## Additional files

## Additional file 1: Descriptive table of original research studies with NCIS as primary data source published in peer-reviewed journal

| Author, Year        | Journal  | Country<br>of<br>Journal | Death Type                | Aim   | Study Design                  | Study<br>Period | Jurisdiction | Population | NCIS<br>as<br>Data<br>Source | Main Findings  |
|---------------------|--|--------------------------|---------------------------|---|-------------------------------|-----------------|--------------|------------|------------------------------|--|
| Woolfenden,<br>2003 | Journal of<br>Paediatric and<br>Child Health                 | Aus                      | All deaths                | To examine characteristics and death of children presenting to emergency departments.   | Retrospective<br>chart review | 2               | NSW          | Children   | 2                            | Presentation to emergency departments with aggression is an indicator of significant psychosocial dysfunction.     |
| Driscoll, 2004      | International Journal of Injury Control and Safety Promotion | UK                       | Drowning                  | To examine the contribution of alcohol to drowning deaths.  | Retrospective case series     | 2               | Multiple     | All        | Dual 1                       | High blood alcohol levels are less common in drowning deaths than previously but still frequent.                   |
| Freckelton,<br>2005 | Psychiatry,<br>Psychology and<br>Law                         | UK                       | Intentional self-<br>harm | To review coroner's recommendations on suicides amongst individuals with psychiatric disorders.                                     | Retrospective case series     | 6               | National     | All        | 1                            | Coroners' recommendations should be more accessible and mandatory.   |
| Tooley, 2006        | Evolution and<br>Human Behaviour                             | US                       | Injury-related<br>death   | To investigate the association between living with a step parent and unintentional childhood fatal injury.                          | Retrospective case series     | 4               | Multiple     | Children   | 1                            | Step children are at significantly increased risk of unintentional fatal injury                                    |
| Daking, 2007        | Health<br>Information<br>Management<br>Journal               | Aus                      | All reportable            | To compare data coded to ICD-<br>10 between ABS and NCIS.   | Retrospective case series     | 4               | National     | All        | Dual 1                       | Discrepancies between the two sets of codes were detected in over 50% of cases.                                    |
| Hanssens,<br>2007   | Aboriginal and<br>Islander Health<br>Worker Journal          | Aus                      | Intentional self-<br>harm | To identify contributing factors for clustering of suicide in NT.   | Retrospective case series     | 5               | NT           | Indigenous | Dual 1                       | Evidence of "clustering" and<br>"echo clusters" (communities do<br>not recover before next cluster of<br>suicide). |
| Hanssens,<br>2007   | Aboriginal and<br>Islander Health<br>Worker Journal          | Aus                      | Intentional self-<br>harm | To investigate the contribution of a contagion effect, alcohol and familiarity with hanging as risk factors for Indigenous suicide. | Retrospective case series     | 7               | NT           | Indigenous | Dual 1                       | Evidence of contagion , alcohol<br>and hanging risk factors operating<br>within clusters of suicide                |
| MacBean,<br>2007    | Medical Journal of<br>Australia                              | Aus                      | Bite-related<br>deaths    | To describe the epidemiology of human and non-human bite  | Retrospective case series     | 7               | VIC          | All        | 2                            | Mammal bite injuries are common and often require  |

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|---------------------------|---|--------------------------|--|--|------------------------------|-----------------|--------------|------------|------------------------------|--|
|                           |   |                          |  | injuries.  |                              |                 |              |            |                              | inpatient care.  |
| Driscoll, 2008            | Journal of Safety<br>Research   | US                       | Work-related deaths                              | To assess the contribution of design to work-related deaths in Australia.                        | Retrospective case series    | 3               | National     | All        | 1                            | Design is a significant contributor to work-related fatal injury.  |
| Fragar, 2008.             | Journal of<br>Occupational<br>Health and Safety<br>- Australia and<br>New Zealand | Aus                      | Unintentional deaths                             | To examine trends on non-<br>intentional injury deaths in<br>farms.                              | Retrospective case series    | 4               | National     | Farmers    | 1                            | Reduction in number and change in profile of farm unintentional deaths.  |
| Hanssens,<br>2008         | Aboriginal and<br>Islander Health<br>Worker Journal                               | Aus                      | Intentional<br>deaths                            | To investigate the contribution of imitation and contagion in rise of Indigenous suicide rate.   | Retrospective<br>case series | 8               | NT           | Indigenous | Dual 1                       | Significant space-time-method clustering provides indirect evidence of imitative suicide and contagion.  |
| Kaye, 2008                | Addiction   | UK                       | Drug-related<br>deaths                           | To investigate the pathology of methamphetamine related deaths.                                  | Retrospective<br>case series | 6               | National     | All        | 1                            | Methamphetamine has contributed to a substantial number of deaths in Australia, particularly via its cardiotoxicity and use with other drugs.                |
| Watterson,<br>2008        | Australian<br>Indigenous Law<br>Review  | Aus                      | Reportable<br>deaths                             | To examine coronial recommendations in Indigenous deaths and their implementation.               | Retrospective<br>case series | 3               | National     | Indigenous | 1                            | There were significant inconsistencies in the treatment of death in custody. Coronial recommendation can impact incidence of death but have been overlooked. |
| Young, 2008               | Conference proceedings  | Aus                      | Transport-<br>related deaths                     | To investigate the types of information required to examine crashes.                             | Retrospective case series    | 7               | National     | All        | 1                            | Low coroners' reports and key case indicators were the most important limitations.   |
| Bell, 2009                | Drug and Alcohol<br>Dependence  | Switzerla<br>nd          | Poisoning  | To investigate overdose mortality (in-treatment and diversion) with methadone and buprenorphine. | Retrospective case series    | 1               | NSW          | All        | 1                            | Buprenorphine is associated with lower overdose risk than methadone.   |
| Brodie, 2009 <sup>1</sup> | Accident Analysis<br>and Prevention   | UK                       | Transport-<br>related<br>unintentional<br>deaths | To describe the nature and extent of heavy vehicle crashes.                                      | Retrospective<br>case series | 6               | VIC          | All        | Dual 1                       | Crashes involved a single vehicle leaving the roadway on a straight road, stimulants or cannabis, excess speed and absence of                                |

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|------------------------|--|--------------------------|------------------------------|--|------------------------------|-----------------|--------------|----------------------------------|------------------------------|---|
|                        |  |                          |                              |  |                              |                 |              |                                  |                              | seatbelt  |
| Elnour, 2009           | Australian and<br>New Zealand<br>Journal of Public<br>Health | Aus                      | Intentional<br>deaths        | To compare intentional deaths in ABS and NCIS datasets.  | Retrospective case series    | 6               | National     | All                              | 1                            | Underestimation of suicide<br>mortality in Australia due to<br>incomplete coroner data available<br>to ABS coders.                            |
| Grzebieta,<br>2009     | Journal of the<br>Australasian<br>College of Road<br>Safety  | Aus                      | Transport-<br>related deaths | To examine motorcycle impacts into any roadside barrier.   | Retrospective<br>case series | 7               | National     | All                              | 1                            | The number of motorcycle impacts into roadside barrier was low, and predominantly involved W-beam steel barriers.                             |
| Hiller, 2010           | Emergency<br>Medicine Journal                                | UK                       | Unintentional<br>deaths      | To investigate the nature, management and outcomes of traumatic aortic transection.                        | Retrospective<br>case series | 2               | VIC          | All                              | Dual 1                       | Aortic transection was most commonly due to road crashes affecting young men, with a mortality rate of over 90%.                              |
| Kaye, 2009             | Drug and Alcohol<br>Dependence                               | Switzerla<br>nd          | Drug-related<br>deaths       | To characterise MDMA-related deaths in Australia.  | Retrospective case series    | 6               | National     | All                              | 1                            | Methamphetamine has contributed to a substantial number of deaths in Australia, particularly via its cardiotoxicity and use with other drugs. |
| Morgan,<br>2009        | Journal of Science<br>and Medicine in<br>Sport               | Aus                      | Drowning<br>deaths           | To develop a direct observation measure of frequency and duration for surf beach bather exposure to water. | Prospective<br>case series   | 2<br>month<br>s | VIC          | All                              | Dual 1                       | Overrepresentation of adult<br>males in surf beach drowning<br>statistics is partly due to greater<br>exposure to deeper water                |
| Pridmore,<br>2009      | Australian and<br>New Zealand<br>Journal of<br>Psychiatry    | UK                       | Intentional<br>deaths        | To characterize suicide in the NT.   | Retrospective case series    | 7               | National     | Indigenous                       | Dual 1                       | Suicide is more common in NT<br>generally, and more common in<br>NT Indigenous than NT non-<br>Indigenous people.                             |
| Samaraseker<br>a, 2009 | Journal of<br>Paediatric and<br>Child Health                 | Aus                      | Chest trauma<br>deaths       | To characterise the nature and management of major paediatric chest trauma                                 | Population-<br>based study   | 7               | VIC          | Children                         | 2                            | Serious injury requiring surgical intervention is rare.   |
| Sikic, 2009            | Medical Journal of<br>Australia                              | Aus                      | Transport-<br>related deaths | To investigate the incidence and nature of bicycling injuries  | Retrospective case series    | 6               | VIC          | All                              | Dual 1                       | Incidence has significantly increased in the last few years.  |
| Sturgiss,<br>2009      | Journal of<br>Forensic and Legal<br>Medicine                 | UK                       | Intentional<br>deaths        | To characterise suicide in people over the age of 65 years.  | Retrospective case series    | 7               | ACT          | People<br>aged > 65<br>years old | 1                            | Suicide by hanging is not an uncommon mechanism in people over the age of 65 years.   |

| Author, Year                   | Journal  | Country<br>of<br>Journal | Death Type                           | Aim  | Study Design                 | Study<br>Period | Jurisdiction | Population      | NCIS<br>as<br>Data<br>Source | Main Findings   |
|--------------------------------|--|--------------------------|--------------------------------------|--|------------------------------|-----------------|--------------|-----------------|------------------------------|---|
| Barron, 2010                   | Police Practice<br>and Research                              | UK                       | Intentional<br>deaths                | To characterise the personal, occupational, psychological, and social characteristics of police officers who commit suicide.                     | Retrospective<br>case series | 9               | NSW          | Police<br>force | 2                            | Risk factors are similar to general community.  |
| Brodie, 2010 <sup>1</sup>      | Australian and<br>New Zealand<br>Journal of Public<br>Health | Aus                      | Transport-<br>related deaths         | To describe the nature of coroners' recommendations on fatal heavy vehicle crashes   | Retrospective case series    | 7               | VIC          | All             | 1                            | Coroners' recommendations<br>varied by vehicle type and<br>number of fatalities.  |
| Brodie, 2010 <sup>1</sup>      | Injury Prevention  | UK                       | Work and recreational-related deaths | To examine fatalities from tree felling.   | Retrospective case series    | 8               | VIC          | All             | 1                            | 70% of fatal accidents involved persons not employed within a relevant industry.  |
| Bugeja,<br>2010 <sup>1</sup>   | Health<br>Information<br>Management<br>Journal               | Aus                      | External causes<br>of death          | To quantify the completeness of external cause ICD-10 codes in the NCIS compared with ABS.   | Retrospective<br>case series | 6               | VIC          | All             | 1                            | 4,397 (70.8%) matched exactly with the independently assigned ICD-10 code. Disparity primarily related to intent and specificity. |
| Cutajar, 2010                  | Medical Journal of<br>Australia                              | Aus                      | Poisoning<br>deaths                  | To determine the rate and risk of intentional and unintentional drug overdose in individuals sexually abused in childhood.                       | Cohort study                 | 9               | VIC          | All             | Dual 1                       | Child sexual abuse victims are at increased risk of suicide and accidental fatal drug overdose.                                   |
| Franklin,<br>2010.             | Medical Journal of<br>Australia                              | Aus                      | Drowning<br>deaths                   | To examine trends in drowning deaths characteristics, and the feasibility of achieving a 50% reduction in unintentional drowning deaths by 2020. | Retrospective<br>case series | 6               | National     | All             | 1                            | A 50% reduction in drowning fatalities may be achievable in certain types of immersions.  |
| McNeilly,<br>2010 <sup>1</sup> | Injury Prevention  | UK                       | Work-related<br>death                | To determine the presence of alcohol, cannabis and amphetamine-type stimulants in work-related injury deaths.                                    | Retrospective case series    | 6               | VIC          | All             | 1                            | Alcohol and/or drugs were present in a significant portion of work-related deaths, which were mainly transport-related.           |
| Mikocka-<br>Walus, 2010        | Emergency<br>Medicine<br>Australasia                         | Aus                      | Transport-<br>related death          | To compare the on- and off-<br>road motorcycle-related major<br>trauma.  | Retrospective case series    | 8               | VIC          | All             | Dual 1                       | Off-road motorcycle-related<br>major trauma has increased,<br>whilst on-road motorcycle-related<br>death has decreased.           |

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|-------------------|--|--------------------------|-----------------------------|---|--|-----------------|--------------|------------------|------------------------------|---|
| Mitra, 2010       | Emergency<br>Medicine<br>Australasia   | Aus                      | Transport-<br>related death | To determine the incidence and pattern of injuries in tram-related injuries.  | Retrospective case series                      | 8               | VIC          | All              | Dual 1                       | Although most cases involved minor injuries, there was a significant increase in the incidence of major trauma cases, mostly pedestrians. |
| Pilgrim, 2010     | Forensic Science<br>International      | Ireland                  | Poisoning<br>deaths         | To determine the involvement of selected serotonin-active drugs in sudden death.  | Retrospective<br>case series                   | 7               | VIC          | All              | 1                            |   |
| Rintoul, 2010     | Injury Prevention                      | UK                       | Poisoning<br>deaths         | To describe the trends and demographic characteristics in fatal drug toxicity involving oxycodone.  | Population-<br>based<br>observational<br>study | 10              | VIC          | All              | 1                            |   |
| Robinson,<br>2010 | Psychiatric<br>Research                | UK                       | All reportable              | To determine the rate of sudden death and sociodemographic characteristics among young people with first episode psychosis following commencement of treatment. | Cohort study                                   | 9               | National     | Young<br>people  | Dual 1                       | Of nineteen deaths, most were suicide. Risk factors were male gender, previous attempt and greater symptom severity.                      |
| Studdert,<br>2010 | Medical Journal of<br>Australia        | Aus                      | All reportable              | To evaluate the changes in the understanding of the manner and cause of death occurring during the course of coronial investigations.                           | Ecological<br>analysis                         | 9               | National     | All              | 1                            | Coronial investigations transform basic understanding of cause of death in only a small minority of cases.                                |
| Andrews,<br>2011  | BMC Research<br>Notes                  | UK                       | All reportable              | To determine the proportion of reportable deaths among exprisoners.   | Retrospective<br>case series                   | 7               | National     | Ex-<br>prisoners | 1                            | Only a small minority of<br>reportable deaths among ex-<br>prisoners was detected.  |
| Austin, 2011      | Journal of<br>Forensic Sciences        | US                       | Intentional self-<br>harm   | To investigate the cases of<br>suicide involving helium<br>inhalation.  | Retrospective case series                      | 9               | National     | All              | 1                            | There was a recent and striking increase in cases of suicide involving helium inhalation.   |
| Beacroft,<br>2011 | Australian<br>Indigenous Law<br>Review | Aus                      | Deaths in custody           | To examine trends and issues in deaths in custody.  | Retrospective<br>case series                   | 9               | National     | Indigenous       | Dual 1                       | A greater proportion of deaths in police custody involves Indigenous than non-Indigenous Australians.                                     |

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|------------------------------|--|--------------------------|------------------------------|--|------------------------------|-----------------|--------------|------------------------|------------------------------|---|
| Bugeja,<br>2012 <sup>1</sup> | Injury Prevention                            | UK                       | All reportable               | To quantify and examine coroners' recommendations according to principles of injury prevention.                            | Cohort study                 | 6               | VIC          | All                    | 1                            | Coroners' recommendations were relatively rare, and did not systematically draw on injury prevention research.  |
| Dearn, 2011                  | Journal of Law<br>and Medicine               | Aus                      | All reportable               | To examine the factors contributing to the "preventable deaths" of people under 50 years of age in residential aged care.  | Case study                   | 6               | VIC          | Aged Care<br>residents | Dual 1                       | Of the three cases of "preventable" deaths, none was reported, and all have implications for systemic reform.   |
| Franklin,<br>2011            | Journal of<br>Paediatric and<br>Child Health | Aus                      | Drowning<br>deaths           | To characterise the immersion rescuer–victim dyad where the primary 'victim' is a child and the 'rescuer' drowns.          | Retrospective<br>case series | 6               | National     | Children               | 1                            | The dyad involves a male, parent, partner or relative; an unfamiliar water hazard; a tourist; the primary victim usually survives.  |
| Frechede,<br>2011            | Accident Analysis<br>and Prevention          | UK                       | Transport-<br>related deaths | To compare the relative contribution, cause of death and risk factors of all single vehicle crash types between 3  States. | Retrospective case series    | 8               | Multiple     | All                    | 1                            | Rollovers accounted for a third of all occupant fatalities, with differences in mechanisms, crash type and containment of the occupant between states.  |
| Jama, 2011                   | Accident Analysis<br>and Prevention          | UK                       | Transport-<br>related deaths | To describe and compare<br>motorcycle-into-barrier<br>crashes in Australia and New<br>Zealand.                             | Retrospective case series    | 6               | National     | All                    | 1                            | Fatalities usually involved a single vehicles, young men, steel Wbeams, speeding and high blood alcohol levels. A majority occurred on a weekend, during daylight hours, on clear days with dry road surfaces.  |
| Jones, 2011 <sup>1</sup>     | Injury Prevention                            | UK                       | Work-related<br>deaths       | To describe the nature and mechanisms of work-related non-crash heavy vehicle driver fatalities.                           | Retrospective<br>case series | 10              | National     | All                    | Dual 1                       | Forty-seven cases of a truck driver being killed while performing a non-driving task were identified from the NCIS. A common sequence of events was identified in 21 (45%) cases involved parking on an incline combined with brakes not functioning appropriately leading to a crushing death. |

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|-------------------|---|--------------------------|------------------------------|---|------------------------------|-----------------|--------------|------------|------------------------------|--|
| Petrass, 2011     | Medical Journal of<br>Australia.              | Aus                      | Drowning<br>deaths           | To determine the frequency of lack of supervision in child drowning.  | Retrospective case series    | 10              | National     | Children   | 1                            | Lack of supervision was identified as a contributing factor in most cases.   |
| Pilgrim, 2011     | International<br>Journal of Legal<br>Medicine | Germany                  | Poisoning<br>deaths          | To examine the incidence of inappropriate prescribing patterns involving serotonergic drugs.                                | Retrospective case series    | 7               | VIC          | All        | 1                            | Cases comprised contraindicated drug combinations, mostly a combination of three to five drugs.                                |
| Pilgrim, 2011     | Journal of<br>Analytical<br>Toxicology        | US                       | Poisoning<br>deaths          | To determine the incidence of ecstasy use in drug interaction related sudden death.   | Retrospective case series    | 7               | VIC          | All        | 1                            | Half of cases involved the concomitant use of MDMA with other drugs that were likely to result in an adverse drug reaction.    |
| Roxburgh,<br>2011 | Medical Journal of<br>Australia               | Aus                      | Poisoning<br>deaths          | To document trends in morphine and oxycodone prescription, hospital separations for overdose, adverse events and mortality. | Cross-sectional study        | 9               | National     | All        | Dual 1                       | Oxycodone prescriptions have increased, particularly among older Australians.  |
| Andrew,<br>2012   | Injury  | UK                       | Recreational<br>deaths       | To examine trends in sport and recreation activities-related deaths.  | Retrospective case series    | 7               | VIC          | All        | 1                            | There was an increase in the rate of major trauma or death from sport and active recreation injuries.                          |
| Andrews,<br>2012  | BMC Public<br>Health                          | UK                       | Poisoning<br>deaths          | To explore the causes and circumstances of drug-related mortality among ex-prisoners.                                       | Retrospective case series    | 8               | National     |            | 1                            | Drug-related deaths are common among ex-prisoners and often occur in a home, with use of multiple substances.                  |
| Bambach,<br>2012  | Accident Analysis and Prevention              | UK                       | Transport-<br>related deaths | To analyse injury profiles in motorcycle-barrier crashes.   | Retrospective case series    | 6               | National     | All        | 1                            | The thorax region had the highest incidence of injury followed by the head.  |
| Byard, 2012       | Journal of<br>Forensic Sciences               | US                       | Recreational<br>deaths       | To characterise autoerotic death or sexual asphyxia.  | Retrospective<br>case series | 7               | National     | All        | Dual 1                       | Lethal sexual asphyxia is<br>uncommon in Australia and<br>Sweden, with a young male<br>predominance.                           |
| Cheung,<br>2012   | Social Science &<br>Medicine                  | UK                       | Intentional self-<br>harm    | To identify sex-specific suicide pattern and metropolitan-rural-remote differentials.                                       | Retrospective<br>case series | 5               | National     | All        | 1                            | There were rates of suicide in rural and remote areas for males, with some high risk postal areas. Socio-economic deprivation, |

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|-------------------------|--------------------|--------------------------|-------------------|---------------------------------|---------------|-----------------|--------------|------------|------------------------------|------------------------------------|
|                         |                    |                          |                   |                                 |               |                 |              |            |                              | Indigenous status and low access   |
|                         |                    |                          |                   |                                 |               |                 |              |            |                              | to mental health service were risk |
|                         |                    |                          |                   |                                 |               |                 |              |            |                              | factors.                           |
|                         |                    |                          |                   |                                 |               |                 |              |            |                              | Recommendation themes related      |
|                         |                    |                          |                   | To determine accomment          |               |                 |              |            |                              | to issues of risk                  |
|                         | Emergency          |                          | Deaths in         | To determine recurrent          | D. I          |                 |              |            |                              | management/medico-legal,           |
| Curran, 2012            | Medicine           | Aus                      | emergency         | themes among coroners'          | Retrospective | 2               | Multiple     | All        | 1                            | diagnostic/therapeutic error,      |
|                         | Australasia        |                          | departments       | recommendations aiming at       | case series   |                 |              |            |                              | education,                         |
|                         |                    |                          |                   | increase the safety of ED care. |               |                 |              |            |                              | documentation/communication        |
|                         |                    |                          |                   |                                 |               |                 |              |            |                              | and re-presentation.               |
|                         |                    |                          |                   |                                 |               |                 |              |            |                              | Paediatric traumatic out of        |
|                         |                    |                          |                   | To describe the profile of      |               |                 |              |            |                              | hospital cardiac arrest is         |
| Deasy, 2012             | Resuscitation      | Ireland                  | Injury-related    | paediatric traumatic out of     | Retrospective | 10              | VIC          | Children   | Dual 1                       | uncommon. Resuscitation efforts    |
| Deasy, 2012             | Resuscitation      | li cialiu                | deaths            | hospital cardiac arrest.        | case series   | 10              | VIC          | Ciliaren   | Duai 1                       | are seldom effective and           |
|                         |                    |                          |                   | nospital cardiac arrest.        |               |                 |              |            |                              | associated with poor neurological  |
|                         |                    |                          |                   |                                 |               |                 |              |            |                              | outcome.                           |
|                         | Health             |                          |                   | To examine use and quality of   |               |                 |              |            |                              | NCIS data can be used at high      |
| Freestone,              | Information        | Aus                      | All reportable    | geographic location data in the | Retrospective | 6               | National     | All        | 1                            | levels of granularity. Data        |
| 2012                    | Management         | Aus                      | All reportable    | NCIS.                           | case series   | U               | National     | All        | 1                            | cleaning can be used to improve    |
|                         | Journal            |                          |                   | NCIS.                           |               |                 |              |            |                              | data quality.                      |
|                         |                    |                          |                   |                                 |               |                 |              |            |                              | Due to the small number of         |
|                         | Australian Journal |                          | Intentional self- | To determine whether farming    | Retrospective |                 |              |            |                              | relevant cases, there was no       |
| Guiney, 2012            | of Rural Health    | Aus                      | harm              | suicides increased in Victoria  | case series   | 7               | VIC          | Farmers    | 1                            | concluding evidence of a pattern   |
|                         | or Karar rieatti   |                          | Haim              | during the prolonged drought.   | case series   |                 |              |            |                              | of increasing farming suicides     |
|                         |                    |                          |                   |                                 |               |                 |              |            |                              | during the drought years.          |
|                         | International      |                          |                   | To describe the circumstances   |               |                 |              |            |                              | Most fatalities were male,         |
| Jones 2012 <sup>1</sup> | Journal of Injury  | UK                       | Work-related      | of work-related fatalities in   | Retrospective | 10              | National     | 55 years   | 1                            | working in agriculture, forestry   |
| Jones 2012              | Control and        | O K                      | deaths            | workers aged 55 years and       | case series   | 10              | National     | and older  | -                            | and fishing, and were transport-   |
|                         | Safety Promotion   |                          |                   | older.                          |               |                 |              |            |                              | related.                           |
|                         |                    | _                        |                   |                                 |               |                 |              |            |                              | Psychosocial factors were          |
|                         | Social Psychiatry  |                          |                   | To examine the role of          |               |                 |              |            |                              | important, psychiatric morbidity   |
| Judd 2012               | and Psychiatric    | Germany                  | Intentional self- | psychosocial factors, physical  | Retrospective | 5               | National     | All        | 1                            | was less than generally reported,  |
| Juuu 2012               | Epidemiology       | Jermany                  | harm              | and mental health, gender in    | case series   | ,               | National     | All All    | 1                            | and comparable proportions of      |
|                         | - грастпогову      |                          |                   | suicide.                        |               |                 |              |            |                              | males and females used violent     |
|                         |                    |                          |                   |                                 |               |                 |              |            |                              | means to suicide.                  |

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|-----------------|---|----------------------------|---|--|------------------------------|-----------------|--------------|------------|------------------------------|---|
| Lippman<br>2012 | Medical Journal of<br>Australia                                       | Aus                        | Recreational<br>deaths                    | To examine the frequency and causes of snorkelling-related deaths.   | Retrospective<br>case series | 7               | National     | All        | 1                            | Snorkelling-related deaths are rare. Risk factors include cardiac or respiratory disease, family history of sudden unexpected death, unfamiliarity with equipment and hyperventilation before breath-hold diving. |
| Lower 2012      | NSW Public<br>Health Bulletin   | Aus                        | Injury-related<br>deaths                  | To describe the pattern of non-<br>intentional farm-related<br>fatalities.   | Retrospective case series    | 4               | National     | Farmers    | 1                            | The incidence of farm fatalities has declined. Most are transport-related, half are nonwork-related.  |
| Machlin 2012    | Crisis  | Germany                    | Intentional self-<br>harm                 | To determine the factors associated with an individual suicide featuring in the media.                                     | Retrospective case series    | 1               | National     | All        | Dual 1                       | Reported suicides tend to be those that may either heighten the risk of lethal imitative behaviors or serve to distort public perceptions about suicide.  |
| Pilgrim 2012    | Forensic Science<br>International                                     | Ireland                    | Poisoning<br>deaths                       | To examine four fatal cases of MDMA-moclobemide induced serotonin toxicity.  | Retrospective<br>case series | 7               | VIC          | All        | 1                            | Symptoms included hyperthermia, hyperkalemia, profuse sweating, twitching and shaking. Two cases involved concentrations associated with toxicity, and three some form of heart disease.                          |
| Pilgrim 2012    | Current Drug<br>Metabolism  | United<br>Arab<br>Emirates | Poisoning<br>deaths                       | To genotype the six main CYP450 enzymes in fatalities where target drugs susceptible to metabolic variation were detected. | Retrospective case series    | 4               | VIC          | All        | 1                            | Variation in genotype for rate of metabolisation varied for different enzymes.  |
| Routley 2012    | International<br>Journal of Injury<br>Control and<br>Safety Promotion | UK                         | Work-related<br>intentional self-<br>harm | To examine work related<br>suicides recorded on the<br>Victorian Work Related Fatality<br>Database (VWRFD).                | Retrospective case series    | 8               | VIC          | All        | 2                            | Half of cases had an association with work stressors including business difficulties, work injury, unemployment/redundancy or conflict with supervisors/colleagues.   |
| Sveticic 2012   | BMJ Open  | UK                         | Intentional self-<br>harm                 | To compare the characteristics of persons who die by suicide   | Retrospective case series    | 8               | QSL          | All        | Dual 1                       | Suicides by missing persons show several distinct characteristics in  |

| Author, Year                  | Journal  | Country<br>of<br>Journal | Death Type                   | Aim  | Study Design                 | Study<br>Period | Jurisdiction | Population      | NCIS<br>as<br>Data<br>Source | Main Findings   |
|-------------------------------|--|--------------------------|------------------------------|--|------------------------------|-----------------|--------------|-----------------|------------------------------|---|
|                               |  |                          |                              | after being reported as missing compared with other suicides.  |                              |                 |              |                 |                              | comparisons to other suicides in<br>terms of method, location,<br>physical health and<br>communicating their intent.  |
| Walter 2012 <sup>1</sup>      | Health and Place   | US                       | All reportable deaths        | To examine the relationship between remoteness of locations of deaths and coroners' decisions to hold inquests.    | Retrospective<br>case series | 8               | Multiple     | All             | 1                            | The remoteness of a death's location strongly and positively predicted the chance that an inquest will be held.   |
| Walter 2012 <sup>1</sup>      | Canadian Medical<br>Association<br>Journal                   | Canada                   | All reportable               | To compare the characteristics of discretionary inquests and cases resolved through administrative investigations. | Retrospective case series    | 8               | Multiple     | All             | 1                            | Deaths that coroners choose to take to inquest differ systematically from those they do not in terms of age of the decedent and cause of death.                                   |
| Cheung 2013                   | PLoS One   | US                       | Intentional self-<br>harm    | To develop techniques in using scan statistics to detect clusters of suicide.                                      | Retrospective case series    | 5               | National     | All             | 1                            | There were discrepancies between national and state/territory cluster detection by scan statistics due to the contrast of the underlying suicide rates across states/territories. |
| Kitching<br>2014 <sup>1</sup> | International Journal of Injury Control and Safety Promotion | UK                       | Work-related<br>deaths       | To describe pedestrian fatalities in workplaces in relation to vehicles, mobile plant and their loads.             | Retrospective case series    | 11              | National     | Pedestrian<br>s | Dual 1                       | Most deaths occured in<br>Agriculture and Construction,<br>involving farmers, labourers and<br>machinery operators.   |
| Lower 2013                    | Australian and<br>New Zealand<br>Journal of Public<br>Health | Aus                      | Quad bike-<br>related deaths | To determine the economic costs of quad bike-related fatalities.   | Retrospective<br>case series | 10              | National     | All             | Dual 1                       | The estimated total economic cost associated with quad bike fatalities was \$288.1 million, with an average cost for each fatality of \$2.3 million.                              |
| Pilgrim 2013                  | Forensic Science,<br>Medicine and<br>Pathology               | US                       | Poisoning<br>deaths          | To describe the circumstances and associated co-morbidities of quetiapine-related deaths.                          | Cohort study                 | 9               | VIC          | All             | 1                            | Misuse of quetiapine was not a significant issue, and only occasionally led to fatalities when used in excess or concomitantly with interacting drugs                             |
| Pilgrim 2013                  | Forensic Science   | Ireland                  | Poisoning                    | To determine the presence and  | Cohort study                 | 12              | VIC          | All             | 1                            | Cocaine was detected relatively   |

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|--------------------------|---|--------------------------|------------------------------|---|------------------------------|-----------------|--------------|-------------------------------|------------------------------|--|
|                          | International                                     |                          | deaths                       | involvement of cocaine in sudden and unexpected death.  |                              |                 |              |                               |                              | infrequently. However it appeared to be associated with a significant degree of cardiotoxicity, independent of cocaine concentration.  |
| Pridmore<br>2013         | Asian Journal of<br>Psychiatry                    | Netherla<br>nds          | Intentional self-<br>harm    | To apply the OPS framework to coroners' reports to compare suicides in Indigenous and non-Indigenous communities.                                 | Retrospective<br>case series | 11              | NT           | Indigenous                    | 1                            | The non-Indigenous group was over represented in the mental illness category and the Indigenous group was over represented in the social/environmental category.   |
| Roxburgh,<br>2013        | Drug Alcohol<br>Review                            | UK                       | Poisoning<br>deaths          | To describe trends in fentanyl prescribing and mortality rates of fentanyl-related deaths.  | Retrospective case series    | 13              | National     | All                           | Dual 1                       | A significant increase in fentanyl prescribing in Australia was observed as was an increase in fentanyl deaths.  |
| Anthikkat<br>2013        | Journal of<br>Paediatrics and<br>Child Health     | Aus                      | Transport-<br>related deaths | To investigate environmental and socio-demographic risk factors associated with low-speed vehicle run over fatalities in children aged 0–5 years. | Retrospective<br>case series | 11              | National     | Children                      | 1                            | The incidence was low and declined over the study period.  Most incidents occurred in nontraffic settings, with vehicles most likely to be reversing, and more commonly in lower socioeconomic status areas. |
| Bambach<br>2013          | Journal of<br>Transportation<br>Safety & Security | UK                       | Transport-<br>related deaths | To examine the crash mechanics of fatal motorcycle—barrier crashes.   | Retrospective case series    | 6               | National     | All                           | Dual 1                       | Certain motorcycle types, crash postures, pre-crash speeds, impact trajectory angles can be used to inform motorcycle-barrier crash test protocols.  |
| Brighton<br>2013         | Natural Hazards<br>and Earth System<br>Sciences   | Germany                  | Drowning<br>deaths           | To describe the number and demographics of rip current related drowning deaths and rescues.   | Retrospective<br>case series | 8               | National     | All                           | Dual 1                       | Rip currents were related to 44% of all beach-related drowning deaths and 57.4% of reported major rescues which is much lower than traditionally cited.  |
| Ehsani 2013 <sup>1</sup> | Safety Science                                    | Netherla<br>nds          | Work-related<br>deaths       | To describe fatal incidents involving young workers aged 15–24-years.   | Retrospective<br>case series | 8               | National     | People<br>aged 15-24<br>years | 1                            | The Agriculture, Forestry and Fishing sector had the highest fatality rate for young workers,  |

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|-------------------|---|--------------------------|------------------------------|---|------------------------------|-----------------|--------------|------------|------------------------------|--|
|                   |   |                          |                              |   |                              |                 |              |            |                              | and fatality rates were higher   |
|                   |   |                          |                              |   |                              |                 |              |            |                              | than the overall rate.   |
| Goeman<br>2013    | BMJ Open  | UK                       | Asthma-related<br>deaths     | To characterise the current circumstances surrounding the asthma deaths and to identify potential interventions.      | Retrospective<br>case series | 5               | National     | All        | 1                            | Risk factors included physical barriers, psychosocial issues, smoking, drug and alcohol dependence, allergies, respiratory tract infections, inadequate treatment and delay in seeking                   |
|                   |   |                          |                              | To avamine the nettern of   |                              |                 |              |            |                              | help.  |
| Grzebieta<br>2013 | International<br>Journal of<br>Crashworthiness                  | UK                       | Recreational<br>deaths       | To examine the pattern of hospitalised morbidity and death associated with go-kart-related-injuries.                  | Retrospective case series    | 8               | National     | All        | 1                            | In-depth analysis of go-kart fatal<br>incident can be used to design<br>crashworthy vehicle and barrier<br>systems.  |
| Grzebieta<br>2013 | Journal of the<br>Transportation                                | US                       | Transport-<br>related deaths | To investigate the crash mechanics and injury profiles of 78 fatal motorcycle–barrier crashes.                        | Retrospective<br>case series | 6               | National     | All        | 1                            | Half the motorcyclists were in the upright posture, the mean precrash speed was 100.8 km/h, and thorax area had the highest incidence of injury.   |
| Lingard 2013      | Engineering,<br>Construction and<br>Architectural<br>Management | UK                       | Work-related<br>deaths       | To investigate the causes of fatal incidents involving excavators in the Australian construction industry.            | Retrospective<br>case series | Unkno<br>wn     | National     | All        | 1                            | Causes included the use of unsafe work methods and suitability of plant. Communication and design of work processes, were likely contributors.   |
| Lingard 2013      | Engineering,<br>Construction and<br>Architectural<br>Management | UK                       | Work-related<br>deaths       | To investigate the circumstances surrounding fatal incidents involving plant in the Australian construction industry. | Retrospective<br>case series | Unkno<br>wn     | National     | All        | 1                            | Most incidents involved excavators, trucks and cranes, and people being run over or struck by a moving object. Site layout and unsafe actions were the most commonly identified immediate circumstances. |
| Lippmann          | Diving and<br>Hyperbaric<br>Medicine                            | Aus                      | Recretional<br>deaths        | To investigate diving-related fatalities recorded on the DAN Asia-Pacific (DAN AP) database.                          | Retrospective case series    | 1               | National     | All        | 1                            | Twelve deaths occurred while snorkelling, eight while scuba diving. Apnoeic hypoxia, cardiacrelated issues were implicated.  |
| Porter 2013       | Australian & New  | Aus                      | Deaths in                    | To analyse Indigenous deaths  | Retrospective                | 9               | National     | Indigenous | Dual 1                       | Key contributing factors included  |

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|---------------------|--|--------------------------|------------------------------|--|------------------------------|-----------------|--------------|------------|------------------------------|--|
|                     | Zealand Journal of<br>Criminology                                    |                          | custody                      | in police custody since the<br>1991 Royal Commission.  | case series                  |                 |              |            |                              | alcohol, criminal behaviour and mental health.   |
| Arnautovska<br>2014 | Social Psychiatry<br>and Psychiatric<br>Epidemiology                 | Germany                  | Intentional self-<br>harm    | To describe farmer suicide in Queensland.  | Retrospective case series    | 10              | QSL          | Farmers    | Dual 1                       | No significant associations were found between rates of farmer and non-farmer suicide, or between the proportion of farmers in a region and farmer suicide rates.                                    |
| Bambach<br>2014     | Traffic Injury<br>Prevention   | US                       | Transport-<br>related deaths | To describe the nature and causes of head and spine injuries sustained by motorcyclists in head-leading collisions with fixed objects.                   | Retrospective case series    | 13              | National     | All        | Dual 1                       | There was a predominance of basilar skull fractures, and upper cervical spine injuries, indicating a typical impact orientation of sliding in the prone position with head extension.                |
| Cantwell<br>2014    | Injury-<br>International<br>Journal of the<br>Care of the<br>Injured | UK                       | Pneumothorax                 | To identify temporal trends in the number of needle decompressions and untreated patients, and any unintended adverse consequences from the revised CPG. | Retrospective case series    | 4               | VIC          | All        | Dual 1                       | There was a decrease in untreated tension pneumothoraces, but an increase in the number of patients that needed further treatment on arrival.  |
| Dodds 2014          | Health<br>Information<br>Management<br>Journal                       | Aus                      | Intentional self-<br>harm    | To explore the process and problems of coding of the NCIS database 'intent' fields, and assess the use an option-based checklist.                        | Retrospective case series    | 1               | Multiple     | All        | 1                            | Coroners and coders do not follow a standard proforma. Coders rely mainly on police report at case notification and coroners' findings at case completion.   |
| Gabbe 2014          | Annals of Surgery  | US                       | Transport-<br>related deaths | To describe the burden of road transport–related serious injury after the introduction of a regionalized, inclusive trauma system.                       | Retrospective<br>case series | 11              | VIC          | All        | Dual 1                       | Incidence of transport-related deaths decreased whereas the incidence of hospitalized major trauma increased. Years of life lost decreased by 43%, and years lived with disability increased by 32%. |
| Gibb 2014           | Construction Management and  | UK                       | Work-related activities      | To apply a holistic framework to explain the way that causal   | Comparative studies          | 11              | National     | All        | Dual 1                       | The results suggest that the<br>Construction Accident Causality  |

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|--------------|--|--------------------------|---------------------------------------|---|------------------------------|-----------------|--------------|------------|------------------------------|---|
|              | Economics  |                          |                                       | pathways to accidents occur.  |                              |                 |              |            |                              | framework is helpful for the analysis of the causes of accidents with outcomes of differing severity.   |
| Law 2014     | Social Psychiatry<br>and Psychiatric<br>Epidemiology | Germany                  | Intentional self-<br>harm             | To examine the socioeconomic and demographic characteristics of second-generation migrants who died by suicide.   | Retrospective<br>case series | 8               | Multiple     | Migrants   | Dual 1                       | Suicide in second-generation migrants tended to be represented by younger subjects, more often never married. Males aged 25-39 years tended to have a higher suicide risk than first-generation.  |
| Lockley 2014 | Suicide and Life-<br>Threatening<br>Behaviour        | US                       | Intentional self-<br>harm             | To present the Masterplan project as a case study of a comprehensive response to suicide at a site known to be a hotspot for jumping suicides.  | Retrospective<br>case series | 11              | NSW          | All        | Dual 1                       | There were reductions in reported jumps and confirmed suicides, although the trends are not statistically significant, and a significant increase in police callouts to intervene with suicidal people who have not yet reached the cliff's edge. |
| Milner 2014  | International<br>Journal of<br>Epidemiology          | UK                       | Intentional self-<br>harm             | To assess the association between labour force status and suicide with a particular focus on the unemployed, the economically inactive who theoretically are able to work and the employed. | Retrospective<br>case series | 10              | National     | All        | 1                            | Economically inactive/unemployed people had a greater suicide rate ratio than employed males people. There was an increase in suicide among both employed and economically inactive/unemployed people.  |
| Milner 2014  | Australian & New<br>Zealand Journal of<br>Psychiatry | Aus                      | Intentional self-<br>harm             | The present study focuses on the potential risks associated with the effects of involuntary job loss, as distinct from investigating the category of unemployment.                          | Retrospective case series    | 6               | NSW          | All        | 1                            | Involuntary job loss, low socio-<br>economic status, mental disorder<br>were associated with a greater<br>odds ratio for suicide and<br>attempted suicide.  |
| Nott 2014    | Australasian<br>Journal on Ageing                    | Aus                      | Traumatic brain injury-related deaths | To examine the association between increasing age and mortality in TBI.   | Retrospective case series    | 8               | NSW          | All        | Dual 1                       | After controlling for known mortality risk factors, older patients were three times more  |

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|--------------------|-----------------------------------|--------------------------|------------------------------|---|------------------------------|-----------------|--------------|------------|------------------------------|--|
|                    |                                   |                          |                              |   |                              |                 |              |            |                              | likely to die than younger<br>patients. Crude mortality rates<br>increased exponentially with<br>advancing age.  |
| Page 2014          | BMC Psychiatry                    | UK                       | Intentional self-<br>harm    | To investigate the association between psychiatric disorders, socio-economic measures and suicide.  | Retrospective<br>case series | 6               | NSW          | All        | 1                            | Strong associations were evident between mental disorders and suicide, especially for anxiety disorders. Associations for socioeconomic status were smaller than for mental disorders.                             |
| Pilgrim 2014       | Drug and Alcohol<br>Dependence    | Switzerla<br>nd          | Assault                      | To ascertain the prevalence of deaths in Australia involving "king hits" and determine the involvement of drugs and other sociological factors in these violent fatalities. | Retrospective<br>case series | 13              | National     | All        | 1                            | 90 cases were identified with a median age of 33 years, 53 cases involved the use of alcohol or other drugs.   |
| Pilgrim 2014       | Forensic Science<br>International | Ireland                  | Poisoning<br>deaths          | To determine the prevalence,<br>blood concentrations and<br>contribution of duloxetine.   | Retrospective<br>case series | 4               | VIC          | All        | 1                            | Death involving duloxetine alone was uncommon; however with certain comorbidities and coadministered drugs, the risk of a fatal event is increased, particularly in the setting of other pro-serotonergic agents.  |
| Clapperton<br>2013 | Medical Journal of<br>Australia   | Aus                      | Quad bike-<br>related deaths | To examine fatal and hospital-<br>treated injury associated with<br>quad bike admissions and ED<br>presentations in Victoria.   | Retrospective<br>case series | 10              | VIC          | All        | Dual 1                       | The peak age group for fatalities and admissions was 15-29 years.  Males were strongly overrepresented. Intracranial injury, fractures and traumatic asphyxiation were the most common injuries among fatal cases. |

<sup>&</sup>lt;sup>1</sup> Publications involving authors of the present study.

Legend

Country of journal: Aus = Australia; UK = United Kingdom; US = United States.

Jurisdiction: VIC = Victoria; WA = Western Australia; NT = Northern Territory; QSL = Queensland; NSW = New South Wales.

NCIS as Data Source: 1 = primary; 2 = secondary.