



## HBSC Briefing Paper 23

# Subjective health and medicine use among Scottish adolescents

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Self-rated health is a subjective measure of overall health and an important indicator of well-being<sup>1-3</sup>. Poor health can have considerable impact on an individual's functioning and place pressure on healthcare systems. Health in adolescence can also have effects that extend into adulthood. Medicine use behaviours developed in adolescence have been shown to continue into adulthood<sup>4</sup>. Moreover, medicine over-use can have both immediate and long-term consequences; with implications for the individual, their family and friends, as well as health services. This Briefing Paper presents findings from the 2014 Scottish Health Behaviour in School-aged Children (HBSC) survey on subjective indicators of health, including perceived general health, health complaints and medicine use, as well as their trends over time.

### Summary of key findings

- About a quarter of young people (26%) perceived their health as being excellent but perceived health has been consistently poorer in girls than boys and declines with age.
- Psychological complaints were more prevalent than somatic (physical) complaints.
- Almost one in ten (8%) adolescents reported experiencing at least two somatic health complaints in the past week e.g. headache, stomach-ache, backache.
- Between 1994 and 2014, reporting of somatic health complaints was consistently higher in girls than boys. In recent years, age differences have increased, with more frequent complaints among older adolescents.
- Girls were more likely than boys to have used medicines; medicines were used most frequently for headaches (43% of boys and 64% of girls) and stomach-aches (14% of boys and 64% of girls).

### The Scottish context

One of the Strategic Objectives proposed by the Scottish Government in 2007 was on sustaining and improving people's health, with a focus on child and adolescent health. In response to growing concern about the mental well-being of children and young people in Scotland there was a consultation to identify the most appropriate indicators for this age group and recommendations were made about the need for monitoring.<sup>5</sup> This Briefing Paper includes data on several of these indicators. Recent HBSC findings indicate that medicine use among Scottish adolescents is rising: a significant increase was found for girls' medicine use for stomach-aches from 1998 to 2010, while boys' medicine use for sleeping difficulties showed a significant increase from 2006 to 2010.<sup>4</sup> Moreover, in a Scottish school context girls tend to report more health complaints compared to boys.<sup>6</sup> This Briefing Paper updates these reports with findings from the 2014 HBSC survey.

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## Perceived health

- In 2014, about a quarter of young people (26%) reported having “excellent” health. (Figure 1)
- More boys than girls perceived their health as “excellent”.
- From 2002 to 2010, the proportion of young people reporting their health as excellent was relatively stable, but there was an increase from 2010 to 2014 for both genders.

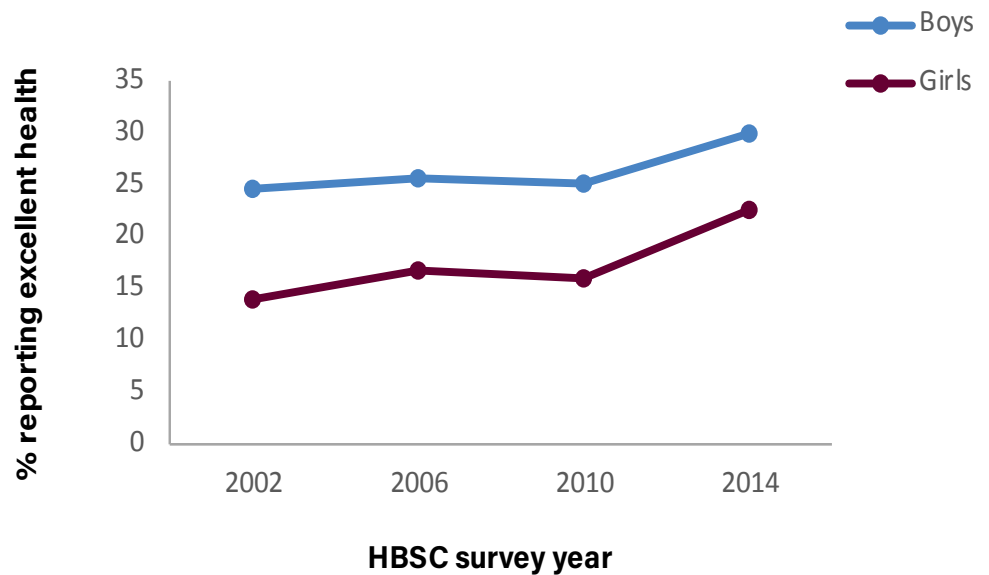


Figure 1. Self-rated health as excellent by gender and survey year

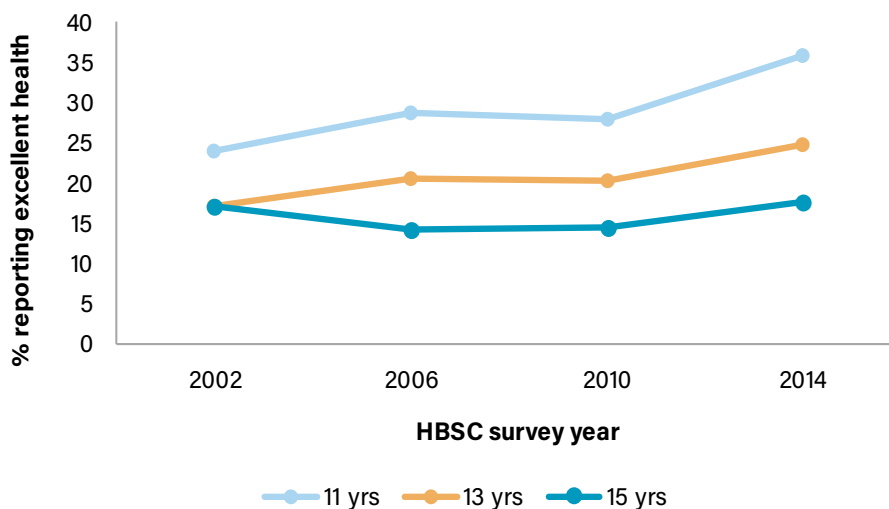


Figure 2. Self-rated health as excellent by age and survey year

- 11-year olds reported the highest prevalence of excellent health across all survey years. (Figure 2)
- Since 2002, the proportion of 11- and 13-year olds reporting excellent health has increased. Overall, 15-year olds have not changed over this time interval.
- 15-year old girls were less likely to report excellent health than all other age and gender groups since 2002. (Figure 2A- BP23 Supplement<sup>a</sup>)

## Health complaints

- Adolescents reported lower levels of somatic (physical) health complaints compared to psychological health complaints. (Figure 3)
- Girls reported higher rates of health complaints than boys across all complaints surveyed.
- Irritability, nervousness, sleep difficulties and feeling low were the most common health complaints for both boys and girls.

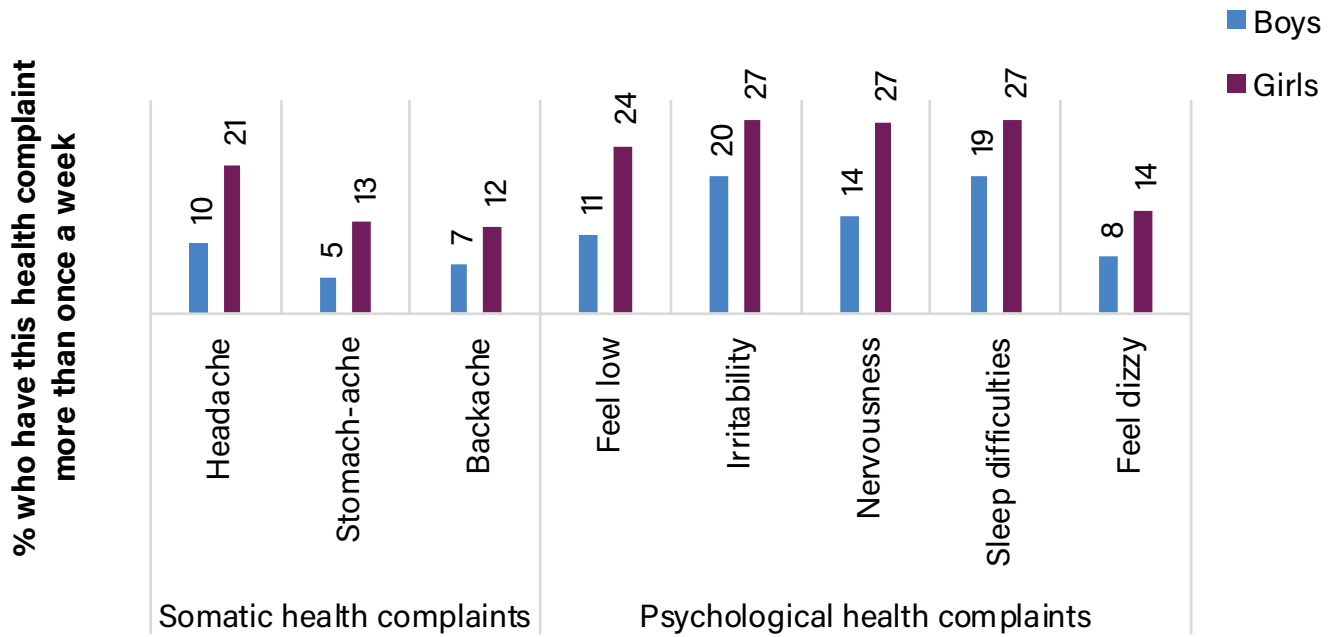


Figure 3. The experience of health complaints by gender (HBSC 2014)

- 15-year olds reported more frequent headaches, stomach-aches and backaches compared to younger age groups. (Figure 4)
- Headaches were the most common somatic health complaint experienced by adolescents from all age groups.

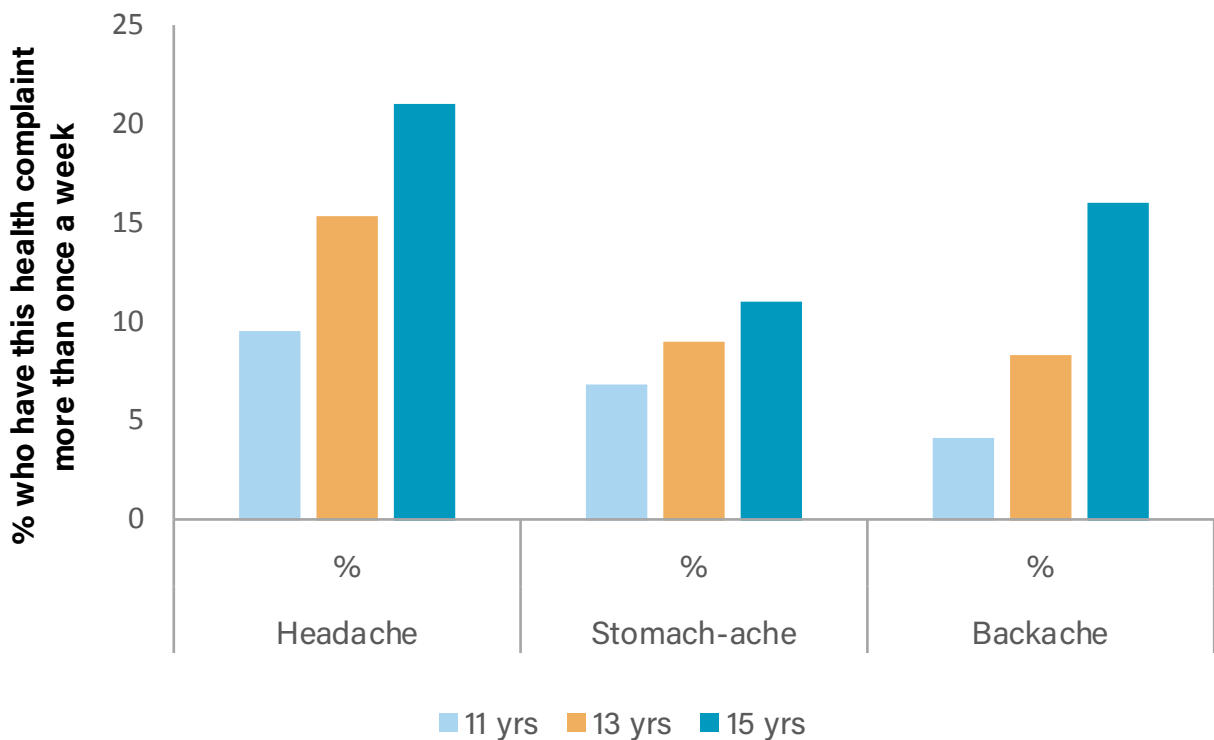


Figure 4. The experience of somatic health complaints by age (HBSC 2014)

## Trends in somatic complaints

- Across all surveys, boys reported lower prevalence of somatic complaints than girls. (Figure 5)
- Among boys, the experience of somatic complaints remained relatively stable from 1994 to 2014; girls have shown greater variation between surveys.

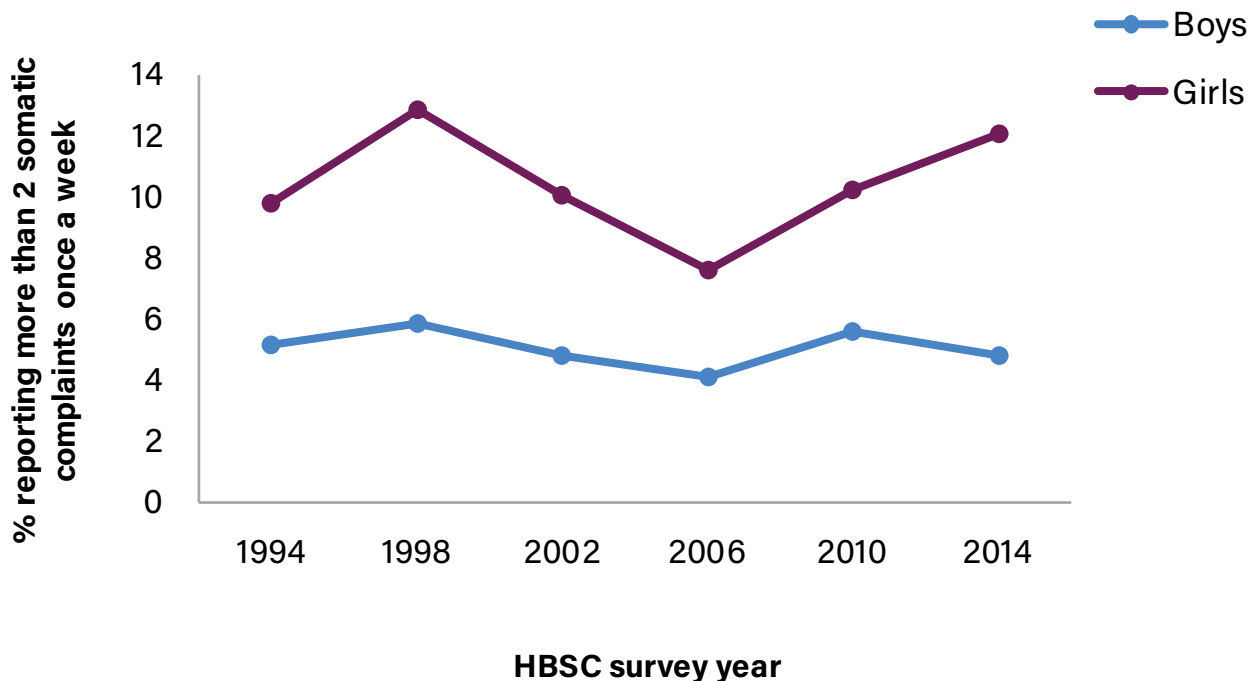


Figure 5. The experience of somatic complaints by gender and survey year

- Before 2006 there was no consistent pattern for somatic complaints across the three age groups (Figure 6). From 2006 onwards there has been divergence across age groups. Since 1994, prevalence has decreased among 11-year olds. The opposite trend has been observed among 15-year olds, with a marked increase, especially since 2006.

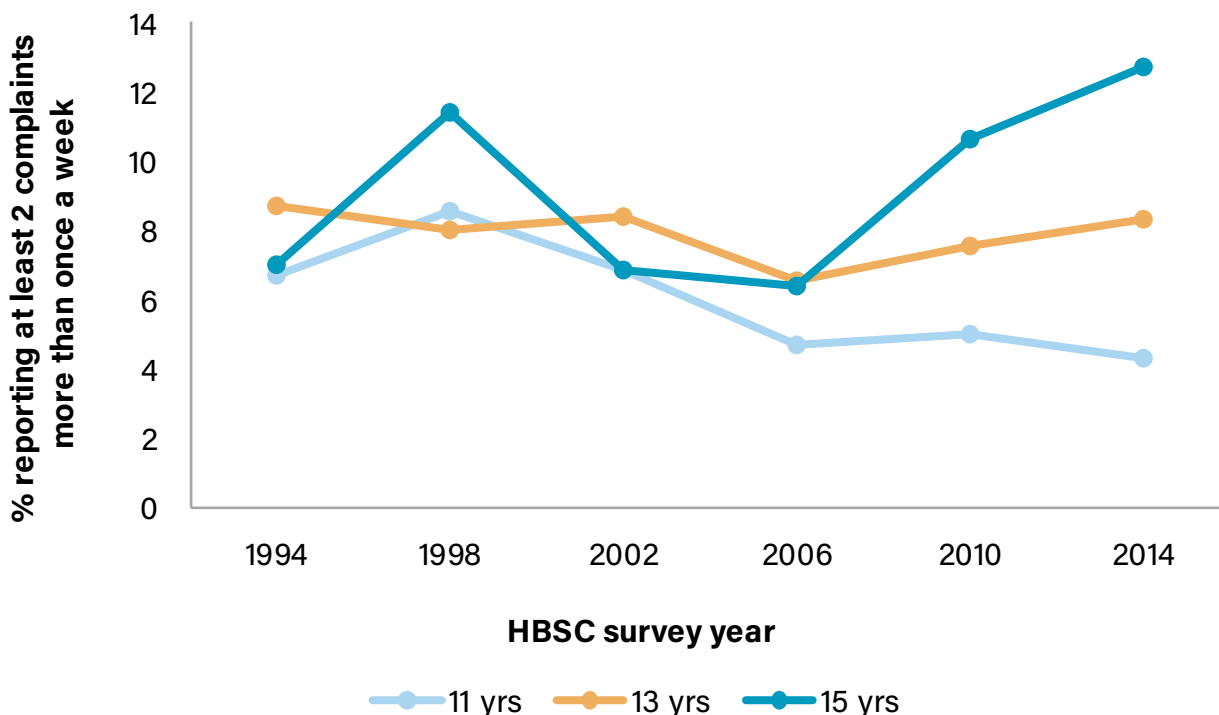
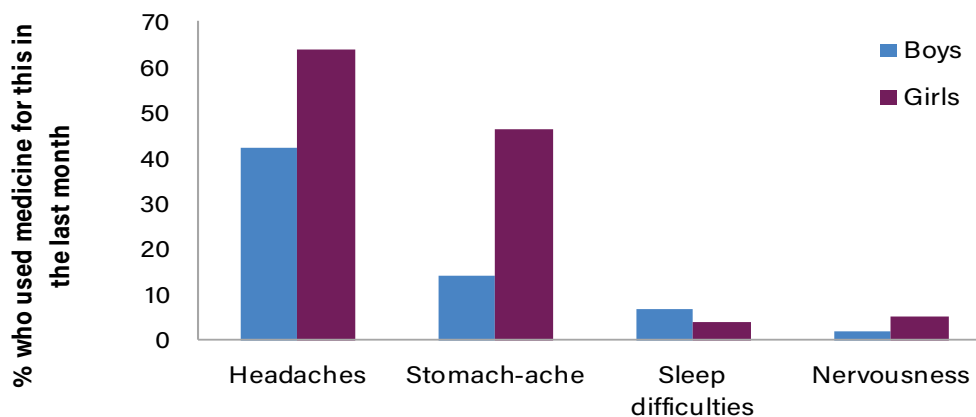


Figure 6. The experience of somatic complaints by age and survey year

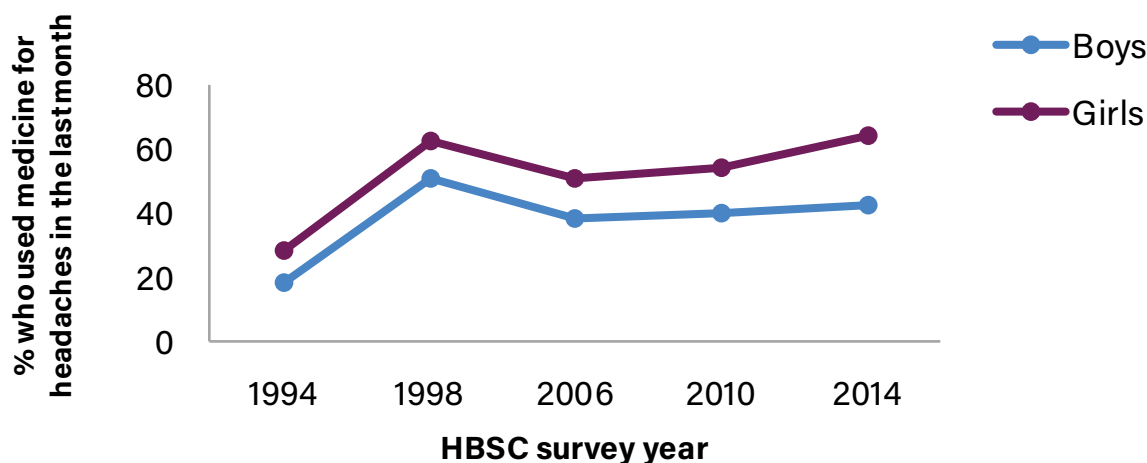
## Medicine use in 13- and 15-year olds

- More than half of adolescents surveyed reported taking medication at least once in the past month for headaches; while one third took medicine for stomach-aches. A small proportion reported using medicine for sleep difficulties (6%) or nervousness (4%). (Figure 7)
- Levels of medicine use for headaches, stomach-aches and nervousness were higher among 15-year olds.
- Girls reported higher levels of medicine use for headaches, stomach-aches and nervousness than boys. (Figure 9A- BP23 Supplement)



**Figure 7. Medicine use by age (HBSC 2014)**

- Across all survey cycles, girls reported more frequent medicine use for headaches than boys. (Figure 8)
- From 1994 to 2014, there was an increase in both genders for medicine use when experiencing headaches.



**Figure 8. Medicine use for headaches by gender and survey year**

## Methods

Between January and June 2014, a nationally representative sample of 10,839 Scottish school children (aged 11, 13 and 15 years) completed the HBSC survey as part of the HBSC: WHO Collaborative Cross-National Study in 42 countries. This Briefing Paper presents findings from the 2014 Scottish HBSC survey on subjective indicators of health, including perceived general health, health complaints and medicine use, as well as their trends over time (1994-2014). Questions pertaining to this Briefing Paper can be viewed at: <http://www.cahru.org/content/03-publications/03-briefing-papers-and-factsheets/briefing-papers-and-factsheets/14-scottish-questionnaire>

## Background

Adolescence is a period in which young people go through extensive developmental changes that contribute to increased health complaints and problems<sup>7</sup>. Recent studies indicate that girls consistently rate their health more poorly than boys. Girls also report higher levels of health complaints and medicine use<sup>1,5,6,7</sup>. Older adolescents are more likely, compared to younger adolescents, to consider their health as poor<sup>8</sup>, have more health complaints<sup>1</sup> and use medicine more frequently<sup>5</sup>. Low family affluence, stress, availability of medicines in the home, autonomy in use of medicines, and parental medicine use have all been identified as key predictors of medicine use among adolescents<sup>1,5</sup>.

## Discussions of key findings

This Briefing Paper focuses on subjective indicators of health and well-being, and medicine use among Scottish adolescents. Across time there was an increase in the proportion of adolescents who perceived their health as excellent for both genders and across all age groups. Overall, one in four adolescents perceived their health as being excellent. Similar to comparable international data<sup>4,8,9</sup> both gender and age differences are seen: girls and older adolescents tend to report poorer health, more somatic complaints and higher levels of medicine use. Between 1994 and 2014, the trend for experiencing somatic (physical) complaints for boys was stable while for girls an increase was observed from 2006 onwards. Furthermore, there was an increase in medicine use for headaches from 2006 onwards. It may be that hormonal changes associated with puberty could be related to perception of health; alternatively, or additionally, factors such as exposure to bullying, school related pressure and smoking may account for the observed trends in health complaints<sup>10</sup>. Future interventions should consider age and gender differences when addressing health perceptions or medicine use among adolescents.

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