Planning what you need starts with knowing what you have:

A national survey of emergency department service models and workforce configuration

Glenn Gardner
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The EDPRAC Project

Background

Increased demand in Emergency Departments – Australia & internationally

Reports of:
- reduced safety & quality
- Increased waiting time
- Access block, ramping treatment delays, Ambulance diversion,
- Adverse health outcomes.

Australian Health Workforce Advisory Committee suggestions to improve service and reduce congestion:
1. Workplace reform
2. Innovative service models
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Background

• Innovations in models of care have been implemented

• Adoption of workforce reform models e.g. nurse practitioners

• Scant research into extent and patterns of reform across Australia

• No large scale studies of effectiveness of ED service and workforce innovation

Planning change and service improvement requires knowledge of current trends and configuration of ED service and workforce models.
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Project title:
A prospective evaluation of the impact of the nurse practitioner role on emergency department service and outcomes

EDPRAC has two aims:
1. To measure the workforce profile and organisational characteristics of Australian EDs (Part A)

2. To compare EDs with and without NP service in terms of key service indicators & safety and quality of patient care (Part B)
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To measure the workforce profile and organisational characteristics of Australian EDs (Part A)
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Australian Research Council Linkage Project
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EDPRAC Part A Methods

- A national telephone survey (April 2013 – March 2014)
- Inclusion criteria: EDs with 24-hour medical and nursing service cover and report data to the AIHW
- Sample: 135 hospital EDs across Australia (87% response rate)
- Instrument - Customized questionnaire: ED & hospital characteristics, staffing, ED service and operational models and NP service patterns
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EDPRAC Survey Sites
Sample distribution by jurisdiction and geographical location

- Major Referral: 23%
- Urban District: 28%
- Major Regional / Rural: 49%

Map showing distribution across different regions of Australia with numbers indicating the count at each level.
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Operational Models used in Australian EDs

- **FastTrack**: 72%
- **Rapid Assessment Team**: 44%
- **Short Stay/Subacute Care**: 59%
- **Psychiatric Liaison Models**: 84%
- **Aged Care Liaison Models**: 61%
- **Other Liaison Models**: 31%
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Operational Models used in Australian EDs

Other - Patient Flow
- Surgical Assessment unit
- Medical Assessment unit
- Clinical Decision unit
- Emergency Medical unit
- Community Health Integrated Program (CHIP)
- Emergency Extended Care unit (EECU)
- Psychiatric Unit
- Paediatrics
- Geriatric
- ED Aged Services Emergency Team (ASET)

Other - Liaisons Models
- Drug and alcohol
- Refugee
- Indigenous
- Paediatrics
- Hospital in the Home
- Hospital Admission Risk program (HARP)
- Obstetrics and gynaecology
- Infectious disease
- Chronic disease
Medical Positions in Australian EDs

- **Director***: 93%
- **Assistant Director**: 34%
- **Staff Specialists**: 80%
- **Other Medical Specialists**: 41%
- **Registrars (FACEM/Others)**: 76%
- **Residents/Interns**: 84%

*Directors: Full time and shared both across hospitals and within hospitals
Allied Health services available in Australian EDs
Directly employed, on-call or shared arrangements

- Radiology: 59%
- Social Work: 69%
- Physiotherapy: 70%
- Occupational Therapy: 50%
- Dietetics: 43%
- Speech Pathology: 42%
- Pharmacy: 65%
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Nursing Positions in Australian EDs

- Nurse Practitioner: 52%
- Clinical Nurse Consultant: 33%
- Nurse Educator: 78%
- Nurse Unit Manager: 95%
- A/Nurse Unit Manager: 28%
- Clinical Nurse Specialist: 29%
- Registered Nurse: 100%
- Enrolled Nurse: 76%
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Emergency Nurse Practitioners in Australian EDs

- NP Percentage
- NP FTE

Australian Jurisdictions:
- National
- VIC
- SA
- NSW
- TAS
- QLD
- WA

Percentage of EDs with NPs:
- National: 52%
- VIC: 40%
- SA: 45%
- NSW: 48%
- TAS: 50%
- QLD: 67%
- WA: 75%

Average NP FTEs:
- National: 2.0
- VIC: 1.6
- SA: 3.8
- NSW: 1.7
- TAS: 1.5
- QLD: 2.4
- WA: 2.1
Emergency NP Patient ATS Categories

- 3-5, 33%
- 2-5, 23%
- 1-5, 37%
- 4-5, 6%
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Professional Training and Clinical Placements within Australian EDs

FACEM Registrars: 47%
Emergency NPs: 31%
Other Post Graduate Nursing Students: 87%

Pre-Service Students
- Medical: 96%
- Allied Health: 35%
- Nursing: 100%
Discussion

• This prospective systems-focused research is a world first and the largest study to date to establish a national baseline measure of the staffing configurations and organisational characteristics of EDs

• The most comprehensive survey of Australian EDs covering 87% of the population
In Summary

• FastTrack and patient liaison models are the most commonly adopted operational models used

• Most EDs employ a range of emergency and other medical specialists and trainees

• Most EDs employed nurse unit managers, nurse educators & RNs half employ NPs and a third employ CNCs

• A range of allied health professionals are engaged through direct employment, shared employment or on-call services

• Almost all provide undergraduate medical and nursing training; half included FACEM training; and a third NP training
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• Katherine Lambe
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Research Ethics Approvals

**Full Ethics and Other Types**
- QLD Health Central HREC
- Sydney LHD ERC
- Wimmera Health Care Group CRC
- Mercy Health HREC
- Northeast Health Wangaratta HREC
- Government of WA Dept of Health
- Sir Charles Gairdner and Osborne Park Health Care Group
- Royal Perth Hospital (Ad Rev)
- Fremantle Hospital and Health Service (Ad Rev)
- Princess Margaret Hospital for Children
- Joondalup Health Campus HREC
- WA Country Health Service Research Ethics
- Tasmanian Health and Medical HREC
- ACT Health HREC
- Calvary Health Care ACT HREC
- SA Health HREC
- Menzies and NT HREC
- Central Australian HREC
- Queensland University of Technology HREC (Ad Rev)
- Curtin University HREC (low risk)

- Deakin University HREC (Ad Rev)
- Australian Catholic University HREC (Ad Rev)

**Low and/or Negligible Risk Applications**
- Latrobe Regional Hospital Human Research Ethics Committee
- South West Healthcare MEC
- Peninsula Health HREC
- Mildura Base Hospital HREC
- The Alfred Ethics Committee
- Central Gippsland Health Service Clinical Governance and Risk Group
- Western Health Low Risk HRE Panel
- Goulburn Valley Health ERC
- Bendigo Health Care Group HREC
- Northern Health Low Risk Ethics Committee
- Austin Health HREC
- Eastern Health REC
- Barwon Health HREC
- Monash Health HREC
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SSA and Governance

QLD
• Cairns and Hinterland HSD
• Children’s Health Services
• Darling Downs HSD
• Gold Coast HSD
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• Metro North HHS
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• St. Vincent’s Hospital Melbourne

NT
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