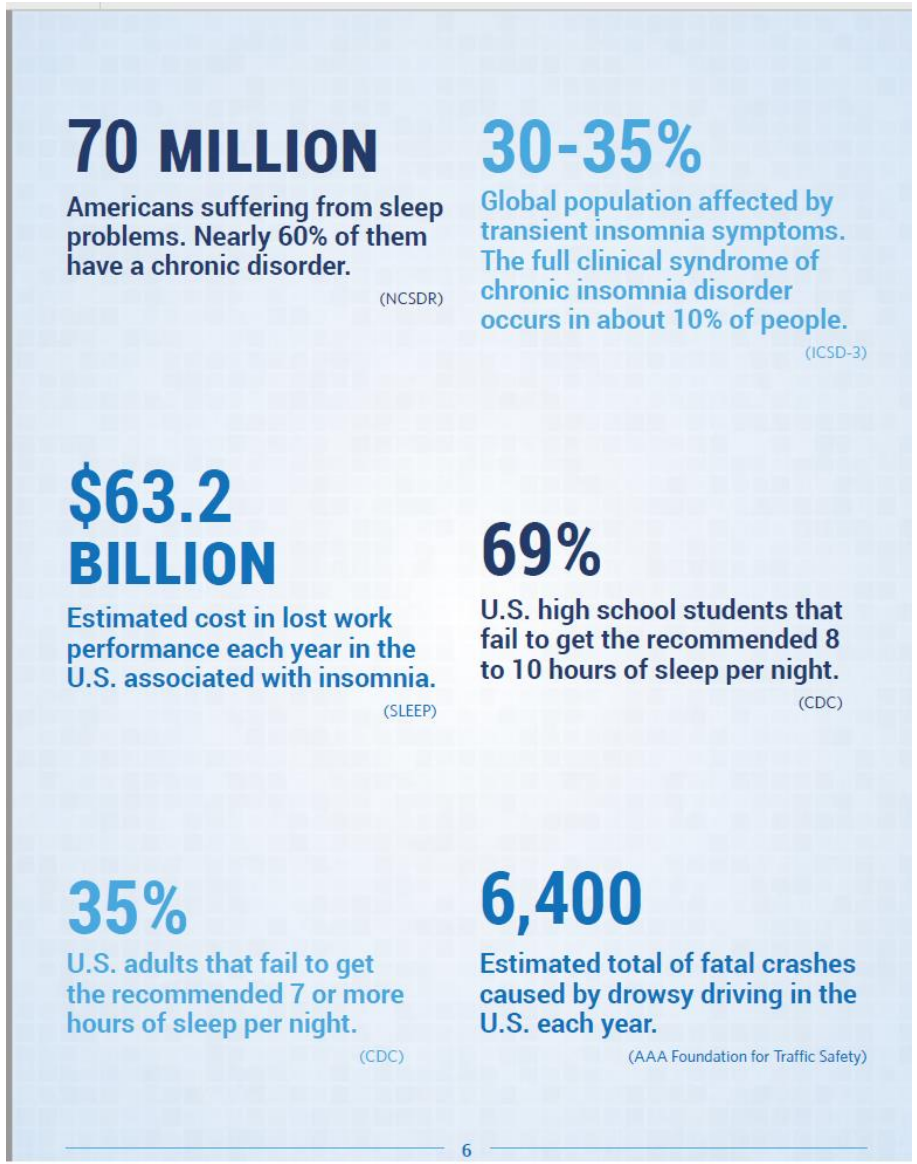
Today Is Not Tomorrow in Sleep Technology”

Laura Linley, RPSGT, RST, CRT

Objectives

- Discuss changes in sleep testing standards.
- Describe the specific job responsibilities that sleep technologists will fulfill.
- Differentiate the current sleep technologist from the future sleep technologist.
- Review the AAST Facing the Future Needs Assessment



[Unlock the Secrets of Sleep: a Physician's Introduction to the Field of Sleep Medicine]

Change is Here

- Pay attention to the changes occurring in the healthcare environment!

- These changes will affect…
  - How sleep centers are structured
  - **The role of the sleep technologist**

The Future of Sleep Technology: A Report from AAST Summit Meeting 9/21/2013

Regulatory and Economic Pressures

- Pre-Authorizations
- HSAT Utilization

Focus Shift from Diagnosis to Outcomes

- Patient Education
- Monitoring/Follow-up
- Sleep Team

SPECIAL ARTICLES

ICSM

Journal of Clinical Sleep Medicine

The Future of Sleep Technology: Report from an American Association of Sleep Technologists Summit Meeting

Rita Brooks, M.Ed.; Yolanda Trimble

American Association of Sleep Technologists, Darien, IL

The American Association of Sleep Technologists (AAST) Board of Directors hosted a Sleep Technology Summit on September 21, 2013 with the goals of identifying changes in the delivery of diagnostic and treatment services to sleep disorders patients, predicting the impact on sleep technologists, identifying new roles for sleep technologists, and determining appropriate education to prepare technologists for the future. A carefully chosen panel of speakers focused on the business skills necessary to provide care cost effectively and the clinical skills that will be essential for the technologist of the future to help care for patients with sleep disorders. A group of selected currently tested in sleep centers. Testing these patients will require technologists with a higher level of training, experience, and sophistication.

A second area of consensus was that the focus in medicine is changing from diagnosis to outcomes. New models of integrated care will include an increased focus on patient education, monitoring, and follow-up. The most effective treatments will require an individualized, patient-centered approach. A workforce analysis shows that the number of trained physician specialists will be inadequate to provide this care. Well-trained sleep medicine practitioners at many levels

A2Zzz Archive Vol 23, Number 3

Frost & Sullivan/AASM report 2016

$12.4 billion spent DX and TX for OSA

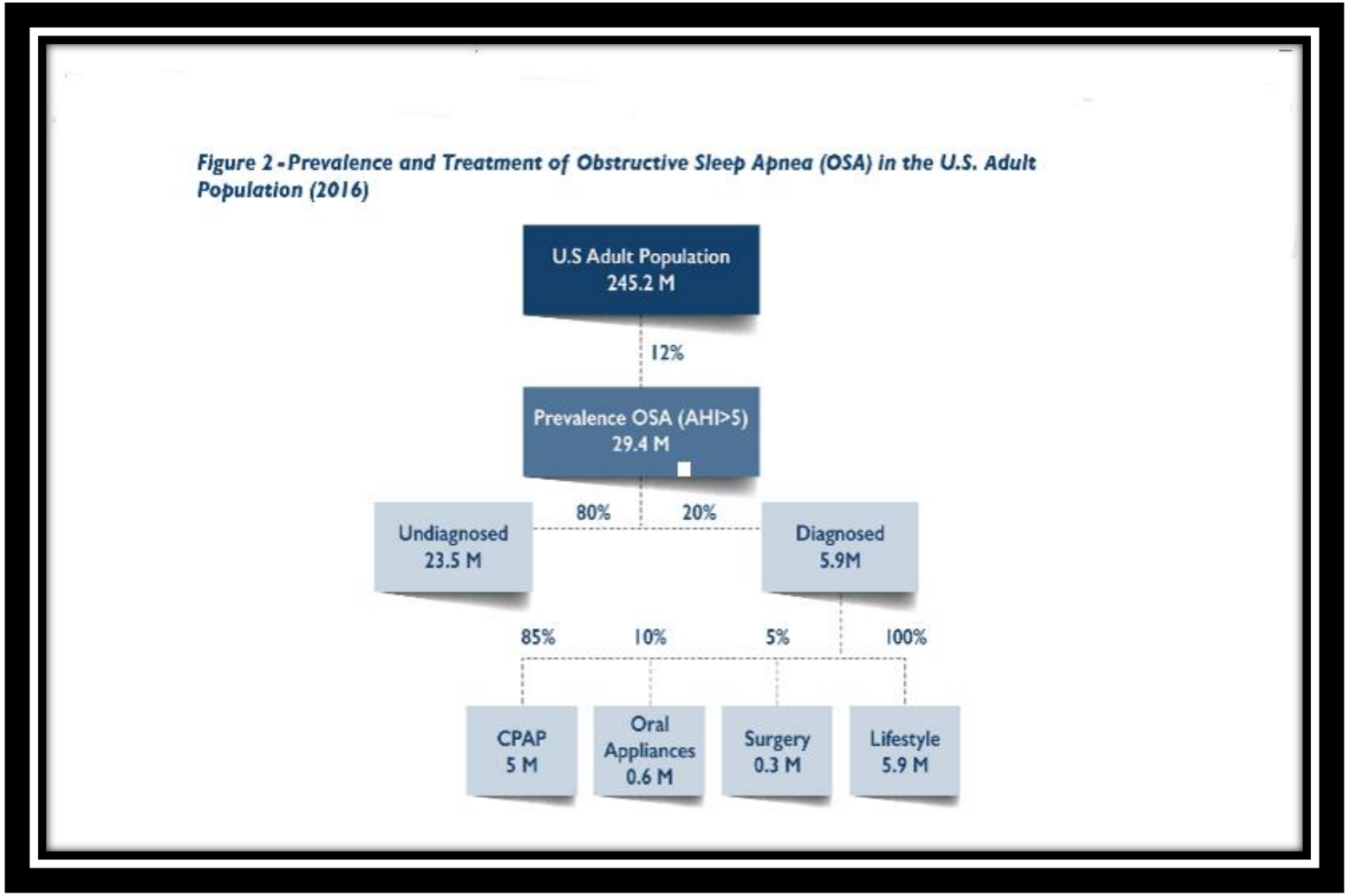
5.9 U.S. adults tested

$49.5 billion needed to care for the 23.5 million undiagnosed OSA.

Direct cost of diagnosis and treatment vs. costs of untreated OSA

Bundled payment; outcomes based care

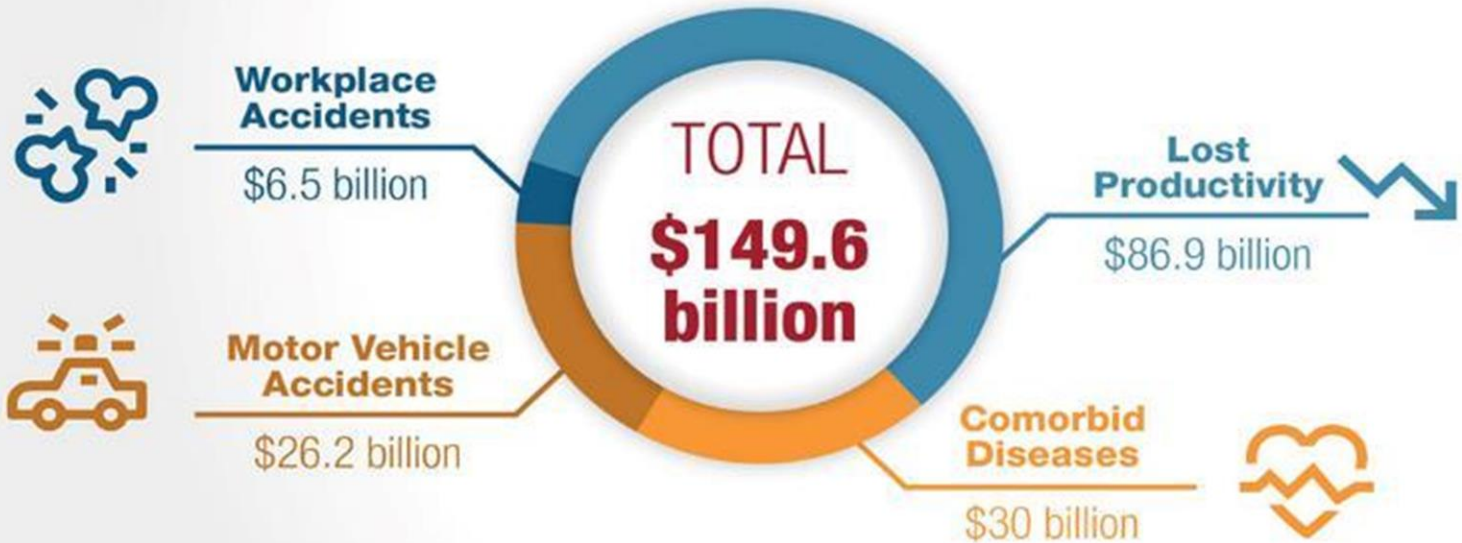
Prevalence and Treatment of OSA



Source: AASM 2016 www.sleep education.org

Undiagnosed Sleep Apnea: *A Hidden Health Crisis*

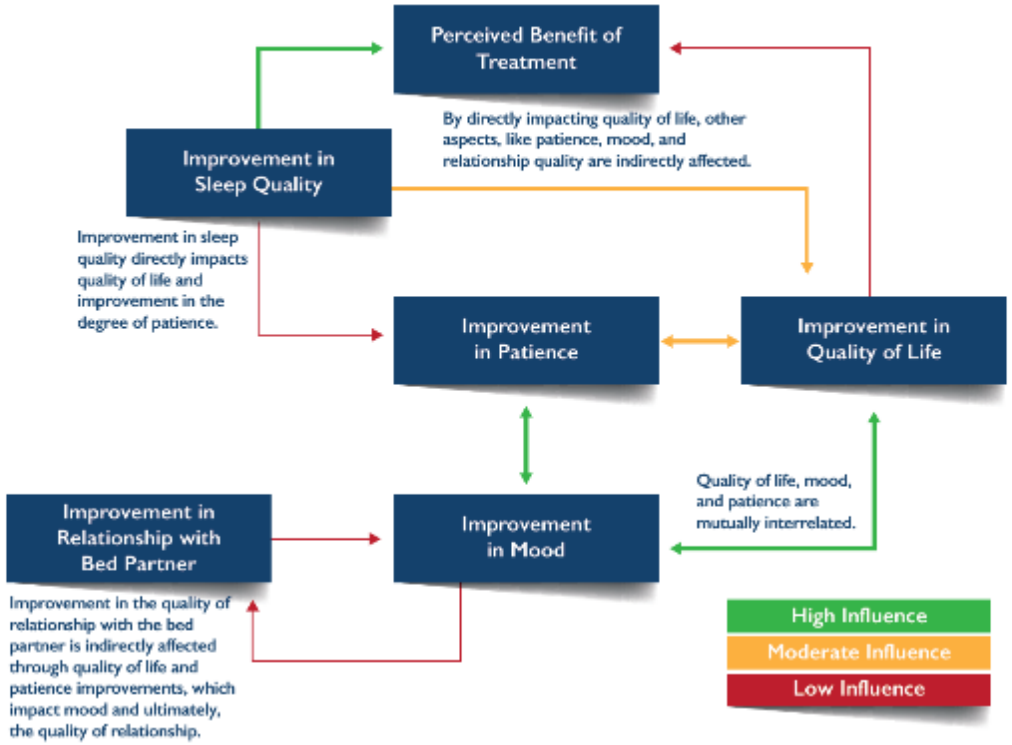
In the U.S. the estimated economic cost of undiagnosed obstructive sleep apnea was nearly $150 billion in 2015.



Source: American Academy of Sleep Medicine, 2016 | www.sleepeducation.org

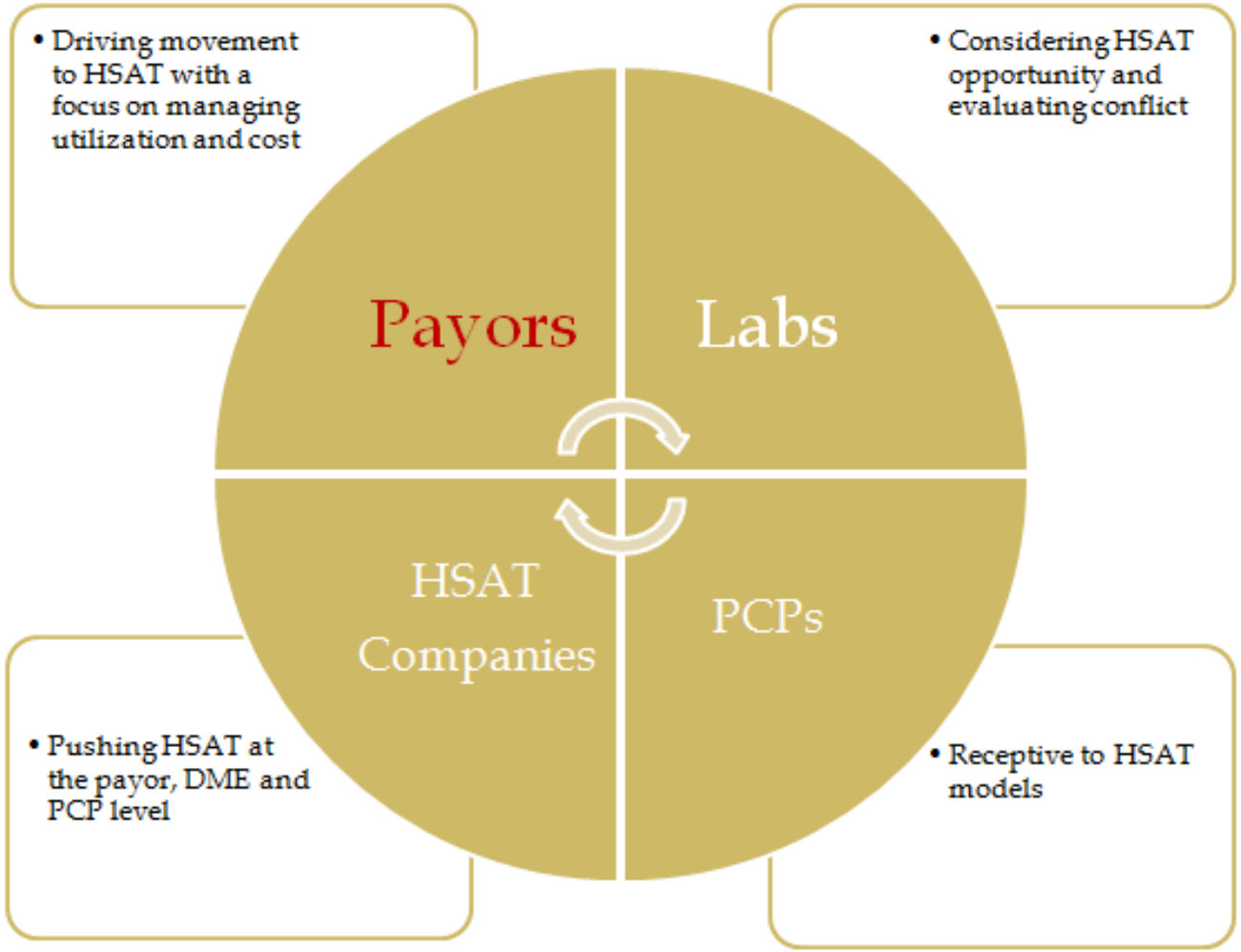
IMPACT OF TREATING OSA: QOL

Figure 4-Study Found Strong Statistical Connections Between OSA Treatment and Sleep Quality, Quality of Life, and Improvement in Patience and Mood



In an Age of Constant Activity, The Solution to Improving the Nations' Health May Lie in Helping it Sleep Better: 2016 AASM Frost & Sullivan

Key Factors Driving Diagnostic Changes



Consensus Statement on Prior Authorization

September 2017, the consensus statement outlines five key areas of the prior authorization process that are in need of reform:

- Selective application of prior authorization
- Prior authorization program review and volume adjustment
- Transparency and communication regarding prior authorization
- Continuity of patient care
- Automation to improve transparency and efficiency

American Hospital Assoc : Americas Health Insurance Plans : America Medical Association : American Pharmacy Assoc :BCBS Assoc and Medical Group Management Assoc

https://www.ama-assn.org/sites/default/files/media-browser/public/arc-public/prior-authorization-consensus-statement.pdf

Clinical Practice Guideline for Diagnostic Testing for Adult Obstructive Sleep Apnea: An American Academy of Sleep Medicine Clinical Practice Guideline

March 15 issue of the Journal of Clinical Sleep Medicine

A new clinical practice guideline from the AASM established clinical practice recommendations for the diagnosis of obstructive sleep apnea in adults, describes the circumstances under which attended polysomnography in an accredited sleep center or a home sleep apnea test (HSAT) should be performed for suspected OSA.

http://jcsm.aasm.org/ViewAbstract.aspx?pid=30972

Recommendations:

- We recommend that clinical tools, questionnaires and prediction algorithms not be used to diagnose OSA in adults, in the absence of polysomnography or home sleep apnea testing. (STRONG)
- We recommend that polysomnography, or home sleep apnea testing with a technically adequate device, be used for the diagnosis of OSA in **uncomplicated adult patients** presenting with signs and symptoms that indicate an increased risk of moderate to severe OSA. (STRONG)
- We recommend that if a single home sleep apnea test is **negative, inconclusive, or technically inadequate**, polysomnography be performed for the diagnosis of OSA. (STRONG)

Recommendations continued

- We recommend that **polysomnography**, rather than home sleep apnea testing, be used for the diagnosis of OSA in patients with significant cardiorespiratory disease, potential respiratory muscle weakness due to neuromuscular condition, awake hypoventilation or suspicion of sleep related hypoventilation, chronic opioid medication use, history of stroke or severe insomnia. (STRONG)
- We suggest that, if clinically appropriate, a **split-night** diagnostic protocol, rather than a full-night diagnostic protocol for polysomnography be used for the diagnosis of OSA. (WEAK)
- We suggest that when the initial polysomnogram is negative and clinical suspicion for OSA remains, a **second polysomnogram** be considered for the diagnosis of OSA. (WEAK)

American Academy of Sleep Medicine Position Paper for the Use of a Home Sleep Apnea Test for the Diagnosis of OSA in Children

Position Statement

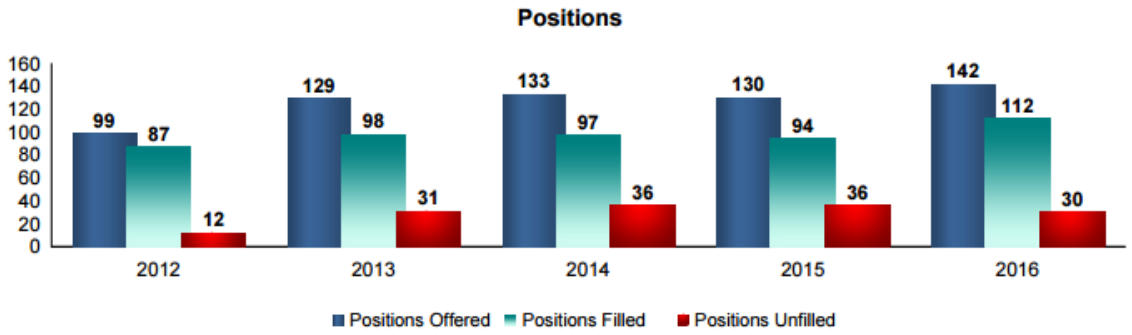
Use of a home sleep apnea test is **not** recommended for the diagnosis of obstructive sleep apnea in children.

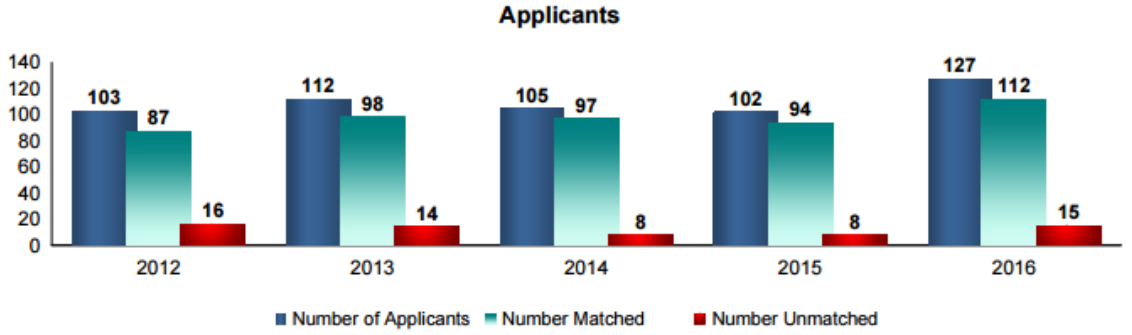
The ultimate judgment regarding propriety of any specific care must be made by the clinician, in light of the individual circumstances presented by the patient, available diagnostic tools, accessible treatment options, and resource

http://jcsm.aasm.org/ViewAbstract.aspx?pid=31105

Follow Up Statement

Oct. 15 issue of the Journal of Clinical Sleep Medicine, comprises the following positions:	Only a physician can diagnose medical conditions such as OSA and primary snoring.
	The need for, and appropriateness of, an HSAT must be based on the patient's medical history and a face-to-face examination by a physician, either in person or via telemedicine.
	An HSAT is a medical assessment that must be ordered by a physician to diagnose OSA or evaluate treatment efficacy.
	An HSAT should not be used for general screening of asymptomatic populations.
	Diagnosis, assessment of treatment efficacy, and treatment decisions must not be based solely on automatically scored HSAT data, which could lead to sub-optimal care that jeopardizes patient health and safety.
	The raw data from the HSAT device must be reviewed and interpreted by a physician who is either board-certified in sleep medicine or overseen by a board-certified sleep medicine physician.





Physician Supply Pipeline Shortages

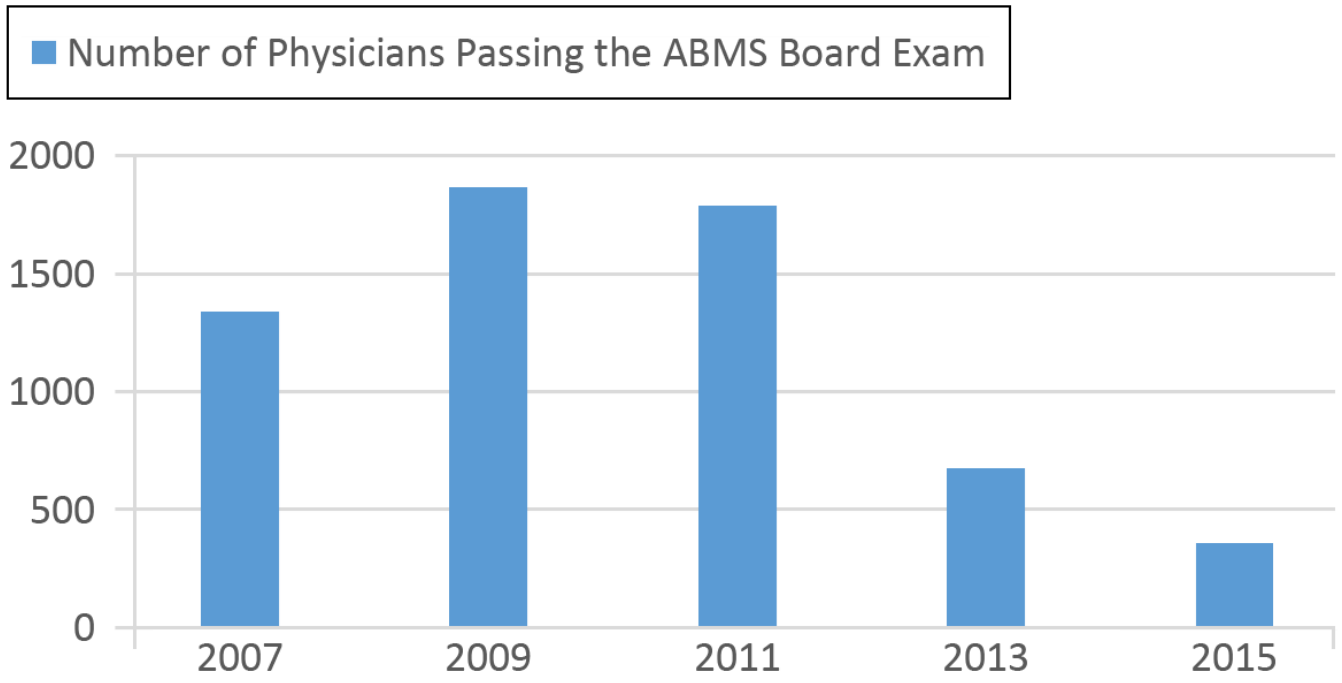
http://www.nmp.org/wp-content/uploads/2016/03/Results-and-Data-SMS-2016_Final.pdf

Sleep Specialist

National Average for board certified sleep MDs is 0.019/1,000 with a great state and regional variability.

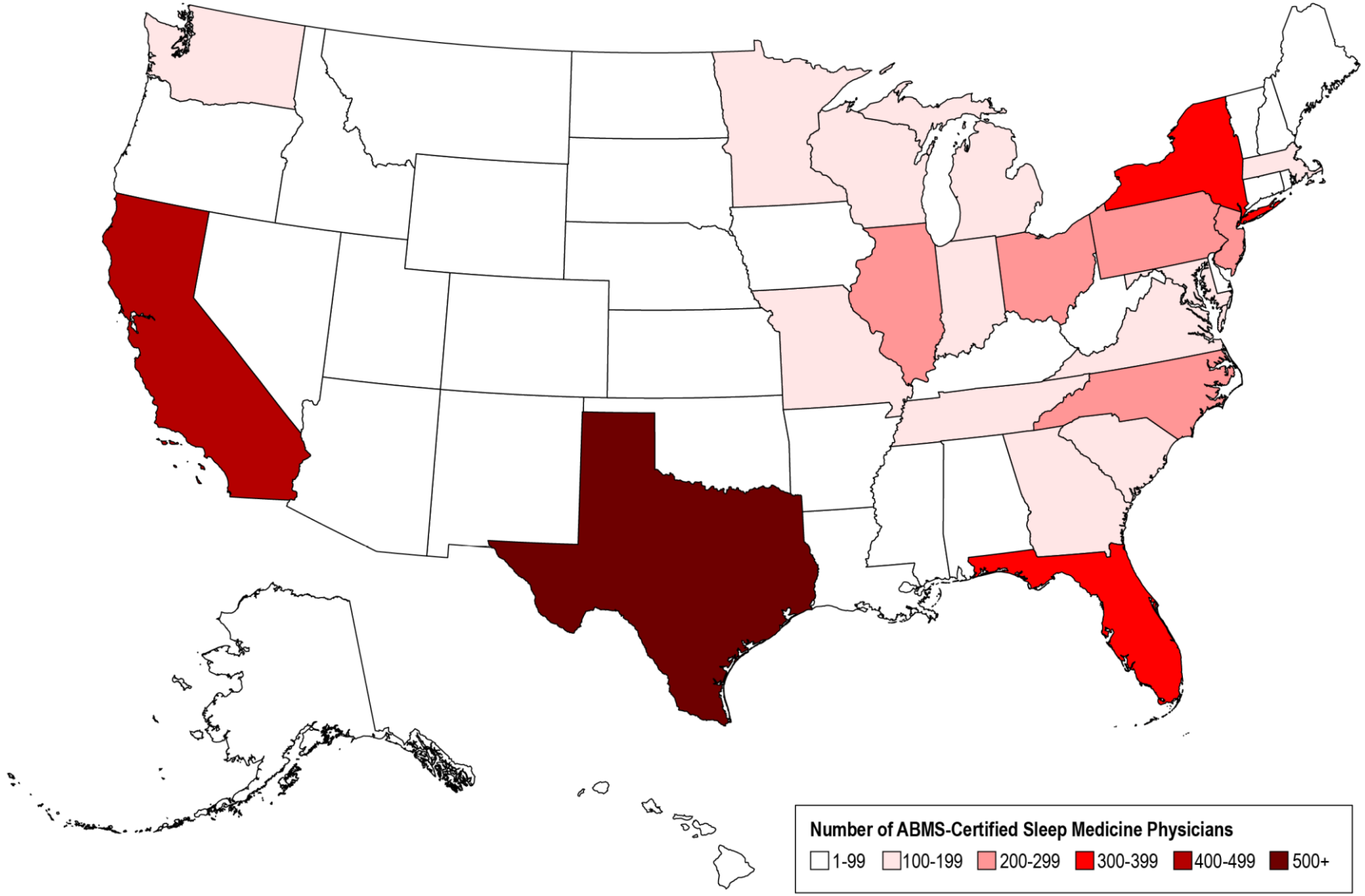
Recommendation is 1-4 specialist/1,000 population

Half of sleep specialists are in clinical private practices and a third are in academic medical centers.



NF Watson, IM Rosen and RD Chervin . The Future of Sleep Medicine. http://dx.doi.org/10.5664/jcsm.6406

Heat map of the geographic distribution of American Board of Medical Specialties (ABMS) board-certified sleep medicine physicians (BCSMPs) across the United States.



Workforce

- **Nurse Practitioners**
  - Projected 35% increase 2014-2024
- **Physician Assistance**
  - Projected 30% increase 2014-2024
- **Specialist Care (vs. Primary Care)**
  - 48% NP/57% PAs in specialty care 2010
  - 40% of sleep centers have NP/PA 2012
- Uneven geographic distribution of the health care workforce creates problems with access to care

- https://www.ahrq.gov/research/findings/factsheets/primary/pcwork3/index.html

Patient Centered Care

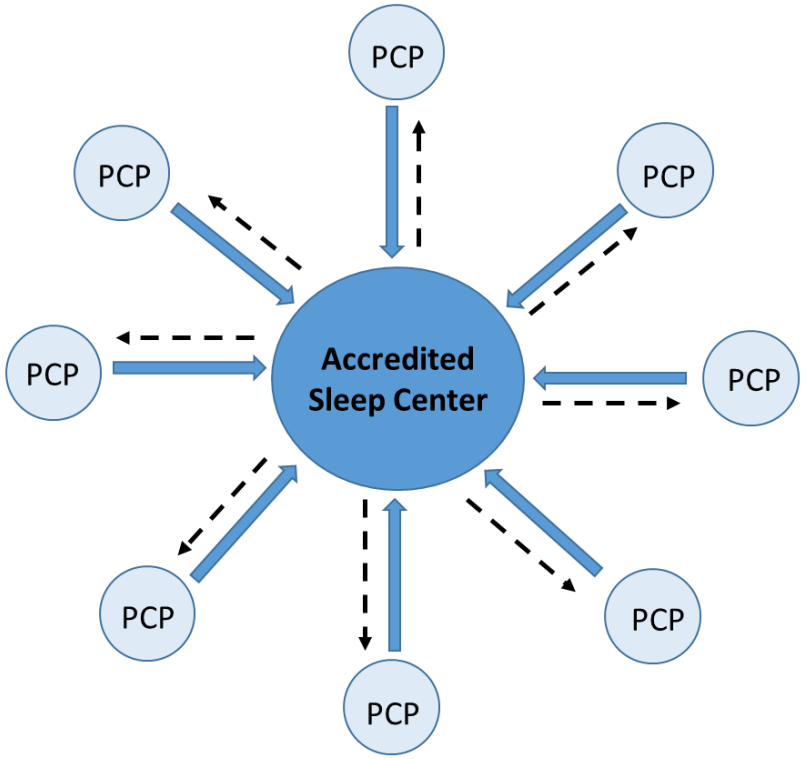
Sleep Team

Multidisciplinary collaboration

PCP and HSAT utilization

Telemedicine: PAP assessment—
Insomnia (CBT) --RLS

Hub and Spoke Model for Integrating Primary Care Providers (PCP) into Established Sleep Centers



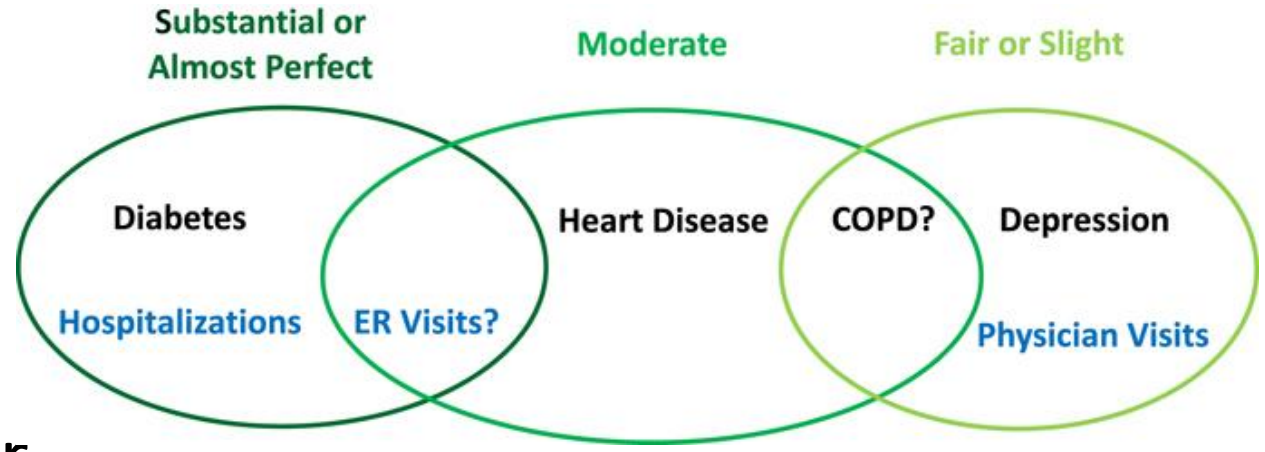
- Patient evaluation and home sleep apnea testing (HSAT) might be accomplished in the **PCP office** and interpreted by board-certified sleep medicine physicians in the sleep center hub
- More **complex patients**, and those with indeterminate HSATs, would be referred to the sleep center
- Patients would be referred back to the PCP for long-term management once their complex issues are addressed and treatment is stable

NF Watson, IM Rosen and RD Chervin . The Future of Sleep Medicine. http://dx.doi.org/10.5664/jcsm.6406

The Future

Sleep medicine is shifting

- **from an emphasis on diagnosis to a focus on disease-management**



In lab PSG will be reserved for the more **complex** sleep patients

Expanding Services Thru Telemedicine

American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders

- The practice of telemedicine should aim to promote a care model in which sleep specialists, patients, primary care providers, and other members of the healthcare team aim to improve the value of healthcare delivery in a coordinated fashion.
- Telemedicine utilization for sleep medicine is likely to rapidly expand, as are broader telehealth applications in general; further research into the impact and outcomes of these are needed

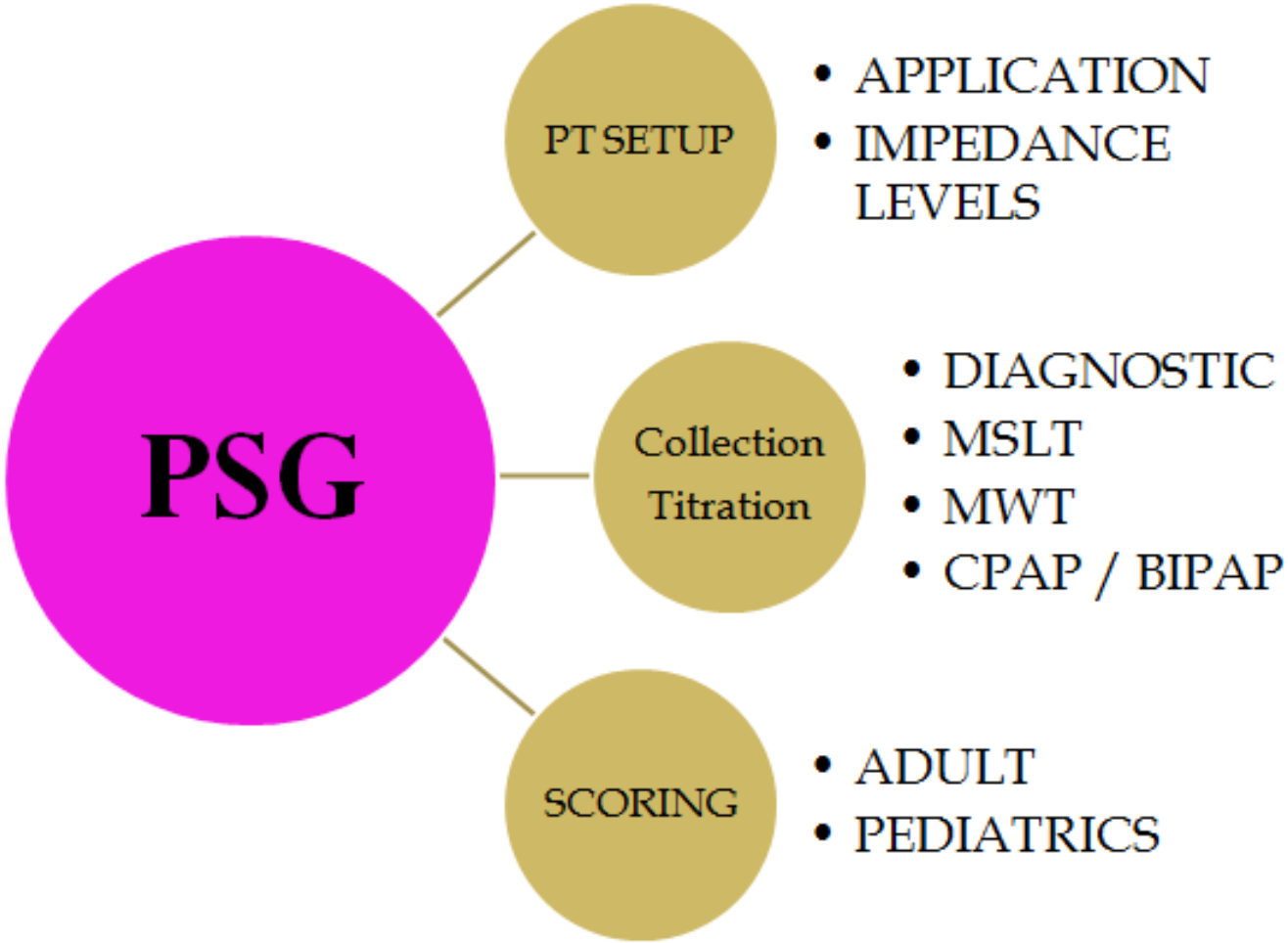
http://jcsm.aasm.org/ViewAbstract.aspx?pid=30218

The Future

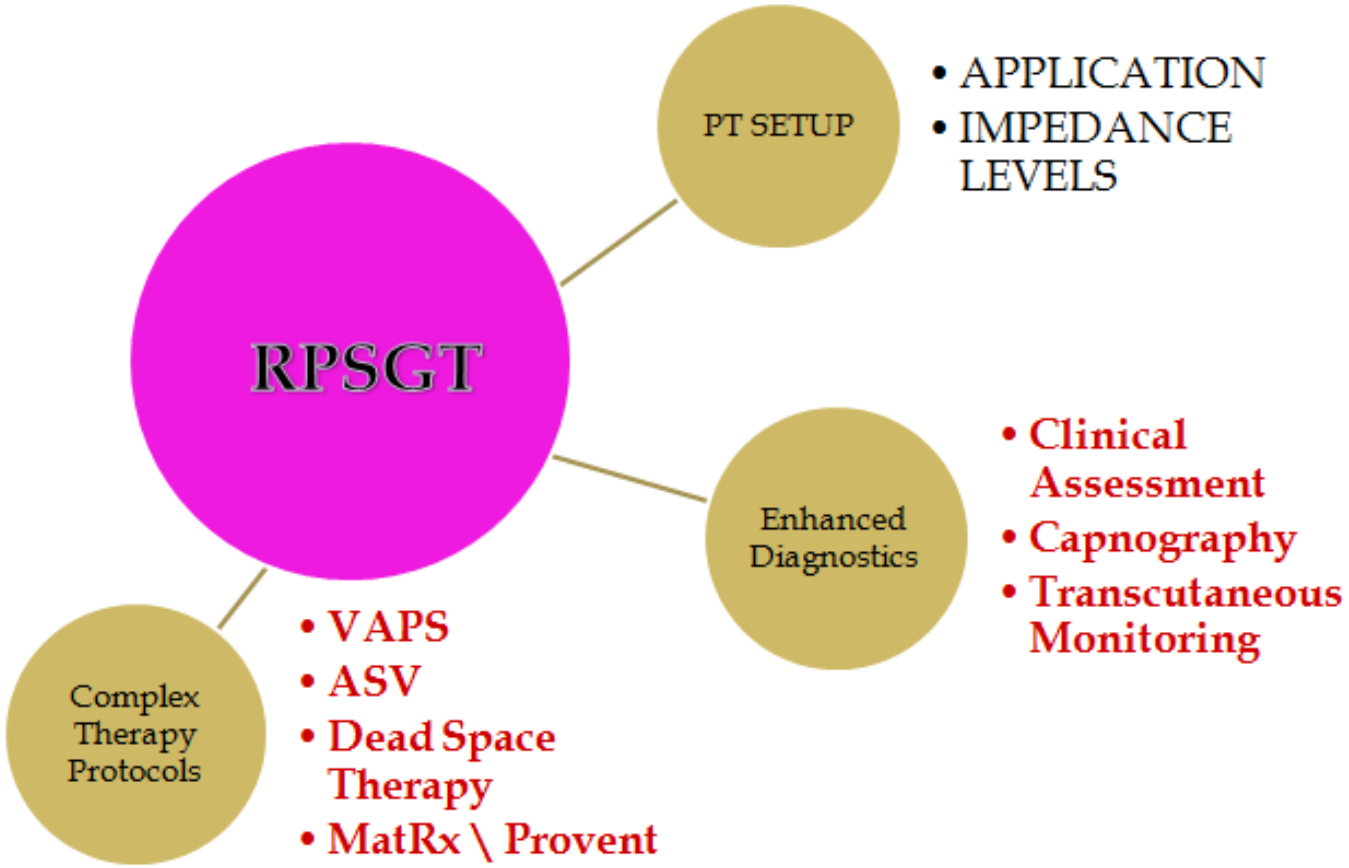
- New technologies and wearable devices will continue to change testing even more.

- There is a new emphasis on
  - patient education
  - assisting in follow-up
  - and outcomes management
- Expand your horizons- our roles are expanding!

Traditional RPSGT Skills



New Essential Skills



Sleep Technologist Opportunities

R Brooks and M Trimble

Table 1—New opportunities and educational needs for sleep technologists

	Roles for Technologists	Educational Needs
Pre-Test Evaluation	• Vital signs • Blood glucose testing • Pulmonary function tests • Screening tests • Pre-test risk assessment • Patient education	• Clinical evaluation skills • Risk factor analysis • Monitoring and interpretation of blood glucose testing • Assessing results of pulmonary function and screening tests • Documentation requirements
Diagnostic Testing	• Out of center testing • Actigraphy • CO_2 monitoring • Evaluation of high risk patients	• Home sleep testing provision and interpretation • Actigraphy monitoring and interpretation • Age appropriate care • Evaluation and management of comorbidities
Provision of Treatment	• Mask fitting • Patient education • Advanced PAP platforms • Appropriate use of oxygen • Alternative therapies	• Basic pulmonary physiology • Ventilation • Cardiac physiology and arrhythmias • Goals of therapy • Evidence based medicine • Critical care pathways • Practice parameters
Follow-Up	• Monitoring adherence • Behavioral and motivational therapies	• Monitoring techniques • Basics of health psychology • Group and individual patient education methods
Long-Term Care	• Equipment monitoring • Compliance and outcomes tracking • Replenishment of consumables	• Understanding chronic care models • Health maintenance • Age appropriate care • Database management • Coding and billing

The Sleep Technologist

	The range of services provided includes	This broad range of services requires that the sleep technologist exercise
	• comprehensive evaluation and treatment of sleep disorders • diagnostic and therapeutic interventions, • comprehensive patient care and direct patient education.	• critical thinking and independent judgment, and • possess an advanced knowledge of sleep technology, • sleep/wake disorders • associated co-morbid conditions such as cardiac disease, pulmonary disorders and diabetes.

AAST POSITION STATEMENT

In order to attain competence and adequate knowledge of sleep/wake disorders and their treatment, the AAST has adopted the position that individuals performing sleep testing procedures and patient care services possess at minimum the following:

- Successful completion of an **accredited education program** leading to a certificate or associate degree with an emphasis in sleep technology. Bachelor's Degree and experience in the sleep technology profession is preferred.

OR

- An **Associate's Degree or higher** from an accredited college or university.

AND

- **Certification by a nationally recognized certification board** and holds the Registered Sleep Technologist (RST), Registered Polysomnographic Technologist (RPSGT), or Sleep Disorders Specialist (SDS) credential. If the individual is not credentialed at the time of hire, a deadline for obtaining the credential, established by the employer, is strongly recommended.

AND

- A license to practice sleep technology in any state that has enacted licensure requirements.

Recognized as a Profession

This position supports best practice and encourages credentialing bodies for the Sleep Technology profession to require a **minimum** education level for entry into the profession, thus eliminating the clinical experience pathway for credentialing examination eligibility.

Sleep technology does not become a **profession** until minimum education levels are established.

Education Requirement-how does that look?

- What would the field of sleep technologists look like if this change were to take effect?
- Would the current pipeline of future professionals be robust enough to meet the market's demand for sleep technologists?
- How would the change affect institutions with sleep technologist training programs? Would they have enough capacity?
- And perhaps most importantly, would the change lead to higher quality of service in the field?

Needs Assessment

The American Association of Sleep Technologists (AAST) retained McKinley Advisors (McKinley) to conduct member research to explore the state of the sleep technologist profession and how changes to education requirements for certification could affect current and future professionals

Needs Assessment

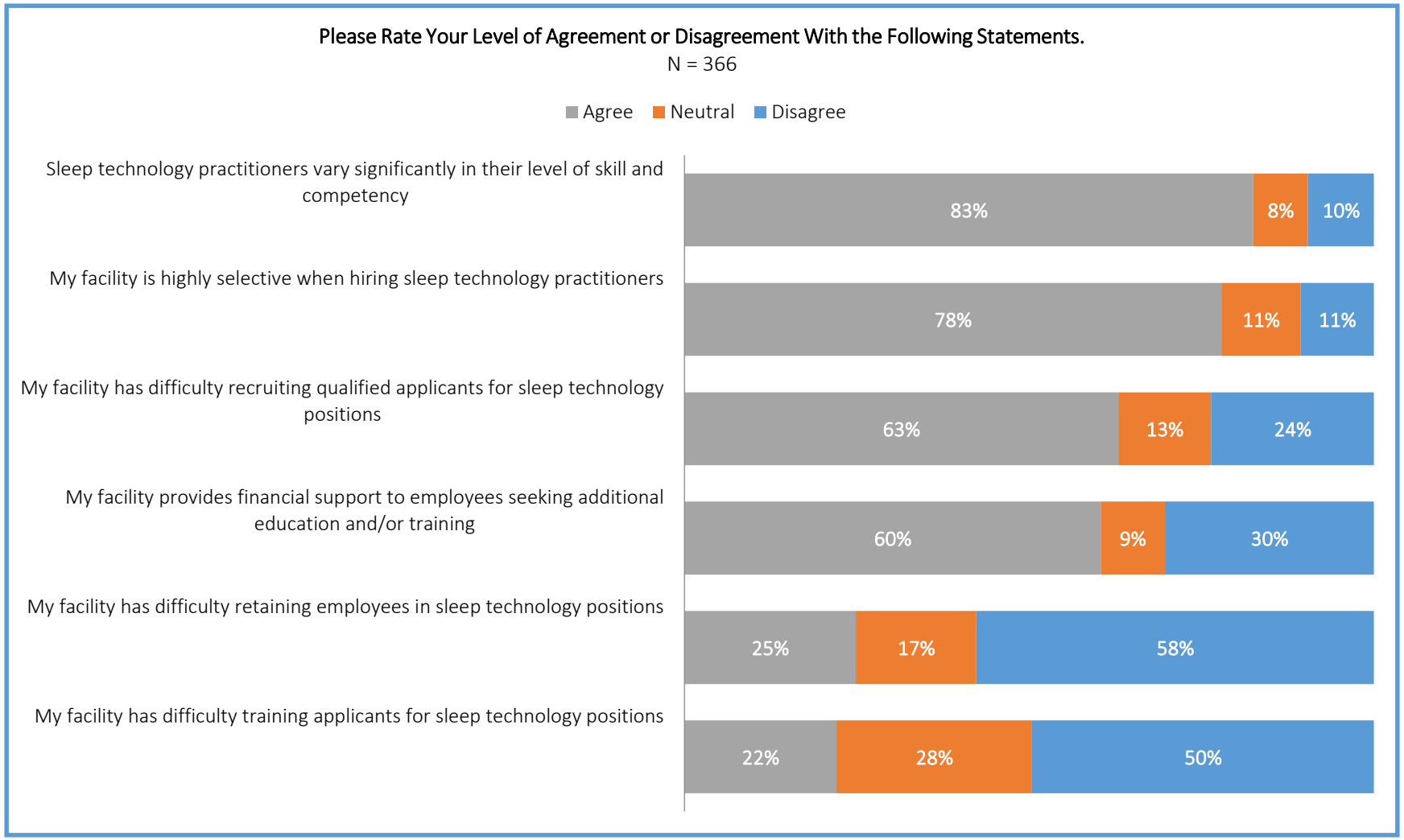
The American Association of Sleep Technologists (AAST) retained McKinley Advisors (McKinley) to conduct member research to explore the state of the sleep technologist profession and how changes to education requirements for certification could affect current and future professionals

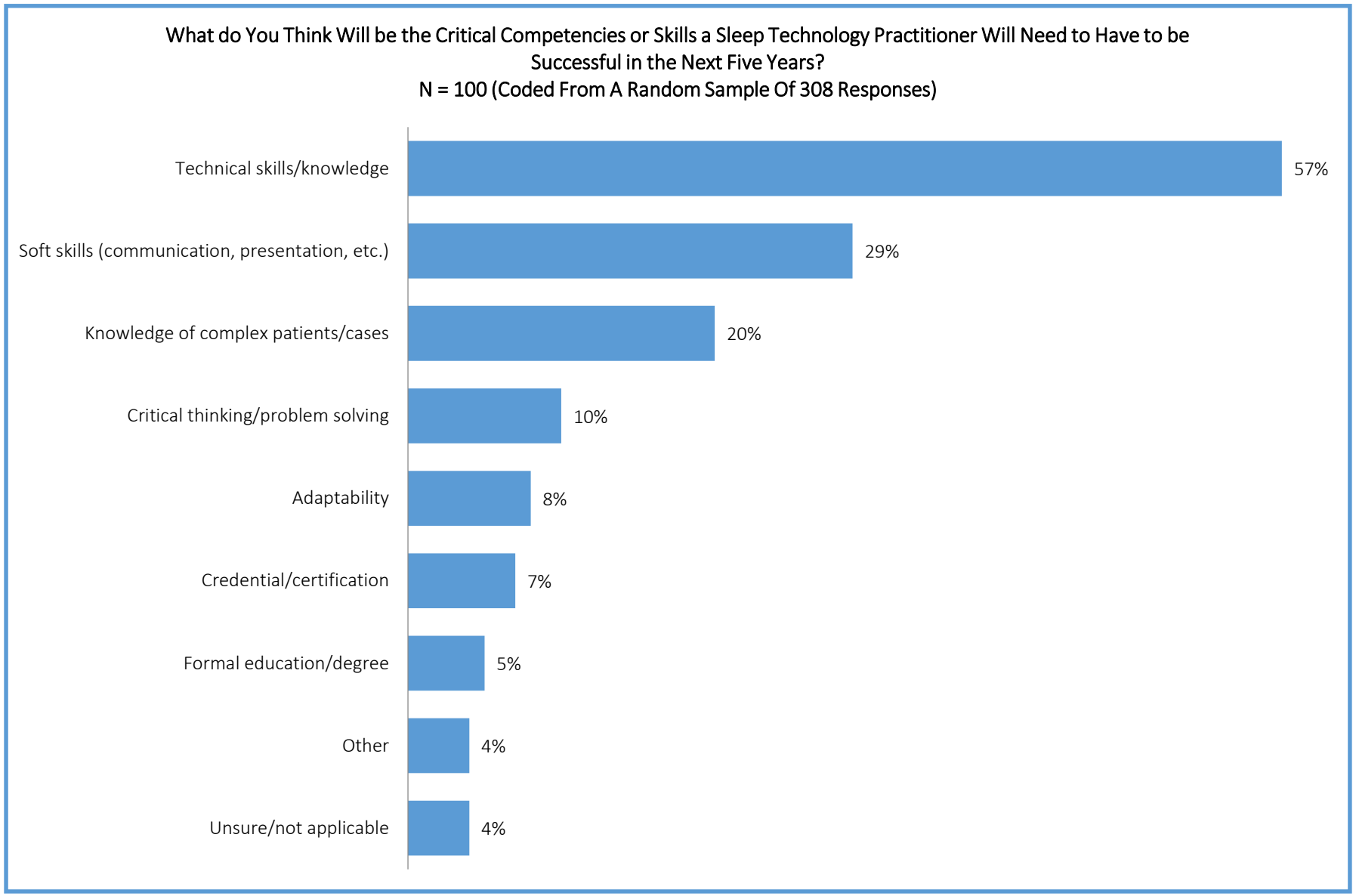
Most respondents were AAST members (63%) and, on average, reported being a member **for 6 to 10 years**. The modal age was in the 46 to 55-year-old range and 32% of respondents reported being in sleep technology for more than **20 years**.

30% held a bachelor's degree and 26% an associate's degree. These demographics indicate an experienced, senior level sleep technologist was most likely to respond to the survey.

https://www.aastweb.org/article-archives
Volume 26, Number 3

Hiring and Retaining Sleep Technologist

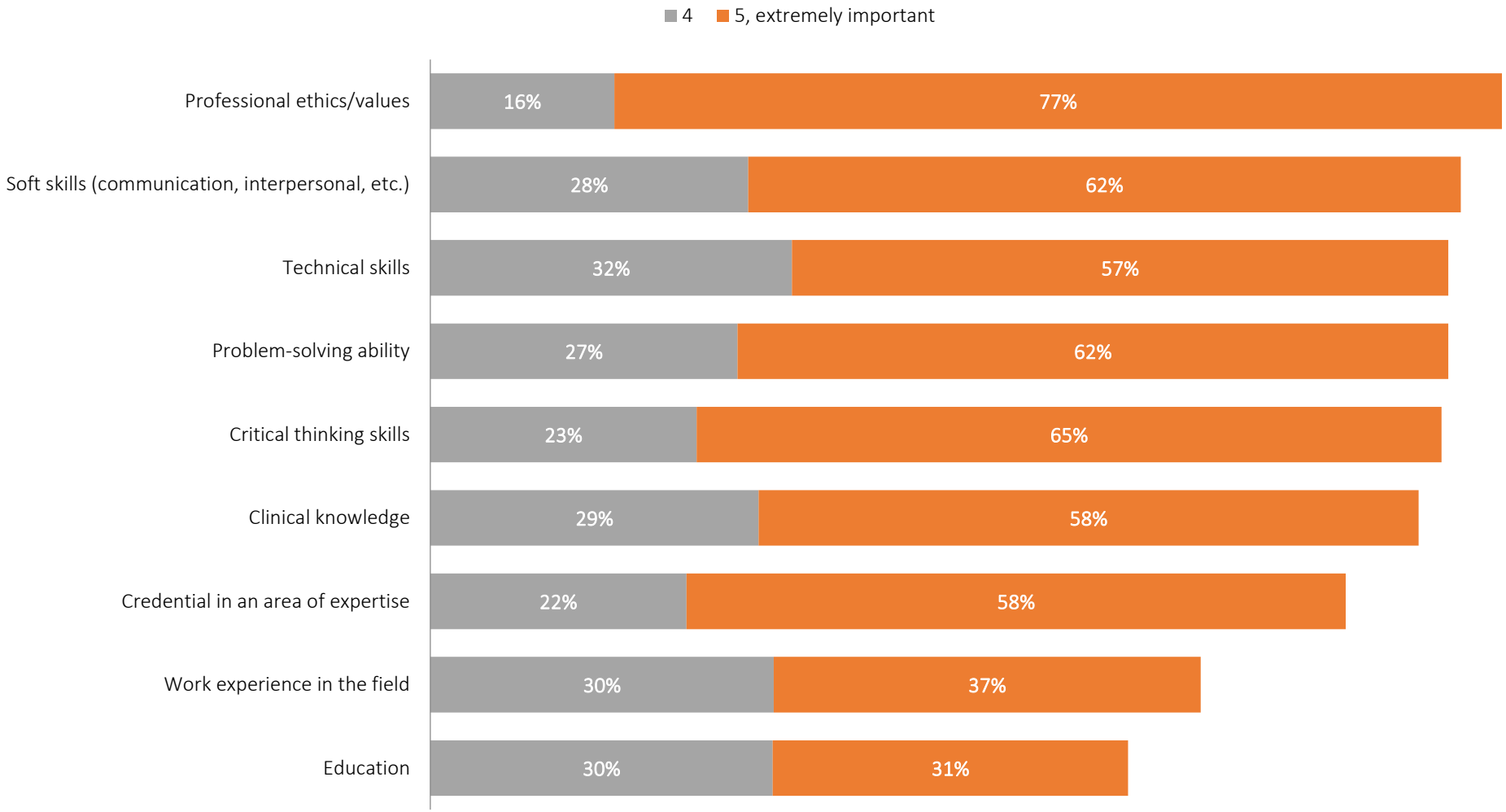



What do You Think Will be the Critical Competencies or Skills a Sleep Technology Practitioner Will Need to Have to be Successful in the Next Five Years?
N = 100 (Coded From A Random Sample Of 308 Responses)
Technical skills/knowledge
57%
Soft skills (communication, presentation, etc.)
29%
Knowledge of complex patients/cases
20%
Critical thinking/problem solving
10%
Adaptability
8%
Credential/certification
7%
Formal education/degree
5%
Other
4%
Unsure/not applicable
4%

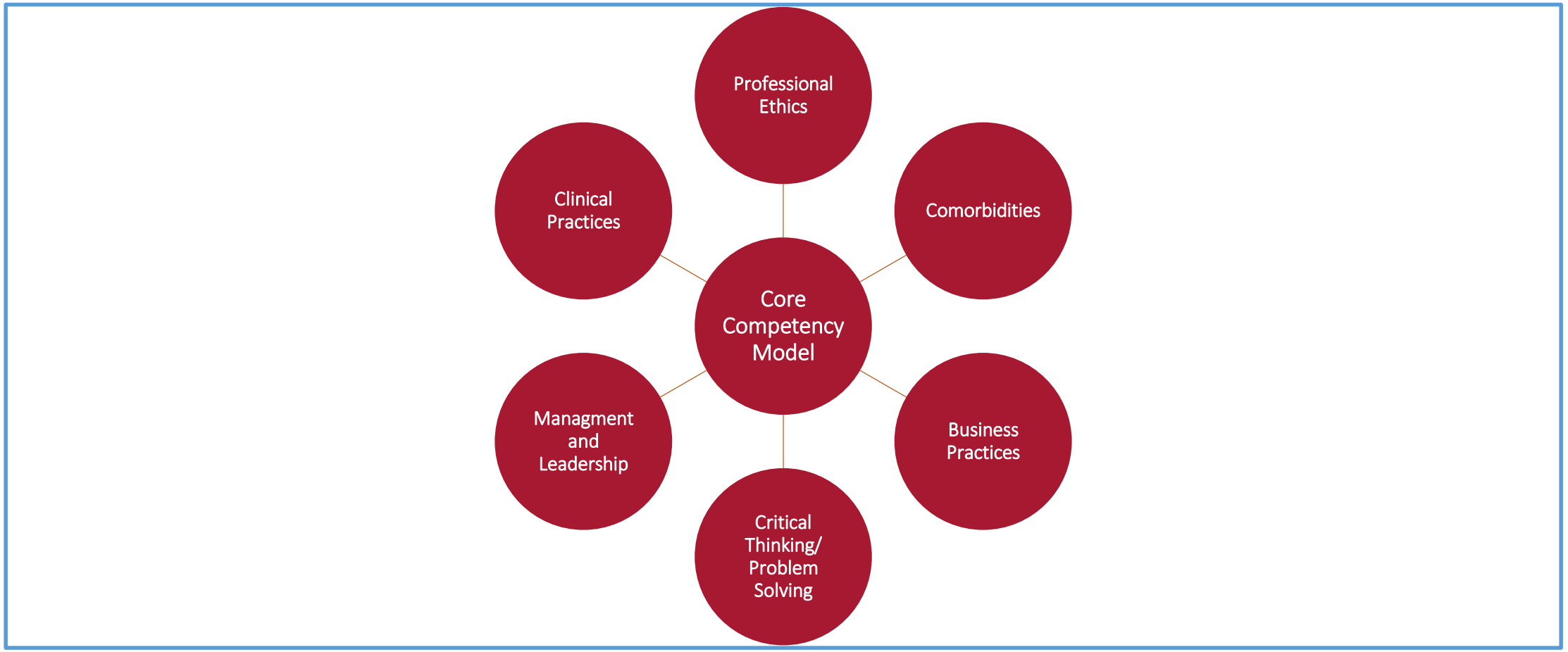
How Important is Each of the Following When Assessing an Applicant for an Open Position in Your Facility?

N = 358

Scale 1 (Not at all Important) To 5 (Extremely Important)



Core Competency Model



Hurdles

- Concerns in not having appropriate access to AAS Polysomnography programs
- Many technologist already have AAS and feel the Bachelor's Degree would have a greater impact
- Education requirement would prevent talented technicians who aren't able to get through school

What the AAST Can Do

- Communicate changes in educational requirements
- Provide information and advocacy for current credential holders
- Provide an increased number and variety of online educational programs
- Support the accreditation of more schools of sleep technology
- Provide access to list of accredited schools
- Give membership access to resources to obtain education
- Advocate for membership with insurance and reimbursement providers
- Promote the profession of sleep technology

https://www.aastweb.org/technical-guidelines

Sleep Health Educator

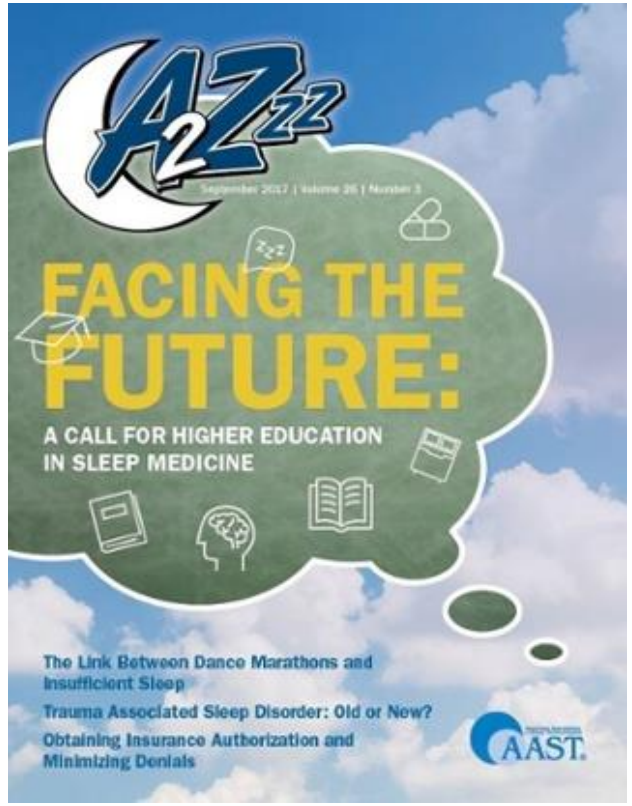
Patient Education Curriculum for the Sleep Health Educator

- This document provides learning goals for the patient educator including an introduction and background; general patient education requirements; discussion points for the first visit after diagnosis; key elements of follow-up visits; documentation using a standardized care plan; and a list of references for additional information. An example case study is provided

- The curriculum is intended to provide a standard for educational programs to use. The AAST intends to develop a variety of educational resources to support the curriculum. These materials will include reference texts, case studies, clinical simulations and self-assessment tools.

Facing the Future

- Development of Patient Education Curriculum for the Sleep Health Educator
  - This curriculum is intended to provide a standard for educational programs and provides learning goals including:
    - Introduction and background
    - General patient education requirements
    - Discussion points for the first visit after diagnosis
    - Key elements of follow-up visits
    - Documentation using a standardized care plan
    - List of references for additional information
    - An example case study is provided



AAST intends to develop a variety of educational resources to support this curriculum in the future.

AAST to work with credentialing bodies and CoA PSG

Continued focused support for the CCSH

Develop PBL training to sharpen critical thinking skills

Technical Guidelines and competencies for Advanced Therapy, Telemedicine and Outcome Management

Conclusion

Predictions for the Profession

SLEEP EDUCATION FOR THE SLEEP COMMUNITY

2018 ANNUAL MEETING

SEPTEMBER 28-30 | INDIANAPOLIS, IN

AAST

THE COMMUNITY FOR SLEEP-CARE PROFESSIONALS

AAST is uniquely made up of knowledge seeking and sharing individuals, with a thumb on the pulse of changes within the sleep field.

Join our community
www.aastweb.org