

Joint ACRRM / RDAQ submission
to the Review of Maternity Services in Queensland
November 2004

Introduction

This is a joint submission by the Australian College of Rural and Remote Medicine and the Rural Doctor's Association of Queensland to the Review of Maternity Services in Queensland.

Aim

To present evidence for, and coherent argument in favour of re-establishment of maternity services in small hospitals serving communities in rural Queensland.

The Problem

The last twenty years has seen the concentration of rural maternity services to fewer and larger hospitals. In many rural communities, families have lost the right to safely deliver their children in their own town, surrounded by supportive family and friends, attended by familiar doctors and midwives.

The reasons that small units have closed their doors are complex. The endgame with each closure has been a decision taken by a Queensland Health District Manager to close the service.

Sometimes the units have closed due to loss of key proceduralists. Sometimes Queensland Health had assessed the costs of providing the service as too high.

Usually the closures have been due to District Manager's management of perceived risk.

We may well ask "Whose risk?"

RDAQ and ACRRM contend that perceived risk of legal action against Queensland Health has motivated most of these closures, not a genuine increased risk to mothers and babies. Queensland Health in effect passes their risk on to country women.

Increased Risk to Queensland Women and Babies due to Closure of Rural Maternity Units

The risk to mothers and their newborns is in fact increased by the closure of local rural hospital maternity care. There is international evidence to support the proposition that lack of access to local maternity services leads to poorer outcomes.

A study of 33 rural hospital service areas in Washington State by Nesbitt et al found " Women from communities with relatively few obstetrical providers in proportion to number of births were less likely to deliver in their local community hospital... Women from these high-outflow communities had a greater proportion of complicated deliveries, higher rates of prematurity, and higher rates of neonatal care than women from communities where most patients delivered in the local hospital." (1)

Larimore and Davis showed a significant quantifiable increase in infant mortality due to lack of maternity caregivers in rural Florida. (Cited in 5).

Taylor et al found, in a case study of the closure of small rural unit, that "Women from the hospital service area who presented late for prenatal care were twice as likely to have had a low birthweight infant in the year after the local hospital unit closed (16.7% vs 7.4%)." (12).

In addition, evidence from NSW shows that closure of rural maternity units lead to poor outcomes. " ...there was a high proportion of low birth-weight infants, stillbirths and neonatal deaths" in towns where maternity services had been withdrawn. (6).

The Rural Doctor's Association of Victoria Position Paper on Small Unit Rural Obstetrics contends that moving women from their local communities to centralised services causes increased morbidity and mortality are due to "troubled labour, caused by maternal anxiety, in unknown and distant institutions, with resultant instrumentation and operation, and by mishaps resultant from lengthy transportation during labour. Unassisted and therefore much safer labour and childbirth are up to 50% more common in rural units, where the primary attending GP obstetrician is of much greater experience than junior staff in metropolitan and provincial units." (4)

Mechanism and Effect of Closure of Local Rural Maternity Services

A typical scenario in Queensland rural obstetrics over the last twenty years is that "Someone From Central Office" at Queensland Health instructs the local (non-medical) district manager to close down a rural hospital service. A local review is undertaken which concludes (falsely) that there are unacceptably high levels of risk. Unless the local midwives and doctors are particularly vigorous, the service is closed down.

Patients lose the right to safe delivery in their own town and gain the "right" to the financial and emotional costs and increased risk of delivery away from home.

If a woman delivers her baby by the side of a rural road because she had to drive an extra hour to the regional maternity unit rather than her local facility, then that is, of course, not Queensland Health's problem. She was never in their facility.

She and her infant are exposed to risk. No trained midwife or doctor is at hand to help.

The decisions to close local maternity units also seem to be taken purely in isolation. There seems to be no consideration given to the additional costs to the local community caused by these closures. Downgrading rural hospitals takes the heart out of many rural communities. Jobs are lost, people leave the town, school classes reduce in size, businesses lose income. Rural families also face increased direct costs associated with antenatal and intrapartum care - travelling hundreds of extra kilometers, paying for accommodation for the woman for weeks prior to delivery, and for the families during her hospital stay.

A true cost-benefit analysis of the closures of rural maternity services should take these factors into careful consideration.

The level of disillusionment amongst rural proceduralists regarding Queensland Health's attitude to rural maternity services is high. Most rural GPs are able to cite instances of district managers using a heavy-handed approach. The loss of experienced rural proceduralists from Queensland rural hospitals e.g. in Roma can often be directly attributed to this factor.

Queensland can ill afford this loss.

Safety Data on Rural Obstetrics

There is abundant Australian and international data on the safety of maternity services in small rural hospitals.

Rural hospitals in Queensland, like their counterparts interstate and overseas, have a lower perinatal mortality rate than larger regional and urban units. This is as it should be. Smaller centres should have a lower perinatal mortality rate due to careful selection of the type of pregnancies they chose to deliver. Smaller centres are able to select out and refer onwards the high risk pregnancies by a process of careful antenatal screening.

Queensland data shows the following:

Dr Bruce Cameron has published twenty years of data covering all deliveries (approx. 5800) at Atherton Hospital from 1981 to 2000. The overall perinatal mortality rate at Atherton Hospital was 5.3/1000. Including patients delivered elsewhere (transferred due to intrapartum complications), the perinatal mortality rate was 9.6/1000, which compared favourably with the Queensland (13.5/1000) and Far North Queensland (16.9/1000) rates. (14 and 15).

The perinatal mortality rate is higher than the state average in Far North Queensland. It is notable that "Evacuation to a regional centre to give birth is the only official option in the remote areas of Far North Queensland" (2) - the very situation which Nesbitt (1) concludes gives rise to poorer outcomes. In addition, Far North Queensland reported had the highest number of Aboriginal and Torres Strait Islander births for Queensland- 30% of all births. This group is known to have the highest perinatal death rate of any cultural group in our community. The last year for which data is to hand was 2000-2001. The ATSI perinatal mortality rate was 24.7/1000 vs. 6.6 for "Others".

Dr John Evans (rural procedural medical practitioner, Emerald) has collated data (as yet unpublished) on maternity outcomes in rural Queensland since 1991. The overall perinatal mortality rate for the Rural Divisions of General Practice for the 1999-2000 year was 8.65 vs. 10.7 for the whole of Queensland. About the same difference in perinatal mortality rates between rural divisions and the whole of Queensland is seen in all but one of the previous 10 years, i.e. about 2 per thousand lower in rural division areas. (3)

Interstate the evidence is much the same:

The 1983 Victorian State Inquiry into rural maternity services found "a direct ratio of smallness to safety. Units under fifty deliveries per year, even under 25 per year were found to be extremely safe. Perinatal mortality doubled from 5.5/1000 in units under 50 births per year, to 10.5/1000 in units over 50 births per year. Perinatal mortality tripled to 15/1000 in tertiary units." In Victorian Bush Nursing Hospitals for 1988-89, the perinatal mortality rate was 1.8, vs 10.4 for the whole of Victoria. These figures were described as "unparalleled in the world". (Cited in 4).

The 1989 Shearman report into maternity services in rural New South Wales reported higher rates of spontaneous delivery (no intervention) at 75% for rural facilities vs 54% for the state as a whole, and noted the "low cost of small units".

Woollard and Hayes reviewed rural obstetrics in New South Wales for 1990-91. They found the perinatal mortality rate for rural facilities was 8.7/1000 vs. a figure of 10.5/1000 for the whole of NSW, with lower intervention rates across all procedures. They concluded that "There is no evidence that obstetric care in NSW rural hospitals with accredited obstetric units is below standards acceptable to the community." (6)

In Western Australia, the 2000 "Rural Obstetrics and Midwifery Guidelines" state " Numerous studies have been undertaken on the performance of rural obstetrics over a number of years. In all cases, the quality of service provided and the outcomes for women delivering babies in rural settings have either met or exceeded statewide performance standards. In short, the current safety of rural obstetrics is not in question."

International data on safety in small rural facilities is also reassuring.

A study in Nova Scotia, Canada by Pebble et al found that small rural community hospitals with less than 100 deliveries per year had the lowest perinatal morbidity and mortality in the province. (Cited in 5).

Lumley analysed perinatal mortality rates for Victoria for 1982-84 (11). She reported " Initial analysis of birthweight-specific mortality rates appeared to confirm the finding from New Zealand and Helsinki that normal infants (2500-2999g) fared worse in larger hospitals", whereas all infants under 2500g birth weight did better in large hospitals. Furthermore, "Tabulation of infants with Apgars 0-3 at 5 minutes did not support the hypothesis that small hospitals have more serious morbidity."

In summary, to quote the Rural Doctor's Association of Victoria Position Paper on rural obstetrics, " The evidence is unequivocal; there is not, and never has been, any valid argument for closure of smaller rural obstetric units on the grounds of safety or smallness. It is inevitable that such closures will lead to increasing morbidity and mortality for rural women and their babies." (4)

Intervention Rates

There is presently an acknowledged high rate of medical intervention in childbirth, much of which is driven by fear of litigation.

Historically the intervention rates for rural facilities have been below those for regional and urban centres.

The data from Atherton hospital for 1981-1990 over nearly 2900 deliveries by 17 rural proceduralists show an overall caesar rate of 13% (10.6% public, 18.3% private). This figure had risen to an overall rate of 17.4% (16.7% public, 20.4% private) for the 3000 deliveries over the next 10 years 1991-2000.

Perinatal mortality rates were not improved by the increased caesarian section rate, being remarkably low for both decades- 5.2/1000 and 5.3/1000 respectively.

The unpublished data collated by Dr John Evans for the rural division areas for Queensland over the years 1991-2001 similarly show intervention rates lower than the state average.

Overall the forceps delivery rate fell in rural division from about 4% to about 2% over the decade 1991- 2001. Vacuum assisted deliveries rose from about 2.8% in 1991 to 4% in 2001.

Caesarian section rates for rural divisions for 1999-2000 (the last year comparative data are available) were 16.6% for non-ATSI, and 16.2% for ATSI mothers. The state average for Queensland was 24.9%. Similar differences are seen in the data back to 1991.

As mentioned, the low intervention rates were accompanied by lower-than-average perinatal mortality figures.

These data demonstrate the outstanding success of rural maternity units in safely providing low intervention rates to appropriately screened low risk women.

The Local Maternity Unit Model

The delivery of maternity services as delivered in most rural hospitals in many ways exemplifies the ideal model of maternity care.

- a) This model sustains continuity of care between mothers and their usual health care providers.
- b) This model maintains proximity between mothers and their existing support networks of family and friends.
- c) This model reduces the numbers of mothers who are exposed to the risks associated with transfers during labour.
- d) Higher frequency of antenatal visits are maintained when maternity care is delivered locally.
- e) Maintaining local maternity services maintains the risk management skills of local maternity care providers.
- f) This model has been demonstrated to be associated with very low maternal and perinatal mortality rates.

This model is proven to be effective, safe and has a high degree of acceptance by rural women. This model could be transferred to an urban environment via a system of small suburban maternity units staffed by local procedural GPs and small teams of midwives.

ATSI Maternity Services

RDAQ and ACRRM do not presume to speak for Aboriginal or Islander people, and do not pretend to have the answers to all the multitude of complex problems affecting maternity services for this group of women.

The following points have been extracted from the literature on the topic.

The principal cause of increased perinatal mortality in ATSI women appears to be low birthweight, with reduced birthweight not being due to increased prematurity, but small for gestational age births. (7)

Factors such as being primagravid, increased alcohol consumption and higher STD incidence were found to be significant in a study in Cherbourg and Kingaroy by Powell and Dugdale, along with smoking incidence and poor maternal nutrition. (8) Increased rates of urinary tract infection and anaemia have been noted, but their effects are unclear. Being of Aboriginal origin was not per se associated with a poor obstetric outcome once these other variables were taken into account.

This is in contrast with a study in Far North Queensland by Humphrey and Holzheimer, which found that aboriginal ethnicity remained an independent risk factor once other factors were taken into account.(7)

There is evidence that low birthweight can be positively influenced by a community based intervention programme in more traditional Aboriginal communities.(9) Elements of the programme deemed to be important were use of respected local aboriginal women to deliver the programme, emphasis on traditional cultural practices relating to birth, encouragement of antenatal health care and education of pregnant women about Western health and medical practices.

Substantially increased antenatal detection of chlamydia, gonorrhoea and trichomonas was achieved in the study communities by use of the "T-test", using a tampon and PCR analysis rather than the usual endocervical swab.(9) This is also likely to be a more culturally acceptable investigation for many ATSI women.

Improved antenatal care participation was seen in a model developed in Mt Isa by local aboriginal people and Mt Isa Hospital, driven by increasing perinatal mortality. Changes included provision of a separate antenatal clinic at the local Aboriginal controlled health service, with culturally appropriate waiting and examination rooms; improved continuity of care by medical practitioners; community outreach clinics to remote communities; and improved record systems. Short term reductions in perinatal mortality and increased antenatal attendance were observed.

The authors conclude that "Changing the settings within which Aboriginal patients access their care can make a difference to attendance and health outcomes in antenatal care. Culturally safe environments, Aboriginal staff, and 'ownership' contribute to improved outcomes." (10)

There is increasing evidence that "low birthweight may be related to the high incidence of cardiovascular and other adult disease processes seen in Aboriginal people." (7,9) Renal disease in adults has also been linked with low birthweight. (9)

There would seem to be much to be gained by effective interventions targeted at increasing birthweights for ATSI babies.

Recommendations

The Australian College of Rural and Remote Medicine and the Rural Doctor's Association of Queensland make the following recommendations:

1) Re-establishment of small maternity units

RDAQ and ACRRM recommend the re-opening of small hospital maternity units across the state where it can be demonstrated that women can safely deliver their babies in a familiar environment supported by close access to family and friends. Rural women have the moral right to safely deliver their babies in their own town.

2) Better Queensland Health Support

RDAQ and ACRRM recommend the following improvements to Queensland health's support of rural maternity care:

i) That Queensland Health provide appropriate quarantined funding for re-training of medical and nursing staff, and employment of staff at adequate levels to work in rural maternity facilities. Quarantined funding would prevent the diversion of funding to other areas, and would give incentive for District Managers to access this pool for improvement of their local area health services.

ii) That private rural GP proceduralists be encouraged to provide their skills and experience to public patients by enhancement of the VMO scheme. Experienced rural proceduralists to be contracted to work on call and/or in antenatal clinics to provide maternity cover. Private rural procedural GP's also educate junior staff and increase the safety of rural maternity care. This avoids the risky situation where inexperienced junior staff are left without assistance and advice.

iii) That Queensland Health provide appropriate indemnity insurance cover by funding the 25% gap in increased premiums remaining after the federal government's 75% rebate. Currently the Federal Government will fund 75% of the difference in premiums between procedural and non-procedural GP's. If rural proceduralists also provide private care, then Queensland Health should quickly recoup this cost in terms of private bed charges. (e.g a \$1500 indemnity subsidy by QH would be recouped by 4 days of private patient bed-occupancy.)

iv) That small obstetric units be supported by utilising advanced O&G registrars on rotation for weekend and holiday relief, when the rural proceduralist is absent.

v) That flexible arrangements in funding and staffing allow the rapid re-opening of rural and regional maternity units when appropriately skilled staff are found to provide a local service.

3) Training/ Re-training of Rural Proceduralists

i) That the CME funding for rural proceduralists be extended to include retraining for past procedural GP's wishing to re-enter the procedural workforce and also non-procedural GP's wishing to upgrade to procedural status.

ii) That the existing re-training courses be more widely available, and that robust relief arrangements within Queensland Health be available to allow staff to attend these courses. The following retraining/skills maintenance courses are recommended:

Advanced Life Support in Obstetrics
Neonatal Resuscitation Programme
Advanced Paediatric Life Support

iii) ACRRM and the Joint Consultative Committee in Obstetrics CME requirements be taken as evidence of skills maintenance.

4) Ministerial Role/Responsibility

i) RDAQ and ACRRM recommend that District Managers lose the power to close down rural maternity facilities. In future, this important decision needs to be made by the Minister for Health alone, and be seen to be the Minister's decision.

ii) If a small rural obstetric unit is to be closed by the Minister, then

a) The Minister for Health be responsible for enunciating the reasons, costs and benefits of closing down the small hospital maternity service, and

b) A community impact statement be prepared, published and distributed to stakeholders which assesses factors including

i) Increased costs to the community in terms of travel costs to, and accommodation near the nearest other maternity centre

ii) Increased cost to the community in terms of time away from work and home for rural family members

iii) Costs to the local community in terms of loss of skills in the local hospital & loss of jobs at the local hospital e.g. anticipated impact on the hospital's ability to respond to other emergencies

iv) Probable effects on incidence of postnatal depression, reduction in breast feeding rates, other "hidden morbidity".

iii) RDAQ and ACRRM recommend that direct channels of communication between rural practitioners and the minister be established, bypassing the district manager in cases where divergence of views or agenda cause a threat to the continuation of essential services. This should be a rapid, formal process via acknowledged mechanisms.

5) Addressing ATSI Perinatal Mortality

That effective community based interventions aimed at increasing the low birthweights of ATSI infants be funded by the Queensland Government, and channelled through community controlled health services where these exist. Modes of maternity service delivery for ATSI people to be developed in consultation with the ATSI community.

Conclusion

Small rural obstetric units need to be supported and re-established as the safest delivery option for rural women. When they are closed, the associated social and economic effects lead directly to quantifiable increases in perinatal mortality.