Dr Foster's case notes

Hospital admissions for drug and alcohol use in people aged under 45

The annual health and social costs of misuse of alcohol and illegal drugs in England and Wales are estimated to be nearly £20bn each.^{w1 w2} About 5.9 million people drink twice the recommended weekly consumption; 1 million people use ecstasy, cocaine, or other class A drugs each year; and more than 100 000 people are injecting drug users.^{w1 w3 w4} Both alcohol and other problem drug use are associated with a range of harms and cause substantial morbidity and mortality.^{w1 w5 w6} Trends in emergency room use have been used to indicate the level of harm in the population.^{w3 w4} In the absence of accident and emergency data in England and Wales, we investigated trends in drug and alcohol related hospital admissions for people aged under 45.

The bottom line

- Admission rates for mental and behavioural disorders caused by alcohol rose slightly in women aged under 25 and in children
- Admission rates for mental and behavioural disorders due to use of controlled drugs decreased in people aged 15-24 but increased in those aged 25-44
- Wide variation in admission rates between primary care trusts could be due to a range of factors unrelated to levels of harm in the population

We examined all admissions with a primary diagnosis of mental and behavioural disorders due to use of alcohol (ICD-10 F10) or controlled drugs (ICD-10 F11-12, F14-16, and F19) and with secondary diagnoses of accidental self poisoning with alcohol (X45) or controlled drugs (X42) for people aged under 45. Admission rates were directly standardised by age and sex to the 1996-7 population of England. Admission rates were also calculated by primary care trust for 2000-1 to 2002-3 and were directly standardised to the English population.

Admission rates for mental and behavioural disorders due to alcohol have remained relatively stable, although the rate

of admissions among young women has increased figure. This is consistent with other findings of an increase in binge drinking in this group.^{w8} We found a decrease in admissions for mental and behavioural disorders due to use of controlled drugs in people aged 15-24, but a rise in the older age group, consistent with reports based on surveillance data of an ageing cohort of problem drug users (see figure on bmj.com).^{w4 w9}

We discovered considerable geographical variation in admission rates for diagnoses under investigation. However, chance variation and other factors such as diagnostic coding, the likelihood of admission from the emergency department, and the location of NHS alcohol and drugs rehabilitation beds could not be ruled out as possible explanatory factors. The differences in national trends between age groups are less likely to be accounted for by these factors than geographical variations and may reflect real differences in the level of harm in the population. For alcohol, these differences could relate partly to differences in the drinking environment, and for illicit drug use they could relate to differences in the injecting risk and prevalence of problem drug use.

The basic figures

- In 2002-3 there were 18 863 admissions for mental and behavioural disorders due to alcohol, 7380 admissions for mental and behavioural disorders due to controlled drugs, and 3366 admissions for accidental self poisoning with alcohol or controlled drugs.
- The admission rate for mental and behavioural disorders due to controlled drugs in the 15-24 year age group declined by 35% from 56 (95% confidence interval 54-58) per 100 000 per year in 1998-9 to 37 (36-39) per 100 000 in 2002-3.
- The admission rate for accidental self poisoning with alcohol or controlled drugs fell 41%, from 19 (19 to 20) per 100 000 in 1996-7 to 11 (11 to 12) per 100 000 in 2002-3.
- Between primary care trusts, standardised admission rates for mental and behavioural disorders due to alcohol varied from 14 (10 to 20) per 100 000 to 258 (236 to 281) per 100 000; for mental and behavioural disorders due to controlled drugs, rates varied from 1 (0 to 2) to 180 (166 to 194) per 100 000; and rates for accidental self poisoning with alcohol or controlled drugs ranged from 0.5 (0-3) per 100 000 to 92 (84 to 102) per 100 000.

This month's Dr Foster's case notes were compiled by Susan Williams, Matt Hickman, Alex Bottle, and Paul Aylin of the Dr Foster Unit at Imperial College. Dr Foster is an independent research and publishing organisation created to examine measures of clinical performance.

References, methodology, and a figure showing admission rates due to use of controlled drugs are on bmj.com