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RESEARCH LETTER

Developing a medical workforce for an Australian regional, island state

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The Tasmanian medical program, with undergraduate entry and a 5-year duration, is the main source of the medical workforce in Tasmania, providing about 36% of the whole workforce[1]. There is a significant workforce maldistribution across the state, particularly in the north-western region, where medical services are reliant on international medical graduates and short-term locum appointments. It appears that relatively few Tasmanian medical graduates work outside of the two main cities[1].

The early career contribution to the local workforce of the medical program was explored through analysis of data from exit questionnaires administered to five consecutive cohorts of graduates, from 2010 to 2014, as part of the Medical Schools Outcomes Database project[2]. The data included demographic information, geographic and specialty career preferences, and interest in working in Tasmania. These data are presented in Table 1, comparing graduates from the University of Tasmania with those from both other Australian medical schools and all Australian medical schools combined, including Tasmania.

The results show that University of Tasmania medical graduates have little impact on the national data and are similar to those of other Australian medical schools with respect to demographic data, career preferences, student satisfaction ratings and financial considerations in career choice. However, there were some key differences. The first is that a substantially higher proportions of students come from communities outside of major urban centres (30% vs 20%), although this may be explained by the categorisation of the whole of Tasmania as 'rural' because it is separated from the mainland. The second difference is that a higher proportion stated a preference to work in Tasmania in the future (39% vs <1%). The third is that a higher proportion accepted intern positions in Tasmania (60% vs 2%). This may reflect the state government guarantee of positions for local graduates, because 33% of Tasmanian graduates in Tasmanian intern positions accepted positions interstate for specialist training, which in Australia commences after a generalist internship.

Table 1: Data from Australian medical school exit (graduation) questionnaires, 2010–2014

Questionnaire item/data	University of Tasmania (3.5% of all responses) *n* (%) or median (range)	Other Australian medical schools *n* (%) or median (range)	All Australian medical schools *n* (%) or median (range)
Response	448 (84)	12 285	12 733 (82)
Female	231 (56)	NA	7003 (55)
Age (years; median (range))	24 (22–48)	NA	25 (18–63)
Partnered	200 (45)	5265 (43)	5465 (43)
Domestic	308 (75)	NA	10 441 (82)
Indigenous†	<1%	1%	1%
From outside major urban area	114 (32)	1853 (20)	1967 (20)
Prefer Tasmania as state of work¶	153 (39)	31 (<1)	184 (2)
Prefer urban (RA 1)	336 (79)	9687 (84)	10 023 (84)
Prefer larger town (RA 2-3)	65 (15)	1295 (11)	1360 (11)
Prefer small town (RA 4-5)	25 (6)	572 (5)	597 (5)
First-choice career			
Adult medicine	85 (20)	1808 (16)	1893 (16)
Emergency medicine	35 (8)	921 (8)	956 (8)
General practice	69 (16)	1682 (15)	1751 (15)
Paediatrics	49 (11)	1035 (9)	1084 (9)
Surgery	68 (16)	2015 (18)	2083 (18)
Rural/remote medicine	11 (3)	196 (2)	207 (2)§
Accepted internship in Tasmania	260 (60)	21 (<1)	281 (2)
Influenced by financial prospects regarding career choice	125 (29)	NA	3299 (25)
Satisfied/very satisfied with course	77%	NA	76%

† Percentages only; small numbers are not disclosed, to prevent identification.
¶ Data from 2011 to 2014 only.
§ No 2014 data.
NA, not available. RA, Remoteness Area (from Australian Statistical Geography Standard (ASGS) Remoteness Structure)

These data raise three interesting points. First, it is clear that the Tasmanian medical program, while constituting a small part of the national medical education context, is the major contributor to the state's local medical workforce. Staffing the state's hospitals with junior doctors might be difficult without the local program. Second, a substantial proportion (61%) of graduates expressed a preference to work outside of Tasmania. Tasmania's population demography demonstrates features of both regional and rural communities and 'island' states or nations, such as Newfoundland and Iceland, with a 'normalisation' of youth emigration to seek opportunities not available locally, combined with a desire to return 'home' at some stage[3,4]. It is possible that this phenomenon may impact negatively on medical workforce recruitment and retention. Third, unlike those of other regional medical schools[5], Tasmanian program graduates have a lower preference for rural medicine careers, more akin to the average for all Australian medical graduates. It is therefore possible that the state's workforce maldistribution could be addressed through implementing rural medical education initiatives proven useful elsewhere. With this in mind, we at the University of Tasmania School of Medicine have introduced evidence-based strategies such as a rural admissions pathway and a strengthened rural clinical school program, which has shown early success at recruiting their graduates to local positions[6]. We have also lobbied the state government to introduce a rural medical generalist model in the north-western region, with training programs and career pathways that support this model[7].

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