Measuring medication safety – first experiences with statewide indicators for driving improvement in the public sector

Dr Kerrie Westaway
Senior Medication Safety Project Officer
Pharmaceutical Services & Strategy Branch
SA Department of Health

Ms Naomi Burgess
Pharmacy Consultant, Medication Safety & Pharmaceutical Reforms
Pharmaceutical Services & Strategy Branch
SA Department of Health

Government of South Australia

SA Health

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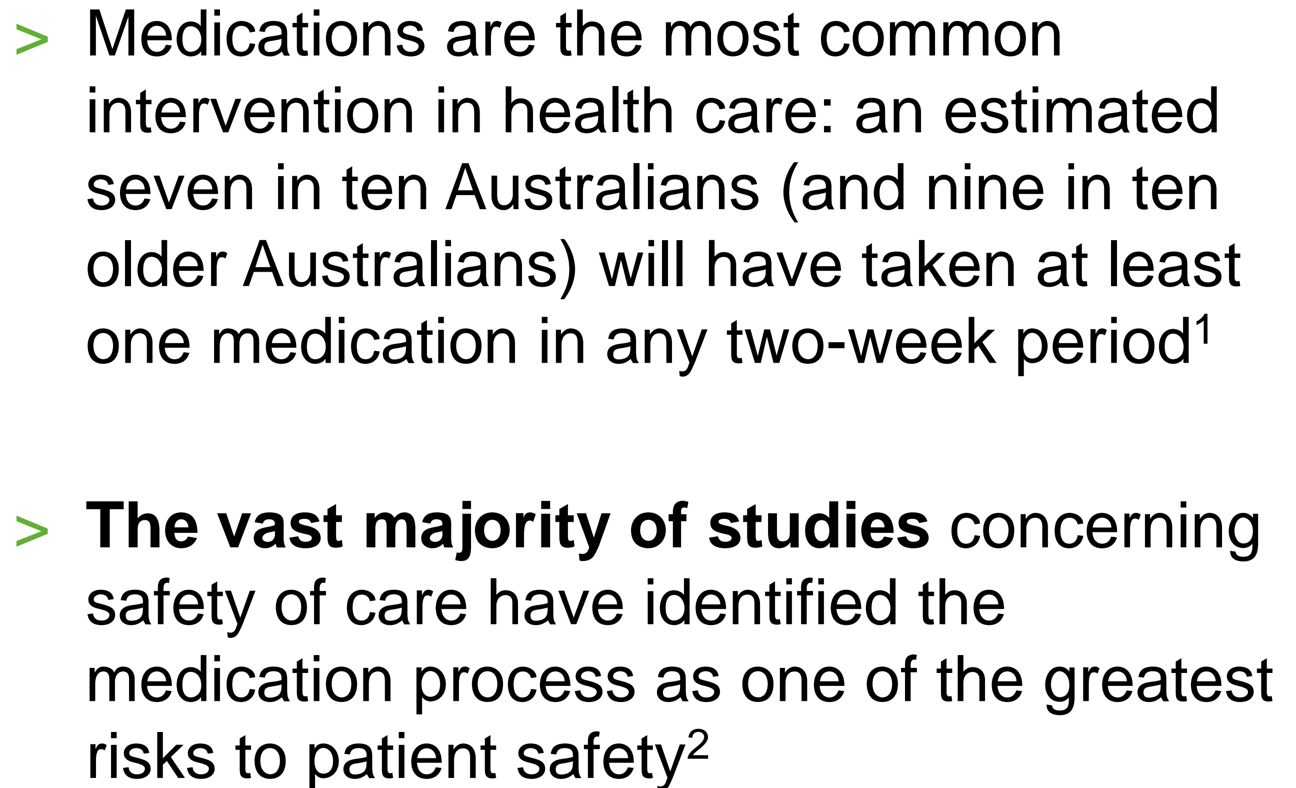
- Our experience
- Engaging hospitals
- Where to next?

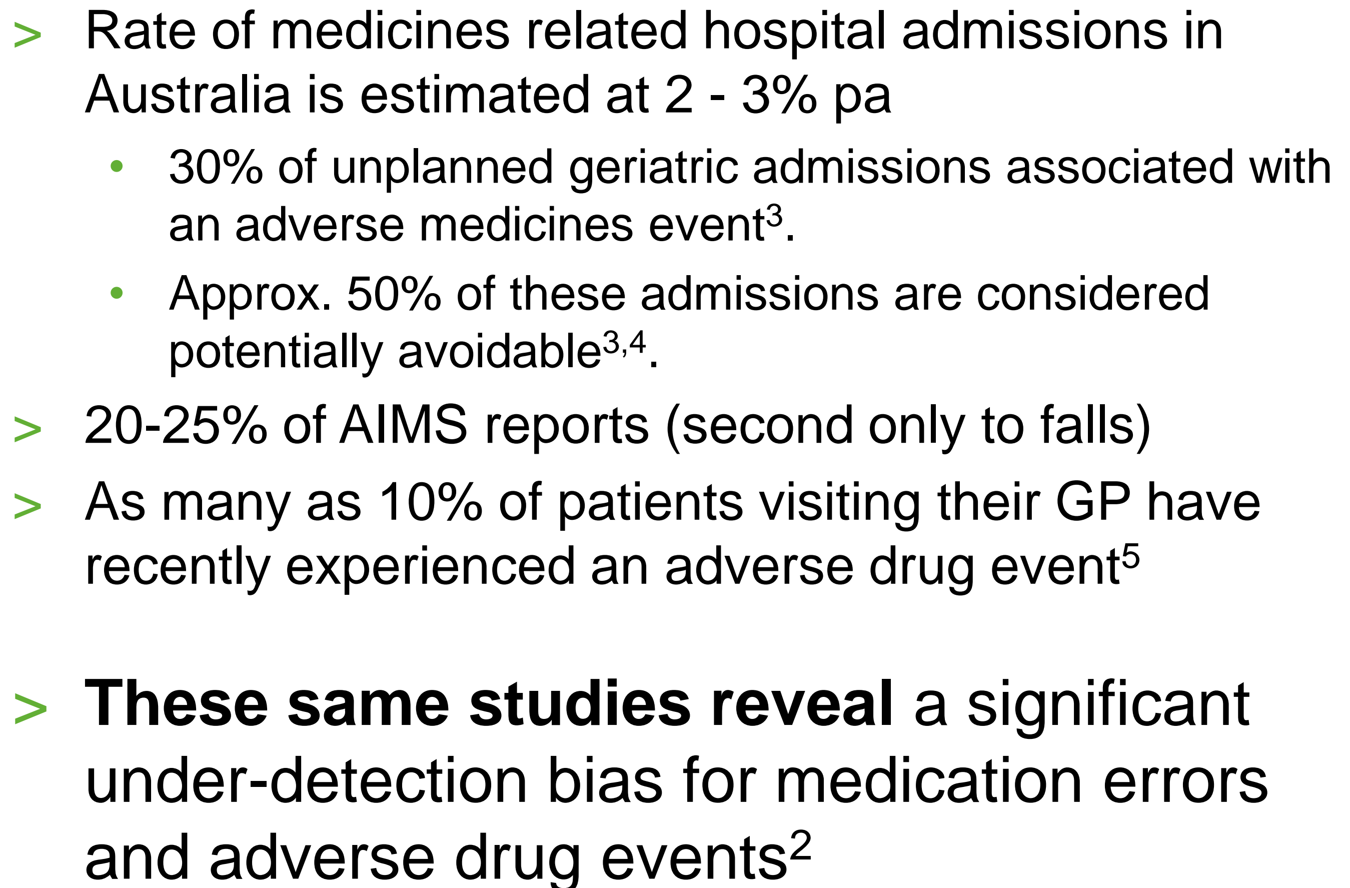
Introduction…



- Medications are the most common intervention in health care: an estimated seven in ten Australians (and nine in ten older Australians) will have taken at least one medication in any two-week period[1]

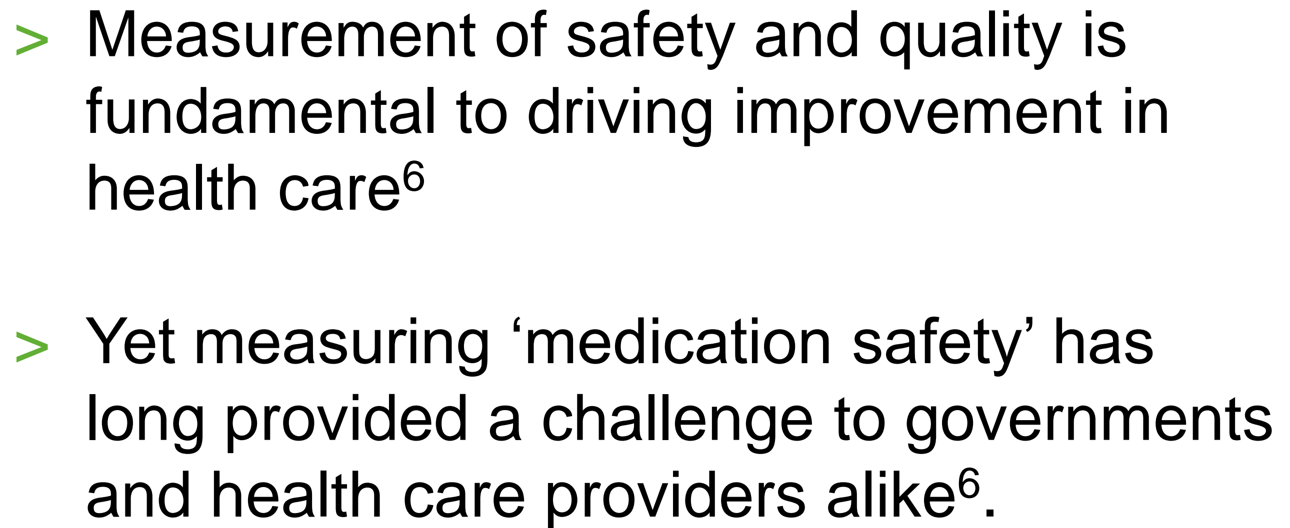
- **The vast majority of studies** concerning safety of care have identified the medication process as one of the greatest risks to patient safety[2]

1. Australian Council for Safety and Quality in Healthcare. *Second National Report on Patient Safety – Improving Medication Safety*. Canberra, 2002.
2. Classen D & Metzger J Improving medication safety: the measurement conundrum and where to start. *International Journal for Qaulity in Health Care* 2003;15:suppl1:i41-i47

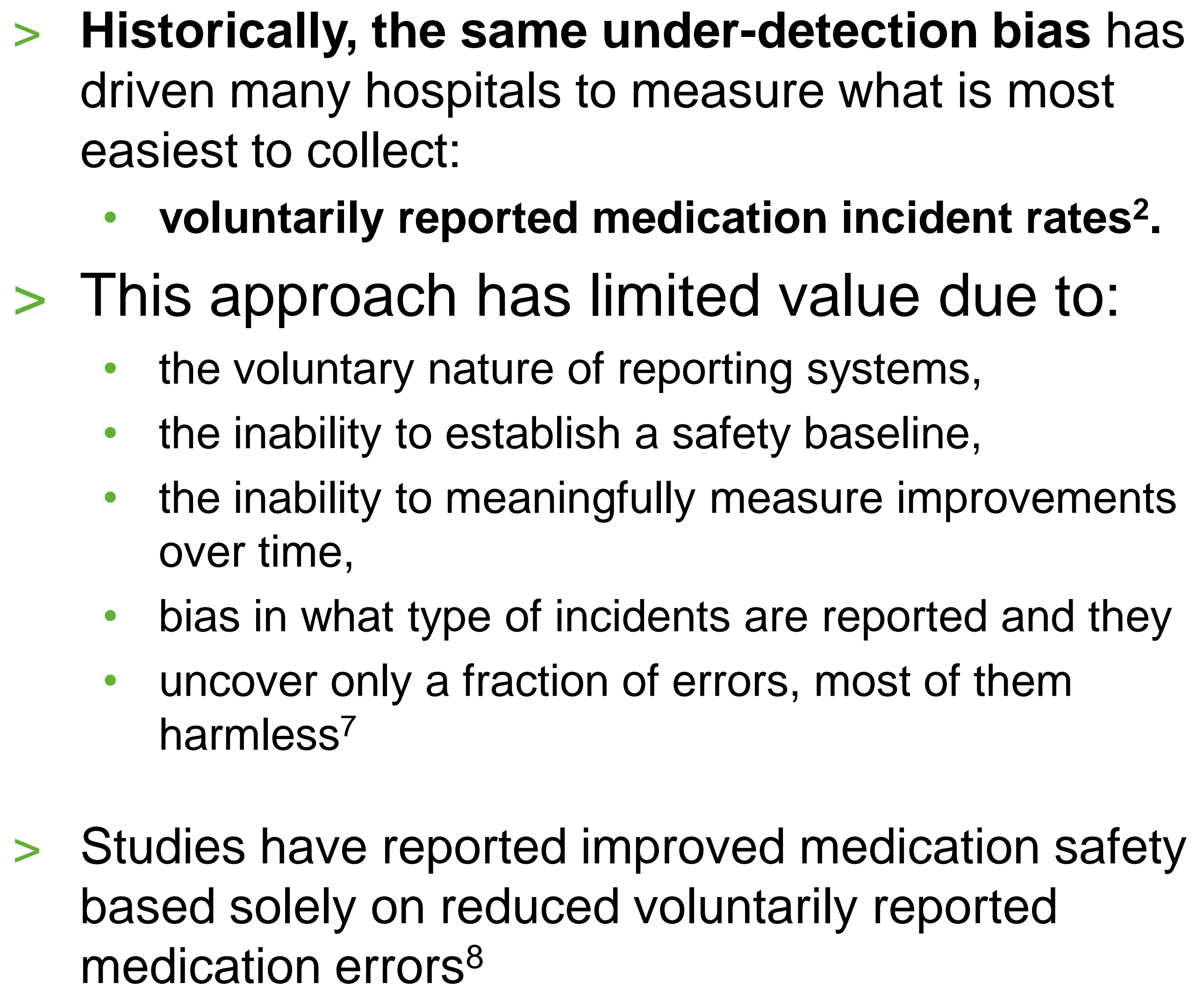


- Rate of medicines related hospital admissions in Australia is estimated at 2 - 3% pa
  - 30% of unplanned geriatric admissions associated with an adverse medicines event[3].
  - Approx. 50% of these admissions are considered potentially avoidable[3,4].
- 20-25% of AIMS reports (second only to falls)
- As many as 10% of patients visiting their GP have recently experienced an adverse drug event[5]
- **These same studies reveal** a significant under-detection bias for medication errors and adverse drug events[2]

3. Roughead E, Semple S. Literature review: medication safety in acute care in Australia: Australian Commission on Safety and Quality in Health Care, 2008.
4. Aus Council for Safety and Quality in Health Care, 2nd National report on patient safety , Improving Medication Safety, 2002.
5. Miller G, Britt H, Valenti L. Adverse drug events in general practice patients in Australia. Medical Journal of Australia 2006;184(7):321-324.

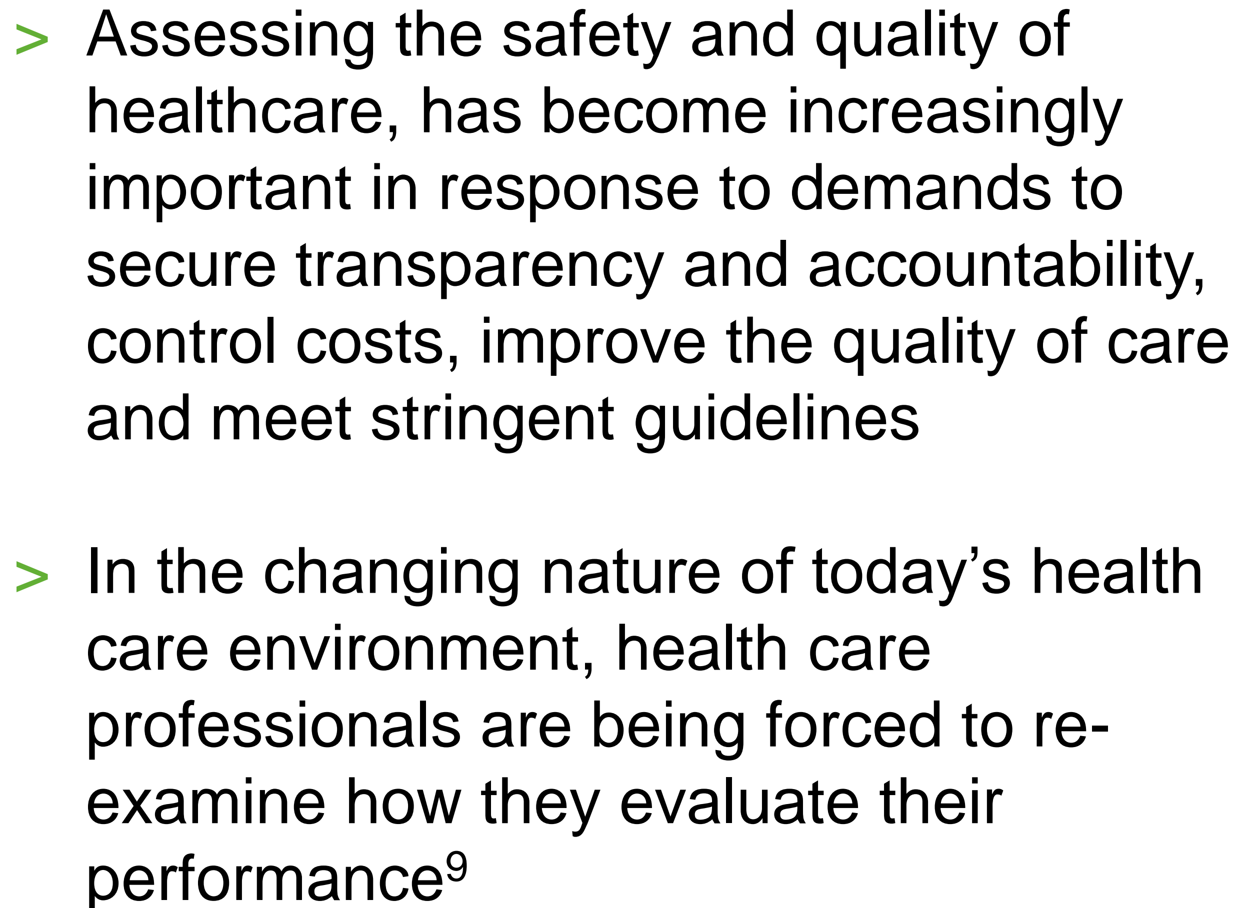


6. Scobie S, Thomson R, McNeil J & Phillips P. Measurement of the safety and quality of healthcare. *Med J Aust* 2006;184:S51-S55.



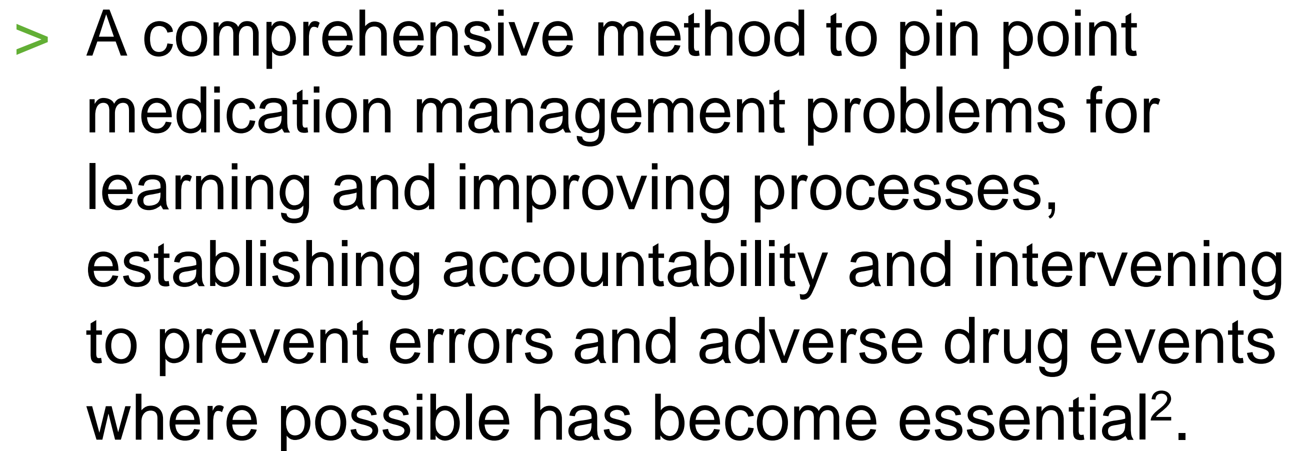
- **Historically, the same under-detection bias** has driven many hospitals to measure what is most easiest to collect:
  - **voluntarily reported medication incident rates[2].**
- This approach has limited value due to:
  - the voluntary nature of reporting systems,
  - the inability to establish a safety baseline,
  - the inability to meaningfully measure improvements over time,
  - bias in what type of incidents are reported and they
  - uncover only a fraction of errors, most of them harmless[7]
- Studies have reported improved medication safety based solely on reduced voluntarily reported medication errors[8]

2. Classen D & Metzger J Improving medication safety: the measurement conundrum and where to start. *International Journal for Qaulity in Health Care* 2003;15:suppl1:i41-i47
7. ISMP, Measuring up to medication safety. 2005: March 10 accessed from: http://www.ismp.org/print.asp
8. Classen D.C Medication safety: moving from illusion to reality. *J Am Med Assoc* 2003;289:1154-1156.



- Assessing the safety and quality of healthcare, has become increasingly important in response to demands to secure transparency and accountability, control costs, improve the quality of care and meet stringent guidelines
- In the changing nature of today's health care environment, health care professionals are being forced to re-examine how they evaluate their performance[9]

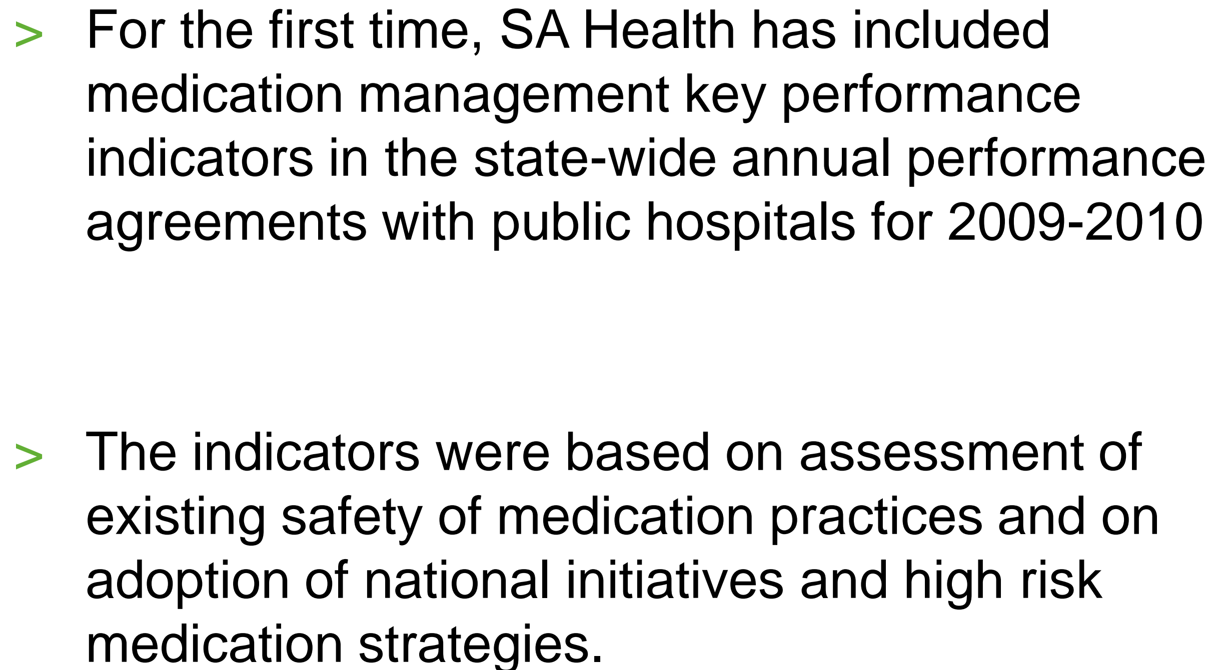
9. Groene O., Skau J. & Frolich, A. An international review of projects on hospital performance assessment. *International Journal of Quality Care.* 2008;20(3):162-171.



> A comprehensive method to pin point medication management problems for learning and improving processes, establishing accountability and intervening to prevent errors and adverse drug events where possible has become essential[2].

2. Classen D & Metzger J Improving medication safety: the measurement conundrum and where to start. *International Journal for Qaulity in Health Care* 2003;15:suppl1:i41-i47

Our first experience…



- For the first time, SA Health has included medication management key performance indicators in the state-wide annual performance agreements with public hospitals for 2009-2010

- The indicators were based on assessment of existing safety of medication practices and on adoption of national initiatives and high risk medication strategies.

- encourage robust investigation of existing medication management processes,
- establish a medication safety baseline for measurement of improvement over subsequent years,
- inform decision-making and prioritising,
- drive change at local and state levels and
- Initiate important first steps in a measurement system that is transparent and evidenced-based

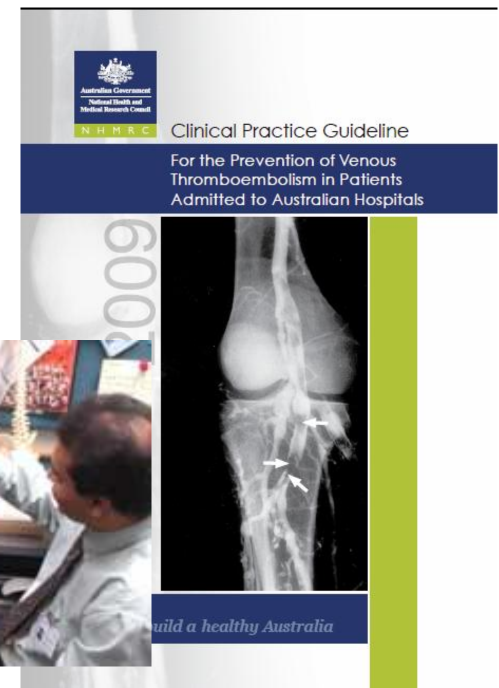
Key Performance Indicators:

1. MSSA audit:

- **Part A:** audit of medication safety using the Medication Safety Self Assessment (MSSA) for Australian hospitals tool
- **Part B:** development of an action plan to address deficits identified in assessment

- Reported on by all public hospitals in SA

2. VTE Prevention:



- Part A: evidence of implementation of evidence-based guideline for prevention of VTE
- Part B: audit of VTE prophylaxis in high risk medical, oncology and surgical patients

- Reported on by all public hospitals in SA

3. Paediatric NIMC:

> Part A: evidence of implementation of the paediatric NIMC in metropolitan hospitals managing paediatric patients

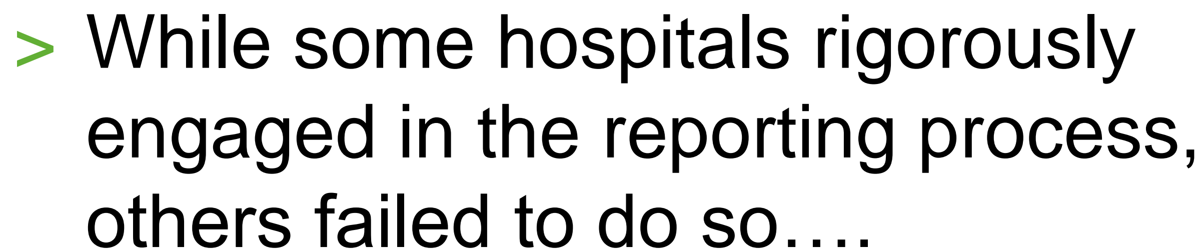
> Part B: audit of 20 charts

- Percentage of patients with an INR result above the therapeutic range (>4.0) whose dosage has been adjusted or reviewed prior to the next warfarin dose.
- taken from the APAC activity key performance indicators
- Reported on by all public hospitals in SA

- **Part A:** report progress against established milestones and key performance indicators for implementation of the Australian Pharmaceutical Advisory Council's (APAC) guiding principles to achieve continuity in medication management (under the Pharmaceutical Reforms agenda)
- **Part B:** audit of medication management policies and procedures
- Reported on by metropolitan hospitals participating in the reforms

Engaging hospitals…

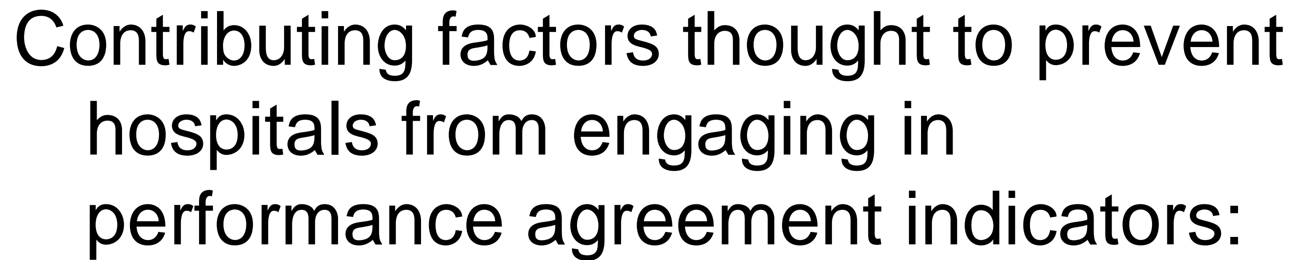
- First round of reporting began in August 2009 and will continue thru until June 2010…..



> While some hospitals rigorously engaged in the reporting process, others failed to do so….

> Significant success was attained with the APAC activity indicators:

- As part of the Pharmaceutical Reforms, hospitals involved agreed to meet milestones surrounding the APAC guidelines
- Close involvement with development and implementation of indicators
- Resources were identified, well established communication channels, close working relationship between SA Health and hospital sites
- Same personnel involved in collecting initial baseline and successive round of data
- Supported and driven by well informed champions at each site



Contributing factors thought to prevent hospitals from engaging in performance agreement indicators:

> **Our approach :**

- Top-down approach
- Poor communication channels,
- Confusion:
  - what, when, where and how of providing data
  - who was responsible for providing data
- No involvement in development or/and implementation of indicators by hospitals
- Inconsistent responses

Australian Government
Australian Institute of Health and Welfare

Better information and statistics for better health and wellbeing

Government of South Australia
SA Health

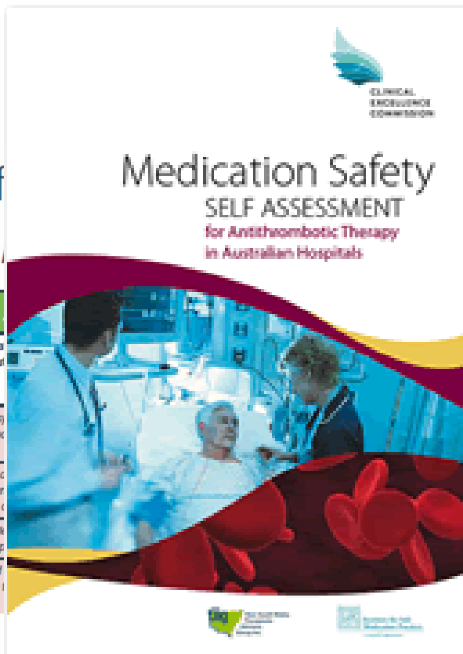
Indicators for
Quality Use of Medicines
in Australian Hospitals

PERFORMANCE AGREEMENT 2009_2010
SAFETY AND QUALITY

Towards national indicators of safety and quality in health care

National Healthcare Agreement performance indicators

Table of … and Criteria
Mandato…



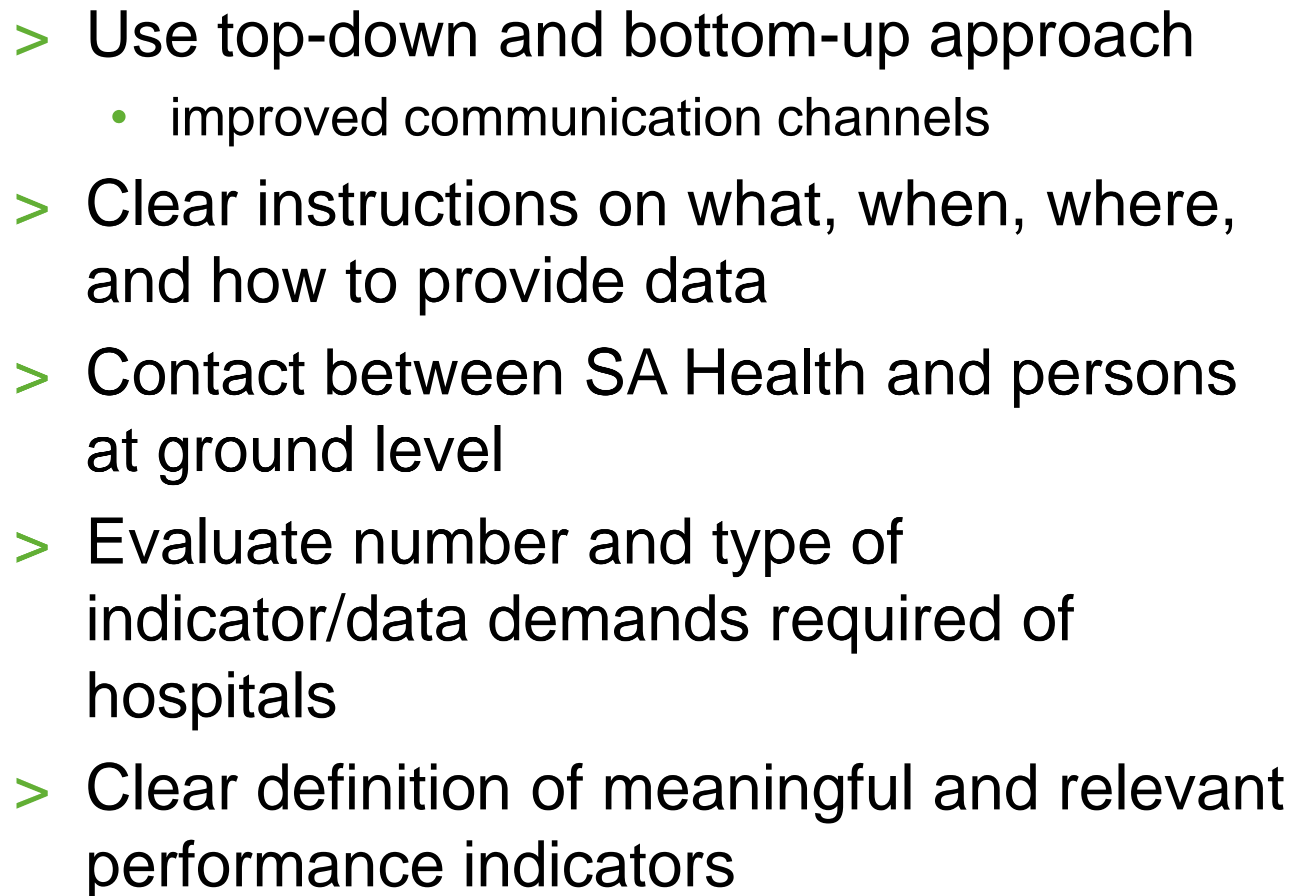
1. …	…	3. CORPORATE
1.1 Consumers / pa… care throughou…	…n in …e and …orate	3.1 The governing body leads the organisation's strategic direction to ensure the provision of quality, safe services.
1.1.1 The assessment s… the consumer / p…	…ment …ving the	3.1.1 The organisation provides quality, safe care through strategic and operational planning and development.
1.1.2 Care is planned c… consumer / patie… the best possible…	…ment policy …risks are	3.1.2 Governance is assisted by formal structures and delegation practices within the organisation.
1.1.3 Consumers / pati… understand and p…	…k are managed	3.1.3 Processes for credentialling and defining the scope of clinical practice support safe, quality health care.
1.1.4 Care is evaluated… appropriate with…	…quality …satisfying	3.1.4 External service providers are managed to maximise quality care and service delivery.

ACHS Clinical Indicator Program

- Hospital-level projects and audits
- Patient safety incident/sentinel event reporting systems:
  - Interlocked systems focused primarily on patient death – coronial, maternal and peri-natal, anaesthesia and surgery
- Adverse drug reaction reporting systems
- Federal/state healthcare performance-indicator programs
  - Mandatory
  - Voluntary
  - Recommended

Where to next?..

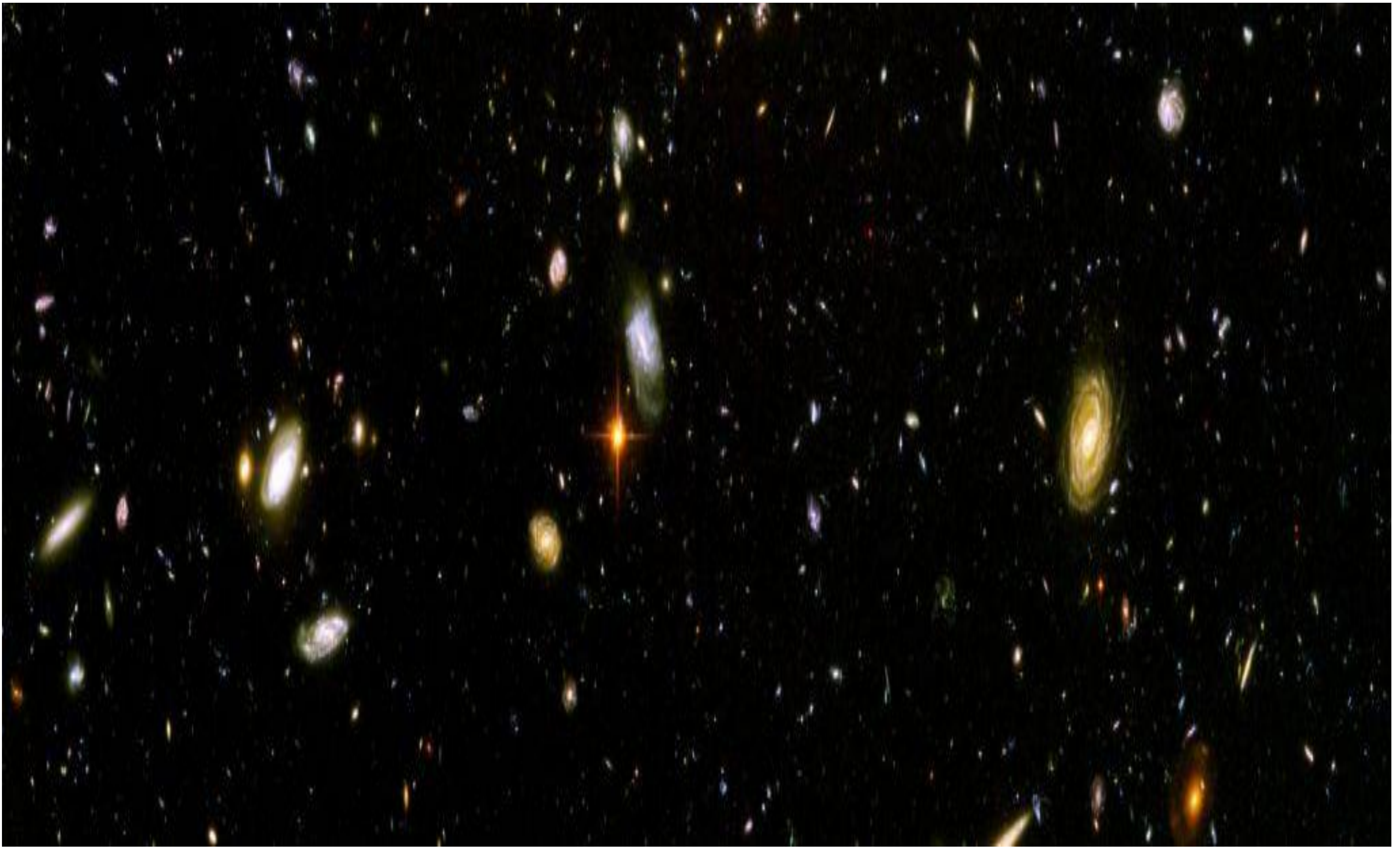
Difficult, but not without a solution…



- Use top-down and bottom-up approach
  - improved communication channels
- Clear instructions on what, when, where, and how to provide data
- Contact between SA Health and persons at ground level
- Evaluate number and type of indicator/data demands required of hospitals
- Clear definition of meaningful and relevant performance indicators

In Conclusion:

- Performance measurement offers an opportunity to secure a safer health care system that is accountable, transparent and evidenced-based
- Our aim was and still is to drive improvement in the public sector
- Improving our approach and methodology are crucial to engaging hospitals
- Data obtained, while not complete, is of significant value



Watch this space!!