

Research Centre for Injury Studies

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Committee Secretary
Senate Community Affairs References Committee
Parliament House
Canberra ACT 2600

Dear Sir or Madam,

This is a submission to the Senate Inquiry into Suicide in Australia

The submission concerns reference b. of the Inquiry, “the accuracy of suicide reporting in Australia...”.

I am making this submission in my capacity as the Director of the Research Centre for Injury Studies, Flinders University, Adelaide.

I have provided, as an attachment to this submission, a summary of my current professional roles that I think are relevant to this Inquiry, and of my relevant experience and track record.

I am willing to supplement this written submission with a submission in person.

Yours sincerely,

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Director
(james.harrison@flinders.edu.au)

20 November, 2009

Overview

I have extensive experience in using, analysing, developing and evaluating suicide statistics and the information systems that underlie their production. My involvement is at national level in Australia and internationally. I am currently centrally involved in an international project with the potential to influence the reporting of suicide in Australia and in much of the rest of the world (revision of the ICD classification).

I am the lead author of a report entitled *A Review of Suicide Statistics in Australia*, published by the Australian Institute of Health and Welfare in July 2009. I refer to passages in that report below, as ‘RSSA’.

In my opinion:

- The recording of suicide in Australia can be improved to a useful degree.
- It is feasible for Australian suicide data to become at least as good as those anywhere in the world. Many of the components required for excellence exist now, but enhancement is required, chiefly in four areas.
 1. Primary capture of information indicating that a death is due to suicide, or might be, has several weaknesses as a basis for statistics. Its great slowness is a serious weakness. Case inclusion is probably somewhat variable, given what is known about how cases come to be flagged as “intentional self harm” in the National Coroner Information System. The identification of suicide-like deaths, as well as unambiguous cases of suicide, is desirable for statistical purposes, but is not well served by current arrangements
 2. Better coordination of certain elements of the system can improve statistics. The decline in completeness of suicide data reported by the ABS, the subject of RSSA and the reason for the ABS’s change to its reporting arrangements, can be seen as resulting from lack of coordination.
 3. A conceptual model, which is stated explicitly and justified in terms of the purposes of the statistics, should underlie the system. Development, operation and evaluation of the system that provides suicide statistics should be in relation to the conceptual model. I think that the model should encompass suicidal behaviour. (At present, in contrast, the scope of national “suicide” statistics is actually deaths attributed to intentional self-harm [i.e. ICD-10 codes X60 to X84], which has wider conceptual scope than suicide and does not include survived acts with suicidal intent.)
 4. In addition, there is a risk that too few resources will be allocated to this purpose, particularly to the vital statistics function in the ABS, and to the under-recognised statistical role of Coroners’ offices.

Primary data capture

Suicide deaths generally come to the attention of police, who attend the scene. The deaths are referred to a Coroner, first by communication of information, then by transfer of the body. In ways that differ materially between the Australian jurisdictions, Coroners, the

staff of Coroners' offices and forensic pathologists assess and investigate the deaths. The extent of this process varies enormously, according to characteristics of the case, but also influenced by the extent of resources available. The responsible Coroner makes a finding of the cause of each such death. Jurisdiction- and coroner-specific norms influence the wording of these findings. Many deaths by suicide (all or most in some jurisdictions) are not described as such in Coroner's statements of cause of death. Very often, the statement of cause is restricted to the mechanism that led to death (e.g. 'ligature asphyxia', 'gunshot wound to the head').

Deaths ultimately recognised as due to 'suicide' are, in the great majority of cases, suspected soon after discovery of having this intent. Police, coroners and forensic pathologists then engage in a process of investigation and documentation, which is often very slow to reach completion. This process has characteristics that are appropriate for purposes such as detecting the small number of homicides disguised as suicides, and presenting a finding of cause of death in a manner that is least distressing to family members. However, it does not currently operate in a manner that is satisfactory for the production of population statistics on suicide.

The chief defect is slowness. Under the current system, several years must pass before essentially final data will be available on the number of suicide deaths that occurred in a particular year (RSSA Chapter 7). This slowness greatly reduces the value of the data for purposes related to policy and programs. As shown in RSSA, the slowness is chiefly due to the time taken for some Coroner cases to be closed. Delayed entry of data from Coroner offices into the NCIS system sometimes contributes to delay.

Potential solutions to slowness (RSSA 8.6.3):

1. Obtain information for statistical purposes in a way that does not depend on closure of all coroner cases concerning the deaths that occurred in a period of interest.
2. Statistical modelling.
3. More speedy closure of cases by Coroners.

There are many and complex barriers to substantial improvement in timeliness by means of the third of these. It is included here largely for logical completeness.

The first option warrants attention. In essence, most deaths that are ultimately found by a coroner to be due to suicide have been flagged as likely suicides from the time they are notified to the coroner, generally by police. An indication of this from data in the NCIS is the very high correlation between the deaths flagged as Intentional Self-Harm (ISH) in the field "intent on notification" and those flagged as ISH in the field "intent on completion". From a statistical perspective, analysis of deaths flagged as ISH on notification can provide a good proxy for the theoretically more desirable ISH on completion. The advantage of this proxy is that, in principal, sufficiently complete data based on it could be reported relatively quickly, since the existence of this information does not depend on completion of coroner cases. A variant of the approach is to use the proxy only when ISH on completion is not available.

Use of this approach depends on the willingness of Coroners to allow necessary access to Intent on Notification information concerning cases that are still open.

Variations of this approach can be described.

The statistical modelling approach would use information available at the time of analysis to predict final case numbers. Its reliability in this context is yet to be demonstrated, and would depend greatly on the information available at the time of analysis (e.g. whether Intent on Notification is available). It warrants testing.

A second defect is the lack of uniform definitions and operational criteria for ‘suicide’ (and other relevant concepts), which are agreed, applied and quality-checked throughout the system that underlies Australia’s suicide statistics. The ABS applies the definitions and categories of the ICD, which is appropriate. However, the information available to the ABS, on the basis of which ABS officers assign ICD codes, does not necessarily comply with those definitions (see RSSA section 4.2).

Potential solutions:

Enough is known to be confident that this issue warrants attention (see references cited in RSSA 4.2.3), but more information is needed to fully document its extent, and potential solutions. This could be obtained by means of one or more projects (a) examining samples of case records, applying standard criteria, and assessing how often intent assignment differs from the original; and (b) preparing a set of case records, for coding by a sample of coroners and other people whose judgements influence the coding of intent in the NCIS, in order to measure the extent of variation in intent coding and the types of cases that are likely to be subject to differences. The results of such work should guide action.

Third, and related to the second issue, is the lack of a mechanism to deal appropriately, for statistical purposes, with classes of deaths that are similar to suicide, but not quite the same. Three examples are (a) deaths due to acts that were self-inflicted with harmful intent, but without intent to die (e.g. a death during “the Choking Game”); (b) deaths with attributes suggestive of suicide, but lacking strong evidence (e.g. some drowning deaths, lacking evidence on intent when entering the water); and (c) euthanasia by self-administered means.

Potential solutions:

Action in response to the previous issue should be relevant to this one. Coding categories, tailored to the problematic categories, should be available. Professor De Leo has advocated provision of a means to record levels of certainty concerning intent. This issue is central to the interest of the National Committee for Standardised Reporting of Suicide.

Coordination

The production of data on the causes of deaths in Australia depends on a complex system with many elements. These operate at different levels in different sectors and with different imperatives (RSSA Chapter 3). Undercounting of suicide that has emerged in recent years (and which is described in the RSSA), has largely been due to the mismatched in the timing of two elements of the process: coroners and the ABS. This can be seen as an example of the consequences of lack of coordination.

Short of major changes in institutional roles, which would be difficult and expensive, tight coordination will be difficult to achieve. However, several activities now in existence, or in development, can contribute usefully. The Australasian Mortality Data Interest Group (AMDIG) is the only organisation that brings together individuals from all of the elements of the complex system that underlies the production and use of mortality data in Australia in a collaborative way, with a focus on sharing information. In addition to holding its business meetings, AMDIG has convened a series of annual conferences focusing on mortality data. AMDIG has no budget and no administrative authority.

In a somewhat similar vein, the ABS has formed a group to advise it on its mortality data collection. Both of these groups have a scope extending to all deaths, not only suicides. However, it is noteworthy that suicide reporting and related matters have been heavily represented on the AMDIG agenda in recent years.

More recently, a National Committee for Standardised Reporting of Suicide (NCSRS) has been established by people with a specific interest in this topic. There is some overlap between the groups (I am on AMDIG and NCSRS). Several members of the NCSRS have prepared a paper presenting their views on this matter, which has been accepted for publication by the Medical Journal of Australia (I understand that this has been submitted to the Inquiry).

Conceptual model

Reference b. of the Inquiry refers to the “accuracy of suicide reporting”. Accurate reporting of suicide is important, but achieving that alone would fall short of providing a solid and complete statistical basis for understanding and monitoring suicide in Australia.

A more conceptually complete model is one that considers all suicidal behaviour. Suicidal acts (that is, acts done with the intent of self-killing) sometimes result in death, but can also result in non-fatal injury or (on a particular occasion), no physical harm. Silverman et al. (2007), building on O’Carroll et al. (1996), present such a model. These models also give attention to self-harming behaviour where it is not known whether there was suicidal intent, and where there was not suicidal intent (i.e. self-mutilation, etc.).

Reasons to favour a more complete conceptual approach include these:

- (a) People who engage in non-fatal self-harmful behaviours, with or without discernable suicidal intent, are at greatly elevated risk of dying by suicide on a

later occasion. Understanding and measuring non-fatal suicide-related behaviours provides an avenue for prevention.

(b) A rise or fall in the rate of suicide deaths in a population could be due to a change in the incidence of suicidal behaviour, or due to a change in the case-lethality of suicidal acts (e.g. due to a change in which pharmaceutical substances are readily available and often used in overdose events, or to a change from one means of self-harm to another). These two alternative explanations for a change in suicide rate have very different implications for policy and practice. However, they cannot be distinguished if only suicide deaths data are considered.

Practicability of producing statistics that accord to a more complete model: This approach is on the verge of becoming practicable. The technical and administrative innovation that is making this so is the development of whole-population facilities to enable non-identifying linkage of administrative data. In Australia, such capabilities are now operating in Western Australia (<http://www.datalinkage-wa.org/>) and NSW (with the ACT; <http://www.cherel.org.au/>), and are in advanced development in South Australia and the Northern Territory (www.santdatalink.org.au/). Funded by the National Research Infrastructure Scheme (NCRIS), action is also occurring in the other states, and systems to enable use of linkage at national level are being put in place. These systems have potential to link data from systems including deaths data, hospital inpatient services, emergency departments, mental health services, etc. The potential will be strengthened if necessary arrangements can be made concerning use of Commonwealth data sources, notably the Pharmaceutical Benefits Scheme and Medicare. The addition of major prospective cohort studies (such as the 45 And Up study in NSW) adds further to the potential.

While routine analysis and monitoring of suicidal behaviour in the Australian population via rich linked data is not available immediately, it is close enough to being available to warrant being taken into consideration when envisaging and planning for information on suicide and suicidal behaviour. Potential exists now for sub-national analysis, and national capability can be expected to emerge during the next decade.

References

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Attachment:

Professional background relevant to the Inquiry

I am an injury epidemiologist and public health physician. I have led the Research Centre for Injury Studies since its establishment in 1997. In that capacity, I have also directed the National Injury Surveillance Unit, a Collaborating Unit of the Australian Institute of Health and Welfare. My professional activities have centred on statistical reporting of injury, including injury due to suicide and non-fatal intentional self-harm. This work has included analysis and reporting of data, evaluation of information systems, involvement in the development of information systems and classifications, participation in expert groups, authorship of journal papers and other activities. This Attachment summarises the aspects of my track record and experience that are most relevant to the Inquiry.

Current roles relevant to the Inquiry

Role

Director of the Research Centre for Injury Studies, Flinders University

Director of the AIHW National Injury Surveillance Unit (NISU), operated by the Research Centre.

Member of the World Health Organization Revision Steering Group for the International Classification of Diseases (ICD)

Leader of the Topical Advisory Group responsible for revising the External Causes chapter of the ICD

Co-leader of the Injury Expert Group of the Global Burden 2005 project

Member of the National Coroner Information System (NCIS) committee

Member of the Australasian Mortality Data Interest Group (AMDIG)

Participant in the National Committee for Standardised Reporting of Suicide.

Executive member of the International Collaborative Effort on Injury Statistics

Relevance

The Research Centre is active and prominent in the areas of measurement and surveillance of injury in the Australian population, including injury due to suicidal acts.

NISU is the national provider of injury statistical reports. Many NISU reports include sections on suicide and intentional self-harm, and some focus entirely on this.

The ICD is by far the most widely used system for classifying causes of death. Most national suicide statistics are based on ICD coding. The RSG is engaged in developing the 11th revision of the ICD. This is the first major revision of the ICD in two decades.

I lead the aspect of the revision of the ICD that is most relevant to suicide statistics. The External Causes chapter includes the suicide codes.

The aspect of the GBD 2005 project that I co-lead is assembling and assessing data from which estimates will be made of health related conditions, including suicide, throughout the world. This is chiefly relevant to the Inquiry because it is ensuring that I am aware of the state of suicide data in many parts of the world.

The NCIS is an important innovation for the provision of information on injury, including suicide in Australia. I have closely followed its development, have participated in various committees, and have analysed NCIS data for various purposes, including assessment of suicide statistics. I am the external member of the NCIS committee.

The AMDIG brings together individuals from all of the elements of the complex system that underlies the production and use of mortality data in Australia. I have been an active participant since AMDIG was formed, and chaired the most recent annual meeting of its executive group.

The name of the group is self-explanatory.

The ICE on Injury Statistics is the leading professional forum for scientists and statisticians who specialise in injury statistics, which include suicide.

Refereed papers in scientific journals

- De Leo D, Dudley M, Aebersold C, Mendoza J, Barnes M, Harrison J, Ranson D. Achieving standardised reporting of suicide in Australia: rationale and program for change. *Med J Aust* accepted November 2009. (journal reference MJA-2009-10779R1)
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Editorial

- Goldney RD, Harrison JE. Suicide in the elderly - some good news. *Australasian Journal on Ageing*. 1998; 17: 54-55.

Other reports and publications

(most can be obtained from www.nisu.flinders.edu.au)

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- Kreisfeld R, Newson R, Harrison J. (2004) Injury deaths, Australia 2002. Injury Research and Statistics Series Adelaide: AIHW. (AIHW cat no. INJCAT 65)

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- Helps Y, Cripps R, Harrison J. (2002). Hospital separations due to injury and poisoning, Australia 1999-00. Injury Research and Statistics Series Number 13. Adelaide: AIHW
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SenateInquiryIntoSuicide-Harrison.doc