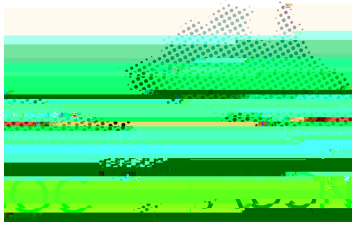
University of Wollongong

Wollongong, NSW, Australia

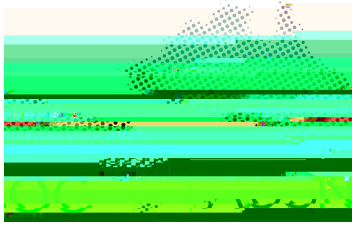
AUSNOC DATA REGISTRY



Purpose of this presentation

To describe the development, testing and implementation of a data registry of nursing-sensitive indicators for measuring the quality and safety of nursing practice in three hospitals in Australia using a multi-site, cross-sectional design.

DATA REGISTRY DEVELOPMENT

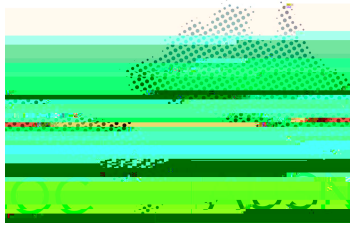


Aim of the AUSNOC data registry

Focuses on structure, process and outcome data to:

- Provide **data** for unit and hospital managers;
- Evaluate **decisions about nurse staffing**, nursing processes, and improvements to patient outcomes; and
- Provide **data to** about patient care

BACKGROUND



Australian Nursing Outcomes Collaborative (AUSNOC)

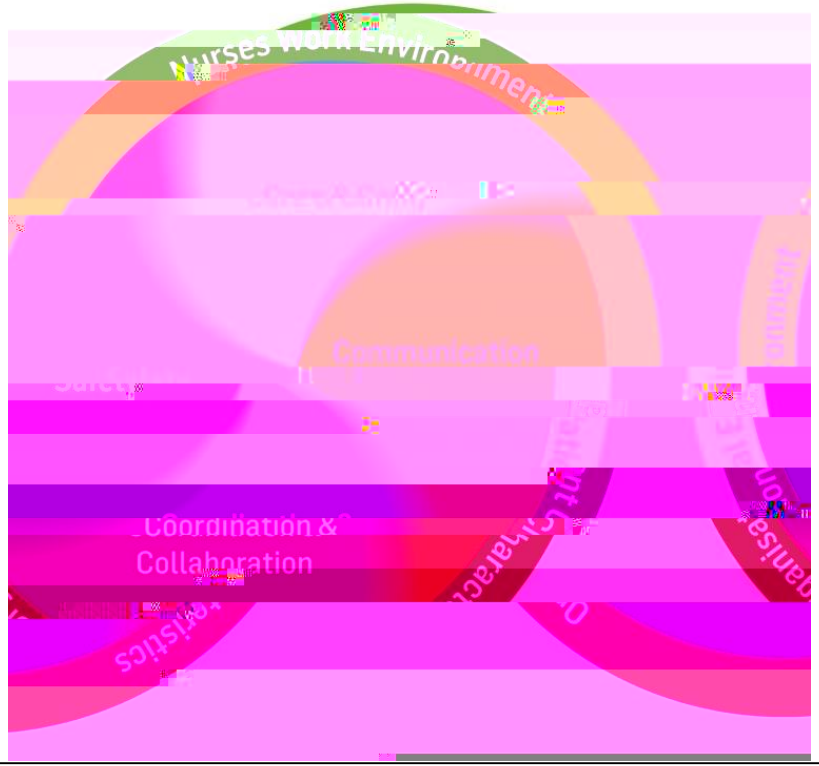
Based on PhD project “Measuring the quality & safety of nursing care”

Indicator set and data registry development

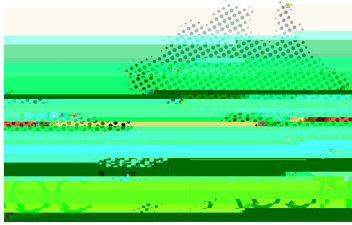
Feasibility testing in 3 Australian hospitals

Findings and future expansion

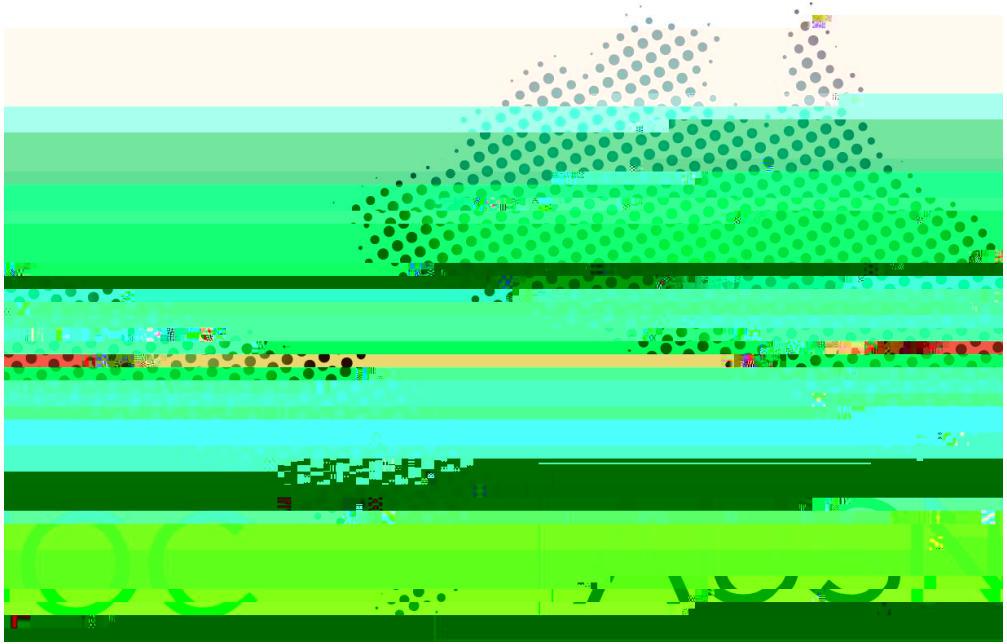
Ethics approval (HE15-425)



A conceptual framework for the measurement of the quality and safety outcomes of nursing care

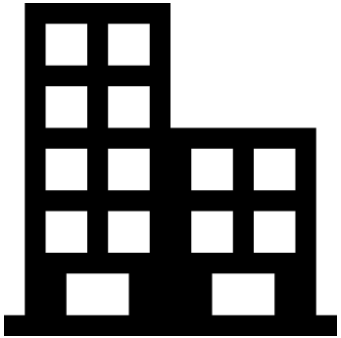


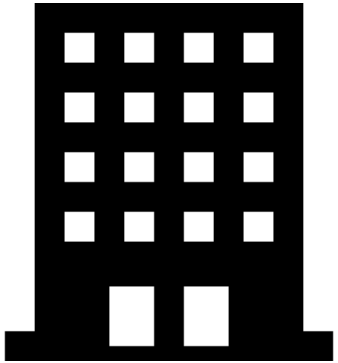
Sim, J, Crookes, P, Walsh, K & Halcomb, E (2018), Measuring the outcomes of nursing practice: A Delphi study, *Journal of Clinical Nursing*, 2018, 27, e368



... making matter

PARTICIPATING HOSPITALS





Hospital A

280 beds

Private Hospital

NSW, Australia

Hospital B

142 beds

Private Hospital

NSW, Australia

Hospital C

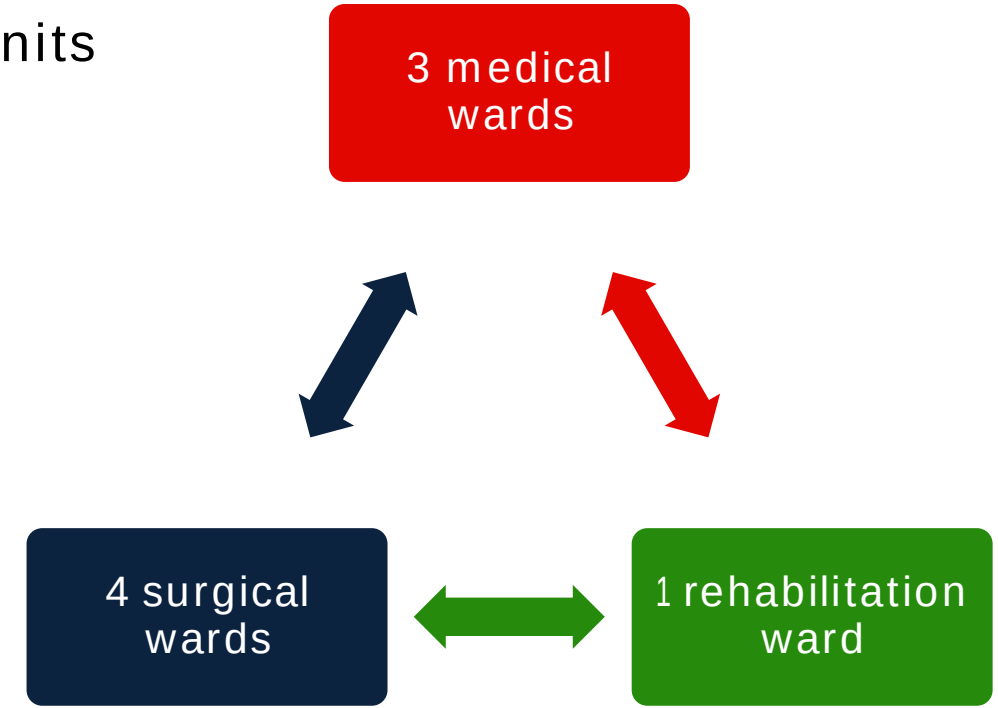
151 beds

Private Hospital

NSW, Australia

DATA COLLECTION

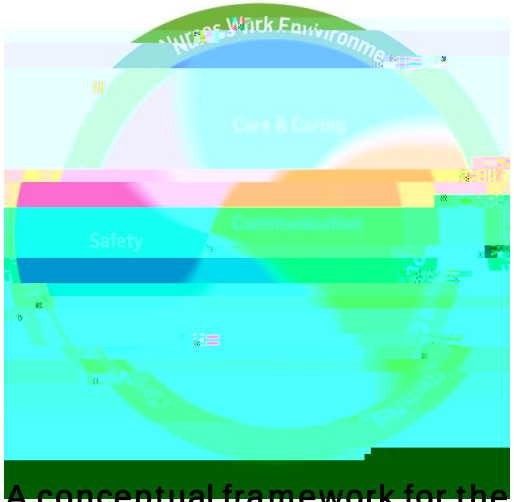
Participating units



AUSNOC DATA REGISTRY

Indicators and instruments:

Nurse staffing (**hourly data** on number of staff & skill mix)
Patient flow (**hourly data** on admissions, discharges, transfers)
Adverse events (pressure injuries, falls, medication errors, staph aureus bloodstream infections, restraint)
Processes of care (hand hygiene, risk assessment procedures falls & pressure injuries, patient identification, communication)
Patient Satisfaction and Patient Experiences of Care
Patients perceptions of Caring (Caring Assessment Tool)
Nurses perceptions of their practice environment (Nursing Work Index - Revised: Australian [NWI-R:A]) and safety assessment questionnaire



A conceptual framework for the measurement of the quality and safety outcomes of nursing care

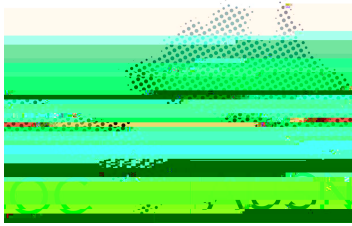
AUSNOC DATA REGISTRY

Reliability

- Administrative data audited
- Adverse event data checked via review of ICD

Validity

FINDINGS



Developmental Phase 1:

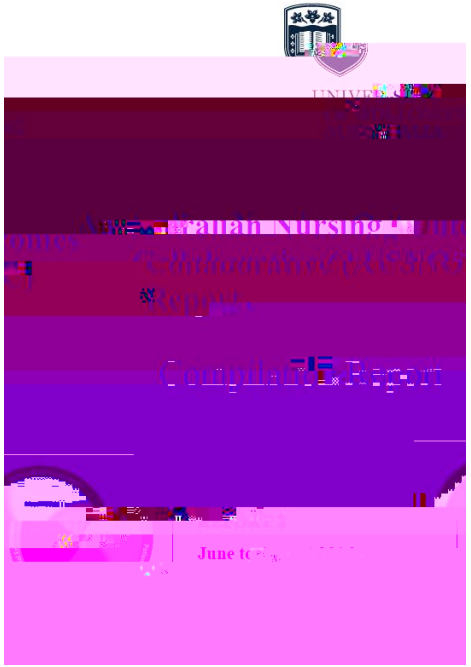
- Workshops with key stakeholders at each hospital
  - Developed data definitions, and
  - Achieve consensus on collection methods
- Data codebook developed

Lengthy process but very valuable to share ideas and existing practices

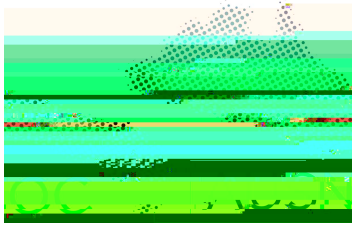
FINDINGS

Developmental Phase 3:

- Data reporting systems developed
- Quarterly benchmarked reports developed following consultation with stakeholders
- Reporting was labour intensive and time consuming (!!!)
- Data presentation evolved over the course of the project
- Customised data for accreditation and government reporting



FINDINGS



Administrative data in 2016

- 65, 000 bed days
- 12,654 admissions
- 12,627 discharges
- 22,956 transfers

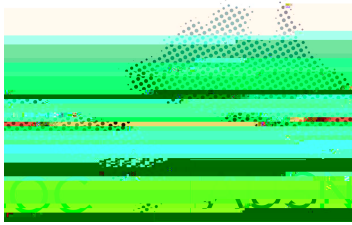
370 adverse events

- 66 Hospital Acquired Pressure Injuries
- 254 patient falls
- 50 medication errors

69,120 hours of staffing analysed for each hour of staffing by …

- Numbers of staff
- Skill mix
- Nursing Hours Per Patient Day

ESTIMATED FINANCIAL SAVINGS

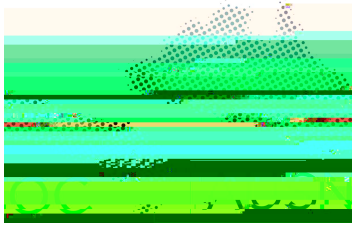


	2013 $AUD / patient

	Increased length of stay (compared to no fall)	Additional hospital costs (2015 $AUD)

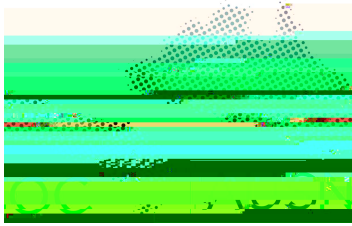
FINDINGS

Data Collection Burden



- Administrative data collected with no burden on clinical staff
- Surveys
  - Caring Assessment Tool – all discharged patients
  - NWI-R:A – lower response rates than anticipated (43%)
  - Press Ganey™ Patient experience Surveys – used retrospective data
  - Safety Attitudes Questionnaire - lower response rates than anticipated (43%)
- Pressure Injury Prevalence & Processes of Care Observational Audits
  - Time consuming (16 hours) & costly
  - Changes in processes of care led to significant improvements

IMPLICATIONS FOR PRACTICE



AUSNOC data registry can be feasibly collected in the Australian healthcare system

Structure, process and outcome data can be collected on a set of indicators that explore the constructs of

- Care and caring
- Communication
- Coordination and collaboration; and
- Safety

Large scale evaluation is required to determine the cost versus benefit of AUSNOC data registry

Any questions?

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