

Estimating the prevalence of problem drug use in Scotland

Background

Since 2007, the Scottish Government has used the estimated prevalence of problem drug use in Scotland to inform the delivery of the national drugs strategy and to report on progress towards decreasing the estimated number of problem drug users in Scotland.

Estimates of the prevalence of problem drug use in Scotland have been produced by the Centre for Drug Misuse Research (CDMR) at the University of Glasgow and are available for the years 2000, 2003 and 2006.

Work is currently underway to update the 2006 estimates, which ISD will undertake in-house and which will provide national and local estimates of the prevalence of drug use in Scotland for 2009/10.

The project team includes Adam Redpath (Project Lead), Cath Stevenson (Project Manager) and Laura Wood (Senior Information Analyst/Researcher). The team will also include data support and analytical staff.

The project is due to report by the end of 2011. The report will include estimates of the numbers and rate of prevalence of drug users, including injecting drug users, for each council area, police force area, Health Board area and Alcohol and Drug Partnership in Scotland.

Links to relevant documents:

Road to Recovery: A New Approach to Tackling Scotland's Drug Problem
<http://www.scotland.gov.uk/Publications/2008/05/22161610/0>

Scotland Performs: <http://www.scotland.gov.uk/About/scotPerforms>

Estimating prevalence

The use of illicit drugs is an illegal activity and a significant proportion of the population misusing drugs is unknown to any of the official agencies involved, for example, the NHS, council social work departments or the police. Estimating prevalence is carried out using 'capture-recapture', a method initially designed to estimate wildlife populations whose presence would naturally be partially hidden to observers. This method is recognised by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) for estimating the prevalence of problem drug use. The method involves cross matching data from different sources and, using the numbers of overlapping cases between sources, estimating the total numbers of the population.

Problem drug use is defined, for the purposes of this work, as the misuse of opioids (e.g. heroin and illicit methadone use) and/or the illicit use of benzodiazepines (e.g. temazepam) and implies routine and prolonged use as opposed to recreational and occasional drug use.

Data and data collection

The following data sources will be used in the study:

- Hospital and psychiatric hospital inpatient data (SMR01 and SMR04)
- Scottish Drug Misuse Database (and local equivalent data on service users)
- Health Protection Scotland (HPS) data - Hepatitis C notifications
- Police Data on individuals detained under the Misuse of Drugs Act
- Social enquiry report (SER) data (from social work criminal justice departments).

Although most data should be readily accessible in electronic form, the SER data will need to be extracted from local data systems in each local council social work area. It is anticipated that most data will be available in electronic text format – e.g. Word documents- which will need to be read or scanned and relevant data extracted onto summary pro-formas.

The project will also collect data on problem alcohol use from social enquiry reports, although these data will not be matched or linked to the other data sources and will be reported on separately.

It is anticipated that the bulk of data collection will take place between July 2010 and February 2011.

Ethics and Data Protection

The study team sought advice from the South East Scotland Research Ethics Committee which has advised that as the project is an audit using data collected as part of usual care that the study does not require NHS ethical review under the terms of the Governance Arrangements for Research Ethics Committees in the UK.

Data collectors will all be ISD (Information Services Division, part of NHS National Services Scotland) staff and as such will be bound by ISD data protection and confidentiality procedures (see ISD Confidentiality web pages for further information <http://www.isdscotland.org/isd/4489.html>).

Advisory Group

ISD staff will undertake the work in-house under the guidance of an advisory group representing the key stakeholders and academic expertise. This will ensure the project delivers work which is to a high standard and is fit for purpose. The group met for the first time on 22nd October 2010 and will continue to meet regularly during the course of the work.

The advisory group is made up of representatives from ISD, Scottish Government, Alcohol and Drug Partnerships, Association of Chief Police Officers Scotland, Association of Directors of Social Work, NHS public health and academic experts.

Data analysis

Data analysis will be carried out using the log-linear model fitting routines in SPSS. The methods used will be compatible, insofar as this is possible, with those used by the Centre for Drug Misuse Research at the University of Glasgow to obtain the prevalence estimates for 2006.

The capture-recapture methodology explicitly models various relationships and dependencies between data sources and to an extent between different genders and age groups. For a given set of data, differing estimates can be obtained and these estimates are evaluated in terms of validity and precision. Statistical techniques have been developed to maximise the validity of capture-recapture methods, such as undertaking sensitivity analyses. The study will use the 'boot-strapping' process to achieve 95% confidence intervals.