

# Place-based research in small rural hospitals: an overlooked opportunity for action to reduce health inequities in Australia?

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Rural Australians experience significant health disparities compared to their metropolitan counterparts.<sup>1</sup> Research underinvestment in rural areas has resulted in a lack of rural context specific knowledge and this contributes to ongoing health inequity.<sup>1</sup> Metropolitan hospitals are regularly observed to include research as part of their usual business with outputs exceeding >1000 peer-reviewed papers per year.<sup>2</sup> In comparison, rural hospitals in Australia are overlooked as vectors of research generation, despite evidence of critical need.<sup>1</sup> When key rural health policy-makers were asked about how policy could better address rural health inequities they stated that a lack of rural research evidence was driving lack of knowledge around possible solutions, policy action, and progress towards better rural health.<sup>3</sup> This highlights the urgent need for more place-based research activity across rural communities in Australia.<sup>4</sup> This commentary outlines the potential for rural hospitals to address disparities through locally driven research agendas that could inform the international literature on the role of research activity in improving hospital performance and patient outcomes. Within Australia, rural areas are formally defined by the Rural Health Multidisciplinary Training (RHMT) program using the Modified Monash Model and exclude all locations classified as 'Metropolitan areas'.<sup>5</sup> The RHMT is a key policy of the Australian Government's efforts to address workforce maldistribution.<sup>5</sup>

Research activity within urban hospitals has been linked to improved organisational performance, patient outcomes, and reduced mortality-internationally.<sup>6,7</sup> A recent international review identified no studies on the impact of research activity in rural hospitals and no papers evaluated hospital organisational structure and how it may have augmented the impact on health outcomes.<sup>6</sup> In the business literature, organisational structure is acknowledged as an important driver of operations, resource allocation and performance measurement.<sup>8</sup> Yet there is a paucity of studies as to best

optimise research activity within organisational structures to achieve better health outcomes – the ultimate measure of hospital purpose. With the smaller size of rural hospitals relative to their metropolitan counterparts, these hospitals could form the ideal starting point for such research, while also improving knowledge of solutions to address rural health inequities. Rural hospitals generally have smaller organisational structures, so there may be scope for research activity to have a more immediate influence, which could generate high impact in communities of need. Evidence has shown that rural hospitals of smaller size do have increased uptake of innovation; but the role of organisational structure in this is not known.<sup>9</sup> For example, research activity that forms part of the formal hospital organisational structure (e.g., a research unit focussed on local research projects) could be explored as a mechanism of impact in rural areas, with lessons for other rural areas, and larger and more complex organisations.<sup>10</sup>

Now is the time for government, policymakers, funding bodies, hospital leaders and academics to embrace the opportunity in rural hospitals to drive context-specific research activity that can improve health and inform new knowledge on the mechanisms in which research activity generates benefit. Supportive environments are needed in rural hospitals through encouraging policymakers and rural hospital leaders to see research activity as part of routine business, so they generate policy and identify resources to facilitate it. Evaluations of organisational structure will benefit from co-creation between the hospital and academic players so that they are feasible and adequately powered, whilst staying focused on meaningful primary outcome. In Australia there is already a shift towards place-based research effort in rural areas reflected in the recent Medical Research Future Fund – Rapid Applied Research Translation Initiative guidelines stating that the project must be administered by a rural-based organisation, and the project lead must have resided in a rural area for the 12 months period prior grant submission. Rural hospitals could harness these opportunities to build local capacity and integrate research into their operations. These facilities provide the ideal test beds for locally relevant and scalable clinical research along with informing future studies examining how organisational structures can be best



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used to amplify the impact on patient outcomes and hospital performance—which could inform research in hospitals across the world. As research activity becomes more widely entrenched within rural hospitals’ organisational structures, scope exists for future studies to compare between hospitals to better understand the best strategic positioning for research within the organisation. At the very least, a commitment to dissemination of findings may assist other hospitals of similar capacity and inform upscaling and studies in larger hospitals with more complex organisational structures, while simultaneously improving rural health.

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