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Pressure Injury Prevalence and Practice Improvement: A realist evaluation of nursing care and nursing knowledge to reduce pressure injuries in an Australian hospital

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Wollongong, NSW Australia

22ºC
average daily temperature (71.6ºF)

27ºC
average summer temperature (80.6ºF)

293,494
population of Illawarra

85KM
to Sydney Opera House (53 miles)

17
patrolled surf beaches

11
national parks within 50km

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Pressure injuries are defined as

“localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear”

(NPUAP, EPUAP & PPPIA 2014, p. 18)

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Background

Pressure injuries are:

- Painful, reduce QOL and lead to ↑ mortality (Essex et al. 2014)
- A common form of adverse event (Tubaishat et al. 2018)
- Considered preventable and an indicator of quality nursing care (Stotts et al 2013)
- Expensive to health care systems (Nguyen et al. 2015)

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Research Aim:

To explore how periodic pressure injury prevalence (PIP) surveys can impact on Hospital Acquired Pressure Injury (HAPI) rates and the knowledge and attitudes of nursing staff towards preventing pressure injuries in an acute care hospital.

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Methodology:

1. Used a Realist Evaluation Framework.
2. Equal focus on Pressure Injury Prevalence and improving processes of care.
3. Evaluation of what has worked, for whom and in what circumstances (Pawson & Tilley 1997).

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Mixed Methods Study

1
- Pressure Injury Prevalence study 1 (All patients – 4 wards)
- Nurse Survey (Knowledge & attitudes of nurses to PI prevention)

2
- Snapshot Audit 1 (10 random patients – 4 wards)
- Ward developed Action Plan

3
- Snapshot Audit 2 (10 random patients – 4 wards)
- Ward developed Action Plan

4
- Pressure Injury Prevalence study 2 (All patients – 4 wards)
- Nurse Survey 2 (Knowledge & attitudes of nurses to PI prevention)

5
- Interviews with Pressure Injury Champions, Educators & NUMs
- Group Interviews with ward staff

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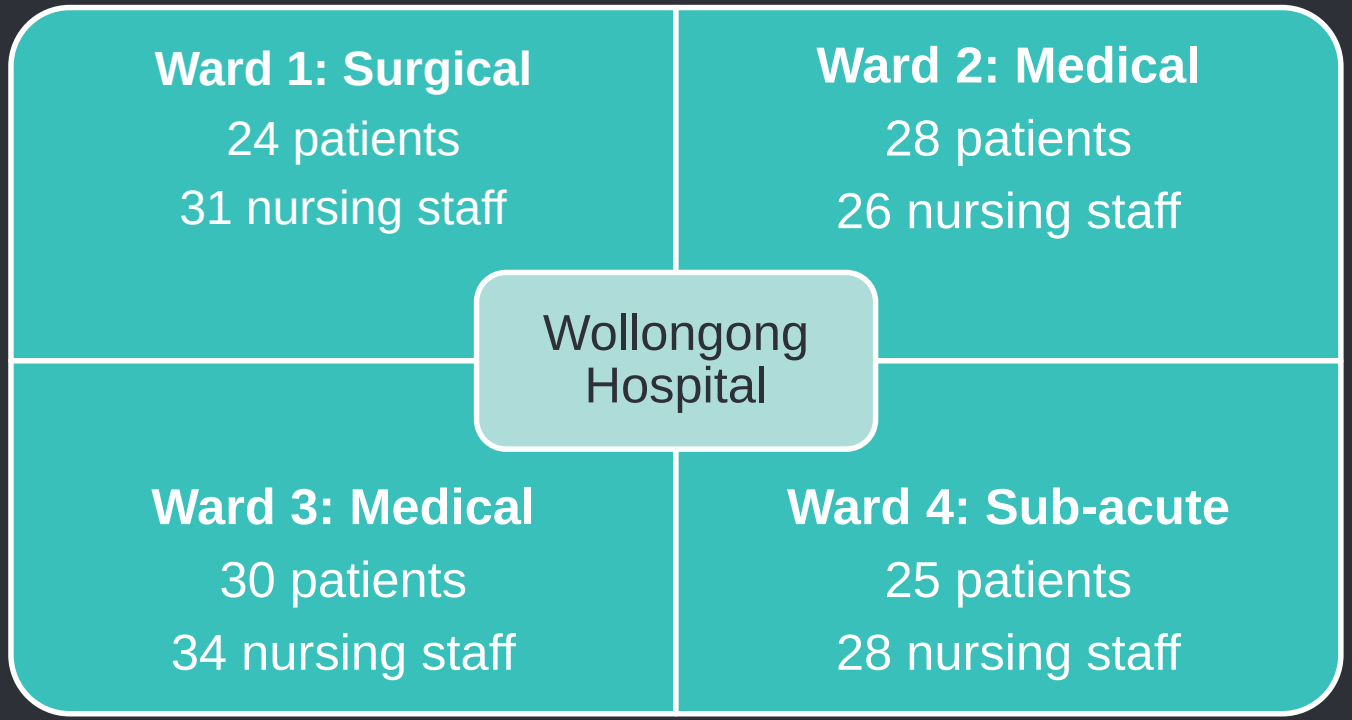
Sample: 4 wards in 1 hospital

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Main Entry

Study Design and Findings

Part 1

- Pressure Injury Prevalence (PIP) Studies
- Full PIP and Snapshot surveys

Part 2

- Nurse Survey
- Demographics, Knowledge and Attitudes survey

Part 3

- Qualitative Data
- Interviews & Group Interviews

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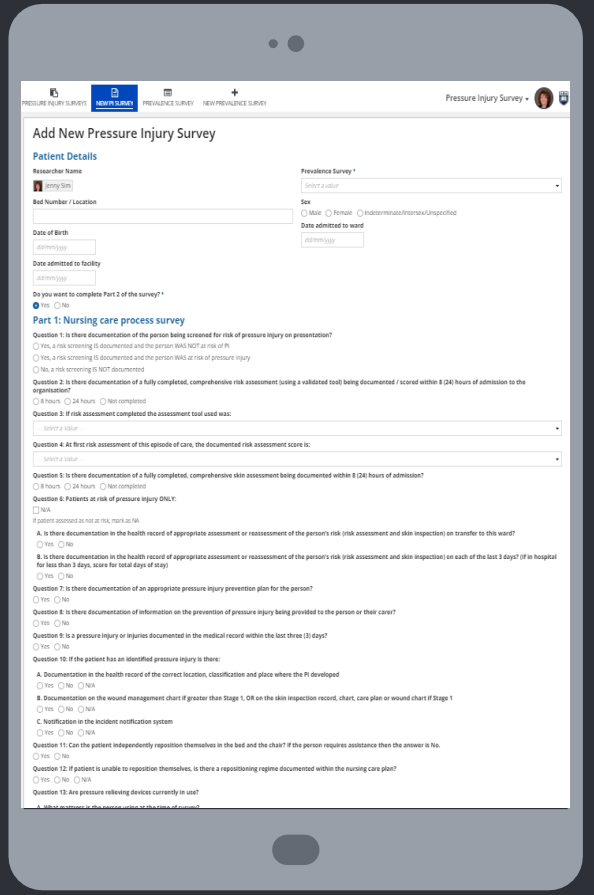
Pressure Injury Prevalence Surveys

Methods: Observational study

- 2 observers (one independent)
- All completed training (Online learning module & test)
- Used International Clinical Practice Guideline for Pressure Injury classification (NPUAP/EPUAP/PPPIA 2014)
- Independent observer conducted all PIP surveys
- Methodology based on EPUAP guidelines and NSW Clinical Excellence Commission Audit tool
- Data collected on iPad

iPad Data Collection tool

- Developed as part of this project
- All data collected via an iPad
- Dual sign-off by both auditors
- Enabled rapid data turnaround times
- Hosted on secure University server



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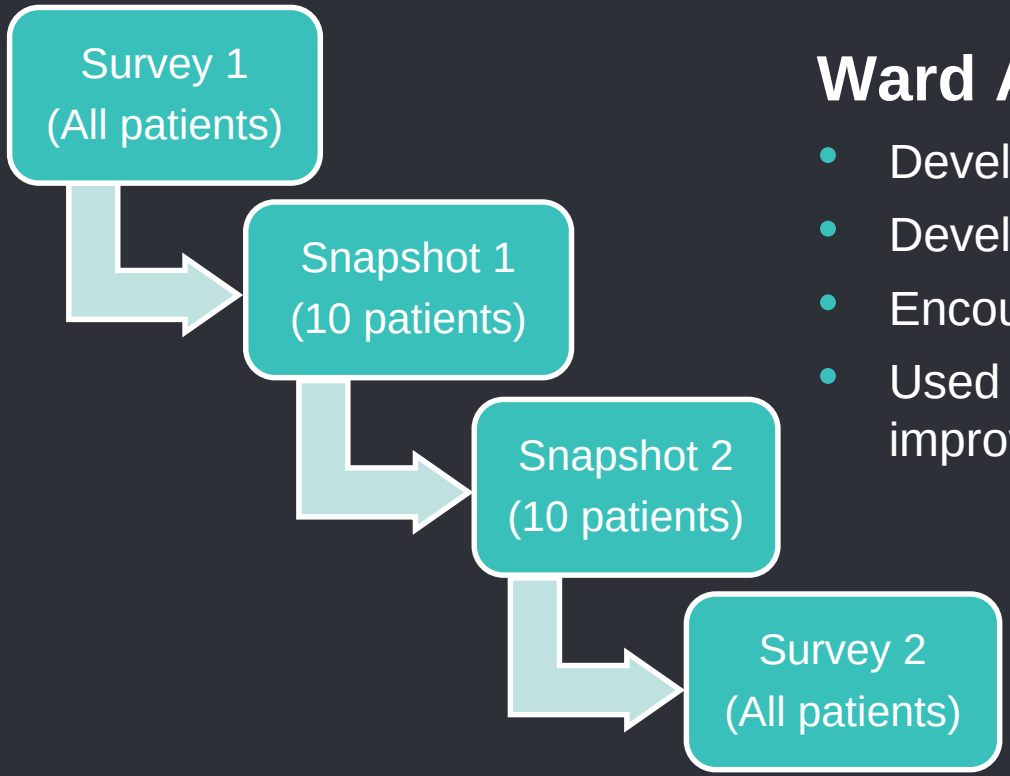
Pressure Injury Prevalence Surveys



Ward Action Plans

- Developed following all cycles
- Developed by ward staff
- Encouraged (not mandated)
- Used PDSA cycles & quality improvement methodology

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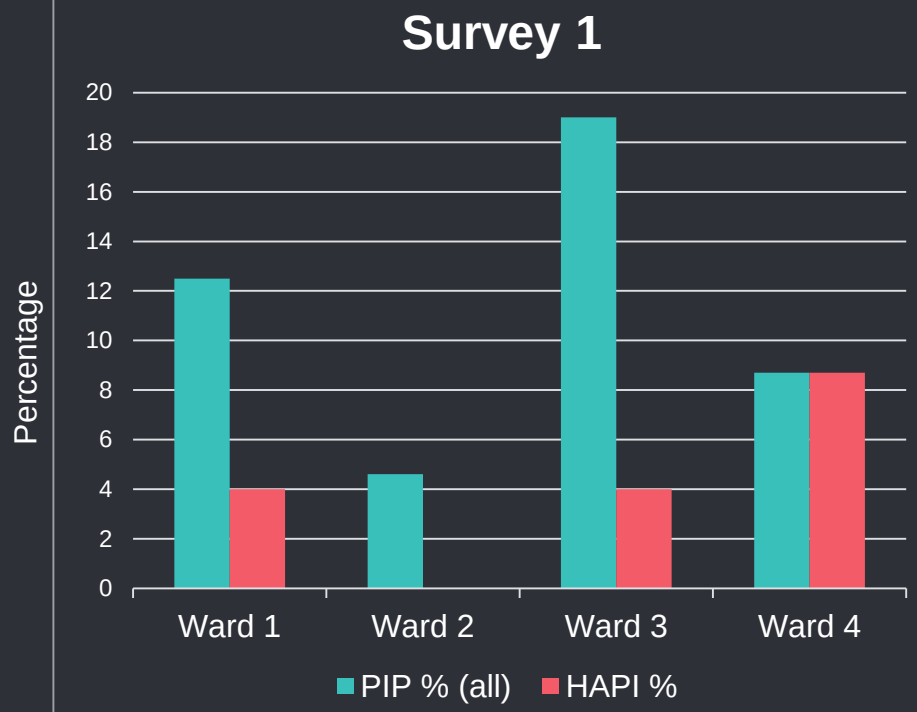
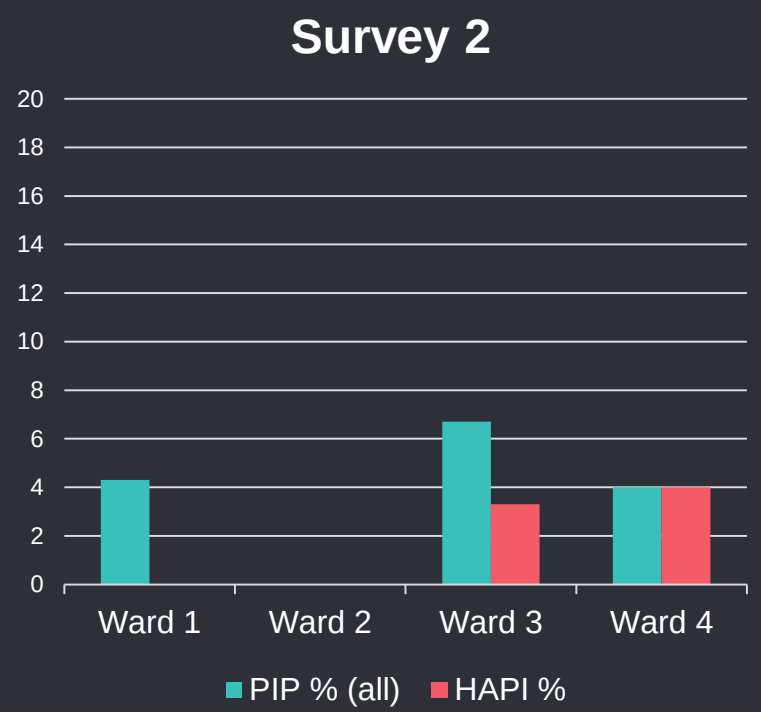
Pressure Injury Prevalence (%) - Findings





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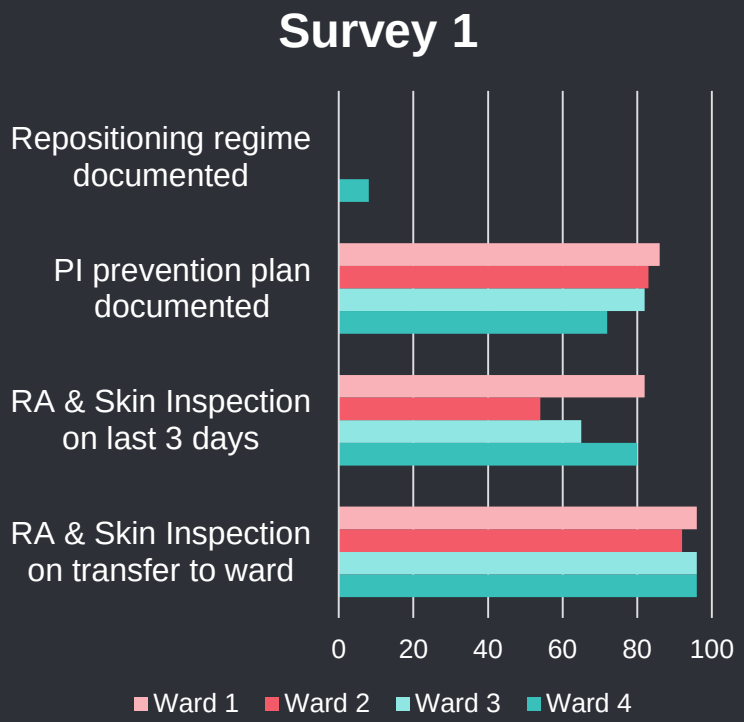
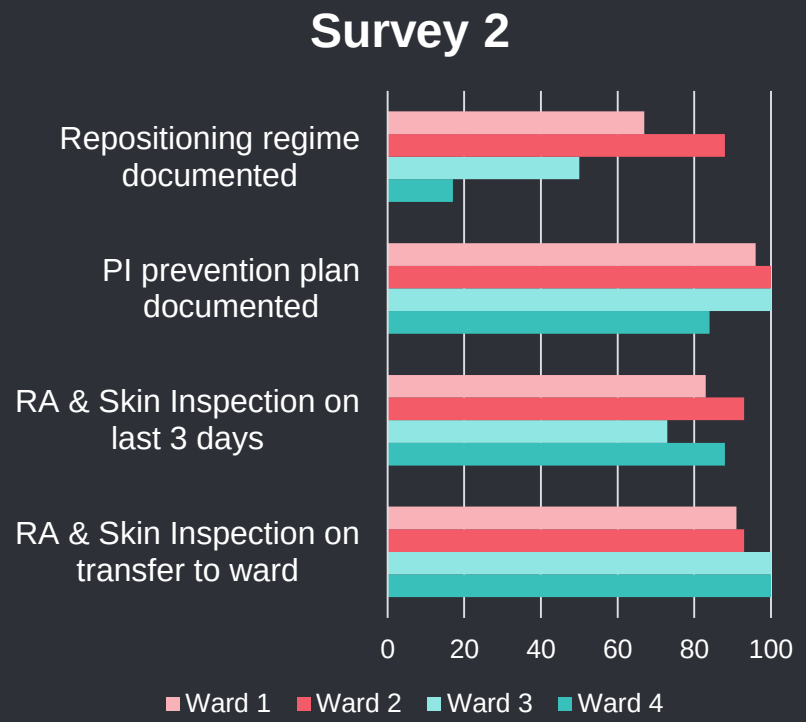
Pressure Injury Prevalence - Findings





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Nurse Surveys - Methods

DEMOGRAPHICS

- Age
- Gender
- Years worked - Nurse
- Years worked - ward
- Position (EN, RN, CNS/CNE, NUM)
- Qualification
- Employment status

PUKAT 2.0

- Pressure Ulcer Knowledge Assessment Test 2.0 (Manderlier et al. 2017)
- 25 items
- MCQ
- 6 subscales

APUP

- Attitudes to Pressure Ulcer Prevention scale (Beeckman et al. 2010)
- 13 items
- Likert scale
- 5 subscales

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Nurse Survey - Findings

Demographic Characteristics

		Survey 1 (n=80)	Survey 2 (n=64)
Age	< 24	14	16
	25-44	47	39
	>45	19	9
Gender	Male	8	11
	Female	72	53
Position	Registered Nurse	57	44
	Enrolled Nurse	23	20
Nursing Experience (years)		10.6	9.5
Experience on Ward (years)		5.2	3.7
Employment status	Full time	55	42
	Part time / Casual	25	24

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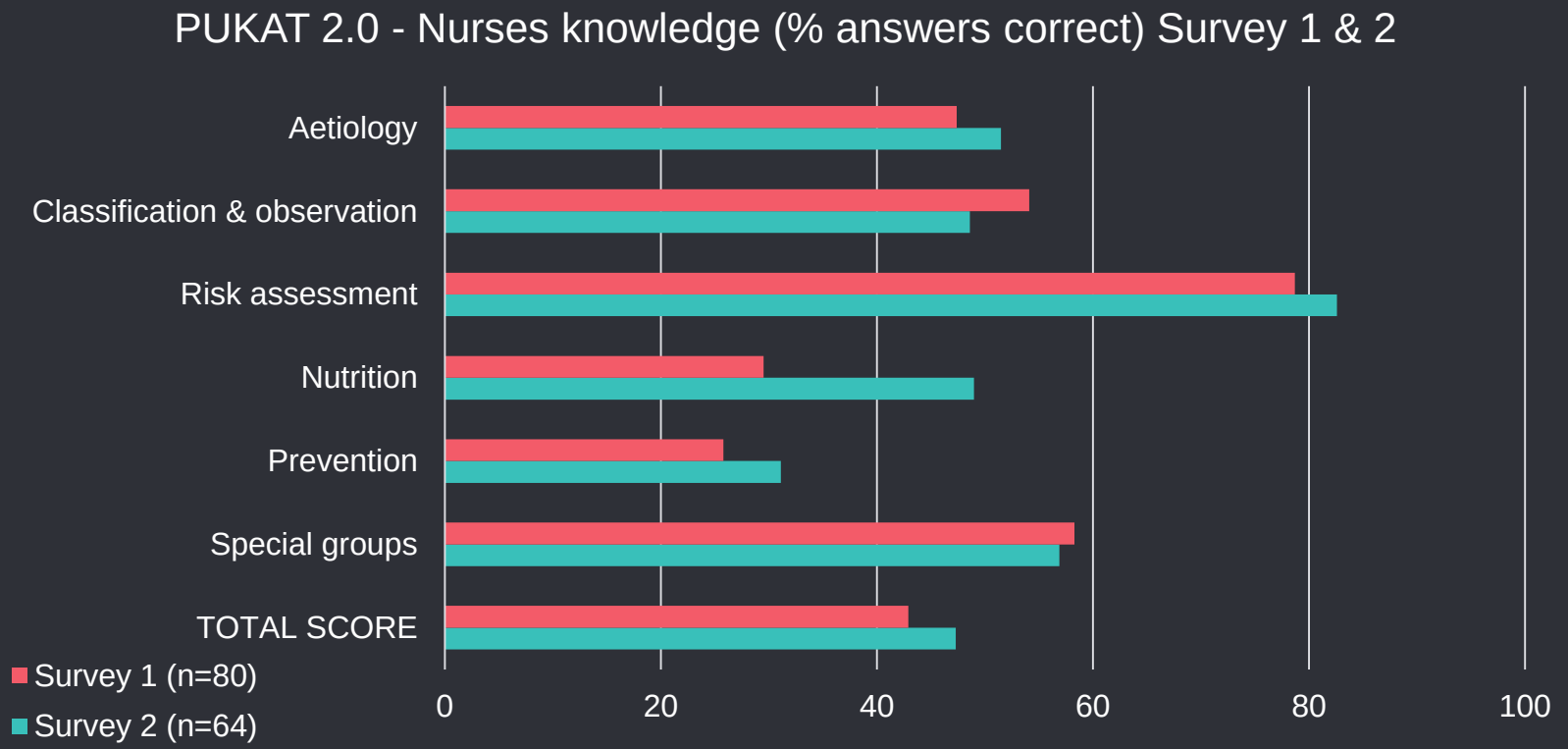
Nurse Survey - Findings



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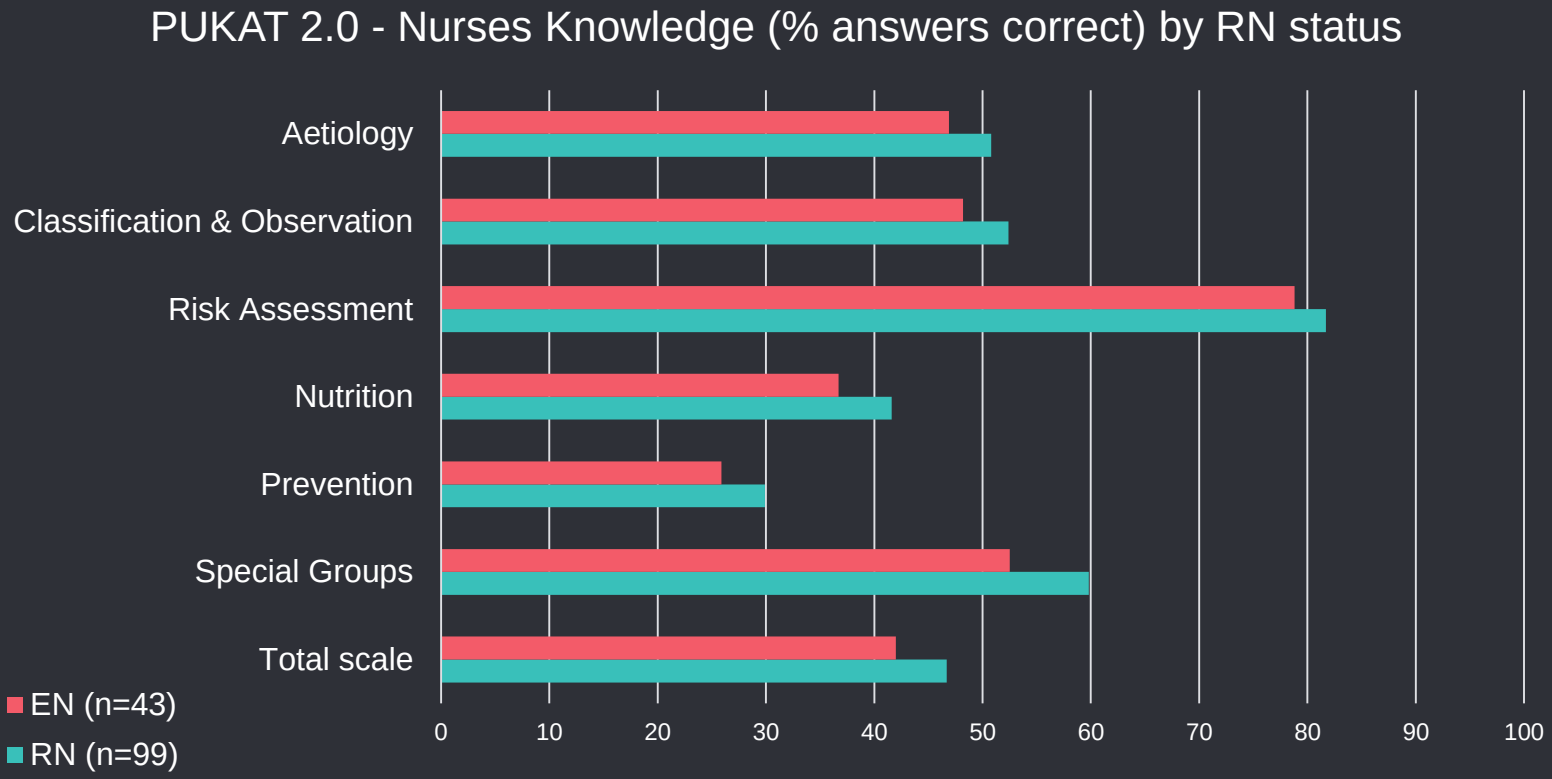
Nurse Survey - Findings



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Nurse Survey - Findings

APUP - Attitudes towards PI prevention (Survey 1 & Survey 2)

	Survey 1	Survey 2
Personal Competency	9.4	8.9
Priority of prevention	10.4	10.2
Impact of PI	8.5	9.2
Responsibility in prevention	6.9	6.8
Confidence in prevention	6.5	5.2
TOTAL SCORE	**40.2**	**38.8**

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Nurse Survey - Findings

APUP - Attitudes towards PI prevention (by RN status)

	RN	EN/EEN/AIN
Personal Competency	9.2	9.2
Priority of prevention	10.3	10.4
Impact of PI	8.8	8.8
Responsibility in prevention	6.9	6.7
Confidence in prevention	5.4	4.9
TOTAL SCORE	**39.6**	**39.4**

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Interviews - Methods

- Interviews conducted at completion of project
  - Nurse Unit Manager
  - Clinical Nurse Educator
  - Pressure Injury Champion (PIP data collection)
  - Group Interview with staff from each ward (4 scheduled)

- Data analysed using Thematic analysis (Braun & Clark 2006)

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Interviews - Findings

- 7 individual interviews
- 4 group interviews (28 participants).
- Total of 35 participants
- Focused on what worked for whom & in what circumstances

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Interviews - Findings

- PIP survey (full ward) – worked well in all settings, data collected on iPads, Independent observer, perceived as positive and contributed to promotion of good practices

- PIP survey (snapshot) – seen as positive, not time consuming, maintained focus (but not enough time between surveys to lead to actions)

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Interviews - Findings

- Action Plans – “**what action plans?**”
  - No clinical staff were aware of action plans
  - 2 of 4 wards developed action plans - some improvements in processes of care
  - No action plan focused on knowledge

- Nurse surveys (knowledge and attitudes)
  - Too long
  - Too complex
  - No feedback on the “correct” answers

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Implications for practice

- Pressure Injury Prevalence surveys provide useful data to improve HAPIs (iPad data collection is feasible)
- Nurses knowledge of Pressure Injuries are focused on the risk assessment processes
- Nurses knowledge of preventing pressure injuries is poor
- Attitudes towards preventing pressure injuries may improve with increased knowledge
- QI projects are likely to be more successful with greater staff engagement on participating wards

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Thanks!

ANY QUESTIONS?

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