

Inadequate sleep could cost countries billions

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Inadequate sleep is a public health problem affecting more than one in three adults worldwide. A new study in the journal *Sleep*, published by Oxford University Press, suggests that insufficient sleep could also have grave economic consequences.

Community sleep surveys suggest that inadequate sleep is substantial and increasing. Surveys performed several years ago demonstrated that complaints of inadequate sleep were common, with between 20 and 30 percent of respondents complaining of inadequate sleep on a regular basis across several Western nations. Recent surveys suggest this proportion is increasing; between 33 and 45 percent of Australian adults now have this complaint.

The growth of the problem over time is shared by other nations with similar demographics. Some 35 percent of U.S. adults are not getting the recommended 7 hours of sleep each night. About 30 percent of Canadians don't feel they're getting enough sleep. Some 37 percent of those in the UK, 28 percent of people in Singapore, and 26 percent of French people also report insufficient sleep.

Insufficient sleep is associated with lapses in attention and the inability to stay focused; reduced motivation; compromised problem solving; confusion, irritability and memory lapses; impaired communication; slowed or faulty information processing and judgment; diminished reaction times; and indifference and loss of empathy. Furthermore, [short sleep](#) increases the risk of heart attacks, stroke, hypertension, obesity, diabetes, and depression.

Here researchers attempted to measure the economic consequences of limited sleep times—defined as "difficulties with sleep initiation, maintenance or quality associated with the presence of impaired daytime alertness" at least several days a week—in Australia. Researchers evaluated financial and non-financial cost data derived from national surveys and databases. Costs considered included: financial [costs](#) associated with health care, informal care provided outside the healthcare sector, productivity losses, non-medical work and vehicle accident costs, deadweight loss through inefficiencies relating to lost taxation revenue and welfare payments; and nonfinancial costs of a loss

of well-being.

The financial cost component was \$17.88 billion, comprised of: direct health costs of \$160 million for sleep disorders and \$1.08 billion for associated conditions; productivity losses of \$12.19 billion (\$5.22 billion reduced employment, \$0.61 billion premature death, \$1.73 billion absenteeism, \$4.63 billion lost through workers showing up for work but not actually performing work on the job); non-medical accident costs of \$2.48 billion; informal care costs of \$0.41 billion; and deadweight loss of \$1.56 billion. The non-financial cost of reduced well-being was \$27.33 billion. Thus, the estimated overall cost of inadequate sleep in Australia in 2016-17 (population: 24.8 million) was \$45.21 billion.

The financial and non-financial costs associated with inadequate sleep are substantial. The estimated total financial cost of \$17.88 billion represents 1.55% of Australian gross domestic product. The estimated non-financial cost of \$27.33 billion represents 4.6% of the total Australian burden of disease for the year. The researchers argue that these costs warrant substantial investment in preventive health measures to address the issue through education and regulation.

In setting national health priorities, governments have attempted to identify issues that involve high communal illness and injury burden with associated high costs for attention through public education, regulation, and other initiatives to effect improvements in health status. The authors say that governments have been remarkably successful in targeting diabetes, depression, and smoking, for example. These data presented above suggest that [sleep health](#) may merit similar attention. The situation is likely to be similar in equivalent economies.

Researcher quote: "We are in the midst of a worldwide epidemic of inadequate sleep, some from clinical [sleep disorders](#), some through pressure from competing work, social and family activities and some

from failure to give sleep sufficient priority through choice or ignorance. Apart from its impact on well-being, this problem comes at a huge economic cost through its destructive effects on health, safety and productivity. Addressing the issue by education, regulation and other initiatives is likely to deliver substantial economic as well as [health](#) benefits."

More information: David Hillman et al, The economic cost of inadequate sleep, *Sleep* (2018). [DOI: 10.1093/sleep/zsy083](https://doi.org/10.1093/sleep/zsy083)

Provided by Oxford University Press

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