



Committee Secretary
Standing Committee on Health, Aged Care, and Sport
PO Box 6021
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CANBERRA
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RE: INQUIRY INTO SLEEP HEALTH AWARENESS IN AUSTRALIA

About the Australasian Epidemiological Association (AEA)

The Australasian Epidemiological Association (AEA) is the peak body for epidemiology in Australia, New Zealand, and the Pacific.

The main **aims of epidemiology** are:

- To describe patterns of health and disease in populations
- To identify the causes of health and disease
- To provide the data that is essential for the management, evaluation and planning of services for the prevention, control and treatment of disease and promotion of health

The AEA is the only dedicated professional association specifically for those involved in the practice of epidemiology. The Association supports more than 600 members who work in government departments and agencies, universities, non-government organisations, and private enterprise.

The **mission of the AEA** is to develop and promote the discipline of epidemiology in Australasia through:

- Promoting excellence in epidemiological methods;
 - Strategic alliances with related organisations to maintain high standards of practice, teaching and research in Australasia; and
 - Advocating for funding, capacity building and policy development;
- thereby contributing to the maintenance and **improvement of public health**.

Our Response to the Terms of Reference

The AEA welcomes the opportunity to contribute to this Inquiry into Sleep Health Awareness in Australia. The Inquiry, and the actions that will follow, will be a crucial step to improving the sleep and consequently the health of all Australians.

1. The potential and known causes, impacts and costs (economic and social) of inadequate sleep and sleep disorders on the community;

- Although a wealth of research indicates sleep is vital to the maintenance of physical and mental health, **much remains unknown about the sleep of the Australian population.**
- Estimates based on representative data from the Australian Bureau of Statistics data suggests that **1 in 5 Australians have significant insomnia¹** and this is linked to poorer quality of life and more visits to GPs. This data is from 2007 and is now more than 10 years out of date.
- Current estimates of inadequate sleep are based on popular polls rather than **rigorous epidemiological study.**
- Currently available estimates of the impact and costs of poor sleep focus on medical sleep disorders. However, the **daily, routine sleep of the community deserves more attention** as one avenue to promote wellbeing and prevent disease.
- Epidemiological studies indicate that **poor habitual sleep increases risk for the development of chronic health conditions by 20-40%.**
- This includes conditions such as obesity, diabetes, cardiovascular disease, stroke, depression, anxiety, and even premature death.
- Sleep needs to be considered alongside nutrition and physical activity as lifestyle or behavioural risk factors for health and wellbeing.
- **Improved monitoring of sleep as a lifestyle behaviour** in population health surveys at the national and state/territory levels is an important first step to facilitate the integration of sleep into public health efforts.

2. Access to, support and treatment available for individuals experiencing inadequate sleep and sleep disorders, including those who are: children and adolescents, from culturally and linguistically diverse backgrounds, living in rural, regional and remote areas, Aboriginal and Torres Strait Islander;

- **Information about the sleep of priority populations is missing** at the population level.
- It is **unknown how many Australians need health promotion and education programs** to improve their sleep health.

¹ Bin YS et al. The burden of insomnia on individual function and healthcare consumption in Australia. Australian and New Zealand Journal of Public Health. 2012;36(5):462-8.

- Improved **population monitoring sleep behaviour and habits** would aid in the providing such essential information.
- Recognition of good sleep as an essential part of a healthy lifestyle and **integration of sleep as a lifestyle behaviour into national preventive health strategies** and frameworks would ensure that sleep health is considered in priority populations.

4. Workplace awareness, practices and assistance available to those who may be impacted by inadequate sleep or sleep disorders, with a focus on: rostering practices for shift workers, heavy-work requirements, and the transport industry as compared to international best practice; and

- **Shift workers comprise about 20% of the population** and include people working across many occupations, including healthcare, fire and emergency services, and road, rail, and air transport.
- Shift workers are particularly vulnerable to **sleep deprivation** which **impairs performance** and **affects productivity**.
- Sleep deprivation is a key contributor to the risk of injury and associated disability, through workplace accidents and motor vehicle accidents. **Shift workers experience twice as many accidents as non-shift workers.**
- Many of those involved in shift work are in **under-valued work such as nursing or caring.**
- Detailed epidemiological studies on the **impact of sleep in shift workers**, both paid and unpaid, will lead to better work conditions, improve occupational health and safety, and reduce lost productivity.
- Labour force and social surveys which monitor shift work should **monitor sleep behaviours and practices** to provide national and occupation-specific information on current practice.

5. Current national research and investment into sleep health and sleeping disorders.

- With the increasing recognition that sleep is an important contributor to public health, **epidemiologists** will be vital to:
 - **Describing the patterns of sleep** health and sleep disorders in the Australian population
 - **Identifying the causes and determinants of sleep health** and sleep disorder
 - Provide and **analyse the data essential for promotion of sleep health**; and the prevention, management, and treatment of sleep disorders.
- **Information on sleep is increasingly collected in large-scale cohort studies** such as (but not restricted to) the:
 - Longitudinal Study of Indigenous Children
 - Australian Longitudinal Study on Women's Health

- Australian Breakthrough Cancer Study
- Household Income and Labour Dynamics in Australia Survey
- 45 and Up Study (NSW)
- West Australian Sleep Health Study
- Sydney Sleep Biobank
- However, there is **limited funding** available to support the time and human resources required to analyse these data
- **Analysis of existing datasets would provide key information for decision-making and action** related to *Terms of Reference 2 to 4* of this Inquiry.
- Such analyses are a **cost-effective way of gaining new insights** for population sleep health.
- Such analyses also **maximise existing federal investments** that have enabled the collection of research cohort data.

Our Recommendations

Our key recommendation is the **integration of sleep health into existing public health promotion and disease prevention frameworks**. This includes acknowledging sleep as a behavioural risk factor for the development of chronic physical and mental health conditions and the importance of sleep health in injury prevention.

Specific actions may include:

- Monitoring of sleep as a lifestyle behaviour in population health and social surveys at the national and state/territory levels.
- Adoption of internationally recognised guidelines for sleep duration².
- Development or adoption of lifestyle guidelines that integrate sleep with recommendations for physical activity and nutrition.
- Establishment of research funding schemes which encourage the use of existing datasets to gain insights into sleep health³.

The AEA is pleased that the Australian Government is examining the contribution of sleep to Australian public health and would be happy to be consulted for any further information.

Anne Cust

President

Australasian Epidemiological Association

<https://aea.asn.au/>

² Hirshkowitz et al. National Sleep Foundation's updated sleep duration recommendations: final report. *Sleep Health*. 2015;1(4):233-43.

³ Example of secondary analyses funding programs from the US National Institute of Health: <https://grants.nih.gov/grants/guide/pa-files/PAR-17-004.html>