

## Sleep disorders in children and young people

### If you only read four things:

1. There were 600 hospital admissions for sleep disorders in children and young people (aged 0-19) in Suffolk in the period 2016/17-2018/19<sup>1</sup>
2. A third (34%) of children aged 11 to 15 are estimated to be affected by sleep disorders in England. This could mean around 25,000 11 to 15 year olds are affected in Suffolk.
3. Lack of sleep can affect children's educational attainment, as well as their mental and physical health.
4. 26% of young people (11-19) who responded to a Healthwatch Suffolk survey got less than seven hours sleep a night.

### Key points

This paper looks at sleep in children and young people. Further information on sleep in adults is on the Healthy Suffolk website: [www.healthysuffolk.org.uk/jsna/jsna-topic-reports/sleep](http://www.healthysuffolk.org.uk/jsna/jsna-topic-reports/sleep)

Sleep is essential for everyone; we spend about one third of our entire life sleeping.<sup>2</sup> It's an indispensable part of a healthy lifestyle, impacting on both mental and physical wellbeing. The NHS suggests chronic lack of sleep may lead to long-term mood disorders such as depression and anxiety.<sup>3</sup>

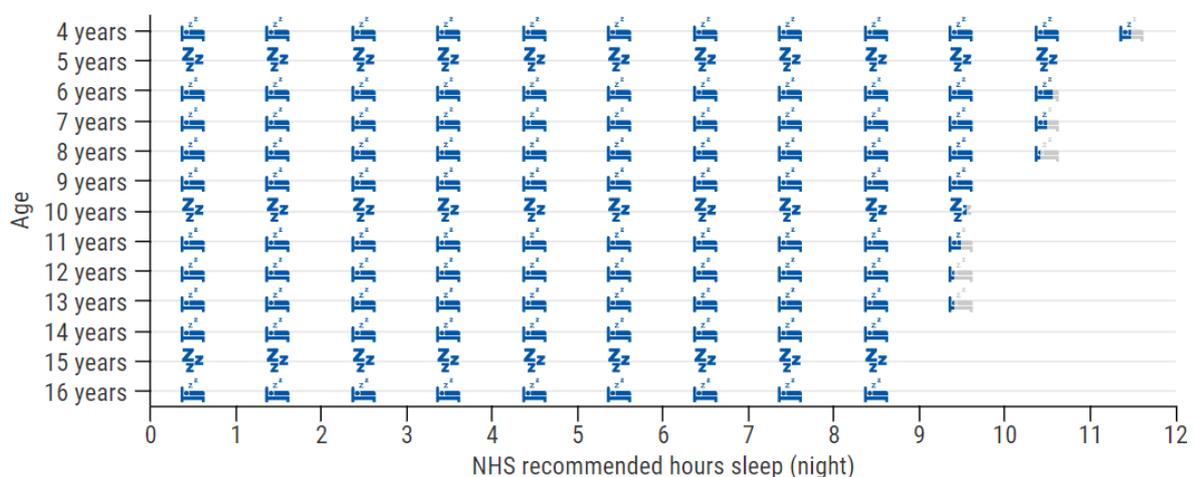
Sleep has several critical functions, including:<sup>4</sup>

- memorising and processing the development of cognitive skills
- repairing the brain after physical stress
- clearing toxins produced, and consumed, during the day

The importance of sleep is vital throughout life. The amount needed each day varies with age:<sup>5,6</sup>

- toddlers and babies – 12 to 17 hours
- children – 9 to 13 hours
- adults – 7 to 9 hours

Figure 1: Recommended night-time hours of sleep, 4-16 year olds<sup>6</sup>



Source: NHS, *How much sleep do children need? Sleep and tiredness (2017)*

According to ICD-10 criteria, Sleep Deprivation (Z72.820) is defined as:<sup>7</sup>

*lack of the normal sleep/wake cycle,  
prolonged periods of time without sleep,  
state of being deprived of sleep under experimental conditions, due to life events,  
or from a wide variety of pathophysiological causes such as medication effect,  
chronic illness, psychiatric illness, or sleep disorder.*

The Diagnostic and Statistical Manual of Disorders (DSM-5), has 11 diagnostic groups for sleep-wake disorders, and emphasises the need for independent clinical attention of a sleep disorder regardless of mental or other medical problems that may be present.<sup>8</sup>

This topic is based on the Mental Health Disorder Factsheet (Children and Young People), produced in February 2018 by Public Health (Nowreen Azim).

## The numbers

- In 2016/17 – 2018/19, children aged four years and under represented the largest age group (56.2%) of children and young people (aged 0-24) admitted to hospital for sleep disorders<sup>1</sup>
- The most common sleep disorder diagnosis was for sleep apnoea (recorded in 84.3% of all admissions for children and young people aged 0-24 years living in Suffolk)<sup>1</sup>
- There were 600 hospital admissions for sleep disorders in children and young people (aged 0-19) in Suffolk in the period 2016/17-2018/19<sup>1</sup>

Table 1: Number of hospital admissions for sleep disorders in Suffolk CCGs and Suffolk, aged 0-24 years, 2016/17-2018/19<sup>1</sup>

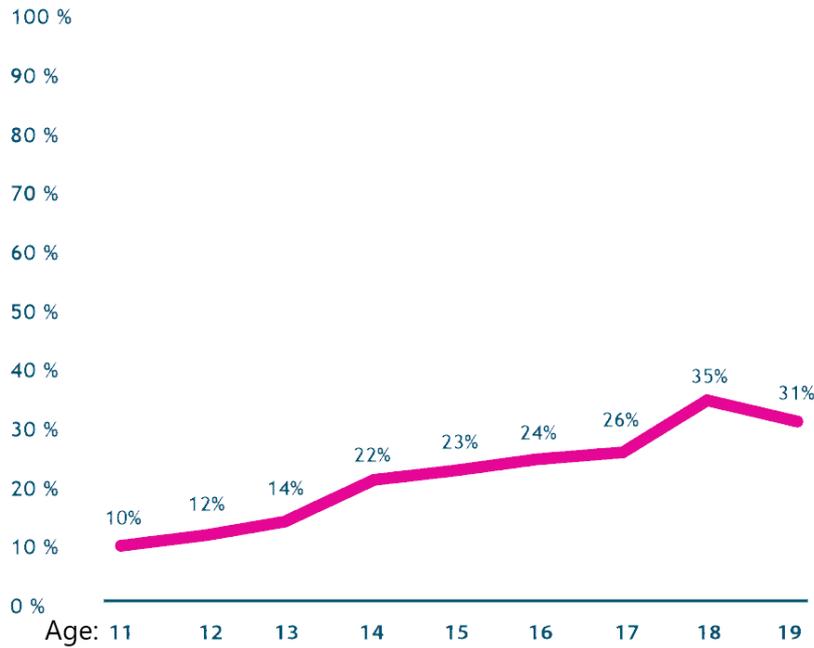
Age Group	Ipswich & East Suffolk CCG	West Suffolk CCG	Great Yarmouth & Waveney CCG	Waveney district	Suffolk County
<b>0-4 years</b>	230	50	160	85	365
<b>5-9 years</b>	85	20	75	35	140
<b>10-14 years</b>	25	20	30	15	60
<b>15-19 years</b>	25	*	15	*	35
<b>20-24 years</b>	15	35	*	*	50
<b>Total</b>	<b>380</b>	<b>125</b>	<b>280</b>	<b>135</b>	<b>650</b>

\* Numbers less than 8 have been suppressed; all numbers have been rounded to the nearest 5.

Source: Public Health Suffolk & NHS Digital. Analysis of hospital episode statistics. (2019).

Healthwatch Suffolk's 2019 My health, our future<sup>9</sup> survey of over 7,000 11-19 year olds (in 11 secondary schools and one college) found 26% respondents got less than seven hours sleep per night. This would equate to 19,085 children and young people in Suffolk. The average wellbeing score was higher (better) for those who got seven or more hours sleep (21.8) than those who had six hours or less (18.9).

Figure 2: Young people who get less than seven hours sleep on a school night by age, Suffolk, 2019<sup>9</sup>



Source: Healthwatch Suffolk. *My health, our future: Understanding children and young people’s mental health in Suffolk. (2019).*

## Prevalence

The 2014 National Survey on Health Behaviours in School-aged Children (HBSC)<sup>10</sup> published national level prevalence estimates for certain sleep problems in children and young people. The HBSC is an international study that has been running since 1982. A representative sample of schools across England are recruited, and pupils from years 7, 9, 10 or 11 complete the questionnaires under exam conditions.

According to the HBSC survey<sup>10</sup> (table 2), ‘sleeping difficulties’ (34%, roughly 14,445 in Suffolk) are more common than ‘lack of sleep’ (22%, roughly 9,345 in Suffolk).

Using the national prevalence figures<sup>10</sup>, an estimated 23,790 children and young people aged 11-15 are expected to have sleep disorders in Suffolk. This would be roughly 12,865 in Ipswich and East Suffolk, and 6,810 in West Suffolk. See tables 2 and 3.

Table 1: Sleep disorders in 11-15 year olds by sex (%), England, 2014<sup>10</sup>

	Lack of sleep <sup>1</sup>	Sleeping difficulties
<b>Male</b>	19%	29%
<b>Female</b>	25%	39%
<b>ALL</b>	22%	34%

<sup>1</sup> Is the amount of sleep you normally get enough for you to feel awake and concentrate on your school work? (Yes/No)

Table 2: Estimated sleeping disorders in registered patients, by sex, 11 to 15 years old, Suffolk CCGs, 2018<sup>10,11</sup>

	Lack of sleep			Sleeping difficulties		
	Male	Female	All*	Male	Female	All*
<b>Prevalence</b>	<b>19%</b>	<b>25%</b>	<b>22%</b>	<b>29%</b>	<b>39%</b>	<b>34%</b>
NHS Great Yarmouth and Waveney CCG	1,205	1,535	2,745	1,840	2,395	4,245
NHS Ipswich and East Suffolk CCG	2,295	2,885	5,200	3,505	4,500	8,035
NHS West Suffolk CCG	1,325	1,660	2,995	2,020	2,590	4,630

\*may not sum with breakdowns by sex, as calculations based on different base populations

Table 3: Estimated prevalence sleeping disorders, by sex, 11 to 15 years old, Suffolk local authorities, 2018<sup>10,12</sup>

	Lack of sleep			Sleeping difficulties		
	Male	Female	All*	Male	Female	All*
<b>Prevalence</b>	<b>19%</b>	<b>25%</b>	<b>22%</b>	<b>29%</b>	<b>39%</b>	<b>34%</b>
<b>Babergh</b>	510	660	1,165	775	1,025	1,805
<b>Forest Heath</b>	315	390	710	480	610	1,095
<b>Ipswich</b>	790	915	1,720	1,200	1,430	2,655
<b>Mid Suffolk</b>	570	720	1,295	870	1,125	2,000
<b>St Edmundsbury</b>	630	785	1,420	960	1,225	2,195
<b>Suffolk Coastal</b>	715	945	1,665	1,095	1,475	2,570
<b>Waveney</b>	595	775	1,375	910	1,215	2,125
<b>Suffolk</b>	4,125	5,195	9,345	6,295	8,100	14,445

\*may not sum with breakdowns by sex as calculations based on different base populations

## Risks & protective factors

### Risk factors<sup>6,13</sup>

- Adolescents and caregivers
- Poor diet / excessive alcohol intake
- Depression / anxiety
- Poor sleep routines
- Insomnia, narcolepsy, sleep apnoea, restless leg syndrome

### Impact

For children, teenagers and adolescence still in fulltime education getting enough sleep is essential. It's a key contributor for successful memory encoding within the limbic system and assists the retention of cognitive skills. Studies found even mild sleep disruption can suppress memory recall by making it harder to consolidate information within short and long term memory. This has been shown to affect children's educational attainment.<sup>14</sup>

There is considerable evidence suggesting that adolescents do not attain enough sleep to function under optimal capacity. Research indicates that British schoolchildren are the sixth most sleep-deprived in the world, with American children topping the rankings.<sup>15</sup>

It has also been shown that the main cause of accidents involving young drivers is drowsiness and lack of sleep.<sup>14</sup>

Evidence suggests later school times increase adolescents' average amount of sleep, and can have major benefits, including better academic performance and improved mental and physical health.<sup>15</sup> However, it is noted that any change to school scheduling can affect the whole environment and is not likely to be a sustainable solution for communities.<sup>14</sup>

## What are we doing?

### Services available in Suffolk

The following services are available in Suffolk:

- Sleep Apnoea Service (Ipswich Hospital Trust)
- Suffolk Wellbeing Service, Wellbeing Suffolk [www.wellbeingnands.co.uk/suffolk](http://www.wellbeingnands.co.uk/suffolk)
- Healthy Suffolk offers safer sleeping tips for babies and young children to promote healthy sleep and to lower the risk of Sudden Infant Death Syndrome (SIDs)<sup>16</sup>.

### Tips to give to parents/guardians

If parents/guardians feel that their child is suffering from sleep deprivation, the following options may improve sleeping conditions.<sup>6,13</sup>

- **set a regular bedtime schedule**  
a bedtime ritual teaches the brain to become familiar with sleep times and wake times
- **aim for between six and nine hours of sleep every night**  
by working out what time the child needs to wake up
- **winding down is a critical stage in preparing for bed**  
baths, reading or certain types of music can help
- **avoid using electronic devices just before bedtime**  
they can stimulate the brain and disrupt the wind down period crucial to a good night's sleep
- **consult a GP**

## What else could we do?

Sleep problems can be a challenge to treat as there are many reasons why they may occur, however this means that they often go away when sleeping habits are changed.

The following therapies have been shown to help (therapies and medication are for age 16 onwards):<sup>5,17</sup>

- good sleep hygiene
- psychological therapies delivered through IAPT (Improving Access to Psychological Therapies) – Suffolk wellbeing
- Cognitive Behaviour Therapy (CBT)
- in particular cases, short-term medication may be prescribed, combined with therapy and healthy lifestyle changes

## Useful links

- NHS [www.nhs.uk/conditions/pregnancy-and-baby/sleep-problems-in-children/](http://www.nhs.uk/conditions/pregnancy-and-baby/sleep-problems-in-children/)
- NHS Choices [www.nhs.uk/Livewell/tiredness-and-fatigue/Pages/lack-of-sleep-health-risks.aspx](http://www.nhs.uk/Livewell/tiredness-and-fatigue/Pages/lack-of-sleep-health-risks.aspx)
- British Sleep Society [www.sleepsociety.org.uk/](http://www.sleepsociety.org.uk/)
- National Sleep Foundation [sleepfoundation.org/sleep-disorders-problems](http://sleepfoundation.org/sleep-disorders-problems)
- Sleep topic paper, Healthy Suffolk [www.healthysuffolk.org.uk/jsna/jsna-topic-reports/sleep](http://www.healthysuffolk.org.uk/jsna/jsna-topic-reports/sleep)

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## Appendix 1: Population figures

Prevalence is estimated using these population figures.

### Patients Registered by CCG at a GP Practice<sup>11</sup>

This was extracted from the GP Payments system (Open Exeter, maintained by NHS Digital) to give a snapshot in time. This release is an accurate snapshot as at 1 November 2018. GP Practices are mapped to Clinical Commissioning Groups (CCG). Data is released by single year of age, split by sex.

Table 4: Registered patients at GP Practices by CCG, aged 11 to 15, November 2018<sup>11</sup>

	Male	Female	Total
Ipswich & East Suffolk	12,092	11,535	23,627
Great Yarmouth & Waveney	6,344	6,139	12,483
West Suffolk	6,974	6,640	13,614
<b>Total</b>	<b>25,410</b>	<b>24,314</b>	<b>49,724</b>

Source: NHS Digital. *Patients Registered at a GP Practice - November 2018*. (2018).

### Subnational population projections for local authorities

The Office for National Statistics produced population projections to give an indication of the future population size and age structure in local authorities in 2018, using 2016 figures.<sup>18</sup>

Table 5: Population projections for 2018 by Suffolk local authority, sex and age (11 to 15), 2016-based<sup>18</sup>

	Male	Female	Total*
<b>Babergh</b>	2,670	2,630	5,305
<b>Forest Heath</b>	1,665	1,560	3,225
<b>Ipswich</b>	4,145	3,670	7,815
<b>Mid Suffolk</b>	2,995	2,880	5,875
<b>St Edmundsbury</b>	3,315	3,135	6,450
<b>Suffolk Coastal</b>	3,775	3,785	7,560
<b>Waveney</b>	3,140	3,110	6,250
<b>Suffolk</b>	<b>21,710</b>	<b>20,775</b>	<b>42,480</b>

\*may not sum with breakdowns by sex as calculations based on different base populations

Source: Office for National Statistics. *Subnational population projections for England: 2016-based*