller practices still account for a large percentage of physicians overall. Practices with fewer than ten physicians still represent about one-third of all physicians, but the proportion of physicians in these smaller

EXHIBIT 3

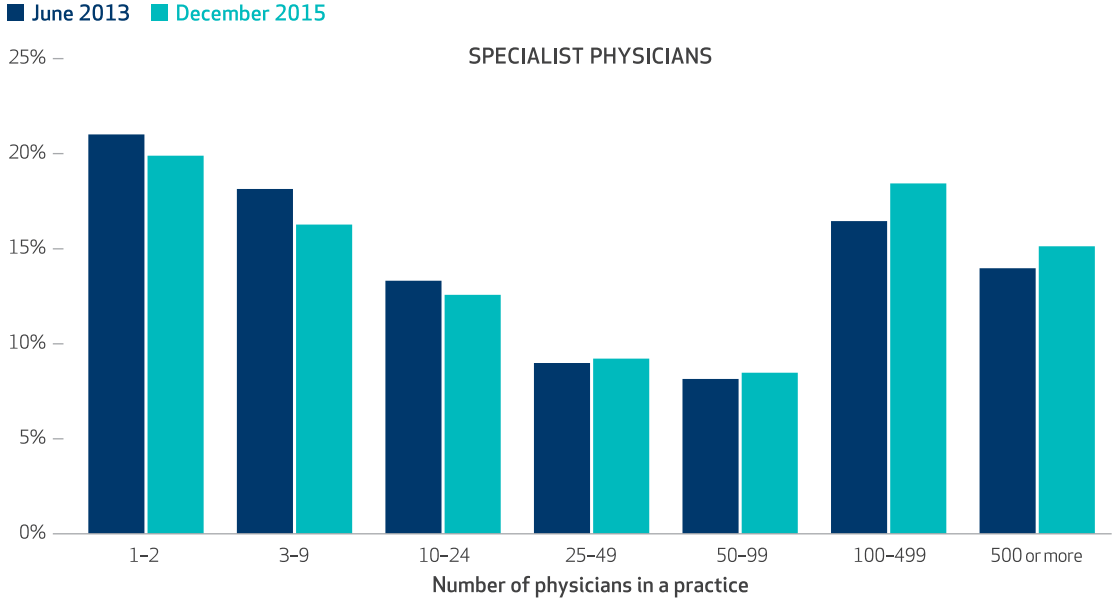
Percentages of US primary care physicians in practice groups of various sizes, June 2013 and December 2015



SOURCE Authors' analysis of Medicare Physician Compare data.

EXHIBIT 4

Percentages of US specialist physicians in practice groups of various sizes, June 2013–December 2015



SOURCE Authors' analysis of Medicare Physician Compare data.

practices has dropped, while the proportion of physicians in practices of one hundred or more physicians has grown rapidly.

An important question is how consolidated physician practices can become before government officials invoke antitrust measures to block a consolidation. Furthermore, the variation in physician group sizes across the country suggests that the changing group dynamics could play out differently in various regions. What is becoming clear is that the country as a whole is moving away from smaller physician practices and toward larger ones.

Belonging to larger groups should open the pathway for physicians to enter into more risk-bearing value-based contracts and, ideally, should increase the quality and value of health care delivery. However, evidence is mixed as to whether physician consolidation will lead to better outcomes and lower costs. For example, decreased competition among physicians has been shown to lead to higher prices,[17–20] but larger groups have also been found to provide better outcomes and lower population costs.[21,22] Continued research is needed to determine the actual effects of physician consolidation on patients, physicians, payers, and the health care system as a whole.

Conclusion

We found strong evidence that US physicians are continuing to move from smaller to larger group practices. A variety of factors likely contribute to this trend. Future research should continue to identify those factors and assess the impact of this consolidation on the broader health system, particularly as it affects the cost and quality of care. ■

NOTES

1 Ginsburg PB. Spending to save—ACOs and the Medicare shared savings program. N Engl J Med. 2011;364(22):2085–6.

2 Chernew ME, Mechanic RE, Landon BE, Safran DG. Private-payer innovation in Massachusetts: the "Alternative Quality Contract." Health Aff (Millwood). 2011;30(1):51–61.

3 Barnes AJ, Unruh L, Chukmaitov A, van Ginneken E. Accountable care organizations in the USA: types, developments and challenges. Health Policy. 2014;118(1):1–7.

4 Welch WP, Cuellar AE, Stearns SC, Bindman AB. Proportion of physicians in large group practices continued to grow in 2009–11. Health Aff (Millwood). 2013;32(9):1659–66.

5 Liebhaber A, Grossman JM. Physicians moving to mid-sized, single-specialty practices [Internet]. Washington (DC): Center for Studying Health System Change; 2007 Aug [cited 2016 Jul 5]. (Tracking Report No. 18). Available from: http://www.hschange.com/CONTENT/941/941.pdf

6 CMS.gov. Physician Compare data FAQ [Internet]. Baltimore (MD): Centers for Medicare and Medicaid Services; [last modified 2016 Jun 15; cited 2016 Jul 5]. Available from: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/physician-compare-initiative/Physician-Compare-Data-FAQ-.html

7 Data.Medicare.gov. Physician Compare datasets [Internet]. Baltimore (MD): Centers for Medicare and Medicaid Services; [cited 2016 Jul 5]. Available from: https://data.medicare.gov/data/physician-compare

8 To access the Appendix, click on the Appendix link in the box to the right of the article online.

9 Kirchhoff SM. Physician practices: background, organization, and market consolidation [Internet]. Washington (DC): Congressional Research Service; 2013 Jan 2 [cited 2016 Jul 5]. (Report No. 7-5700). Available from: https://ia801301.us.archive.org/24/items/R42880PhysicianPracticesBackgroundOrganizationandMarketConsolidation-crs/R42880%20Physician%20Practices_%20Background,%20Organization,%20and%20Market%20Consolidation.pdf

10 Miller RH, West C, Brown TM, Sim I, Ganchoff C. The value of electronic health records in solo or small group practices. Health Aff (Millwood). 2005;24(5):1127–37.

11 Burwell SM. Setting value-based payment goals—HHS efforts to improve U.S. health care. N Engl J Med. 2015;372(10):897–9.

12 Muhlestein D. Growth and dispersion of accountable care organizations in 2015. Health Affairs Blog [blog on the Internet]. 2015 Mar 31 [cited 2016 Jul 5]. Available from: http://healthaffairs.org/blog/2015/03/31/growth-and-dispersion-of-accountable-care-organizations-in-2015-2/

13 CMS.gov. Shared Savings Program: frequently asked questions [Internet]. Baltimore (MD): Centers for Medicare and Medicaid Services; [last modified 2016 May 17; cited 2016 Jul 5]. Available from: https://www.cms.gov/Medicare/Medicare-fee-for-Service-Payment/sharedsavingsprogram/faq.html

14 Kocher R, Sahni NR. Hospitals' race to employ physicians—the logic behind a money-losing proposition. N Engl J Med. 2011;364(19):1790–3.

15 Harris G. More doctors giving up private practices. New York Times. 2010 Mar 25.

16 Harris G. Family physician can't give away solo practice. New York Times. 2011 Apr 22.

17 Austin DR, Baker LC. Less physician practice competition is associated with higher prices paid for common procedures. Health Aff (Millwood). 2015;34(10):1753–60.

18 Baker LC, Bundorf MK, Kessler DP. Vertical integration: hospital ownership of physician practices is associated with higher prices and spending. Health Aff (Millwood). 2014;33(5):756–63.

19 Baker LC, Bundorf M, Royalty AB, Levin Z. Physician practice competition and prices paid by private insurers for office visits. JAMA. 2014;312(16):1653–62.

20 Sun E, Baker LC. Concentration in orthopedic markets was associated with a 7 percent increase in physician fees for total knee replacements. Health Aff (Millwood). 2015;34(6):916–21.

21 Weeks WB, Gottlieb DJ, Nyweide DJ, Sutherland JM, Bynum J, Casalino LP, et al. Higher health care quality and bigger savings found at large multispecialty medical groups. Health Aff (Millwood). 2010;29(5):991–7.

22 Ketcham JD, Baker LC, MacIsaac D. Physician practice size and variations in treatments and outcomes: evidence from Medicare patients with AMI. Health Aff (Millwood). 2007;26(1):195–205.