Editorial

Getting the most from routinely collected data

Sarah Thackway[a,b,c,d]

[a] NSW Ministry of Health, Sydney, Australia
[b] School of Public Health and Community Medicine, University of New South Wales, Sydney, Australia
[c] Guest Editor, Issue 4
[d] Corresponding author: sthac@doh.health.nsw.gov.au

Article history

In this issue of *Public Health Research & Practice*, we focus on 'big data', with a broad look at the burgeoning availability and analysis of routinely collected data, and how best to use it to inform and improve public health policy and practice, and the health of our communities. Our themed articles cover a wide range of topics, including better use of data to drive policy change and efficiency, the need to ensure public trust in health data dissemination, the potential of using geographic information systems (GIS) in research, and some examples of analysis of routinely collected data in practice.

Our theme is introduced by Jorm, with a Perspective (link) about how we can more effectively use health data research to improve policy and practice. She outlines practical steps that could achieve real gains for public health through targeted investment in data research methods and workforce. Priorities include developing methods for validation studies, longitudinal data analysis, exploring linkage error, and evaluation using 'natural experiments'. For workforce, she says, there needs to be a focus on building capabilities in computer science and research translation through large-scale, long-term partnerships.

In an international Perspective about the pioneering use and application of routinely collected data, Pavis and Holmes describe the 'Scottish model', which is aimed at unleashing the power of big data to create more effective and efficient health services. The Scottish model balances public attitudes around the use of data with researchers' requirements, with the aim of further developing public trust while harnessing data for health service improvement.

Advances in GIS mean that routinely collected data can be applied in innovative ways to contribute to research. Byun et al. investigate the application of GIS using perinatal data from the New South Wales (NSW) Ministry of Health to measure access to general practices, and its relationship to smoking during pregnancy and late first antenatal visit.

As many readers know, access is vital for extracting routinely collected data for research. In a Brief report, Irvine and Moore provide an update from the NSW Centre for Health Record Linkage (CHeReL), established in 2007 by the NSW and Australian Capital Territory governments to expand access for researchers to linked health data. To promote greater transparency about the use of research assets and release of administrative data, their report addresses timelines and planned drivers of improvement, as delays in accessing linked administrative data appear to be common internationally.

Other themed articles in this issue include Dyda et al.'s investigation of adult immunisation coverage and Ampt et al.'s study of perineal trauma data. Both articles demonstrate how analysis of large linked health databases, such as the Medicare Benefits Schedule and the NSW Perinatal Data Collection, can highlight the need for improved data quality, so that it is valid and useful for program improvement. And for our readers working with routinely collected data, Paige et al. provide an excellent primer for researchers wishing to analyse Pharmaceutical Benefits Scheme data.

Other articles include a case study of the multistakeholder obesity prevention strategy – the NSW Healthy Eating Active Living (HEAL) Strategy 2013–2018, in which Kite et al. apply epidemiological modelling to demonstrate the potential benefits of strategic targets for preventing and controlling obesity in a population.

And Halim et al. examine two cases of Hendra virus (HeV) infection in companion dogs, the response to the infections and a rationale for changes to HeV infection management protocols.

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Competing interests

None declared