

SLEEP DISORDERS & INSUFFICIENT SLEEP

# PROVING HEALTH through RESEARCH

# MILLION U.S. ADULTS

have sleep or wakefulness disorders1



1/3 OF AMERICANS

OF SLEEP PER NIGHT<sup>2</sup>



**INSUFFICIENT SLEEP** AND INSOMNIA ARE

**MORE PREVALENT** 



**5,000-6,000**FATAL CRASHES BY DROWSY DRIVERS4



12-18 MILLION LEEP APNEA<sup>5</sup>



70%

ENOUGH SLEEP

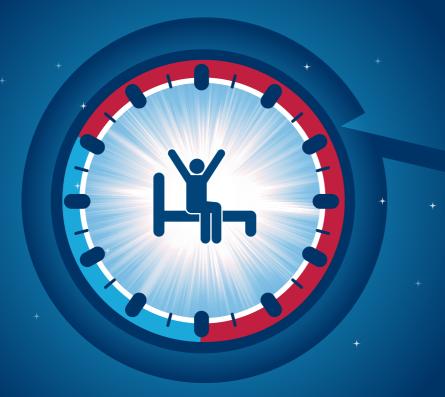
ON SCHOOL NIGHTS<sup>6</sup>

1/3 OF ADULTS+ ARE SLEEPY DURING DAYLIGHT HOURS ON A DAILY BASIS<sup>1</sup>



# PROGRESS OF RESEARCH

National Institutes of Health-supported research is shedding light on how sleep and lack of sleep affect the human body



RESEARCH INDICATES THAT SLEEPING LESS THAN

7-8 HOURS

each night, irregular sleep schedules, or poor quality sleep has been associated with many health risks9

## Health Discoveries



LINK SLEEP TO LEARNING, EMOTIONAL RESPONSES, AND PERCEPTION OF **EMOTIONS IN OTHERS** 

**BRAIN PATHWAYS** 



**CONTRIBUTE TO THE HEALTH AND REPAIR OF CELLS** THROUGHOUT THE HUMAN BODY

"CIRCADIAN CLOCK" GENES



WITH AN INCREASED RISK OF CARDIOVASCULAR COMPLICATIONS **DURING PREGNANCY** 

### Sleep disorders are associated with a growing number of health problems

HEART DISEASE / STROKE / DIABETES / OBESITY / CANCER / HIGH BLOOD PRESSURE







STRESS ON THE HEART



**RESISTANCE AND** RISK OF DIABETES

**INCREASE INSULIN** 

### IT WILL TAKE A COMMUNITY TO MOVE **RESEARCH FORWARD**

#### RESEARCH THAT IS EXPLORING

How sleep disorders, or a lack of sleep,

THE NIH SUPPORTS A RANGE OF SLEEP-RELATED



affect the body



Genetic, environmental, and social factors that lead to sleep disorders

New ways to diagnose and treat sleep disorders



Adverse effects on the brain from a lack of sleep

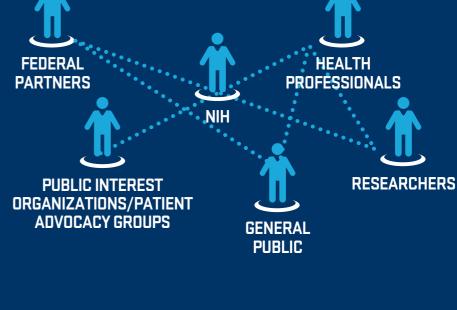


The consequences of sleep deficiency across the lifespan, from infancy to older age

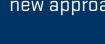
**SLEEP RESEARCH** 

THE NIH AND ITS PARTNERS WILL CONTINUE

TO WORK TOGETHER TO ADVANCE



The NIH is currently implementing the NIH Sleep Disorders Research Plan®, which builds on scientific advances that link sleep problems to health and safety risks and identifies research opportunities to spur new approaches for preventing and treating sleep disorders.



4http://www.cdc.gov/Features/dsdrowsydriving/index.html





**SOURCES:** 

¹http://www.cdc.gov/features/dssleep/ 2http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6008a2.htm

3http://www.nhlbi.nih.gov/health/health-topics/topics/inso/atrisk.html

<sup>7</sup>http://www.nhlbi.nih.gov/health/health-topics/topics/sdd/ \*http://www.nhlbi.nih.gov/health/prof/sleep/sleep\_splan.htm

91993 National Commission on Sleep Disorders Research Report to Congress

5http://www.nhlbi.nih.gov/health/public/sleep/yg\_slp.htm 6http://www.cdc.gov/media/subtopic/matte/pdf/2011/teen\_sleep.pdf