

# Guidelines for Networking of Paediatric Services in NSW



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# Contents

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<b>1. Background</b> .....	1	<b>5. Selected speciality services</b> .....	13
<b>2. Networking principles for paediatric services</b> .....	3	<b>6. Conclusion</b> .....	14
<b>3. Paediatric clinical practice guidelines</b> .....	5	<b>7. References</b> .....	15
<b>4. Paediatric networking in NSW</b> .....	6	<b>Appendices</b>	
Greater metropolitan networks .....	7	Appendix A – Paediatric Services Networking Steering Group .....	17
<i>Current status of greater metropolitan networks</i> .....	8	Appendix B – Rural network partners .....	18
Rural networking .....	9	Appendix C – Metropolitan network partners.....	19
<i>Rural networking planning principles</i> .....	10	Appendix D – Proposed Child and Adolescent Mental Health Services Networks (CAMHSNET) .....	20
<i>Progressing rural networks</i> .....	10		
Further developments.....	12		



Paediatric services in NSW are among the best in the world. The Children's Hospital at Westmead (CHW) and Sydney Children's Hospital, Randwick (SCH) are national and world leaders in the treatment of children and health research. John Hunter Children's Hospital (JHCH) has provided excellent services for children in northern NSW for the last decade, and continues to develop many clinical and research initiatives. The relocation of the Royal Alexandra Hospital for Children to Westmead involved significant examination of the existing and proposed referral patterns for children's services. This was accompanied by strong consultation with clinicians and consumers about the service delivery implications of a network of services.

CHW played a lead role in promoting the benefits of a networked approach subsequent to the move to Westmead. In 1997, it commenced a process of planning involving clinicians and service planners in the Greater West of Sydney. In addition, the NSW Department of Health brought together clinicians and planners from each of the children's hospitals and from metropolitan and rural health services to look at the issue of networking of services. This process considered how networked services would enhance quality care, provide strategies to improve access to specialist services, and clarify the future direction for paediatric services in NSW.

A key recommendation from this process was the development of networks of paediatric services. As networking develops, so too will even greater consultation and participation of consumers, general practitioners, nurses, allied health professionals, medical specialists and other local health services.

Paediatric networking will ensure high quality clinical care as close as possible to home for all children. The focus will be on a shared approach to service development with common guidelines for care, accompanied by staff training and development.

This approach will ultimately lead to significant benefits to patients, their carers and clinicians alike. These benefits will be delivered in line with the directions outlined in the *NSW Government's Action Plan for Health (GAP)*.

Networking will clearly link each local paediatric unit with one or two of the specialist children's hospitals in NSW. The quality of care available locally will be improved by the support available from the children's hospitals in terms of specialist clinical outreach services, shared treatment protocols and guidelines, staff rotation between services, professional training and development opportunities, support in times of peak demand and smoother transfer and referral of patients between services. At the same time, more children accessing services locally will mean that the children's hospitals can further develop specialist services for children.

The process of paediatric networking extends beyond developing links between hospitals and must include GPs, private paediatricians and allied health service providers, community health and primary care services, early childhood services and other government and non government agencies with a responsibility for children's health and welfare.

The GAP has placed renewed emphasis on the integration of service provision across the primary care and acute hospital sectors and the appropriate networking of services to ensure access to high quality care, particularly for rural NSW communities.

The Paediatric Services Networking Steering Committee (see Appendix A), chaired by the Director-General, has overseen the development of the guidelines. The guidelines form part of a range of strategies that promote quality and integrated service delivery. The guidelines were developed over an eighteen month period and involved extensive consultation with the range of clinicians and service providers in this area. The Department wishes to extend its appreciation to all those involved in this process.

NSW Health places a special importance on the provision of services to children. The definition of child within this planning document is any person under the age of 16 years, neonates excluded\*.

It should be recognised that the borderline between childhood and adulthood is not distinct and in some instances, applying policies for children to 13-14 year old adolescents may be inappropriate. Whilst aiming to provide the best possible care as close as possible to where children live, there is a recognition that not all services can be provided everywhere.

Previous planning documents have provided clear statements to assist in the appropriate development of services. These include:

- *Specialist Paediatric Services in NSW – Strategic Plan to 2001*, NSW Health, 2001
- *Guide to Role Delineation of Health Services*, NSW Health, 2002
- *Guidelines for the Hospitalisation of Children*, NSW Health, 1998
- *A Framework for Managing the Quality of Health Services in NSW*, NSW Health, 1999

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\*The networking of neonatal services in NSW is coordinated by the NSW Pregnancy and Newborn Services Network (PSN). PSN develops, plans, coordinates and reviews perinatal care in NSW, through consultation with relevant stakeholders. NSW Health will ensure the coordination and integration of networked paediatric and neonatal services.

# Networking principles for paediatric services

# 2

*A Framework for Managing the Quality of Health Services in NSW* focussed on six dimensions of quality care:

1. Safety
2. Consumer participation
3. Effectiveness
4. Access
5. Appropriateness
6. Efficiency.

These dimensions of quality form the basis of service planning. In relation to networking it translates into the following principles:

- Maintaining the child in the family environment; noting the importance and primary role of the general practitioner and other ambulatory and outpatient specialist services in reducing the need and likelihood of admission and length of time children spend in hospital.
- Importance of primary and secondary prevention strategies that include early detection of children at risk, health education and health promotion.
- Supporting parents in developing parenting skills which are particularly important in the early childhood years through programs such as the 'Families First Program', and others developed through a whole of Government approach.
- Promoting an integrated model of service delivery through the development of integrated service networks and common protocols.
- Providing a mechanism to ensure the involvement of consumers, local clinicians, nurses, allied health and other children's service providers in service planning.

In developing networks, the following considerations are necessary when planning services across the networks:

- The goal of networking of services is to improve quality of care to children, not to be prescriptive about directing clinician referrals. Clinicians and patients will continue to be free to choose the most appropriate site for care.
- General paediatric services in hospitals should achieve appropriate service distribution to match population, whilst ensuring efficient use of subspecialist referral services by consolidated networking between the three specialist paediatric hospitals and area paediatric services.
- Ambulatory care services provide services to children in a non inpatient setting and these should be planned on a network-wide basis to maximise access.
- Adjusting for natural flows, areas should aim to be self sufficient in general paediatric medical and surgical services with effective integration of the various service components:
  - primary health care
    - GP
    - community child health and ambulatory care
  - district level care
    - level 3 and level 4 inpatient paediatric care
    - Emergency Departments
  - specialist paediatric care
    - ambulatory
    - inpatient.

- Decentralisation of services is desirable, where possible, and will be dependent on availability of appropriate staff, specialised equipment, service priorities and economic considerations.
- Subspecialty paediatric services should be centralised at the specialist paediatric hospitals (CHW, SCH and JHCH) providing services on an outreach basis, through service networks.
- Safety and quality of services should be promoted through the consistent application of current guidelines, standards and protocols. These ensure that no matter where a child is treated, there would be a common approach to treatment. This would assist healthcare providers, particularly those staff likely to move between services eg registrars, nurses, allied health. These common approaches would also give parents and carers certainty that treatment plans would be unlikely to alter significantly, even if the child required transfer to a different centre. Over time, greater confidence in local services should be achieved, thereby assisting with the next aim, to improve access.
- Access to services should be improved through the provision of specialist outpatient clinics at hospitals and community centres outside of the children's hospitals. At the same time, inpatient consultations could be provided. There is also the potential for new same day procedures to be provided at hospitals where the appropriate support services for children are currently available.
- The hospitalisation of children should be avoided unless necessary and the period of time children need to spend in hospital reduced, wherever possible. This will be possible through improved linkages with GPs, community health and other primary care services. Diagnosis should be quicker and treatments more effective through shared treatment guidelines and local access to the expertise of the children's hospitals.
- An appropriate population base for the ongoing development of services and optimum use of resources is desirable. From a strategic planning perspective, delineating a referral network for the children's hospitals allows for service planning to be undertaken in an environment which provides certainty around projections in population growth.
- The linkages between the children's hospitals and local hospitals should be promoted to enhance the confidence in the quality of clinical care provided locally. This approach could lead to display of a single logo across the network. At a small number of sites, more than one children's hospital may be identified as part of the network. The linkages should be accompanied by cross credentialling of staff, support to local services in staffing or managing the high and low periods of activity, and collaborative research.
- Network-wide training programs and opportunities for staff to rotate through the network should be provided. The networks should promote multidisciplinary approaches and enhance and maintain professional skills across inpatient and community services.

While it is acknowledged that the initial focus of the child health networks has been children with acute conditions requiring hospital-based services, the objective of the networks is to incorporate the continuum of care, encompassing issues of child health.

Networking of paediatric services across NSW hospitals will be assisted by the development of common clinical protocols or clinical practice guidelines. These will be developed by the clinicians of the three networks and will include treatment protocols for the following common paediatric conditions:

- upper respiratory tract infection/otitis media
- meningitis
- abdominal pain
- asthma
- head injury
- seizures
- fever, including febrile convulsions
- bronchiolitis
- croup
- gastroenteritis.

A Paediatric Guideline Development Working Party convened by NSW Health has overseen the development of these guidelines.

It is anticipated that the paediatric clinical practice guidelines will be completed in March 2003. The Paediatric Guideline Development Working Party has engaged stakeholders to develop a plan for the staged implementation of the guidelines commencing in 2003.

# 4

## Paediatric networking in NSW

Inpatient paediatric activity patterns in 1999/2000 indicate that there were around 128,000 admissions of children aged 1 month to 14 years 11 months to NSW public hospitals. Of these, there were around 50,000 admissions to one of the three major paediatric centres (CHW, SCH and JHCH). With around 65% of all paediatric care provided outside the three major centres and 27% undertaken in the rural NSW Area Health Services (AHS), it is important to ensure ongoing support of high quality paediatric care locally through networking of services (Table 1).

Following the opening of CHW, there was a significant shift in inpatient activity from surrounding paediatric inpatient units to this facility. Whilst this initially caused some concern about pressure on services at CHW and the impact on surrounding inpatient services in the long term, it is important to review more recent data.

**Table 1.** Activity at children's hospitals in NSW

	1996/97	1997/98	1998/99	1999/00
<b>CHW</b>	28,753	27,912	29,132	26,162
<b>SCH</b>	12,600	13,404	14,136	14,135
<b>JHCH</b>	5,992	6,167	6,125	5,483

Source: NSW Health Inpatient Statistics Collection

Over the same period, total number of paediatric inpatient separations across NSW declined by 3%. This may reflect a reclassification of some activity (eg chemotherapy) to an outpatient basis, but requires further analysis in light of a stable paediatric population and a service direction towards ambulatory rather than inpatient care.

Most of the surrounding inpatient units in the greater west of Sydney (WSAHS, SWSAHS, and WAHS) noted increased activity to those levels reached prior to the opening of CHW.

This suggests that the impact of the relocation of the children's hospital services to the west has started to reach equilibrium. However, to ensure

that the further development of paediatric services is based on the planning principles outlined, the establishment of paediatric metropolitan networks around the three children's hospitals have been endorsed.

Three networks are being established across NSW. Each of the networks includes one of the children's hospitals.

The development of individual networks has varied across the state.

Prior to the formalisation of the composition of the three networks, smaller networks were progressing predominantly local issues.

Although most networks commenced development in the metropolitan areas, the three networks have evolved to incorporate both metropolitan and rural partners.

The composition of the networks has been based on an assessment of current flow patterns for paediatric inpatient care, and planning for new services and clinical relationships. AHS flow analysis currently indicates a picture of mixed flows to the children's hospitals and further discussion with clinicians will be undertaken as implementation progresses.

Though local government area boundaries are used to map the population included within each of the networks, the inpatient component of the networks will be developed on the basis of hospital linkages. Non inpatient and primary care services linkages with local hospitals and the children's hospitals will be mainly geographic, reflecting local government and AHS boundaries.

This section of the guidelines covers the development pattern of the networks moving from the metropolitan to the rural Areas.

The composition of the three networks is indicated in table 2.

**Table 2.** NSW Child Health Networks

<b>The Greater Western Child Health Network</b>	<b>The Greater Eastern and Southern Child Health Network</b>	<b>The Hunter and Northern Child Health Network</b>
<ul style="list-style-type: none"> <li>• Central Coast AHS (Gosford LGA)</li> <li>• Central Sydney AHS (Ashfield, Burwood, Concord, Drummoyne, Strathfield LGAs)</li> <li>• Northern Sydney AHS (Hornsby, Kuring-gai, Hunters Hill, Ryde LGAs)</li> <li>• South Western Sydney AHS</li> <li>• Wentworth AHS</li> <li>• Western Sydney</li> <li>• Mid West AHS</li> <li>• Far West AHS</li> <li>• Northern Rivers</li> </ul> <p><b>Linked with The Children’s Hospital at Westmead</b></p>	<ul style="list-style-type: none"> <li>• Central Sydney AHS (Leichhardt, Canterbury, Marrickville, Sydney/ South Sydney LGAs)</li> <li>• Illawarra AHS</li> <li>• Northern Sydney AHS (Mosman, North Sydney, Manly, Pittwater, Willoughby, Warringah, Lane Cove LGAs)</li> <li>• South East Sydney AHS</li> <li>• South Western Sydney AHS (Liverpool Campbelltown, Bankstown Hospitals)</li> <li>• Southern AHS</li> <li>• Macquarie AHS</li> <li>• Greater Murray AHS</li> <li>• Australian Capital Territory</li> </ul> <p><b>Linked with Sydney Children’s Hospital</b></p>	<ul style="list-style-type: none"> <li>• Central Coast AHS (Wyong LGA)</li> <li>• Hunter AHS</li> <li>• Mid North Coast AHS</li> <li>• New England AHS</li> </ul> <p><b>Linked with John Hunter Children’s Hospital</b></p>

## Greater metropolitan networks

The networking of hospitals reflect current relationships and some hospitals will be networked with two children’s hospitals. For example, though Campbelltown LGA lies within the Greater West Network, Campbelltown Hospital will be networked with both SCH and CHW. This reflects the clinical and training linkages that currently exist. Other hospitals, though networked with a single children’s hospital, may have clinical and/or triage linkages with another children’s hospital. Over time, however, it is expected that greater alignment with one children’s hospital will occur as the networks develop, as the respective clinicians change and new appointments are made. A map showing the network linkages between hospitals in the Greater Metropolitan Area and the children’s hospitals is presented in Appendix C.

Each of the networks will be clustered around the three children’s hospitals. The initial focus of service networking will be affiliation of each hospital that has a designated paediatric inpatient unit and/or paediatric ambulatory care service with a children’s hospital. Networking will then extend to include paediatric primary and community care services. The networks acknowledge these historical flows and incorporate them in the first stages of the networks’ development.

Where an AHS is networked to more than one children’s hospital, the specific local government areas are indicated. When analysing flows of children from Central Coast, Central and Northern Sydney Area Health Services, it is apparent that LGA of residence is a key determinant on the pattern of flows to children’s hospitals.

This delineation is not as marked for SWSAHS, the flows to both CHW and SCH reflect the proximity to CHW, the need for tertiary services and strong clinical and academic links that exist between both of these children’s hospitals and hospitals within SWSAHS.

A Child and Adolescent Mental Health Services Network (CAHMSNET) is being developed as part of the mental health service planning process for NSW. The Mental Health Implementation Group oversees this process, under the NSW GAP.

The proposed networks (see Appendix D) for child and adolescent mental health are similar to those described in these Guidelines. The networks embrace inpatient and non-inpatient care.

The main difference with the generalist paediatric networks is in the core service. The children’s hospitals are a focal point for general and specialist medical and surgical service networks. Within the mental health networks, the emphasis will be on providing local

services with efficient access to specialist child and adolescent mental health support through network arrangements. This will increase the capacity for appropriate emergency assessment and management locally, complemented by agreed pathways for more specialised care in child and adolescent mental health inpatient units or paediatric hospitals for children and adolescents with more severe and complex problems. Together, the networking of generalist paediatric and child and adolescent mental health services will improve the availability and quality of local health services for children. These networks are being planned in an integrated approach and over time will be expanded to improve linkages with community based child and adolescent health services and other services for children.

### **Current status of greater metropolitan networks**

NSW Health has funded each of the networks to appoint coordinators to assist in consultation, liaison, negotiation and documentation required for the development and implementation of networks. Coordinators have now been appointed and are working across AHSs to progress network initiatives. Key clinicians and other stakeholders are being involved in the local planning processes. The coordinators will:

- ensure that a process for local consumer consultation occurs around any proposed changes implemented
- ensure that Emergency Department physicians, GPs, nursing and allied health staff and primary care service providers are involved in the planning and development of the network
- work with all Areas in the networks, and clinicians in the review of role delineation of paediatric services within the network
- identify services to be networked with a timetable for implementation and focussing on commencing with Level 4 inpatient units and Emergency Departments. This process will need to consider and reflect recommendations of the Emergency Department Clinical Implementation Group

- work with Areas to develop proposals to increase the accessibility of services through the reversal of patient flows for Level 4 paediatric services, where appropriate. This will be considered within the budget holder process and will require agreement by all network partners and identification of any future capital and recurrent funding implications
- work with Areas to develop a workforce plan across the network. The plan will focus particularly on paediatric registrar and nursing staff, to support the proposed role delineation of services
- coordinate activities across the network, seeking advice and direction from all CEO's of the network
- liaise with the Department and with other network coordinators to ensure an integrated approach to service planning and provision.

It will be expected that these activities will be progressively rolled out through 2001–2003. The Greater Western Network is the most advanced, with a significant amount of planning being undertaken as a result of the changes in activity patterns planned for, and arising from, the relocation of the inner city Royal Alexandra Hospital for Children in Camperdown to CHW.

Enhancement funding has been allocated to service initiatives that will enhance networking and improve local services. New services are funded for a period of two to three years while they develop and are evaluated. The current status of the metropolitan components of the networks' development can be summarised as follows:

#### **Greater Western Child Health Network**

Planning for the Greater Western Child Health Network is quite advanced with a significant amount of work undertaken in the last two years. A local Network Steering Committee has been formed and a feasibility study undertaken by consultants with detailed recommendations around the further steps required for implementation. There is commitment at a senior level at the CHW and within South Western Sydney, Western Sydney and Wentworth AHSs to participate in the networking arrangements. Work has commenced on the development of clinical guidelines and potential for 'affiliating' services on a trial basis.

### **Greater Eastern and Southern Child Health Network**

In the Greater Eastern and Southern Child Health Network preliminary discussions between SCH, South Eastern Sydney, Central Sydney, South Western Sydney and North Sydney AHSs have been held with SCH and support has been given for the network. Service planning has involved consultation with the local Division of General Practice and a consultant has recently been appointed to further explore specific issues for progress, in a similar fashion to the work undertaken in the greater west.

### **Hunter Child Health Network**

The Hunter Child Health Network is at a preliminary stage of planning. Within the Hunter AHS there are currently excellent links between other paediatric facilities and the JHCH.

Proposals for funding new services in the Greater Eastern and Southern Child Health Network and Hunter Child Health Network are currently being developed by the networks.

## **Rural networking**

There is currently a significant level of specialist outreach services provided by the children's hospitals to rural AHSs. These services, and the current referral patterns to the children's hospitals, have developed on a historical basis and do not always reflect a consistent pattern. The linkages that currently exist vary subject to clinical specialty and, in some instances, clinicians from both CHW and SCH may staff the same clinic on a rotational basis. Other services are provided individually with clinicians from a children's hospital travelling to the same rural area to provide services in different towns at different times. An analysis of the flows of paediatric inpatient activity from rural centres to the three children's hospitals reveals a mixed picture of referrals for inpatient care that reflects the current approach to outreach.

In summary, the historical developments of referral networks and outreach services has been characterised by:

- development of services on the basis of clinician relationships rather than partnership arrangements
- few documented formal arrangements between the children's hospital and rural services

- a significant amount of duplication in the service provided and a range of different clinicians from different hospitals attending the same area at different times. Developments that have in some cases followed, but in others not, the universities move to establish rural clinical schools.

Linkages with interstate services in the case of border areas in NSW. These include linkages between Far West AHS and Adelaide Children's Hospital, Northern Rivers AHS and the hospitals in Queensland, Southern AHS and hospitals in the Australia Capital Territory, and Greater Murray AHS and hospitals in Victoria. The networking of rural services builds upon the planning principles and objectives of metropolitan networking to provide statewide networks for paediatric care. A major aim of rural networking would be to ensure appropriate development of paediatric services, supported by the three children's hospitals in a way that results in improved self-sufficiency of paediatric services by the rural Areas for their local population and improved support for local clinicians.

The process of developing rural networks will be sensitive to the specific needs of rural communities and involve all stakeholders. The process will build on the benefits delivered to-date and will not threaten current outreach arrangements where both parties are satisfied that a high quality service is delivered which meets the needs of the rural community. This will require a clear statement by rural AHSs about their paediatric service requirements and preferred methods to meet those requirements.

In a children's hospital, these initiatives will require time to develop and will rely on the establishment of relationships between the network partners.

Preliminary advice from the rural Areas indicates that, whilst there is satisfaction with current arrangements in most instances, there are a number of clinical specialty areas where further benefits could be delivered through networking arrangements and specialist outreach services. Further developments in formalising network relationships should be on the basis of the following 'shared care principles'.

The rural networks have been defined through analysis of current flow patterns for inpatient care, traditional outreach arrangements, rural clinical school developments and university links and ensuring a population base to support future developments.

Given the historical nature of referral patterns, analysis of current flows indicates a mixed picture between most of the rural AHSs and specialist paediatric centres. Given the non exclusive nature of the networking proposal it will thus be necessary to introduce transitional arrangements with the aim for the majority of care to be undertaken by the paediatric network partner within a three to five year timeframe.

### **Rural networking planning principles**

An equal partnership approach will be taken in the future development of services, in order to ensure maximum benefits are realised. In this respect the establishment of a more formal relationship between the parties has commenced to ensure a high level of communication and trust. The implementation of service networking will be based on a thorough needs assessment which is formally documented.

The aims and outcomes to be achieved should be agreed and specific measures related to performance and delivery of these services collected as a baseline and periodically reassessed. It may be of benefit to establish formal service agreements between the parties involved, in which negotiation of deliverables and timeframes to achieve these are agreed in advance. This approach will require the rural Areas to very clearly identify the priority specialist and district level services to be addressed through these network arrangements.

Non-exclusive relationships between rural areas and metropolitan service providers are acknowledged. Current arrangements, built up over time, have led to the development of strong personal and professional links. It is not the aim of networks to disrupt current arrangements where significant benefits are being delivered. A formal networking framework will be a starting point for negotiation of all future development of outreach specialty services within a rural area and patient transfer for specialist inpatient

care. However, there may, on occasions, be a service need that can only be delivered through arrangements outside the networking framework. It would be envisaged that, over time, any new outreach services would be delivered within the network framework and further that some existing services may realign to the new network.

Over the past 18 months there have been significant developments with each of the universities in NSW negotiating with rural areas around the further establishment of rural clinical schools. A number of proposals have been put forward and any development of rural networking will take the recently announced arrangements into account.

As networking develops, the current interstate relationships that exist will also be more closely examined and recommendations developed by the respective networks.

### **Progressing rural networks**

In order to ensure that potential benefits of rural networking are fully realised, the following elements will be agreed by the parties during the process of implementation.

- To document and define referral processes, communication between network partners is essential, particularly for the transfer of clinical information. To add value to the clinical care of patients in rural centres, access to specialist advice after hours should also be facilitated. This could be established within the networks through formalising access to specialist advice via the oncall rosters provided in the children's hospitals. A timeframe should be agreed for this process.
- A clear mechanism of formal endorsement to ensure that, at management and service levels, there is knowledge of and agreement with the development of rural networking. Without both administrative and clinical support for the network, the changes necessary and benefits to be realised are unlikely to be delivered.
- An agreed process for the transfer and transport of patients when they are in need of care in a specialist paediatric facility.

- An important element of any networking would be to establish specialist outreach services. These would be developed on the basis of need and would have a number of components. The conduct of special outreach clinics on a periodic basis would ensure improved access to subspecialty paediatric advice for rural families. In addition:
  - inpatient consultations could be provided in person at the time of an outreach visit and opportunities for onsite formal education through either case presentation or discussion on a specific topic could be provided
  - through the establishment of a personal relationship between the clinicians over time, consultation by telephone or telemedicine links between visits would also be improved
  - telemedicine and other IT initiatives should be used to support linkages and provide the opportunity to link smaller rural facilities with a children's hospital for advanced diagnostics, clinical advice and ongoing professional education
  - ultimately it may be possible for agreement to be reached for the provision of same day procedures on outreach visits. These could be performed, for example on the first day of the visit with an overnight stay in the town followed by outpatient consultation and follow-up on the day following the procedure. Any developments in this area need to be handled sensitively with extensive consultation with local clinicians. The aim would be to upskill rather than deskill clinicians based locally. It would be important to link with current emergency/critical care networks.

Enhancement of rural outreach services will require a strategy which incorporates resource implications. Agreement will need to be reached between partners involved on resources required and the source of these resources for establishment of services.

New initiatives, such as the Commonwealth Medical Specialist Outreach Assistance Program (MSOAP), may offer a number of opportunities for enhancing outreach services. Specific services may be targeted for flow reversal through the budget holding process.

It will be necessary to ensure that any specialist clinicians providing services on an outreach basis are supported by the appropriate arrangements. This would require the formal cross appointment of clinicians to rural areas with a delineation of clinical privileges, particularly where it is agreed that procedures will be performed. Any employment would be on the basis of agreement to participate in clinical quality activities within the rural Areas.

These clinical service networks are consistent with recent discussions concerning postgraduate medical training in NSW. In particular, the postgraduate training network model, which would see training links across rural and metropolitan AHSs, fits well with the concept of clinical service networking.

The perceived benefits of postgraduate training networks are that they:

- provide a mechanism for greater collaboration among stakeholder groups (AHSs, colleges, hospitals, clinician trainers, and trainees)
- enable capacity building and the potential to provide a diverse and high quality training experience
- facilitate pooling of training resources
- support the training networks that are already operating in some specialties
- provide an accountability mechanism for public investment in postgraduate medical training if networks are required to report on agreed indicators of training quality and outcome.

In addition, networking will facilitate opportunities for registrar placement in rural and community training positions, a major aim of the commonwealth and the colleges.

## Further developments

The successful implementation of networks will have the potential for shifts in the current flow of paediatric inpatient activities between areas. This is supported, as one of the aims of networking is to enhance the provision of services locally, where appropriate, for paediatric inpatient care. Budget holding and a model for costing the value of paediatric inpatient care are mechanisms which will ensure that resources follow any change in the pattern of paediatric inpatient activity.

The implementation of metropolitan networking, particularly the introduction of new Level 3 services focussing on an ambulatory care model, may have capital implications. To enable the effective introduction of the network model with delineated services, a number of the hospitals may need alterations to their physical arrangement to enable effective use of staff time/skill. The extent of investment required in this regard will be investigated, following decisions about the role of each facility in the network.

Similarly, the recurrent costs of changes to service configurations and patient flows will need to be monitored; this is to ensure that funds are available to meet these changes. The results of the *1999/2000 NSW Paediatric Cost Study* and the *2001 National Cost Study* have provided the basis to cost the value of paediatric care provided in specialist children's hospitals and paediatric units in local hospitals.

The purpose of metropolitan networking is not to increase the volume of inpatient activity, but to ensure that projected activity is provided in the most appropriate, accessible and cost efficient setting.

Selected Specialty Services Working Group (Paediatrics) was convened to review the provision of low volume, high cost and complex specialty paediatric services which generally require readily available specialist paediatric clinical support and emergency back-up. The working group has already made recommendations to the Paediatric Networking Committee on many services including:

- liver transplantation
- severe burns
- trauma
- neurosurgery
- renal transplantation
- pancreas transplantation
- cardiac procedures.

The working group will be reconvened in 2003 to progress the networking of high level tertiary, statewide and selected specialty services.

Clinical Issues such as home ventilation will also be considered by the group.

This group will particularly consider access to these specialty services for rural people. The need to clarify referral mechanisms where these services might not be provided at all sites will also be addressed.

# 6

## Conclusion

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The outcome of paediatric networking will be to ensure high quality clinical care as close as possible to home for all children, wherever possible. Network coordinators have developed implementation plans, in collaboration with AHSs and the children's hospitals, and commenced implementation on a rolling basis from 1 July 2001.

Currently enhancement funding has been provided for approximately 50 new initiatives throughout NSW. Planning for the next funding round is currently being undertaken by the networks and will be allocated in 2003.

The Paediatric Networking Steering Group will continue to monitor and advise on the progress of networks and the implementation of clinical practice guidelines in NSW.

# References

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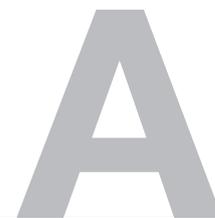
*Guidelines for the Hospitalisation of Children 1997*, NSW Health

*A Framework for Managing the Quality of Health Services in NSW 1999*, NSW Health.

*Costing Kid's Care: An investigation into cost differentials for paediatric patients*. Children's Hospitals Australia. August 2001.



# Appendix A – Paediatric Services Networking Steering Group



Ms Robyn Kruk	Director General (Chair)
Ms Jeanette Allen	Minister's Office
Prof Katherine McGrath	CEO – Hunter AHS
Ms Kate Rawlings	Director – Children and Youth Health Network (until May 2002)
Prof Kim Oates	CEO – Children's Hospital at Westmead
Ms Jenny Jarvis	Director of Nursing – Children's Hospital at Westmead (from December 2001)
Ms Deb Green	CEO – South Eastern Sydney AHS
Prof Les White	Sydney Children's Hospital
Prof Kerry Goulston	Greater Metropolitan Services Implementation Group
Dr. Tony O'Connell	Children's Hospital at Westmead
Dr Barry Duffy	Sydney Children's Hospital
Prof John Boulton	Wentworth Area Health Service (until October 2001)
Ms Maya Drum	Wentworth Area Health Service (from December 2001)
Ms Irene Hancock	Australian Association for the Welfare of Child Health Inc. (from Sept. 2001)
Dr Nigel Lyons	Hunter Area Health Service (until June 2001)
Ms Leanne Crittenden	Hunter and Northern Child Health Network Coordinator (from March 2002)
Ms Maureen Fitzpatrick	Greater Western Child Health Network Coordinator (from March 2002)
Ms Judy Lissing	Greater Eastern and Southern Child Health Network Coordinator (from March 2002)
Dr Mary Burke	Rural Paediatrician (from December 2001)
Ms Annie Dullow	Clinical Nurse Representative (from March 2002)
Dr Susan Piper	Level 4 Paediatric Unit Representative (from March 2002)
Dr Elisabeth Murphy	Primary Health and Community Care Branch
Ms Kathy Meleady	Statewide Services Development Branch
Dr Steevie Chan	Statewide Services Development Branch
Mr Shane Rendalls	Statewide Services Development Branch
Mr Bart Cavalletto	Statewide Services Development Branch

*Note: Mr Michael Reid chaired the steering group (until October 2001).*

# B

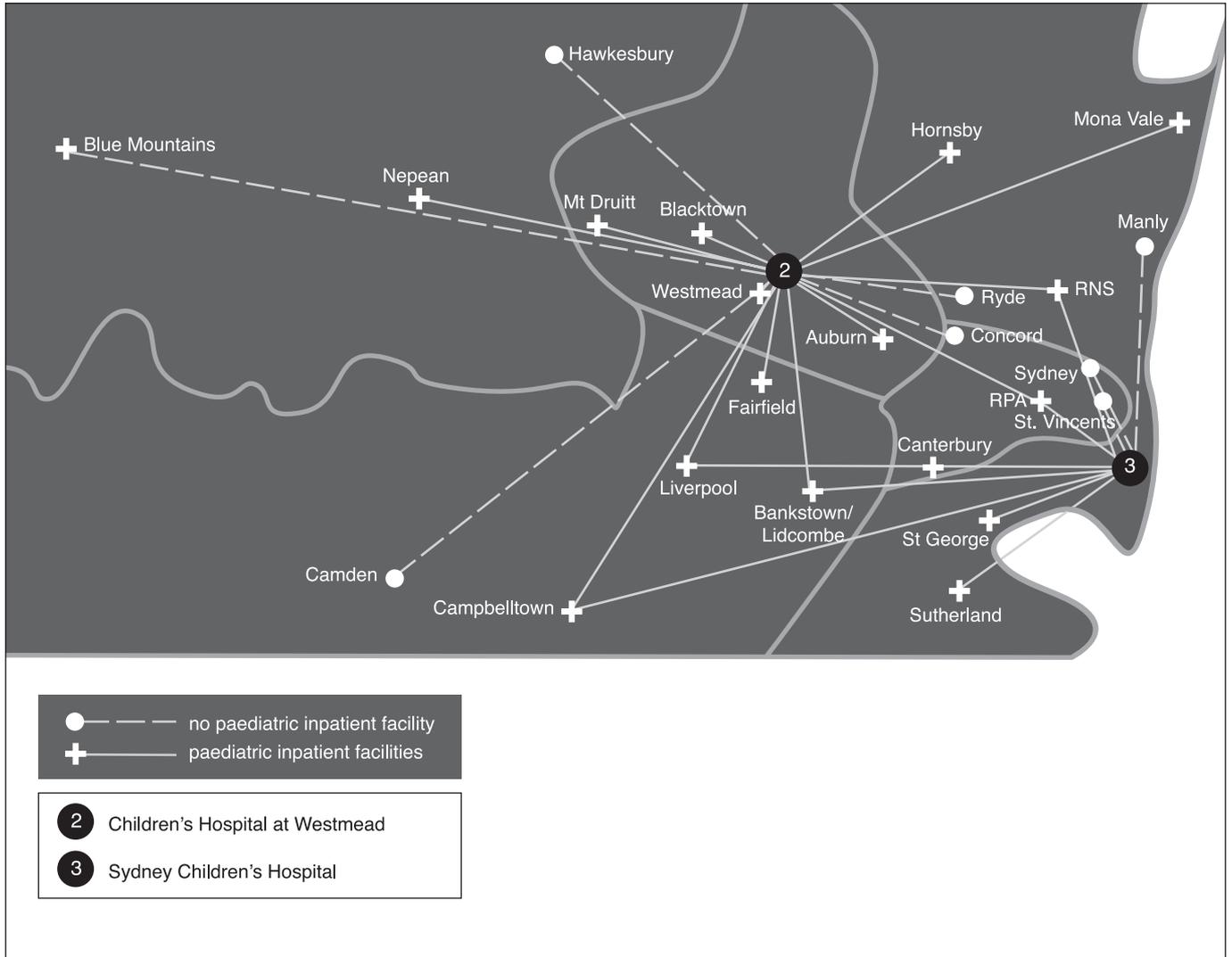
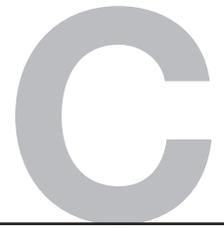
## Appendix B – Rural network partners



Hospitals with more than 1000 paediatric separations per annum. Except Broken Hill Hospital which, as the major hospital in Far West Area Health Service, is included.

# Appendix C

## – Metropolitan network partners



# D

## Appendix D – Proposed Child and Adolescent Mental Health Services Networks (CAMHSNET)

The Western Network	The Southern Network	The Northern Network
<ul style="list-style-type: none"> <li>• South Western Sydney AHS</li> <li>• Western Sydney AHS</li> <li>• Children’s Hospital at Westmead</li> <li>• Wentworth AHS</li> <li>• Mid Western AHS</li> <li>• Macquarie AHS</li> <li>• Far West AHS</li> <li>• Greater Murray AHS</li> <li>• Northern Sydney AHS (Hornsby, Kuring-gai LGAs)</li> </ul>	<ul style="list-style-type: none"> <li>• South Eastern Sydney AHS</li> <li>• Central Sydney AHS</li> <li>• Illawarra AHS</li> <li>• Southern AHS</li> <li>• Northern Sydney AHS (Mosman, North Sydney, Manly, Pittwater, Warringah, Hunters Hill, Ryde, Lane Cove LGAs)</li> </ul>	<ul style="list-style-type: none"> <li>• Hunter AHS</li> <li>• Central Coast AHS</li> <li>• Mid North Coast AHS</li> <li>• New England AHS</li> <li>• Northern Rivers AHS</li> </ul>

# Notes

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