Background

North West Tasmania

- Population approximately 114,000 people
- 70% live in coastal towns and communities between Devonport & Wynyard
- Main towns – Burnie & Devonport
- ASGC remoteness ranges from RA3 (Burnie) to RA5 (King Island)
• Older population (median age 41 years vs 37 years for Australia)
• High prevalence of chronic disease and lifestyle risk factors

• Socio-economically disadvantaged (IRSD deciles 1-5)
• Unemployment rate approximately 7-8%
Tasmanian Health Service – North West (THS-NW)

- North West Regional Hospital, Burnie - 160 bed secondary level hospital
- Mersey Community Hospital, Latrobe - 100 beds, limited services
- Smithton District Hospital - 12 acute care beds, GP-led A&E, visiting services
- West Coast District Hospital, Queenstown - GP-led A&E, aged care & visiting services

- King Island District Hospital - 6 acute care beds, 8 high care beds & 6 low care residential aged care beds
Specialist Recruitment and Retention

• Attracting and retaining medical specialists is challenging
• Anecdotal evidence of increasing reliance on international medical graduates and locums
• Not unusual to credential >40 locums per month

Aim

• To describe longitudinal specialist workforce trends in North West Tasmania
Methods

Study Design

• Longitudinal analysis of specialist workforce data

Study Period

• 20 years - January 1997 to January 2017

Study Site

• THS – North West
Data Sources

- HR data from DHHS THS-NW
- APHRA database

Study Population

- Medical specialists who worked at THS-NW during the study period
Inclusion criteria

• Specialist medical practitioner during employment at THS-NW

Exclusion criteria

• Locum specialists (defined as appointment <3 months duration)

• Specialists in training

Definition of medical specialist

• Hold an approved qualification for the speciality; or

• Hold another qualification the National Board established for the health profession considers to be substantially equivalent, or based in similar competencies, to an approved qualification for the speciality

Data Analysis

- Crude turnover rate
- Stability rate
- Survival analysis
Results

- 1370 medical practitioners identified during initial search
- 617 had specialist qualifications registered with AHPRA
- 315 were specialists during at least one appointment with THS-NW

Study sample

- 208 specialists fit the inclusion/exclusion criteria
  - 155 (74.5%) men
  - 53 (25.5%) women
- Median 19 years (IQR 14, 26) since MBBS graduation
- Median 3 years (IQR 1, 11) between fellowship and date of appointment
• 64.4% received their medical degrees overseas
• 5 specialists were graduates of the University of Tasmania

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<th>Country</th>
<th>MBBS</th>
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<td>Ireland</td>
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Percentage of Specialist Workforce by Specialty

- Anaesthetics, 10.5%
- Emergency Medicine, 31.6%
- Psychiatry, 12.9%
- Physician, 11.0%
- Obstetrics and gynaecology, 12.4%
- Surgery, 6.2%
- Paediatrics and Child Health, 5.7%
- Pathology, 0.5%
- General Practice, 3.3%
- Medical Administration, 1.0%
- Intensive Care, 2.9%
- Palliative medicine, 2.0%
Crude Annual Turnover Rates of Specialists at THS-NW

- Calculated for each year – 1997 to 2016
- Inconsistencies in turnover rates for period 2013-2015 compared to other years
- Verification of data against source data required to validate locum identification/exclusion criterion

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<td>0.0</td>
<td>22.2</td>
<td>9.1</td>
<td>18.2</td>
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<td>Crude Turnover Rate (%)</td>
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<td>22.0</td>
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Stability Rates of Specialists at THS-NW

- 12 month and 60 month stability rates calculated
- 100% 12 month stability rates for specialist cohorts recruited from 2000 to 2005
- Verification of data required
12 Month Stability Rate by Recruitment Year Cohort (2006 to 2015)
60 Month Stability Rate by Recruitment Year Cohort
2000 to 2011
Survival analysis

- Multiple appointments included – 21 specialists had >1 appointment
- Failure event defined as specialist leaving appointment
- Preliminary analysis - Kaplan-Meier method
- Median duration of specialist appointments was 13 months (IQR 6, 43)
Discussion

• Ethics approval took considerably longer than planned
  • Initial application + 2 amendments

• No readily available electronic data for specialist appointments

• Inconsistencies in available DHHS data

• AHPRA matching process was laborious

• AHPRA has missing data

• Locum identification/exclusion may not be appropriate in rural contexts

• Quantitative data does not tell the whole story

• Phase II qualitative data will provide context for quantitative results
Thank you