Highly Specialised Care – Paediatric Specialist Services  
16 August 2004  
Agenda Item 5 – Setting the Scene

Background

Considerable amount of work already done and currently underway. CHSG Tertiary Paediatric Services Review. Reported at conference on 11 June.

Dr Huw Jenkins talked about their NSD and the Children’s and Young People’s Specialist Services Project. Developed a standards model for MCN – an MCN model for Specialist services – a 10 year process.

A wealth of literature on standards, through commissioning specialist services for children RCPCH – Commissioning Tertiary and Specialist Services for Children and Young People, advice on commissioning paediatric anaesthetic services, Paediatric surgical services. Also English NSF, work of their regional specialist services commissioning groups and individual standards eg children with head injuries. If you look at their planning populations their local region is 1m.

A number of key issues that this work goes towards trying to address:
Sustainability, inconsistency across Scotland in terms of care and access
Key elements are:

1. Demographic Trends both in terms of demand and supply
2. Nature of the service
3. Future demand and supply
4. The needs of children
5. Interrelationships
6. Integration

Overall decline in population of Scotland in the last 30 years, mainly due to the falling number of births.

1 Demography (source Registrar General for Scotland)

Decrease by 18% in the number of children <15 as a proportion of the total population over the last 20 years,

Looking at the spread of the population, urban areas are declining (except Edinburgh) and areas around cities and rural areas are growing.

Projections:
Decline is set to continue – the proportion of children <16 yrs is projected to fall by 20% by 2021

This decline is higher than any other European country as although births are projected to decline other countries are projected to have an increase due to migration.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Pop</th>
<th>&lt;15 total</th>
<th>0-4</th>
<th>5-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>50.55m</td>
<td>890,300</td>
<td>268,500</td>
<td>621,800</td>
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<tr>
<td>2018</td>
<td>49.35m</td>
<td>730,700</td>
<td>243,100</td>
<td>487,600</td>
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Decrease in total population - 2.4%, decrease in <15 yrs -18%
The proportion of children <15 as % of the population in every HB area is projected to decline. Particularly marked in Ayrshire & Arran, Dumfries & Galloway, Grampian, Highland, Orkney & Western Isles – in some cases up to 36 % decline.

Also in generally the same areas the proportion of adults 30-44 is projected to decline significantly and the proportion of young adults is also projected to decline, but less marked.

Looking at numbers – Number of births in Scotland 2002/3 51,792 projected to be in 2017/8 48,923.

Areas where numbers of births are projected to increase are Glasgow, Lothian and Shetland. Projections show that c 61% of births will be in the central belt of GG, Loth, FV & Lanarkshire HB areas.

Overall population growth projected in Fife, FV, Lanarkshire, Lothian & Shetland.

So fewer children and perhaps more concentrated.

2 Nature of the service

A number of specialist and tertiary services delivered mainly from four centres of Glasgow, Edinburgh, Aberdeen and Dundee.

Small number of specialists and low numbers in terms of caseload – dealing with rare conditions, procedures in children with complex conditions, severe or intractable cases of common conditions, repeats of treatments which have not been effective, & treatments which require very specialised support eg ICU.

Against a backdrop of a falling population of children, from the 4 pilot areas, there has been an increase in activity. Why, what is this due to?

Better at identifying and diagnosis
Higher incidence – Cancer
Can do more for ill children – higher numbers of admissions
Children living longer and therefore receiving more treatments
More complexity.

Is this because of developments in medicine and technology and in care delivery

There has been a change in childhood diseases and in the use of health services.
Why are specialised/tertiary services different?
Low numbers
Resource intensive - High cost in treatments, drugs regimes, diagnostics, interventions – surgical and medical, chronic conditions
At leading edge – technology, drugs, research
Expertise is scarce

3 So what about the level and type of activity in the future – what and how do we predict? What will be the demand in the future and how do we shape the supply of care to meet that demand?
Can incidence and prevalence of current diseases be used as a proxy for the future, and the rate of medical developments and technologies. Give a view on the quantum but perhaps not the specific. Patterns of disease
Nature of activity – chronic vs acute/emergency
Maintaining quality in standards of care to achieve best outcomes, eg skills in individuals and teams, particularly when dealing with rare and complex conditions
Influence of medical advances, technology, not just medical technology but information and communications technology.
Research
Expectations of care – safe in different types of situation, eg balance of travel time in an emergency and capacity/experience in smaller units to deal with that emergency, consistent high quality wherever and whenever accessed

4 Supply in the future
Workforce – Modernising Medical Careers, impact of sub-specialisation, EWTD, recruitment and retention, succession planning, demographics
Best use of the scarce expertise and supporting infrastructure
Rate of technological and medical developments – Drugs particularly regimes, Research will change the way that care can be delivered. Look back at developments over the last 20 years and translate the amount of change forward 20 years.
Supply of people in the labour market
Subspecialisation

5 Needs of children
And in terms of children they have to take into account the needs of families
From the perspective of the child –
Family needs
Education
Transport
Accommodation
Care for siblings
Employment
environment

6 Inter relationships
Can’t plan for paediatric specialised services in isolation, or as individual services – there is a complexity of care, multiplicity of conditions which requires > one team to provide care.

What is the relationship between paediatric and adult specialised services – what about adolescents and young adults and transition between children’s and adult services, also transition between neonatal and children’s services
Clinical support services
PICU
Anaesthetics
Radiotherapy
Pathology
Laboratories
Are they also more resource intensive of these and are these required to be more specialist
Neonatology
R&D
Teaching and training
7 Integration
Better integration with local secondary and primary child health services. Local access vs specialisation – levels of care, what can be delivered safely where, what needs the physical infrastructure and how can the scarce expertise be available across Scotland? Maximise investment.

The pilot reviews have identified the need for better working with DGH services
Planning on a Scotland wide basis
Local diagnostics
One stop clinics
Outreach
Shared care approach
Tele-links
Achieve consistent standards by using protocols for care and access
One service vs one centre – levels of care/network approach- and benefits of these have been evident – planning, protocol/standards, audit, data
MCNs and virtual network approaches
Multidisciplinary teams provide care
Use of communications and information technology
A model of care for specialised services for Scotland which informs planning and facilitates integration with secondary and primary child health services. RCPCH levels of care

Pressures in the system particularly in some areas
24/7 cover cannot be sustained, cross cover with other paediatric specialties
Inconsistencies in care between the tertiary centres and in access, do not automatically need more resource, a standards/protocols based approach.
Levelling up, in terms of resource would not be affordable even if it was possible
Quite clear that current is not sustainable,
There will not be the number of consultants in the future and nurses and other professions will need to provide a wider range of the care.

Myra Duncan
Advisor
National Planning Team
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