The Australasian Mortality Data Interest Group (AMDIG) welcomes delegates to:

Understanding Mortality Data 2011
“Mortality Research Supporting Policy and Practice”

Hosted by:
Queensland Commission for Children and Young People and Child Guardian
Queensland University of Technology
National Centre for Health Information Research and Training

Keynote Presenters:
- Dr Hank Weiss, Director of the Injury Research and Prevention Unit, University of Otago, New Zealand
- Mr John Lock, Brisbane Coroner
- Mr David John, Queensland Registrar General

Oral presentations, posters and discussion on the themes:
- Administrative Data Sets and Data Linkage
- Community Initiatives Using Mortality data
- Rural and Remote Issues
- Methods and Data Sources
- Child Deaths
- ICD-11 Revision Update
Anyone watching the media over recent years would be aware of the regular emphasis on cause specific mortality statistics. This focus has highlighted issues relating to mortality data at many levels – at the points of data collection, processing and reporting. When considering only the final published mortality statistics, it is easy to be blind to the specific practices that lead to the end result. Equally, the influence of these practices on the interpretation of the data and the resultant impact of research using mortality data and its influence on health policy development is not always clear.

The 2011 AMDIG workshop seeks to explore the practices and processes which are influencing mortality data and linking these to the uses of the data for policy formation. The overarching theme of ‘Mortality Research Supporting Policy and Practice’ enables us to explore experiences across a range of domains including:

- Administrative Data Sets and Data Linkage
- Community Initiatives Using Mortality Data
- Rural and Remote Issues
- Methods and Data Sources
- Child Deaths
- ICD-11 Revision Update

The 2011 workshop again provides the opportunity to learn about data development and to look at current strengths and weaknesses in its use to support policy and practice. It is a chance to reflect on how we can better inform the public debate about specific mortality data issues.

The selection of keynote speakers represents an important opportunity to examine the data through a variety of frames of reference. AMDIG welcomes and thanks them for their contribution. We look forward to bringing together both presenters and delegates at this workshop, and to the prospect of enhancing our mutual understanding of how mortality data are created and used.

I would like to personally welcome you to this year’s AMDIG workshop. Although I cannot be present in person, I look forward to learning of your discussions and experiences. I hope it is a fruitful and enjoyable workshop, and that each session provides a great opportunity for learning and knowledge sharing.

Sue Walker
2011 Program Committee Chair
Monday 31 October 2011

08:15 – 09:00  Registration

Session 1:  Welcome and Keynote Presentations  
Chair: Professor James Harrison

09:00 – 09:05  Welcome and Acknowledgment of traditional owners

09:05 - 09:20  Opening Address  
Elizabeth Fraser: Queensland Commissioner for Children and Young People and Child Guardian

09:20 – 09:55  The future of the BDM operations, what will this mean for data users?  
Mr. David John: Queensland Registrar General  
Tracey Rankin: Project Manager, Queensland Registry of Births, Deaths and Marriages

09:55 – 10:30  How Coronial processes can support policy and practice  
Mr. John Lock: Brisbane Coroner

10:30 – 11:00  Morning Tea

Session 2:  Administrative Data Sets and Data Linkage  
Chair: Dr. Kirsten McKenzie

11:00 - 11:15  Hospital-related mortality: A PHRN cross-jurisdictional linkage study of mortality and morbidity data from WA and NSW  
Katrina Spilsbury: Curtin University

11:15 – 11:30  Getting Our Story Right - a cross agency data linkage and analysis project to better understand and improve information about Aboriginal and Torres Strait Islander peoples using administrative data collections  
Glenn Draper: Australian Bureau of Statistics

11:30 – 11:45  An enhanced mortality database for improving estimates of life expectancy of Aboriginal and Torres Strait Islander Australians  
Len Smith: Australian National University

11:45 – 12:00  Using multiple data sources to review coastal drowning mortality  
Barbara Brighton: Surf Life Saving Australia

12:00 – 12:20  Session 2: Questions

12:20 – 13:20  Lunch
Session 3: Community Initiatives using Mortality Data and Rural and Remote Issues  
Chair: Dr. Paul Jelfs

13:20 – 13:35  Farm injury fatalities and their prevention  
Emily Herde: Australian Centre for Agricultural Health and Safety

13:35 – 13:50  Deaths from deliberate self harm but not suicide: increasing the sensitivity without reducing specificity is difficult  
Dr. Rob Roseby: Royal Children’s Hospital Melbourne

13:50 – 14:05  Improving mortality statistics within different CALD communities  
Naoko Ide: Australian Institute for Suicide Research and Prevention  
Kairi Kõlves: Australian Institute for Suicide Research and Prevention

14:05 – 14:20  Evidence informing policy to improve quad bike safety  
Emily Herde: Australian Centre for Agricultural Health and Safety

14:20 – 14:40  Session 3: Questions

14:40 – 15:10  Afternoon Tea

Session 4: Methods and Data Sources  
Chair: Karen Bishop

Fran Mawdsley: Australian Bureau of Statistics

15:25 – 15:40  Quality Initiatives for the NCIS  
Leanne Daking: National Coroners Information System

15:40 – 15:55  Observed improvements in ABS Deaths Data related to recent process changes  
Geoff Henley: Research Centre for Injury Studies

15:55 – 16:10  Session 4: Questions

16:10 - 17:10  Panel Discussion: Child Deaths  
Moderator: Associate Professor Jane Freemantle

17:10 – 17:15  Closing Remarks
Tuesday 1 November 2011

08:15 – 09:00  Registration

Session 5:  Keynote Presentation and Methods and Data Sources
Chair: Dr. Charles Naylor

09:00 – 09:10  Welcome and acknowledgment of traditional owners

09:10 – 09:50  Racial disparities in inpatient mortality and early functional status after severe adult TBI
Dr. Hank Weiss: University of Otago

09:50 – 10:20  Paediatric trauma outcomes in NSW: factors influencing survival
Rebecca Mitchell: University of NSW

10:30 – 11:00  Morning Tea

Session 6:  Methods and Data Sources
Chair: Debbie Scott

11:00 – 11:25  Principles to guide direct age-standardisation for Indigenous mortality data
Michelle Gourley: Australian Institute of Health and Welfare
Tetteh Dugbaza: Australian Institute of Health and Welfare

11:25 – 11:40  Mortality rates in trauma patients admitted to Royal Brisbane and Women’s Hospital from 2003 to 2010
Dr. Martin Wullschleger: Royal Brisbane and Women's Hospital

11:40 – 11:55  Did your surgeon do your op?
Therese Rey-Conde: Royal Australasian College of Surgeons

12:10 – 13:10  Lunch

Session 7:  Poster Presentations
Chair: Leanne Daking

13:10 – 13:20  Error rate check helps improve data management processes
Jessele Vinluan: Royal Australasian College of Surgeons

13:20 – 13:30  VASM peer review outcome validation
Karen Crowley: Royal Australasian College of Surgeons

13:30 – 13:40  Legislative reform: an opportunity to improve data quality in an anaesthetic mortality audit
Adeline Nguyen: Clinical Excellence Commission

13:40 – 13:50  An automated reporting template to provide individualised annual feedback on surgical mortality audit to surgeons
Bruce Czerniec: Clinical Excellence Commission
13:50 -14:10  2011 Melbourne Cup

Session 8:  International Perspectives
Chair: Garry Waller

14:10 – 14:25  Framework that links data to preventive actions
Dr. Nick Baker: New Zealand Child and Youth Mortality Review Committee

14:25 – 14:55  Suicide research in low income areas of the world: The WHO/START Study
Allison Milner: Australian Institute for Suicide Research and Prevention

14:55 – 15:10  Session 8 Questions

15:10 – 15:30  Afternoon Tea

Session 9:  ICD-11 Revision
Chair: Professor James Harrison

Ms. Suzanne Spence: Australian Bureau of Statistics

15:45 – 16:00  ICD-11 Revision Processes and Progress
Professor James Harrison: Research Centre for Injury Studies

16:00 – 16:10  Mortality Topic Advisory Group
Garry Waller: National Centre for Health Information Research and Training

16:10 – 16:20  Injury and External Cause Topic Advisory Group
Dr Kirsten McKenzie: National Centre for Health Information Research and Training

16:20 – 16:40  Session 9 Questions

16:40 – 17:00  Closing Remarks
AMDIG Chair
Keynote Speakers

Mr David John: Registrar General Queensland Registrar of Births, Deaths and Marriages

Mr John Lock: Brisbane Coroner
Magistrate John Lock graduated from the University of Queensland with a Bachelor of Arts (1974) and Bachelor of Laws (1976) and was admitted as a solicitor in 1976. John entered private practice as a solicitor from 1976 to 1998, eventually becoming a partner in a small firm doing a wide range of general legal work but specialising in family law. In 1998 John was appointed as the Senior Solicitor of Legal Aid Queensland, Ipswich; and during this time he was engaged in higher court crime and as a Child Representative in the Family Court. In 2000 John was awarded the Queensland Law Society Community Legal Award and in 2002 was appointed as a magistrate working in Far North Queensland including coronial work. In 2006 John was appointed to the Brisbane Court which included 6 months full time coronial work. On January 1, 2008 John was appointed as the Brisbane Coroner.

Dr. Hank Weiss: University of Otago
Dr Hank Weiss currently holds a position as Research Professor in the Department of Preventive and Social Medicine, Dunedin School of Medicine, University of Otago and is Director of the Injury Prevention Research Unit. Dr Weiss has over 27 years’ experience in injury control, founding the state program in Wisconsin and since 1992, in academia. He received his PhD in Epidemiology at the University of Pittsburgh and has an undergraduate degree in Environmental Studies and Biology from the University of California. His research has covered injury surveillance, violence and domestic violence, baby walkers, poisonings, bicycles, motorcycle head injury, data linkage, recreational injuries and injuries to pregnant women. Currently, he focuses on injuries to pregnant women, traumatic brain injury, adolescent motor vehicle injury prevention and the intersection of safety and sustainability.

Mr David John: Queensland Registrar of Births, Deaths and Marriages
David is the Registrar-General of Births, Deaths and Marriages Queensland, is the current chair of the Council of Australasian Registrars and has recently joined the AMDIG Executive. David currently represents Queensland on number of national working parties pertaining to identity management and data provision.

Tracey Rankin: Queensland Registry of Births, Deaths and Marriages
Tracey has worked at the Registry of Births, Deaths and Marriages for the past 25 years. She is a Senior Project Manager within the BDM Revitalisation Program – a Program established to modernise the Registry through projects such as the digitisation of paper based records, the development of an online presence and the enhancement of research and statistical services.
Presenters

Dr. Nick Baker
Dr Nick Baker is a general paediatrician based at Nelson Hospital, New Zealand. Nick is the Community Paediatrician for the Nelson Marlborough region, President of the Paediatric Society of New Zealand and Chair of the New Zealand Child and Youth Mortality Review Committee.

Barbara Brighton
Barbara is Research Assistant for Surf Life Saving Australia. She has undertaken an audit of 5 years worth of coastal drowning mortality data collected by SLSA.

Karen Crowley
Karen is a Project Officer for the Victorian Audit of Surgical Mortality, an audit that seeks to identify system and process errors in surgical care. She is also studying for a Master of Public Health.

Bruce Czernieic
Bruce Czerniec is the Data Analyst for the Special Committees, Clinical Excellence Commission.

Leanne Daking
Leanne Daking has been the Quality Manager of the NCIS for 7 years and has a Bachelor of Health Information Management and qualifications in Information Technology. Prior to joining the NCIS, Leanne worked for the Victorian Department of Human Services.

Glenn Draper
Glenn has worked in population health research for more than 10 years, including stints at the AIHW, QUT’s School of Public Health and Epidemiology at WA Health. He is currently working for the Australian Bureau of Statistics on the “Getting Our Story Right” collaborative data linkage project.
Tetteh Dugbaza
Tetteh Dugbaza is a demographer, and works at the AIHW on Indigenous mortality and Indigenous identification. He has previously worked in the Demography Section and Analytical Services Branch at the ABS.

Michelle Gourley
Michelle has worked at the AIHW as a senior data analyst since 2004. She has led a number of projects which have involved the analysis of Indigenous mortality data.

James Harrison
James Harrison is an injury epidemiologist and public health physician. He is a Professor in the School of Medicine at Flinders University, Adelaide, where he directs the Research Centre for Injury Studies, which operates the Australian National Injury Surveillance Unit. He holds a degree in medicine from Melbourne University, a Master of Public Health from the University of Sydney and is a Fellow of the Australasian Faculty of Public Health Medicine.

He has research interests in injury prevention and control and methods for public health surveillance and evaluation, including classifications and data linkage. He is the current Chair of AMDIG and a member of the WHO Revision Steering Group for the International Classification of Diseases (www.who.int/classifications/icd/RSG), with responsibility to lead the 11th revision of the injury and external causes chapters. Professor Harrison was a leader in the development of the International Classification of External Causes of Injuries, which was admitted as a related member of the WHO Family of International Classifications in 2003.

Geoff Henley
Geoff has been a Research Associate with the Research Centre for Injury Studies for over 7 years. He is currently the Centre’s lead author on injury death reporting.
Emily Herde
Emily is the Farm Injury Research Manager for the National Farm Injury Data Centre, an activity of the Australian Centre for Agricultural Health and Safety (ACAHS), based in Moree on the NSW North West Slopes and Plains. Emily has a Bachelor of Health Science (Public Health), is a Registered Nurse and has completed her Graduate Certificate in Child and Family Health Nursing. With a background in rural nursing and child injury prevention, Emily has held previous positions as a School Based Youth Health Nurse and Senior Project Officer for Queensland Health’s Child Injury Prevention Project based in Mount Isa Health Service District. Within her role at ACAHS Emily is a committee member of the Australian Water Safety Council as a representative for Farmsafe Australia. Emily also practises as a child health nurse on a part-time basis for Moree Community Health and Hunter New England Area Health Service.

Naoko Ide
Naoko is a senior research assistant at the Australian Institute for Suicide Research and Prevention. She has worked on a variety of suicide research projects and has a strong interest in mortality within CALD communities.

Kairi Kõlves
Dr Kõlves’s research expertise encompasses a wide range of topics, including the epidemiology of suicidal behaviour, youth suicide, the role of alcohol in suicidal processes, and cross-cultural comparisons of suicidal behaviours.

Fran Mawdsley
Frances is the assistant director of the Health Team in the Queensland ABS Health and Vitals Statistics Unit. She oversees production of the annual Causes of Death and Perinatal Deaths collections.
Kirsten McKenzie
Dr Kirsten McKenzie is the Deputy Director and a Senior Research Fellow at the National Centre for Health Information Research and Training at Queensland University of Technology. Her research work is in the area of assessment of the quality of external cause of injury morbidity and mortality data and identification of opportunities for development and enhancement of these data. She is currently a member of the topic advisory group for ICD-11 injury and external causes revision.

Allison Milner
Dr Allison Milner is employed as a Research Fellow at the Australian Institute for Suicide Research and Prevention, National Centre of Excellence in Suicide Prevention, and WHO Collaborating Centre for Research and Training in Suicide Prevention. Throughout her 5 years of employment at this institute, Allison has worked with other suicide researchers, government stakeholders, and funding bodies both nationally and internationally. Many of Allison’s international collaborations have been connected to her management of a World Health Organization project entitled the Suicide Trends in at-Risk Territories (START) study. The international component of the START study involves working with local researchers in Asia and the Pacific Islands to establish recording systems for non-fatal and fatal suicidal behaviours. Allison was awarded the Ian Scott Scholarship for the state of Queensland in 2008 and 2009.

Rebecca Mitchell
Rebecca is a research fellow at the University of NSW. She has been working in injury prevention for over 15 years. Her primary research interests include injury surveillance methods, data quality, evaluative tool development, trauma services research, and epidemiological and evaluation studies.

Adeline Nguyen
Adeline Nguyen is a Project Officer of the Special Committees, which includes the Special Committee Investigating Deaths Under Anaesthesia (SCIDUA), with the Clinical Excellence Commission.
Therese Rey-Conde
Therese comes from a background initially in Clinical Biochemistry and then later in Epidemiology and Biostatistics. She has 12 publications and one web site relating to epidemiology of general health and in particular diabetes. The subject population was people with intellectual disability – both adults and children. She now has a strong interest in safety and quality issues in the population of surgical patients. She has been the manager of the Queensland Audit of Surgical Mortality since its inception four years ago.

Dr. Rob Roseby
Rob trained initially as a respiratory paediatrician before broadening his experience in Alice Springs where he was head of paediatrics 2003-2009. He was co-chair of the ‘Growing them strong, together’ Inquiry into the NT Child Protection System 2009-10. He is currently deputy director of Adolescent Medicine at the RCH, Melbourne, is a member of the Coronial Council of Victoria and chairs the RACP committee assessing overseas trained paediatricians.

Len Smith
Len Smith is a demographer who has written on the demography and epidemiology of Indigenous Australians. He holds visiting appointments at ANU, Melbourne University and Charles Darwin.

Suzanne Spence
Suzanne is a manager within the Health and Vitals section within the ABS which runs the Causes of Death and Perinatal Deaths collections.

Katrina Spilsbury
Katrina Spilsbury is a biostatistician and analyst of linked administrative health datasets. She is currently working on a cross-jurisdictional linkage project for the Population Health Research Network at Curtin University.
Jessele Vinluan
Jessele has worked at the Victorian Audit of Surgical Mortality (VASM), Royal Australasian College of Surgeons for the past 3 years. In her current role at VASM as a Senior Project Officer, she is involved in improving data management through data processing, data validation, developing and implementing standard operating procedures, designing of the surgical proforma using OCR related software. She has worked at the Baker Heart Research Institute in the data management centre and has been involved in clinical audit, trials, and registries since 2002. She is also the secretary to the executive committee and the Victorian and Tasmanian Regional Coordinator for AHRDMA.

Garry Waller
Garry is Classification and Training Coordinator with the National Centre for Health Information Research and Training. Garry performs mortality coding consultancies for a number of Australian Child Death Review Teams, develops and delivers training in a range of health information and mortality disciplines in Australia and internationally. Garry is a member of the Mortality Topic Advisory Group for the ICD-11 Revision process and operates the Secretariat of the AMDIG.

Dr. Martin Wullschleger
Dr. Martin Wullschleger is a Swiss trained General and Trauma Surgeon. Martin moved to Brisbane in 2005; initially working as Trauma Fellow at Princess Alexandra Hospital he is currently appointed as Trauma Registrar at Royal Brisbane & Women's Hospital. Martin was awarded his PhD from Queensland University of Technology in Brisbane in 2010 for research in orthopaedic trauma. Martin's clinical and research interests and expertise include multi-trauma management, trauma system development and abdominal and pelvic trauma.
Abstracts

Keynote Presentations

"Racial disparities in inpatient mortality and early functional status after severe adult TBI"

Hank Weiss1,4, Álvaro I Sánchez1,2, Robert T Krafty1, Jason L Sperry1, Andrés M Rubiano3, Andrew B Peitzman1, Juan Carlos Puyana1.

1 University of Pittsburgh, 2 CISALVA Institute, Universidad del Valle, Cali, Colombia, 3 University, Neiva, Colombia, 4IPRU, University of Otago.

Background
Investigations into racial disparity have suggested poorer outcomes for minorities after severe traumatic brain injury (TBI), but rarely have they robustly controlled for factors that are likely to influence treatment and patients’ health. We examined the association between race and in-hospital survival and functional outcomes at hospital discharge among severe adult TBI (SATBI) patients.

Study Design
Trauma patients aged 18 years or older discharged with diagnoses of TBI with head-neck abbreviated injury scale scores of 4 through 6 from 1998-2007 were analyzed using the Pennsylvania Trauma Outcome Study database. In-hospital survival and functional independent measures (FIM) at hospital discharge for the domains of feeding, locomotion, expression, transfer mobility, and social interaction were compared between blacks and other races with whites. Regression models were controlled for demographics, injury characteristics, clinical information upon admission, hospital information, and socioeconomic factors.

Results
There were no differences in survival between blacks (OR=1.02, 95%CI =0.86-1.22, p=0.755) and other races (OR=1.06, 95%CI=0.89-1.26, p=0.489) compared with whites. Among survivors, blacks were less likely to be discharged with better/higher FIM than whites for the domains of feeding (OR=0.71, 95%CI=0.61-0.84, p<0.001), locomotion (OR=0.69, 95%CI=0.60-0.80, p<0.001), expression (OR=0.79, 95%CI=0.67-0.93, p=0.005), transfer mobility (OR=0.76, 95%CI=0.66-0.87, p<0.001), and social interaction (OR=0.84, 95%CI=0.72-0.99, p=0.045). Blacks (OR=1.17, 95%CI=1.04-1.32, p=0.009) and other races (OR=1.21, 95%CI=1.07-1.36, p=0.002) were more likely to be discharged with missing FIM scores than whites.
“The future of the BDM operations, what will this mean for data users?”

David John¹, Tracey Rankin¹.

¹Queensland Registry of Births, Deaths and Marriages.

The Queensland Registry of Births Deaths and Marriages (BDMQ) has traditionally taken a passive role in its client approach, limiting services to the registration and certification of life events.

Whilst these core services will remain central to BDMQ operations for the foreseeable future, BDMQ now find themselves with a greater set of service obligations both in terms of their roles as Identity Managers and as Data Custodians.

Further complicating the BDMQ landscape is the fact that it has moved away from traditional appropriation funding model toward a more commercial funding arrangement.

Balancing identity security and data provision within a commercial business model quite obviously raises a number of conflicting ideals. Privacy must remain imperative as must the breadth of data made available publicly and both of these drivers need to be measured against the requirement to recover costs.

Achieving this balancing act is likely to introduce a number of new requirements and challenges for both BDMQ and data users. It is the view of BDMQ that none of these are unsurmountable if approached with transparency and a mutual respect for individual expectations and requirements.

The presentation will offer an insight into BDMQ’s new operating environment as well as providing data users with information on the current and future BDMQ initiatives and strategies with regard to the collection and provision of life event data.
Oral Presentations

“Hospital-related mortality: A PHRN cross-jurisdictional linkage study of mortality and morbidity data from WA and NSW”

Katrina Spilsbury¹, Janine Alan², Di Rosman².

¹CHIRI, Curtin University, ²Data Linkage Branch, Public Health Division, Health Department of Western Australia.

Background
The Population Health Research Network (PHRN) was established in 2008 with representation from all states and territories to facilitate access to administrative health data sources across different Australian jurisdictions for research purposes. The Centre for Data Linkage (CDL) was created to conduct the cross-jurisdictional linkages. The PHRN funding included support for a Proof of Concept Program and the first project, investigating hospital-related mortality, was chosen to evaluate the feasibility of cross-jurisdictional linkage. Datasets from WA and NSW nodes have been provided to the research team.

Aims
To test the logistics and protocols required for linkage of mortality and morbidity data within and between jurisdictions and whether this linkage alters estimates of hospital-related mortality.

Methods
NSW and WA each linked state hospital separation records to state death records. The CDL then created a “national” set of keys linking all mortality records from NSW and WA to all hospital separations from both states. These national linkage keys were attached to extracts of WA and NSW clinical morbidity and mortality data. Outcome measures include deaths within 30 days of and socio-demographic and health related variables associated with hospital-related deaths.

Results
Preliminary results indicate there were 140,895 hospital-related deaths associated with 10,134,471 acute care separations from NSW hospitals. Of these deaths 28,736 (20%) occurred within 30 days of separation.

Discussion and Conclusions
This project has shown that cross-jurisdictional linkage of data is technically feasible. Negotiations are in progress to include other PHRN nodes within this Collaboration. Research into hospital-related deaths across WA and NSW is continuing.
“Getting Our Story Right - a cross agency data linkage and analysis project to better understand and improve information about Aboriginal and Torres Strait Islander peoples using administrative data collections"

Glenn Draper¹, Geoff Davis², Sybille Mckeown¹, Dr Daniel McAullay⁴, Daniel Christensen³, Diana Rosman², Professor David Lawrence³, Francis Mitrou³.

¹Australian Bureau of Statistics, ²Department of Health Western Australia, ³Telethon Institute for Child Health Research, Centre for Child Health Research, the University of Western Australia, ⁴Edith Cowen University.

Background
Recording Indigenous status on administrative datasets can be a complex process and is affected by issues such as when, where and how information is recorded. Thus, a person’s Indigenous status can be recorded as either Indigenous, non-Indigenous, or blank response, at different times and on different administrative records. This can lead to inaccuracy on key “Closing the Gap” reporting domains, and impact on policy responses at Commonwealth and State level.

The Australian Bureau of Statistics (ABS), the Department of Health WA (DoHWA), and the Telethon Institute for Child Health Research (TICHR) are undertaking a COAG-sponsored collaborative project to inform the development of national best practice guidelines for deriving Indigenous status when using multiple linked datasets.

Aims
This project aims to establish and evaluate the results of different business rules for deriving Indigenous status from multiple linked data sets.

Methods
Data collections held by DoHWA, the WA Department of Education, the Registrar General of Births, Deaths and Marriages, and TICHR, will be linked to examine the results of applying different Indigenous identification business rules on various outcome measures.

Results
In order to evaluate different business rules, measures such as all-cause mortality, infant mortality and hospital separation rates will be examined based on both derived Indigenous status flags and the original flags.

Discussion and Conclusions
We seek to provide evidence to promoting common practices across jurisdictions when deriving Indigenous status using linked data sets, encouraging consistent reporting across jurisdictions, especially with reference to COAG “Closing the Gap” targets.

The analytic techniques described here are not limited to just Indigenous reporting, they can also be used in other areas where information is inconsistent or incomplete across linked datasets.
“An enhanced mortality database for improving estimates of life expectancy of Aboriginal and Torres Strait Islander Australians”

Ching Choi¹, Len Smith².

¹Social Policy Research Centre, University of New South Wales, ²Australian Demographic and Social Research Institute, Australian National University.

Background

COAG has undertaken to close the gap in Indigenous life expectancy within a generation, but it is difficult to monitor progress, due to changes in the method for estimating life expectancy, and the lack of reliable information on Indigenous deaths. It is believed that virtually all Indigenous deaths are included in the ABS national deaths database, but they are not properly identified.

Aims

With support from OATSIH, AIHW and COAG we are assessing the feasibility of enhancing the national mortality database by incorporating information from other sources on whether the deceased was Indigenous. In the first stage, we tested the feasibility of improving identification using other records of Indigenous deaths. In the second stage, we are testing the feasibility of improving identification using records of the Indigenous population.

Methods

In the first stage, we linked 2001-2006 deaths in the National Death Index to deaths in the national hospital inpatient database, the residential aged care database, and the national perinatal statistics database.

Results

We found about 12% more Indigenous deaths than were originally identified, and estimated life expectancy at 67 for males and 73 for females. The results varied considerably by state.

Discussion and conclusion

Questions remain about the extent of false positives and false negatives. In the second stage, undertaken jointly with NTSCORP, a NSW Aboriginal organisation which maintains comprehensive records used to verify land claims and claims for benefits, we are currently testing the feasibility of validating Aboriginal identification in death records against this gold standard.
Using multiple data sources to review coastal drowning mortality

Barbara Brighton1, Shauna Sherker1.
1Surf Life Saving Australia.

Background
Surf Life Saving Australia (SLSA) uses mortality data to review coastal drowning deaths and prioritise areas for drowning prevention. Mortality data is collected, collated, and analysed from various sources and a National Coastal Safety Report is published annually.

Aim
To review data collection methods in an effort to capture 100% of coastal drowning deaths in Australia.

Methods
Data sources include SLSA’s SurfGuard (all reported incidents occurring within patrolled beach areas); NCIS; and media reports. Variables used to match incident data across sources include name, age, gender, location and date of incident. Mortality data for the past 5 years (2006-2011) will be presented and discussed.

Results
The total number of coastal drowning deaths in Australia from 2006-2011 is 427 which is an average of 85 deaths per year. The average drowning rate is 0.43 per 100,000 p.a. NCIS captured 92% of these incidents; media reports 70.4%; and SurfGuard 33.5% (5 year average). The proportion of drowning cases captured from SurfGuard, NCIS and media varies from State to State.

Discussion and Conclusions
The completeness of key variables is essential for successfully matching cases across various sources. Feedback on data quality and completeness will be communicated to all 310 individual surf clubs. Areas for improvement will be highlighted by comparing States to the national average. Improvements will be evaluated by comparing future results to the baseline now established. Further methodological improvements to achieve 100% capture of coastal drowning deaths by SurfGuard, NCIS, and the media will be presented and discussed.
"Farm injury fatalities and their prevention"

Ms Emily Herde, 1Associate Professor Tony Lower.
1University of Sydney- Australian Centre for Agricultural Health and Safety.

Agriculture continues to rank as one of the most dangerous occupations in Australia. This study draws on data from the National Coroners Information System covering the period 2003 to 2006. All coronial cases that have been “closed” and involved a non-intentional farm injury death are included in the assessment. Each case was reviewed to ascertain if a relevant intervention may have been effective by either preventing the incident and/or the fatality.

There were a total of 326 non-intentional injury deaths on Australian farms in the period. Major findings included a continued reduction in the overall number of deaths (mean 82 per year), reduction in the rates of death for farms (5.9 per 10,000 agricultural establishments) and reduction in the rates of death for individuals working in agriculture (10.9 deaths per 100,000).

Tractors, quad bikes and farm utilities continue to be the leading cause of adult (> 15 years) deaths. Children (< 15 years) accounted for 17% (n=55) of all deaths, with those under 5 years being involved in more than half the cases.

Farm dams and other water bodies (n=25) and quad bikes (n=7), are the leading causes of child deaths.

Up to 35% (n=63) of selected fatalities could have been prevented with adoption of the appropriate evidence-based intervention. In terms of individual agents, the greatest potential for prevention both numerically and as a proportion of cases for each agent is with quad bikes, where up to 70% (n=21) could have been prevented.

There remains significant scope for prevention of farm injury fatalities by adopting known evidence-based approaches.
“Deaths from deliberate self harm but not suicide: increasing the sensitivity without reducing specificity is difficult”

R. Roseby.

Royal Children’s Hospital, Melbourne, Coronial Council of Victoria.

Context
Australia’s statistics on suicide may be a significant underestimate. ABS data on suicide rely heavily on coronial determinations, with deaths reclassified as suicide if they are of a certain nature plus there is a suicide note, history of mental illness or previous suicide attempt. The distinction between suicide and death from deliberate self-harm is important. Suicide is a legal verdict with definitions and a burden of proof which make it more difficult to make this determination than the community might imagine. The difference between deaths from suicide versus deliberate self-harm may be subtle, but the consequences may be significant when it comes to understanding the number and rate of such deaths, and the monitoring of them over time.

Objectives
The Coronial Council of Victoria was commissioned to provide advice to the Victorian Attorney General regarding matters of importance to the coronial system.

Key Messages
The council is working on definitions required for a death to be recognised as one of deliberate self-harm, of which deaths by suicide would be a subset.

Discussion and Conclusions
It is important to know how many people die in Australia each year from deliberate self harm. Deaths from self-harm may not receive a verdict of suicide, may not appear in the relevant ABS statistics, and tragically may not contribute to community awareness about the magnitude of the problem nor the monitoring of solutions. This may change if different definitions are applied, but it is difficult to increase sensitivity without trading off specificity.
“Improving mortality statistics within different CALD communities”

Ms Maria Cassaniti\textsuperscript{1}, Ms Nadia Garan\textsuperscript{1}, Ms Naoko Ide\textsuperscript{2}, Dr Kairi Kolves\textsuperscript{2}, Professor Diego De Leo\textsuperscript{2}.

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\textbf{Context}

Australia’s population is one of the most diverse in the world, yet there is still a need to understand possible disparities in mortality rates across ethnic populations. The recent Australian Government’s Senate Inquiry ‘The Hidden Toll: Suicide in Australia’ reports that sub-groups within culturally and linguistically diverse (CALD) communities may be at a high risk of suicide. On the other hand, studies on cancer mortality reported that immigrants in Australia showed a lower incidence of the common cancers and a lower overall mortality. These findings may indicate cultural factors, as well as the way in which immigrants adapt to a host country, to be unique influences on adult mortality in Australia.

\textbf{Objective}

This presentation emphasises the urgent need to implement data collection, linkage systems and epidemiological studies, which accurately reflect the prevalence of mortality rates within and across different CALD communities. The increasing diversity of the Australian population, together with the dearth of research and public health surveillance information, offers unique challenges and opportunities for policy developers and planners.

\textbf{Key message}

It is important to be able to accurately examine the differences of ethnic mortality rates using reliable data. One way to achieve this would be to improve data on ethnicity within mortality and population data systems.

\textbf{Discussion and Conclusion}

Despite its importance, the reliable examination of ethnic disparities in mortality rates remains extremely challenging due to a lack of ethnicity data available within the major national database systems.
Quad bikes are the second leading cause of non-intentional death on Australian farms. Based on data from the National Coroners Information system, over the past 10 years there has been an average of 14 deaths per year from quad bikes, with 65% of these occurring on farms.

The most common cause of quad bike fatalities on farms involve rollovers of the vehicle resulting in crush and asphyxiation injuries. Such incidents account for almost 60% of the on-farm quad bike incidents.

Recent morbidity data on the burden of quad bike injuries has also been obtained from the NSW Institute of Trauma and Injury Management and the Royal Perth Hospital Trauma Registry in Western Australia. While not providing total coverage of all trauma cases in these states, the data indicate that during 2010 there were 43 admissions to Major or Regional Trauma Services due to quad bike incidents. Of these cases, 18 were classified with serious to critical injuries (Injury Severity Score >12) and 8 with moderate injuries.

A key strategy to prevent quad bike rollover deaths and injuries is the fitment of a crush protection device. Indeed, based on estimates from the fatality data it is believed that up to 40% of all quad bike rollover fatalities can be conservatively prevented with the fitment of such a device.

Data from quad bike manufacturers has consistently suggested that fitting some form of crush protection device actually increases the risks. However, more recent evidence from independent and highly credentialed forensic and mechanical engineers has illustrated that the manufacturers’ data is not valid. In contrast, there is strong emerging evidence of the protective benefits of some devices.

This paper will detail the current status of this issue and the significant resistance by manufacturers to fitting crush protection devices will be scrutinized. The evidence supporting fitment of crush protection devices, the policy levers that will drive adoption and how this will be promoted in farming communities into the future is outlined.
Background
The coding of Causes of Death data by the Australian Bureau of Statistics (ABS) is currently undertaken within a specific time-frame using all information available at the time of processing. However, not all relevant information is available to the ABS at cessation of processing (i.e. open coronial cases). From 2007 onward, the ABS implemented the Causes of Death Revisions Process. This process allows further information which may subsequently become available through the coronial process to be used to improve the quality of the data for coroner certified deaths. The revisions process, through the use of additional information relating to coroner certified deaths as it becomes available over time, results in increased specificity of the assigned ICD-10 codes.

The ABS initially committed to revising coroner cases for two subsequent years after publication of preliminary data. In addition, the ABS agreed to review the Cause of Death Revisions Process after a full series of revisions had been applied to the 2007 reference year data. This paper presents the findings of this review. Included within the review is an analysis of the impact of data from preliminary to revised and revised to final. The paper will also explore the effectiveness of the revisions process, especially in light of other coding improvements implemented for the 2008 reference period. The ABS will use this paper to present possible enhancements to the Cause of Death revisions, aimed at maximising data quality and efficiency of process.
“Quality Initiatives for the NCIS”

Leanne Daking¹, Jessica Pearse¹.
¹Victorian Institute of Forensic Medicine.

Context
The National Coroners Information System (NCIS) is a data collection which contains information about deaths reported to coroners since July 2000. As data is sourced from 8 Australian jurisdictions and New Zealand, there are discrepancies across the collection due to differences in medico-legal systems, individual practitioners, and the purposes of the legal and public health systems.

Objectives
To examine important discrepancies and information gaps that currently influence the NCIS data collection, and initiatives to be undertaken to attempt to address them.

Key Messages
Significant differences which occur across and within jurisdictions which influence the NCIS dataset include:
- differential reporting to coroners for certain types of death (falls in elderly, industrial disease)
- assessment of whether deaths are from natural or external causes (anaphylaxis, alcohol abuse)
- differences in the provision of key documentation and detail available

The possibility of sourcing data from external sources to supplement poorly collected fields (i.e. indigenous origin, country of birth) is under investigation, as is encouragement for national adoption of a standard police form to report deaths. The reliability surrounding early coding of data is being studied, and discussions with death investigators are planned to examine inconsistent determinations.

A Technical and Methods Advisory Panel has been established to advise the NCIS Unit on these fundamentally important quality items.

Discussion and Conclusions
There are a number of opportunities to further enhance and standardise the NCIS data set, which will ideally involve the data providers.
“Observed improvements in ABS Deaths Data related to recent process changes”

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Background
Reporting of injury mortality in Australia has been difficult for data years after 2002. Internal evidence from analysis of ABS data and the NCIS suggested that misclassification was affecting several major external causes of deaths (Henley et. al. 2007; Henley and Harrison 2009). The ABS has instituted a series of changes that are designed to overcome these problems.

Aims
To assess the effect of recent changes in ABS processes in terms of data quality and changes in trends in injury incidence.

Methods
ABS reports were used to assess the impact of process changes on selected external causes of death across data years and across different releases of data for the same data year. Changes in trends for selected external causes of death extracted from ABS reports were compared to trends extracted from other independent sources of mortality data.

Results
Analysis across data years and across different releases of data for the same data year both indicated a marked reduction in the number of cases assigned to ill-defined or unspecified code ranges accompanied by marked increases in the number of cases assigned to more specific code ranges for a number of external causes of death. ABS process changes reduced the gap between ABS estimates and estimates from other independent sources of mortality data over time for selected external causes of death.

Discussion and conclusions
Recent changes to ABS processes will produce more complete and reliable data. A significant number of coroners cases still remain open after the ABS finalises data for its final revision of a given data year. Further revisions to ABS processes may be necessary.

References

“Paediatric trauma outcomes in NSW: factors influencing survival”

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Background
Paediatric trauma centres (PTCs) seek to optimize the care of injured children. Treatment of severe paediatric injuries may well be improved at a PTC due to the availability of specialist teams and resources. Depending on the severity of injury and distance to the nearest PTC, injured children may receive initial care and stabilization measures at a local hospital or adult trauma centre. Several studies have shown improved outcomes for paediatric patients who receive treatment at PTCs compared to non-PTCs, yet the outcomes of severely injured children treated at PTCs and non-PTCs in NSW has not been examined.

Aims
To examine temporal trends in paediatric trauma outcomes and factors influencing survival and length of stay in NSW.

Methods
A retrospective review of trauma data from the NSW Trauma Registry during 2003 to 2008 for children aged 15 years and younger who were severely injured (ISS>15).

Results
There were 1,138 children severely injured during the time-period. For the majority of children definitive care was provided at a PTC, but less than one-third of children were taken directly to a PTC post-injury. Children who received definitive treatment at a PTC were between 3 to 6 times more likely have a survival advantage than at an adult trauma centre.

Conclusion
This study provides evidence of the survival advantage conferred on children having definitive trauma care provided at a PTC compared to a non-PTC. This research provides additional stimulus for change in the provision and co-ordination in the delivery of definitive trauma care for injured children.
“Principles to guide direct age-standardisation for Indigenous mortality data”

Michelle Gourley¹, Tetteh Dugbaza¹, Bernadette Kok¹, Indrani Pieris-Caldwell¹, & Fadwa Al-Yaman¹.

¹Australian Institute of Health and Welfare.

Key priorities of COAG in the ‘Closing the gap’ agenda are to measure the gap in mortality between Indigenous and non-Indigenous Australians, and to measure changes in the gap over time. Because of considerable differences in age structure between the Indigenous and non-Indigenous populations, comparison of any summary mortality indicators between the two populations will be confounded by the differences in their respective age distributions. After examining the choice between direct and indirect age-standardisation methods, the direct method was found to be better in monitoring the COAG priorities of measuring the gap between Indigenous and non-Indigenous mortality and monitoring change over time. However, the resulting age-standardised rates using the direct method can be unstable when small numbers of events are involved.

The Australian Institute of Health and Welfare (AIHW) has therefore examined a number of parameters of direct age-standardisation when applied to Indigenous mortality data in the context of small cells. This includes how to define a ‘small’ cell in both the numerator and denominator, when and how to collapse age-groups to overcome small cells, and what contextual information can be provided to ensure that important information is not lost by producing a summary measure. The AIHW employed a number of methods to look at these parameters including literature searches, best practice in other statistical agencies, experimentation/simulation studies, and testing. From this work, the AIHW has developed a set of principles to guide the use of direct age-standardisation for Indigenous mortality data. These principles have been developed in collaboration with the ABS and have been supported by other stakeholders with interest in monitoring the gap such as the Department of Health and Ageing, the Department of Families, Housing, Community Services and Indigenous Affairs, and the Productivity Commission.
“Mortality rates in trauma patients admitted to Royal Brisbane and Women’s Hospital from 2003 to 2010”

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Background
Mortality rates are clinical performance indicators and strong outcome parameters for quality and improvements in health care. In 2007, the Trauma Plan for Queensland was introduced to coordinate and streamline trauma management. In 2008, the Royal Brisbane & Women’s Hospital (RBWH) started with the Trauma Service providing clear leadership in managing trauma patients and several protocols and clinical guidelines have been implemented, such as the massive blood transfusion protocol, rapid transfer sequence protocol (from emergency room to operating room).

Aims
This study audits mortality data of our trauma patient prior and after the start of the Trauma Service.

Methods
All adult trauma patients with an ISS (Injury Severity Score) >15 admitted to RBWH have been included. From January 2003 to December 2007 (pre-implementation period) and from January 2008 to December 2010 data were prospectively collected by Queensland Trauma Registry. Mortality rates (for the period of acute care hospital stay) were retrospectively evaluated.

Results
In the pre-group in consecutive years from 2003 to 2007 the mortality rates were 12.5, 11.6, 9.4, 11.2 and 10.6% respectively. From 2008 to 2010, after the start of the Trauma Service, the mortality rates were 10.2, 12.5 and 9.8% respectively.

Discussion and Conclusions
This audit presents a trend of decreasing mortality rates from 2003 to 2010; however some fluctuations are detected, especially in the year 2009. Possible explanations for those differences as well as adjustments in the ISS system will be discussed and conclusions drawn.
“Did your surgeon do your op?”

John North¹, Therese Rey-Conde¹.

¹Queensland Audit of Surgical Mortality, Royal Australasian College of Surgeons.

Background
Queensland Audit of Surgical Mortality has been gathering data on surgical deaths for four years from 20 public hospitals.

Aims
The aim of the project is to educate surgeons and improve surgical care by educating surgeons operating in Queensland Health hospitals.

Methods
Surgeons were sent a standard questionnaire after each death. Questions were asked about the level of the surgeon performing the operation.

Results
It was noted that generally consultants were the decision makers as to whether an operation would or would not be done. This was uniform across specialties. However the proportion of consultant surgeons who actually performed the operation was notably different for different specialties. Surgical trainees or pre-surgical trainees regularly also performed operations. So far there is no data available about level of training of medical officers undertaking operations on patients who did NOT die.

Discussion and Conclusions
The disparities in proportions of consultants operating can be explained by the characteristics unique to each specialty. For example - General Surgeons often have very junior trainees assisting them. They have the widest variety of work and handle the highest number of operations. A comparison is needed between patients who survived their operation as opposed to those who did not. This will determine whether the level of training of the medical officer performing the operation is a negative indicator for patient outcomes.
“Framework that links data to the preventive actions”

N. Baker$^{1,2}$.

$^1$New Zealand Child and Youth Mortality Review Committee, $^2$Nelson Hospital.

Two of the most difficult issues facing Mortality Review Teams are:-

- using information gathered to change systems to reduce deaths
- collecting information that indicates that Mortality Review has benefits

To address these issues the CYMRC has developed a framework that links data to the preventive actions that address the systems issues review uncovers. The framework also allows each step to be documented including attempts to disrupt causal pathways and the actions and outcomes that follow. The key elements of the framework Issue, Recommendation, Action and Outcome are laid out in a web based system in a format that acts to support decisions.

The presentation will report on this system and documenting the learning from the first three months of use.
“Suicide research in low income areas of the world: The WHO/START Study”

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\textsuperscript{1} Australian Institute for Suicide Research and Prevention, National Centre of Excellence in Suicide Prevention, WHO Collaborating Centre for Research and Training in Suicide Prevention, Griffith University, Brisbane.

\textbf{Background}

The WHO Suicide Trends in At-Risk Territories Study (START) aims to achieve greater understanding of the issues associated with both fatal and non-fatal suicidal behaviour within a diverse range of cultural settings. It involves four components: 1) a monitoring study to establish a standardised baseline for fatal and non-fatal suicidal behaviour; 2) a randomised controlled clinical intervention; 3) a psychological autopsy study, and 4) an investigation into the incidence and outcomes of medically serious suicide attempters.

\textbf{Aims}

The current presentation will provide overview of the study. Specific attention will be given to the creation of databanks on fatal suicidal behaviour in Pacific Island countries.

\textbf{Methods}

The practical challenges involved in the implementation of suicide research and prevention will be discussed. We provide some suggestions for how to initiate recording systems for suicide mortality in low-income or culturally diverse areas of the world.

\textbf{Results}

The establishment of suicide prevention and research activities requires support from various stakeholders internationally, nationally and in the general community. Recording systems for suicide mortality should be based on official death registration practices, but also need to consider evidence from police, coronial and health systems. Data recording should begin in a specific sample area. Information on suicide mortality should be documented in a systematic manner and utilise the International Classification of Disease (ICD) to record suicide methods.

\textbf{Discussion and Conclusions}

Suicide research and prevention can be implemented in low-income areas using standardised recording instruments and with the support of the general community, national governments and international experts.
“Implementation of ICD-11... perspectives from the Australian Bureau of Statistics”
J. Eynstone-Hinkins¹.
¹Australian Bureau of Statistics.

Context
The development of ICD-11 is now well underway and is expected to be finalised around 2015. Implementation of the new classification needs to be considered from a number of aspects to ensure a smooth transition. The Australian Bureau of Statistics (ABS) is beginning to consider what will need to be done to successfully implement the new version of the classification.

Key messages
This paper will present early thoughts on the following: building understanding amongst the user community of upcoming changes and their implications; the need for education of coders and data users; development of analytical methods and conduct of comparability studies; processes to test, accept and implement new or updated coding software; assessment of coding quality; changes to data analyses and reporting processes; updates to regular publications; and assessing the resources required for successful implementation.
Poster Presentations

“Error rate check helps improve data management processes”

Vinluan J1,2, Retegan C1,2, Russell C1, Crowley K1,2, Sterry MJ1,2 and Babidge W1.

1 Victorian Audit of Surgical Mortality (VASM), Royal Australasian College of Surgeons,
2(Australasian Health Research and Data Managers Association (AHRDMA).

Background
The Victorian Audit of Surgical Mortality (VASM) is a peer review process designed to observe, analyse and report trends associated with potentially preventable surgical mortality.

Aim
To ensure the quality of surgical mortality data entered in the Bi-National Mortality Database (BAS) is accurate and clean, an error rate check is conducted whereby any system errors are rectified.

Method
A set of instructions has been developed in accordance with the ICH GCP Guidelines. The error rate check is applied on a monthly basis. It is conducted by an independent office member who did not enter the data. It is ensured that all forms are free of data queries and any assessments are not pending. A total of 5% closed cases within that month are error rate checked. Each data entry field on every proforma such as the Case Record Form (CRF), First-Line Assessment (FLA) form, and the Second-Line Assessment (SLA) form, within a closed case is checked against the database. Using an algorithm, the total number of errors found is calculated with the aim of keeping errors below 10 per 10,000 fields to comply with international standards. A monthly ‘Error Rate Check Report’ is then presented to the staff meeting.

Results
From July 2009 to June 2010, the highest amount of errors found occurred between August and September 2009. This period reflected a number of changes occurring in the audit program and the office such as data processes, proforma design, and staffing.

Discussion and Conclusions
Overall error rate checking is considered a quality control verification tool for data accuracy and assists in improving data management processes.
“VASM peer review outcome validation”
Crowley K\textsuperscript{1,2}, Retegan C\textsuperscript{1,2}, Russell C\textsuperscript{1}, Sterry MJ\textsuperscript{1,2}, Vinluan J\textsuperscript{1,2}, Babidge W\textsuperscript{1}.

\textsuperscript{1}Victorian Audit of Surgical Mortality (VASM), Royal Australasian College of Surgeons, 
\textsuperscript{2}Member of the Australasian Health Research and Data Managers Association (AHRDMA).

Background
The Victorian Audit of Surgical Mortality (VASM) seeks to review all deaths associated with surgical care. It is recognised that VASM peer review assessments involve some degree of subjectivity.

Aims
Examine the agreement between two independent assessors performing first and second-line assessments on the same case via two validation audits.

Method
A 10\% sample of closed cases was randomly selected for inclusion in the first and second-line validation audits.

The primary first or second-line assessor was a surgeon who performed the original assessment through the standard VASM audit process. The second ‘validation’ assessor was a member of the VASM management committee or the Victorian Surgical Consultative Council.

Validation assessors were aware they were participating in a study of variance, but were unaware of the outcome from the original assessment. Both assessors had access to the same material.

On completion of the assessments, a comparison was made of the recommendations from the original and validation assessors.

Results
There were trends in the nature of the qualitative clinical issues raised between the original and validation assessors. The most severe clinical management issues were identified by both the original and validating assessors; however the degree of criticism reported varied slightly.

The validation audit process suggested that some of the questions in the audit forms were not well framed; data collection methods for these sections have since been altered.

Discussion and conclusion
In this small series of audited cases, we have found no reason to doubt the validity of the audit process. Since this audit is a reflective process, total inter-assessor agreement could not be expected.
“Legislative reform: an opportunity to improve data quality in an anaesthetic mortality audit”

Adeline Nguyen1, Bruce Czerniec1, Paula Cheng1, Clinical Excellence Commission, NSW

Context
The Special Committee Investigating Deaths Under Anaesthesia (SCIDUA) reviews deaths that occur within 24 hours after anaesthetic administration. This ministerially appointed expert committee, operating in NSW since 1960, is empowered with special privilege. In 2010, anaesthesia-related death was made a Category 1 Scheduled Medical Condition in the Public Health Act 1991 due to amendment to the Coroners Act 2009. This legislative reform provided an opportunity to improve data quality for anaesthetic mortality audit.

Objectives
To improve the quality of data collected for anaesthetic mortality audit.

Key Messages
Review of the State form for notification, the database and the collected data prompted the SCIDUA to achieve consensus on the data required for a minimum data set. Based on the agreement, the following improvement actions were implemented:

- Redesign of the State form to include new data fields and improve the definition, grouping and sequencing of data fields
- Redevlopment of the database to align the grouping and sequencing of the data fields with those in the State form, include drop-down menus and calendar tools, introduce rules to enable data quality checks, and enhance user functions to improve efficiency

The revised State form was published in a departmental policy directive, which was widely promoted to anaesthetists and hospital management.

Discussion and Conclusions
Revision of the State form and redevlopment of the database has enabled better data collection and more efficient management of the minimum data set. Since implementation of the revised form, the proportion of cases with missing data has decreased from 28 to two per cent.
“An automated reporting template to provide individualised annual feedback on surgical mortality audit to surgeons”

Bruce Czerniec¹, Paula Cheng¹, Associate Professor Michael Fearnside². ¹ Clinical Excellence Commission, NSW, ² Chairman, Collaborating Hospitals’ Audit of Surgical Mortality (CHASM).

Context
The Collaborating Hospitals’ Audit of Surgical Mortality (CHASM) is a peer reviewed audit of deaths of patients under the care of a surgeon in NSW hospitals, regardless of whether an operation was performed or not. The Audit is conducted by surgeons for surgeons under the auspices of the Clinical Excellence Commission. Surgeon’s participation in CHASM is mandated under the Royal Australasian College of Surgeons Continuing Professional Development program.

Objectives
To promote continuous improvement in surgical health care by giving surgeons individualised, as well as comparative feedback from the findings of the surgical mortality audit.

Key Messages
CHASM has been collecting data for surgical mortality audit in NSW since January 2008. A key feature to the success of the surgical mortality audit program is the provision of user-friendly, confidential feedback to clinicians. In addition to the feedback provided on a case-by-case basis, CHASM has developed and implemented a reporting template that provides each surgeon with a confidential, de-identified summary of their own individual audit findings for the reporting period, along with aggregated comparisons with their surgical peer group, and with all contributing surgeons in NSW.

Discussion and Conclusions
Working closely with the software developer, the reporting template has been integrated within the environment of the current CHASM database application. Reports have been generated for two reporting periods: January 2008 to June 2009 (386 reports) and July 2009 to June 2010 (463 reports). Review of feedback from recipients has been positive and supportive, and has identified several additional reporting enhancements that have informed subsequent versions of the template.