

Factors Influencing Career Longevity in Pediatric Hospital Medicine

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ABSTRACT

BACKGROUND AND OBJECTIVES: Pediatric hospital medicine (PHM) is a growing field recently approved by the American Board of Pediatrics as a subspecialty. Understanding factors associated with hospitalist retention is important for workforce planning. Our objective for this study was to examine the proportion of pediatric hospitalists who remained in PHM over a 5-year period and identify factors associated with retention.

METHODS: We used 2012 and 2016 data from the American Academy of Pediatrics' Pediatrician Life and Career Experience Study. Retention was defined as being a self-reported hospitalist on both surveys. χ^2 tests were used to examine relationships between retention and variables within 3 categories: demographics, position-related factors, and factors related to stress and satisfaction. A multivariable logistic regression was used to further assess relationships between select factors and retention.

RESULTS: In 2012, 206 of 1804 survey respondents were hospitalists (11%); 180 of these 206 individuals responded again in 2016, and 122 (68%) remained hospitalists. In the multivariable analysis, individuals earning \geq \$175 000 were more likely than those earning less (adjusted odds ratio [aOR] = 3.93; 95% confidence interval [CI]: 1.26–12.25) and those more satisfied with their job were more likely than those less satisfied (aOR = 3.28; 95% CI: 1.22–8.80) to remain hospitalists. Respondents with more concern about educational debt were less likely than those less concerned to remain hospitalists over 5 years (aOR = 0.42; 95% CI: 0.20–0.90).

CONCLUSIONS: Two-thirds of early- to mid-career hospitalists remained in PHM 5 years later. Financial factors and job satisfaction appear to play an important role in retention; consideration should be given to the impact of these factors on the PHM workforce.

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Pediatric hospital medicine (PHM) is 1 of the largest fields of pediatric practice in the United States, with >3000 pediatric hospitalists estimated to be in practice nationally.¹ Survey data from the American Board of Pediatrics (ABP) and American Academy of Pediatrics (AAP) suggest that 8% to 10% of graduating pediatric residents plan to pursue PHM after residency.^{2,3} Although estimates of residency graduates entering the field have been similar across studies, previous research has revealed divergent estimates regarding intent to remain in PHM long-term. ABP survey data from individuals registering for the general pediatrics certification examination in 2012 and 2013 suggested that only 43% of those entering the field saw hospital medicine as a long-term career goal.² In contrast, recent analysis of 10 years of AAP survey data suggests that 71% of graduating pediatric residents entering PHM intend to remain hospitalists.^{2,3}

Although intent to remain in PHM was explored in these recent studies, current workforce literature is lacking data on actual retention in PHM over time and factors associated with hospitalist retention. These data are needed to inform estimates of the size and characteristics of the PHM workforce nationally. In 2016, PHM was approved by the American Board of Medical Specialties to become a pediatric subspecialty.^{1,4} Eligibility for subspecialty certification can be achieved through 2 pathways. Pediatric residents graduating in 2019 are the final group to be eligible for PHM board certification through a practice pathway, which requires beginning work as a hospitalist in July 2019 and accruing 4 years of practice by 2023. The training pathway for eligibility requires completion of a PHM fellowship.⁵ Identifying demographic and position-related factors associated with PHM retention may help predict the number and characteristics of individuals who will seek fellowship positions, which will guide training program development. At the hospital level, understanding job characteristics that are correlated with retention may help to promote

longevity in PHM and reduce hospitalist turnover.

In this study, we analyzed data from the AAP Pediatrician Life and Career Experience Study (PLACES), an ongoing survey project that originated in 2012 to track career and life choices of early-career pediatricians longitudinally.⁶ We evaluated the number of early- to mid-career pediatricians practicing in the United States who began a career in hospital medicine and remained working in this field after 5 years. We also identified factors associated with PHM career retention to explore whether longevity in the field may be predicted by personal or professional factors.

METHODS

In this study, we used a cross-sectional design to analyze data from surveys conducted in 2012 and 2016 on 2 PLACES cohorts (2002–2004 residency graduates and 2009–2011 residency graduates). PLACES participants were randomly selected from a database that included all pediatricians graduating from US residency programs; participants are surveyed biannually.⁶ Pediatricians identifying as hospitalists in 2012 were followed-up

longitudinally, and retention was defined as being a self-reported hospitalist on surveys administered in 2012 and 2016.

Variables hypothesized to be associated with retention in PHM were divided into 3 categories: (1) demographic characteristics, (2) position-related factors, and (3) factors related to stress and satisfaction. These predictor variables were derived from the 2012 survey data; these questions were unchanged between 2012 and 2016. χ^2 tests were used to analyze associations between these variables and retention in PHM. A multivariable logistic regression was then used to further examine variables associated with retention in the bivariate analysis ($P < .10$), controlling for demographic characteristics.

The AAP Institutional Review Board approved the study. All analyses were conducted with IBM SPSS Statistics version 25 (IBM SPSS Statistics, IBM Corporation Armonk, NY), and $P \leq .05$ was used to define statistically significant differences.

RESULTS

Of 1804 respondents, 206 (11.4%) self-identified as hospitalists in 2012. A total of

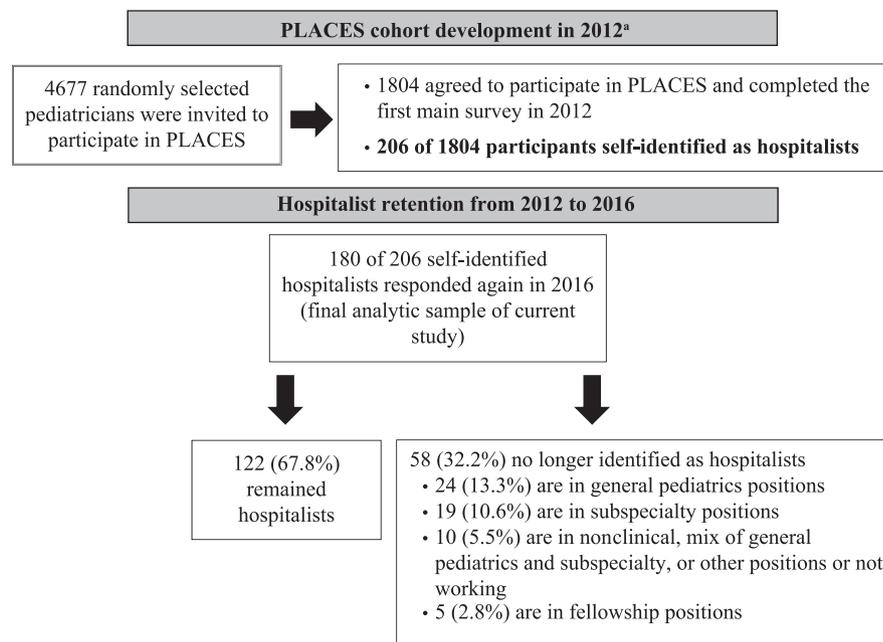


FIGURE 1 PLACES cohort development and hospitalist career choices over time. ^aAdditional detail on PLACES cohort development was previously published.⁶

TABLE 1 Hospitalist Retention by Demographics, Position-Related Factors, and Stress and Satisfaction Factors: Bivariate Analysis

	Still a Hospitalist in 2016, <i>n</i> (%)	Not Still a Hospitalist in 2016, <i>n</i> (%)	<i>P</i>
Demographic factors			
Cohort (residency graduation years)			.17
2002–2004	44 (74.6)	15 (25.4)	
2009–2011	78 (64.5)	43 (35.5)	
Sex			.36
Male	26 (74.3)	9 (25.7)	
Female	96 (66.2)	49 (33.8)	
Country of medical training			.05
International	12 (92.3)	1 (7.7)	
United States	110 (65.9)	57 (34.1)	
Race			.82
White, non-Hispanic	81 (69.2)	36 (30.8)	
Asian American	19 (63.3)	11 (36.7)	
Hispanic, African American, or other	22 (66.7)	11 (33.3)	
Region of practice			.61
Northeast	29 (65.9)	15 (34.1)	
Midwest	32 (76.2)	10 (23.8)	
South	36 (64.3)	20 (35.7)	
West	25 (65.8)	13 (34.2)	
Has children			.08
No	48 (60.8)	31 (39.2)	
Yes	74 (73.3)	27 (26.7)	
Concern about educational debt			.01
Not concerned	69 (76.7)	21 (23.3)	
Very or somewhat concerned	53 (58.9)	37 (41.1)	
Position-related factors			
Academic appointment			.37
No	67 (65.0)	36 (35.0)	
Yes	55 (71.4)	22 (28.6)	
Patient population insurance type			.72
≥50% public	54 (69.2)	24 (30.8)	
<50% public	68 (66.7)	34 (33.3)	
Primary work setting			.16
Community hospital or clinic	53 (71.6)	21 (28.4)	
Medical school or university	45 (69.2)	20 (30.8)	
Other	20 (54.1)	17 (45.9)	
Work area			.07
Urban, inner city	32 (62.7)	19 (37.3)	
Urban, not inner city	58 (78.4)	16 (21.6)	
Suburban	28 (58.3)	20 (41.7)	
Rural	3 (50)	3 (50.0)	
Work hours			.22
Part-time	20 (58.8)	14 (41.2)	
Not part-time	102 (69.9)	44 (30.1)	
Research time			.11
No research time	95 (65.1)	51 (34.9)	
Any research time	27 (79.4)	7 (20.6)	

TABLE 1 Continued

	Still a Hospitalist in 2016, <i>n</i> (%)	Not Still a Hospitalist in 2016, <i>n</i> (%)	<i>P</i>
Teaching time			.97
No teaching time	53 (67.9)	25 (32.1)	
Any teaching time	69 (67.6)	33 (32.4)	
Income, \$			<.01
≤175 000	91 (63.2)	53 (36.8)	
≥175 000	31 (86.1)	5 (13.9)	
Factors related to stress and satisfaction			
Timing of work schedule availability			.02
Knowledge of schedule <2 mo in advance	30 (55.6)	24 (44.4)	
Knowledge of schedule ≥2 mo in advance	92 (73.0)	34 (27.0)	
Schedule is flexible			.21
Strongly agree or agree	91 (70.5)	38 (29.5)	
Strongly disagree, disagree, or neither	31 (60.8)	20 (39.2)	
Family supports efforts to balance work and home responsibilities			.09
Strongly agree or agree	113 (69.8)	49 (30.2)	
Strongly disagree, disagree, or neither	9 (50.0)	9 (50.0)	
Colleagues support efforts to balance work and home responsibilities			.75
Strongly agree or agree	92 (67.2)	45 (32.8)	
Strongly disagree, disagree, or neither	30 (69.8)	13 (30.2)	
Stressed at work			.72
Not at all or a little stressed	77 (68.8)	35 (31.3)	
Moderately or very stressed	45 (66.2)	23 (33.8)	
Work is source of frustration			.52
Strongly agree or agree	28 (63.6)	16 (36.4)	
Strongly disagree, disagree, or neither	93 (68.9)	42 (31.3)	
Job is satisfying			<.001
Strongly agree or agree	110 (72.8)	41 (27.2)	
Strongly disagree, disagree, or neither	11 (39.3)	17 (60.7)	

The final analytic sample included 180 individuals who self-reported as hospitalists at both data collection points. Percentages were calculated as the percentage of total respondents for each individual question; 5 questions had incomplete responses (*n* ranging from 176 to 179). Demographic factors are from the 2012 survey responses; the current career is from the 2016 survey responses.

TABLE 2 Factors Associated With Hospitalist Retention Among Early- and Mid-Career Pediatricians: Multivariable Analysis

Variable	aOR	95% CI	<i>P</i>
Income >\$175 000	3.93	1.26–12.25	.02
Satisfied with job	3.28	1.22–8.80	.02
Family supports efforts to balance work and home responsibilities	3.16	0.88–11.34	.08
Knows schedule 2+ mo in advance	1.88	0.86–4.14	.12
Very or somewhat concerned about educational debt	0.42	0.20–0.90	.03

The model included position-, stress-, and satisfaction-related factors, with *P* < .10 in the bivariate analysis, and was adjusted for cohort, sex, country of medical school graduation (United States versus international medical graduate), children, and geographic work area (inner city [as the referent], urban or not inner city, suburban, and rural).

180 of these 206 hospitalists responded again in 2016, encompassing the final analytic sample; 122 (68%) of these individuals remained hospitalists in 2016. Cohort development and career choices of those not remaining in PHM at the time of this second survey are shown in Fig 1. Of note, a total of 156 of 1530 survey respondents in 2016 self-identified as hospitalists (10.2%); we have not included 34 individuals who newly identified as hospitalists on the 2016 survey in our analyses.

The characteristics of respondents who remained hospitalists over the 5-year study

period relative to those who left the field are indicated in Table 1. Among the demographic factors we examined, country of medical school graduation and concerns surrounding educational debt were significantly associated with retention. Among position-related factors, income was significantly associated with longevity in PHM, with those earning \geq \$175 000 in 2012 more likely than those earning less to remain in PHM. Among factors related to stress and satisfaction, only timing of schedule availability and job satisfaction were significantly associated with retention. Participants who knew their work schedule \geq 2 months in advance were more likely to remain hospitalists than those with less notice. Those who expressed overall satisfaction with their job were more likely to remain hospitalists than those less satisfied. Of note, nearly 85% of respondents reported satisfaction with their jobs.

In the multivariable analysis (Table 2), respondents who earned higher salaries were more likely to remain in PHM than those earning less (adjusted odds ratio [aOR] = 3.93; 95% confidence interval [CI]: 1.26–12.25), and those very or somewhat concerned with educational debt were significantly less likely to remain in PHM than those not concerned (aOR = 0.42; 95% CI: 0.20–0.90). Respondents who reported higher levels of job satisfaction were more likely to remain in PHM than those who were less satisfied (aOR = 3.28; 95% CI: 1.22–8.80).

DISCUSSION

Among a national sample of pediatricians, nearly 70% of respondents self-identifying as pediatric hospitalists in 2012 remained hospitalists after 5 years. This exceeds some previous estimates of intended retention in PHM, suggesting that some individuals intending to enter PHM for only the short-term may in fact remain in the field.² Individuals leaving PHM pursued general pediatrics at approximately equal rates as other subspecialties, suggesting that PHM is not a consistent stepping stone to any other particular professional role.

Financial factors appear to play an important role in PHM retention. Half of the study participants reported that they were

somewhat or very concerned about their educational debt, and those with more concern were significantly less likely to be hospitalists after 5 years. Compensation also played a role in retention, with those earning \geq \$175 000 demonstrating little attrition. Finances may impact decisions surrounding both the choice of PHM as a career and whether to pursue PHM fellowship training. As noted in previous studies, those concerned with loan debt may forego additional training to try to improve their financial situations quickly.^{3,7}

Overall job satisfaction also appears to play an important role in retention in PHM. A majority of this cohort reported positive job satisfaction, supporting findings of previous studies revealing high levels of job satisfaction among both pediatric and adult hospitalists.^{9–11} In previous studies in adult hospital medicine, researchers have aimed to synthesize factors contributing to job satisfaction into measures of provider morale and “job fit” and have associated these measures with retention; improvement in these areas has correlated with decreased intent to leave current positions.^{12,13} Both morale and job fit appear to improve as longevity in hospital medicine increases,^{12,13} suggesting that attrition may also decrease after the early years of one’s career in hospital medicine. Further efforts to identify and promote professional factors that improve satisfaction may help to increase longevity in PHM.

Although study limitations include potential for bias in self-reported responses, small cell sizes for some groups, and inability to explore career aspects not assessed in PLACES, results of this study have implications for PHM training program development and future workforce planning. Our finding that the proportion of hospitalists remaining in PHM over time was higher than some previous estimates is promising. Although the number of training programs for PHM has increased,¹⁴ if a majority of individuals anticipating a PHM career opt to pursue fellowship, this growth may need to continue in the coming years to accommodate continued growth in the field. Conversely, little is known about what factors might promote or deter individuals

from pursuing PHM fellowship; this is an important area for future study.

As PHM evolves as an ABP subspecialty, continued workforce research will be critical. An increase in PHM retention might be anticipated among fellowship-trained hospitalists given their educational investment. Efforts to characterize PHM salary benchmarks among hospitalists with and without fellowship training will be particularly important. Further research focused on factors impacting job satisfaction may also contribute to positive programmatic changes facilitating retention.

CONCLUSIONS

In this national sample of pediatricians, 11% reported working as pediatric hospitalists, and nearly 70% of these remained hospitalists over a 5-year period. These findings inform national estimates about the size of the PHM workforce and have implications for the number of fellowship spots that may be needed to support trainees wishing to pursue PHM subspecialty certification. Financial factors and overall job satisfaction appear to be the most important drivers of PHM retention. Careful assessment of the financial impacts of choosing and remaining in PHM are critical, particularly as the field evolves as an ABP-certified subspecialty.

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