



# Policy Research Perspectives

## Updated Data on Physician Practice Arrangements: Inching Toward Hospital Ownership

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### Introduction

Using data from the American Medical Association's (AMA's) Physician Practice Benchmark Surveys, this Policy Research Perspective (PRP) describes the practice arrangements of physicians in 2014 and the changes in practice that occurred between 2012 and 2014. Where possible, the current data are compared to that from 30 years ago to offer a long term perspective.

This PRP offers four viewpoints on physician practice arrangements: whether physicians are owners, employees or independent contractors with their main practice; what best describes their main practice; the ownership structure of their main practice (e.g., whether hospital owned); and how many physicians are in their main practice.

The long term look at physician practice arrangements reveals a number of dramatic changes that have occurred over the past 30 years. First, there has been a marked decrease in the percentage of physicians who are owners of their practices, falling from 76.1 percent in 1983 to 50.8 percent in 2014. This is related to the changes in practice size that occurred over that period. In 1983, 79.6 percent of physicians worked in practices with 10 or fewer physicians. In contrast, only 60.7 percent worked in practices of that size in 2014. Solo practice itself fell from more than 40 percent of physicians in 1983 to less than 20 percent in 2014.

Changes in the short term are also evident, notably in the ownership structure of physician practice. The share of physicians who worked directly for a hospital or in practices that were at least partially owned by a hospital increased from 29.0 percent in 2012 to 32.8 percent in 2014.

### Study Data and Methods

The 2014 information in this PRP is based on the AMA's 2014 Physician Practice Benchmark Survey (hereafter, Benchmark Survey), a nationally representative sample of post-residency physicians who provided at least 20 hours of patient care per week, were not employed by the federal government, and practiced in one of the 50 states or the District of Columbia. The sample for this survey was drawn from the M3 Global Research panel.

M3 Global Research and MDLinx are both subsidiaries of M3 Inc. MDLinx is an online community of healthcare professionals. Physicians and other healthcare professionals sign up to receive free daily or monthly newsletters or participate in a variety of other services. MDLinx members can also elect to join the M3 Global Research panel and receive invitations to participate in market research surveys. Physicians who join are verified by matching their medical education (ME) numbers with ME numbers on the AMA Masterfile or by matching their Drug Enforcement Administration Agency (DEA) numbers with those on the DEA Masterfile. Only physicians who have been verified are able to participate in market research surveys. At the time of the 2014 Benchmark Survey there were approximately 278,000 verified physicians in the M3 panel.

Physicians selected for participation in the 2014 Benchmark Survey received an email invitation from M3 that included a unique link to the survey website.<sup>1</sup> Upon starting the survey, each physician was presented with a series of screener questions in order to exclude physicians who were not in the sample frame. The survey was conducted over a period of four weeks during September and October 2014. The final data included 3500 physicians with a response rate of 35 percent.

Weights for the survey were constructed by NORC to reflect the probability of selection from the M3 panel into the sample, and to adjust for non-resolution of eligibility status, differences between respondents and non-respondents, and differences between the distributions of the sample respondents and the population. Using eligible physicians in the AMA Masterfile as the population, weights took into account specialty, age, gender, whether the physician was an AMA member, present employment, and census region. All estimates presented here are weighted.

Although the sample for the AMA's 2012 Physician Practice Benchmark Survey was selected from a different physician panel (ePocrates), the methodology used in that earlier survey mirrored that described above.

### **Measurement of Practice Arrangements in the Benchmark Surveys**

The 2012 and 2014 Benchmark Surveys collected information on four aspects of physician practice arrangements:

- whether physicians were owners, employees or independent contractors with their main practice;
- what best described their main practice (practice type);
- the ownership structure of their main practice; and
- how many physicians were in their main practice (practice size).

For practice type, physicians were asked to identify which one of nine types best described their main practice: solo practice, single specialty group practice, multi-specialty group practice, faculty practice plan, hospital, ambulatory surgical center, urgent care facility, HMO/managed care organization (MCO), and medical school. Physicians who indicated that they worked for a hospital were asked to clarify whether they worked directly for a hospital or for a practice *owned by a hospital*. Those who responded that they worked for a practice owned by a hospital were asked (again) to identify their practice type (excluding the hospital category this time), and were categorized according to that

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<sup>1</sup> In addition, it was ensured that each physician could respond to the survey only a single time.

response. Thus, in the 2012 and 2014 Benchmark Surveys, the hospital category under practice type includes only physicians who were employed directly by a hospital.

For practice ownership structure, physicians were presented with five options: wholly owned by one or more physicians in the practice, wholly owned by a hospital/hospital system, jointly owned between physicians and a hospital/hospital system, wholly owned by an HMO/MCO, and wholly owned by a not-for-profit foundation. Physicians who were employed directly by a hospital (practice type) were mapped to that same category for practice ownership structure. The practice type and the ownership structure questions both allowed for fill-in responses as well.

Information on these four aspects of practice was collected in the same way in the 2012 and 2014 Benchmark Surveys—the survey questions were identical. However, although the AMA has conducted physician surveys as far back as the early 1980s, some of the practice characteristics in the 2012 and 2014 surveys are not comparable with data from those earlier years.<sup>2</sup> In particular, prior to 2012, only employed physicians were asked to describe their main practice. So, for example, while we would have known whether an employed physician was a member of a multi- or single specialty practice we would not have known that information for a physician with an ownership stake in his or her practice. In addition, information on the ownership structure of a physician's practice (e.g., physician owned or hospital owned) was not collected until the 2012 survey. Earlier surveys did not distinguish between direct employment by a hospital and employment in a practice owned by a hospital, nor did they gather information on whether the practices of owner physicians were also partly owned by a hospital.

Finally, changes in how employed physicians were asked about practice type, and changes in which practice types were excluded from the practice size questions complicate comparisons of the fourth and final measure (practice size) over time. Where possible, this PRP addresses long term changes in practice arrangements that have occurred since the early 1980s using data from the AMA's 1983 Socioeconomic Monitoring System (SMS) Survey

### **Owner or Employee?**

Exhibit 1 presents the distributions of physicians by their personal ownership status and by practice type in 2012 and 2014. The exhibit shows that 50.8 percent of physicians were owners of their practices in 2014, marking a slight decrease from the 53.2 percent of physicians who were owners in 2012. The owner percentage is well below what it was in 1983, when 76.1 percent of physicians owned their practices. Forty-three percent of physicians were employed by their practice in 2014, and 6.2 percent had a contract with their practice. Since the AMA began separately identifying employees and independent contractors in the mid-1980s, the contractor percentage has generally been in the range of 4 percent to 7 percent, with no discernable trend either upward or downward.

Younger physicians were more likely to be employed by their practice than older physicians. In 2014, employment ranged from 59.0 percent among physicians under the age of 40 down to 33.3 percent among physicians over the age of 54 (Exhibit 2). In particular, younger physicians were more than twice as likely as older physicians to be employed by hospitals (data not shown). Twelve percent of

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<sup>2</sup> See Kane and Emmons (2013) for a discussion of AMA's earlier physician surveys.

the under 40 cohort were direct hospital employees compared to only 4.8 percent of physicians over the age of 54. Still, 34.1 percent of physicians under the age of 40 were owners.

In addition to age differences in physician employment, gender differences are present as well. In 2014, 51.8 percent of women physicians were employed by their practice compared to only 38.8 percent of men (Exhibit 2). There are a number of factors that contribute to this gender gap. First, because of the increased entry of women into medicine over time, women physicians are younger than their male counterparts. In 2013, 24 percent of women physicians were under the age of 35 compared to only 13 percent of men (Smart, 2015). Because women have entered medicine more recently than men—during a time when employment has become increasingly the norm—women are more likely than men to be employed.

Gender differences in specialty choice are also a contributing factor to the gender gap in ownership status. Women tend to practice in specialties that are “employee heavy.” For example, in 2013, 17 percent of women physicians were pediatricians compared to only 6 percent of men (Smart, 2015). Pediatrics has historically been a specialty that has a higher than average employee share. In 2012, 59.4 percent of pediatricians were employees compared to the specialty-wide average of 41.8 percent (Kane and Emmons, 2013). Even in 1987 when many fewer women practiced medicine, 37.2 percent of pediatricians were employees compared to the specialty-wide average of 22.6 percent (Gonzalez, 1988).

To the same point, women physicians are less likely than men to choose certain specialties that are “owner heavy.” Seventy-two percent of surgical specialists were owners in 2012, the highest owner share across 12 broad specialty categories (Kane and Emmons, 2013). Only 12 percent of women physicians were surgical subspecialists compared to 17 percent of men (Smart, 2015).

The age and gender employment differences evident in the 2014 data are longstanding. Exhibit 3 compares owner and employee status between men and women physicians in 1983 and 2014. Because the 1983 SMS did not distinguish between employees and independent contractors, these two categories are combined for 2014 in this exhibit to enable better comparison across the two years of data. This exhibit highlights the degree to which the gender gap in employment has narrowed, particularly among young physicians. In 1983 women physicians under the age of 40 were 22 percentage points more likely to be employees or independent contractors than similarly aged men physicians (51.9 percent compared to 30.2 percent). In comparison, by 2014 the difference was only 6 percentage points (69.1 percent compared to 63.3 percent). This is important because differences in practice arrangements between men and women physicians have been identified as an important factor in explaining gender differences in physician earnings (Baker, 1996).

### **Practice Type**

The bottom panel of Exhibit 1 presents the distribution of physicians by practice type. It shows that in 2012 and 2014, the most commonly reported practice type was single specialty practice. Forty-two percent of physicians were in single specialty practice in 2014, slightly lower than the 45.5 percent in 2012. Second, and growing, was multi-specialty practice. Twenty-five percent of physicians were in

this practice type in 2014 up from 22.1 percent in 2012. The percentage of physicians who were directly employed by a hospital increased from 5.6 percent in 2012 to 7.2 percent in 2014.

In 2014, 17.1 percent of physicians were in solo practice, and 2.8 percent worked in faculty practice plans. The remaining 5.9 percent of physicians identified their main practice as either a medical school, an HMO/MCO, an ambulatory surgical center, an urgent care facility or as some other practice type. Medical schools had the highest share among the practice types included in that composite category (2.3 percent).

### Practice Size

Exhibit 4 shows the distribution of physicians in different sized practices in 2012 and 2014. The metric used for practice size is the number of physicians that work in a practice.<sup>3</sup> Practice size changed very little between 2012 and 2014—the overall distributions look very similar. In 2014, 22.3 percent of physicians were in practices of two to four physicians, up by slightly more than 2 percentage points from 2012. This was the largest change (and the only one that was statistically significant) across the six size categories shown in the exhibit. Twenty percent of physicians were in practices of five to 10 physicians (about 2 percentage points lower than in 2012). The remaining physicians were distributed among practices of 11 to 24 physicians (12.1 percent), 25 to 49 physicians (6.3 percent) and 50 or more physicians (13.5 percent).<sup>4</sup>

Although recent changes in practice size have been minimal, there are marked differences from the mid-1980s. As shown in Exhibit 5, a much smaller share of physicians work in practices with 10 or fewer physicians than did 30 years ago, 60.7 percent in 2014 compared to 79.6 percent in 1983. A large portion of this decrease is tied directly to the decline in solo practice. As Exhibit 5 shows, the share of physicians in solo practice fell by 25 percentage points over this period, from 43.8 percent in 1983 to only 18.6 percent in 2014. Also evident is a large increase in the percentage of physicians who work in practices with 25 or more physicians, increasing from 5.0 percent in 1983 to 19.8 percent in 2014.

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<sup>3</sup> The percentage of physicians in practices with only one physician (18.6 percent in Exhibit 4) is not the same as the percentage of physicians in solo practice (17.1 percent in Exhibit 1). A few respondents did not know how many physicians were in their practice. Because this makes the denominator in the practice size percentages smaller, it pushes the solo practice percentage up by about half a percentage point (from 17.1 percent to 17.7 percent). For the same reason, the percentage of physicians who are direct hospital employees is slightly larger in Exhibit 4 than in Exhibit 1 (7.5 percent compared to 7.2 percent). In addition, a handful of physicians who said their practice type was something other than solo practice in the practice type question later answered that there was only one physician in their practice in the practice size question. A disproportionate number of them were in single-specialty practice, suggesting that they might have interpreted “single specialty” to mean only one physician. This inconsistency in answering is responsible for the remainder of the difference (17.7 percent to 18.6 percent).

<sup>4</sup> The practice size categories shown here differ slightly from those shown in Kane and Emmons, 2013. In that report, two of the categories were 5 to 9 physicians and 10 to 24 physicians. Here, the categories are 5 to 10 physicians and 11 to 24 physicians. Physicians in practices with 10 physicians were moved to the smaller size category.

What does practice size, and its growth over time, have to do with the trend toward physicians being employees rather than owners? Small practice physicians tend to be owners, whereas large practice physicians tend to be employees. For example, in 2014, 66.1 percent of physicians in practices of 10 or fewer physicians were owners (data not shown). In practices larger than that, only 37.5 percent of physicians were owners. Thus, as practices have grown in size over time, the mix of physicians has shifted toward more employees and fewer owners. While the change in practice size is one factor behind the decline in ownership, it is certainly not the only factor. Others may include the retirement of older physicians in solo practice, and the purchase of physician-owned practices by hospitals.

Exhibit 6 highlights the difference in practice size between single and multi-specialty practice in 2014. Multi-specialty practices are larger. Among single specialty physicians, 43.5 percent were in practices with fewer than 5 physicians, and only 4.5 percent in practices with 50 or more physicians. In contrast, among multi-specialty physicians, only 14.1 percent were in practices with fewer than 5 physicians, while 36.9 percent were in practices with 50 or more physicians.

### **Practice Ownership Structure**

In 2014, most physicians—56.8 percent—worked in practices that were wholly owned by physicians (Exhibit 7). This category includes physicians who were owners themselves as well as employed physicians who worked in physician-owned practices. This marks a more than 3 percentage point decrease (and one that is statistically significant) from 2012, when 60.1 percent of physicians worked in practices that were physician owned.

In contrast, 25.6 percent of physicians worked in practices that were at least partially owned by a hospital. This is slightly higher than the 23.4 percent in 2012. A statistically significant increase was also seen for direct hospital employment, which accounted for 7.2 percent of physicians in 2014 compared to 5.6 percent two years earlier. Finally, 6.4 percent of physicians categorized their practice ownership structure as not-for-profit in 2014, and 4.0 percent worked in a practice with some other ownership structure.

In addition to size differences between single and multi-specialty practices, there are also differences in practice ownership structure, as shown in Exhibit 8. Single specialty practices were more likely to be physician owned. Seventy-one percent of single specialty physicians indicated that their practice was wholly owned by physicians in 2014 compared to only 38.6 percent of physicians in multi-specialty practice. In contrast, physicians in multi-specialty practice were more likely to report hospital ownership of their practice (44.6 percent compared to 23.0 percent) and not-for-profit organization (12.4 percent compared to 3.6 percent).

### **Discussion**

This Policy Research Perspective highlighted the wide variety of practice types, sizes and ownership arrangements in which physicians work. It is clear that physician practice has undergone marked changes over the past 30 years. First, there has been a very large decrease in the percentage of physicians who are owners of their practices, falling from 76.1 percent in 1983 to 50.8 percent in 2014. This is related to the change in practice size that occurred over that period. In 1983 79.6 percent of physicians worked in practices with 10 or fewer physicians. In 2014, only 60.7 percent did.

Solo practice itself fell from more than 40 percent of physicians in 1983 to less than 20 percent in 2014.

Single specialty practice is the most common practice type and accounted for 42.2 percent of physicians in 2014. It was also the most common type of practice in 2012. Multi-specialty practice, however, grew in frequency between 2012 and 2014, increasing from 22.1 percent to 24.7 percent of physicians. Another notable short term change in practice is the movement toward hospital owned practices. The share of physicians who worked directly for a hospital, or in practices that were at least partially owned by a hospital, increased from 29.0 percent in 2012 to 32.8 percent in 2014. Although detailed information on practice ownership structure is not available for years prior to 2012, research suggests that in 2007/2008, only 16 percent of physicians worked directly for a hospital or in practices that were at least partially owned by a hospital (Kane and Emmons, 2013).

**References**

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**Exhibit 1. Distribution of Physicians by Ownership Status and Type of Practice, 2012 and 2014 <sup>1</sup>**

	2012	2014
<b>Ownership status</b>		
Owner	53.2%	50.8% <sup>b</sup>
Employee	41.8%	43.0%
Independent contractor	5.0%	6.2% <sup>b</sup>
	100%	100%
<b>Type of practice</b>		
Solo practice	18.4%	17.1%
Single specialty group	45.5%	42.2% <sup>a</sup>
Multi-specialty group	22.1%	24.7% <sup>a</sup>
Direct hospital employee	5.6%	7.2% <sup>a</sup>
Faculty practice plan	2.7%	2.8%
Other <sup>2</sup>	5.7%	5.9%
	100%	100%
N	3466	3500

Source: Author's analysis of AMA 2012 and 2014 Physician Practice Benchmark Surveys.

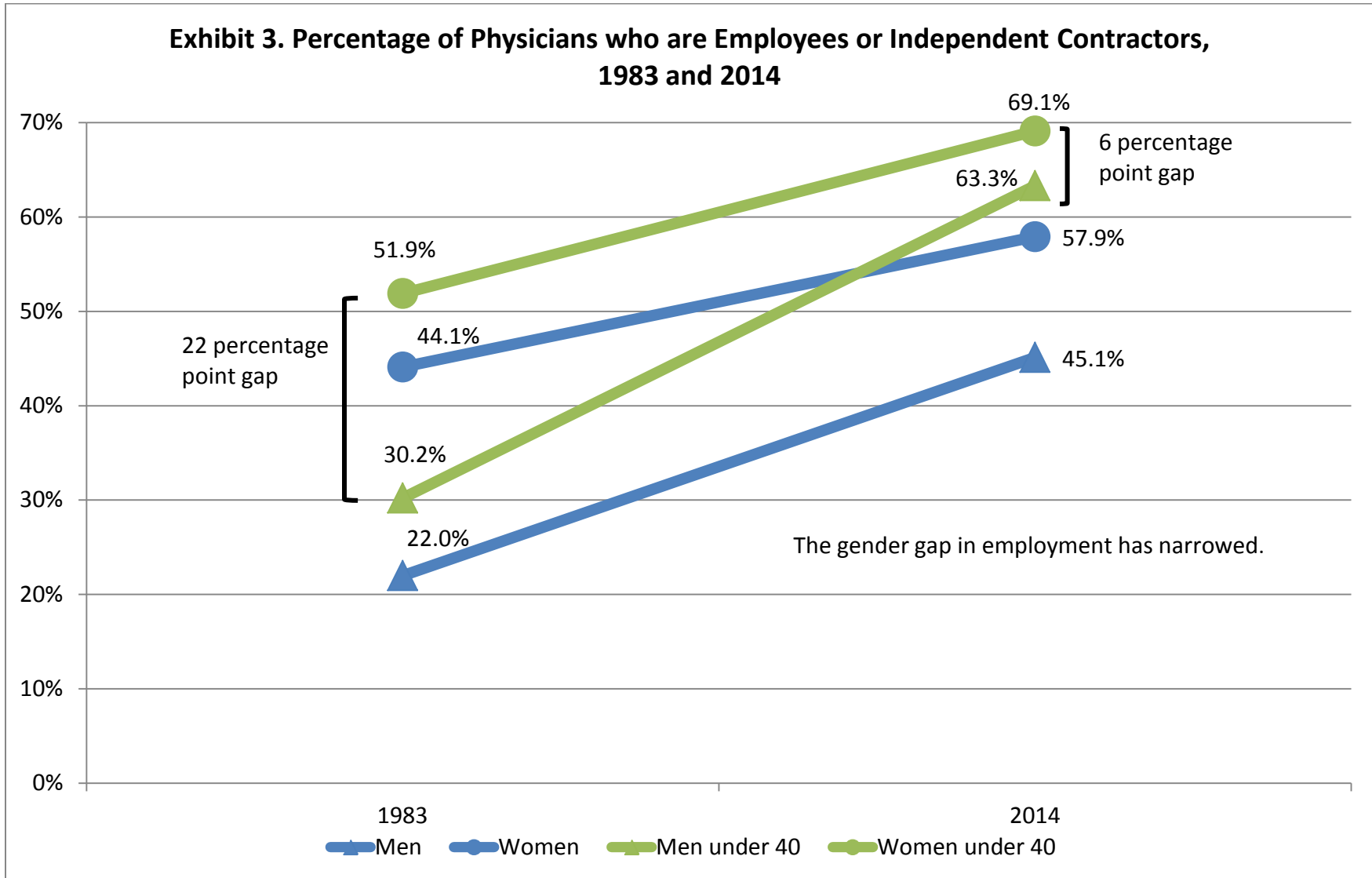
Notes: <sup>1</sup> Significance tests are for year to year changes, within category. 'a' is p<0.01 and 'b' is p<0.05. <sup>2</sup> Other includes ambulatory surgical center, urgent care facility, HMO/MCO, medical school, and fill-in responses

**Exhibit 2. Age And Gender Differences In Ownership Status, 2014**

	Gender		Age		
	Women	Men	Under 40	40 to 54	55+
<b>Ownership status</b>					
Owner	42.1%	54.9% <sup>a</sup>	34.1%	48.6% <sup>a</sup>	60.0% <sup>a</sup>
Employee	51.8%	38.8% <sup>a</sup>	59.0%	46.0% <sup>a</sup>	33.3% <sup>a</sup>
Independent contractor	6.0%	6.3%	6.9%	5.5%	6.7%
	100%	100%	100%	100%	100%
N	1086	2414	603	1556	1341

Source: Author's analysis of AMA 2014 Physician Practice Benchmark Survey.

Note: For gender, significance tests are between men and women. For age, significance tests are shown relative to the under 40 category. 'a' is p<0.01 and 'b' is p<0.05.



Source: Author's analysis of AMA 1983 Socioeconomic Monitoring System Survey and AMA 2014 Physician Practice Benchmark Survey.

Note: Different than in Exhibits 1 and 2, employees and independent contractors are combined in Exhibit 3. Those two types of physicians were not separately identified in the 1983 survey.

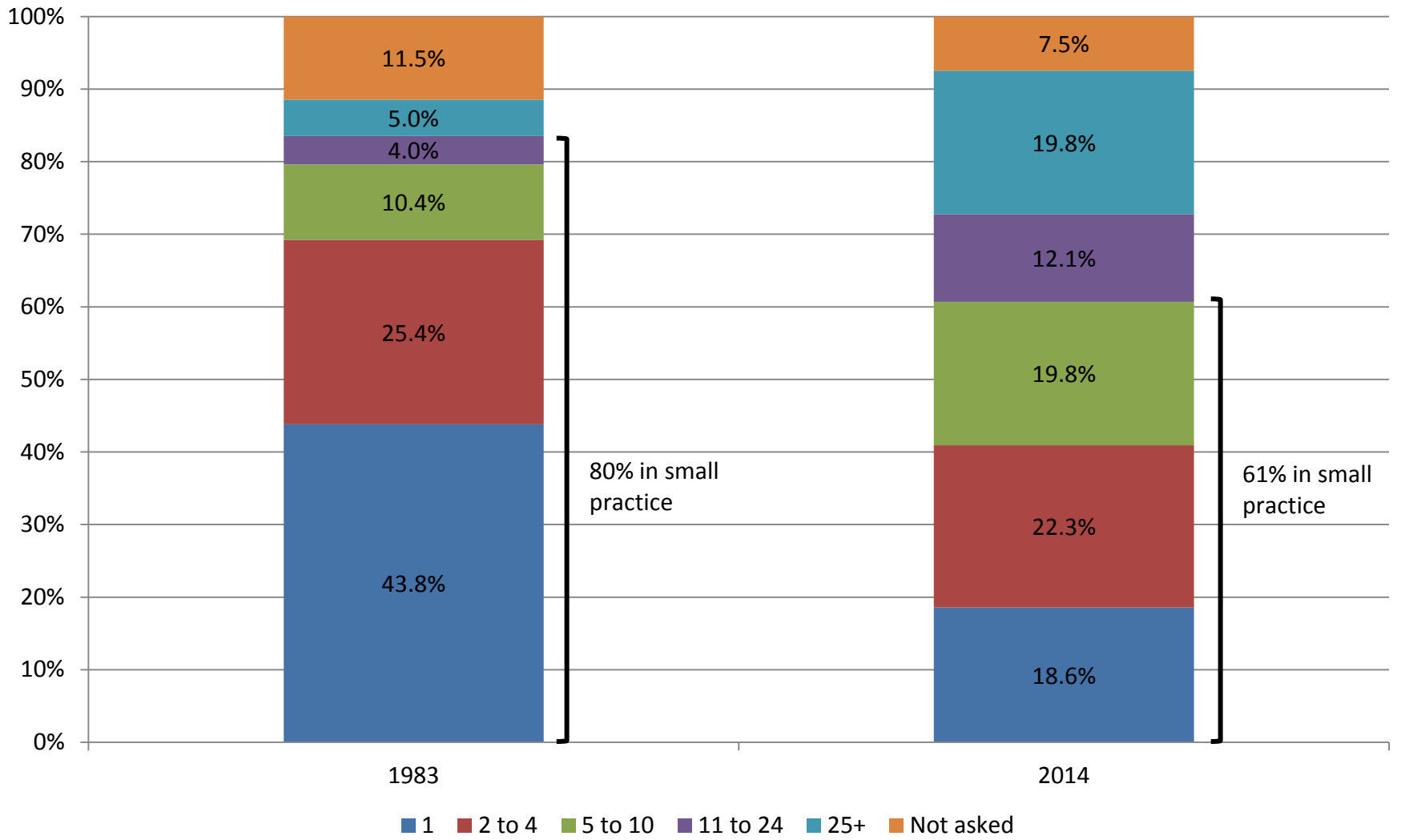
**Exhibit 4. Distribution of Physicians by Practice Size, 2012 and 2014 <sup>1</sup>**

	2012	2014
<b>Number of physicians in practice <sup>2</sup></b>		
1	20.0%	18.6%
2 to 4	20.0%	22.3% <sup>b</sup>
5 to 10	21.4%	19.8%
11 to 24	13.5%	12.1%
25 to 49	7.1%	6.3%
50+	12.2%	13.5%
<b>Direct hospital employee <sup>2</sup></b>	5.8%	7.5% <sup>a</sup>
	100%	100%
<b>N</b>	3326	3388

Source: Author's analysis of AMA 2012 and 2014 Physician Practice Benchmark Surveys.

Notes: <sup>1</sup> Significance tests are for year to year changes, within category. 'a' is p<0.01 and 'b' is p<0.05. <sup>2</sup> See footnote 2 for an explanation of why the percentages of physicians in solo practice and who are direct hospital employees are different than in Exhibit 1.

**Exhibit 5. Distribution of Physicians by Practice Size (Number of Physicians in Practice), 1983 and 2014**



Source: Author's analysis of AMA 1983 Socioeconomic Monitoring System Survey and AMA 2014 Physician Practice Benchmark Survey.

**Exhibit 6. Distribution of Single and Multi-specialty Physicians by Practice Size, 2014**

	Single Specialty Practice	Multi-specialty Practice
<b>Number of physicians in practice</b>		
1	1.5%	0.3%
2 to 4	42.0%	13.8%
5 to 10	31.7%	20.8%
11 to 24	13.7%	17.2%
25 to 49	6.7%	11.1%
50+	4.5%	36.9%
	100%	100%
<b>N</b>	1452	836

Source: Author's analysis of AMA 2014 Physician Practice Benchmark Survey.

**Exhibit 7. Distribution of Physicians by Practice Ownership Structure, 2012 and 2014 <sup>1</sup>**

	2012	2014
<b>Wholly owned by physicians</b>	60.1%	56.8% <sup>a</sup>
<b>At least some hospital ownership</b>	23.4%	25.6% <sup>b</sup>
Wholly owned by hospital	14.7%	15.6%
Jointly owned, physicians & hospital	6.0%	7.3% <sup>b</sup>
Unknown whether wholly or jointly owned	2.6%	2.7%
<b>Direct hospital employee</b>	5.6%	7.2% <sup>a</sup>
<b>Not-for-profit</b>	6.5%	6.4%
<b>Other <sup>2</sup></b>	4.4%	4.0%
	100%	100%
<b>N</b>	3466	3500

Source: Author's analysis of AMA 2012 and 2014 Physician Practice Benchmark Surveys.

Notes: <sup>1</sup> Significance tests are for year to year changes, within category. 'a' is p<0.01 and 'b' is p<0.05. <sup>2</sup> Other includes wholly owned by an HMO/MCO and fill-in responses.

**Exhibit 8. Distribution of Single and Multi-specialty Physicians by Practice Ownership Structure, 2014**

	Single specialty	Multi-specialty
<b>Wholly owned by physicians</b>	70.5%	38.6%
<b>At least some hospital ownership</b>	23.0%	44.6%
Wholly owned by hospital	14.4%	26.9%
Jointly owned, physicians & hospital	6.9%	14.3%
Unknown whether wholly or jointly owned	1.7%	3.4%
<b>Direct hospital employee</b>	0.0%	0.0%
<b>Not-for-profit</b>	3.6%	12.4%
<b>Other</b>	2.9%	4.5%
	100%	100%
<b>N</b>	1466	875

Source: Author's analysis of AMA 2014 Physician Practice Benchmark Survey.

Note: Other includes wholly owned by an HMO/MCO and fill-in responses.