Global Perspectives

Nicole Pratt
Associate Professor
Quality Use of Medicines and Pharmacy Research Centre
University of South Australia
Accredited integrating authority

Coordinating centre for cross-jurisdictional linkages

Hospital Data

Medicines, Outpatient Data
My experience with Implementation of OMOP CDM in Australia!

<table>
<thead>
<tr>
<th>10% Sample of MBS/PBS data</th>
<th>Converted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participated in OHDSI Network Study – Medicine use in children</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>~250,000 veterans/spouses</th>
<th>Preparing</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Registry of ~1.5 million joint replacement procedures linked to MBS/PBS data</th>
<th>Proposed</th>
</tr>
</thead>
</table>
Opportunities for Implementing OMOP CDM and OHDSI tools in Australia
• Treatment population of approximately 248,800 veterans
• Median age is 83 years, with 5 co-morbidities
• > 130 million prescription records over >15 years
• > 200 million Medicare and allied health records (GP visits, radiology, pathology etc)
• > 6 million hospital records (public and private)

Targeted Interventions to Improve medicine use in Veteran community

Example: *management of diabetes* 

Module 4: to reduce NSAID use in those with diabetes 
Module 11: promote appropriate medicine use and increased care services in patients with established diabetes 
Module 34: appropriate medicine use and increased care services in patients with newly diagnosed diabetes
The Veterans’ MATES approach

Every three months a targeted health intervention is distributed:

• A letter, patient-based feedback and educational material are sent to the veteran’s main GP.

• A letter and educational material are sent to pharmacists and other relevant health professionals.

• A letter and educational material is sent to members of the veteran community for whom the health topic is relevant.

Delivered > 50 interventions over 14 years
32,000 doctors
8,500 pharmacies
290,000 veterans
Veterans’ MATES Interventions

Planning
- Medication-related problem analysis
- Intervention selection
- Evaluation of practice change and improved health outcomes

Development
- Patient-level evidence
- Population-level estimation

Evaluation
- OHDSI Mission: To improve health by empowering a community to collaboratively generate the evidence that promotes better health decisions and better care
Opportunities for Implementing OMOP CDM and OHDSI tools in Asia
Future Directions and challenges
Large-scale evidence generation of the safety and effectiveness of biologic medicines

Chief Investigators
Nicole Pratt, Libby Roughead, Lisa Kalisch Ellett Michael Ward (Australia)
Marc Suchard, Martijn Schueie, Ian Wong (OHDSI)
Ju-Young Shin, Edward Lai, Yea-Huei Yang, Nam-Kyong Choi (AsPEN)
Michal Abrahamowicz (Canada)

OHDSI Large-Scale Evidence Generation and Evaluation in a Network of Databases (LEGEND)

Methods Library: Cumulative Exposures
Challenges

- Implementation
  - Medicine Mapping, PBS to Australian Medicines Terminology (AMT)
    - AMT developed to support Australia’s My Health Record (Australian Government, Australian Digital Health Agency)

- Adoption
  - Security of data
  - Fragmented data sources requiring probabilistic linkage

- Collaboration
  - Time Zone
    - Shout out to the Eastern Hemisphere teleconferences (Wednesdays GMT -4, Hong Kong Time (3pm))