

International Health Data Linkage Network

Réseau international de couplage des données sur la santé

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THE INTERNATIONAL HEALTH DATA LINKAGE NETWORK (IHDLN) (www.ihdln.org), inaugurated in London, UK, in December 2008, facilitates communication among linkage centres and users committed to the systematic application of data linkage to produce community benefit in the health and health-related domains. One of the

purposes of the IHDLN is to foster collaborative projects that show the value of international comparative data applications, data quality and methods assessments, and concept dictionaries. The IHDLN aims to demonstrate the benefits of international collaboration, with ambitions to work creatively together to pool international aggregated de-identified health data to increase the power of knowledge for population-based research. There are currently over 120 members from Australia, Canada, England, New Zealand, Singapore, Scotland and the United States. The network is seeking wider international representation, and membership is open to any group or individual that supports the network's purpose.

The following three presentations were included in a breakout session highlighting some of the work of our members.

Using International Population Health Data to Explore an Alarming Increase in Excessive Bleeding Post-Childbirth

Dr. Jane Ford, Senior Research Fellow, Clinical and Population Perinatal Health Research, University of Sydney

Comparable hospital discharge data from three countries (Canada, Australia, US) have identified increases in excessive bleeding post-childbirth (postpartum haemorrhage) over the period 1994–2005. Associated information suggests this finding may represent an increase in severe haemorrhage. Analysis of these data indicates that demographic and obstetric factors, such as increasing maternal age and rising caesarean section rates, do not explain this increase. An international collaboration has been formed (International Working Group on Postpartum Hemorrhage), which has made recommendations regarding future data collection, research and management of postpartum haemorrhage, with the aim of identifying reasons for the increase in rates. Potential risk factors warranting further research include duration of labour, obesity and changes in management practice around the second and third stages of labour.

Population Health Research Network

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The Population Health Research Network (PHRN) is developing data linkage infrastructure for health research, policy and planning in Australia. Data linkage units (nodes) are being established for all states/territories and will link together health-related information within their jurisdictions. A separate dedicated linkage unit will facilitate linkages across jurisdictions, and a national data access and delivery regime is being developed to streamline provision of information to support research, monitoring and policy evaluation. Key elements of the national initiative presented include the following.

- The PHRN Program Office is leading implementation of the new data linkage infrastructure throughout Australia. This includes establishment and ongoing management of PHRN governance and contractual, policy and client services processes.

- The PHRN Centre for Data Linkage (CDL) has been established to build a secure data linkage facility to facilitate linkage between jurisdictional data sets, and between these data sets and research data sets, using demographic data. The centre will not hold these data sets but will link the demographic data that have been separated from the remainder of each data set to create “linkage keys.”
- A Proof of Concept Collaboration has also been created to test the ability of the new linkage infrastructure to perform cross-jurisdictional linkages and provide linked de-identified data for research studies. “In-hospital and 30-day post-discharge mortality: Learning about quality of care using national data linkages” has been chosen as the first topic to investigate.

Using Linked Health Survey and Hospital Data to Examine the Risk Factors Associated with Alcohol-Related Morbidity and Mortality

Ms. Catherine Storey, Information Analyst, National Health Services, Scotland

Through the Information Services Division of the National Health Service in Scotland, linked Scottish Health Survey hospital and death records were used to create a prospective cohort to gain an idea of the risk factors associated with an alcohol-related hospital admission. A second, prospective cohort was identified, of individuals who died from alcohol-related causes from 2000 to 2006. Hospital admission patterns and such factors as age, sex and deprivation were analyzed to identify characteristics among those who die of alcohol-related causes.

Of the prospective cohort, it was found that those at highest risk for an alcohol-related death included males, current or former smokers, people in receipt of income-related benefits and those with a marital status of divorced, separated or widowed.

The retrospective study revealed that 25% of those dying from alcohol-related causes died within one year of their first alcohol-related hospital admission, and that admission patterns and diagnoses varied significantly between the most and least deprived quintiles in Scotland.