



Promising Practice Profiles

Project title	Rural Beginnings Project
Project practice	Hub and spoke model of service delivery to rural communities
Project undertaken by	Kurrajong Early Intervention Service 2 Grampian Place Wagga Wagga NSW 2650
Start date	January 2005
Focal areas	<ul style="list-style-type: none">• Healthy young families• Creating child friendly communities• Supporting families and parents• Early learning and care
Program	Invest to Grow
Issue	<p>The evidence clearly states that if a child has a disability or delay in their development, early intervention and providing the necessary therapy and education in the first few years will help the child reach their maximum potential. It is also evident that there are limited early intervention services for children with disabilities in rural areas. Therapists regard disability as a specialist area, requiring peer support, training and supervision. Consequently, recruiting and retaining therapists in rural areas is difficult. As a result, rural babies and young children with a disability or developmental delay do not receive therapy, or their families are required to travel at considerable expense and inconvenience to larger rural centres or metropolitan areas. This lack of access to specialist disability services results in a loss of critical developmental skills at this important developmental period.</p>
Program context	<p><i>Rural Beginnings</i> is an expansion of Kurrajong Waratah's innovative and successful early intervention and prevention model delivered through their Kurrajong Early Intervention Service (KEIS).</p> <p>The <i>Rural Beginnings</i> project assists families in nine local government areas in the Riverina Region of New South Wales. It covers a total population of approximately 5,000 children aged between birth and school age within a catchment population of approximately 45,000 people. The project is committed to providing quality early childhood intervention services to around 60-70 families in rural areas per annum.</p>
Practice description	<p>The Hub and Spoke model is used to deliver coordinated and inclusive services to rural communities. The 'hub' of the service is located in a major regional centre and the services into rural areas ('spokes') into the local rural towns themselves. The key elements of the model are summarised below:</p> <p>Developing hub and spokes (satellite service locations)</p>

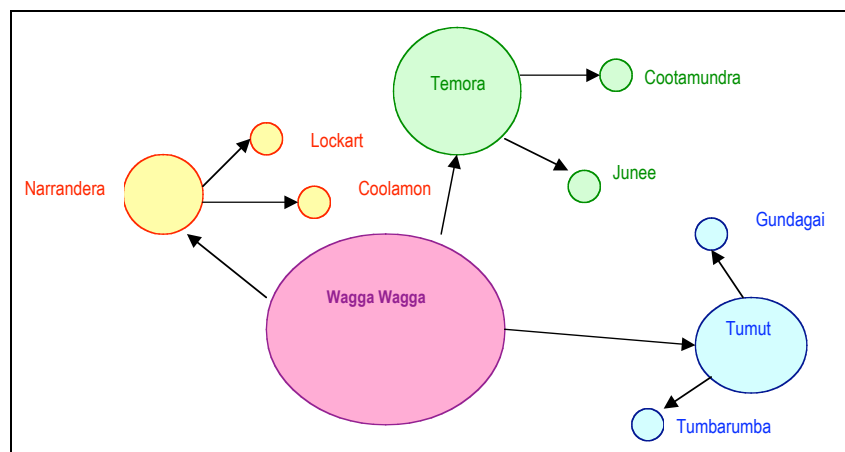
Rural Beginnings has established satellite service locations within sub-regional population centres on main transport corridors to effectively outreach to the maximum number of families. This area reaches approximately 100 kilometres from Wagga Wagga to the West, North and East. The outreach teams are able to provide service to children and their families from these operational sites. Services are provided at the families' local communities and in some cases in their own homes, significantly reducing their need for travel and stress/disruption to the children and their families.

Nine local government areas (LGAs) have been divided into three main service areas:

- Tumut, Gundagai, Tumbarumba LGAs;
- Cootamundra, Junee, Temora LGAs; and
- Coolamon, Narrandera and Lockhart LGAs.

Two service centres have been established in two of the main outreach areas to act as smaller 'hubs' to provide a base from which to operate. These smaller hubs at Temora and Tumut have an office, while in Narrandera the service operates within a pre-school. The community can identify with the local centres (hubs) and refer families easily to the hub. The hub acts as an information base for the area either taking on the referral or referring to other services as appropriate.

Wagga Wagga is the resource centre for staff as well as the base of supervision, management and program development. The centre is located in a big regional city so it has the facilities and amenities that a larger city can provide making it attractive for employees. Central services are also available for clients with specific needs that cannot be outreached, or for 'catch up' service provision, if an outreach visit has been missed.



Delivering via teams

Separate teams service each of the three main service areas. They are located in a hub centre and travel out to the smaller rural communities to provide services. Each team comprises a Special Educator, a Speech Pathologist, a Physiotherapist, and Occupational Therapist.

Wagga Wagga is the resource centre for all staff and also has the biggest central team to service the Wagga LGA. A Family Support Resource Unit (Psychologist and Family Support Workers) operates across all the teams working through family issues, coordinating services and linking families in local services within their local community.

Families receive a program consisting of early learning groups, individual sessions at either home or at the centres depending on the needs of the

individual child and their families. The team also works closely with other local early childhood settings to coordinate the programs for the child and family.

Providing regular supervision and support for all staff

The 'hub and spoke' structure improves the recruitment and retention of therapy staff in rural areas by centring the team in a regional centre and employing qualified senior therapists across speech pathology, occupational therapy and physiotherapy disciplines in the 'hub'. These senior therapists, apart from carrying a caseload, provide peer support, training and supervision for new graduates and other therapists who travel out to communities to provide services. Peer support and professional development for therapists occurs individually, on a therapy discipline basis, as well as within and across the therapy teams.

Providing professional development and mentoring to other providers

Rural Beginnings provides support, mentoring, resources and training to other professional service providers including smaller early childhood intervention centres and generalist early childhood services in the area. Specialist workshops such as Autism, Behaviour Management and Signing workshops are provided for the benefit of discipline specific workshops on topics such as: splints, seating and visual communication.

Service providers such as early childhood settings and schools have linked with KEIS and rely on the support from the *Rural Beginnings* team to successfully transition children with disabilities into mainstream educational settings and also to more specialised settings if this is the parent's choice.

As part of the Rural Beginnings project, KEIS has written a book entitled *Team Around the Child: Working together in early childhood intervention* to support other early childhood professionals, particularly those professionals operating in rural and isolated areas around Australia.

Research base

Recruitment and retention issues for health professionals in rural areas

The 2006 National Services for Australian Rural and Remote Allied Health (SARRAH) Conference focussed on the growing crisis in the lack of allied health professionals who are coming to the country to practice. Peter Bothams, the key note speaker stated: *'It is no secret that recruitment and retention of allied health professionals to rural and remote areas is one of the biggest challenges faced by health organisations across the country'*.

Families of children with disabilities or developmental delays living in rural areas have, in the main part, had limited access to therapy and family support at a crucial time in their child's lives. Services were either not available locally, or were at best spasmodic, with attraction and retention of therapists in rural areas being a major difficulty. A Review of Therapy Services for the NSW Department of Ageing and Disability, by Maher and Associates (1998), noted that in the field of early childhood intervention *"[m]ajor gaps in services exist, particularly in rural areas, due to difficulties in recruitment and retention"* (p.18). A recent review of early intervention in Australia by Kemp and Hayes (2005) reinforced this view, citing a range of research evidencing gaps in the services available in rural and remote areas and particular difficulty recruiting professionals in physio-, speech, and occupational therapy. The writers concluded that although Australia has many examples of exemplary best practice in early intervention, access to best practice is not universal.

Another major concern for the provision of early intervention is the lack of adequately trained personnel working in the area of early intervention (Kemp and Hayes, 2005). Therapists themselves regard disability as a specialist area and feel that they lack peer support and professional development to

support them in their role (Maher et al., 1998. p.32).

Undergraduate education tends to be a single discipline model setting practitioners up to work as 'islands'. Whilst the ability to work independently and unsupervised are an essential part of professional expertise, therapists working in early childhood intervention services often have difficulty in:

- viewing families as equal partners in the therapeutic process to empower parents with their knowledge;
- working collaboratively with other disciplines in an interactive team context;
- seeing components of the development of the child in a holistic way, understanding how a delay or deficit in one area of development will affect development in other areas; and
- viewing the child within the context of the family and of the wider community (Maher,1993).

Mary-Beth Bruder (2000), an American researcher, also sees the lack of effective training models as a barrier to the adoption of family centred early intervention and highlights the need for interdisciplinary or inter professional models of training.

This evidence suggests that rural recruitment and retention of health professionals needs specific and targeted strategies. Some of these will need to address the levels of skills, confidence and appropriate work practices specific to the field of early childhood intervention.

Hub and spoke model

The 'Hub and Spoke' model is "a two-tiered approach consisting of local service delivery ("spoke") supported by a centralised service ("hub")" (McLennan et al, 2006: 69). There are a number of documented examples of a hub and spoke model as a means of delivering health or allied health services across large regional and remote areas both overseas and in Australia (McLennan et al, 2006; Vickers, 2006; Battye & McTaggart, 2003; McKinley et al, 2002). Vickers (2006) and McLennan et al (2006) describe a hub and spoke model of speech therapy delivery in rural Victoria. These papers report on an evaluation of the model, identifying critical ingredients to include: the ability of therapists to work in partnership to delivery services; the adequacy of the provision of training, support and a clear model of work for staff especially in the early stages of employment. Vickers (2006) reports that clinicians identify the positives of the model as increased skill development and the combination of roles undertaken, whilst negatives relate to the amount of travel and difficulties understanding the role in the first instance. McLennan et al (2006) comment on the general lack of evaluation of hub and spoke models but report an increased service delivery along with continuous full employment in clinical positions within their own model.

Outcomes	<ul style="list-style-type: none">▪ Provision of early intervention services in rural communities that are equitable with larger regional centres▪ Increased staff recruitment and retention into the delivery of early intervention services in rural communities▪ Effective management of workforce gaps▪ Economic and social benefits to families as a result of local provision of service in rural communities
Evidence of	Equitable provision of early intervention services in rural communities

outcomes

Three early intervention teams were in place by February 2005 to provide a quality service to the families in nine Local Government Areas. These families and children are receiving essential therapy, education and family support delivered in their local community. Over 120 children and their families received an early intervention service under the Rural Beginnings Project as of June, 2007 which is already the target for the Rural Beginnings Project to be reached by June 2008.

Ken Murphy, General Manager of Narrandera Shire Council affirms an increase in local servicing that overcomes the need for families to travel 200kms to nearest centre, and that is consistent in delivery rather than spasmodic (as with the prior history of service provision).

There is evidence to suggest that levels of service outcomes in the *Rural Beginnings* project are equitable with those in the larger centre in Wagga Wagga. A generic outcome measurement tool based on Goal Attainment Scaling was used to assess the progress each child and family makes against the yearly goals set by the family. In February 2007, the KEIS team conducted structured interviews with a combined total of 96 Wagga Wagga and Rural Beginnings families to assess the families' progress against the goals they had set for themselves and their child in February 2006. Scores were collated and standardised t-scores were calculated to allow comparisons across locations. Overall, there appeared to be similar levels of outcome attainment across services, with the *Rural Beginnings* families, achieving significantly higher scores in two categories (Alston et al, 2007).

Increased staff recruitment and retention

The 'hub and spoke' model shows evidence of attracting and retaining allied health staff in rural areas. The *Rural Beginnings* project successfully recruited in eight weeks, six part time therapists (experienced and new graduates). Therapists indicated that they were attracted to the *Rural Beginnings* project by the program's family centred approach to early intervention, the peer support and mentoring available, the opportunity to work in a transdisciplinary team, and KEIS' professional development programs. KEIS has good retention rates for staff with all therapists, educators and family support workers (except one physiotherapist who moved away from the area) remaining with the project since its commencement. However, the project has had less success in recruiting staff in the satellite communities (Alston et al, 2007). This has resulted in staff from Wagga Wagga supplementing the outreach teams and visiting each location every week. Due to limited availability of some professionals, team members rotate visits on a fortnightly or monthly basis to each hub.

The independent evaluation conducted by Charles Sturt University also found that therapists at KEIS enjoyed working in a transdisciplinary team.

'Staff identify that it is working in the hub and spoke model that is central to their continued satisfaction. The model allows for a broader network of peer and collegiate support than provided for in most other multi-disciplinary teams, as well as widening substantially, their experience and knowledge base. Staff also identify that the trans-disciplinary focus upon the client enables professional supervision within the discipline to be more grounded in the contextual needs of the individual and the holistic service environment than if it occurred in disciplinary isolation' (Alston et al, 2007). However, the evaluation also found an emerging set of staff concerns about work/life balance related to the demands of overtime and travel.

Effective management of workforce gaps

The team based, transdisciplinary approach is demonstrated to be helpful in overcoming difficulties during recruitment lulls at KEIS. Specifically, a void in specialists in a particular area was addressed by one team member skilling up members of another discipline ('multiskilling') to be able to take on some

parts of their role in their absence ('role release'). This enabled the *Rural Beginnings* team to continue functioning effectively when the service had a skills shortage in a specific discipline.

Economic and social benefits to families as a result of local provision of service in rural communities

The external evaluation conducted by Charles Sturt University identified that rural communities experienced both economic and social benefits from this model of practice. *'As this project has occurred at a time of significant increases in the cost of fuel and economic hardship associated with drought, there have been significant economic and social benefits for the families who would have been required previously to travel to Wagga Wagga for service usually on no more than a monthly basis. This change in circumstance means that not only are parents/carers less stressed, but that intervention and monitoring is occurring more frequently for the children. Parents report a significant favourable impact upon their own stress levels'*. (Alston et al, 2007). Written parent testimonies also record benefits for the families and children, including a reduction in travel time, reduction in costs of travel, reduced negative impacts of travel on the child (i.e. exhaustion), and an increase in the standard of service received.

Policy analysis

Rural Beginnings has expanded the ready-established early intervention and prevention program, KEIS, and has demonstrated improved outcomes for young children with a disability or delays in their development, contributed to the Australian evidence base about what works in early intervention in early childhood, and has developed tools and resource materials for use by families, professionals and communities supporting families and young children with a disability or developmental delay.

The hub and spoke model has specifically responded to documented workforce and health delivery needs in rural communities. The effectiveness of the approach has been independently evaluated as effective both in improving outcomes for children and families, and in the service development, particularly in the recruitment, retention and development of staff in a rural area. Resources that have come out of the project, particularly the 2007 publication *Team Around the Child: Working together in early childhood intervention*, as well as various conference papers, provide an evidence base about what works to a wide audience, provide the capacity for others to learn about transdisciplinary approaches, and create the scope for the approach to be employed more widely.

Project evaluations

The *Rural Beginnings* project has been evaluated by the Charles Sturt University's Centre for Rural Social Research under the leadership of Professor Margaret Alston. An interim report was released in 2007 reflecting an evaluation at a three quarters point of project duration.

Project related publications

Davies, S. (2005) 'Rural Beginnings Project' *The Bulletin*, The Australian Government's Stronger Families and Communities Strategy, No. 7 Spring.

Davies, S., Harrison, J. & Luscombe, D. (2006) 'A Transdisciplinary Team Approach – Combining Practice with Theory in the Australian Context' presented at *Australian Early Childhood Intervention Conference*.

Davies, S. & Harrison, J. (2006). 'The Rural Beginnings Project: Innovations in Early Childhood Intervention'. *Early Links, Musec Early Intervention Network*, Vol. 11, No. 1, June.

Davies, S. (2006). 'An Innovative Model to Attract and Retain Allied Health Professionals in Rural Areas' presented at *SARRAH Conference (National Conference for Rural and Remote Allied Health)*, September.

Davies, S. (2007). *Team Around the Child: Working together in early childhood intervention*. New South Wales: Kurrajong Waratah.

Davies, S. (2007). 'Team Around the Child: Relating practice to research and theory'. Keynote address, Victorian Early Childhood Intervention Association Conference, November.

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Battye, K. & McTaggart, K. (2003). Development of a model for sustainable delivery of outreach allied health services in remote north-west Queensland, Australia. *Rural Remote Health*, 3, (3): 194.

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Kemp, C. & Hayes, A. (2005). Early intervention in Australia. The challenge of systems implementation. In Guralnick, M.J. (Ed). *The Developmental Systems Approach to Early Intervention*. Baltimore, Maryland: Paul H Brookes Publishing Co,

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Vickers, K. (2006). Developing regional communication services – a community capacity building approach. Paper presented at *Building Bridges Crossing Borders The National SARRAH Conference (National Conference for Rural and Remote Allied Health)*. Albury. Viewed at <http://www.ruralhealth.org.au/conferences/sarra2006/Program.htm> on 2 December 2007.

Contact

Sue Davies

Project Manager

Ph. (02) 692 62466

sdavies@kurrajongwaratah.org.au

Website

<http://www.kurrajongwaratah.org.au>

**More
information**

More information on the Rural Beginnings Project and *Promising Practice Profiles* can be found on the PPP pages of the Communities and Families Clearinghouse of Australia website at

<http://www.aifs.gov.au/cafca/ppp/ppp.html>.

**Communities and Families Clearinghouse Australia**

Australian Institute of Family Studies

Level 20, 485 La Trobe Street, Melbourne Vic 3000.

Tel: (03) 9214 7888. Fax: (03) 9214 7839.

Email: cafca@aifs.gov.au

www.aifs.gov.au/cafca