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OPINIONS & PERSPECTIVES

**The need for new models for delivery of therapy intervention to people with a disability in rural and remote areas of Australia**

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Early therapy intervention by occupational therapists, physiotherapists, and speech pathologists (therapists) is recognised to yield benefits across the lifecourse (Carpenter, 2007; Law, 2002; Thomaidis, Kaderoglou, Stefou, Damianou, & Bakoula, 2000; Ziviani, Feeney, Rodger, & Watter, 2010). As a result, there have recently been increases in funding for therapy positions in disability services in New South Wales (NSW), Australia (New South Wales Government, 2006). However, research by Keane, Smith, Lincoln, and Fisher (2011), Chisholm, Russell, and Humphreys (2011), and Denham and Shaddock (2004) indicated that there is a shortage of therapists living and working in rural and remote areas of Australia.

Australia is the world's sixth largest country in terms of landmass covering 7,686,850 square kilometres. However, the approximately 22 million people who live in Australia are largely concentrated in urban areas along the coastal fringe of the eastern states. Increasing distance from the coast means lower population density and reduced access to health services, including therapy. The shortage of rural-based therapists means that a person with a disability in a rural area is significantly disadvantaged in accessing early therapy intervention compared with peers living in metropolitan areas (Doherty, 2007).

Further disadvantage is experienced by Indigenous Australians, especially those living in remote communities. According to a recent Productivity Commission report (Steering Committee for the Review of Government Service Provision [SCRGSP], 2011), Indigenous people make up 2.5% of the Australian population, with 22% living in outer regional, 9% in remote and 15% in very remote areas compared, respectively, to 9%, 1%, and less than 1% of the non-Indigenous population<sup>1</sup>. As an indication of the need for therapy intervention among the Indigenous population, the Productivity Commission report noted that Indigenous Australians are twice as likely as non-Indigenous to experience a profound or severe core activity restriction as defined by the International Classification of Functioning (ICF; SCRGSP, 2011).

Therapy service delivery models to non-Indigenous and Indigenous people living in outer regional, remote, and very remote areas of Australia have typically involved irregular outreach from larger regional towns and capital cities. NSW is the most populous Australian state with 7.23 million people of whom 4.58 million live in the capital city, Sydney. With the state of NSW covering 801,600 square kilometres, the experience of NSW residents with a disability provides a useful overview of the challenges involved in accessing therapy services in rural and remote areas of Australia.

### **Therapy service delivery in NSW**

Historically, underfunding of the disability sector has resulted in long waiting lists and strict eligibility and prioritisation criteria that see some people who would benefit from therapy services missing out altogether. The problem of access has been further exacerbated in rural areas where fewer therapy services exist than in metropolitan areas (Keane et al., 2011).

In the past five years disability services in NSW have benefited from a substantial increase in funding under the state government's *Stronger Together* program (New South Wales Government, 2006). While this program has included significant enhancements to both government and non-government therapy services, difficulties in recruiting and retaining therapists in rural and remote communities remain (Chisholm et al., 2011; Keane et al., 2011). These recruitment and retention problems limit the capacity of the sector to deliver enhanced services despite increases in funding.

*Stronger Together* advocates for person-centred early intervention approaches (New South Wales Government, 2006). However, therapy services provided in rural and remote areas are dependent on the availability, location, and expertise of therapists. Winterton and Warburton (2011) indicated that an individual's access to available services will also be dependent on variables such as transport, cost, and child or respite care.

Persons with a disability who live in remote Aboriginal communities experience additional service access barriers (NSW Ombudsman, 2010). In NSW, there is a lack of reliable demographic information about the Aboriginal population living in remote communities. Therefore, the specific needs of people with a disability living in the communities are not well understood and may be hidden to mainstream services. Compounding this lack of recognition on the part of service providers, Cheng, Clarke, Moore, and Lau (2011) reported mistrust of authorities on the part of some members of Aboriginal communities such that they may not seek disability services.

On the workforce side, recruitment to non-metropolitan therapy positions is difficult. Research into the allied health workforce in Australia by Keane et al. (2011), Lyle et al. (2007), and Smith, Cooper, Brown, Hemmings, and Greaves (2008) has indicated that therapists who were born, trained or had student placements, and/or had family living in rural areas were more likely to seek and remain in employment in rural or remote areas. Recruitment strategies to target this group via student placement scholarships, payment of relocation expenses, and rural internships have been somewhat successful (Keane et al., 2011). Nonetheless, these strategies target new graduates who are likely to require significant support and supervision to work in geographically and socially isolated settings with a client group with complex needs.

Retaining therapists in these settings is also problematic. Ongoing training, support, supervision and opportunities for career advancement were identified by Chisholm et al. (2011) and Keane et al. (2011) as factors likely to promote retention. On the other hand, the substantial travel often required by therapists working in rural and remote areas may act as a disincentive to prolonged employment in these settings. However, according to Moffatt and Eley (2011) and Lin, Goodale, Villanueva, and Spitz (2007), technology and trained, locally-

based therapy assistants may both reduce the travel required of therapists and improve service access for clients.

### **Therapy delivery models in rural and remote areas**

Currently, in order that few therapists cover vast geographic distances in rural and remote Australia, “hub and spoke models” of service delivery are employed (Battye & McTaggart, 2003; Veitch & Battye, 2008). Under these models, therapy teams are located in a “hub” and provide outreach services along “spokes” to clients living in more remote locations. For example, a therapist based in the inner regional NSW “hub” town of Dubbo (population approximately 40,000) may provide outreach twice a year to the very remote “spoke” Aboriginal community of Wilcannia. Providing this outreach service would entail a 1¾ hour flight followed by a 2-hour drive. Individual therapists may also live along spokes thereby bringing staff closer to the people who require the services, reducing travel time and costs, and increasing staff knowledge of and connection to the community. For example, a therapist may live in the outer regional town of Coonabarabran, provide outreach to the remote communities of Walgett and Brewarrina 2–3 hours’ drive north-west, and have their administrative “hub” 1½ hour’s drive south-west in Dubbo. Under this model the therapist is more centrally located for providing outreach services to the more remote communities than if she or he lived in Dubbo. As in the case of Dubbo, the hub is a centre large enough to support staff administratively and with professional development opportunities and collegial relationships (Battye & McTaggart, 2003).

A potential bi-product of delivering services in a hub and spoke model may be inequitable access for those at the extremities of the spokes. For therapists, dispersed service delivery models such as “hub and spoke,” along with agency divisions based on client level and type of disability, make it difficult to collaborate with other therapists in the local areas.

As team-based practice is a known retention factor for allied health professionals, the lack of opportunities to work in a team may impact on recruitment and retention of therapists (Doherty, 2007). It is under the hub and spoke models that the above problems with access and with therapist recruitment and retention have been found.

## **Conclusion**

Effective early intervention requires a workforce sufficient to see people in a timely manner, along with strategies to ensure that those living in rural and remote locations have access to therapy. Workforce and service access issues are therefore inter-related and point to the need for new service delivery models. New models may include employing, training and supporting a person in a local community as a therapy assistant who works under the direction of a “hub-based” therapist to deliver regular and timely intervention. Technology may also assist in addressing professional isolation among rural-based therapists with internet-based forms of mentoring for early career therapists, and the establishment of professional networks that facilitate therapist communication across metropolitan, rural, and remote areas.

NSW government policy advocates for early intervention and person-centred therapy services (New South Wales Government, 2002, 2006, 2007). While in keeping with best-practice principles, these policy goals must be translated on the ground in rural and remote areas. Innovation is required, and collaboration between rural and remote therapists, people with a disability and their carers, and researchers could provide opportunities to develop, implement, and evaluate collaborative new service delivery models that meet local needs across the disability sector.

**Note**

- 1 Based on the Australian Standard Geographical Classification Remoteness Area (DoctorConnect, n.d.).

## References

- Battye, K. M., & McTaggart, K. (2003). Development of a model for sustainable delivery of outreach allied health services to remote north-west Queensland, Australia. *Rural and Remote Health, 3*(3), 194 (online).
- Carpenter, B. (2007). The impetus for family-centred early childhood intervention. *Child: Care, Health and Development, 33*, 664–669. doi:10.1111/j.1365-2214.2007.00727.x
- Cheng, M. S., Clarke, A., Moore, T. D., & Lau, P. M. (2011). Making the connection: A qualitative study of brokerage in Aboriginal health in a metropolitan area of Victoria and a regional area of New South Wales. *Australian Health Review, 35*, 18–22. doi:10.1071/AH09809
- Chisholm, M., Russell, D., & Humphreys, J. (2011). Measuring rural allied health workforce turnover and retention: What are the patterns, determinants and costs? *The Australian Journal of Rural Health, 19*, 81–88. doi:10.1111/j.1440-1584.2011.01188.x
- Denham, L. A., & Shaddock, A. J. (2004). Recruitment and retention of rural allied health professionals in developmental disability services in New South Wales. *Australian Journal of Rural Health, 12*, 28–29. doi:10.1111/j.1440-1584.2004.00546.x
- DoctorConnect. (n.d.) *Australian Standard Geographical Classification - Remoteness Area (ASGC-RA)*. Retrieved October 20, 2011, from <http://www.doctorconnect.gov.au/internet/otd/publishing.nsf/content/locator>
- Doherty, S. R. (2007). Could we care for Amillia in rural Australia? *Rural and Remote Health, 7*(4), 768 (online).
- Keane, S., Smith, T., Lincoln, M., & Fisher, K. (2011). Survey of the rural allied health workforce in New South Wales to inform recruitment and retention. *The Australian Journal of Rural Health, 19*, 38–44. doi:10.1111/j.1440-1584.2010.01175.x



- Law, M. (2002). Participation in the occupations of everyday life. *The American Journal of Occupational Therapy, 56*, 640–649. doi:10.5014/ajot.56.6.640
- Lin, I., Goodale, B., Villanueva, K., & Spitz, S. (2007). Supporting an emerging workforce: Characteristics of rural and remote therapy assistants in Western Australia. *Australian Journal of Rural Health, 15*, 334–339. doi:10.1111/j.1440-1584.2007.00917.x
- Lyle, D., Klineberg, I., Taylor, S., Jolly, N., Fuller, J., & Canalese, J. (2007). Harnessing a University to address rural health workforce shortages in Australia. *Australian Journal of Rural Health, 15*, 227–233. doi:10.1111/j.1440-1584.2007.00895.x
- Moffatt, J. J., & Eley, D. S. (2011). Barriers to the up-take of telemedicine in Australia – a view from providers. *Rural and Remote Health, 11*(1), 1581 (online).
- New South Wales Government. (2002). *Living in the community: Putting children first: A policy for supporting children and young people with a disability and their families in NSW*. Sydney, Australia: Early Intervention and Coordination Unit, Department of Ageing, Disability and Home Care.
- New South Wales Government. (2006). *Stronger Together: A new direction for disability services in NSW 2006–2016*. Sydney, Australia: NSW Department of Ageing, Disability and Home Care.
- New South Wales Government. (2007). *Better Together: A new direction to make NSW Government services work better for people with a disability and their families 2007–2011*. Sydney, Australia: NSW Department of Ageing, Disability and Home Care.
- NSW Ombudsman. (2010). *Improving service delivery to Aboriginal people with a disability: A review of the implementation of ADHC's Aboriginal Policy Framework and Aboriginal Consultation Strategy*. Sydney, Australia: Author.
- Smith, T., Cooper, R., Brown, L., Hemmings, R., & Greaves, J. (2008). Profile of the rural allied health workforce in Northern New South Wales and comparison with previous

studies. *Australian Journal of Rural Health*, 16, 156–163. doi:10.1111/j.1440-1584.2008.00966.x

Steering Committee for the Review of Government Service Provision (SCRGSP). (2011).

*Overcoming Indigenous disadvantage: Key indicators 2011*. Canberra, ACT: Productivity Commission.

Thomaidis, L., Kaderoglou, E., Stefou, M., Damianou, S., & Bakoula, C. (2000). Does early intervention work? A controlled trial. *Infants and Young Children*, 12(3), 17–22. doi:10.1097/00001163-200012030-00005

Veitch, C., & Battye, K. M. (2008). Rural health workforce: Planning and development for recruitment and retention. In S.-T. Liaw & S. I. Kilpatrick (Eds.), *A textbook of Australian rural health* (pp. 113–127). Canberra, ACT: Australian Rural Health Education Network.

Winterton, R., & Warburton, J. (2011). Models of care for socially isolated older rural carers: Barriers and implications. *Rural and Remote Health*, 11, 1678 (online).

Ziviani, J., Feeney, R., Rodger, S., & Watter, P. (2010). Systematic review of early intervention programmes for children from birth to nine years who have a physical disability. *Australian Occupational Therapy Journal*, 57, 210–223. doi:10.1111/j.1440-1630.2010.00850.x