

Institution: University of Dundee
Unit of Assessment: UoA4 Psychology, Psychiatry and Neuroscience
Title of case study: Directing changes in government policy to address illicit drug-related deaths
1. Summary of the impact

University of Dundee-led research has changed the international approach to illicit drug deaths. Though reducing deaths was a national priority, no systematic research into Scottish deaths had previously occurred. Highlighting the heterogeneity of the deceased, Dundee researchers identified deficits in care processes and multi-agency data sharing, making recommendations regarding monitoring. This directly influenced government response, introducing a standardised mandatory annual review process, enhancing understanding of drug death in Scotland and facilitating targeted prevention approaches. This, and subsequent Dundee-led research, now informs strategy development in the UK via the national programme on Substance Abuse Deaths (np-SAD) and the European Union (European Monitoring Centre for Drugs and Drug Addiction; EMCDDA).

2. Underpinning research

The reported impact resulted initially from the National Investigation into Drug-Related Deaths in Scotland, 2003 [i], commissioned by the Scottish Executive in response to a steep rise in Scottish drug deaths in 2002. This collaborative clinical and psychological profiling study was the world's first detailed investigation into the circumstances surrounding drug deaths in one country within a single calendar year. The research was led by Dr **Baldacchino** (Principal Investigator), Dr **Kidd** (both Clinical Senior Lecturers in Addiction Psychiatry, University of Dundee) and Dr **Zador** (formerly Honorary Clinical Senior Lecturer, University of Dundee).

All Scottish drug deaths identified by the Registrar General's Office in 2003 were the subject of a detailed study into factors which could potentially have influenced death. The investigation explored clinical and socio-demographic information, a process requiring national agreement to access records from all health, social care and criminal justice agencies. Supplementary studies exploring trends over time, interviewing a sample of overdose survivors and comparing drug deaths in Scotland and London were completed. Key findings were the lack of shared information on drug death cases despite frequent service contacts. The resolution of this deficit through improvement of local and national data systems was a key recommendation.

A working group of the Scottish Advisory Committee on Drug Misuse (of which **Kidd** was a member) responded positively [ii]. The Scottish Executive's subsequent action plan strongly acknowledged the role of the National Investigation in shaping its priorities. The research was published in 2005 in a Scottish Executive report, placing these findings in the public domain. Two associated research papers were published [iii,iv]. Since then, ongoing research related to the primary study has addressed the areas identified in the national investigation and associated papers and has continued to have an impact on local, national and international policy and delivery.

From 2007, **Baldacchino** developed the East Central Scotland drug death investigation team, serving three regional NHS Board areas. This team has supplied intelligence and analysis for the past 6 years (for example, Neufeind J, Snowdon C, Symington W, Licence K and **Baldacchino** A (2012) Tayside Drug Deaths between 2009 and 2011. A report submitted to the Angus, Dundee City and Perth and Kinross Alcohol and Drug Partnership Groups).

Additional collaborative research with UK partners also explored factors relevant to the development of preventive strategies, generating advice for European Agencies such as the EMCDDA, as well as the wider drug education and prevention community [v]. **Baldacchino** successfully led collaborative bids for EU grants to support approaches aimed at influencing EU policy to reduce drug deaths. This research echoed the Scottish Investigation to explore in greater

Impact case study (REF3b)

depth multiple factors that may be relevant in creating preventive strategies for this heterogeneous population.

Kidd and collaborators also piloted novel data linkage approaches to identify risk-factors for premature death in GP-prescribed methadone patients [vi].

3. References to the research

- i. **Zador D, Kidd B, Hutchinson S, Taylor A, Fahy T, Rome A and Baldacchino A.** (2005). National Investigation into Drug Related Deaths in Scotland 2003. Scottish Executive; ISBN: 0-7559-2666-8; <http://www.scotland.gov.uk/Resource/Doc/57346/0016442.pdf>.
- ii. Scottish Advisory Committee on Drug Misuse Working group on Drug Related Deaths. (2005) Report and Recommendations. Scottish Executive; ISBN 0 7559 4730 4; <http://www.scotland.gov.uk/Resource/Doc/57346/0016467.pdf>. **Kidd** was a member of the working group and co-author.
- iii. **Baldacchino A, Crome I, Zador D, McGarrol S, Taylor A, Hutchinson S, Fahy T, Hickman M and Kidd B** (2010). Recording of clinical information in a Scotland-wide drug death study. *J. Psychopharmacology* **24**, 1289-1298 (DOI: 10.1177/0269881109103797).
- iv. **Zador D, Rome A, Hutchinson S, Hickman M, Baldacchino A, Fahey T, Taylor A and Kidd B** (2007) Differences between injectors and non-injectors, and a high prevalence of benzodiazepines among drug related deaths in Scotland 2003. *Addiction Res. Theory* **15**, 651-662 (DOI:10.1080/16066350701699080).
- v. **Baldacchino A, Greacen T, Hodges C-L, Sieroslavska K, Sorsa M, Groussard-Escaffre N, Clancy C, Lack C, Hyldager E, Merinder L-B, Meder J, Henderson Z, Lajjarvi H and Baeck-Moller K** (2011). Nature, level and type of networking for individuals with dual diagnosis: A European perspective. *Drugs: Education, Prevention and Policy* **18**, 393-401 (DOI:10.3109/09687637.2010.520171).
- vi. McCowan C, **Kidd B** and Fahey T (2009) Factors associated with mortality in Scottish patients receiving methadone in primary care: retrospective cohort study. *Brit. Med. J.* **338**, b2225 (DOI: 10.1136/bmj.b2225).

Grant funding

- Crome I, **Baldacchino A**, Frisher M, Bloor R: Review of Preventable Risks of Fatal Overdose in Heroin Users; EMCDDA/EU Framework Programme 7 (2011-12) €12,000.
- **Baldacchino A** and Humphris G: ORION - Overdose Risk Information Project; EU Framework Programme 7 (2011-13) €502,695.
- Smith B, Colvin L, Gilbert S, MacFarlane G, Serpell M, Baldacchino A, Hales T, Donnan P: Use and misuse of opioid prescribing across Scotland – rates, quality, variations and explanations; Chief Scientist Office, Scotland (2013-14), £145,055.
- **Baldacchino A**: Using informatics to undertake a retrospective clinical audit of buprenorphine/naloxone (Suboxone®) and methadone-prescribed patients with opioid dependence in East Scotland: A retrospective cohort study of Suboxone® and methadone treatment. Reckitt-Benkiser (2012-14) £56,220.

4. Details of the impact

Our research has demonstrably changed the approach to illicit drug related deaths. While it is too early to determine whether these changes in process will lead to a measurable reduction in the number of drug deaths, this University of Dundee-led body of research, together with the engagement of strategic bodies and advisors to the Scottish, UK (np-SAD) and European Union governments (EMCDDA), has changed the approach taken to address illicit drug-related deaths in both Scotland and more widely across Europe by introducing standardised mandatory annual review processes, the inclusion of multi-agency data sources, thus enhancing understanding of drug deaths and facilitating targeted prevention approaches.

Impact case study (REF3b)

Local, national and international impact

- **Local:** The research team expanded the impact of the study in response to the demand for improved data management systems. In 2007 Dr **Baldacchino** developed a local drug death investigation team which grew to cover three NHS Board areas – a population of approximately 1 million. This team developed local multi-agency data-sharing agreements – addressing a key practical challenge to this work – and has supplied intelligence and analysis for six years [v].
- **Scotland:** In 2008, Dr **Baldacchino** gave expert evidence on data collection to the National Forum on Drug Related Deaths [1, 2]; subsequently the Dundee data collection tool formed the basis for ongoing data collection for the Scottish drug death database. The database was launched in 2009 [3].
 - *National Forum on Drug Related Deaths in Scotland* – As recommended, the National Forum has continued to meet quarterly and has made annual recommendations to government as part of its reporting. These recommendations continue to reflect the findings of the 2005 Report and many of the actions promoted (e.g. delivery of the national Drug Death Database) echo its recommendations.
 - *Scottish Drug Strategy Delivery Commission Independent Expert review of Opioid Replacement Therapies in Scotland* – In 2013, responding to a further increase in drug deaths, this independent commission, chaired by Dr **Kidd**, published a report [4, 5] to government on the quality of its treatment services, in particular with regard to their consistency and safety. Citing the 2005 research findings and recommendations, this report has led the Scottish Government to launch a collaborative national improvement programme, based on patient safety mechanisms, which aims to significantly reduce drug deaths over the next five years.
- **UK:** Dr **Baldacchino** has collaborated closely with np-SAD; the 2005 research and the subsequent research programme have informed UK responses to better understand the circumstances associated with illicit drug deaths [6,7].
- **International:** The importance of Dr **Baldacchino's** work has been acknowledged by the EMCDDA, which directly informs EU drug policy [8,9,10].
 - The psychological profiling method has been accepted as good practice by the EMCDDA. It was presented to the EMCDDA Drug Death Group, which involves all European Reitox Centres (Reitox is the European information network on drugs and drug addiction), in November 2012. The consequent recommendation was that this method be adopted by *all* EU countries as a valid method to understand drug death populations and to help translate findings into regional/local/national policies.
 - The experience gained from ten years of psychological profiling (the ORION project was one example of utilising such evidence to support innovative projects – in this instance a collaboration between the Universities of Dundee and St Andrews) is informing actions aimed at changing risk taking behaviour and reducing drug deaths.

5. Sources to corroborate the impact

Impact within Scotland:

1. National Forum on Drug Related Deaths in Scotland (2009) Annual Report 2008-09. Published by the Scottish Government, Edinburgh; ISBN 978-0-7559-9046-7 (web only); <http://www.scotland.gov.uk/Publications/2009/06/25153417/0>. Cites Dr **Baldacchino** giving expert evidence on information systems re: development of national database.
2. Corroboration can be obtained from the Chair of the National Forum on Drug Deaths, University of Edinburgh.
3. The Scottish Government (2009) The Road to Recovery: One year On: <http://www.scotland.gov.uk/Publications/2009/05/27153521/1>. Scottish Government announces launch of national drug deaths database using Dundee data collection tool as template.

Impact case study (REF3b)

4. Corroboration can be obtained from a Senior Civil Servant in the Scottish Government, Drug Policy Unit.
5. Scottish Drug Strategy Delivery Commission (2013) Independent Expert Review of Opioid Replacement Therapies in Scotland Delivering Recovery. Chaired by Dr. Brian A. Kidd; Lead Researchers: Dr Charles Lind & Dr Kennedy Roberts. ISBN: 978-1-78256-830-8 (web only); <http://www.scotland.gov.uk/Publications/2013/08/9760/0>.

Impact in the UK:

6. Ghodse H, Corkery J, Oyefeso A, Schifano F, Ahmed K and Naidoo V, National Programme on Substance Abuse Deaths (np-SAD) International Centre for Drug Policy (ICDP) St George's, University of London (2009) Drug-related deaths in the UK Annual Report 2009. ISBN: 978 1 897778 68
http://www.drugscope.org.uk/Resources/Drugscope/Documents/PDF/Good%20Practice/np_SAD10thdeathreport.pdf.
7. Letter of corroboration from np-SAD Programme Manager & UK Focal Point Expert for Drug-Related Mortality, St George's University of London.

Impact in Europe:

8. Reitox National Focal Point (2012) European Monitoring Centre for Drugs and Drug Addiction (EMCDDA): 2012 National report (2011 data) to the EMCDDA by the Reitox National Focal Point. Slovakia: New Development, Trends and In Depth Information on Selected Issues.
<http://www.infodrogy.sk/indexAction.cfm?module=Library&action=GetFile&DocumentID=1008>.
9. Frisher M, **Baldacchino** A, Crome I and Bloor R (2012) Preventing opioid overdoses in Europe: A critical assessment of known risk factors and preventative measures: Final report. EMCDDA Prevalence, Consequences and Data Management Unit, European Commission, Lisbon. <http://www.emcdda.europa.eu/scientific-studies/2012/preventing-overdoses>.
10. Letter of corroboration from Scientific Analyst, Health Consequences, EMCDDA, Lisbon.