



Bolstering evidence-informed health policy

Using the National Data Linkage Demonstration Project to identify evidence-practice gaps in post-discharge cardiac care



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Acknowledgements for the National Data Linkage Demonstration Project (NDLDP)

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The **AIHW** as data custodian of the NDLDP dataset

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The **Victorian Agency for Health Information (VAHI)** as funder and lead of the *Delivering Better Cardiac Outcomes Project*



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What is the National Data Linkage Demonstration Project?



Established with the support of the Australian Health Ministers' Advisory Council (AHMAC) to establish the **feasibility of arrangements for multi-jurisdictional data linkage**

The aim is to **demonstrate efficacy of linked data to inform planning and policy**

The AIHW lead the linkage of **five years of data** (Jul 2010 – Jun 2015) for all residents of **NSW and Victoria**

The NDLDP is governed by a Steering Committee, with state & federal representation

The Data

State



Public hospital admission episodes

MBS subsidised medical services



Non-admitted ED episodes

PBS subsidised pharmaceutical dispensings



Both



National death registrations

Commonwealth

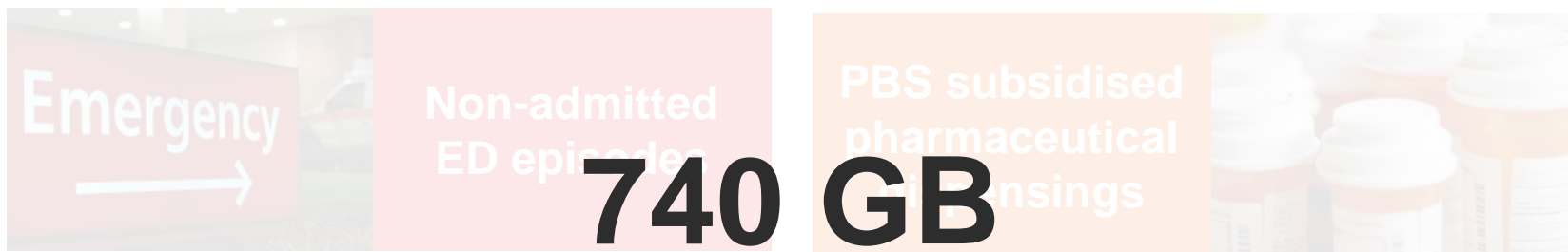
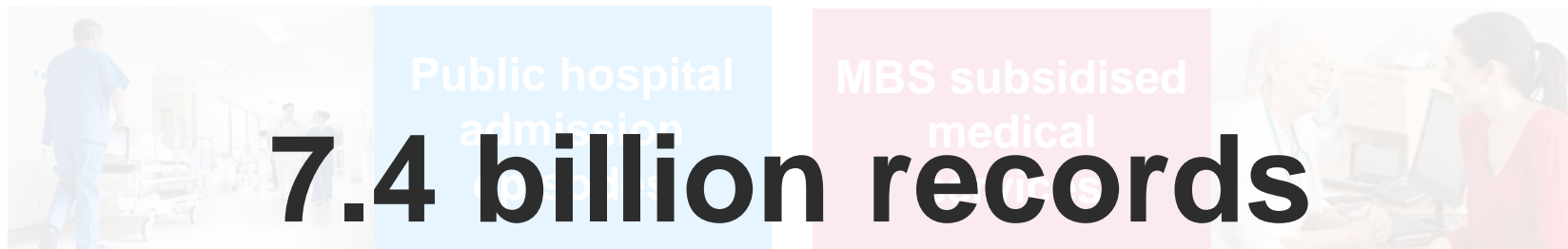


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The Data (Jun 2010 to Jul 2015)





The *Delivering better cardiac outcomes* project

Implemented by the Victorian Agency for Health Information

The aim is to produce practice-relevant, high quality information about patient journeys through the health care system

Focus on best-practice pharmacological cardiac care post-discharge in patients with atrial fibrillation and acute coronary syndrome

Challenges in tracking patients at the interface of hospital and community has led to an inaccurate picture of use of these interventions



Quality use of medicines in hospitals

Two key areas of best practice cardiac care:

1. Patients with **atrial fibrillation** discharged on **oral anticoagulants (OACs)**
2. Patients with **acute myocardial infarction (AMI)** discharged on **dual antiplatelet therapy (DAPT)**



Our aims were to describe:

- Dispensing within 30 days of hospital discharge;
- Variation in 30 day dispensing by hospital of discharge;
- Persistence with therapy at 1 year.



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Best-practice pharmacological cardiac care: medicines of interest



OACs in patients with atrial fibrillation

Vitamin K antagonist

Warfarin

Direct oral anticoagulants

Apixaban

Dabigatran

Rivaroxaban

Antiplatelets in patients with AMI

Clopidogrel

Clopidogrel/aspirin combination

Prasugrel

Ticagrelor

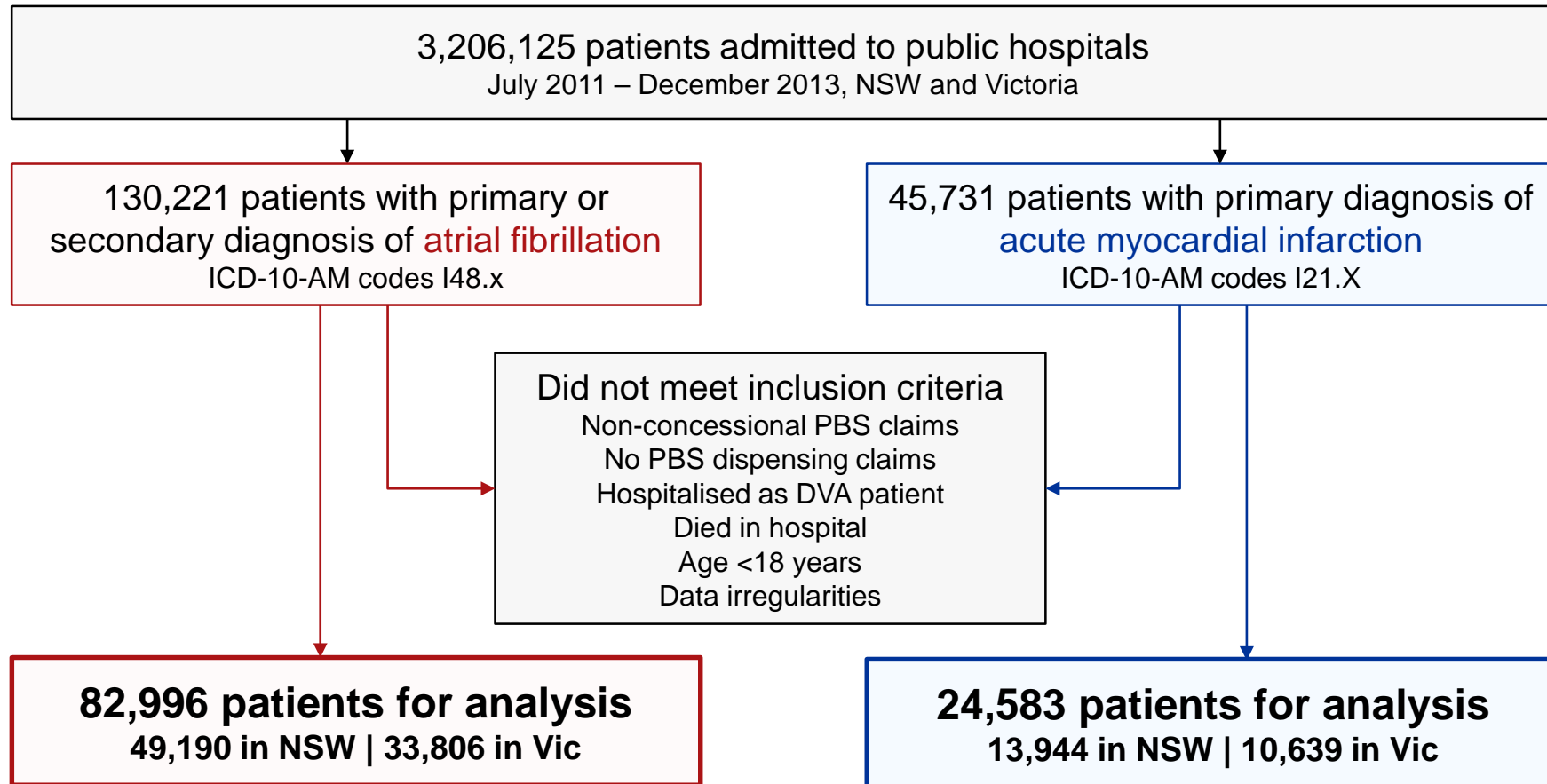


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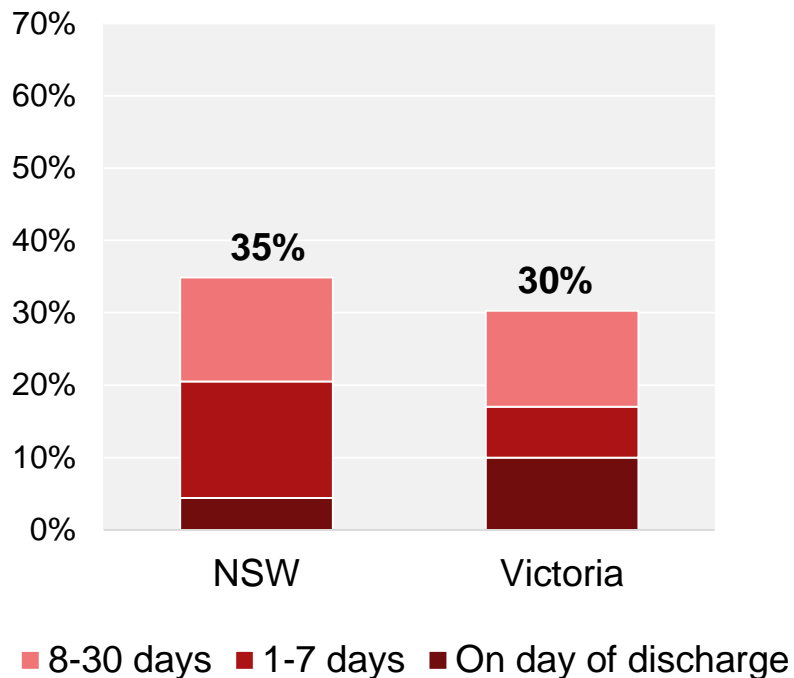
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Defining our study cohorts

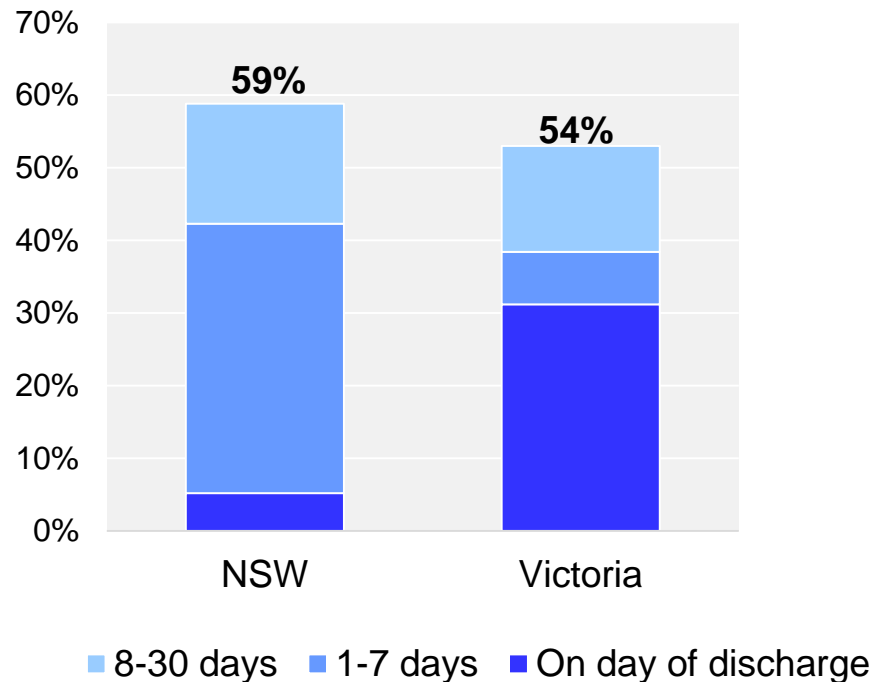


Dispensing within 30 days of discharge was low

OACs in patients with atrial fibrillation



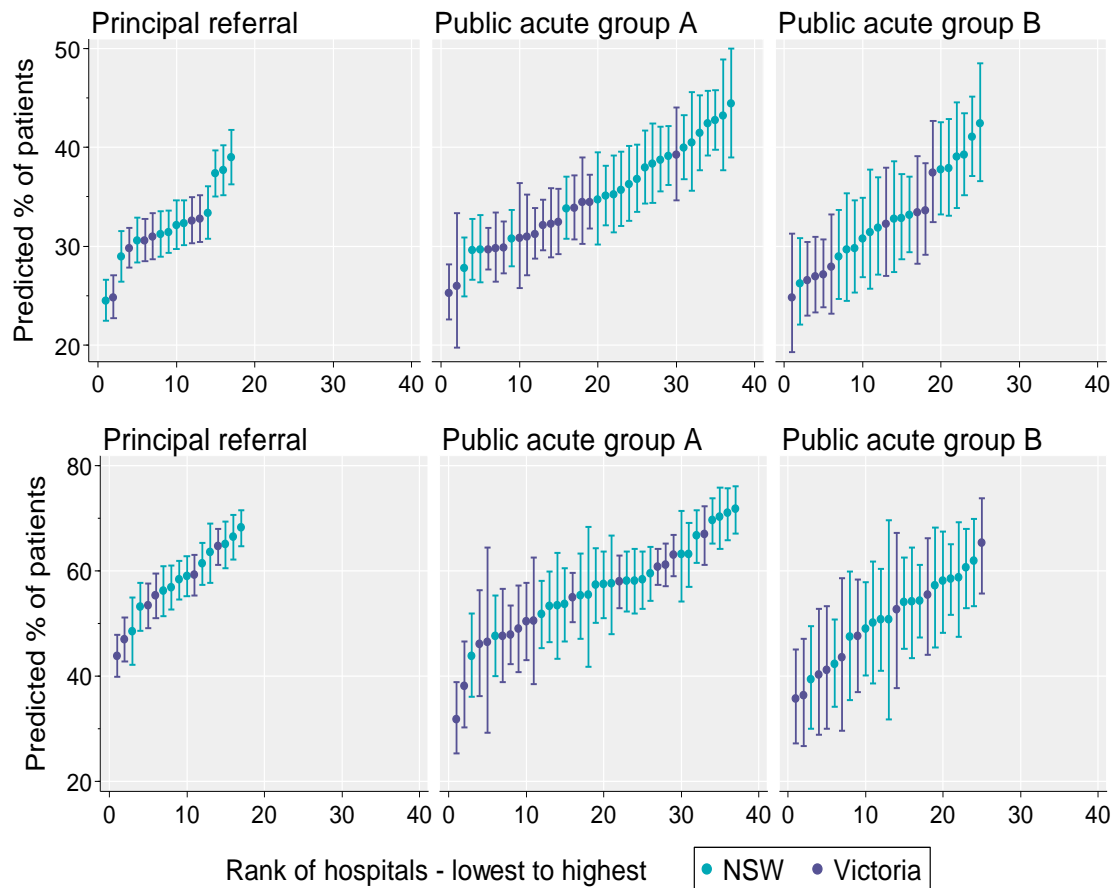
Antiplatelets in patients with AMI



Over two-fold variation between hospitals

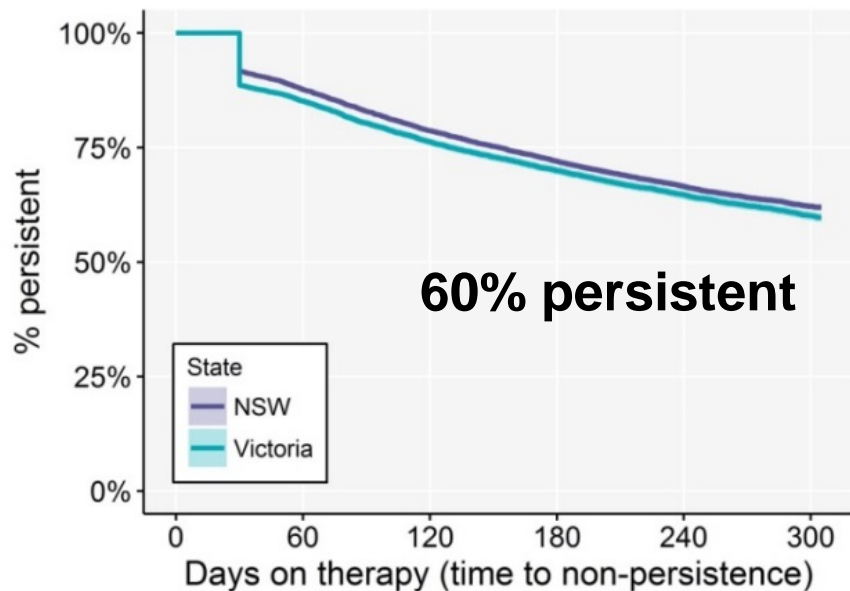
22% to 53% of patients with atrial fibrillation predicted to have been dispensed an OAC within 30 days

32% to 71% of patients with AMI predicted to have been dispensed an antiplatelet within 30 days

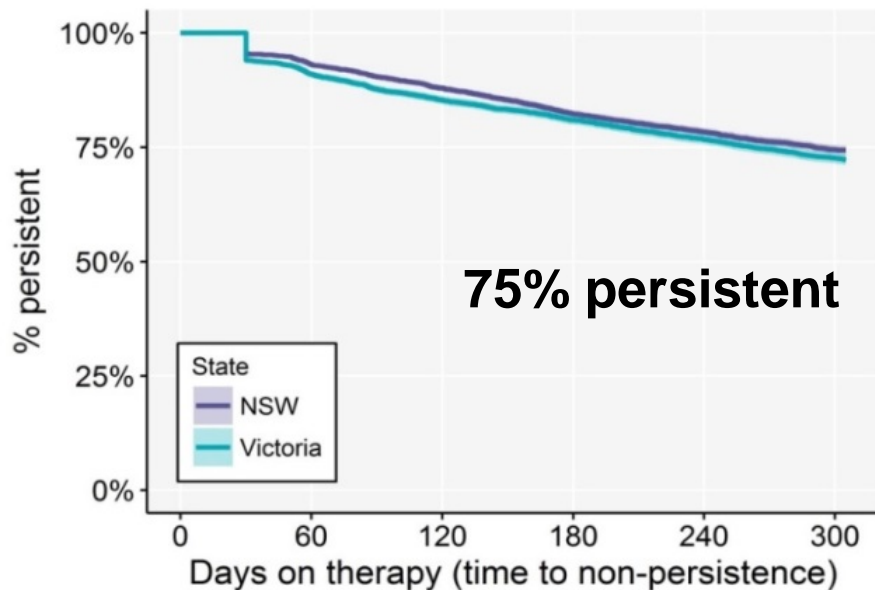


At least 1 in 4 patients discontinued at 1 year

OACs in atrial fibrillation

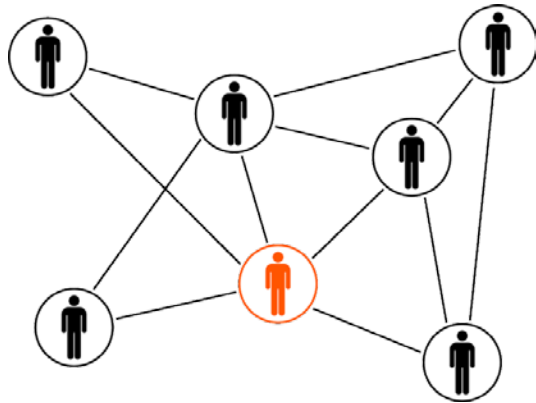


Antiplatelets in AMI





Towards a national, integrated health services data resource for evidence-informed health policy



A powerful new resource, providing essential information to investigate **care pathways across both hospital and community-based services**

Cross-jurisdictional linkage is invaluable for quantifying adherence to best practice cardiac care

We've provided **feedback** on the lessons learned, to build capacity and help shape how such national linked data assets will be stored, accessed and used in the future



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Thank you

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