Defining, measuring and monitoring Drug-Related Deaths in national and sub-national contexts: the example of the United Kingdom

John Martin Corkery, BA Hons, MSc, MPhil

Home Office Drugs & Alcohol Research Unit, London, UK

john.corkery@homeoffice.gsi.gov.uk

%+44 (0)20 7273 3266

Overview of presentation

Scene setting

Information required to define Drug-Related Death

Setting targets for the UK Drug Strategy and sub-national policies

Quality and availability of data on drug mortality

Comparability of data

UK Government's Action Plan on Drug-Related Deaths

Some conclusions

Introduction

Many countries have developed national strategies aimed at tackling drug-related problems including reducing deaths associated with drugs.

These aims are shared by the World Health Organisation (WHO) and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA)

To measure progress in reducing drug-related death (DRD)

Need clear idea of what types of death are relevant so can set measurable targets.

This can only be done on the basis of good, reliable information.

This is also a prerequisite for measuring and monitoring DRDs.

This paper explores such informational needs in national, UK and sub-national contexts, particularly with regard to a 'headline' indicator.

Information required to define DRD

Definitions of drug-related mortality
(a) direct/'acute' e.g. intoxication/overdose/poisoning by drugs;
(b) volatile substance abuse;
(c) indirect, including violence (homicide), traffic accidents, infectious diseases acquired through drug use e.g. hepatitis, HIV/AIDS.

Which type(s) of death are included in a target depends on the foci of a drug strategy.

Most interest in Western Europe has been on direct deaths involving consumption of illegal drugs. Emphasis on accidental poisonings involving opiates, cocaine, amphetamines, etc. consumed by 'problematic' users.

Other types of death occur in relation to drugs, including intentional overdoses or poisonings, homicides and the sequelae of injecting drug use.

More interest in prescribed medication - especially opioid substitutes (including methadone), antipsychotics, tranquillisers, and antidepressants - as well as 'recreational' drugs (ecstasy, GHB).

Types of death and substances of interest vary according to the country or sub-national region, and different professional groups.

Setting targets for the UK Drug Strategy and sub-national policies

The third aim of the UK Drugs Strategy *Tackling Drugs to build a better Britain*, published in 1998, is to *'enable people with drug problems to overcome them and live healthy and crime-free lives'.*

Performance Indicator is to reduce the number of DRDs. One objective is to

'produce a plan of action to monitor and reduce drug-related deaths, taking account of the recommendations from the report of the Advisory Council on the Misuse of Drugs [ACMD] on drug-related death'.

This aim is included in the strategies of devolved administrations in Northern Ireland, Scotland and Wales.

ACMD report (2000) stated the policies they had outlined

'must be supported by a clearer definition of data needs and by reliable data which can help monitor policy effectiveness and focus their application. We see a strengthening in the data base as vital to the policy frame both in terms of national action, and action within communities, where ways of using the data effectively will need increasingly to be explored'.

Department of Health convened a Technical Working Group (TWG) comprised of experts from relevant fields to consider how best the ACMD's recommendations on information needs could be taken forward and to produce a definition of DRD for the UK Drug Strategy.

4 main areas in which the TWG recommended that surveillance activities might be considered:

(a) a headline indicator, i.e. 'acute' DRDs;
(b) secondary data on blood-borne diseases, drug-related homicide, etc.;
(c) making funding available for enhanced data such as that produced by the NPSAD;
(d) local confidential inquiries.

TWG's DRD definition endorsed by the full ACMD and officially adopted for use in the Government's Action Plan concentrated on direct unintentional deaths -

'Deaths where the underlying cause is poisoning, drug abuse or drug dependence and where any of the substances scheduled under the Misuse of Drugs Act 1971 were involved''.

The 1971 Act and associated secondary legislation implement the provisions of the UN Conventions on drugs.

Quality and availability of data on drug mortality

Knowledge is generally poor in Europe concerning the nature of information on drug-related mortality, and the methods of generation of such data.

EMCDDA has made progress on defining and harmonising data collected from General Mortality Registers (GMRs) based on International Classification of Diseases (ICD) codes.

'Sudden' deaths involving drugs are investigated by coroners in England, Wales and Northern Ireland, and by procurators fiscal in Scotland.

The principal role of a coroner is to establish the circumstances and cause(s) of death and to investigate whether there was any criminal involvement.

An inquest enables the coroner not only to ascertain the medical cause of death, but also to determine how, when and where the deceased came by his/her death, and to establish the particulars necessary to allow the death to be registered.

Two current reviews may have an impact on the role of coroners in investigating deaths associated with deaths and death certification processes.

In Scotland, the procurator fiscal determines the cause of death based on information provided by the pathologist and police investigations.

Coroners and procurators fiscal have a range of information on which to base conclusions:

(a) results of any postmortem and toxicological examinations;
(b) statements of witnesses, friends and relatives given to the coroner's officer (usually a serving or former police officer) or the police in Scotland;
(c) medical and drug history of the individual.

But such information may not be available

Information on DRDs recorded by GMRs in the UK is limited to the medical certificate of death. Little supplementary information

Much more information is collected by other agencies but is filtered out at different stages in the process between an individual being found dead and their inclusion or not in drug strategy indicator statistics.

Purpose(s) for which data are collected and the official(s) to whom they are presented determine what, when and how information is generated.

Given the focus of the coroner or procurator fiscal in only establishing the cause of death in a range of cases involving 'sudden' or 'suspicious' death, it cannot be expected that they will necessarily assemble all the information in which a drug epidemiologist would be interested.

Much variation in terms of facilities and resources (particularly financial) between coroner's jurisdictions.

Toxicological examinations are not routinely conducted.

Only a limited range of the more common drugs may be screened for, thus missing less common or new ones.

The extent to which there may be variation in approaches to pathology in England, Wales and Northern Ireland is unknown. In Scotland most postmortems are conducted by only 4 academic forensic departments following agreed protocols; in most cases toxicological tests for drugs are conducted.

There is no consensus on from what parts of the body and at what time postmortem samples for toxicology should be taken. This is important as these can affect the results. There are disagreements as to what constitute 'fatal' levels of some drugs.

Whilst there may be mention in the cause of death section of the coroner's certificate of any drugs identified, there is usually no indication of the relative quantities or contribution to the death if more than one substance is identified.

Typically, the coroner's certificate gives no indication of drug dependence, whether toxicology was carried out, how or where drugs were obtained, where drugs were taken or route of administration.

These factors affect reliability of data provided to coroners/procurators fiscal. This limits the information received by GMRs, making identification of all cases relevant to the Drug Strategy performance indicator problematic.

Comparability of data

Investigation

Investigation of DRDs by coroners and procurators fiscal is affected by resources available to them, and thus to pathologists and toxicologists.

Lack of standardisation in UK pathology and toxicology in the DRD field.

Variation in the use of the drug-specific verdicts available to coroners not only between but also within jurisdictions. Training courses for coroners now make them aware of the need for consistency in approach and improved standards of reporting.

ICD coding

There were differences in the way in which ICD9 codes were applied across the UK.

ICD10 was introduced 2000 and 2001. Figures published for 2001 should be on a consistent basis across the UK.

The GMRs together with the National Programme on Substance Abuse Deaths (NPSAD) have collective discussions on how to apply ICD10 coding to DRDs.

Consistency will be reinforced through the adoption of the UK Drug Strategy definition.

EMCDDA is going to produce guidance on ICD10 code interpretation.

Collaboration and exchange of information

EMCDDA has developed a range of standard definitions of DRDs based on ICD9 and ICD10 from both GMRs and Special Mortality Registers (SMRs).

International conference sponsored by the Swedish National Institute of Public Health in April 2001.

Monograph published by the European Collaborating Centres in Addiction Studies (ECCAS), *Drug-related mortality: perspectives across Europe* (in press), examines the epidemiology of drug-related mortality and the data on which statistics are based.

Publication of DRD statistics

Statistics published by GMRs in the constituent parts of the UK have been compiled on different bases. There have been no such statistics for Northern Ireland.

There have been no UK-wide statistics published by the Government for the period since 1995.

Some figures have been published by EMCDDA and in ECCAS monograph on data provided on a consistent basis.

The lack of detail and range of information collected by GMRs limits their usefulness for informing prevention and intervention strategies.

These needs can be met by a SMR staffed by personnel with sufficient medical knowledge and experience of handling and interpreting such data, collecting data from a range of sources, using a case-matching approach. Having one centre leads to an informed and consistent approach to interpreting DRD data.

Since July 1997 NPSAD has collected and published information on DRDs provided on a voluntary basis by most English and Welsh coroner's jurisdictions and by some in Northern Ireland. Discussions are being conducted to extend coverage across the UK.

Range of information collected is wider than that of GMRs and is being extended to pathology and toxicology.

Information and statistics produced by NPSAD fed into the work of the ACMD and TWG at national level, and will help to inform activities under the Government's Action Plan. Studies have been undertaken for Drug Action Teams (DATs) to help inform local policies and interventions.

UK Government's Action Plan on DRDs

Action Plan on reducing DRDs announced 15 November 2001.

The programme for England and Wales includes:

(a) surveillance work to establish a baseline for monitoring success for action plan activities;

(b) increased analysis of information from coroner's reports; provision of guidance and training to coroners;

(c) provision of guidance to Drug Action Teams on running local inquiries into DRDs and running resuscitation training for drug users;

(d) campaign work with users on highlighting the risks of overdose; and research work to improve information on causes of DRDs and inform methods of reducing them.

These programmes, under the Government's Action Plan, will be overseen by a Steering Group comprising officials, academics and field experts, chaired by the National Treatment Agency.

£1.9 million (Canadian $4.6 million) was made available to support these activities until 2003.

The 3-5 year programme is aimed at playing a key role in achieving the Government's objective of reducing DRDs by 20% by 2004, using a baseline from 1999 data.

UK target is a reduction of about 400 in DRDs by 2004 (Table 1). This is against the background of a 31% increase across the UK in 1996-2000.

The increases in the individual countries ranged from 20% to 61%.

Initial signs are that may be an ambitious target; Scottish figures for 2001 indicate a 14% rise (to 332) in the number of deaths in that country.

The use of a broader definition of DRDs, such as the 'standard' one employed by the ONS, would lead to a different picture (Table 2).

In 1996-2000 there was an overall increase of 9%, ranging from 3% in Scotland to 35% in Northern Ireland.

The Drug Strategy indicator, if expressed in terms of the ONS definition, would necessitate a reduction of 700 deaths by 2004 to meet the desired target. This is 75% higher than would be required by the measure that has been adopted.

This is a good example of how definitions can affect targets.

Table 1. DRDs using UK Drug Strategy definition, UK, 1996-2000

	1996	1997	1998	1999	2000	% increase 1996-2000	2004 (Target)
Scotland	244	224	249	291	292	20	233
England	1183	1237	1390	1480	1562	32	1184
Wales	51	49	54	77	82	61	62
Northern Ireland	40	39	40	50	53	33	40
United Kingdom	1518	1549	1733	1898	1989	31	1518
UK rate/million pop	25.8	26.2	29.3	31.9	33.2		
Note: excludes non-residents.							

Table 2. DRDs using ONS 'Standard', UK, 1996-2000

	1996	1997	1998	1999	2000	% increase 1996-2000	2004 (Target)
England & Wales	2721	2858	2922	2943	2968	9	2375
Scotland	460	447	449	492	473	3	394
Northern Ireland	40	39	40	50	54	35	40
United Kingdom	3221	3344	3411	3485	3495	9	2788
UK rate/million pop	54.8	56.7	57.8	58.6	58.5		
Note: excludes non-residents.							

Some conclusions

Promising progress on defining and establishing baseline figures against which measurement of progress against the UK Drug Strategy target for reducing DRDs.

Some areas still need addressing to improve the quality and breadth of information required.

Standardised approaches must be developed by all those involved in investigating DRDs.

Standardisation and consistency in recording, analysing and publishing data on DRDs are needed.

Need to understand -

- what, how and by whom data relating to DRDs are generated;
- what happens to such data and how they are used in investigating deaths;
- what ends up in published statistics.

Such a research project would enable a model to be constructed to inform future policies and developments. This is not only a UK need. Both the ECCAS monograph and the Stockholm conference call for a European-wide initiative in this area.