

Bringing Networks to Life -  
An RCPCH guide to implementing Clinical Networks

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# Bringing networks to life - An RCPCH guide to implementing clinical networks

**RCPCH**

Royal College of  
**Paediatrics and Child Health**

*Leading the way in Children's Health*

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*Children's services should be seen as a whole system, designed within a framework of pathways and networks which enable the right things to be done, at the right time and place, using teams that work together within a managed network<sup>1</sup>.*

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<sup>1</sup> [Adapted from] RCPCH 2007-9 *Modelling the Future*. [www.rcpch.ac.uk/publications](http://www.rcpch.ac.uk/publications)

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Note - a linked webpage provides examples of children’s healthcare networks across the UK - see [www.rcpch.ac.uk/networks](http://www.rcpch.ac.uk/networks)

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## Foreword

At the heart of medical care is the principle of two way referral between generalist to specialist with advice, support and information about patients' conditions whether simple or complex. A climate of continued learning, development and ambition to do the best for the patient as locally as possible and share knowledge with others is fundamental to medical care, medical training and development. Networks are not a new concept - they are at the heart of medical practice. In recent years the necessary machinery of financial accountability and focus on local throughput within the NHS has thrown a spotlight on external referrals and pathways of care. Clinicians recognise the importance of clear accountability, governance and financial control and well-managed networks of specialist and integrated care are proven to be cost-effective across the whole system not just for the individual patients involved but for the wider deployment of skilled clinicians, and for the development and sharing of knowledge and expertise.

Bringing networks to life aims to 'make the case' for the development and maintenance of formal and informal paediatric networks across a range of specialties and across the UK. It sets out the rationale and benefits and provides checklists, contacts, links and examples of effective working. The changes in service delivery and training within the NHS in England make this a particularly pertinent document to inform the development of new commissioning arrangements, and support paediatric colleagues in explaining locally the importance of networked models of care. This document demonstrates that the services should be built around the needs of the child and family so that the family are confident that the service is appropriate, effective and streamlined, and that the best care is provided as close to home where and when it is appropriate to do so. These principles must be the aspiration of every doctor.

We have included examples in the document and more, current models are available on our website ([www.rcpch.ac.uk/networks](http://www.rcpch.ac.uk/networks)). I hope you find this report useful and will contribute your ideas and examples to the website or to the health policy team [health.policy@rcpch.ac.uk](mailto:health.policy@rcpch.ac.uk)



Professor Terence Stephenson  
President RCPCH

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We would like to thank Dr Carol Ewing, Workforce Officer at RCPCH, for her tireless enthusiasm and persistence in devising, supporting and editing this guide. Together with the RCPCH Paediatricians in Medical Management Committee and contributions from Officers, network and committee leads and individual clinicians this document is a truly integrated project in itself.

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# 1. Executive summary

## 1.1

The Royal College of Paediatrics and Child Health (RCPCH) has clearly articulated through its vision and strategy that networks, supported by strong clinical leadership and sound management, are fundamental to improving the quality of paediatric care. This document aims to help all paediatricians across the UK contribute to the development of effective networked care and thus deliver the highest quality care to their patients.

## 1.2

The role of clinicians in influencing and implementing change in children's services should not be underestimated. Paediatricians will continue to lobby across the UK for a network model to be integral within service planning, commissioning, provision and regulation of children's healthcare.

## 1.3

The document, supported by its linked website of examples:

- Is a result of collaborative work by College members across the UK already involved in pathway design and network development.
- Concentrates, in particular, on the definition and architecture of clinical networks in various stages of development.
- Enables College members to demonstrate the added value of networks. Clinicians are uniquely placed to identify their patients' needs, the necessary standards of care, skills, and outcomes which can drive change to services for the right reasons. They are well placed to shape local services by working with our patients and families. They can also influence regional and national service models by working with other professionals, NHS and other policymakers, commissioners, provider organisations and regulators across the UK.
- Provides evidence that there is an active culture of clinicians working collaboratively.
- Enables College members to share drivers for change and best practice service provision to support the implementation of service improvement measures across the UK.
- Highlights the pitfalls and difficulties in developing a networked approach, and spreads solutions to these difficulties across the UK.
- Explains why strong financial, governance and quality improvement frameworks are essential for effective provision of services and training within all types of mature networks.

- Demonstrates, through examples, progress towards the mature funded managed clinical network model across the UK. Examples include clinical networks which have undertaken large scale clinical service reconfiguration to provide safe and sustainable acute services, and networks which can effectively deliver a range of specialist services across a large geographical area.
- Directs readers to relevant publications which summarise the RCPCH vision for children's services by using a whole system design and pathway development approach. This work explains the necessity for some clinical networks to be further developed to include pooled funding and integrated management structures required for inclusion of social care, educational, public health and other agency provision. These are essential component parts of the patient pathway. Vulnerable children, including children with complex needs for example, require such an integrated network.
- Demonstrates that simpler forms of clinical networks can lead to improved quality of care through audit, research and guideline development, and by the implementation of standards.

## **1.4**

The website will be updated regularly so that the collective experience continues to show evidence of the added value of networks.

## **1.5**

There is clearly much more work to be done and it is the intention of the College that this document, accompanied by the web-based network examples, will strongly influence policy work streams so that the network model of care is truly brought to life.

## 2. What is a network?

### 2.1

The generally accepted definition of a clinical network was first published by the Scottish Office in 1999 and reissued in the English National Service Framework (NSF) for children as follows:

*“Linked groups of professionals and organisations from primary, secondary and tertiary care, working in a co-ordinated manner, unconstrained by existing and professional [and organisational] boundaries, to ensure equitable provision of high quality, clinically effective services”<sup>2</sup>*

### 2.2

Networks in this context have been predominantly about the delivery of health care. The term ‘managed network’ may be more appropriate in some circumstances: a managed network allows the whole pathway for the baby/child/young person to be delivered by a number of NHS organisations and by partner agencies working together in an integrated management structure with clear governance arrangements. The RCPCH documents, *Modelling the Future I, II* and *III* have already provided detailed explanations of how patient pathways can be constructed, and describe the component parts of pathways which need to be included.

*Modelling the Future<sup>3</sup>* sets out a generic model of what networks can include i.e. the three steps on an overall pathway - the initial stage (diagnosis), the review stage for an established condition, and the transition stage (back to normal, on to adult services or into palliative care).

Within each of these stages there are component parts such as prevention, recognition, assessment and interventions. At all stages, clinicians must consider the needs and impact on the child, and the consequences for the family.

Providing all of these pathways seamlessly requires a managed network model of care with alliances with non-health organisations and public health.

### 2.3

Networks can be simple or increasingly complex in terms of their structure, function and objectives.<sup>4</sup> In the literature, networks of increasing complexity have been described by a variety of names:-

2 The Scottish Office Department of Health, 1999 *The Introduction of Managed Clinical Networks within the NHS in Scotland*

3 RCPCH, 2007 *Modelling the Future I*,  
RCPCH, 2008 *Modelling the Future II*,  
RCPCH, 2009 *Modelling the Future III* [www.rcpch.ac.uk/publications](http://www.rcpch.ac.uk/publications)

4 Ewing C. 2011 (Presentation) *Networks in the new NHS* [www.rcpch.ac.uk/networks](http://www.rcpch.ac.uk/networks)

- **Clinical association** or **informational network**
- **Clinical forum** or **coordinated network**
- **Developmental** or **procurement network**
- **Funded Managed Clinical Network (MCN)**
- **Funded managed/integrated/managed care/managed service network**

Details of these definitions can be found in Appendix 1.

## 3. The architecture of a network

### 3.1

This section sets out the structure, function and governance arrangements necessary for a funded managed network (mainly of a clinical type for which evidence is available) as it is through funded networks that whole pathways of care for children and young people will be managed, delivered and regulated most effectively.

### 3.2

The governance arrangements for networks are inevitably more complicated than those within a single organisation and robust arrangements are crucial for success. Networks support the movement of patients through the healthcare system and can address the boundary issues which arise between organisations.

### 3.3

Successful development depends on the relationships and a common understanding that develops between users, service planners, commissioners, providers and regulators. Bullivant et al. in *Governance between Organisations*<sup>5</sup> make a number of important observations and recommendations for effective network function, including clarifying and managing risks and aspiring to combined assurance/whole system frameworks. These factors are incorporated into the following table. Characteristics and requirements, activities and processes for successful managed networks are further echoed in the Department of Health (DH) guide<sup>6</sup> and *Managing across Diverse Networks of Care - Lessons from other sectors*<sup>7</sup> and The NHS Networks *Self Assurance Framework*<sup>8</sup>.

### 3.4

The table below sets out the core principles for clinicians to consider when establishing and maintaining a funded managed clinical network, based on existing policy, literature reviews and evidence from the web linked existing networks.

### 3.5

It also provides information, based on current practice, about the intended benefits for patients and families, and for service planners, commissioners, providers and regulators of care. Network based outcome measures can drive up quality and efficiency of care and support service development across the complete patient journey.

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5 Bullivant J. Deighan M. Stoten B. Corbett-Nolan A. 2008 *Integrated Governance II: Governance Between Organisations* <http://www.london.nhs.uk/leading-for-health>

6 Department of Health, 2005 *A Guide to promote a shared understanding of the benefits of managed local networks* [http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_4114364](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4114364)

7 Goodwin N. Peck E. Freeman T. Posaner R. 2004 *Managing across Diverse Networks of Care: Lessons from other sectors; Policy Report*

8 NHS Networks, *Self Assurance Framework* [http://www.networks.nhs.uk/network-resources/networking-theory/NHSNetworks\\_Selfassuranceframework\\_1106.pdf](http://www.networks.nhs.uk/network-resources/networking-theory/NHSNetworks_Selfassuranceframework_1106.pdf)

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## 4. The following principles are required for effective network function and can be supported by evidence.

	Principle	Benefits of Network	Evidence (all links accessed March 2012)
1	<p>Agreed, commissioned pathways of care providing as much care and treatment as close as possible to the child's home, whilst ensuring the best possible outcome for the child.</p>	<p>Ensuring that the right care is delivered by the right staff in the right place with the least risk to the right patients, and as close to home/as locally where appropriate.</p> <p>This maximises effective use of a clinician's time by ensuring each only does the job s/he is best competent to do. This factor has to be an integral part of defining delivery capacity of all services on the pathway.</p>	<p>Health Management Library, 2005 <i>Managed Clinical Networks in Scotland</i> <a href="http://www.healthmanagementonline.scot.nhs.uk">www.healthmanagementonline.scot.nhs.uk</a></p> <p>RCPCH, 2006 <i>A guide to understanding pathways and implementing networks</i> <a href="http://www.rcpch.ac.uk/networks">www.rcpch.ac.uk/networks</a></p> <p>The Scottish Paediatric and Renal Urology Network <a href="http://www.sprun.scot.nhs.uk">www.sprun.scot.nhs.uk</a></p> <p>Reconfiguration of Children's and Maternity Services, Greater Manchester <a href="http://www.makingitbetter.nhs.uk">www.makingitbetter.nhs.uk</a></p> <p>DH, 2005 <i>Children's HIV National Network Review</i>; <a href="http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4139814">www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4139814</a></p>
2	<p>Access to services is equitable (including with respect to professional roles and facilities) and designed across geographical, political and NHS boundaries.</p>	<p>Mechanisms ensure that resources are shared and targeted at the parts of the pathways where areas of care are least well addressed, or where investment is needed most.</p> <p>This is a particular benefit for services, essential to the needs of the child and delivered outside the tertiary setting, if these are currently under resourced.</p> <p>Access to essential medication is equitable for patients served by the network so that children and young people are not subject to postcode prescribing.</p>	<p>Goodwin N, Peck E, Freeman T, Posaner R. 2004 <i>Managing across Diverse Networks of Care: Lessons from other sectors</i>; <a href="http://www.integratedcarenetwork.org/publish/articles/000046/article_print.html">www.integratedcarenetwork.org/publish/articles/000046/article_print.html</a></p> <p>Cropper S. et al. 2002 <i>Policy Report</i> <a href="http://adc.bmj.com/content/87/1/1.extract">http://adc.bmj.com/content/87/1/1.extract</a></p> <p>Lugon M. 2003, <i>Clinical networks</i>. Clinical Governance Bulletin. 3 (6): 1-2.</p> <p>Edwards N. 2002 <i>Clinical Networks</i> British Medical Journal 324:63 <a href="http://www.bmj.com/content/324/7329/63.full">www.bmj.com/content/324/7329/63.full</a></p> <p>Marmot M. 2010 <i>A review of Health inequalities in England</i> <a href="http://www.instituteofhealthequity.org">www.instituteofhealthequity.org</a></p> <p>Asthma UK, 2007 <i>The asthma divide: inequalities in emergency care for people with Asthma in England</i> <a href="http://www.asthma.org.uk/how_we_help/publishing_reports/index.html">www.asthma.org.uk/how_we_help/publishing_reports/index.html</a></p>

	<b>Principle</b>	<b>Benefits of Network</b>	<b>Evidence (all links accessed March 2012)</b>
<p><b>3</b></p>	<p>Patients and carers are involved at all stages in the design, function and evaluation of networks.</p>	<p>The network has a clear relationship with local commissioners and providers to ensure that the voice of children, young people and their families is integral to the type of service and clinical pathway which is commissioned and delivered.</p>	<p>RCPCH, 2010 <i>Not Just a Phase - guidance for involving children and young people</i> <a href="http://www.rcpch.ac.uk/participation">www.rcpch.ac.uk/participation</a></p> <p>RCPCH, NHS Confederation, 2011 <i>Involving Children and young people in health services</i></p> <p>Lugon M. 2003. <i>Clinical networks</i>. Clinical Governance Bulletin. 3 (6): 1-2.</p> <p>Gibson A. Blaxter L. Hundt G. 2008 <i>Exploring the Role and Impact of User Representation and Involvement in Neonatal Network Boards</i> <a href="http://www2.warwick.ac.uk/fac/cross_fac/healththatwarwick/publications/occasional">www2.warwick.ac.uk/fac/cross_fac/healththatwarwick/publications/occasional</a></p> <p>Cropper, et al., 2002 <i>Policy Report</i> <a href="http://adc.bmj.com/content/87/1/1.extract">http://adc.bmj.com/content/87/1/1.extract</a></p> <p>Wall D. Boggust M. 2003 <i>Developing Managed Clinical Networks</i>. Clinical Governance Bulletin</p> <p>Greater Manchester <i>Making it Better</i> project - Public and Partnership Board <a href="http://www.makingitbetter.nhs.uk/index.php/public-partnership-board">www.makingitbetter.nhs.uk/index.php/public-partnership-board</a>.</p> <p>The Scottish Paediatric and Renal Urology Network. <a href="http://www.sprun.scot.nhs.uk">www.sprun.scot.nhs.uk</a></p> <p>South Thames Retrieval Service <a href="http://www.strs.nhs.uk">www.strs.nhs.uk</a></p> <p>In the West Midlands a DVD has been developed for children with juvenile idiopathic arthritis (JIA) which won the 2010 award for patient involvement <a href="http://www.nras.org.uk/PIF2010">www.nras.org.uk/PIF2010</a>.</p>

	<b>Principle</b>	<b>Benefits of Network</b>	<b>Evidence (all links accessed March 2012)</b>
<b>4</b>	<p>Each service provider within a network will comply with relevant national and local professional standards.</p>	<p>Each service provider will be individually licensed and comply with relevant standards. A network arrangement can enable smaller units to be able to achieve appropriate standards and therefore remain viable by linking to larger units in the model of care provision.</p>	<p><b>National Standards</b></p> <p>RCPCH Clinical Standards department <a href="http://www.rcpch.ac.uk/clinicalstandards">www.rcpch.ac.uk/clinicalstandards</a></p> <p>Working Time Regulations <a href="http://www.hse.gov.uk/contact/faqs/workingtimedirective.htm">www.hse.gov.uk/contact/faqs/workingtimedirective.htm</a></p> <p>RCPCH, 2010 <i>Facing the Future - Standards for paediatric services</i> <a href="http://www.rcpch.ac.uk/facingthefuture">www.rcpch.ac.uk/facingthefuture</a></p> <p>CQC Essential Standards (England) <a href="http://www.cqc.org.uk">www.cqc.org.uk</a></p> <p>Scottish Intercollegiate Guidance Network (SIGN) <a href="http://www.sign.ac.uk">www.sign.ac.uk</a></p> <p>National Institute for Health and Clinical Excellence (NICE) <a href="http://www.nice.org.uk">www.nice.org.uk</a></p> <p>Children's Surgical Forum standards <a href="http://www.rcseng.ac.uk/publications/publications/docs/general-paediatric-surgery-guidance">www.rcseng.ac.uk/publications/publications/docs/general-paediatric-surgery-guidance</a></p> <p>Northern Ireland standards for general paediatric surgery <a href="http://www.dhsspsni.gov.uk">www.dhsspsni.gov.uk</a></p> <p>Wales standards document for children's services <a href="http://www.wales.nhs.uk/CYPSS">www.wales.nhs.uk/CYPSS</a></p>
<b>5</b>	<p>The population base for a network primarily takes into consideration the critical mass for clinical effectiveness and rarity of the condition, but should consider accessibility including travelling time for those requiring frequent care at the specialist centre.</p>	<p>Setting a clear population base dependent upon the nature of the network speciality enables standards for access to services and availability of resources to be defined. This enables effective use of resources and skills. Specialist commissioning of rarer conditions in England is currently under review alongside the development of managed clinical networks under the NHS reforms.</p>	<p>NHS Specialist Services provides advice and guidance on rare conditions in England <a href="http://www.specialisedservices.nhs.uk">www.specialisedservices.nhs.uk</a></p> <p>All Wales Paediatric Gastroenterology, Hepatology and Nutrition Network <a href="http://www.rcpch.ac.uk/networks">www.rcpch.ac.uk/networks</a></p> <p>Children and Young People Specialist Services for Wales <a href="http://www.wales.nhs.uk/CYPSS">www.wales.nhs.uk/CYPSS</a></p> <p>NHS Scotland Specialist Services for Children <a href="http://www.nhs.gov.uk/SCSS">www.nhs.gov.uk/SCSS</a></p>

	<b>Principle</b>	<b>Benefits of Network</b>	<b>Evidence (all links accessed March 2012)</b>
<b>6</b>	<p>Accountability for the network is with one agreed and nominated healthcare organisation with clear agreement on the formal delegation of authority, including responsibility for key functions, for example contract negotiation, or for ensuring that specific outcomes are met as part of a quality improvement programme.</p>	<p>Clear governance and accountability frameworks enable the network to collate and share quality assurance data from participant providers so that activity, risks, quality and cost effectiveness can be monitored.</p> <p>The architecture of the network ensures that there is early detection of problems through improved performance monitoring.</p>	<p>Northumbria Paediatric Forensic Network (see examples) <a href="http://www.rcpch.ac.uk/networks">www.rcpch.ac.uk/networks</a></p> <p>Reconfiguration of Children's and Maternity Services, Greater Manchester - Governance <a href="http://www.makingitbetter.nhs.uk/index.php/MIH-governance.php">www.makingitbetter.nhs.uk/index.php/MIH-governance.php</a></p> <p>Ferlie E, FitzGerald L, McGivern G, Dopson S, Exworthy M. 2010 <i>Networks in health care - A comparative study of their management, impact and performance.</i> <a href="http://www.sdo.nihr.ac.uk/files/project/102-final-report.pdf">www.sdo.nihr.ac.uk/files/project/102-final-report.pdf</a></p>
<b>7</b>	<p>Service Planning /commissioning arrangements ensure that <i>entire</i> patient care pathways are commissioned. Pathways are safe and sustainable, and are configured in such a way that sustainability, quality and cost effectiveness is assured.</p>	<p>The patient and his or her family receives the best care possible.</p> <p>Morbidities arising from changes in society and lifestyles such as obesity and diabetes and the management of complex long-term conditions can be addressed by the collective competence of a community-based, multi-professional children's team, with links to hospital specialist teams when required.</p> <p>Professionals are supported to develop new skills to care for children in the home environment.</p> <p>There is an increasing move to care for children with acute illness at home, with links to emergency hospital care through community nursing teams.</p> <p>Roles and responsibilities on the pathway of care are clearly defined and confusion or unnecessary expenditure over 'who does what and where' is reduced.</p>	<p>RCPCH 2007, 2008, 2009 <i>Modelling the Future I,II,III</i> <a href="http://www.rcpch.ac.uk/publications">www.rcpch.ac.uk/publications</a></p> <p>RCPCH, NHS Confederation 2011 <i>Children and Young People- Where next?</i></p> <p>SDO - <i>Key lessons in network management in Healthcare</i> <a href="http://www.sdo.nihr.ac.uk/files/adhoc/39-briefing-paper.pdf">www.sdo.nihr.ac.uk/files/adhoc/39-briefing-paper.pdf</a></p> <p>Edwards N. 2002 <i>'Clinical Networks'</i> British Medical Journal 324:63</p> <p>Curry Ham. King's Fund, 2010 <i>Clinical Service Integration</i> <a href="http://www.kingsfund.org.uk/document.rm?id=8834">www.kingsfund.org.uk/document.rm?id=8834</a></p> <p>Royal College of Physicians, Royal College of GPs, RCPCH 2008 <i>Teams Without Walls: The value of medical innovation and leadership</i> - an integrated model of care where primary and secondary care professionals work together in teams, across traditional health boundaries, to manage patients using care pathways designed by local clinicians. <a href="http://www.rcpch.ac.uk/networks">www.rcpch.ac.uk/networks</a></p> <p>DH, 2011 <i>NHS at Home - children's community nursing services</i> <a href="http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_124898">www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_124898</a></p>

	<b>Principle</b>	<b>Benefits of Network</b>	<b>Evidence (all links accessed March 2012)</b>
<b>8</b>	<p>Patient care pathways take into account critical interdependencies of services and identify transition points at all key stages from antenatal to adult care.</p>	<p>Children can access specialist services effectively within a network model.</p> <p>By being part of a networked service a potentially 'non-viable' specialist service can remain open, hence benefiting a wider population.</p>	<p>DH, 2008 <i>Commissioning safe and sustainable paediatric specialist services</i> <a href="http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_088068">www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_088068</a></p> <p>Safe and sustainable children's congenital cardiac surgery review and neurosurgical review <a href="http://www.specialisedservices.nhs.uk/safeandsustainable">www.specialisedservices.nhs.uk/safeandsustainable</a></p>
<b>9</b>	<p>If there are aspects of highly specialised care that cannot be provided by a network, linkage is established with a neighbouring network to enable such care to take place.</p> <p>Clearly thought through Human Resources (HR) and cross-charging requirements particularly in relation to cross boundary working is required.</p>	<p>Clinicians can work contractually in more than one organisation.</p> <p>Networks can help to increase local skill by providing clinicians and trainees with the opportunity to discuss or work together on more complex cases with specialists, and agree 'who does what'.</p>	<p>Children's Surgical Forum 2008 <i>Ensuring the provision of General Paediatric Surgery in the DGH</i> <a href="http://www.rcseng.ac.uk/publications/docs/general-paediatric-surgery-guidance">www.rcseng.ac.uk/publications/docs/general-paediatric-surgery-guidance</a></p> <p>Reconfiguration of Children's and Maternity Services, Greater Manchester - Workforce development <a href="http://www.makingitbetter.nhs.uk/index.php/2012-01-04-10-38-51">www.makingitbetter.nhs.uk/index.php/2012-01-04-10-38-51</a></p>
<b>10</b>	<p>A successful network is highly reliant on service planners/commissioners and provider organisations working effectively together with endorsement from executive management. This requires clear governance arrangements to ensure that specialist and local multi-professional teams can work together with ownership of implementation by local providers.</p> <p>There is a clear transparent service business plan with agreed objectives to support joint financing through commissioning. This includes identification of risks and outcome-based measures of success.</p>	<p>The network can facilitate a wide range of professional working relationships which in turn leads to a greater clarity of respective roles and responsibilities.</p> <p>There are mechanisms for resolving differences or disputes between stakeholders e.g. commissioners and providers.</p>	<p>Reconfiguration of Children's and Maternity Services, Greater Manchester - Governance Framework <a href="http://www.makingitbetter.nhs.uk/index.php/MIH-governance.php">www.makingitbetter.nhs.uk/index.php/MIH-governance.php</a></p> <p>Children's Epilepsy Workstream in Trent <a href="http://www.cewt.org.uk/">www.cewt.org.uk/</a></p> <p>Royal College of Physicians, Royal College of GPs, RCPCH 2008 <i>Teams Without Walls: The value of medical innovation and leadership</i> <a href="http://www.rcpch.ac.uk/networks">www.rcpch.ac.uk/networks</a></p>

	<b>Principle</b>	<b>Benefits of Network</b>	<b>Evidence (all links accessed March 2012)</b>
<b>11</b>	<p>There is an adequately financed, dedicated proactive network management team with an identified programme lead, and identified network aims and objectives. The network administrative central point is kept as lean as possible but it holds centrally all knowledge relating to its organisational structure and processes.</p> <p>The network has a performance monitoring function to provide a means of accounting using common datasets/standards across health care organisations.</p>	<p>By having one or more 'neutral' individuals, colourfully known as a 'boundary spanner' the network can ensure that partners engage with each other and have good relationships.</p> <p>The network managers have time to develop and learn the skills of network management with network coordinators at the centre of the network.</p> <p>Performance monitoring can reduce variation in service standards and improve safety across the network.</p>	<p>Reconfiguration of Children's and Maternity Services, Greater Manchester diagram of network team <a href="http://www.makingitbetter.nhs.uk">www.makingitbetter.nhs.uk</a></p> <p>Partners in Paediatrics <a href="http://www.partnersinpaediatrics.org.uk">www.partnersinpaediatrics.org.uk</a></p> <p>Cropper S, Hopper A, and Spencer S. S. 2002 <i>Multilateral collaboration as a basis for the future organisation of paediatric services? Archives of Disease in Childhood; 87: 1-4</i> <a href="http://www.adc.bmj.com/content/87/1/1.extract">www.adc.bmj.com/content/87/1/1.extract</a></p>
<b>12</b>	<p>The network has a nominated clinical lead responsible for ensuring that referral criteria and standards are agreed and that all the necessary protocols to support delivery of care are in place.</p>	<p>Clinical leadership brings essential skill and knowledge to the planning, commissioning and provision of care.</p>	<p>See <a href="http://www.rcpch.ac.uk/networks">www.rcpch.ac.uk/networks</a> for example job description</p>
<b>13</b>	<p>All providers within the network have a nominated link clinician who facilitates liaison with the tertiary centre.</p>	<p>Clinical leadership brings essential skill and knowledge to the planning, commissioning and provision of care.</p>	<p>See <a href="http://www.rcpch.ac.uk/networks">www.rcpch.ac.uk/networks</a> for example job description</p>

	<b>Principle</b>	<b>Benefits of Network</b>	<b>Evidence (all links accessed March 2012)</b>
14	<p>There are agreed shared care protocols and clear audit, research, service improvement and quality assurance mechanisms.</p> <p>There are regular reporting systems and time frames.</p>	<p>Regular informal or formal meetings of professionals stimulate interaction, creativity and problem solving.</p> <p>The potential for loss of local clinical skill as cases are referred to specialists, can be addressed by ensuring that protocols maintain care in as many settings as is appropriate.</p> <p>The network can facilitate the translation of standards and protocols into practice.</p> <p>Audit and monitoring of outcomes can compare different models of service which can contribute to service improvement, and choice of provider where this is appropriate.</p>	<p>RCPCH Clinical audit and quality improvement</p> <p>Edwards N. 2002 <i>Clinical Networks</i> British Medical Journal 324:63 <a href="http://www.bmj.com/content/324/7329/63.full">www.bmj.com/content/324/7329/63.full</a></p> <p>Goodwin N et al. 2004 <i>Managing across diverse networks of care: Lessons from other sectors; Policy Report.</i></p> <p>National Diabetes Audit and networks <a href="http://www.diabetes.nhs.uk/areas_of_care/children_and_young_people/">www.diabetes.nhs.uk/areas_of_care/children_and_young_people/</a></p> <p>Northumbria Paediatric Forensic Network <a href="http://www.rcpch.ac.uk/networks">www.rcpch.ac.uk/networks</a></p> <p>Children's Epilepsy Workstream in Trent <a href="http://www.cewt.org.uk">www.cewt.org.uk</a></p> <p>Children's HIV National Network <a href="http://www.chiva.org.uk">www.chiva.org.uk</a></p> <p>Children's Paediatric HIV Audit and Monitoring Network <a href="http://www.chipscohort.ac.uk/default.asp">www.chipscohort.ac.uk/default.asp</a></p> <p>Audiology Network in Central London <a href="http://www.rcpch.ac.uk/networks">www.rcpch.ac.uk/networks</a></p> <p>Greater Manchester Cerebral Palsy Network and Pathway <a href="http://www.cmft.nhs.uk/community-services/our-services/cerebralpalsy-network.aspx">www.cmft.nhs.uk/community-services/our-services/cerebralpalsy-network.aspx</a></p> <p>Partners in Paediatrics undertook an audit of standards concerning the provision and delivery of general surgery from Trusts within the partnership area <a href="http://www.partnersinpaediatrics.org.uk">www.partnersinpaediatrics.org.uk</a></p> <p>South Thames Retrieval Service Framework <a href="http://www.strs.nhs.uk">www.strs.nhs.uk</a></p> <p>Norfolk, Suffolk and Cambridgeshire Cystic Fibrosis Network <a href="http://www.networks.nhs.uk/nhs-networks">www.networks.nhs.uk/nhs-networks</a></p> <p>Paediatric Critical Care Network for South Wales <a href="http://www.cardiffpicu.com">www.cardiffpicu.com</a></p>

	<b>Principle</b>	<b>Benefits of Network</b>	<b>Evidence (all links accessed March 2012)</b>
<b>15</b>	<p>To support the principle of shared care, there are clear and robust systems of effective two-way communication and information sharing across all specialist and provider units in the network.</p>	<p>Informatic components can be supported by a managed network to improve the quality and standardisation of anonymised patient and service data.</p> <p>Clear information sharing reduces duplicate requests, ensures clinics are effective and minimises the risk of introduction of errors.</p> <p>Agencies providing care for the vulnerable child can more effectively communicate.</p>	<p>See presentation by Dr David Low, Chair, RCPCH Information for Quality Committee from the Warwick RCPCH annual conference 2010 <a href="http://www.rcpch.ac.uk/networks">www.rcpch.ac.uk/networks</a></p> <p>There are active data sharing partnerships in Lanarkshire <a href="http://www.girfecinlanarkshire.co.uk">www.girfecinlanarkshire.co.uk</a></p> <p>PICU Northern Ireland with fortnightly telemedicine links <a href="http://www.rcpch.ac.uk/networks">www.rcpch.ac.uk/networks</a></p>
<b>16</b>	<p>Information and data should be shared locally, and with national registers and databases as appropriate.</p> <p>There are robust Information Technology (IT) systems in place to support the operation of the network, and to enable the evaluation of effectiveness.</p>	<p>Availability of activity and prevalence/ treatment data enables analysis and audit to be more effective and impact on outcomes across a network to be measured.</p> <p>Linked IT services for clinical and support services can be provided across the network area.</p>	<p>NHS Institute for Innovation and Improvement (III)- <i>Focus on emergency and urgent care for children</i> <a href="http://www.institute.nhs.uk/quality_and_value/high_volume_care/focus_on%3A_emergency_and_urgent_care_pathway.html">www.institute.nhs.uk/quality_and_value/high_volume_care/focus_on%3A_emergency_and_urgent_care_pathway.html</a></p> <p>NHS Yorkshire and Humber <i>Patient record sharing between primary and secondary care in diabetes</i> <a href="http://www.arms.evidence.nhs.uk/resources/qipp/29501/attachment">www.arms.evidence.nhs.uk/resources/qipp/29501/attachment</a></p> <p>The Quality Network for Inpatient CAMHS (QNIC) facilitates data collection and sharing against agreed outcome standards <a href="http://www.rcpsych.ac.uk/quality/quality/accreditationaudit/qnic1.aspx">www.rcpsych.ac.uk/quality/quality/accreditationaudit/qnic1.aspx</a></p> <p>Child and Maternal Health Observatory <a href="http://www.chimat.org.uk">www.chimat.org.uk</a></p>

	<b>Principle</b>	<b>Benefits of Network</b>	<b>Evidence (all links accessed March 2012)</b>
<b>17</b>	<p>All children, young people and carers have access to information that enables them with their carers to make informed decisions.</p> <p>Partnership in decision making is encouraged, with an agreed care plan that supports patients in managing their condition to achieve the best possible quality of life.</p>	<p>Information about tertiary care is available locally through networked organisations and staff can advise on the whole pathway of care with information consistent and more efficiently produced across the providers.</p> <p>Children, young people and carers are able to contribute to the planning, commissioning and provision of their services across the whole pathway of care through local contact.</p>	<p>George Still Forum ADHD Network Group <a href="http://www.georgestillforum.co.uk">www.georgestillforum.co.uk</a></p> <p>The Scottish Paediatric Renal and Urology Network <a href="http://www.sprun.scot.nhs.uk">www.sprun.scot.nhs.uk</a></p>
<b>18</b>	<p>All members of the multi-disciplinary teams providing care for children in the network are appropriately trained to do so and have access to continuing professional development.</p>	<p>Networks can enhance staff development, education and retention with opportunities for contractually agreed staff rotations within the network which may be across organisational boundaries.</p> <p>There are opportunities for shared learning, reflection, supervision and development.</p>	<p>All Wales Paediatric Gastroenterology, Hepatology and Nutrition Network <a href="http://www.rcpch.ac.uk/networks">www.rcpch.ac.uk/networks</a></p> <p>The Scottish Paediatric Renal and Urology Network <a href="http://www.sprun.scot.nhs.uk">www.sprun.scot.nhs.uk</a></p> <p>See RCPCH response to NHS England Developing the Health Care Workforce Consultation <a href="http://www.rcpch.ac.uk/workforce">www.rcpch.ac.uk/workforce</a></p> <p>Audiology in Central London Network <a href="http://www.improvement.nhs.uk/audiology">www.improvement.nhs.uk/audiology</a></p> <p>South Thames Retrieval Service Network <a href="http://www.strs.nhs.uk">www.strs.nhs.uk</a></p> <p>Norfolk, Suffolk and Cambridgeshire Cystic Fibrosis Network <a href="http://www.nnuh.nhs.uk/page.asp?ID=25Z">www.nnuh.nhs.uk/page.asp?ID=25Z</a></p>

	<b>Principle</b>	<b>Benefits of Network</b>	<b>Evidence (all links accessed March 2012)</b>
<b>19</b>	The network works with local skills networks as part of its remit providing education, training and workforce planning for all those within the network to both gain and maintain clinical competences to meet the needs of the child in the right setting. Resources to deliver this are commissioned and protected.	<p>The network can support the sustainability e.g. of vulnerable and specialist services and maintain access where the requirements of training and staff availability would otherwise have led to the closure of local services.</p> <p>Network systems can proactively monitor and identify training needs and skills so that staff can deliver the required standards. The systems can also monitor whether there is access to training and Continued Professional Development (CPD) for its members, and provide a local framework for the assessment of competencies through e.g. outcomes, appraisals and in preparation for revalidation.<sup>9</sup></p>	<p>Edwards N. 2002 <i>Clinical Networks</i> British Medical Journal 324:63 <a href="http://www.bmj.com/content/324/7329/63.full">www.bmj.com/content/324/7329/63.full</a></p> <p>See RCPCH response to NHS England Developing the Health Care Workforce Consultation <a href="http://www.rcpch.ac.uk/workforce">www.rcpch.ac.uk/workforce</a></p> <p>Children's Surgical Forum, 2008 <i>Ensuring the Provision of General Paediatric Surgery in the DGH</i> <a href="http://www.rcseng.ac.uk/publications/docs/general-paediatric-surgery-guidance">www.rcseng.ac.uk/publications/docs/general-paediatric-surgery-guidance</a></p>
<b>20</b>	Development, support and succession planning for network clinical leads is identified and arranged within the network governance arrangements.	Ensuring clarity over successors ensures a high quality consistent service for families who may be using services for many years.	The NHS Wales ABM University Health Board Managed Clinical Network for Cleft Lip and Palate has established a workforce development programme consistent with the needs of the network including succession planning <a href="http://www.wales.nhs.uk/sitesplus/863/page/39478">www.wales.nhs.uk/sitesplus/863/page/39478</a>

<sup>9</sup> See RCPCH web pages for details of revalidation process

Although a great deal of literature on networks has been generated, there is still a lack of systematic review and evidence to date to demonstrate the effectiveness and the added value of networks as a means of improving patient care.<sup>10 11 12 13</sup> The research indicates that the features of each type of network have both advantages and disadvantages.<sup>14</sup> As networks develop and take shape, evaluation of their effectiveness is a crucial part of their objectives.

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- 10 Greene A. Pagliari C. Cunningham S. et al. 2009 *Do managed clinical networks improve quality of diabetes care? Evidence from a retrospective mixed methods evaluation* Qual Safe Health Care 18(6):456-61.
- 11 Edwards B. 2002 *Getting on the network* Health Management 6 (3); 9.
- 12 Cropper S. Hooper A. Spencer SA. 2002 *Managed Clinical Networks*, Archives of Disease in Childhood 87:1-4.
- 13 Siggins. Miller. National Support and Evaluation Service, 2008 *Managed Clinical Networks - a literature review*
- 14 Goodwin N. Peck E. Freeman T. Posaner R. 2004 *Managing across Diverse Networks of Care: Lessons from other sectors; Policy Report* (University of Birmingham: Health Services Management Centre)
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## 5. Why are networks so important for the provision of children's services?

### 5.1

This section shows how the RCPCH vision for services and the current policy context align to support the network model of care as a means of providing high quality services.

**Transforming child health through knowledge, innovation and expertise.**

### 5.2

The three RCPCH strategic documents, *Modelling the Future I,II,III*<sup>15</sup> consulted members widely to establish a vision for improvement in the quality of all types of children's health services from a screening service right through to the very specialised service for rare and complex diseases. It also reinforced that small changes can lead to significant improvement in the quality of care at a local level, and that simpler forms of clinical networks can facilitate change too.

### 5.3

The following factors are essential for network development and service improvement:

- A simple model of service delivery in which networks are built around patient pathways
- Pathways based on collaboration not competition
- Involvement of clinicians and other professionals who are best placed to advise on the care needed at each stage of the pathway
- Joint leadership and working across organisational boundaries - integrated care
- A shared philosophy and principles for all professionals involved
- Clarity of purpose to improve the safety, outcomes and experience of services
- Being patient centred with family engagement and influence on service delivery
- Quality metrics to identify the weakest links in the system
- Innovation and improvement to eliminate any problems identified

### 5.4

In December 2010, building on the principles of *Modelling the Future II*, the RCPCH set out ten quality criteria for provision of acute general paediatric care in its document entitled *Facing the Future*<sup>16</sup>. These standards support clinicians in influencing the commissioning and provision of safe, sustainable and high quality local service models. It is unrealistic, for example, to expect a fully staffed paediatric inpatient service in every district general hospital. The *2009 Workforce Census*<sup>17</sup> complements *Facing the Future* in providing a snapshot of the current paediatric workforce and by highlighting significant implications for the shape of the future workforce. There are already examples of large scale reconfiguration

15 RCPCH, 2007-2010 *Modelling the Future Volumes I,II,III* [www.rcpch.ac.uk/publications](http://www.rcpch.ac.uk/publications)

16 RCPCH, 2010 *Facing the Future: Standards for Paediatric Services* [www.rcpch.ac.uk/facingthefuture](http://www.rcpch.ac.uk/facingthefuture)

17 RCPCH, 2011 *Workforce Census 2009* [www.rcpch.ac.uk/workforce](http://www.rcpch.ac.uk/workforce)

and medical workforce models for children's health services, driven by clinicians to meet standards such as the European Working Time Directive (EWTD)<sup>18</sup> and improve the quality of care for their patients and families in the right place.<sup>19 20</sup>

*There are already examples of doctors working in reconfigured services across health economies where they provide day time services at one site and provide 24/7 services at another site.<sup>21</sup> In Greater Manchester doctors work in teams across organisational boundaries, and over a large geographical area serving a population of just under three million people. The reconfiguration project design and implementation plan has successfully passed several governmental scrutiny tests – see [www.makingitbetter.nhs.uk/index.php/decision](http://www.makingitbetter.nhs.uk/index.php/decision) and [www.makingitbetter.nhs.uk/index.php/children-young-people-and-families-nhs-network](http://www.makingitbetter.nhs.uk/index.php/children-young-people-and-families-nhs-network)*

## 5.5

In 2011, the RCPCH published *Quality and safety standards for small and remote paediatric units*<sup>22</sup> as these settings have unique needs in delivering care which must be recognised to maintain the safety sustainability, and high quality of these services. The funded managed clinical network model is essential for these units to function effectively.

NHS Scotland requires that each remote and rural area should have an identified paediatric unit with direct responsibility for it, which includes a named consultant paediatrician with the responsibility for that area. See the Scottish Government's *Children And Young People's Health Support Group - Remote And Rural Paediatric Project*.

## 5.6

It is important for children to be able to access tertiary services in all disciplines, and receive care as close to home as possible where it is appropriate for the local team to provide this level of care. Some of the linked website examples are demonstrating degrees of maturity of tertiary service clinical networks, but also describe the barriers faced which prevent further maturation and effectiveness of their respective networks.

## 5.7

A practical example of successful specialist network establishment is the development of neonatal networks in England. There are approximately 27 neonatal networks across the UK, most developed as a result of recommendations from the DH.<sup>23</sup> Within each network different hospitals provide a mix and range of levels of care as agreed by that network, based on resources, capacity, geography and the availability of appropriately skilled and trained staff. Each network ensures that every infant has access to the right level of care, with the right resources and that they are cared for by staff with the right skills. Within a network, at least one hospital will have a neonatal intensive care unit (NICU) offering

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18 European Working Time Directive [www.hse.gov.uk/contact/faqs/workingtimedirective.htm](http://www.hse.gov.uk/contact/faqs/workingtimedirective.htm)

19 RCPCH, 2009 *Guidance on the role of the consultant paediatrician* [www.rcpch.ac.uk/publications](http://www.rcpch.ac.uk/publications)

20 RCPCH, 2011 *Facing the Future – Modelling the paediatric workforce* [www.rcpch.ac.uk/facingthefuture](http://www.rcpch.ac.uk/facingthefuture)

21 Greater Manchester Children, Young People and Families' NHS Network, 2010 *A Network Approach to Achieving EWTD Compliance. End of Project Report.* [www.makingitbetter.nhs.uk](http://www.makingitbetter.nhs.uk)

22 RCPCH, 2011 *Quality and safety standards for small and remote paediatric units* [www.rcpch.ac.uk/policy](http://www.rcpch.ac.uk/policy)

23 DH England, 2003 *Report of the Neonatal Intensive Care Services Review Group DH England,* [www.dh.gov.uk/en/publicationsandstatistics/publications/publicationspolicyandguidance/DH\\_4002704](http://www.dh.gov.uk/en/publicationsandstatistics/publications/publicationspolicyandguidance/DH_4002704)

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a specialist centre of expertise and experience for the sickest infants. The NICU unit will work closely with the other network special care units (SCU) local neonatal units (LNU), providing short term intensive care, high dependency care and special care.

Problems with cot availability and long transfers have significantly reduced since the introduction of funded neonatal networks in 2003-4. A National Audit Office report in 2007 showed that although staffing and resourcing remained tight, clinical satisfaction was good and services were monitored and managed to enable the right care to be provided as close to home as possible. A toolkit was published in 2009<sup>24</sup>.

### The impact of not having a networked approach to the provision of care

## 5.8

Despite investment and development over recent years, health outcomes for children and young people in the UK still need to be improved.<sup>25</sup> A recent British Medical Journal (BMJ) publication - *Improving Child Health Services in the UK*,<sup>26</sup> set out the challenges facing services over the next few years and the importance of paediatricians working across boundaries.

## 5.9

Professor Sir Ian Kennedy's 2010 report<sup>27</sup> set out the inadequacies and lack of a joined up approach to paediatric care in England and like the Laming report<sup>28</sup> identified not only a lack of leadership (both clinical and managerial) but also poor communication, lack of connected thinking and inadequate quality improvement processes.

In successful networks of care built around specialist children's hospitals, children will receive the best possible quality of care as close to where they live as possible. Without successful networks, children might receive inappropriate or poorer quality treatment locally, or else may be required to travel long distances, receiving treatment in specialist centres that could just as easily take place in their local hospital<sup>27</sup>

## 5.10

Children's health care crosses many organisational and professional boundaries, particularly for vulnerable children, and all those with long term conditions or complex health needs. Child protection services face significant risks in delivering the right care to these children and young people, and in ensuring good communication across organisational boundaries.<sup>29</sup> A DH and RCPCH project<sup>30</sup> concluded that the development of networks is vital for Child Protection services, and proposed formally commissioned advice networks and also funded managed clinical networks for designated health economies through which a joined up approach could be used to deliver services.

24 NAO, 2007 *Caring for Vulnerable Babies* [www.nao.org.uk](http://www.nao.org.uk) DH, 2009 *Neonatal Toolkit* [http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_107845](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107845)

25 UNICEF Innocenti Research Centre, 2007 *Child poverty in perspective: An overview of child well-being in rich countries*. [www.unicef.org/media/files/ChildPovertyReport.pdf](http://www.unicef.org/media/files/ChildPovertyReport.pdf)

26 Wolfe et al. 2011 *Improving Child Health Services in the UK* BMJ [www.bmj.com/content/342/bmj.d1277.full](http://www.bmj.com/content/342/bmj.d1277.full)

27 Kennedy I. DH, 2010 *Getting it right for children and young people: Overcoming cultural barriers in the NHS so as to meet their needs* [www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_119445](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_119445)

28 The Lord Laming, 2009 *Protection of Children in England: A Progress Report* [www.education.gov.uk/publications/standard/publicationDetail/Page1/HC%20330](http://www.education.gov.uk/publications/standard/publicationDetail/Page1/HC%20330)

29 The Lord Laming, 2009 *Protection of Children in England: A Progress Report* [www.education.gov.uk/publications/standard/publicationDetail/Page1/HC%20330](http://www.education.gov.uk/publications/standard/publicationDetail/Page1/HC%20330)

30 RCPCH, 2010 *Child Protection Clinical Network: Protecting Children, Supporting Paediatricians* [www.rcpch.ac.uk/publications](http://www.rcpch.ac.uk/publications)

The project highlighted that funded managed clinical networks would:

- ensure collective capacity and expertise
- have clear pathways for accessing specialist advice, for example for children and young people subject to sexual abuse or infrequent presentations of maltreatment
- facilitate high quality training, development and support for clinicians
- improve governance and quality improvement mechanisms and facilitate strategy development

*The Northumbria Paediatric Forensic Network was established in 2003 and covers a population of 1.5 million people over 2150 square miles. It ensures urgent assessments can be made of children alleging serious sexual assault. It includes clear clinical governance arrangements and peer support.*

*Partners in Paediatrics (PIP) has supported a standing group on child protection / safeguarding, focusing its attention mainly on the forensic and medical assessment following disclosure / allegation of child sexual abuse (CSA). Members of this group have developed a CSA Care Pathway and Service Standards, which have been adopted by many agencies across the West Midlands. [www.partnersinpaediatrics.org.uk/documents/CSA\\_pathway\\_Final\\_15.06.09\\_pdf](http://www.partnersinpaediatrics.org.uk/documents/CSA_pathway_Final_15.06.09_pdf).*

## **The importance of clinical and professional engagement in the network model**

### **5.11**

Clinical leadership is crucial to the success of clinical network function and is recognised as an essential component to shape future health policy across the UK. Some networks have already established job descriptions for network clinical leads – examples can be found on the RCPCH website [www.rcpch.ac.uk/networks](http://www.rcpch.ac.uk/networks).

### **5.12**

The RCPCH, in collaboration with the British Association of Paediatric Nephrology (BAPN) and NHS Kidney Care has produced a guidance document<sup>31</sup> for paediatric nephrology networks which sets out the considerations and requirements for trusts and service planners/commissioners, including co-dependencies for other services to support sick children in tertiary care.

Networks can provide the opportunity for clinicians to:

- Voice the needs of their patients and their families
- Develop and use their leadership skills effectively to influence NHS commissioners and service planners
- Further develop their understanding of the NHS and partner agencies
- Further develop their education and training roles
- Undertake clinical lead roles which have an impact on service and workforce planning
- Develop shared protocols and guidelines [local, regional or national]
- Develop standards and quality assurance frameworks
- Work with a range of professional and organisational groups, individuals, parents and families
- [From an individual professional perspective,] keep up their continuing professional development (CPD)

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<sup>31</sup> RCPCH, 2011 *Improving the standard of care of children with kidney disease through paediatric nephrology networks* [www.rcpch.ac.uk/networks](http://www.rcpch.ac.uk/networks)

## 5.13

Joint working by professionals from different specialties/disciplines and public representatives can have considerable influence and greater impact in terms of changing service provision. This is exemplified by the Children's Surgical Forum (CSF) production of commissioning/service planning guidance on delivering general paediatric surgery,<sup>32,33,34</sup>

*The guidance for commissioning general paediatric surgery highlights the commitment made by The Royal College of Surgeons of England (RCS) and other organisations, and provides recommendations on how those responsible for commissioning and planning children's surgical services can contribute to improving patient care by working with clinical partners to create innovative solutions.*

*A single Managed Clinical Network (MCN) for Cleft Lip and/or Palate services has been established for South Wales and the South West of England. The purpose of the MCN is to organise and co-ordinate the delivery of an integrated Cleft Lip and/or Palate service through the MCN Board, with two lead centres based at Morriston Hospital Swansea and the Frenchay Hospital Bristol. In designing the network particular attention has been given to the specific issues of geography, equity and access for patients in both South Wales and South West England. This will be achieved by the delivery of well coordinated and effective local care through a single MCN delivering surgical care in lead centres on two sites, and operating multi-disciplinary clinics in other hospitals within the network.*

### The importance of networks in the current policy context

#### England

## 5.14

There is a legacy of NHS England policies which set out the basis for clinical networks including one linked to the NSF<sup>35</sup> and in particular the NHS review by Lord Darzi<sup>36</sup> which described the importance of delivering care by implementing clinical pathways. This principle remains and with an increasingly market-based system of clinician-led healthcare provision, clear processes for pathways of care are essential. Standards against which services can be measured, licensed, commissioned and reimbursed must be in place.

32 Royal College of Surgeons, 2010 *Ensuring the provision of general paediatric surgery in the district general hospital children's surgical forum: guidance to commissioners and service planners* [www.rcseng.ac.uk/service\\_delivery/documents](http://www.rcseng.ac.uk/service_delivery/documents)

33 Boddy S. 2011 *General paediatric surgery – getting the delivery right?* HSJ, Jan 2011 [www.hsj.co.uk/acute-care/resource-centre/general-paediatric-surgery-getting-the-delivery-right/5023202.article](http://www.hsj.co.uk/acute-care/resource-centre/general-paediatric-surgery-getting-the-delivery-right/5023202.article)

34 RCS, 2010 *General Paediatric Surgery: survey of service provision in district general hospitals in England* [www.rcseng.ac.uk/publications/docs/general-paediatric-surgery-service-provision-survey](http://www.rcseng.ac.uk/publications/docs/general-paediatric-surgery-service-provision-survey)

35 DH, 2005 *Managed clinical networks* [http://webarchive.nationalarchives.gov.uk/20101123083728/www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@en/documents/digitalasset/dh\\_4114368.pdf](http://webarchive.nationalarchives.gov.uk/20101123083728/www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4114368.pdf)

36 DH, 2008 *High Quality Care for All: NHS Next Stage Review Final Report* [www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_085825](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_085825)

## 5.15

At the time of writing (March 2012) there is recognition of the importance of a networked collaborative approach to provide high quality care involving clinical senates and managed clinical networks<sup>37</sup> overseen by the NHS National Commissioning Board.<sup>38</sup> It is essential that clinical involvement in these developments is secured and that paediatricians are involved locally and nationally.

*The new system also clearly demonstrates the principle of clinical ownership and leadership. From clinical commissioning groups at the most local level, right up to the organisation of the Board nationally around the five domains of the “NHS Outcomes Framework”, clinical leadership is written into the DNA of the new system.’ Sir David Nicholson July 2011*

## 5.16

It is important that the new structures acknowledge the expertise and skills offered by networked care and that provision is adequately funded with clear governance in place to improve clinical outcomes for children. The development of Health and Wellbeing Boards and Joint Strategic Needs Assessments (JSNAs) needs to be informed by clear evidence and data in order to provide appropriate scrutiny to commissioning arrangements across health and social care.

## 5.17

The RCPCH will continue to voice its concern to government and policymakers<sup>39</sup> during the passage of legislation and in the development of new guidance for workforce and service planning and commissioning, whilst offering solutions and expertise to ensure that any new arrangements serve to tangibly improve outcomes for children.

*There are already national clinical networks: groups of experts, including patient and carer representatives, brought together around particular pathways or conditions, such as cancer care, which, as the Forum’s report shows, are “working well to support multi-professional input to deliver improved outcomes for patients”. But the report highlights concerns about their future and the existing variability in their effectiveness. It recommends **embedding networks at all levels of the new system**, with further work to define them and review their range, function and effectiveness. We will retain and strengthen these networks so that they cover many more areas of specialist care and we will give them a stronger role in commissioning, in support of the NHS Commissioning Board and local clinical commissioning groups. Government response to NHS Future Forum Report – July 2011*

## 5.18

In London a three-year project to examine specialist paediatric commissioning has been completed and the report published. It recommends two managed clinical networks covering North and South London respectively.<sup>40</sup> The positioning of the networks within the governance framework for commissioning and provision of health care is currently being finalised.

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37 See <http://healthandcare.dh.gov.uk/> for updates on DH website 2011 Developing Clinical Senates and Networks

38 DH 2011, *Developing the NHS Commissioning Board* <http://healthandcare.dh.gov.uk/commissioning-board>

39 To view the RCPCH’s ongoing policy work visit [www.rcpch.ac.uk/policy](http://www.rcpch.ac.uk/policy)

40 Commissioning Support for London *Tertiary Paediatric Commissioning Guidance* [www.londonhp.nhs.uk/publications/children-and-young-people](http://www.londonhp.nhs.uk/publications/children-and-young-people)

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*The London Specialised Commissioning Group plans and procures paediatric intensive care inpatient and ambulance retrieval services for the residents of North and South Thames. The area covered comprises 48 PCTs with responsibility for the populations of London, Essex, Bedfordshire, Hertfordshire, Kent, Surrey and Sussex. For more details visit [www.picupt.nhs.uk](http://www.picupt.nhs.uk) and [www.strs.nhs.uk](http://www.strs.nhs.uk).*

## 5.19

At the time of writing there is a working group developing a model for supported clinical networks in England subject to overarching legislation.

### Scotland

## 5.20

In Scotland, National Delivery Plan<sup>41</sup> investment has stimulated several pieces of work including a catalogue of resources and development of quality indicators. An important policy document is *Better Health, Better Care* (2007)<sup>42</sup> and *A Force for Improvement: The Workforce Response to Better Health Better Care*<sup>43</sup> provides an analysis of workforce requirements and funded managed clinical networks which have been established since 2007. In April 2011 the National Services Division (NSD) instigated a drive for consistency<sup>44</sup> across all managed clinical networks.

The Scottish Paediatric Renal and Urology Network (SPRUN) has been established since 2004 as a national Managed Clinical Network (MCN) that is funded by (NSD) and hosted by National Health Service (NHS) Greater Glasgow and Clyde, Women & Children's Directorate. For more information visit [www.sprun.scot.nhs.uk](http://www.sprun.scot.nhs.uk)

### Wales

## 5.21

Healthcare in Wales is provided under the Annual Operating Framework.<sup>45</sup> The Children and Young People Specialist Services Project (2003- 8)<sup>46</sup> developed over 15 documents setting out service standards and service models by which the standards could be developed, including a rationale for networks. As a result of this review and the public consultation that followed, the future delivery of children and young people's specialist healthcare was agreed using Managed Clinical Networks (MCNs)<sup>47</sup>. These networks have, however, been largely unfunded.

The All Wales Paediatric Gastroenterology, Hepatology and Nutrition Network covers a population of approximately three million people but is unfunded, functioning as a clinical network formed on the basis of clear standards written by an external working group. Visit [www.rcpch.ac.uk/networks](http://www.rcpch.ac.uk/networks) for more information.

41 The National Delivery Plan for Specialist services for CYP in Scotland

[www.playfieldinstitute.co.uk/information/pdfs/publications/government\\_scotland/BetterHealth\\_BetterCare.pdf](http://www.playfieldinstitute.co.uk/information/pdfs/publications/government_scotland/BetterHealth_BetterCare.pdf)

42 *Better Health Better Care*, The Scottish Government, 2007 [www.scotland.gov.uk/Publications/2008/01/29152311/9](http://www.scotland.gov.uk/Publications/2008/01/29152311/9)

43 The Scottish Government 2009 *A Force For Improvement: The Workforce Response to Better Health, Better Care*

44 Letter dated April 2011 from National Services Division [www.nsd.scot.nhs.uk/documents/110125nmcnletter.pdf](http://www.nsd.scot.nhs.uk/documents/110125nmcnletter.pdf)

45 NHS Wales; Annual Operating Framework 2010-11 [www.wales.nhs.uk/document/175974](http://www.wales.nhs.uk/document/175974)

46 See website describing the principles and key documents [www.wales.nhs.uk/sites3/home.cfm?orgid=355](http://www.wales.nhs.uk/sites3/home.cfm?orgid=355)

47 Children's and young people's specialist services website [www.wales.nhs.uk/CYPSS](http://www.wales.nhs.uk/CYPSS)

## Northern Ireland

### 5.22

Health and social care are provided as an integrated service. A number of organisations already work together to plan, deliver and monitor health and social care across Northern Ireland. The relatively small childhood population, together with the geographical isolation and increasing complexity of childhood illness and its management, support the need for development of formal, managed networks across the region. Work has commenced on developing a Children and Young People's Service Framework, and if this is accepted and implemented, it includes explicit commitments to implement managed service networks for acute and long term conditions.

### 5.23

To date, there are a number of unfunded clinical networks which have developed for neonatal care, epilepsy, autism spectrum disorder, child protection and cardiology. These are informal and have resulted from paediatricians linking on the basis of NICE or other guidelines. Links with regional centres outside Northern Ireland have generally arisen in response to necessity e.g. lack of services/ expertise within the region.

The NICORE neonatal research group collects data from neonatal units across Ireland. There are consultant-delivered monthly tertiary outreach visits to the area hospital neonatal units in Northern Ireland, funded by NI Department of Health.

## 6. Overcoming pitfalls and barriers to the success of networks

### 6.1

The consensus view from paediatricians is that to deliver whole patient pathways, the network model must be implemented. Paediatricians' experiences to date show that there are four main themes which have to be tackled to make funded managed networks work effectively:

#### **Resistance to change - convincing the public, the politicians and staff**

### 6.2

The public, politicians, and professional colleagues need to be persuaded by paediatricians that the network model is the best way to deliver high quality, efficient and effective services for all children. This may mean a change to the provision of care in their locality. Clinicians can show, for example, that in order to meet the recommended standards of care, this can be done by reconfiguring services to concentrate expertise and this sometimes means closing local services. Families may have to travel further but clinicians can articulate the benefits of such intended service redesigns. If there is a service reconfiguration, staff may need to work on a site which does not have inpatient services to provide planned or emergency care and in a proximal inpatient site to provide out of hours care. Any redesigns must therefore recognise the consequences faced by families and staff for extra travel, and steps must be taken within the network model to minimise the impact by working with the partner agencies such as the ambulance service and transport authorities.

#### **The current lack of evidence to show the benefits of networks: “*absence of evidence of benefits is not evidence of absence of benefits*”**

### 6.3

Government policy is focussing on defined outcomes which measure the quality and efficiency of care, with governance processes that drive service improvement. Apart from audit and research, defined outcome measures and frameworks are at a relatively early stage of development in the NHS. Therefore, when evidence is requested as to whether networks have a beneficial impact on patient care, this might not be immediately available. However the network model can be flexible within its objectives and governance structures to be able to respond quickly to any future defined outcome measures or frameworks. In England, ‘the Children and Young People’s Outcomes Strategy’ has been developed by an independent group of experts to focus the health service on improving child health and includes network working.<sup>48</sup>

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48 Visit <http://healthandcare.dh.gov.uk/children> for updates on the Children’s and Young People’s Outcome Strategy.

## 6.4

By measuring quality of care over time, e.g. by noting a reduction in unnecessary referrals and errors, the use of locums for rota gaps, and most of all an improved patient experience, there is the potential for reduction in costs and an increase in the quality of service provided. Networks are ideally placed to measure changes in effectiveness over time whatever the type of service being considered.

*Although Patient Reported Experience Measures (PREMs) can provide a useful indication of patients' and their carers' perspectives on their care, by their nature these reflect experience of process rather than outcome. The need for better measurement of health improvement and for information to come from patients themselves has led to an increased interest in Patient Reported Outcome Measures (PROMs). A number of research studies have used generic quality of life instruments looking at outcomes of children on renal replacement therapy but no condition specific instruments, which generally perform better than generic instruments, have yet been developed for children with kidney disease. This is clearly an area for development in the future and instruments do need to be developed to measure patients' evaluation of their treatment outcomes.*

RCPCH, 2011 *Improving the care of children with kidney disease*<sup>49</sup>

### **Funding support for networks and services**

## 6.5

Some specialist networks, (particularly in Scotland, and the cancer networks in England) already receive central NHS funding whilst others rely on locally agreed support. In an environment which, particularly for England, encourages competition and choice, the collaborative 'patient pathway' approach to care through the network model has not been progressed, in spite of the case for the network model being made by clinicians. Many of the examples of networks in the web link to this document have highlighted that mature types of managed clinical networks are functioning on good will and collaborative working across organisational boundaries but without having dedicated funding.

## 6.6

A significant barrier in England has been the boundaries set by commissioning, with individual organisations being reluctant to take on additional services, and therefore children and young people do not receive the full range of care. Furthermore, by defining commissioning or service planning requirements for the whole patient pathway, with clinical leadership as an integral part of the process, new activity may be identified which may increase initial costs to commissioners. This must be addressed within the commissioning framework.

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<sup>49</sup> RCPCH, 2011 *Improving the care of children with kidney disease through paediatric nephrology networks*  
[www.rcpch.ac.uk/networks](http://www.rcpch.ac.uk/networks)

## Governance arrangements of networks

### 6.7

Literature reviews of networks, in addition to the pitfalls and challenges already described, have noted a number of factors which can hinder their effectiveness:

- Organisations and staff do not have a shared vision and this leads to inequity in setting objectives and implementing strategies/policies.
- Networks may become 'exclusive' rather than representative. Therefore there must be representation of all stakeholders at some level within the network organisational arrangements.

Networks, through flawed or ineffective cross boundary organisational governance, IT, HR and communication arrangements do not meet the necessary objectives, or fail to produce evidence for service improvement. Networks then become difficult to sustain.

### 6.8

Overall, the experience of some established funded managed clinical networks would indicate that whilst the challenges can be perceived as risks when networks are first set up, as networks mature the risks diminish.

*The South Thames Retrieval service network has provided some useful tips for establishing a successful network. Visit [www.strs.nhs.uk](http://www.strs.nhs.uk) and [www.rcpch.ac.uk/networks](http://www.rcpch.ac.uk/networks) for detailed examples.*

## 7. Moving from ideas to reality

### 7.1

By getting professionals, families, commissioners, service planners, providers and regulators to problem solve together, issues that have been present in organisations for years can be tackled by challenging fixed views and influencing and implementing change within organisations, or for larger geographical areas.

### 7.2

Here are some suggestions as to where to start;

#### **Checklist for your unit and your locality**

- Are your patients' needs being met?
- Do your patients have access to the range of services they require?
- Is there a forum in your organisation, or in the locality, for children, young people and their families to be engaged in planning their local services?
- Are RCPCH and other standards /outcome measures being implemented safely? If not why not?
- Are there other national imperatives or guidelines which should be implemented in the best interests of your patients?
- Are there any safety/governance issues which need to be urgently addressed e.g. unsustainable services due to staff shortages on the middle tier 24/7 acute general paediatric rota?
- Is there adequate service and staffing provision in each sub - specialty to support regional services to the standard required? Can they be readily accessed and in a timely fashion?
- Is there enough provision within the hospital team for cover when a specialist is on leave?
- Are there other services, e.g. general paediatric surgery which you can support in ensuring the children are receiving the best care?
- Are there outcome measures from audits/research which are driving service improvement?
- Are there quality improvement programmes?
- Are there monies available requiring coordinated investment?
- Are there examples of local clinical guidelines and care pathways?
- Do these local clinical guidelines align with endorsed national guidelines?
- Are there any examples of good multi disciplinary teams?
- Are there examples of good audit practice which should be shared?
- Are there examples of shared data systems, websites?
- Are there any examples of good cross - organisational boundary working relationships?
- Does your organisation have the right workforce, and also plan ahead for the right workforce?
- Does your organisation offer the best training?

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**At regional level (including questions raised at local level and in your unit) – this helps with progression to a mature managed clinical network:**

- Are there any key drivers which highlight the key issues for paediatric services?
- Are there ways in which the public can engage to shape the service to meet their needs across the health economy?
- Is there a need to develop a number of patient pathways?
- Are there any established patient pathways?
- Are there agreed service specifications across the locality with planners and commissioning bodies? If so, are they being implemented and evaluated?
- Do you meet with the planning and commissioning leads responsible for children's and young people's services?
- If there is going to be a change in the commissioning structure for service and workforce planning, who are the leads and are they aware of key issues affecting paediatric services?
- Are outcomes measured and driving service improvement?
- Are there any examples of good practice with respect to teams working collaboratively across organisational boundaries?
- Are there established fora where clinical leads/directors can get together, and to meet with leads from provider trusts, with service planners/commissioners and with patient representatives?
- Are there clinical networks in your area and if so are you engaged in these?
- If you have identified a need, is there a strategic plan for the establishment of managed clinical or more mature managed networks? If so, is this plan going to be funded and how? How is the plan being translated into patient pathways and service redesign?
- Are primary care and public health teams linked in to service improvement pathways?
- Is reconfiguration already taking place? If so, who is leading the process and how?
- Is there linked staff development between the training outputs from deaneries, SHAs and the needs of the service?<sup>50</sup>
- Are there opportunities for collaborative research?

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50 At the time of writing, revisions to the education and training frameworks for the health workforce were in proposal

## 8. Conclusions

### 8.1

The RCPCH is in no doubt that its vision for the best possible care to children, young people and families can be planned, delivered, monitored and improved by implementing the network model of care. We need to maintain our clinical focus by initiating or progressing network development. Furthermore, we need to keep collecting evidence to demonstrate the case for the network model of care.

### 8.2

RCPCH recognises that translating such principles into practice requires not only clinical leadership by its members to make models work, but also an effective NHS and partner agency infrastructure to progress, fund and sustain network development. The RCPCH will continue to work with policy leads across the UK to ensure that this is happening.

### 8.3

While the challenges of developing networks should not be underestimated, there is no doubt that in one form or another they can genuinely change care for the better.

The RCPCH Networks webpage contains an interactive document with live examples, contact details, challenges and tips for success. [www.rcpch.ac.uk/networks](http://www.rcpch.ac.uk/networks)

## Appendix 1 – Types of networks

Figure 1 demonstrates the continuum of network forms (courtesy of Dr Andy Mitchell, NHS London)

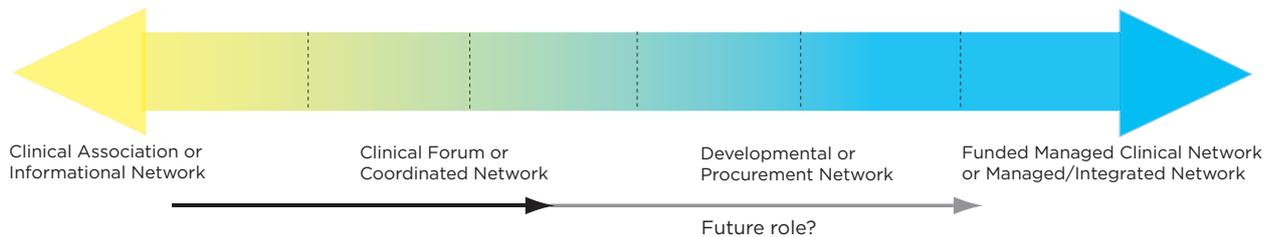
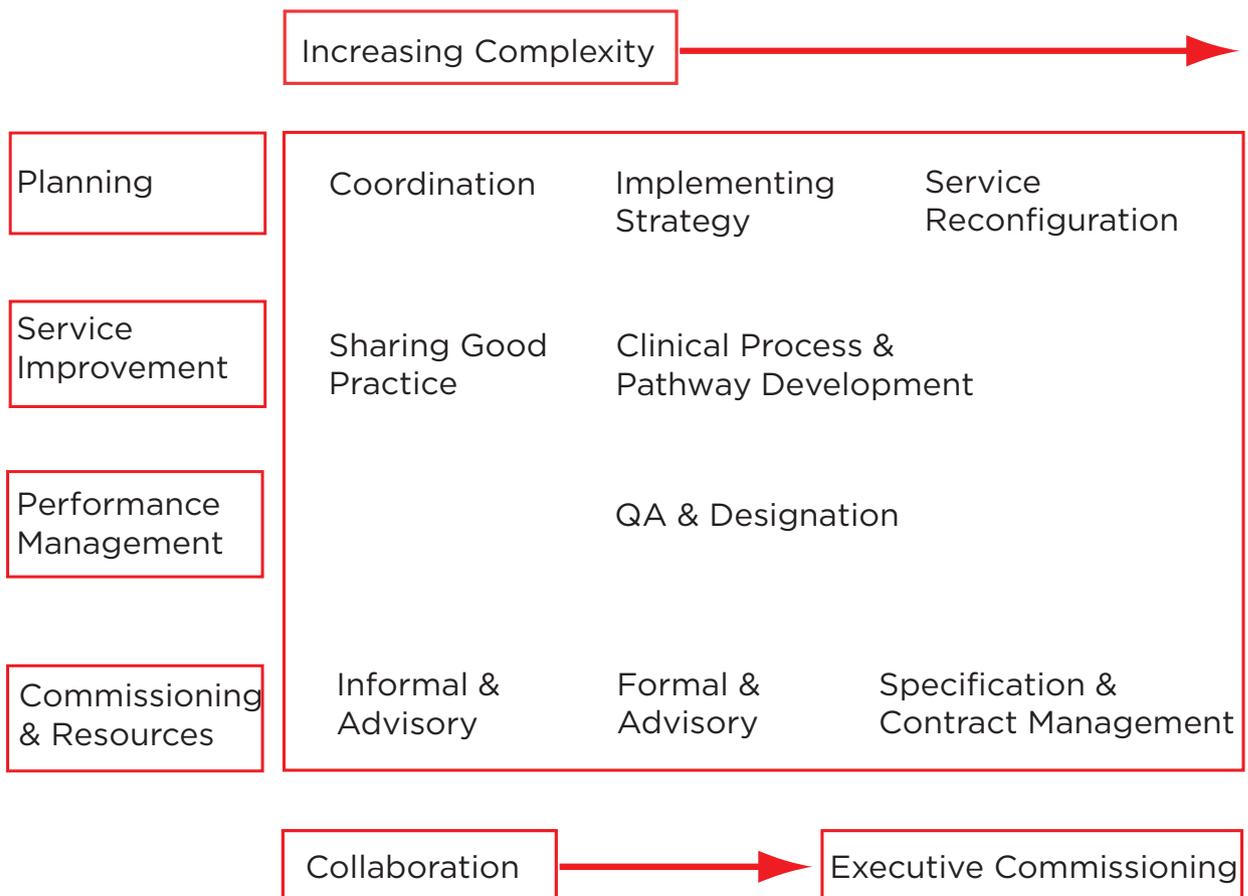


Figure 2 demonstrates how network function becomes more complex within the context of delivery of care –

### Architecture and function of types of networks



At one end, and the most common manifestation, is the informational or clinical association network which is a relatively loose association or forum, usually of clinicians, where there is sharing of best practice and other areas of interest. This type of network does not develop new organisational structures between health organisations although it may be seen as the first step towards something more formal. Goodwin et al<sup>51</sup> have also described these networks as enclave networks. They have little central authority, are based on shared commitments, and are successful in spreading ideas among professionals with a common goal to improve health care.

The clinical association may develop into the clinical forum or coordinated network which may have a broader focus other than purely clinical topics, and with an agreement to share audit and formulate jointly agreed clinical protocols.

The next type of network can be termed a developmental or procurement network. There are degrees of integration between professionals and organisations. New operational models are developed, often based on care pathways or joint assessments, underpinned by shared values or purposes, with the belief that creating links between clinicians, organisations and agencies, there can be an improvement in the quality of care, and potentially a more financially effective delivery of care. However, compliance with this network approach is voluntary. Financial and clinical responsibilities of involved parties remain separated and there is no binding contract.

When the network becomes a funded Managed Clinical Network (MCN), or a funded Managed/integrated/managed care/managed service network with inclusion of NHS and partner agencies, its function will change to take on a more formal management structure to support the delivery of care, to have defined objectives and to have a clear governance framework. This type has been described as hierarchical in the definitions given by Goodwin et al<sup>52</sup>. These managed networks acquire authority and influence and should have a regulatory function through joint provision, inspection, and accreditation.

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51 Goodwin N. G P, Peck E, Freeman T, Posaner R. (2004) *Managing across Diverse Networks of Care: Lessons from other sectors; Policy Report* (University of Birmingham: Health Services Management Centre)

52 Goodwin N. G P, Peck E, Freeman T, Posaner R. (2004) *Managing across Diverse Networks of Care: Lessons from other sectors; Policy Report* (University of Birmingham: Health Services Management Centre)

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