

KEY POINTS

- There are estimated to be 74,000 dependent heroin users in Australia, a rate of 6.9 per 1000 adults aged 15-54 years
- Three quarters of dependent heroin users live in NSW (48%) and Victoria (27%)
- There has been a sharp increase in the number of dependent heroin users in Australia during the 1990s, from an estimated 40,000 in 1990 to 74,000 in 1997

Estimating the number of dependent opioid users in Australia

One of the questions most commonly asked about heroin use is, "How many Australians are dependent on heroin?" Credible estimates of the number of dependent heroin users are needed to plan appropriate public health policies to deal with dependent heroin use in Australia. Previously, most epidemiological data on patterns of illicit drug use in Australia have been based on the analysis of household survey data. However, household surveys underestimate the number of dependent heroin users because heroin users are concentrated in a small number of areas where heroin is most readily available, and their lifestyles make them less likely to live in conventional households and to participate in household surveys. Also, when heroin users are selected in a household sample, their heroin use is likely to be under-reported because it is an illegal and stigmatised behaviour.

This edition of the IDRS Bulletin presents data from recent work estimating the number of dependent heroin users based upon a convergence of estimates¹. Estimates were based upon: national data on the number of fatal opioid overdoses per year between 1964 and 1997 compiled by the Australian Bureau of Statistics; the NSW Health Department's methadone client database between 1987 and 1998 provided by the Pharmaceutical Services Branch; and data on arrests for heroin offences in the period 1997-1999 from the NSW police service. Methods of estimating were multiplier methods, capture-recapture estimates, and back-projection methods.

The estimates produced by the various methods are shown in Table 1. The estimates for Australia varied between 67,000 and 92,000, with a median of 74,000. The degree of consistency between point estimates derived by different methods from different data sources is reassuring. Taking the median national estimate of 74,000 as the best estimate, then the population prevalence of dependent heroin use in Australia is 6.9 per 1000 adults aged 15 to 54 years.

Jurisdictional estimates of dependent opioid users

Very crude estimates of the number of heroin dependent people in each of the Australian States and Territories can be derived by allocating the estimated number of heroin users in Australia as a whole (74,000) to each jurisdiction in proportion to the contribution that each jurisdiction made to national opioid deaths in the period 1994-1998 (Table 2). On this basis, NSW is estimated to have 35,400 dependent opioid users, just under half of the national estimate (48%). The estimated number of 19,600

opioid dependent persons in Victoria accounted for 27% of the national estimate. NSW and Victoria therefore account for 75% of heroin dependent persons in Australia, with the remaining states and territories accounting for the remaining 25%. The estimated numbers of dependent heroin users in the smaller states, particularly Queensland and Tasmania, appear to be underestimates in that they imply an implausibly high proportion of opioid users are currently receiving treatment. Because better local estimates need to be derived by applying our methods to data in each of the smaller jurisdictions, we have not reported these estimates here.

Estimated increases of number of dependent opiate users, 1960-1998

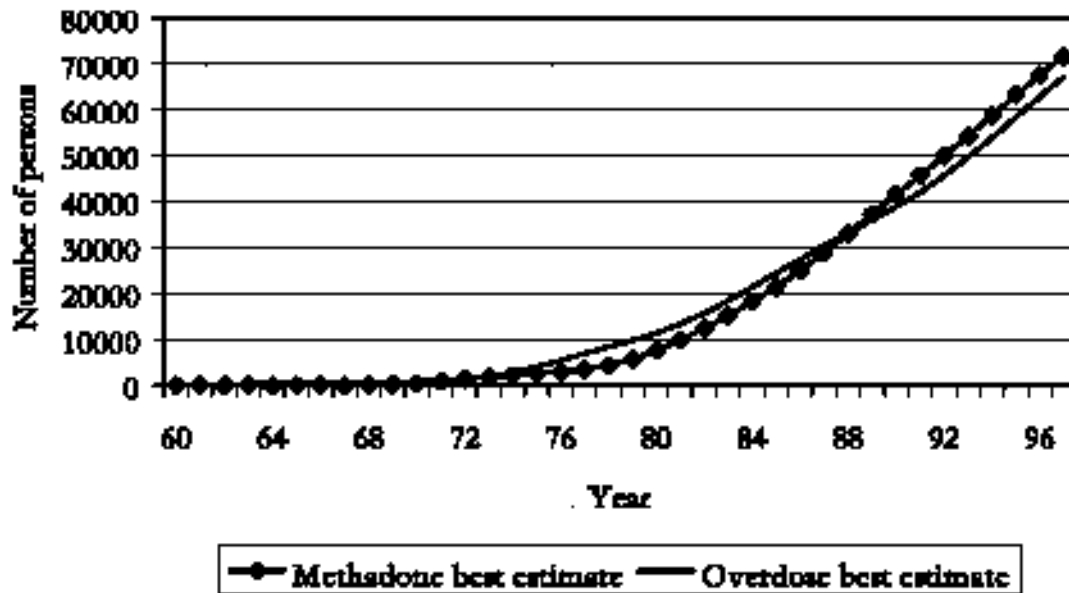
Estimates of the number of dependent heroin users in Australia from 1960 to 1997 are presented in Figure 1. These estimates are based upon data on national fatal opioid overdose, and first time entrants to methadone maintenance. As can be seen, there was strong agreement between

estimates based upon the two data sources. There would appear to have been a continuous rise in the number of dependent heroin users from the late 1970s, when there were estimated to be in the order of 10,000 dependent users, onwards. More recently, during the 1990s, the number of dependent heroin users is estimated to have risen from approximately 40,000 to 74,000. These trends are consistent with earlier estimates of the prevalence of dependent heroin use of 34,000 in 1984-1987² and 59,000 in 1988-1993³.

Table 1. Estimates of the number of dependent heroin users in NSW and Australia (rounded to nearest 1000)

Method of estimation	Estimate for Australia
<i>Back projection</i>	
National overdose deaths	67,000
NSW methadone entrants	71,000
<i>Capture-recapture</i>	
Methadone episodes	82,000
Arrests for heroin offences	86,000
<i>Multiplier estimates</i>	
OD fatalities:	
(x 100)	74,000
(x 125)	92,000
Methadone entrants (x 3)	68,000
Median estimate	74,000

Figure 1. Back projection estimates of the number of dependent heroin users (1960-1997)



International comparisons

The estimated national prevalence rate (6.9 per 1000 adults aged 15 to 54 years) is in the middle of the range of estimates of problem drug use recently derived in Europe using similar methods, namely, 3 to 8 per 1000 adults aged 15 to 54 years⁴. The estimate for Australia is, in fact, the same as the estimated prevalence of opioid dependence in the United Kingdom, namely, 7 per 1000 adults aged 15 to 54 years⁴.

Summary

The estimated prevalence of heroin dependence in Australia is similar to that of countries in the European Union. The number of dependent heroin users in Australia appears to have risen continuously since the 1970s, with three-quarters of the dependent heroin users in Australia living in NSW and Victoria

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