

# Non-Communicable Diseases Watch

March 2018



衛生防護中心  
Centre for Health Protection



衛生署  
Department of Health

## *Long and Sleepless Nights*

### *Key Messages*

- ※ Insomnia is a significant public health problem that affects millions of people worldwide on a situational, recurrent or persistent basis.
- ※ Many factors can contribute to insomnia. Transient or acute insomnia is often triggered by a temporary life event or situation, and lasts for only a few nights to a few weeks. However, insomnia can become a chronic problem especially when it co-exists with chronic diseases or mental illnesses.
- ※ In Hong Kong, the Population Health Survey 2014/15 found that close to half (48.0%) of community-dwelling persons aged 15 and above had experienced sleep disturbance, namely 'difficulty in falling asleep within 30 minutes', 'intermittent awakenings or difficulty in maintaining sleep during the night', and 'early morning awakening and unable to sleep again', during the 30 days preceding the survey. The proportions of people who had these sleep disturbances three or more times a week in the 30 days preceding the survey were 6.8%, 7.3% and 6.0% respectively.
- ※ Most insomnia can be effectively treated and prevented from recurrence by paying attention to good 'sleep hygiene'. If insomnia has been interfering with your daytime functioning, please consult your family doctor.

## Long and Sleepless Nights

It was two o'clock in the morning and you still found yourself wide awake after lying in bed for two hours. On another night, you fell asleep quickly but woke up from time to time. You stared at the clock and found that it was just four o'clock in the morning. No matter how hard you tried, you could not fall asleep again. These indicate that you may have insomnia. However, you are not alone. In fact, insomnia is a significant public health problem that affects millions of people (including children) world-wide on a situational, recurrent or persistent basis.<sup>1</sup>

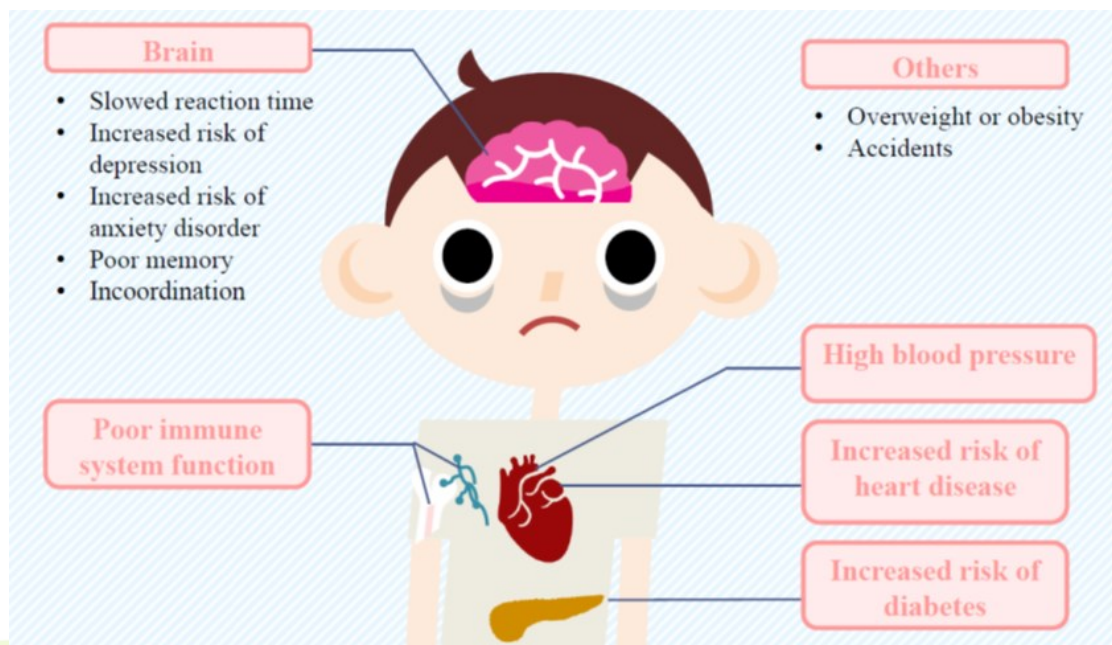
### Features, Symptoms and Causes of Insomnia

Insomnia is a symptom, syndrome and comorbid disorder.<sup>2</sup> It is characterised by a spectrum of nocturnal symptoms that include having trouble falling asleep at bedtime, having difficulty maintaining sleep, frequent nocturnal awakenings with an inability to return to sleep, or waking up too early in the morning.<sup>3,4</sup> Many factors can contribute

to insomnia. Females, elders, and those having an anxiety-prone personality are generally at greater risk of insomnia. Risk of insomnia is also positively associated with poor sleep hygiene practices. Transient or acute insomnia is often triggered by a temporary life event or situation (such as taking an examination or starting a new job, jet lag or having changes in sleep environment), and lasts for only a few nights to a few weeks. However, insomnia can become a chronic problem with cycles of relapse and remission or persistent symptoms, especially when it co-exists with chronic diseases or mental illnesses, substance abuse, chronic pain, or other sleep disorders (such as obstructive sleep apnoea and restless leg syndrome).<sup>3-5</sup>

Insomnia can have serious health effects on the mind and body (Figure 1).<sup>6</sup> Consequences of insomnia also include creating stress in personal relationships, diminished job or academic performance, increased work or school absenteeism, reduced productivity as well as increased health care utilisation and costs.<sup>3,4</sup>

**Figure 1: Health consequences of insomnia**



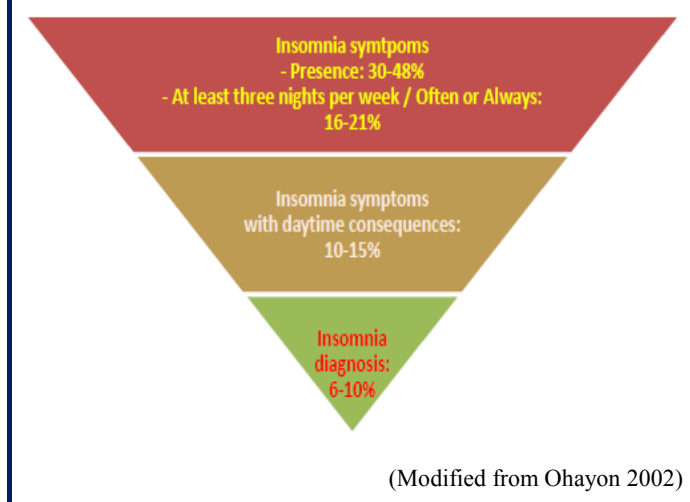
(Modified from Driver et al 2012)

## Prevalence of Insomnia

Insomnia is the most commonly encountered sleep disorder. Depending on the specific definitions, sample characteristics, assessment procedures or study time frames, prevalence of insomnia varied from as low as 6% with stringent criteria to diagnose insomnia, to 10-15% in people reported insomnia symptoms with daytime consequences (e.g. because of fatigue), and further up to 48% in those having any insomnia symptoms (Figure 2).<sup>4,5</sup>

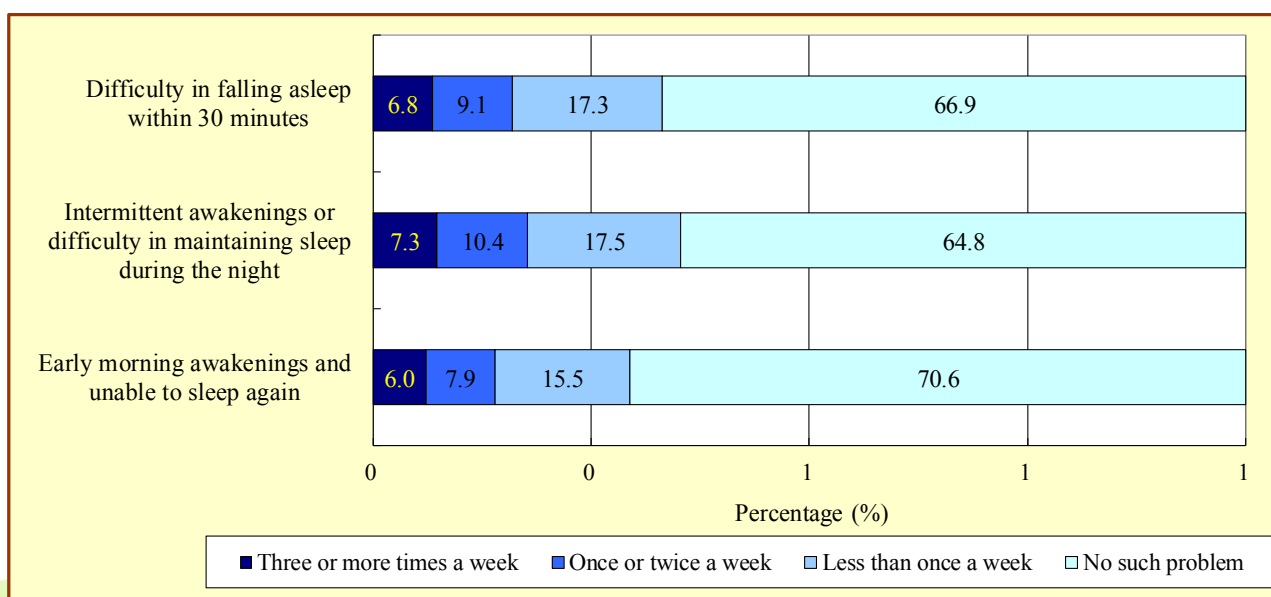
In Hong Kong, the Population Health Survey 2014/15 of the Department of Health interviewed over 12000 non-institutionalised persons aged 15 and above and found that close to half (48.0%) of them had experienced sleep disturbance, namely ‘difficulty in falling asleep within 30 minutes’, ‘intermittent awakenings or difficulty in maintaining sleep during the night’, and ‘early morning awakening and unable to sleep again’, during the 30 days preceding the survey. As shown in Figure 3, the proportions of having experienced these sleep disturbances three or more times a week in the 30 days preceding the survey were 6.8%, 7.3% and 6.0% respectively. Overall, females and people aged 65 and above were more likely to have experienced sleep disturbance.<sup>7</sup>

**Figure 2: Prevalence of insomnia symptoms and diagnosis**



Insomnia is commonly found in local children too. Among 1 611 community-based Chinese children (mean age of 9.0 years at baseline and 13.7 years at follow-up), a cohort study observed that the prevalence of chronic insomnia (defined as difficulty initiating sleep, difficulty maintaining sleep and/or early morning awakening three or more times a week over past 12 months) was 4.2% at baseline (2003-2004) and 6.6% at 5-year follow-up (2008-2010).<sup>8</sup>

**Figure 3: Frequency of sleep disturbances in the 30 days preceding the survey among non-institutionalised persons aged 15 and above**



Base: All respondents.

Note : Figures may not add up to the total due to rounding.

Source: Population Health Survey 2014/15, Department of Health.

## Treatment and Prevention of Insomnia

Most insomnia can be effectively treated through medications, or cognitive behavioural interventions to identify and correct maladaptive behaviours or thoughts about sleep. It can also be prevented from recurrence by paying attention to ‘sleep hygiene’ (Box 1). However, insomnia is often under-recognised and under-treated in both children and adult populations despite its impact on daily functioning and quality of life.<sup>4</sup> In Hong Kong, studies reported that only about 10% of children and adolescents and 40% of adults with insomnia reported having sought treatment for insomnia.<sup>9</sup> While a substantial proportion of insomniacs had sought treatment using complementary and alternative medicine (such as Chinese herbal medicine and acupuncture), some turned to over-the-counter sleeping aids or even alcohol for relief.<sup>10</sup>

Of note, alcohol aids sleep is a common misconception. In fact, alcohol disrupts normal sleep pattern depriving the drinker of a sound and restful sleep.<sup>11</sup> Self-medicating with over-the-counter sleeping products could also be detrimental to health as they may have side-effects or interact with other drugs. Prolonged use may even lead to habituation, tolerance and other harms. Thus, never use alcohol as a sleeping aid and be sure to discuss with your family doctor before taking any sleeping medications.

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### Box 1: General tips for a good night sleep

- ✓ Keep a constant sleep schedule. Go to bed and get up at about the same time every day, even on the weekends.
- ✓ Get active during the day, but avoid vigorous physical activities before bed.
- ✓ Do not smoke. Avoid alcohol, food and beverages containing caffeine.
- ✓ Avoid large meals and beverages before bed.
- ✓ Avoid stressful and stimulating screen activities before bed. Remove electronic devices, such as smartphone, computer or TV from bedroom.
- ✓ Create a calming ‘sleep conducive’ environment.



# World Sleep Day

## 16 March 2018

World Sleep Day is organised by the World Sleep Society. It is an annual event which aims at bringing researchers, health professionals and individuals together to promote the importance of healthy sleep.

Inspired by the Nobel Prize in Physiology or Medicine 2017 assigned to three researchers (Jeffrey C. Hall, Michael Rosbash and Michael W. Young) who have dedicated their studies to circadian rhythms, World Sleep Day 2018 incorporated the slogan “*Join the Sleep World, Preserve Your Rhythms to Enjoy Life*” to emphasise the importance of circadian rhythms in healthy sleep. Preserving regular circadian rhythms has been found to lower the risk of sleep disorders, mental health disorders and chronic health issues such as obesity and diabetes.

To know more about the World Sleep Day 2018 and related activities, please visit <http://worldsleepday.org/>. For live update, follow #WorldSleepDay.



**Non-Communicable Diseases (NCD) WATCH** is dedicated to promote public's awareness of and disseminate health information about non-communicable diseases and related issues, and the importance of their prevention and control. It is also an indication of our commitments in responsive risk communication and to address the growing non-communicable disease threats to the health of our community. The Editorial Board welcomes your views and comments. Please send all comments and/or questions to [so\\_dp3@dh.gov.hk](mailto:so_dp3@dh.gov.hk).

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