A Snapshot of the Practice of Sleep Medicine: A Survey Solicited by the American Academy of Sleep Medicine

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Health care delivery evolves as advances in medical practice occur and the health care environment changes. Recent imperatives to reduce cost, improve value, and enhance patient-related outcomes are amongst the most salient forces driving change in health care delivery. After two decades of dramatic growth fueled by research that established the high prevalence, untoward consequences, and treatment benefits of sleep disorders, the field of Sleep Medicine faces archetypal challenges in this period of health care change.

The specialty of Sleep Medicine has developed over the last two-and-a-half decades amidst protean changes in our healthcare system. For some, sleep medicine occupies a portion of their practice, while others practice sleep medicine exclusively. Sleep medicine is truly an interdisciplinary field, including physicians from seven different specialties in both academic and private practice settings. Realizing this diversity, we sought to characterize aspects of our field including demographics, practice models, and compensation structure. To obtain this pilot information, the AASM Board of Directors contracted a consulting firm to survey AASM members. Between April 26 and May 15, 2012, McKinley Advisors, with input from the AASM Board of Directors, sent an online survey to 5,554 AASM members with working email addresses. In total, 753 (about 14%) of these members completed or partially completed the survey, a response rate considered better than usual for a physician group. As is often the case with pilot surveys, conclusions should be made with caution. For example, the Board judged that, due to the marked differences in practice styles, locations, and compensation structure and methods, the compensation data had limited utility. However, the survey provided substantial additional information that we feel is useful that we wanted to share with our membership.

The majority of the respondents (86%) were between the ages of 36-65 years old, including 35% who were 36-45 years old, 28% 46-55 years old, and 23% 56-65 years old. Most (77%) of the respondents were male. Among the respondents, 93% reported holding board certification in sleep medicine: 28% through the American Board of Sleep Medicine, 29% through the American Board of Medical Specialties, and 36% through both boards. Primary board certifications were from the American Board of Internal Medicine (ABIM, 51%), the American Board of Psychiatry and Neurology (ABPN, 31%),

the American Board of Pediatrics (ABP, 8%), the American Board of Otolaryngology (4%), the American Board of Family Medicine (3%), the American Board of Anesthesiology (2%), and other boards (2%). Respondents practicing entirely at academic institutions, as opposed to having at least part of their practice outside such settings, appeared more likely to have primary certification from the ABPN (39% vs. 29%) or the ABP (20% vs. 4%), and less likely to have primary certification from the ABIM (37% vs. 55%). The percentage of respondents who had practiced sleep medicine for only 1-5 years was high (31%) relative to those who had practiced for 6-10 years (23%), 11-15 years (17%), 16-25 years (21%), or longer (9%). The high proportion of recent sleep specialists (practicing 1-5 years) was more pronounced in academic settings (40%) than non-academic settings (27%).

Respondents indicated that they practiced in the South (41%), Midwest (23%), Northeast (23%), or West (20%). No single U.S. state was represented by more than 8% of the respondents. Respondents who practiced in clinical private practices (49%) outnumbered those in community hospitals (38%) and academic medical centers (34%). Only 19% practiced in free-standing sleep centers, 9% in independent diagnostic testing facilities, 8% in government institutions, and 3% in other settings. Those in the Northeast were most likely to practice in an academic medical center (50%) than any other type of facility. Those from the South and West were most likely to practice in a clinical private practice setting (60% and 56% respectively).

Sleep medicine physicians' patients are generally covered under private or commercial insurance (49%) and a majority (over 50%) require a referral (56%). About half of the respondents (52%) indicated that they treat pediatric patients.

Where Do Sleep Specialists Spend Their Time? (What Do They Do?)

The proportion of working hours dedicated to the sleep medicine activities varied widely among respondents. About one-third of respondents indicated they spend more than 75% of their working hours participating in sleep medicine activities. Forty-five percent replied that they dedicate 50% to 75% of their time on the same. A minority (18%) spend one-quarter or less of their working hours on sleep medicine activities. Respondents from academic settings and those from the West re-

gion were more likely to indicate spending a greater percentage of their time on activities related to sleep medicine.

The average number of hours per week spent on sleep medicine activity was reported to be 44 hours. The greatest numbers of hours was spent on clinical activities, namely clinical consultations (averaging 20 hours per week) and interpretation of sleep studies (averaging 12 hours per week). Nonclinical activities, such as teaching, research, and outreach, occupied a small proportion of respondents' time. It is of note that a majority of respondents indicated significant involvement in sleep studies. Sixty-two percent indicated they had interpreted more than 350 studies in 2011. Twenty-three percent interpreted between 151 and 350 studies, and only 13% interpreted fewer than 150 studies last year.

Activities Leading to Sleep Medicine-Related Compensation

One of four respondents indicated that the practice of sleep medicine provided most of their income (> 90%), and one-third indicated that sleep medicine accounted for less than one-third of their income. Compensation structure varied widely according to the practice type (academic vs. non-academic). One-third of the respondents indicated that their compensation was based partly on performance, mostly clinical productivity. Quality measures were included in determining compensation in 6% of the respondents only.

Summary

Although the overall response rate to the survey was low, there was good representation of respondents from all geographic areas, from a full range of practice settings, and representation from both genders, with a male predominance consistent with other fields. The survey indicated the diverse nature of sleep medicine, with representation of specialists from multiple medical disciplines and including a large number (particularly more recently trained individuals) of individuals practicing in academic settings. In reviewing the survey findings, there are several findings worth special consideration in relationship to changes in our field: subspecialty representation and our pipeline; the proportion of time sleep specialists spend in sleep medicine vs other areas; the proportion of time (and income associated with) sleep study interpretations; and compensation structures to enhance the quality of sleep medicine.

Subspecialties within Sleep Medicine

The low proportion of specialists with board certification in pediatrics, concomitant with a majority of respondents reporting that their practice includes pediatric patients, points to a potential dearth of pediatric specialists engaged in the practice of sleep medicine. The AASM, in collaboration with pediatric organizations may consider further evaluating the work force needed to best address the needs of children with sleep disorders.

Focus on the Practice of Sleep Medicine

The survey indicated that sleep specialists vary considerably in the proportion of time spent specifically on sleep medicine

activities. This may indicate a vulnerability in the field: if incentives to practice sleep medicine significantly change, practitioners may be routed to other areas, reducing the availability of sleep medicine services.

Impact of Changes in Sleep Study Interpretations and Aligning Reimbursement with "Value"

The survey identified that approximately one-third of sleep medicine-related activities is spent in sleep study interpretation and that overseeing the conduct of sleep studies is a large component of the practice of sleep medicine. As approaches for using laboratory-based vs home-based technologies change, the amount of time and effort spent by sleep medicine specialists on laboratory-based diagnostic testing (as well as compensation derived from this activity) is likely to decrease. This change indicates a need to re-vision the practice of sleep medicine, potentially repartitioning the time spent on diagnostic-, intervention-, management-, teaching- and research-related activities. Although one solution would be for individual practitioners to increase the total volume of diagnostic tests conducted, which would require new systems for improving various efficiencies without compromising quality, other responses would involve new care paths that more explicitly emphasize chronic disease management and patient education. The latter approach is consistent with the current "value-based" goals of health care reform. To make this possible, "value" needs to be recognized and systems need to be in place to allow it to be measured. In this light, the small minority (6%) of practitioners who report that their compensation is tied to quality metrics identifies an opportunity to further align the practice of sleep medicine with quality metrics and compensation structures that support the delivery of high quality sleep medicine specialty services that have a high impact of patient-related outcomes. Furthermore, the finding that most survey respondents currently spend only a fraction of their time on non-clinical activities (including teaching, research, and outreach) indicates the potential for sleep medicine practitioners to design careers where such activities play a more prominent role.

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DISCLOSURE STATEMENT

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