

Centre for Health Record Linkage

Record Linkage Outputs

21 September 2008.

Information is provided only for projects where there have been some outputs to date.

2007

1. Client: NSW Department of Health
Project: Routine de-duplication
Linkages: Identification of duplicates in the Notifiable Diseases Database (without clerical review) (X2 in 2007).
Output: Improved quality of information on notifiable diseases in NSW

2. Client: University of NSW
Project: PRISM Study (Stroke)
Linkage: Subset of Admitted Patient Data Collection to RBDM and ABS death records (update of linked dataset created in 2007, to include 2007 RBDM death records)
Outputs: See # 8 below

3. Client: Cancer Council NSW
Projects: i) Patterns of care for prostate, lung and colorectal cancer
ii) Patterns of care for thyroid and pancreatic cancer
Linkage: 3 cohorts (n~2000 each) with existing linked dataset (Admitted Patient Data Collection with Central Cancer Registry)

Outcome	Description
Presentations	<ol style="list-style-type: none">1. Goldsbury D. Using the CHeReL to validate routinely collected data for prostate cancer patients. Invited speaker. CHeReL Advisory Group. 4 August 2008.2. O'Connell D. Using linked data to look at patterns of cancer care.3. Invited speaker. Making the most of the CHeReL: a burgeoning resource for health research and policy in ACT. Canberra 21 August 2008. <p>Upcoming poster presentation</p> <ol style="list-style-type: none">4. Goldsbury D, O'Connell D, Smith D, Simonella L. The validity of linked routinely collected data for describing and monitoring cancer care. Clinical Oncological Society of Australia 2008 Annual Scientific Meeting. Sydney, 18-20 November 2008. <p>Conference abstract submitted</p> <ol style="list-style-type: none">5. Goldsbury D, O'Connell D, Smith D, Simonella L. The validity of linked routinely collected data for describing and monitoring cancer care. Second National Symposium on Data Linkage Research. Adelaide, 20-21 October 2008.

4. Client: Kolling Institute, University of Sydney
NSW Department of Health
- Project: Comprehensive linkage of maternal and infant health data for monitoring health outcomes and planning of maternity services in NSW
- Linkage: Midwives Data Collection, Admitted Patient Data Collection, RBDM births and deaths, ABS deaths and Birth Defects Register

Outcome	Description
Conference Presentations	1. Tan L, Taylor L, Lim K, Simpson J, Roberts C, Burns L & Morris J. Population attributable risks for low birth weight in NSW. (Submitted to the Second National Symposium on Data Linkage Research to be held in Adelaide, October 2008.)
Reports	1. Provision of linked data to the AIHW National Perinatal Statistics Unit in order for information on marital status, insurance status and postnatal length of stay to be included in the report: Laws PJ, Abeywardana S, Walker J & Sullivan EA. <i>Australia's mothers and babies 2005</i> . Perinatal statistics series no. 20. Cat. No. PER 40. Sydney: AIHW National Perinatal Statistics Unit, 2007.
	2. Provision of data to the NSW Department of Health in order for information on insurance status and postnatal length of stay and level of reporting of maternal Aboriginality to be included in the report <i>NSW Mothers and Babies 2006</i> (in preparation)

2008

5. Client: NSW Department of Health
- Project: Routine de-duplication
- Linkage: Identification of duplicates on
- Notifiable Diseases Database
 - NSW Birth Defects Register
 - NSW Perinatal Death Review Database
- Outputs: Improved quality of information on NSW Department of Health data collections.
6. Client: NSW Department of Health
- Project: Improving address information in the NSW Admitted Patient Data Collection (APDC)
- Linkage: Aged care facility residential address file (DoHA) linked to the APDC
- Output: Record linkage was unsuccessful. The address information in the APDC contained both the name of the aged care facility and the address in one field compared to the DoHA file where the same information was represented in two fields. The formatting of the APDC address was too inconsistent for the record linkage software to create probabilistic links. It was concluded that there would need to be substantial pre-processing of APDC address information to be able to continue the project.

7. Client: NSW Department of Health
 Project: Linkage of the NSW Inpatient Statistics Collection with data on deaths held by the Registry of Births, Deaths and Marriages and the ABS to provide a means of examining outcomes of hospital care in NSW.
 Linkage: Admitted Patient Data Collection to Registry of Births, Deaths and Marriages death registration data and ABS Mortality data

Outcome	Description
Conference Presentations	<ol style="list-style-type: none"> 1. Lujic S, Taylor L. Increasing reporting of Aboriginality on health data sets using record linkage. CHeReL Forum, Sydney, December 2007. 2. Taylor L, Lujic S, Lim K. Serious infant morbidity: narrowing the gap for Aboriginal infants. Presentation at Population Health Congress, Brisbane, August 2008. 3. Taylor L, Lujic S, Lim K. Risk of serious morbidity among low-risk Aboriginal infants in NSW. Presentation at CRIAH Aboriginal Health Conference, Sydney, April 2008. 4. Moore H, Taylor L. Enhanced reporting of Aboriginality through record linkage. Presentation at ABS Mortality Workshop, Canberra, August 2008. 5. Hay P, Jorm L, Lujic S, Frayne A, Touyz S. The relative costs of admissions for eating disorders: a case register population study. Submitted to Academy for Eating Disorders International Scientific Meeting 2009. 6. Lujic S, Jorm LR. Completeness and quality of recording of country of birth in NSW administrative datasets: impact of using linked records.
Other	<ol style="list-style-type: none"> 1. Provision of information to ABS concerning Indigenous identification on ABS mortality data that has been linked to the NSW Admitted Patient Data Collection. 2. Discussion at meeting of representatives of NSW Department of Premier and Cabinet, NSW Treasury, ABS, NSW Registry of Births, Deaths and Marriages concerning mechanisms to improve recording and reporting of Indigenous status on NSW mortality data. 3. Provision of information on number of people with renal failure and number of people being treated with renal dialysis for Parliamentary Question.

8. Client: University of NSW
 Project: PRISM Study (Stroke)
 Linkage: Subset of Admitted Patient Data Collection to RBDM and ABS death records (update of linked dataset created in 2007, to include 2007 RBDM death records)

Outcome	Description
Conference Presentations	<ol style="list-style-type: none"> 1. Aitken R, Worthington J, Gattellari M, Jalaludin. Patterns of care and mortality of intracerebral haemorrhage (ICH) in a large, representative Australian population: analysis of linked hospital and mortality data. Internal Medicine Journal, 2008; 38: A83. Stroke Society of Australasia Conference. Sydney, 13-15 August 2008 2. Worthington J, Gattellari M, Aitken R, Jalaludin B. Patterns of care and mortality of subarachnoid haemorrhage (SAH) in a large, representative Australian population: analysis of linked hospital and mortality data. Internal Medicine Journal, 2008; 38: A83. Stroke Society of Australasia Conference. Sydney, 13-15 August 2008
Grants	<ol style="list-style-type: none"> 1. Submitted: NHMRC Project Grant. Gattellari M, Jalaludin B, Worthington J, Clarke P, Taylor L, Mohsin M. The PRISM Study: A program of research informing stroke management using linked hospital and death data. 2. Submitted. NHMRC CCRE. Stroke Research and Translation into Practice. Chief Investigators: Professor Richard Lindley, Associate Professor Christopher Levi, Associate Professor Louise Ada, Professor Craig Anderson, Professor Sandy Middleton, Dr Mark Parsons, Dr Melina Gattellari, Dr Romesh Markus.
Manuscripts	<ol style="list-style-type: none"> 1. Gattellari M, Worthington JM, Jalaludin B, Mohsin M. Stroke 2008 (in press, accepted May 22nd). This study represents pilot work analysing unlinked data in preparation for analysis of our linked data set. The acceptance of this article indicates that analyses of administrative data sets to address research questions relevant to health service delivery are of interest to international journals with a high impact factor (IF=6.296). In preparation: <ol style="list-style-type: none"> 2. Aitken R, Worthington J, Gattellari M, Jalaludin. Patterns of care and mortality of intracerebral haemorrhage (ICH) in a large, representative Australian population: analysis of linked hospital and mortality data. Internal Medicine Journal, 2008; 38: A83. Stroke Society of Australasia Conference. Sydney, 13-15 August 2008 3. Worthington J, Gattellari M, Aitken R, Jalaludin B. Patterns of care and mortality of subarachnoid haemorrhage (SAH) in a large, representative Australian population: analysis of linked hospital and mortality data. Internal Medicine Journal, 2008; 38: A83. Stroke Society of Australasia Conference. Sydney, 13-15 August 2008.
Invited Presentations	Melina Gattellari. ACT Health, The Sax Institute and The CHeReL. Open Forum. Patterns of care and mortality of subarachnoid haemorrhage (SAH) in a large, representative Australian population: analysis of linked hospital and mortality data. 21 August 2008. Canberra.

Discussions with clinicians	<ol style="list-style-type: none"> 1. We have a Senior Clinician working as a collaborator on the project (Dr John Worthington). 2. Senior Clinicians approached MG to collaborate on an NHMRC Centre For Research Excellence Grant (submitted) as a Principal Investigator. This grant aims to promote the translation of evidence into practice relevant to stroke care. A senior clinician (Prof. Richard Lindley) approached MG to collaborate on this program so that outcomes from analyses of linked data can be used to monitor patient outcomes and evaluate initiatives designed to promote the uptake of evidence into health service delivery. Of the eight Chief Investigators, five are practising medical clinicians. 3. Results of our pilot study has been distributed to the Chief Executive, of the Greater Metropolitan Clinical Taskforce, Professor Peter Castaldi and the manager of Stroke Services NSW. 4. A broader and more systematic plan for implementation will be developed as research findings from our analyses are reported.
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9. Client: Cancer Institute NSW
Project: Outcomes of surgical treatment of oesophageal, stomach, liver and pancreatic cancers
Linkage: Subset of NSW Central Cancer Registry and NSW Admitted Patient Data Collection

Outcome	Description
Presentations	<ol style="list-style-type: none"> 1. Stavrou E et al. Procedures performed in hospital in association with oesophageal cancer. Submitted to the joint Scientific Meeting Clinical Oncological Society of Australia (COSA) and International Association of Cancer Registries, to be held in Sydney, November 2008. 2. Stavrou E et al. Surgical outcomes for pancreatic cancer: linkage of the Admitted patients data collection with the NSW Central Cancer Registry. Submitted to the National Symposium on Data Linkage Research to be held on Adelaide, October 2008.

10. Client: Cancer Institute NSW
Project: Association between maternal smoking in pregnancy and risk of childhood cancer
Linkage: NSW Midwives Data Collection and NSW Central Cancer Registry

Outcome	Description
Presentations	<ol style="list-style-type: none"> 1. Stavrou E et al. Maternal smoking during pregnancy, pregnancy outcomes and the risk of childhood cancer. Submitted to the joint Scientific Meeting Clinical Oncological Society of Australia (COSA) and International Association of Cancer Registries, to be held in Sydney, November 2008.