

# **Policy Research Perspectives**

# New Data On Physician Practice Arrangements: Private Practice Remains Strong Despite Shifts Toward Hospital Employment

By Carol K. Kane, PhD and David W. Emmons, PhD

#### Abstract

Recent articles suggest a surge in the employment of physicians by hospitals. Despite the attention this subject has received, data on physician practice arrangements are lacking. A 2012 survey of physicians by the American Medical Association shows that while there has been a shift toward hospital employment, 53.2 percent of physicians were self-employed and a full 60 percent of physicians worked in practices that were wholly owned by physicians. Only 23 percent of physicians worked in practices that were at least partly owned by a hospital and another 5.6 percent were directly employed by a hospital. Payment and delivery reforms must recognize the wide range of practice types and sizes that physicians work in. While some physicians will easily be able to adapt to and engage in such reforms, for others they will prove more of a challenge.

#### Introduction

Recent articles in the medical trade press have highlighted a trend toward physician employment and the purchase of physician practices by hospitals.<sup>1</sup> A report from Accenture projected that the share of physicians in "independent practice" would fall to 36 percent in 2013, down from 57 percent in 2000.<sup>2</sup> These reports have been viewed as expected in part because they are consistent with the framework of new payment and delivery models under discussion, many of which are premised on a higher degree of integration between physicians and hospitals, and among physicians in different specialties. While these shifts in practice have been reported in certain locations<sup>3,4,5</sup> whether they are part of a national trend is unknown because of a lack of recent, nationally representative data on physicians. The American Medical Association's (AMA) 2012 Physician Practice Benchmark Survey (PPBS) offers the first nationally representative look at hospital ownership of practices from the physician perspective. It also provides unique data on physicians' choices with regard to single and multi-specialty practice.

#### **Existing Literature**

Data from the Medical Group Management Association (MGMA) Physician Compensation and Production Surveys suggest that the percentage of physicians working in practices owned by a hospital or integrated delivery system increased from 24 percent<sup>6</sup> in 2004 to 49 percent<sup>7</sup> in 2011. But, a trend among MGMA members should not be extrapolated to all physicians because MGMA

© 2013 American Medical Association. All rights reserved.

practices are disproportionately large. About two-thirds of physicians in the 2011 survey worked in practices with more than 50 full-time-equivalent physicians.<sup>8</sup> American Hospital Association (AHA) data show the number of physicians employed by community hospitals increased by 32 percent between 2000 and 2010, from 160,000 to 212,000.<sup>9</sup> The AHA, however, does not track physician practice arrangements more broadly. A 2012 survey by the American College of Cardiology shows the percentage of cardiologists employed by hospitals increased from 11 percent to 35 percent between 2007 and 2012.<sup>10</sup>

Interviews with representatives of hospitals, physician organizations, health plans and other knowledgeable market observers during the 2010 site visits of the Center for Studying Health System Change (HSC) suggest that hospital employment of physicians grew rapidly since 2007 in many of the 12 metropolitan communities visited.<sup>4</sup> Reasons for consolidation between practices and hospitals included stagnant reimbursement rates and a desire for better work-life balance on the physician side, and desire to expand market share on the hospital side.

## **Previous AMA Physician Surveys**

For many years, AMA surveys were the primary source of nationally representative data on patient care physicians. The AMA Socioeconomic Monitoring System (SMS) annual telephone-based physician surveys, which ran from the early 1980s through 1999, covered a wide range of topics including physician practice arrangements, managed care involvement, income and expenses, and hours and weeks of work.<sup>11</sup> The 2001 Patient Care Physician Survey (PCPS), which replaced the SMS, was similar in sample design and content but relied more heavily on mailed surveys.<sup>12</sup> Despite adding features to minimize the burden of the surveys on physicians, response rates to the surveys fell from 70 percent to around 50 percent over time.<sup>13</sup>

AMA's 2007/2008 Physician Practice Information (PPI) survey was a nationally representative survey of physicians intended and used to update the practice cost data that feed into the practice expense relative values units (RVUs) for the Medicare Physician Fee Schedule.<sup>14</sup> It also included questions on physician practice arrangements. The PPI survey collected more detailed expense information than earlier AMA surveys and took longer to complete. Because practice expense estimates were required at the specialty level for 42 specialties the PPI was a stratified sample across those specialties (approximately 100 responses per specialty), rather than a random sample across all specialties. The PPI had a response rate of 12 percent.

# **Current Study Data and Methods**

Similar to earlier AMA surveys, the 2012 Physician Practice Benchmark Survey (PPBS) is a nationally representative random sample of post-residency physicians who provided at least 20 hours of patient care per week and were not employed by the federal government at the time of the survey. Different than previous AMA surveys, the sample was drawn from the Epocrates Honors market research panel rather than directly from the AMA Masterfile. Epocrates markets a number of downloadable packages including a widely used free drug reference as well as other for-sale products.<sup>15</sup> Physicians can elect to join the Honors panel at the point of download for any software package. Epocrates verifies that their panel members are physicians by matching medical education (ME) numbers with ME numbers on the AMA Masterfile.

Approximately 75 percent of physicians who download Epocrates software elect to join the panel; this percentage varies little across observable physician characteristics, with a lower-bound of about 70 percent in any subcategory (personal communication from Epocrates). A small minority of physicians in the panel have joined it independently of downloading any software. Physicians receive an honorarium for their survey participation which varies by physician specialty and survey length.

Based on AMA Masterfile data, 685,000 physicians were patient care, post-resident and not employed by the federal government as of November 2012. At that time there were 155,000 physicians with those same characteristics in the Epocrates Honors panel, a 23 percent "participation rate" in the panel. The distributions of the 685,000 and the 155,000 physicians were similar with regard to specialty, age, gender, state, and whether the physician's practice was office or hospital based (using "present employment," a Masterfile measure of practice type/employer and size).

Physicians selected for participation in the PPBS (14,750) received an email invitation from C+R Research, the firm which helped implement the survey. Each email included a unique link to the survey website and it was ensured that each physician could submit the survey only a single time. The survey included a screener section to exclude physicians who were not in the sample frame. The first invitations were sent just after the November 2012 presidential elections and the field period closed in mid-December 2012. After accounting for physicians screened out as ineligible, the survey response rate was 28 percent and 3466 physicians completed the survey.

Weights were constructed to correct for possible non-response bias; all data presented here are weighted. The weights were constructed by C+R Research based on a weighting methodology developed for the survey by NORC. Using the Masterfile as the population, weights took into account specialty, age, gender and present employment. The weights (standardized to have a mean of 1) had a minimum of 0.3 and a maximum of 6.6. The 5<sup>th</sup> and 95<sup>th</sup> percentiles were 0.4 and 2.4, respectively. For each of the variables used to construct the weights, the unweighted distributions of the 3466 physicians who completed the survey were very similar and in some cases nearly identical to that of the Masterfile. Especially for the present employment variable, that even the unweighted distributions were similar should help address concerns that the Epocrates panel might be skewed toward physicians in particular practice types or sizes.

#### Measurement of Practice Arrangements in Physician Surveys

Despite asking whether an individual physician was an owner, earlier surveys of physicians have not asked whether the physician's *practice* was owned by its physician members or some larger entity such as a hospital or hospital system. In addition, researchers looking at single specialty groups in the late 1990s and early 2000s were struck "by the almost complete absence of research into the organization of specialty practice.<sup>16</sup>" In order to better understand the prevalence of different types of practice ownership structures and physicians' choices with regard to single and multi-specialty practice, we modified the questions on practice arrangements from prior AMA surveys. A brief discussion of these changes is needed to understand their impact on practice arrangement data

over time, and how earlier results on physician employment can be interpreted in light of new insights gleaned from the more detailed questions on the PPBS.

On AMA's earlier surveys, physicians or a designated proxy were first asked about ownership: whether the physician was a full or part owner of their main practice, an employee, or an independent contractor. Employees and independent contractors were asked if their employer or primary contract was with a hospital. If it was not a hospital, they were asked if it was an HMO, a free-standing care center, another physician or physician group, a medical school, a university, state or local government, or some other institution.

In the PPBS, physicians were first asked an ownership question similar to that in previous AMA surveys. After that, *all* physicians were asked if their practice was solo, single specialty group, multi-specialty group, faculty practice plan, hospital, ambulatory care facility, urgent care facility, HMO, or medical school. Physicians who chose hospital were asked if they were employed directly by a hospital or by a practice owned by a hospital. Finally, we asked physicians if the higher level ownership of their practice was wholly owned by practice physicians, wholly owned by an HMO/MCO, jointly owned by practice physicians and a hospital/hospital system, or wholly owned by a not-for-profit foundation.

This structure allows us to differentiate between physicians directly employed by a hospital and those working (as an owner or employee) in a practice owned by a hospital, something not possible in earlier physician surveys. Also new in the PPBS is information for owner physicians on whether their practice was jointly owned by a hospital, and whether their practice was a single specialty or a multi-specialty group practice. Because the structure of the PPBS differs from the PPI survey, we caution that while we draw inferences based on the two surveys that their results are not perfectly comparable.

# **Results from the PPBS**

#### Owner or Employee?

Research using earlier AMA surveys showed a shift away from physician ownership. Between 1983 and 1988 the ownership share fell from 75.8 percent to 72.1 percent of physicians.<sup>17</sup> By 1994 it was 57.7 percent, a drop of 14 percentage points over a six year period. The next seven years showed a slight reversal in trend; in 2001 61.0 percent of physicians were owners.<sup>12</sup> From the 2007/2008 AMA data the percentage was 61.1 percent.<sup>18</sup> Based on the 2008 Health Tracking Physician Survey by the Center for Studying Health System Change, 56.3 percent of physicians were owners in 2008.<sup>19</sup>

We found that 53.2 percent of physicians were full or part owners of their practices in 2012, 41.8 percent were employed, and 5.0 percent were independent contractors (Exhibit 1). The owner percentage is 8 percentage points lower than it was in 2007/2008. Consistent with earlier work, having an ownership stake in a practice was less common among younger than older physicians, ranging from 43.3 percent for physicians under age 40 to 60.0 percent among physicians age 55 and up.<sup>17,18</sup> Ownership was also less common among women than men, 38.7 percent compared to 59.6 percent.

Ownership varied almost two-fold across physician specialty, ranging from a low of 37.3 percent among pediatricians to a high of 71.9 percent among surgical sub-specialists (Exhibit 2). Practice ownership among the two primary care specialties other than pediatrics was also below the mean, 46.0 percent for internal medicine physicians and 39.8 percent for physicians in family practice. These specialty differences mirror those from 2001. In that year, ownership was also most common among surgical subspecialists (ranging from 76.4 percent to 83.3 percent depending on specialty) and below the mean for each of the three categories of primary care physicians (50.2 percent for pediatricians, 55.9 percent for internal medicine physicians, and 54.2 percent for physicians in family practice).<sup>12</sup>

## Practice Type

The most common type of practice arrangement in 2012 was single specialty practice, cited by 45.5 percent of physicians (Exhibit 1). Women physicians were less likely to work in single specialty groups then men physicians, 39.7 percent compared to 48.0 percent. This is partly due to gender differences in specialty choice. A larger share of women physicians are in primary care than men, 52.7 percent compared to 22.3 percent (data not shown), and primary care physicians are less likely than non-primary care physicians to be in single specialty groups. Single specialty practice accounted for more than half of radiologists (57.3 percent), anesthesiologists (55.8 percent) and obstetricians/gynecologists (52.7 percent) (Exhibit 3). Internal medicine was the only specialty in which single specialty practice was *not* the most often cited type of practice arrangement. Still, it was the practice type of over 30 percent of physicians in that specialty.

Multi-specialty groups accounted for the next largest share of physicians in 2012, 22.1 percent. Thirty-six percent of internal medicine physicians and 28.3 percent of family practice physicians were in multi-specialty groups. Emergency medicine physicians and psychiatrists were least likely to practice in multi-specialty groups (both at 12 percent).

Because the 2007/2008 PPI survey collected practice type data from employed physicians but not owners, it is not possible to measure how physician participation in single and multi-specialty practice has changed since that time. However, all physicians in the PPI were asked about the *setting* in which patient care was delivered; single specialty practice was cited more than twice as often as multi-specialty practice, 32.9 compared to 12.8 percent.<sup>18,20</sup> Research from the mid-2000s held that while there was a slowdown in the formation of multi-specialty groups during the late 1990s, single specialty groups grew in size and number particularly among non-primary care specialties such as cardiology and orthopedic surgery.<sup>16</sup> Despite these observations, there are no earlier estimates to compare with those from 2012.

Thirty years ago, in 1983, 40.5 percent of physicians were in solo practice.<sup>17</sup> By 1994 this percentage had fallen to 29.3 percent. In the last two AMA surveys just under one-quarter of physicians remained in solo practice, 23.2 percent in 2001<sup>12</sup> and 24.6 percent in 2007/2008.<sup>18</sup> We estimate that 18.4 percent of physicians were in solo practice in 2012, a decrease of about 6 percentage points from the previous survey. The share in solo practice ranged from 10.0 percent among physicians under age 40 to 25.3 percent among physicians age 55 and older. Women physicians were more likely than men to be in solo practice, 21.0 percent compared to 17.3 percent. By specialty, psychiatrists were most likely to be in solo practice (30.4 percent).

Direct employment by a hospital was reported by only 5.6 percent of physicians. Emergency medicine physicians were the clear outlier here. Twenty-one percent of physicians in that specialty reported hospital employment as their practice type, followed by 9.3 percent of pediatricians.

#### Practice Size

Nearly 60 percent of physicians worked in practices that had fewer than 10 physicians (Exhibit 4). Sixteen percent of physicians were in practices that had 10 to 24 physicians, 7.1 percent in practices with 25 to 49 physicians, and 12.2 percent in practices with at least 50 physicians. The remaining physicians were direct hospital employees, and were not asked about the number of physicians in their practice.

It is not possible to compare estimates of practice size from the PPBS to those from the PPI survey. The PPI, like earlier AMA surveys, did not distinguish between an employee of a practice owned by a hospital (for whom practice size is a relevant construct) and a direct hospital employee (for whom it is not). Both types of physicians (16.3 percent<sup>18</sup>) were considered to be hospital employees and were excluded from estimates of practice size. With that, 4.6 percent of physicians were estimated to be in groups of 50 or more physicians. However, because hospital owned groups tend to be larger than physician owned groups the 4.6 percent may be an underestimate of the share of physicians in the largest practices.

There is a marked difference between the sizes of the practices reported by physicians in single and multi-specialty groups. Thirty-nine percent of physicians in single specialty groups reported that their practice had 4 or fewer physicians while only 5.3 percent reported that their practice had at least 50 physicians. In contrast, 9.9 percent of multi-specialty physicians were in practices with 4 or fewer physicians and 35.5 percent were in practices with at least 50 physicians.

#### Hospital ownership of physician practices.

Sixty percent of physicians worked in practices that were wholly owned by practice physicians (Exhibit 5). This category includes physicians who were themselves owners of practices (48.9 percent) as well as physicians who were employed by or who contracted with those physician owned practices (11.1 percent) (data not shown). Twenty-three percent of physicians worked in practices that were at least partially owned by a hospital or hospital system, with the majority of that (14.7 percent) occurring in practices that were wholly owned by a hospital. Just over six percent of physicians worked in practices owned by a not-for-profit foundation and 5.6 percent were direct employees of a hospital or hospital system.

Single and multi-specialty groups have different ownership structures. The majority (71.8 percent) of physicians in single specialty groups reported that their practice was wholly owned by practice physicians. Twenty-two percent indicated that a hospital had an ownership stake in their practice. In contrast, physicians in multi-specialty groups were more likely to say that their practice was hospital owned (43.6 percent) than wholly owned by physicians (36.9 percent). In fact, 25.5 percent of physicians in multi-specialty practice reported that their practice was wholly owned by a hospital.

Physicians in small single or multi-specialty practices were more likely to report that their practice was wholly owned by practice physicians than were physicians in large practices (Exhibit 6). Seventy-two percent of physicians in groups of 2 to 4 reported this ownership structure compared to 45.6 percent of physicians in groups with 50 or more physicians. In contrast, the percentage of physicians who reported that a hospital had an ownership stake in their practice increased from 21.3 percent of physicians in groups of 2 to 4 to 37.3 percent of physicians in practices with 50 or more physicians in practices with 50 or more physicians of physicians in groups of 2 to 4 to 37.3 percent of physicians in practices with 50 or more physicians in practices with 50 or more physicians. Physicians in larger practices were also more likely to report that their practice was owned by a not-for-profit foundation.

This raises the question of what is driving the observed positive relationship between practice size and the likelihood of hospital ownership, and the higher rate of hospital ownership among multispecialty physicians. Is the rate of hospital ownership higher among multi-specialty physicians because their practices are large, or because of another attribute that makes those practices more valuable to the hospital than single specialty practices?

To get a better understanding of this issue, we look separately at physicians in single and multispecialty practices (middle and lower panels of Exhibit 6), and the rates of hospital ownership among physicians in different sized practices. Here, we no longer observe a positive relationship between increasing practice size and the likelihood of hospital ownership. Physicians in large single specialty practices were about as likely to report hospital ownership of their practice as physicians in small single specialty practices. In fact, among physicians in single specialty practice, hospital ownership was reported least often by physicians in 50+ practices. Also telling is that for every practice size category, physicians in multi-specialty practices were more likely to report hospital ownership than physicians in similarly-sized single specialty practices. Thus, it appears that the wider scope of practice in multi-specialty groups, not practice size, drives hospital ownership.

Investigations at the market level have suggested that hospitals focus on employing primary care physicians (or buying their practices) in order to maintain a strong referral base.<sup>4,5</sup> Our data are consistent with that. Among physicians in single specialty practice, hospital ownership was most often reported by internal medicine (45.1 percent) and family practice physicians (37.0 percent) (Exhibit 7). We noted earlier that multi-specialty practice was reported most often by internal medicine physicians and family practice physicians (Exhibit 3), suggesting that hospital interest in multi-specialty practice is also driven by the need to have strong ties with primary care physicians.

#### Discussion

After a five year gap in physician level data, the 2012 PPBS offers an update on the status of physician practice arrangements, and allows for a nationally representative response to the numerous articles of the past several years that have highlighted a surge in the employment of physicians by hospitals and the "death" of private practice.<sup>21</sup> Despite the attention this subject has received, data on physician practice arrangements are lacking. The PPBS is the first nationally representative physician survey that has gathered information on whether practices are owned by their physician members or some larger entity such as a hospital. It is timely because it captures the current environment for physicians as they begin to respond to incentives in the Affordable Care Act.

The PPBS data show that physicians provide care in a wide variety of practice types, sizes and ownership arrangements. In some respects it is clear that physicians are choosing different practice types than in the past. In particular, fewer physicians are full or part owners of a practice, or are in solo practice.

Fifty-three percent were owners in 2012, down 8 percentage points from 2007/2008, and 18.4 percent were in solo practice, down 6 percentage points from the earlier time frame.<sup>18</sup> Almost 42 percent of physicians were employees. While recent changes in practice may be partly motivated by incentives from payment and delivery reform, the changes we observed were already well underway in the early 1990s. Between 1983 and 1994 the owner and solo practice percentages fell by 18 and 11 percentage points, respectively.<sup>17</sup>

A new finding is that a full 60 percent of physicians worked in practices (either as employees or as owners themselves) that were wholly owned by physicians. Only 23 percent of physicians worked in practices that were at least partly owned by a hospital, and another 5.6 percent were directly employed by a hospital. In comparison, 16.3 percent of physicians were estimated to be hospital employees in 2007/2008.<sup>18</sup> The data on which that is based, however, did not distinguish direct employment by a hospital from employment in a practice owned by a hospital, nor did it provide information on whether the practices of owner physicians were also partly owned by a hospital.

The data suggest that trends toward hospital employment observed in certain areas of the country are part of a national trend.<sup>3,4,5</sup> Even so, we are not able to give a precise estimate of how the percentage of physicians working in hospital owned practices has changed because comparable information was not collected in earlier physician surveys.

Market level research suggests that hospitals focus on employing primary care physicians in order to maintain a strong referral base for high-margin specialty service lines.<sup>4,5</sup> Recently, an additional motivation for this focus may be expected increases in demand for primary care as the uninsured start to gain coverage in 2014 due to the ACA.<sup>22</sup> Our data support the primary care focus with respect to hospital ownership. Among physicians in single specialty practice, hospital ownership was most often reported by internal medicine (45.1 percent) and family practice physicians (37.0 percent). Still, we can't address whether hospital ownership has accelerated more quickly in primary care specialties than in others because of a lack of comparable information in earlier years. One limitation of our analysis is that because we don't capture relationships that are short of full employment (e.g., management services organization models and professional services agreements), we may understate the degree of integration between physicians and hospitals.<sup>23</sup>

Continued implementation of provisions within the ACA, combined with current and future payment and delivery reforms in the private and public sectors, will provide an array of opportunities and challenges for physicians. As we move forward, it should be recognized that physicians provide care in a wide range of practice types, sizes, and ownership arrangements. While some physicians will easily be able to adapt to and engage in Accountable Care Organizations or other health delivery structures that emphasize greater integration and care coordination, for others it will prove more of a challenge.

AMA Economic and Health Policy Research, September 2013

2013-2

		Gender				
	All	Women	Men	Under 40	40 to 54	55+
Ownership status						
Owner	53.2%	38.7%	59.6% <sup>a</sup>	43.3%	51.4% <sup>a</sup>	60.0% <sup>a</sup>
Employee	41.8%	55.7%	35.8% <sup>a</sup>	51.3%	44.2% <sup>a</sup>	34.7% <sup>a</sup>
Independent contractor	5.0%	5.7%	4.7%	5.4%	4.5%	5.3%
	100%	100%	100%	100%	100%	100%
Type of practice						
Solo practice	18.4%	21.0%	17.3% <sup>a</sup>	10.0%	15.8% <sup>a</sup>	25.3% <sup>a</sup>
Single specialty group	45.5%	39.7%	48.0% <sup>a</sup>	46.2%	46.7%	43.8%
Multi-specialty group	22.1%	23.0%	21.6%	27.0%	21.6% <sup>a</sup>	20.3% <sup>a</sup>
Direct hospital employee	5.6%	5.7%	5.6%	9.3%	6.3% <sup>b</sup>	3.1% <sup>a</sup>
Faculty practice plan	2.7%	2.3%	2.9%	2.4%	3.4%	2.2%
Other <sup>2</sup>	5.7%	8.2%	4.6% <sup>a</sup>	5.2%	6.3%	5.3%
	100%	100%	100%	100%	100%	100%
Ν	3466	976	2490	724	1747	995

Exhibit 1. Distribution Of Physicians By Ownership Status And Type Of Practice (2012)<sup>1</sup>

Source: AMA 2012 Physician Practice Benchmark Survey.

Notes: <sup>1</sup> For age, significance tests are shown relative to the under 40 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





	Practice type <sup>3</sup>			
	All types	Single specialty	Multi-specialty	
Number of physicians in practice				
1	20.0% <sup>1</sup>	0.8%	1.4%	
2-4	20.0%	37.9%	8.5% <sup>a</sup>	
5-9	18.9%	29.5%	16.2% <sup>a</sup>	
10-24	16.0%	19.7%	23.7% <sup>b</sup>	
25-49	7.1%	6.8%	14.7% <sup>a</sup>	
50+	12.2%	5.3%	35.5% <sup>a</sup>	
Direct hospital employee	5.8% <sup>2</sup>	n/a	n/a	
	100%	100%	100%	
Ν	3326	1601	727	

#### Exhibit 4. Distribution Of Physicians By Practice Size (2012)

Source: AMA 2012 Physician Practice Benchmark Survey.

Notes: <sup>1</sup> The share of physicians with a practice size of 1 is higher than the share in solo practice in Exhibit 1 for two reasons. First, some physicians who gave their main practice as something other than solo practice later indicated that there was only one physician in their main practice. This is evident in the single and multi-specialty columns of Exhibit 4. Second, the 4.0 percent of physicians who did not know how many physicians were in their practice are excluded from the denominator in Exhibit 4. <sup>2</sup> The percentage of physicians who are direct hospital employees differs slightly from that in Exhibit 1 because physicians who did not know how many physicians were in their practice are excluded from the denominator. <sup>3</sup> Significance tests are for single compared to multi-specialty. 'a' is p<0.01 and 'b' is p<0.05.

#### Exhibit 5. Distribution Of Physicians By Practice Ownership Structure (2012)

		Practice type <sup>3</sup>			
	All types	Single specialty	Multi-specialty		
Ownership structure					
Wholly owned by physicians	60.1%	71.8%	36.9% <sup>a</sup>		
At least some hospital ownership	23.4%	21.9%	43.6% <sup>a</sup>		
Jointly owned, physicians & hospital	6.0%	5.7%	12.7% <sup>a</sup>		
Wholly owned by hospital	14.7%	14.4%	25.5% <sup>a</sup>		
Unknown whether wholly or jointly owned	2.6%	1.8%	5.4% <sup>a</sup>		
Direct hospital employee	5.6%	n/a	n/a		
NFP foundation <sup>1</sup>	6.5%	3.7%	14.1% <sup>a</sup>		
Other <sup>2</sup>	4.4%	2.6%	5.4% <sup>a</sup>		
	100%	100%	100%		
Ν	3466	1617	794		

Source: AMA 2012 Physician Practice Benchmark Survey.

Notes: <sup>1</sup> Not-for-profit is abbreviated as NFP. <sup>2</sup> Other includes wholly owned by an HMO/MCO and fill in responses. <sup>3</sup> Significance tests are for single compared to multi-specialty. 'a' is p<0.01 and 'b' is p<0.05.

Practice ownership structure						
	Wholly owned	Some hospital				
	by physicians	ownership <sup>1</sup>	NFP	Other		N <sup>2</sup>
Single & multi-specialty	61.8%	28.1%	6.8%	3.2%	100%	2411
2-4 physicians	71.8%	21.3%	3.3%	3.6%	100%	662
5-9	67.8%	26.8%	4.0%	1.4%	100%	607
10-24	56.8%	29.3%	9.7%	4.2%	100%	489
25-49	54.8%	32.8%	7.8%	4.5%	100%	207
50+	45.6%	37.3%	13.9%	3.2%	100%	343
Single specialty	71.8%	21.9%	3.7%	2.6%	100%	1617
2-4 physicians	74.7%	20.1%	2.9%	2.4%	100%	593
5-9	74.3%	22.4%	2.6%	0.8%	100%	488
10-24	65.3%	24.8%	6.4%	3.5%	100%	325
25-49	70.3%	22.7%	1.6%	5.3%	100%	109
50+	75.7%	14.9%	4.6%	4.8%	100%	76
Multi-specialty	36.9%	43.6%	14.1%	5.4%	100%	794
2-4 physicians	43.3%	33.5%	7.2%	16.1%	100%	69
5-9	41.7%	44.6%	9.6%	4.1%	100%	119
10-24	41.0%	37.6%	15.8%	5.6%	100%	164
25-49	38.8%	43.2%	14.2%	3.7%	100%	98
50+	35.6%	44.7%	17.0%	2.7%	100%	267

Exhibit 6. Relationship Between Practice Ownership Structure And Practice Size (2012): Physicians In Single And Multi-Specialty Practice

Source: AMA 2012 Physician Practice Benchmark Survey.

Notes: <sup>1</sup> For single and multi-specialty physicians combined, whether a hospital has ownership in the practice is statistically different across practice size category (p<0.01) using a chi-squared test. Look separately at physicians in single and multi-specialty physicians it is not statistically different at even p<0.10. <sup>2</sup> The Ns for the practice size categories do not add to the total Ns. The single, multi-specialty, and combined totals include physicians who did not know the number of physicians in their practice or who said there was only one physician in their practice.



#### Endnotes

<sup>1</sup> See, for example, Elliot VS. Doctors describe pressures driving them from independent practice. American Medical News [Internet]. Chicago (IL): American Medical Association; 2012 Nov 19. [cited 2013 Sept 4]. Available from: <u>http://www.amednews.com/article/20121119/business/311199971/2/</u>

<sup>2</sup> Accenture. Clinical transformation: new business models for a new era in healthcare. Chicago (IL): Accenture; 2012 Sep [cited 2013 Sept 4]. Available from: <u>http://www.accenture.com/sitecollectiondocuments/pdf/accenture-clinical-transformation-new-business-models-for-a-new-era-in-healthcare.pdf</u>

<sup>3</sup> Katz AB, Anglin G, Carrier E, Dowling MK, Stark, LB, Yee T. Indianapolis hospital systems compete for well-insured, suburban patients [Internet]. Washington (DC): Center for Studying Health System Change; 2011 Dec [cited 2013 Sept 4]. (Community Report No. 12). Available from: <u>http://hschange.org/content/1270/1270.pdf</u>

<sup>4</sup> O'Malley AS, Bond AM, Berenson RA. Rising hospital employment of physicians: better quality, higher costs [Internet]. Washington (DC): Center for Studying Health System Change; 2011 Aug [cited 2013 Sept 4]. (Issue Brief No. 136). Available from: <u>http://hschange.org/content/1230/1230.pdf</u>

<sup>5</sup> O'Malley AS, Anglin G, Bond AM, Cunningham, PJ, Stark, LB, Yee T. Greenville & Spartanburg: surging hospital employment of physicians poses opportunities and challenges [Internet]. Washington (DC): Center for Studying Health System Change; 2011 Feb [cited 2013 Sept 4]. (Community Report No. 6). Available from: <u>http://hschange.org/content/1189/1189.pdf</u>

<sup>6</sup> Medical Group Management Association. Demographic tables-medical practice table 6: organization ownership, in: physician compensation and production survey: 2005 report based on 2004 data. Englewood (CO): Medical Group Management Association; 2005.

<sup>7</sup> Medical Group Management Association. Demographics-medical practice table 8: majority ownership, in: physician compensation and production survey: 2012 report based on 2011 data. Englewood (CO): Medical Group Management Association; 2012.

<sup>8</sup> Medical Group Management Association. Demographics-medical practice table 20: FTE physicians, in: physician compensation and production survey: 2012 report based on 2011 data. Englewood (CO): Medical Group Management Association; 2012.

<sup>9</sup> Health Forum LLC. AHA hospital statistics 2012 edition. Chicago (IL): Health Forum LLB; 2011.

<sup>10</sup> American College of Cardiology. ACC's 2012 practice census shows continued changes in practice landscape [Internet]. Washington (DC): American College of Cardiology; 2012 Sep 10. [cited 2013 Sept 4]. Available from <u>http://www.cardiosource.org/en/news-</u> <u>media/publications/cardiology-magazine/acc-practice-census-2012.aspx</u>

<sup>11</sup> Center for Health Policy Research. Physician socioeconomic statistics: 2000-2002 Edition. Chicago (IL): American Medical Association; 2001.

<sup>12</sup> Center for Health Policy Research. Physician socioeconomic statistics: 2003 Edition. Chicago (IL): American Medical Association; 2003.

<sup>13</sup> The Center for Studying Health System Change also noted a decline response rate to its telephone based Community Tracking Study (CTS) Physician Surveys. See, for example, CTS Physician Surveys and the HSC 2008 Health Tracking Physician Survey [cited 2013 Sept 4]. Available from: <u>http://www.hschange.com/index.cgi?data=04</u>

<sup>14</sup> Information on the PPI survey [cited 2013 Sept 4] is available from <u>http://www.ama-assn.org/ama/pub/physician-resources/solutions-managing-your-practice/coding-billing-insurance/the-resource-based-relative-value-scale/physician-practice-information-survey.page.</u>

<sup>15</sup> Epocrates was acquired by athenahealth on May 12, 2013.

<sup>16</sup> Casalino LP, Pham H, Bazzoli G. Growth of single-specialty medical groups. Health Aff (Millwood). 2004;23(2):82-90.

<sup>17</sup> Kletke PR, Emmons DW, Gillis KD. Current trends in physicians' practice arrangements: from owners to employees. JAMA. 1996;276(7):555–60.

<sup>18</sup> Kane CK. The practice arrangements of patient care physicians, 2007-2008: an analysis by age cohort and gender [Internet]. Chicago (IL): American Medical Association; 2009 [cited 2013 Sept 4]. (Policy Research Perspective 2009-6). Available from <u>http://www.ama-assn.org/resources/doc/health-policy/prp-200906-phys-prac-arrange.pdf</u>

<sup>19</sup> Boukus E, Cassil A, O'Malley AS. A snapshot of U.S. physicians key findings from the 2008 health tracking physician survey [Internet]. Washington (DC): Center for Studying Health System Change; 2009 Sep [cited 2013 Sept 4]. (Data Bulletin No. 35). Available from: http://www.hschange.com/CONTENT/1078/1078.pdf

<sup>20</sup> Asking about the setting in which patient care is provided is different than asking about the practice that you own or are employed in. For example, a surgeon may be an owner or employee of a single specialty practice, but may spend more hours in the hospital performing surgery and seeing patients after surgery than he or she does in the office.

<sup>21</sup> See, for example, National Center for Policy Analysis. The death of physician-owned private practices. Dallas (TX): NCPA; 2013 Mar 20 [cited 2013 Sept 4]. Available from: <u>http://www.ncpa.org/sub/dpd/index.php?Article\_ID=22971</u>

<sup>22</sup> Katz AB, Bond AM, Carrier ER, Docteur E, Quach CW, Yee T. Cleveland hospital systems expand despite weak economy [Internet]. Washington (DC): Center for Studying Health System Change;
2010 Sep [cited 2013 Sept 4]. (Community Report No. 2). Available from: <a href="http://hschange.org/content/1154/1154.pdf">http://hschange.org/content/1154/1154.pdf</a>

<sup>23</sup> Maat ST. Hospitals are buying, but doctors don't have to sell. American Medical News [Internet]. Chicago (IL): American Medical Association; 2013 Apr 22 [cited 2013 Sept 4]. Available from: <u>http://www.amednews.com/article/20130422/business/130429981/4/</u>