

Title: Building a sustainable workforce: Using clinical data to inform workforce planning

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Introduction

Australia's National Medical Workforce Strategy¹ states, *'to achieve maximum benefit..., the medical workforce must be geographically well distributed and have the appropriate mix of medical specialties in each location'*. Australia is a large country, with a population clustered on the coast and within its major cities. Providing services in rural and remote parts of Australia is challenging, and access to some medical services is below that of the major cities. These areas have higher proportions of population groups such as indigenous people who generally suffer lower health status and poorer health outcomes. Methods to determine future workforce demand usually use trends in historical service utilisation as a proxy for health need but may not reflect the underlying need for services. Planning services and the workforce based on the past service utilisation risks engraining rather than tackling inequities in access to services.

Method

In Australia, casemix-weighted activity data is used to derive measures of utilisation linked to population characteristics. The proposed needs-based approach considers:

- the appropriate measure of **health need**
- how health need relates to the **scope of practice** for the specialty
- translating **health need into service use**
- the **current supply and distribution** of the workforce
- the **role of other specialists or workforce groups**.

The approach uses estimates of disease prevalence and other measures of health need alongside population data to estimate the relationship between health need and service use. We illustrate approaches for psychiatry and cardiology, but the method could be applied to other specialties where there are suitable measures of health need and a robust way of translating disease or condition burden into services.

Results

We were able to apply the approach to cardiology and psychiatry. However, there is not always a direct link between available measures of morbidity or health need and the specialties based approach to organising hospital health care services. A requirement in adopting this approach is to establish what the service requirements

¹ Australian Government Department of Health (2022) *National Medical Workforce Strategy, 2021-2031* Department of Health, Canberra.

are in relation to a given level of health need. This can be established with reference to a normatively determined level (for example, based on expert advice) or an indication of an 'average' or sufficient level of care. This can be complex because there are different ways of meeting the same need in relation to both services and the workforce mix. Despite these challenges it is possible to derive useful information that complements standard workforce and service planning methods. The analysis conducted for Australia indicates that a geographical redistribution of the medical workforce would be needed to meet health needs in a more equitable way.

Conclusion

The paper sets out a framework and method to progressively supplement standard utilisation approaches to modelling future demand with a more needs-based approach. The method can be adapted for other specialties and be refined as the understanding between population health need and service requirements improve. This approach could also be deployed to improve forecasting of service activity and hospital capacity planning.