

# Bristol and South Gloucestershire PCTs

Trends in Need and Demand for  
Neonatal Services

**23 November 2004**

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## **1. Purpose**

This paper discusses trends in factors associated with need for neonatal services (intensive care, high dependency and special care) and data from local services on apparent demand. It notes service provider concerns about service configuration, national policy and quality issues, and draws conclusions identifying current key issues in commissioning neonates services.

## **2. Background**

A review of commissioning issues around neonates, maternity and gynaecology services was requested by the Bristol and South Gloucestershire Acute Commissioning Strategy Board. This paper reports on issues relating to neonates services, using information from:

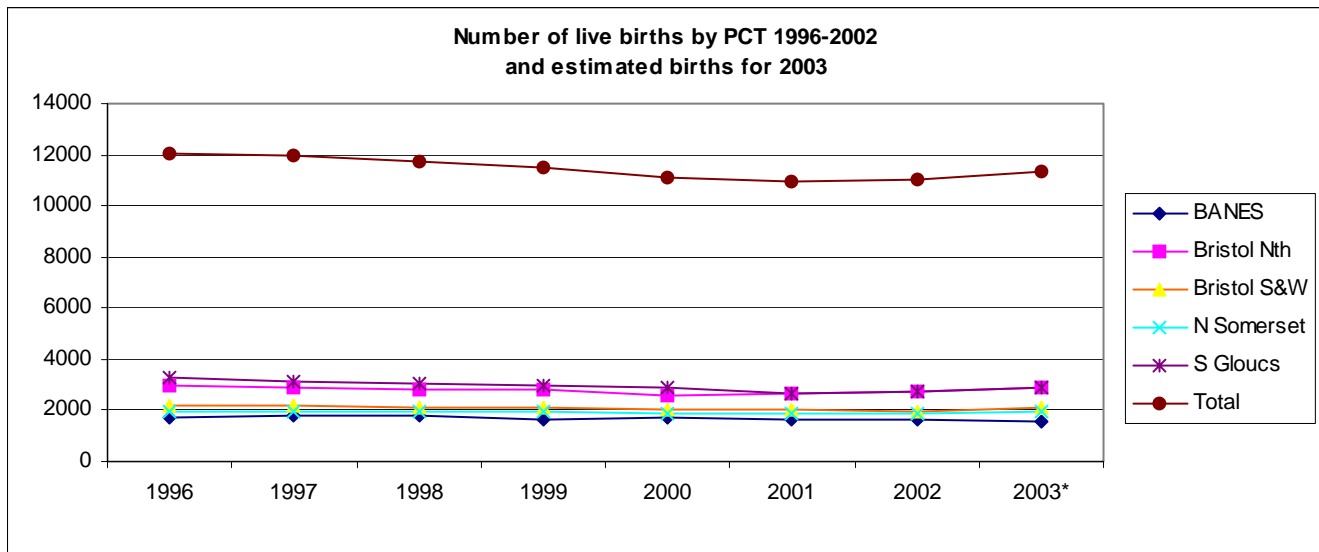
- Interviews with lead clinicians and managers
- Published research and policies
- Local health services data

Bristol and South Gloucestershire are served by neonates services of North Bristol Trust (NBT) at Southmead Hospital, and of United Bristol Healthcare Trust (UBHT) at St Michael's Hospital. These services also receive tertiary referrals from a wider area (largely but not exclusively within the South West).

## **3. Are Population Health Needs Changing?**

Both units have seen a recent upturn in the number of deliveries. Analysis of ONS and trust data suggests that for the PCT populations, total births in 2003 are likely to have returned to the levels seen in 1998 and 1999 (Graph 1). General fertility rates fell in BNSSG during 1996-2000, reflecting a national trend. It is too soon to suggest that there is a sustained upward trend towards more births in BNNSG. (2001 Census based population projections expected this autumn could provide further information on likely future trends.)

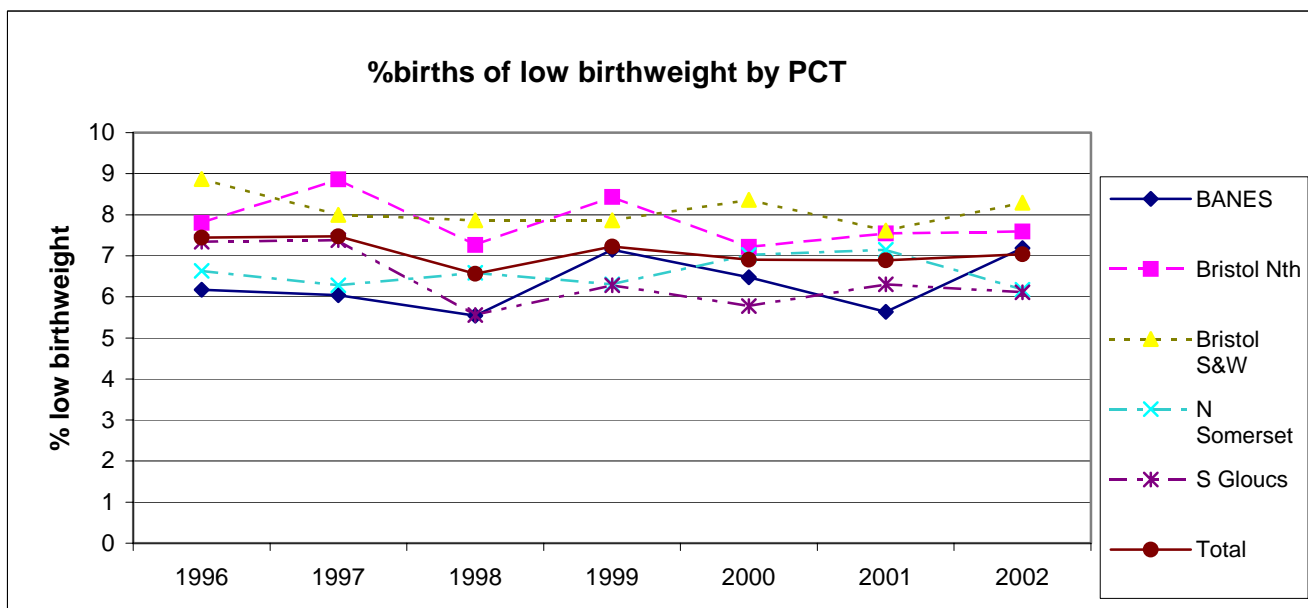
**Graph 1**



Source: Avon IM&T using trust and ONS data. \*2003 estimate based on trust data with additional 3.5% births added to allow for home deliveries. Comprehensive data awaited from ONS.

Low birthweight reflects premature birth and/or growth restriction in utero. The percentage of low birthweight babies (<2500g) increased nationally during the last quarter of the 20<sup>th</sup> century, reflecting the combination of demographic change (more women in later childbearing years) and a trend towards having children at a later age. Bristol and South Gloucestershire data for 1996-2001 do not show a clear upward trend in low birthweight (graph 2). Rates were higher in Bristol, but not significantly different to the English rate.

**Graph 2**



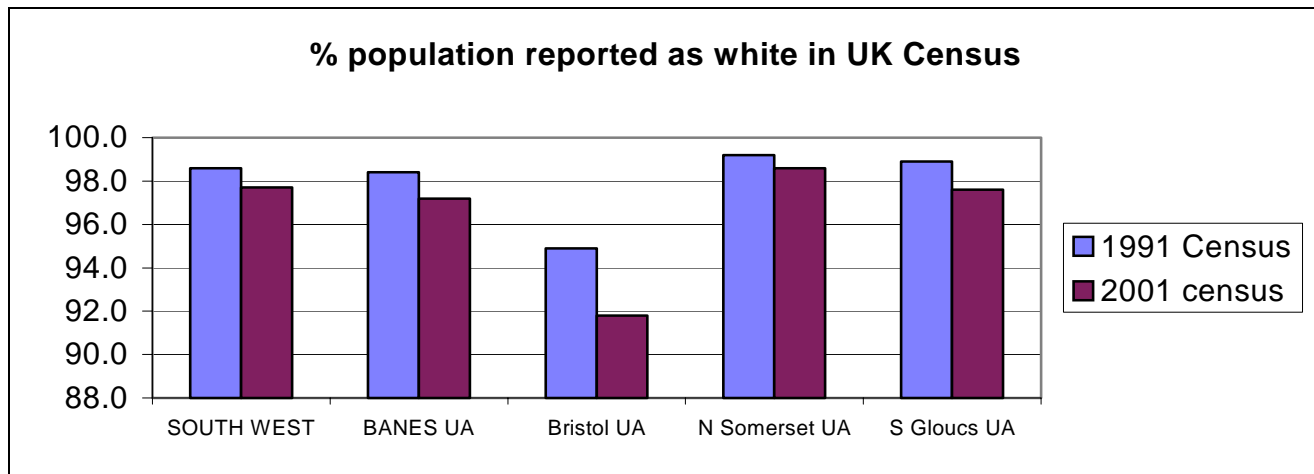
Source: Avon PHnet. <http://nww.avon.nhs.uk/phnet/> Low birthweight = births <2,500g as a percentage of total births

Very low birthweight (VLBW) babies weigh <1500g and accounted for 1.5% of English births in 2001. The proportions for Bristol (1.5%) and South Gloucestershire (1.3%) did not significantly differ from this.

Factors associated with poorer health in babies, low birthweight and increased need for neonatal services include:

- Ethnicity. Somali women have been noted as a group with particularly high levels of need by services in Bristol, particularly UBHT. Low birthweight is commoner amongst many minority ethnic groups. Nationally very low birthweight (associated with high levels of need for neonatal care) was commonest for infants of mothers born in the Caribbean and West Africa during 1983-2001<sup>2</sup>. Results of the decennial national Census show an increase in the proportions of the population from ethnic minority backgrounds in all BNSSG PCTs in 2001 compared with 1991, and a corresponding fall in the proportion describing themselves as white (graph 3). Within this trend the number of people describing themselves as Black or Black British has grown.

**Graph 3**



Source: Avon Phnet <http://nwww.avon.nhs.uk/phnet/>

- Drug dependency. There have been annual increases in reports of people with drug misuse to Regional Drug Misuse Databases<sup>3</sup>. 95% of users in a recent Regional Drug Misuse Database census were aged 15-44 yrs, with 50% in their 20's. Males outnumbered females by 3:1. With respect to neonatal services, there were 63 referrals to the maternity substance abuse service at St Michaels in 2003/04. One third of the babies recorded during Jan 03 – March 04 were of low birthweight (compared to the national rate of around 7%). At Southmead in 2003, 57 women were seen by the 'drugs in pregnancy' service.
- Smoking rates have been rising amongst girls aged 11-15 yrs. Just over a third of mothers (34%) in the United Kingdom smoked before or during pregnancy, whilst a fifth of all mothers (20%) continued smoking during their pregnancy. Among women smoking before their pregnancy, rates of stopping averaged 10% immediately before pregnancy and 18% during pregnancy. Over the longer term, declines in smoking during pregnancy have been reported. In 1990, 38% of mothers in the UK smoked prior to pregnancy and 33% smoked during pregnancy compared to 35% and

<sup>2</sup> Collingwood Bakeo A. Trends in live births by mother's country of birth and other factors affecting low birthweight in England and Wales 1983-2001. Health Statistics Quarterly 23; Autumn 2004.

<sup>3</sup> South West Public Health Observatory. The impact of drug misuse on health in the South West, 1996-2001. <http://www.swpho.org.uk/drugsmisuse/background.htm>

27% respectively in 1995. Smoking rates are highest amongst women who are most socio-economically disadvantaged. Low birthweight is twice as common amongst infants of mothers who smoke compared with non-smokers. There is research evidence showing smoking cessation interventions can be effective in pregnancy, but equally favourable results are not always achieved when implementing these in non-research settings<sup>4</sup>.

- Teenage conception rates are above the E&W average in Bristol amongst women under 18yrs, and close to average in under 16's. There has been little change since 1998. S Gloucestershire has lower than average rates, with a recent fall in under 18's and a rise in under 16's. In N Somerset the under 18 rate rose between 1998 and 2001, and is close to the national average, whilst the rate in under 16's is low.
- Women who are in prison are a numerically small but high need group. NBT provides services for women in Eastwood Park Prison.
- Women from manual social classes are more likely to book late for antenatal care and/or make fewer antenatal visits than other women<sup>1</sup>. There is evidence of later booking of antenatal care by Asian women<sup>5</sup>.
- Multiple births have increased nationally over the past 20 years, associated with increased use of infertility treatment. In England in 1997-98 there were 280 deliveries of triplets or higher order multiple births out of approximately 585 000 deliveries – these are rare events. Eighty-nine percent of higher order multiple births were born preterm. This compares with 7% of singletons and 47% of twins. Prematurity, low birthweight, stillbirth and death are significantly commoner in multiple pregnancies.

#### 4. Are Services Changing?

Neonates services care for babies at earlier gestations and lower weights than hitherto. Current thresholds for considering a baby to have a significant chance of survival are around 23 weeks and approx 400g. Whilst the gestation threshold seems unlikely to fall further, it is possible that the proportion of VLBW babies provided with NICU services will continue to increase. Developments in obstetric practice and foetal medicine are expected to reduce stillbirths and increase the numbers of babies surviving (and needing intensive neonatal care).

VLBW babies are estimated to use about three-quarters of NICU resources despite representing only 1.5% of all babies. St Michael's workload data for 1993-2003 shows an increasing trend in the number of VLBW infants admitted. There has been no corresponding decline at Southmead, where numbers are also rising. This is a true increase rather than a change in casemix between the two sites. This data includes all admissions, not just those for Avon.

Babies admitted from outside Avon are more likely to be VLBW. The number of these 'outborn' babies at St Michael's approximately doubled during the 1990's. Whilst the proportion of VLBW babies showed a dramatic rise, total admissions showed a less dramatic approximately 20% increase.

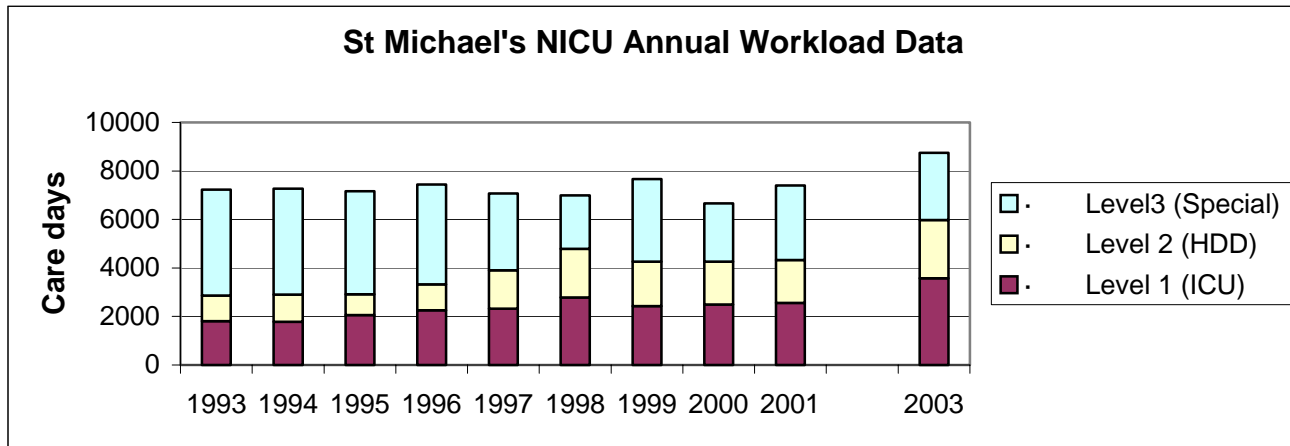
Graph 4 shows trends in neonates services care days at St Michael's (excluding transitional care). The trends are towards a higher proportion of care days for intensive or high dependency care, and a smaller proportion are special care. St Michael's advise that this reflects: 'an aggressive policy' to return babies to their base unit as soon as possible; minimizing use of special care when transitional care is an alternative; employing a community neonatal nurse to facilitate early discharge of NICU infants.

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<sup>4</sup> Bull J et al. Prevention of low birthweight: assessing the effectiveness of smoking cessation and nutritional interventions. Health Development Agency 2003.

<sup>5</sup> Rowe R, Garcia J. Access to care for low income childbearing women. Evidence on access to maternity and infant care in England. March 2003. National Perinatal Epidemiology Unit, Oxford University.

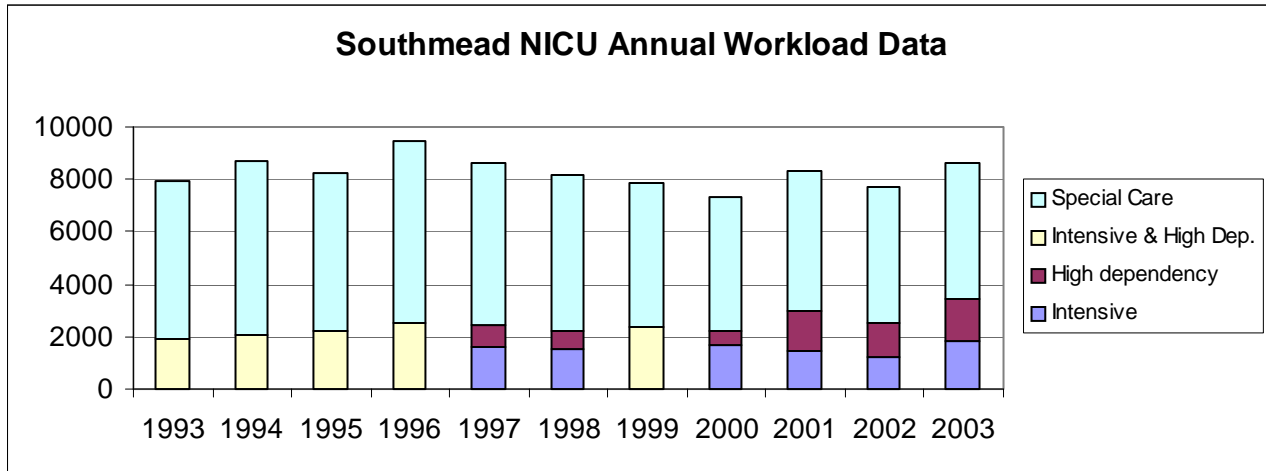
**Graph 4**



Sources: data 1993-2001 from Annual Statistical Report 2001, Peter Dunn Intensive Care Nursery, Department of Neonatal Medicine, St Michael's Hospital. Data for 2003 from Neonatal Medicine St Michael's Hospital Annual Report 2003.

NBT workload data for 1993-2003 also shows a decline in special care days per year, and a rise in intensive care and high dependency care days per year (graph 5). Compared with figures in the 2002 report, there was a substantial change in numbers of babies born at or before 28 weeks in 2003 - a rise from 26 inborn and 11 outborn to 37 inborn and 21 outborn.

**Graph 5**



Source: Neonatal Medicine Southmead Hospital Annual Report 2003

Graphs 4 and 5 illustrate differences in the intensity of workload recorded at the two units, although both have level 3 status. Only combined data for high dependency and intensive care care days is available for Southmead for 1993-1997 and 1999. In 2003, 60% of care days at Southmead were for special care, whilst at St Michael's only 31% were special care. During the same year, 69 of the 517 admissions to Southmead were 'outborn' ie born at another hospital, whilst at St Michael's, outborn babies represented 118 of 629 admissions, and there were 115 non-Avon admissions. 76% of total care days at St Michaels in 2003 were for Avon babies.

Overall the data shows growth in the proportion of work that is intensive care (particularly at St Michael's), but no clear long term upward trend in total care days. The number of out of area babies cared for has grown.

Transfer of infants between units within and outside Bristol are common and deplete unit staffing levels as babies need to be accompanied by neonates staff. In 2003, Southmead transferred 20 infants to St Michael's and a further 11 to Bristol Children's Hospital (BCH) for sub-specialist care. St Michael's notes 44 transfers to BCH for on-going care, and 26 St Michael's babies being transferred out ex-utero.

When only Avon babies at St Michael's are considered, the proportion of care days that are special care is still relatively low (37.5%). This is despite the figure of 60% for Southmead including all care days, not just Avon (and hence includes care days for out of area referrals who are on average higher risk than the Avon group). The provision of transitional care at St Michael's is the most significant factor explaining this different pattern of care. 603 infants were admitted for transitional care in 2003, requiring 4560 care days (of which an estimated 350 days were for 58 infants of substance-abusing mothers). Some of these babies would have been expected to use special care in the absence of transitional care.

Staff at both units consider that St Michael's serves a higher need population than Southmead, noting the inner city location of St Michael's, with more prevalent socio-economic disadvantage and more residents from minority ethnic groups. Women attending Weston Area Trust with low risk pregnancies may deliver at the midwife led unit at Weston, whilst others are referred to St Michael's because they have a higher risk status, or may prefer delivery there. This referral pathway also contributes to higher risk amongst the St Michael's population. Babies requiring general or cardiac surgery need to be admitted to St Michael's (whether Avon babies or from outside this area). All of these needs increase pressure on cots and other resources. St Michael's analysis of funding suggests that funding for Avon babies is low compared with the volume of service actually used. The NICU is keen to rectify this: waiting for implementation of 'Payment by results' may involve a long delay.

Benchmarking against suitable comparator populations would help to determine whether PCT populations are receiving an appropriate level of care. Hospital data comparisons are problematic where populations are subject to different models of care eg presence or absence of transitional care, which for some babies is an alternative to special care. Comparable casemix and methods for data recording cannot be assumed.

## **5. How Many Babies Need to be Admitted to Neonatal Care?**

Background papers informing the national Report of the Neonatal Intensive Care Services Review Group suggest that about 1 in 10 of the 600,000 or so babies born in England require admission to a neonatal unit (usually because of relatively minor problems with adaptation after birth or risk of serious illness). About 1 in 50 have life threatening disorders requiring intensive care<sup>6</sup>. This offers an opportunity for very crude comparison with the proportion of babies admitted locally, but as outlined above the validity of this is questionable.

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<sup>6</sup> Department of Health. Report of the neonatal intensive care services review group. London 2003.

The Southmead Neonatal Medicine annual reports for 2002 and 2003 show 9.7% and 8.6% of babies (live births) born at Southmead were admitted to the neonatal unit. St Michael's annual report for 2003 reports 488 'Avon (Bristol, Weston)' infants admitted. Avon IM&T analysis shows 4449 Avon live births at St Michael's in 2003. This suggests that the proportion admitted to the neonatal unit was 10.9%. These proportions are close to the 10% anticipated above. Note that an additional 603 babies were admitted to transitional care.

The percentage of total births involving admission to intensive care was 3.6% at Southmead in 2003. Intensive care admissions rose from 137 in 2001 to 190 in 2003. Equivalent data for St Michael's has not been identified.

PCT population based analysis of 2002/03 hospital activity data, using Health Resource Groups (HRG) applicable to neonates suggests that the following hospital spells are recorded for Bristol, South Gloucestershire and North Somerset at a combined rate 30% higher than for England (table1, appendix 1):

- HRG N01- neonates who died under 2 days old: local rate is about half the national rate.
- HRG N04 – neonates with multiple major diagnoses: local rates are about 46% higher than the national rate.
- HRG N05 – neonates with one major diagnosis: local rate is about one third higher than the national rate.

Different patterns emerge when rates for individual PCTs are compared. Only North Somerset has a combined rate below the English rate. Bristol North and South Gloucestershire have the highest rates. The observed pattern is contrary to what would be expected given local population characteristics: South Gloucestershire has a healthy population and would not be expected to have a high diagnostic rate for neonatal conditions. It is notable that the PCTs with the highest rates predominantly use Southmead, whilst PCTs with the lowest rates use St Michael's (table2 appendix 1). This raises the possibility of the observed difference reflecting differences in the way care is provided and/or recorded. It is possible that hospital spells are double counted when NBT babies are transferred to UBHT for sub-specialist investigations and care. This would fit with the observation that death rates are not raised, whilst single and multiple diagnoses are raised. Note that this data represents rates of diagnoses, not the rate of infants admitted to NICU.

## **6. Expected Trend in Demand for Neonatal Care**

Population health needs are likely to remain at the current level or increase, given trends in births, ethnicity and drug dependency. In the longer term health promotion programmes and well developed access to antenatal care for women with the highest health needs could have an impact on population need.

Changes in practice within neonatology and obstetrics have had a very substantial effect on demand for neonatal care. The Report of the Neonatal Intensive Care Services Review Group to the DH (2003) notes that whilst in 1975, one of every two babies born prematurely and weighing 1500g or less ('very low birthweight') died, by 1995 five out of six babies in this group survived the newborn period. The trend towards a greater proportion of babies being offered neonatal services seems likely to continue. This trend may be challenged given research documenting high levels of disability in children surviving very low birthweight and/or prematurity<sup>7</sup>.

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<sup>7</sup> EPICure is following up a cohort of babies born before 26 weeks gestation eg see Costeloe K et al. The EPICure study: outcomes to discharge from hospital for infants born at the threshold of viability. *Pediatrics* 2000;106(4):659-671.

## 7. The Influence of National Policy

The Department of Health issued a report from an expert working group on neonatal intensive care services in 2003<sup>5</sup>. An accompanying ministerial letter requested comments but also expressed Government commitment to increasing neonatal service capacity and announced the availability of funding to support implementation.

The report aimed to determine the best service organisation to enable access to specialist care as needed, as close to home as possible. It predicted that implementation of recommendations might contribute to closing the 'gap' between mortality rates in infants of manual vs non-manual groups by at least 10% and that restructuring services might save 200-300 lives. This estimate was not compared with the value of complementary strategies to prevent low birthweight eg smoking cessation.

Current services were described as widely dispersed, facing uncertainties about sustainability of staffing, lacking capacity in the larger units caring for the sickest babies, and too often hampered by the impact of transport teams being needed for transfers between units (hence depleting the staffing of the host unit). National standards were needed. Major centralisation was rejected on grounds that too many babies would be too far from home, and there were issues around capacity and staffing. Only the sickest babies should be cared for in more specialist centres.

The report recommended:

- Managed clinical networks of hospitals with differing neonatal units working together. These networks should be aligned with maternity and obstetric care. They will enable concentration of skills and expertise, minimise transfers to those which are necessary and facilitate early discharge to local units. They will maximise the capacity of the overall system;
- Agreed categorisation of needs of individual babies. Four categories of care as per the BAPM Standards report should be adopted (normal care, special care, high dependency and intensive care);
- Agreed designation of units providing their care. Each network to have one or more level 3 units (providing all categories of care), and a number of level 1 (routine and special care) and level 2 (routine, special and high dependency care, and potentially a locally agreed role in intensive care) units.
- Network supervisory structure with an identified lead clinician;
- Standards: each network to have protocols, standards, pathways of care and a joint approach to clinical governance including clinical audit, incident reporting and clinical training.

NBT has accessed the capital that was made available, and with the addition of charitable funds currently being raised, has plans for refurbishment of neonatal services.

Services from Somerset, BNSSG, BANES and Gloucestershire are already working on implementation of recommendations to develop managed clinical networks. The Western Network will meet in October, and a lead clinician has been appointed. A sub-group is already working on the difficult problems of managing transfers of mothers and babies between units. The Peninsula Network has Plymouth as its level 3 centre, but will continue to transfer some infants to Bristol eg those with heart conditions.

Providers in BNSSG have established a working group of representatives from local maternity and neonates services. This reflects a need for consistent working practices across local services, and concern about service reconfiguration, particularly the planned centralization of inpatient paediatric care.

Neonates services at NBT and UBHT have been designated level 3 ie offering all levels of care including NICU with access to paediatric sub-specialist support. The foreseen reduction in provision of level 3 care in units outside Bristol will increase out of area referrals to both services. Achieving care of all babies born at or before 28 weeks within the Network area raises significant capacity issues for neonates and maternity services.

## 8. Service Configuration

Concerns were expressed that whilst there is much planning underway for Bristol's health services, strategic planning for neonates services is lacking. Several options for future service configuration have been developed but need further evaluation. A single management structure for the 2 units should also be evaluated as an interim option for achieving equitable access to paediatric sub-specialist support and sustainability for both units (in terms of staffing and service development).

The Bristol Health Services Plan includes centralisation of inpatient paediatric services at UBHT. The Southmead neonatal service will be the only inpatient paediatric service not run by UBHT. This is raising concerns about relative isolation, with implications for clinical integration, access to paediatric support, coordination eg in managing transfers from outside Bristol, and development. Access to sub-specialist paediatric support will be a significant concern for units referring to the level 3 units in Bristol, with UBHT seen to be substantially advantageous for access to surgical services.

Sustainable staffing and the possibility of consultants being resident on-call are also drivers for changed configuration. Imbalance in the funding and the development of the 2 units may lead to one unit being perceived as relatively unattractive (in terms of job satisfaction), more difficult to staff, leading to an increased risk of clinical incidents.

The DH review commented on the relationship between neonatal and older children's services as follows:

'To provide properly supported stand-alone neonatal services without an adjacent paediatric unit is neither cost-effective nor practical in other than the very largest centres. Level 2 units can only operate as part of a general paediatric unit, alongside an obstetric unit, because paediatric staffing is shared with the general paediatric service although sufficient staffing must be in place to meet the level of intensive care activity being provided.' The report goes on to comment that access to paediatric sub-specialist services needs to be arranged, but does not necessarily need to be on the same site as the level 3 service.

Several options for changing service configuration have been considered by local neonatologists. Full appraisal of benefits and costs requires further detailed work, including analysis of the implications for obstetric services. The Southmead unit is relatively large, hence any options involving merger with the St Michael's unit would result in an exceptionally large service, with major implications for associated obstetric services. Even if substantial service reconfiguration is not pursued, planning is needed to ensure that access to support services (some of which are needed on a 24 hour, 7 day week basis) will still be achievable following the centralisation of paediatric inpatient services.

Leeds, Leicester and Nottingham were cited as centres that were making progress on similar issues around city-wide service configuration.

## 9. Quality of Care

Both NBT and UBHT participate in international clinical quality benchmarking by the Vermont-Oxford network, which covers selected indicators of clinical care of babies weighing less than 1500g. The populations, environment and ways of working differ between the US and UK (the UK casemix may be higher risk). Nevertheless the network is providing useful indicators on relative performance and stimulating local action. The current indicators of interest (for which units are outliers in the network) are nosocomial (hospital acquired) infection rates and chronic lung disease at Southmead, and mortality, infection and (short) length of stay at UBHT.

The BAPM are trying to develop UK wide benchmarking, and are working towards an agreed minimum dataset.

Both units are below staffing standards proposed by the British Association of Perinatal Medicine<sup>8</sup> but recent appointments have eased medical staffing problems. Middle grade medical staffing levels at NBT are satisfactory at present but challenges are anticipated as SHO staffing changes (timescale of about 5 yrs hence). Nurse staffing is more problematic (maternity and sickness absence). Shortage of funds is the main factor preventing development of nurse practitioners, but recruitment is also a concern. Practice development time is also constrained by funding shortages. The proportions of special care, high dependency and intensive care cots available are flexed according to available staffing. At UBHT there is concern that staffing levels are inconsistent with achieving adequate quality of care and that there are implications for clinical governance. The unit is short of specialist registrars, but development of nurse practitioners 'is going well'.

Transfers between hospitals involve staff accompanying the baby concerned, thus depleting staffing levels. Within UBHT, transfers between NICU and The Children's Hospital also require staff to leave wards, adding to the time that ward staffing levels are depleted. A Western Network sub-group is auditing transfers with a view to identifying scope for changes.

## 10. Information Needs

Annual reports from Southmead and St Michael's neonates services have been extremely useful sources of information for this report. To inform commissioning further,

- We need to be able to relate activity and numbers of babies cared for to defined PCT populations.
- We need to be certain that models of care and data recording are comparable eg not all hospitals have transitional care.

## 11. Conclusions

Demand for neonates services is most likely to continue to grow, given trends in healthcare and local population characteristics reflecting health need.

Services data show substantial increases in the number of very low birthweight babies being treated, and the proportion of out of area babies admitted particularly for intensive care during the past decade. This trend will continue given the recent allocation of level 3 status to both Bristol units within the Western network. This status involves particular challenges in ensuring both local and regional needs are met, and in coping with the logistical demands of patient transfers.

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<sup>8</sup> Standards for hospital providing neonatal intensive and high dependency care. British Association of Perinatal Medicine 2<sup>nd</sup> edition. London. December 2001.

High occupancy rates and high transfer rates have been cited as contributing to higher mortality and hospital-acquired infection by St Michael's, where the service is not considered to be meeting local needs, or funded to a level consistent with these. This presents clear problems with respect to meeting the national policy aim of all babies born at or before 28 weeks being cared for by the level 3 units, which will bring many more out of area referrals into Bristol.

PCTs should review funding and activity commissioned in the light of these changes in demand on local units. St Michael's considers that current funding for Avon babies is well below what would be expected on the basis of actual activity provided. Both units can be expected to face continuing increases in out of area referrals, hence planning is needed to ensure that there is sufficient capacity to meet new and current needs.

Transferring babies between units depletes unit staffing levels, both between NICUs and between St Michael's NICU and the Children's Hospital. Implementation of the Western Network has presented an opportunity for joint working on transfers, but in other respects the proposed model of care may increase the complexity of managing patient movements through network levels of care and locations.

Benchmarking population use of neonates services is hampered by different models of care eg development of transitional care serving some babies who would otherwise be admitted to special care. High PCT population rates for HRGs relating to neonates are found for S Gloucestershire and Bristol North, raising the possibility that the rate is explained by different models of care and/or data recording at NBT compared with UBHT. The high rates are incompatible with other evidence on relative health need in the South Gloucestershire population.

Centralizing inpatient paediatric services is expected to have impacts on the Southmead neonates service. The magnitude of effects on access to sub-specialist care at UBHT, and access to appropriate on-site support services needs to be better understood, and options for change evaluated. Staffing levels are a continuing concern, and evaluation of options is wanted to decide how best to achieve adequate and sustainable staffing. Major service reconfiguration presents complex challenges given interdependencies between maternity and neonates services. The interim step of bringing the Southmead neonates service under the same management as all other inpatient paediatric services should be considered, to help secure equal access to sub-specialist services.

St Michael's and Southmead participate in international quality benchmarking on the care of very low birthweight infants, and provide annual reports on services provided. There is concern about sustaining quality of care given funded staffing levels and service configuration. Action is underway on aspects of care for which the units are outliers.

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23<sup>rd</sup> November 2004



## Appendix 1

Table 1

### Neonates With Major Diagnoses, 2002/03

PCT	Weighted Population	HRG						Total	
		N01		N04		N05		N01 + N04 + N05	
		No. of Spells	No per 1000000 Weighted Population	No. of Spells	No per 1000000 Weighted Population	No. of Spells	No per 1000000 Weighted Population	No. of Spells	No per 1000000 Weighted Population
Bristol North	222302	9	40.5	95	427.3	205	922.2	309	1390.0
Bristol South & West	179466	10	55.7	77	429.1	121	674.2	208	1159.0
North Somerset	176380		0.0	54	306.2	115	652.0	169	958.2
South Gloucestershire	186261	6	32.2	105	563.7	175	939.5	286	1535.5
BNSSG	764409	25	32.7	331	433.0	616	805.9	972	1271.6
England	49175997	3114	63.3	14543	295.7	30240	614.9	47897	974.0

- NB
- (a) Total population weighted for age and need
  - (b) HRG N01= Neonates died < 2 days old  
HRG N04= Neonates with multiple major diagnoses  
HRG N05= Neonates with one major diagnosis
  - (c) Figure for North Somerset PCT for HRG N01 is < 5

Source: Avon IM&T Consortium

1.1.1 Table 2

Number Of Maternities, By PCT And Trust 2002. Revised to allow for uncoded episodes.

PCT	Trust					Total	Home Births	Elsewhere	Total	ONS Figure
	North Bristol Trust	UBHT	Weston	West Wilts PCT	Other					
B&NES	11	81	0	1584	7	1684	93	1	1777	1664
Bristol North	1517	1080	0	9	9	2615	108	5	2723	2729
Bristol South & West	186	1683	0	9	7	1885	59	2	1944	1933
North Somerset	444	1091	272	6	20	1833	48	7	1881	1881
South Gloucestershire	2114	278		227	19	2638	78	5	2716	2725
Missing Postcode	1	1	0	0	0	2			2	
Total	4272	4214	272	1836	62	10657	386	20	11043	10932

Source: Avon IM&T Consortium