

HEALTH WEALTH CAREER



MERCER WEBCAST

WELL RESTED AND ALERT:
RECOGNIZING THE IMPORTANCE OF
SLEEP FOR YOUR WORK FORCE

September 15, 2016



TODAY'S SPEAKERS



Sandra Kuhn, MSW
Principal

Sandra leads Mercer's Behavioral Health Consulting Group and is a co-lead for Sleep Solutions at Mercer. She has worked with a number of clients to assess need and benefits of integrating sleep management programs into their benefit offering.



Josh Dunsby, PhD
Principal

Serves as sleep solutions co-lead. Josh has been building custom health management solutions for large employers for the last 10 years.



Alyssa Cairns, PhD
Sleep Research Scientist

Alyssa has been involved in sleep medicine for 15 years and currently leads the investigator-initiated research division at SleepMed, Inc. Currently, her research is focused on population sleep health via analyses retrieved from SleepMed's expansive database, currently the largest published clinical sleep repository.



Mark Miles
Enterprise Sales Director

Mark leads SleepMed's Enterprise Division focused on providing Sleep Management solutions to employers throughout the country through SleepMed's vast resources.

AGENDA

WHAT WE'LL COVER TODAY

- Why Sleep Matters
- Prevalence and Impact of Sleep Disorders
- Current Treatments and Approaches
- Sleep Management Solution
- Additional Programming to Support Sleep Health
- Questions?

WHY SLEEP MATTERS

SLEEP DISORDERS ISSUES IN THE NEWS

Mass transit train derailment in NY

*Midwest Bus/Transportation accident
first court-ordered sleep study*

*Prince Fielder – MLB Texans –
Diagnosed with “extreme sleep apnea”*

Georgia Southern Nursing Students

*Truck Crash in NJ that severely
injured a well-known comedian/actor
and killed another passenger*

*Ariana Huffington
“The Sleep Revolution”*



AHA – JUNE 15, JAPAN – SLEEP DISORDERS MAY PREDICT HEART EVENTS AFTER ANGIOPLASTY
241 patients studied 5 years 52.3 had sleep disordered breathing
21% with SDB had major events 7.8 without SDB had major events

THE IMPORTANCE OF HEALTHY SLEEP

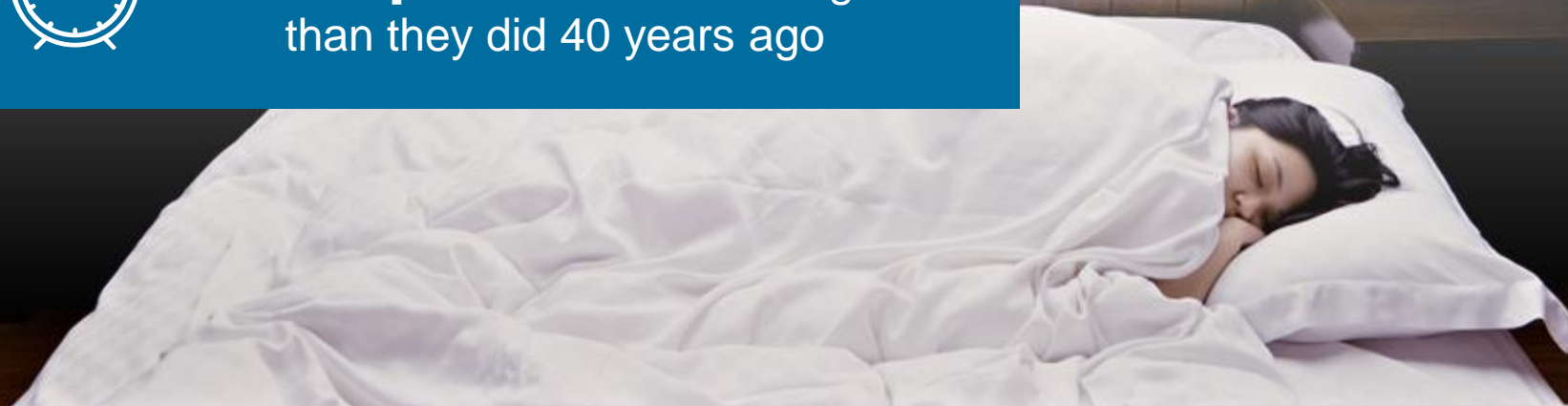
SLEEPINESS causes fatigue, cognitive impairment, poor memory, psycho-motor slowing, irritability, other mood changes and lapses in alertness.



40% of Americans are sleep deprived

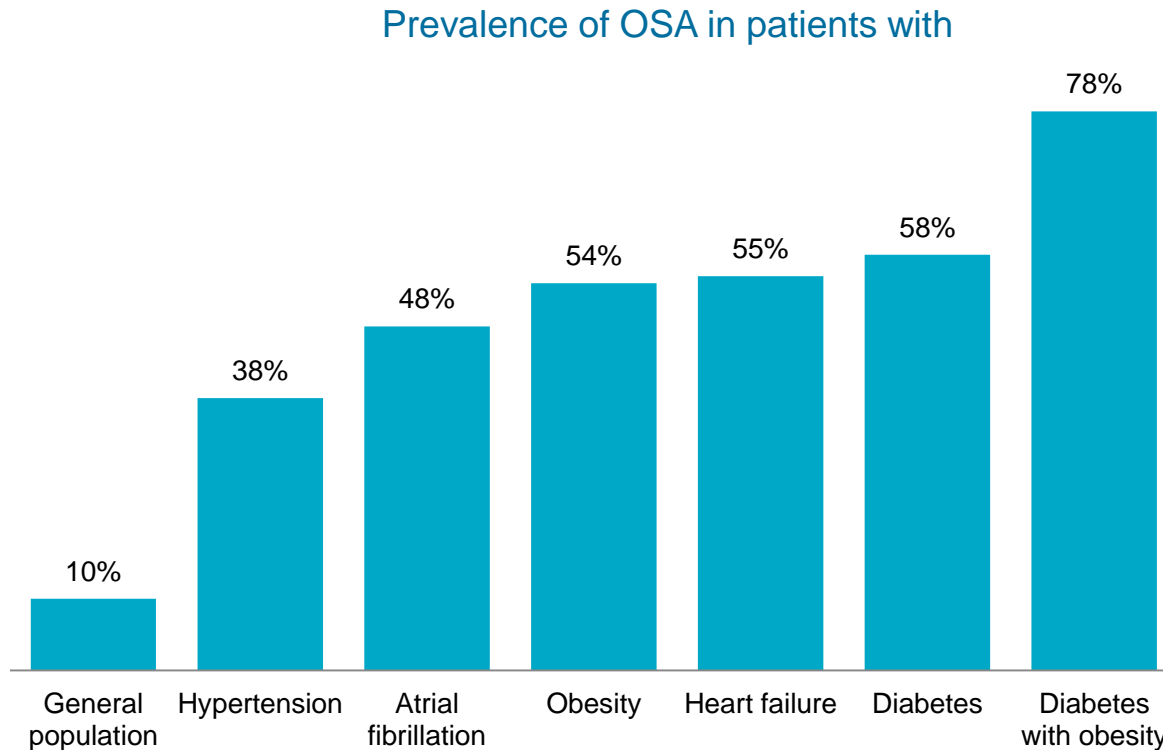


On average, Americans **sleep 2 hours less** a night than they did 40 years ago



SLEEP IS AT THE CENTER OF THE METABOLIC SYNDROME

INADEQUATE FOCUS ON UNDERLYING COMORBID SLEEP DISORDERS, INCREASES PREVALENCE AND SUPPRESSES OTHER WELLNESS AND DISEASE MANAGEMENT INITIATIVES



Peppard et al. Increased prevalence of sleep-disordered breathing in adults. *Am J Epidemiol* 2013; 177(9):1006-14; Sharma et al. Sleep in congestive heart failure. *Medical Clinics of North America* 2010; 94(3):447-464; Gami et al. Association of atrial fibrillation and obstructive sleep apnea. *Circulation* 2004; 110:364-367; Resnick et al. Diabetes and sleep disturbances. *Diabetes Care* 2003; 26(3): 702-709; Foster et al. Obstructive sleep apnea among obese patients with type 2 diabetes. *Diabetes Care* 2009; 32:1017-1019.

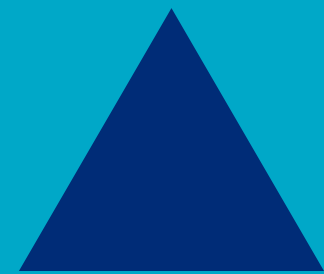
SLEEP DISORDERS AND BEHAVIORAL HEALTH

- 
- Chronic lack of sleep increases an individual's risk of developing depression
 - A study of about 1,000 adults, ages 21 to 30, found that, compared with normal sleepers, those who reported a history of insomnia were four times more likely to develop major depression in the next three years
 - Depressed patients who continue to experience insomnia are less likely to respond to treatment than those without sleep problems
 - Insomnia may also be a risk factor for developing an anxiety disorder, though not as much as it is for major depression

SLEEP DISORDERS AND BEHAVIORAL HEALTH

- Individuals with *existing* mental conditions are more likely to have sleep problems. Sleep problems are particularly common in patients with anxiety, depression, bipolar disorder and attention deficit hyperactivity disorder (ADHD)
 - 65–90% of adults and 90% of children with major depression experience some type of sleep problem
- The relationship between sleep loss and mental health is complex, but scientists have discovered that sleep disruption wrecks havoc on the brain, impairing thinking and emotional regulation. This illustrates how **insomnia may intensify the effects of psychiatric disorders, and vice versa**

PREVALENCE AND IMPACT OF SLEEP DISORDERS



SLEEP DISORDERS AND ASSOCIATED CONDITIONS

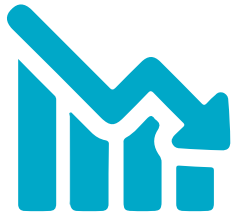
MORE THAN 40 MILLION AMERICANS SUFFER FROM A SLEEP DISORDER

The most prevalent sleep disorders include:

- **Obstructive Sleep Apnea (OSA)**
- **Insomnia**
- **Restless leg syndrome**
- **Narcolepsy**
- **Fatigue**

THE COST OF POOR SLEEP

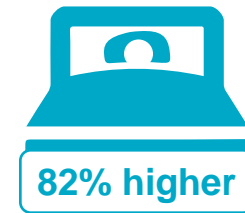
Lack of sleep can account for up to **\$35B in work place losses**¹



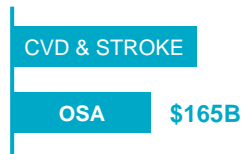
Life insurance premiums can double or even triple in price by not managing individuals' sleep conditions properly²



Untreated sleep apnea patients had **82% higher in patient costs** than treated patients³



Obstructive sleep apnea is the **2nd highest most expensive chronic condition to the U.S**⁵



Insufficient sleep has been linked to chronic disease, such as obesity, diabetes and cardiovascular disease⁴



60% of Americans with a sleep disorder **also have a chronic disorder**⁶



Sources: 1. McKinsey & Company analysis; Harvard Medical School 2. Quotacy, 2015 3. Population Health Management, 2012; Union Pacific Railroad Employees Health Systems 4. Reference available upon request 5. Centers for Disease Control and Prevention 6. The National Center on Sleep Disorders Research (NCSDR)

THE IMPACT OF POOR SLEEP ON EMPLOYERS



30% of the workforce is affected by sleep deficiency¹

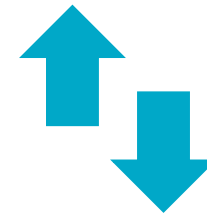


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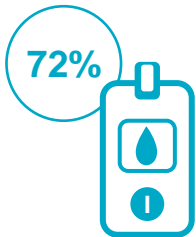
Six times more likely to miss a day of work²



Up to 87% of covered members at large employers with obstructive sleep apnea are undiagnosed and unmanaged²



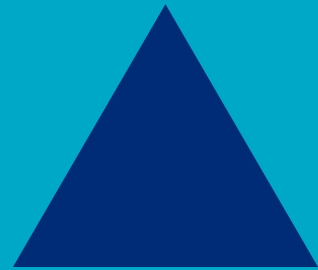
Increases prevalence & suppresses other wellness and disease management³



OSA is prevalent in 72% of people with Type 2 Diabetes³

Sources: 1 Ceridian's Sleep Survey, Workplace Wake-Up Call, 2014 2 Reference available upon request 3National Sleep Foundation

WELL RESTED AND ALERT CURRENT TREATMENT APPROACHES



SHORTCOMINGS OF TRADITIONAL SLEEP MANAGEMENT

THE TRADITIONAL SLEEP MANAGEMENT APPROACH IS LIMITED IN SCOPE WITH MANY BARRIERS



Obstructive Sleep Apnea (OSA)

- PCPs under screen for OSA
- Lack of access to screening contributes to 80% of individuals with OSA being undiagnosed



- Of those referred to an inpatient sleep lab for testing, up to 40% do not go



- Testing in an unnatural sleep environment is uncomfortable for the patient and reduces effectiveness

- Tests sometimes fail to confirm sleep disorders leading to expensive retesting
- Follow up visits add to cost and timeliness
- Lack of integrated diagnoses with comorbid conditions – ie AFIB
- Patient out-of-pocket barriers are not addressed

- Positive Airway Pressure (PAP) therapy is prescribed 95% of the time ...
- ...but has a 45% non-compliance rate
- Inadequate ongoing provider oversight or monitoring, fragmented care
- Lack of integrated DME compliance management



Restless Leg Syndrome, Sleep Hygiene, Excessive Sleepiness, Insomnia

OTHER SLEEP DISORDERS ARE LARGELY UNDIAGNOSED AND UNTREATED

CURRENT TREATMENT APPROACHES



- Most Medical Plans pay for OSA diagnostics and treatment once a patient self-identifies
 - PAP therapy has been shown to effectively change the long-term health outcomes of patients
 - PAP therapy has too often been viewed as a transaction instead of part of a chronic care program



- Many Medical Plans have a Utilization Review Program that is designed to take the self-identified “at-risk” patient, and determine site-of-service for that patient

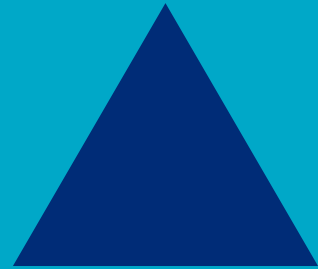


- Health plans typically do not include a method to proactively engage and identify at-risk members to reduce the under diagnosis of sleep disorders and the adverse effects on the overall health of the employee and financial health of the employer



- Much of the sleep disorder focus is on OSA, while other complex disorders, including the growing disorder of insomnia, do not receive the focus that they deserve

WELL RESTED AND ALERT SLEEP MANAGEMENT SOLUTION



ADDRESSING SLEEP MANAGEMENT

- Proactive sleep risk identification
- Flexible screening/at-risk member identification
- Simple to use at-home diagnostics
- Nationally scalable
- Clinical appropriate and outcomes focused

INTEGRATED SLEEPMED APPROACH BETTER HEALTH AND COST SAVINGS

SCREENING

Direct or triaged screening from HRA/biometric screenings, payor/private DM/CM, telemed, data mining driven engagement



DIAGNOSIS AND TESTING

240,000+ diagnostic studies per year at 100+ managed sleep labs and thousands of physicians' practices. Network of sleep physicians.



THERAPY

100 staff Respiratory Therapists, national RT network, and 35 dedicated service centers. Online CBTi.



ACTIVE MANAGEMENT

Actively monitor patient compliance to provide guidance



SLEEP MANAGEMENT SOLUTION

ACCESS TO CBT-I IS SEVERELY LIMITED DUE TO:



Caregiver Shortage: 220 certified behavioral sleep therapists serving 30M insomniacs



Cost: Face-to-face treatment is expensive (\$800–\$1,500); limited reimbursement

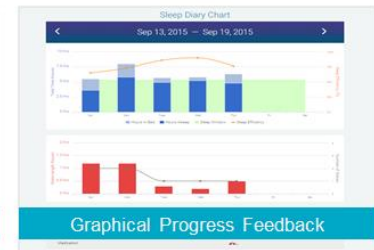


Inconvenience: Scheduling and travel for office visits require time away from work



Privacy Concerns: Reluctance to share personal health issues with others

INTEGRATED DIGITAL CBT-I



SLEEP PROGRAM RESULTS

8–10%

Better compliance

73%

Reduction in preventable driving accidents

Patients adhere to the program, save money and sleep better

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Z^z



\$6,000+

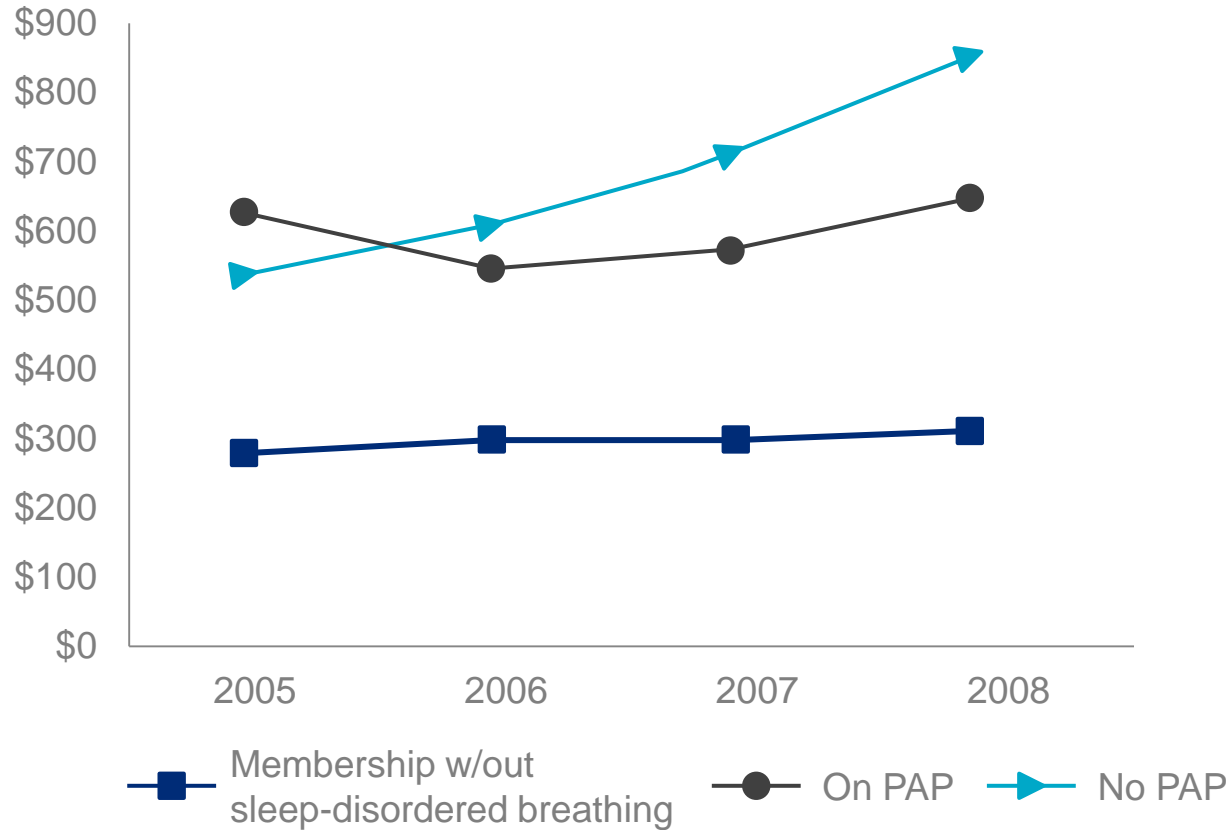
In total health plan & disability cost savings per driver in one year

47.8%

reduction PMPM in healthcare spending

TOTAL MEDICAL EXPENSE PMPM

UNION PACIFIC GRAPH



During 2007 and 2008 medical expense averaged **100%** higher for those on therapy and **160%** for those not on therapy when compared to the membership without sleep-disordered breathing.

Sources: Population Health Management, 2012

SLEEP PROGRAM RESULTS

CASE STUDY: SCHNEIDER TRUCKING

GOAL: Retroactive statistical analysis of study data acquired from Schneider Trucking.

Program highlights

- 1600 drivers diagnosed with OSA compared to an equal number of drivers screened unlikely to have OSA
- Crash Risk is 5X Higher for drivers not adhering to sleep apnea treatment
- Based on findings given 1000 drivers in one year, those refusing mandated treatment would have 70 preventable serious truck crashes, compared to 14 crashed experienced by the control group or OSA diagnosed drivers who adhered to treatment
- **Savings impact information due out shortly but early projections indicate much more significant than Union Pacific study**

SLEEP PROGRAM RESULTS

CASE STUDY: LARGE PUBLIC COMMUTER RAIL

GOAL: Improve safety by reducing driver fatigue and drowsiness

Program highlights

- Employee engagement program with on-site promotions
- Face-to-face 20-minute screening sessions for all employees via scheduled appointments
- Enhanced and expedited care delivery for insomnia and OSA
- Coaching to promote behavior change for disease management
- Sleep Safety campaigns with on-site screening; device dispensing and retrieval
- **Initial screenings of almost 300 patients showed 61% high risk for sleep disorder breathing**

WELL RESTED AND ALERT
ADDITIONAL PROGRAMMING TO SUPPORT SLEEP HEALTH



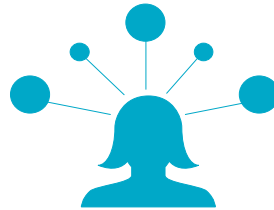
THE MOVE TO WELL-BEING

PHYSICAL



Activity
Nutrition
Sleep

EMOTIONAL



Resilience
Mindfulness
Problem solving

FINANCIAL



Security
Life planning
Retirement

ADDITIONAL PROGRAMMING

- Employers can augment their wellbeing program with:
 - Education about sleep and its importance
 - Ways to improve sleep
 - Lifestyle changes – caffeine, alcohol and nicotine
 - Physical activity
 - Relaxation techniques
 - cCBT programs

CONTACT INFORMATION

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QUESTIONS?



Sandra Kuhn, MSW
Principal



Josh Dunsby, PhD
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Alyssa Cairns, PhD
Sleep Research Scientist



Mark Miles
Enterprise Sales Director

QUESTIONS

Please type your questions in the Q&A section of the toolbar and we will do our best to answer as many questions as we have time for.

To submit a question while in full screen mode, use the Q&A button, on the floating panel, on the top of your screen.



**CLICK HERE TO ASK A QUESTION
TO "ALL PANELISTS"**

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TODAY**