Stream Session 1.2

Using data to improve health services and policy

With

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Assoc. Professor Grant Sara

Facilitated by
Tim Seears

27 - 28 March 2018, QT Hotel Canberra
Using data to improve health services and policy: 
Emerging national integrated health services information

Jenny Hargreaves
Hospitals, Resourcing and Classifications Group
Australian Institute of Health and Welfare

27 - 28 March 2018, QT Hotel Canberra
National Data Linkage Demonstration Project (NDLDP)

The NDLDP was established under the auspices of Australian Health Ministers’ Advisory Council (AHMAC).

This project brings together the following data for the jurisdictions of New South Wales and Victoria from 2010-11 to 2014-15

- Public Hospital Admitted Patient Care Services
- Emergency Department Services
- Medicare Benefits Schedule
- Pharmaceutical Benefits Scheme
- National Death Index.

These de-identified data are available to selected analysts nominated by the NSW Ministry of Health, the Victorian Agency for Health Information, the Australian Government Department of Health and the Australian Institute of Health and Welfare.
Research underway using the NDLDP

The NDLDP data are used for analyses related to topics such as:

- Patterns of use of healthcare services
- Quality and safety of services provided
- Chronic disease management – patterns of service provision
- Risks to particular patient cohorts and patterns of health service use.

The NDLDP was developed as a test of the usefulness of linking these data and will be evaluated in 2018.
National Integrated Health Services Information (NIHSI)

The NIHSI Analysis Asset (AA) contains de-identified data from all participating jurisdictions from 2010-11 onwards. The following data will be included in the NIHSI AA:

• Admitted Patient Care (public and private hospitals)
• Emergency Department Care
• Non-admitted Patient Care
• Medicare Benefits Scheme
• Pharmaceutical Benefits Scheme and Repatriation Pharmaceutical Benefits Scheme
• National Death Index
• Residential Aged Care
NIHISI - purposes

The AIHW Ethics Committee-approved purposes include:

- Patterns of use and effectiveness of health and residential aged care services
- Quality and safety of services provided
- Health risks for particular patient cohorts
- Chronic disease management – patterns of service provision
- Validation of the current treatment pathways for chronic disease management and care
- Defining patient journeys and assessing efficiency and effectiveness of the health and residential aged care systems
- Safety and quality of hospital and other services, such as residential aged care services
- Accessibility and effectiveness of services contributing to the management of chronic conditions
- Informing policies and programs designed to reduce the incidence and severity of disease and injury
Victoria’s involvement in the National Data Linkage Demonstration project

Tania Fisher
Victorian Agency for Health Information

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The focus of the Victorian Agency for Health Information (the Agency) is to analyse and share information across our system to ensure everyone has an accurate picture of where the concerns are and where we’re getting it right.

The Agency’s responsibilities flow across measurement of patient care and outcomes for three key purposes: **public reporting, oversight** and **clinical improvement**.
Transforming health policy and service design

• The Victorian Government through the Victorian Agency for Health Information is involved in the National Data Linkage Demonstration project.

• This initiative will enable the Agency to demonstrate the benefits of how a collaborative approach to generating data insights can inform policy and drive clinically meaningful outcomes and improvements in quality and safety.
Delivering better cardiac outcomes
Primary, specialist and hospital care
Overview

The *Delivering better cardiac outcomes: Primary, specialist and hospital care project* provides a unique opportunity to look more closely at cardiac patient journeys and outcomes across NSW and Victoria over a 5 year period.

Victorian and NSW clinical networks have been working together to select and define areas of analyses to ensure that outcomes are meaningful and able to be easily translated into improvements in clinical practice.

A clearly defined purpose, objectives and deliverables have been developed to guide activities and ensure a successful project outcome.
Areas of analysis

The following priority areas of analysis have been agreed between Victorian and NSW:

Area 1: Use of dual antiplatelet therapy in Acute Coronary Syndrome
Area 2: Use of oral anticoagulants in Atrial Fibrillation
Area 3: Use of medications in Heart Failure

Preliminary analysis is already underway in areas 1 and 2. Defining the heart failure patient cohort is more complex and will form a later stage of analysis.
Meaningful outcomes
Clinical Networks can use this data straight away to shape clinical practice.

Novel data insight
A novel understanding of variation in prescribing, adherence to medication and link to outcomes.

Variation
Unwarranted variation in use of medications to treat these conditions is significant.

Common
Heart disease is the most common cause of death in Australia.

Hospital admissions
All three conditions are common causes of hospital admissions.

Guidelines
Despite strong evidence, adherence to guideline based prescribing varies.
Maximising value

To maximise the value of this linked dataset, analysis will follow the patient’s journey from:

- Admission
- Prescribing
- Persistence
- Outcomes
Aims

01. DEMONSTRATE VALUE to AHMAC of authorising ongoing use of linked data

02. DRIVE IMPROVEMENTS in cardiac care by creating and using high quality information.

03. DELIVER MEANINGFUL OUTCOMES to be shared with clinical networks and audiences to improve the patients outcomes
Objectives

Objective 1
To conduct practice – relevant analyses to create high quality information that can be used immediately by clinical networks and audiences to improve patient’s journeys and outcomes.
Objectives cont.

Objective 2

To test and where appropriate, propose any edits to governance arrangements to support ongoing:

a. Positive and productive use of primary, specialist, hospitals, pharmaceutical and mortality linked data
b. Government, academic health science and clinical collaborations that create and use relevant high quality information to drive clinical improvements in care with these types of data
Objectives cont.

Objective 3

To support capacity building within governments and the health sector through appropriate oversight and support of collaborations that include producers and users of these types of data.
Collaboration is key

State-wide and interjurisdictional collaboration is key to delivering on project objectives

Key Collaborators:
• Commonwealth Department of Health
• NSW Ministry of Health
• Australian Institute of Health and Welfare (AIHW)

Other representatives in this work include:
  Safer Care Victoria (VIC)
  Victorian Cardiac Clinical Network (VIC)
  NSW Cardiac Network (NSW)
  Agency for Clinical Innovation (ACI) (NSW)
  Centre for Big Data Research in Health (NSW)
  School of Public Health and Preventive Medicine, Monash University (VIC)
  Institute for Clinical and Evaluative Sciences (ICES) – Canada
Any queries and comments:

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Assoc Prof Grant Sara, NSW Health
Ms Amy Young, AIHW

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Data infrastructure

Service management and planning

Clinical care

Research

Data infrastructure
National mental health data

Population surveys
→ National Surveys of Mental Health and Wellbeing (including adult, child and psychosis components)
→ ABS population and household surveys (NHS, NATSIHS, SDAC, NDSHDS, HILDA …)
→ Census

Health system performance – e.g. inputs, outputs and outcomes
→ Mental Health National Minimum Data Sets x 4
→ National Outcomes and Casemix Collection
→ Medicare Benefits Scheme (MBS and PBS)
→ Other/new MDSs (headspace, PHN …)

Broader human service system:
→ Homelessness collection
→ Alcohol and Other Drug services collection
→ Other
It’s a group effort

Australia’s federated model means responsibilities in the health sector are shared.

It requires trust and cooperation between many players.

And somebody to bring the data together.
Mental health governance structures
Mental Health Information Strategy
Standing Committee

MEMBERSHIP
- State and Federal Govts
- National data and quality agencies
  - AIHW, ABS, ACQSHC, Mental Health Commission, Productivity Commission, IHPA
- Peak bodies (MHA, CMHA)
- Consumers, carers
- Private Hospitals
- PHNs

Secretariat provided by AIHW

FUNCTIONS
Strategic and technical advice :
→ Mental health information strategy and planning
→ Information and Key Performance Indicator (KPI) development
→ Monitoring, reporting and benchmarking processes
→ Development and management of national data collections
→ Data collection and use
→ Communication and collaboration
Data makes a difference

Seclusion and restraint

Your experience of service

Mental health services in Australia provides a picture of the national response of the health and welfare service system to the mental health care needs of Australians. Mental health services in Australia has been published as a web report since 2011.

4 million people were estimated to have experienced a common mental disorder in 2016.

$9 billion was spent on mental health in 2015-16.

Seclusion

Seclusion is defined as the confinement of a patient at any time of the day or night alone in a room or area from which free exit is prevented. The purpose, duration, structure of the area and awareness of the patient are not relevant in determining what is or is not seclusion.

Seclusion also applies if the patient agrees to or requests confinement and cannot leave of their own accord. However, if voluntary isolation or "quiet time" alone is requested and the patient is free to leave at any time then this social isolation or "time-out" is not considered seclusion.
Seclusion and restraint

Challenges

• Wide diversity between states and territories
  • Policies
  • Legislation
  • Definitions
  • Data collections (a mix of paper-based and electronic data collections)

Solutions

• Chief Psychiatrists (SQPSC members) and MHISSC developed national definitions
• Agreement to share: data reported via State/Territory Chief Psychiatrists to AIHW
• Data pooling, indicator construction and reporting by AIHW, overseen by MHISSC
Seclusion

Acute Seclusion Rate, Australia
(Episodes per 1000 bed days)

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<th>Year</th>
<th>Rate</th>
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<td>2008–09</td>
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<td>2016–17</td>
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Your experience of service

- Identified need for reporting on mental health consumers’ experience in 4NMHP
- Planning and oversight through MHISSC/MHPC => nationally agreed YES measure
- Developed by Vic and DoH
- Implemented in 3 states, with reporting to services and public
- National agreement to implementation (5th Plan)
- Shared national work to pool data and develop indicators
What do consumers say? *(NSW 2016-17 N= 22,700)*

Overall, how would you rate your experience of care within this service in the last 3 months?

- Community > Hospital
- Voluntary > Involuntary
- Older > Younger
- For under 18
  - ↑ in community
  - ↓ in hospital
Shared focus, complementary tools

**In the Australian Population**
- Long term physical conditions (National Health Survey)
- Participation with family and community groups. (General Social Survey)
- Participation in work or study (National Health Survey)

**People with mental illness**
- Comorbid physical illness
- Social and community participation
- Employment

**People using specialist services**
- Potentially Preventable Hospitalisations (PPH) in MH service users
- Consumer-rated participation measures (APQ, LCQ)
- Consumer-rated participation measures (APQ, LCQ)
## Future developments and directions?

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<th>Technical challenges</th>
<th>Potential priority areas</th>
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<td>Ownership</td>
<td>Understanding population needs</td>
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<td>Linking national collections</td>
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<td>Using technology to support care</td>
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<td>Reporting and use</td>
<td>Improving safety and quality</td>
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<td>Improving public access to data</td>
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<td>Improving value for money</td>
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<td>Workforce development</td>
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