

World Sleep Day® 2015 Toolkit

WORLD SLEEP DAY – HOW IT BEGAN

World Sleep Day (WSD) has grown steadily since its inception. The first WSD was held on March 14th 2008, under the slogan ‘Sleep well, live fully awake’. The 2009 WSD operated under the slogan “Drive alert, arrive safe” and had 49 separate articles, mentioning “World Sleep Day”. 2010’s WSD slogan was “Sleep well, stay healthy” and experienced continued growth of international coverage. The 2011 WSD slogan was “Sleep well, grow healthy”—with emphasis on promoting quality sleep for all ages. The 2012 World Sleep Day slogan was “Breathe easily, sleep well” held on March 16, 2012. The 2013 slogan was “good sleep, healthy aging” held on March 15, 2013. The 2014 the slogan is “restful sleep, easy breathing, healthy body” held on March 14, 2014. For 2015 the slogan is “When Sleep is Sound, Health and Happiness Abound” and will be held on Friday March 13th, 2015.

WSD is an annual event intended to be a celebration of sleep and a call to action on important issues related to sleep. It is organized by the World Sleep Day Committee of the World Association of Sleep Medicine (WASM), and aims to lessen the burden of sleep problems on society through better prevention and management of sleep disorders. The World Sleep Day is on the Friday before the March equinoxes, and therefore, the date changes each year. The following are future World Sleep Day dates: 2016 is March 18th. and 2017 is March 17th.

WSD is co-chaired by committee members Antonio Culebras, MD, professor of neurology at SUNY, Upstate Medical University, Syracuse, New York; and Liborio Parrino, MD, assistant professor of neurology at Parma University, Italy; with support from WASM’s Executive Director Allan O’Bryan.

WSD events take place primarily online at www.worldsleepday.org, featuring educational and historical videos, education materials, and public service announcements. WASM has issued the following declaration related to World Sleep Day:

WORLD SLEEP DAY DECLARATION:

- ***Whereas, sleepiness and sleeplessness constitute a global epidemic that threatens health and quality of life,***
- ***Whereas, much can be done to prevent and treat sleepiness and sleeplessness,***
- ***Whereas, professional and public awareness are the firsts steps to action,***
- ***We hereby DECLARE that the disorders of sleep are preventable and treatable medical conditions in every country of the world.***

MEDIA SPOKESPEOPLE

Where possible, we suggest identifying and preparing a message for an internal spokesperson to front your WSD activities. Depending on time and resources, media/message training may also help to prepare your spokesperson for various media activities such as telephone interviews, live TV or radio. WASM is preparing a list of spokespeople from countries around the world. Please contact WASM at info@wasmonline.org for a list of international spokespeople or to be considered as a spokesperson. Internal spokespeople from WASM include the following:

Dr. Antonio Culebras: aculebras@aol.com 1-315-464-5302
Dr. Liborio Parrino: liborio.parrino@unipr.it
Allan O'Bryan: obryan@wasmonline.org +1.507.206.1235

WORLD SLEEP DAY DELEGATES

WASM currently has over 200 World Sleep Day delegates spreading awareness of sleep issues in over 50 countries around the globe. These delegates contact local media, organize public awareness events, host conferences and much more under the auspices of World Sleep Day.

Here are a few examples of our delegates' activities for 2014 including the 4 Distinguished Activity Awardees:

- Dr. Liborio Parrino (Italy) worked alongside the Italian Red Cross and put an ambulance in squares throughout Italy handing out flyers to the public.
- The Sleep Apnea Treatment Centers of America moved a life size bed to various locations around Tampa Bay, FL handing out flyers and good sleep information to the public.
- Federal Almazov Medical Research Center in Russia, Delegates: Lyudmila Korostovtseva & Irina Zavalko translated the WASM 10 Commandments into Russian, and held multiple lectures in several locations for a wide variety of ages.
- Australasian Sleep Association & Sleep Health Foundation Delegate: Sarah Biggs had 23 schools and over 6000 children involved across Australia and New Zealand. Many schools made a special day out of it by making World Sleep Day a pajama party at school.
- Dr. Vijaya Krishnan (India) organized a full marathon along with addressing the public about what is Sleep Apnea, the 10 commandments of sleep hygiene for adults and children. Dr. Krishnan also spoke about the risk factors causing Sleep Apnea and the importance of obesity in Obstructive Sleep Apnea.
- Dr. Birgitte Holzinger (Austria) held a press conference in which 25 journalists appeared and were very interested and helped them by spreading the knowledge about their field to the public.
- Dr. Ximena Alvarado (Bolivia) brought awareness of World Sleep Day through local and national coverage TV and radio interviews through FIDES TV – Home Medical Program, run by the Medical College of Bolivia and the Bolivian Society of Internal Medicine. 500 people attended on the day of the interview.
- Egyptian Scientific Society for Sleep Medicine & Research Delegate: Ahmed Gharib held: two different press releases on Al Ahram newspaper (the most widely read newspaper in Egypt), shedding light on the physiology of sleep, the importance of sleep hygiene and the measures taken to diagnose and treat the various sleep disorders among adults and children. There was also a media release on Abu Dhabi TV addressed to the Arab public.

If you would like to become a World Sleep Day delegate please go to www.worldsleepday.org for more information. Or, contact Katherine Walker at walker@wasmonline.org.

WORLD SLEEP DAY 2015 PRESS RELEASE

A press release for the 2015 World Sleep Day will be available in February 2015, introducing the 2015 activities, date, theme, and activities occurring around the globe. The press release will be

posted on our website www.worldsleepday.org. Please contact info@wasmonline.org for more details.

KEY MESSAGES

A critical component of public relations (PR) is communicating the right messages to the right audiences at the right times. It is important for messages about World Sleep Day to be consistent across countries, particularly with the volume of information that is now available on the Internet. Defining key messages and adapting them to your target audience is crucial.

Please note: Not every message will be relevant to each of your target audiences, so you need to adapt them accordingly.

The following key messages are designed to give you a template to work from and can be adapted to suit the media environment and focus within your countries. WASM committee members, WSD delegates, and sleep professionals around the world will be engaging in PR activities that discuss sleep disorders relative to this year's "When Sleep is Sound, Health and Happiness Abound" theme in order to raise awareness of WSD. The key messages below can be used as talking points to enable you to have consistent messages with others around the world. Bolded key messages should be viewed as primary messages when time or space is limited.

SLOGAN: WHEN SLEEP IS SOUND, HEALTH AND HAPPINESS ABOUND

- **BREATHE WELL:** (Identifies with sleep apnea, CPAP treatments) Breathing regularly during sleep is critical to maintain well-being and health. Interruption of the breathing function during sleep is called sleep apnea. This is a pervasive and common disorder that affects 4% of men and 2% of women.²²
- **REST WELL:** (Identifies with sleep environment) Environmental conditions, such as temperature, noise, light, bed comfort and electronic distractions, play a significant role in one's ability to get proper sleep—and, subsequently, in overall sleep-related wellness. (See WASM 10 Commandments.)
- **DREAM WELL:** (Identifies with mental health of sleep) Sleep disturbance is a risk factor of both physical and mental disorders³⁴. Mental health problems for which sleep disturbance elevates risk most commonly include depression²⁸⁻³⁰, and anxiety disorders³¹⁻³³.
- **DRIVE WELL:** (Identifies with excessive sleepiness) Failure to obtain quality sleep may lead to poor alertness, lack of attention, reduced concentration while driving.

GENERAL MESSAGES

- **World Sleep Day is an annual event to raise awareness of sleep disorders and the burden that they place on society. World Sleep Day 2015 will be held on Friday March 13, 2015.**
- **Most sleep disorders are preventable or treatable, yet less than one-third of sufferers seek professional help.⁴**
- **Sleep problems constitute a global epidemic that threatens health and quality of life for up to 45% of the world's population.³**
- Better understanding of sleep conditions and more research into the area will help reduce the burden of sleep disorders on society.

- Three elements of good quality sleep are:
 - Duration- The length of sleep should be sufficient for the sleeper to be rested and alert the following day.
 - Continuity- Sleep Periods should be seamless without fragmentation.
 - Depth- Sleep should be deep enough to be restorative

TALKING POINTS and KEY MESSAGES

Primary:

- **Research shows that we spend up to one-third of our lives sleeping. Sleep is a basic human need, much like eating and drinking, and is crucial to our overall health and well-being.**
- **Sleep, like exercise and nutrition, is essential for metabolic regulation in children. There is evidence for a link between sleep duration and childhood obesity. The findings are more apparent in girls. Sleep duration is the effect of day-to-day variability of sleep-wake timing on weight regulation.** ^{19,20}
- **Breathing regularly during sleep is critical to maintain well-being and health. Persistent interruption of the breathing function during sleep is called sleep apnea. This is a pervasive and common disorder that affects 4% of men and 2% of women.** ²²
- **Sleep apnea causes daytime sleepiness and fatigue, and may lead to conditions such as hypertension, ischemic heart disease, stroke ²⁷, and diabetes.**
- Lack of sleep or poor quality sleep is known to have a significant negative impact on our health in the long and short term. Next day effects of poor quality sleep include a negative impact on our attention span, memory recall and learning.⁵ Longer term effects are being studied, but poor quality sleep or sleep deprivation has been associated with significant health problems, such as obesity, diabetes, weakened immune systems and even some cancers.^{6,7,8}
- Lack of sleep is related to many psychological conditions such as depression, anxiety and psychosis.^{9,10}
- Quality sleep is crucial to ensure good health and quality of life.

Importance of good-quality, restorative sleep

- **Good quality and restorative sleep is essential for day-to-day functioning. Studies suggest that sleep quality rather than quantity has a greater impact on quality of life and daytime functioning.** ¹²
- **Healthy sleep in children will improve the child's overall wellness. WASM has created the 10 commandments of Healthy Sleep for Children, available at www.worldsleepday.org.**
- Poor quality sleep has a greater negative impact on health, well-being and satisfaction with life than the quantity of sleep a person gets.^{9,13}
- Quality sleep is responsible for alertness, improved functioning the following day and better quality of life.

Consequences of sleep disorders

- **Sleep disorders cause significant individual and societal burden and form a serious public health problem.**

- **Obstructive sleep apnea significantly impacts health and well-being. The drop in oxygen that occurs when breathing stops due to OSA puts a strain on the heart and can lead to a number of serious health conditions.**
- Directly or indirectly, disrupted sleep can have a negative effect on family life and relationships by affecting a person's mood and the way in which they are able to perform daily activities and interact socially.¹³

Extent of the epidemic

- **35% of people do not feel they get enough sleep, impacting both their physical and mental health.**²¹
- **Obstructive sleep apnea (OSA) affects approximately 4% of the adult population.** ²¹ **If not properly managed, OSA can have a significant impact on a person's health and well-being.**
- Restless Legs Syndrome is a common disorder and occurs in between 3-10% of the population, although the number of people affected and the severity of the condition differs between countries.
- People who have OSA stop breathing repeatedly during sleep. OSA is caused by a blockage of the upper airway. The collapse of the airway may be due to factors such as a large tongue, extra tissue or decreased muscle tone holding the airway open.
- Each breathing pause can last from 10 seconds to more than a minute and is accompanied by a drop in oxygen associated with each event. The events may occur 5 to 50 times or more each hour. This puts a strain on the heart and can lead to a number of serious health conditions (U.S. Dept. of Health & Human Services, NIH, 2009).

Known consequences: some statistics

- A US study has estimated the annual costs of insomnia to be between \$92.5 billion and \$107.5 billion.¹⁷
- 71,000 people suffer injuries every year due to sleep-related accidents.¹⁶
- 1,550 people die because of sleep-related accidents.¹⁶
- 46% of individuals with frequent sleep disturbances report missing work or events, or making errors at work, compared to 15% of healthy sleepers.¹⁸

Insomnia

- **Insomnia affects between 30-45% of the adult population.**³
- **Primary insomnia (insomnia with no underlying condition) affects 1-10% of the general population, increasing up to 25% in the elderly.**³
- Lack of sleep or poor quality sleep also leaves us more vulnerable to accidents. People who suffer insomnia are seven times more likely to become involved in an accident causing death or serious injury than good sleepers.¹¹
- Studies have shown that people with insomnia suffer from more symptoms of anxiety and depression than people without insomnia.⁹
- Insomnia has a negative impact in all areas of a sufferer's life.
- Insomnia can affect work performance, with a change in character and a drop in the quality of work. If the disorder remains untreated, this may even lead to reduced job prospects and loss of employment.¹³

SLEEP BREATHING PROBLEMS

Obstructive sleep apnea is very prevalent, but under recognized. The Wisconsin Sleep Cohort Study estimated a prevalence of 24% among men and 9% among women in that state in the United States. In northern India, the prevalence of obstructive sleep apnea and obstructive sleep apnea syndrome is 13.7%. OSA is an independent risk factor for hypertension and other cardiovascular ailments. In children, sleep apnea may be the underlying cause of neuropsychological disturbances. Pediatric sleep apnea is typically associated with adenotonsillar hypertrophy.

Both adults and children should be formally investigated in sleep centers if sleep apnea is suspected, because both adult and pediatric sleep apnea is treatable and correctable; a correct and precise diagnosis is always required.²⁶

Sleep apnea is diagnosed with polysomnography in the sleep laboratory. Treatment with non-invasive positive airway (continuous positive airway pressure, or CPAP) ventilation is generally successful. For mild forms of sleep apnea, the application of oral devices can be beneficial. Surgery to remove excessive tissues in the oropharynx may be considered for individuals who cannot tolerate non-invasive equipment or who have obvious obstruction to airflow in the oropharynx by redundant tissue growth or large tonsils. There is proof that successful correction of sleep apnea with non-invasive positive airway pressure ventilation lowers mean blood pressure and may reduce the risk of myocardial infarction and stroke. Excessive daytime somnolence generally improves with successful treatment of sleep apnea.

WHAT YOU CAN DO ABOUT IT

- **Join the World Sleep Day 2015 celebrations.**
- **Obtain more information at www.worldsleepday.org.**
- Help put more emphasis on the diagnosis and treatment of sleep disorders in general and of sleep breathing problems in particular.
- Spread the message that more research is needed to completely understand sleep and to understand the causes of sleep disorders.
- Be cognizant that most sleep problems can be managed by changing behaviors around sleep, medical therapy or cognitive behavioral therapy.
- Be aware that patients suffering from sleep complaints, or who suffer from excessive daytime sleepiness, should see a physician and, if needed, obtain a consultation in a sleep center.

HISTORICAL VIDEOS

Historical videos document significant discoveries in the field of sleep medicine. Visit www.worldsleepday.org to view the following historical video content

- Prof. Michel Billiard of Montpellier, France, gives a historical perspective of the evolution of narcolepsy as a clinical entity (English).
- Dr. Ernest Hartmann describes 50 years of dedication to the exploration of sleep and dreams.
- Dr. E. Lugaresi tells the story of a patient with fatal familial insomnia.
- Dr. Carlos Schenck narrates the discovery and clinical development of REM sleep-related disorders.
- Dr. Karl Ekbom Jr. narrates how his father Professor Karl-Axel Ekbom developed the modern concept of restless legs syndrome.
- Dr. Peter Halasz of Budapest, Hungary, discusses his background in researching the relationships between epilepsy and sleep.
- Dr. Allan Hobson discusses his early research on rapid eye movement sleep and dreams.
- Dr. Christian Guilleminault is interviewed providing details on early discovery of obstructive sleep apnea.

A video in memory of Prof. Pasquale Montagna – 1950 – 2010

PRINCIPLES OF GOOD SLEEP

Violation of the 10 Commandments of Sleep Hygiene can cause poor quality of nocturnal sleep, short duration of sleep, fragmentation of sleep and serious sleep deprivation in adults.

10 COMMANDMENTS OF SLEEP HYGIENE FOR ADULTS

1. Fix a bedtime and an awakening time.
2. If you are in the habit of taking siestas, do not exceed 45 minutes of daytime sleep.
3. Avoid excessive alcohol ingestion 4 hours before bedtime and do not smoke.
4. Avoid caffeine 6 hours before bedtime. This includes coffee, tea and many sodas, as well as chocolate.
5. Avoid heavy, spicy, or sugary foods 4 hours before bedtime. A light snack before bed is acceptable.
6. Exercise regularly, but not right before bed.
7. Use comfortable bedding.
8. Find a comfortable temperature setting for sleeping and keep the room well ventilated.
9. Block out all distracting noise and eliminate as much light as possible.
10. Reserve the bed for sleep and sex. Don't use the bed as an office, workroom or recreation room.

10 COMMANDMENTS OF SLEEP HYGIENCE FOR CHILDREN [AGES BIRTH TO 12 YEARS]

1. Go to bed at the same time every night, preferably before 9:00.
2. Have an age-appropriate nap schedule.
3. Establish a consistent bedtime routine.
4. Make your child's bedroom sleep conducive – cool, dark, and quiet.
5. Encourage your child to fall asleep independently.
6. Avoid bright light at bedtime and during the night, and increase light exposure in the morning.
7. Avoid heavy meals and vigorous exercise close to bedtime.
8. Keep all electronics, including televisions, computers, and cell phones, out of the bedroom and limit the use of electronics before bedtime.
9. Avoid caffeine, including many sodas, coffee, and teas (as well as iced tea).
10. Keep a regular daily schedule, including consistent mealtimes.

World Sleep Day 2015 has partnered with sleep societies, commercial enterprises and individuals around the world to raise awareness about sleep-breathing problems. Visit our website www.worldsleepday.org for information on 2015 activities.

Bibliography

1. Department for Transport, Sleep related vehicle accidents. <http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme3/sleeprelatedvehicleaccidentsno22?page=2> . Last accessed 18/12/08
2. Ohayon MM, Zulley J. Correlates of global sleep dissatisfaction in the German population. *Sleep* 2001; 24: 780-787
3. Wade AG, Zisapel N, Lemoine P. Prolonged-release melatonin for the treatment of insomnia: targeting quality of sleep and morning alertness. *Ageing Health* 2008; 4 (1): 11-12
4. Léger D *et al.* Economic consequences of insomnia. *Sleep Res* 26, 412
5. Ohayon MM *et al.* Correlates of global sleep satisfaction in the psychiatric diagnosis categories. *Psychiatry Clin Neurosci* 2002; 56: 239-240
6. Taheri S, Lin L, Austin D *et al.* Short sleep duration is associated with elevated ghrelin, reduced leptin and increased body mass index. *PLoS Med* 2004; 1(3): e62
7. Gottlieb DJ, Punjabi NM, Newman AB *et al.* Association of sleep time with diabetes mellitus and impaired glucose tolerance. *Arch Intern Med* 2005; 165(8): 863-7
8. Gumustekin K, Seven B, Karabulut N *et al.* Effects of sleep deprivation, nicotine and selenium on wound healing in rats. *Neurosci* 2004; 114: 1433-1442
9. Zammit GK, Weiner J, Damato N *et al.* Quality of life in people with insomnia. *Sleep* 1999; 22 Suppl 2: S379-85

10. Beusterien KM, Rogers AE, Walsleben J *et al.* Health related quality of life effects of modafinil for treatment of narcolepsy. *Sleep* 1999; 22(6): 757-765
11. Metlaine A *et al.* Socioeconomic impact of insomnia in working populations. *Indust Health* 2005; 43(1): 11-19
12. Kandel ER, Schwartz JH, Jessell TM. Principles of neural science. The McGraw-Hill Companies Inc, 2000
13. Pilcher JJ. Sleep quality versus sleep quantity: relationships between sleep and measures of health, well-being and sleepiness in college students. *J Psychosom Res.* 1997; 42(6): 583-96
14. Royal Society for the Prevention of Accidents, RoSPA. Driver Fatigue and Road Accident: A literature review and position paper. February 2001
15. Think! Tiredness can kill- advice for drivers. INF159 Driver and Vehicle Licensing Agency (DVLA)
16. National Highway Traffic Safety Administration (NHTSA)
www.nhtsa.dot.gov
17. Reeder CE, Franklin M, Bramley TJ. Current landscape of insomnia in managed care. *Am J Manage Care* 2007; 13(Suppl 5): S112-6
18. National Sleep Foundation
www.sleepfoundation.org
19. Yu Y, Lu BS, Wang B, Wang H, Yang J, Li Z, Wang L, Liu X, Tang G, Xing H, Xu X, Zee PC, Wang X. Short sleep duration and adiposity in Chinese adolescents. *Sleep.* 2007 Dec 1;30(12):1688-97
20. Gozal D. *et al*, 2011 Pediatrics. In press
21. The 'Philips Index for Health and Well-being: A global perspective' - www.philips-thecenter.org/the-philips-global-index. Last accessed on 28 February 2011
22. Young T, Palta M, Dempsey J, Skatrud J, Weber S, Badr S. The occurrence of sleep-disordered breathing among middle-aged adults. *N Engl J Med* 1993;328:1230-5.
23. Sharma SK, Kumpawat S, Banga A, Goel A. Prevalence and risk factors of obstructive sleep apnea syndrome in a population of Delhi, India. *Chest* 2006;130:149-56.
24. Nieto FJ, Young TB, Lind BK, *et al.* Association of sleep-disordered breathing, sleep apnea, and hypertension in a large community-based study: Sleep Heart Health Study. *JAMA* 2000;283:1829-36.
25. Beebe DW. Neurobehavioral morbidity associated with disordered breathing during sleep in children: A comprehensive review. *Sleep.* 2006;29(9):1115-1134.
26. Culebras A. Sleep Disorders. In: Kris Heggenhougen and Stella Quah, editors International Encyclopedia of Public Health, Vol 6. San Diego: Academic Press; 2008. pp. 21-26.
27. Culebras A, editor. Sleep, stroke and cardiovascular disease. Cambridge University Press, 2013.
28. Breslau N, Roth T, Rosenthal L, Andreski P. Sleep disturbance and psychiatric disorders: a longitudinal epidemiological study of young adults. *Biol Psychiatry* 1996;39(6):411-8.
29. Gillin JC. Are sleep disturbances risk factors for anxiety, depressive and addictive disorders? *Acta Psychiatr Scand Suppl* 1998;393:39-43.
30. Jausse I, Bouyer J, Ancelin ML, *et al.* Insomnia and daytime sleepiness are risk factors for depressive symptoms in the elderly. *Sleep* 2011;34(8):1103-10.
31. Babson KA, Feldner MT, Trainor CD, Smith RC. An experimental investigation of the effects of acute sleep deprivation on panic-relevant biological challenge responding. *Behav Ther* 2009;40(3):239-50.
32. Belleville G, Cousineau H, Levrier K, St-Pierre-Delorme ME. Meta-analytic review of the impact of cognitive-behavior therapy for insomnia on concomitant anxiety. *Clin Psychol Rev* 2011;31(4):638-52.
33. Belleville G, Cousineau H, Levrier K, St-Pierre-Delorme ME, Marchand A. The impact of cognitive-behavior therapy for anxiety disorders on concomitant sleep disturbances: a meta-analysis. *J Anxiety Disord* 2010;24(4):379-86.
34. Gosling, John A., Philip J. Batterham, Nick Glozier, and Helen Christensen. "The Influence of Job Stress, Social Support and Health Status on Intermittent and Chronic Sleep Disturbance: An 8-year Longitudinal Analysis." *Sleep Medicine* 15 (2014): 979-85. Web. 8 Oct. 2014.
<<http://www.wasmonline.org/>>

LOGOS

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