



**Transforming the Sleep Health of Australians**

**Promoting Awareness and Behaviour Change  
for all Australians**

**Empowering & Educating Primary Care Providers**

**Proposal for funding to the MYEFO Process  
(Mid Year Economic and Fiscal Outlook)**

**A Joint Initiative by**

**The Sleep Health Foundation  
and  
The Australasian Sleep Association**

**November 2019**

## Foreword

The need to promote awareness around the importance of sleep has become increasingly apparent with the emergence of compelling evidence about its impact on mental, metabolic and physical health, quality of life and workplace productivity and safety.

The economic consequences of sleep loss and sleep disorders in Australia were estimated at \$66 billion in a Sleep Health Foundation - Deloitte Access Economics report released in 2017 (and subsequently peer-reviewed and published internationally). In recognition of the importance of the sleep health of Australians, a Parliamentary inquiry was convened by the Standing Committee on Health, Aged Care and Sport.

The report, *Bedtime Reading*, was released in April 2019 and produced 11 recommendations that aim to promote recognition of **sleep as the third pillar of a healthy lifestyle alongside nutrition and exercise** and improve access to services and therapies to address sleep disorders.



This Australian initiative was closely followed by a UK Green Paper: *Advancing our health: prevention in the 2020s*, an encompassing plan to improve health in which sleep is similarly identified as an important component of the healthcare preventative strategy. (<https://www.gov.uk/government/consultations/advancing-our-health-prevention-in-the-2020s/advancing-our-health-prevention-in-the-2020s-consultation-document#executive-summary>)

The Sleep Health Foundation (SHF) is Australia's leading advocate for healthy sleep.

Its mission is *to improve people's lives through better sleep*. The Australasian Sleep Association (ASA) is the peak scientific body for sleep in Australia. Its mission is *to promote sleep health and sleep science*.

These two peak bodies wish to thank the Hon. Minister for Health, Mr Greg Hunt, for prioritising the importance of sleep health and initiating the above inquiry, for which the recommendations achieved bipartisan support.

Recommendation 8 calls for a national sleep health awareness campaign in partnership with states and territories and key stakeholder groups. Here we propose a costed strategy for delivering this over 5 years through a national community behaviour change plan, supported by a primary healthcare practitioner education package.

Improving sleep health is a **critical part of preventative health initiatives** as sleep loss is linked to the most prevalent chronic diseases impacting on the health of the Australian population including cardiovascular disease, diabetes, obesity, depression and dementia.

Sleep loss contributes to workplace and motor vehicle accidents resulting in reduced productivity and loss of life.

Chronic sleep disorders, including obstructive sleep apnoea and insomnia, affect over 20% of the Australian population leading to cardiovascular disease and impaired mental health.

Improving the sleep of the nation and early detection and management of sleep disorders, will prevent the development of many chronic diseases, improve productivity, reduce mortality and produce substantial economic benefits.

This proposal will use established and effective methodologies aiming for widespread and significant changes in sleep health.

Although all Australians would benefit from improved sleep health, this proposal will especially prioritise vulnerable groups - including children, the elderly and those with mental health disorders - who are highly susceptible to the detrimental effects of sleep loss and sleep disorders.

This is aligned with the Productivity Commission report addressing the **mental health and suicide risk of young Australians**, given the compelling evidence linking poor mental health and suicidality to inadequate sleep.

This joint SHF/ASA proposal asks for \$28.9M support, staged over 5 years (year 1 = \$5.8M) to deliver a world first comprehensive sleep health strategy as an integral component of a broader preventative health plan.

We thank the Government for considering this request.



Emeritus Professor Dorothy Bruck  
Chair, Sleep Health Foundation



Associate Professor Alan Young  
President, Australasian Sleep Association

## Economic benefits

The economic benefits for the treatment of obstructive sleep apnoea with CPAP devices are now established showing a greater healthcare cost in failing to treat obstructive sleep apnoea than implementing and maintaining CPAP therapy.<sup>1</sup>

Treating insomnia with cognitive behavioural therapy has also been demonstrated to be cost effective.<sup>2</sup> Analyses for other sleep disorders will be performed subsequently that assist in developing an accurate estimate of the financial benefits of improving sleep health.

Based on the demonstrated economic burden of **\$66.3 Billion/year** of direct and indirect health costs, **even a 1% impact of this behaviour change and education strategy will be ten-fold cost effective.** The \$66.3 billion estimate is based on evidence showing 40% of Australians regularly get inadequate sleep (of which about half are due to untreated sleep disorders). If we can reduce the percentage of Australians getting inadequate sleep to 30% (i.e. a 10% reduction) this will save the economy \$16.5 billion annually. The available scientific and economic data **thus** provides a compelling case for the implementation of the above plan.

## Promote Awareness and Behaviour Change to Improve the Sleep Health of Australians

The Sleep Health Foundation (SHF) proposes a national 5-year staged campaign to change community behaviour and practices in relation to healthy sleep. Our strategy is evidence-based and utilizes proven methodologies to achieve outcomes in areas of need, identified in conjunction with consumer and stakeholder representatives. Recognised priorities include the need to promote:

- awareness of normal sleep requirements, including the variable needs between individuals across age groups, and the consequences of inadequate sleep on wellbeing, mood, relationships, productivity and safety
- knowledge of the causes of inadequate sleep, including issues related to inadequate duration of sleep, inappropriate timing of sleep and quality of sleep
- understanding of the nature of sleep disorders such as obstructive sleep apnoea, insomnia, and circadian misalignment with emphasis on their mental health, cognitive and cardio-metabolic consequences
- development of healthy sleep habits amongst Australians with an emphasis on childhood and adolescent sleep to optimise their emotional wellbeing, with particular focus on mental health impacts and risk of suicide
- healthy sleep in older Australians, including identification of sleep disorders among them to improve physical and mental well-being and reduce rates of cognitive decline
- strategies to meet the challenges of shift work and thereby combat its adverse mental, metabolic, physical and performance consequences

*The campaign to address these needs will be staged over 5 years to achieve a broad and lasting impact.*

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<sup>1</sup> Cost-effectiveness of continuous positive airway pressure therapy for obstructive sleep apnea: health care system and societal perspectives. Streatfeild J et al. *Sleep*. 2019 Aug 1

<sup>2</sup> Internet-Based Cognitive Behavioural Therapy for Insomnia: A Health Economic Evaluation, Thiaart et al, *Sleep*, 2016; 39 (10):1769–1778

*It will use established methodologies to formally identify gaps in knowledge across the community and inform the campaign's strategies for raising awareness. Tools for behaviour change will include both established advertising, advocacy and community development techniques and, where appropriate, trial and evaluation of emerging methods being developed internationally.*

## **Proposed components of the staged plan**

### **1. Identify gaps**

in community awareness and documentation of adverse behaviours within the predefined communities through dissemination of carefully designed surveys with required levels of reach. Collation and analysis of findings will inform the intervention campaign.

Pre-specified target groups:

- Children and Adolescents
- Shift-workers
- Pensioners, elderly populations and carers

Timeline: 6 months (concurrent with 2 and 3).

Cost estimate: \$150K

### **2. Perform a synthesis**

of existing level 1 (systematic reviews and meta-analyses) and level 2 (randomised controlled trials) evidence aligned with findings of stage 1 to inform recommendations. Summaries will be collated into a document of publishable standard.

Timeline 6 months (concurrent with 1 and 3)

Cost estimate: \$100K

### **3. Perform targeted research and/or focus group activity**

to assist in the design of an intervention strategy in areas which are deemed to lack sufficient knowledge and understanding.

Timeline 6 months (concurrent with 1 and 2)

Cost estimate: \$250K

### **4. Intervention design and strategy**

will be informed by stages 1-3. A steering group of stakeholders (see below) will be created to co-design a suite of interventions with marketing experts. This will include development of resources for information dissemination, including software and other products.

Timeline 6 months (to follow steps 1-3)

Cost estimate: \$0.75M

### **5. Implementation of the Intervention**

by advertisement, media, social media and other dissemination strategies, including roll-out of specific educational tools.

Timeline 4 years (to follow step 4)

Cost estimate: \$12M

### **6. Evaluation of impact**

Develop tools to measure outcomes. This may include national databases, registries, repeat survey activity.

Timeline 2 years (overlap with last 2 years of step 5)

Cost estimate: \$2.5M

## **7. Improve or add methodological changes informed by findings of evaluation**

Time line 6 months (overlap with last 6 months of steps 5 and 6)

Cost estimate: \$0.25M

## **8. Administrative costs**

Management cost, project officers' salaries, reporting and consultancy costs are estimated at \$400K per annum (= \$2M over 5 years)

## **Total Cost \$18M over the 5-year life of the project**

### **Steering Group**

A steering group will be assembled to include representatives of the following constituents:

1. Sleep Health Foundation- Academic and Clinical sleep health experts
2. Primary health care
3. Education representatives
4. Industry representatives
5. Transport representatives
6. Community representatives

### **Governance**

The Department of Health will oversee the strategy and ensure the staged plan is executed in accordance with the endorsed comprehensive plan.

### **Primary Health Care Education Proposal**

The Australasian Sleep Association (ASA) will deliver an education program for primary health care professionals that underpins the implementation of a community behaviour change package. The ASA has collaborated with key professional organisations to develop, implement and disseminate sleep learning tools to Australian primary health care professionals. Partner organisations are (see attached letters of support):

- Royal Australian College of General Practitioners (40,000 members)
- Australian Psychological Society (23,000 members)
- Australian Primary Health Care Nurses Association (5,000 members, 15,000 on database)
- Pharmaceutical Society of Australia (18,000 members)
- Pharmacy Guild of Australia (20,000 pharmacists, 18,000 pharmacy assistants)
- Australian Dental Association

Proposed learning packages:

- Online interactive case-based learning tools, webinars, point of care desktop tools
- Embedded assessment and accreditation of each activity
- Programs specifically tailored for each primary care group

- Core topics- Normal adult sleep and sleep hygiene, Paediatric sleep and sleep disorders, Adolescent sleep and sleep disorders, Sleep disorders in the elderly, Insomnia, Obstructive sleep apnoea, Circadian rhythm disorders, Limb movement disorders, Narcolepsy and Idiopathic Hypersomnia, Parasomnias

Costs to produce each online package varies with the hosting organisation: RACGP \$50,000, Pharmacy Guild \$35,000, Flinders University \$100,000 for a 1 hour online module. The latter includes detailed interactive components (case vignettes) and built in assessment tools. Additional costs for administration, assessment and promotion are built into the MYEFO submission.

**The total cost for the Primary Health Care Education proposal is \$10.9 million over a 4-year period.**

The ASA is ideally placed to develop this program. Our membership comprises educational experts in the field of sleep medicine (sleep physicians, general practitioners, nurses, psychologists, pharmacists and dentists).

We have a proven track record of producing educational tools with multiple primary care groups. These include CME-accredited online learning tools, webinars, podcasts, face to face lectures and courses with the organisations listed above.

We currently collaborate with the NHMRC-funded National Centre for Sleep Health Services Research to implement evidence-based educational strategies. Involvement of Primary Health Networks will also be critical to the dissemination of these learning tools.

## **Combined costs of the joint proposals**

Awareness and Behaviour Change campaign to improve Sleep Health:	\$18M over 5 years
Primary Health Care Education proposal:	\$10.9M over 4 years
<b>Total Cost</b>	<b>\$28.9m</b>