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Homebirth

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists

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Homebirth

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From the President

Dr Rupert Sherwood
President

Welcome to the Summer edition of *O&G Magazine*. This issue presents a diverse range of opinion on the contentious subject of homebirth. There is incongruity between the quantitative (the number of homebirths in Australia) and qualitative (the media exposure and public interest) aspects of the debate that surrounds homebirth. It is timely for the College to address the question with a series of articles from a diverse range of stakeholders, both health professionals and consumers. I expect this edition of *O&G Magazine* to generate further lively debate and I believe the articles speak eloquently both for and against birth in locations remote from the hospital environs.

College activity continues apace in the interval since the Spring edition of *O&G Magazine*, with the seventh RANZCOG Council and my tenure as President reaching the halfway mark with the November Council meeting. Reviewing the Strategic Plan for this two-year term shows excellent progress in achieving the goals and specific outcomes set out in September 2010 at the combined Executive/Board meeting of the sixth and seventh Councils.

Within the College and its membership, we are facing a crisis of participation. That's not to say Fellows, Trainees and Diplomates are not paying their subscriptions or posting back the appropriate paperwork, but in terms of the viability of RANZCOG (and indeed any professional body, college or other), the ongoing *pro bono* contribution of the membership to the work of our College is absolutely critical to maintaining any sustainable position as a leader in training, education and re-certification in our specialty. In my role as President, I oversee the large and diverse range of projects, programs and processes that are the *raison d'être* for RANZCOG. Increasingly, Board members, Committee Chairs, senior College staff and I are asking the same small number of College stalwarts to step up and contribute. While, inevitably, good governance and the need for specific expertise will mean that significant proportions of the work will be concentrated among a small volunteer group who willingly take on that role, the need for a wider participation in less demanding (but equally important) roles is a pressing imperative.

The recent Regional Committee elections were an excellent, albeit disappointing, example of the problem. With the exception of New Zealand, where a very successful promotional exercise to sell the benefits of Regional Committee participation resulted in a contested election for positions, the Regional Committees either just made the quota with uncontested nominations or required a call for casual vacancies to be filled.

Those who have contributed many years of College work should be permitted to step back and develop other pursuits; indeed, a healthy organisation will have a steady recruitment from newer members, bringing contemporary ideas and fresh enthusiasm to the governing and administration of the committees and Council. Recruiting this 'new blood' into College participation has proved a difficult task for this and previous executives.

In a continued effort to add diversity and relevance to our CPD program, I am pleased to report that RANZCOG has signed a contract to bring Practical Obstetric Multi-Professional Training (PROMPT) to Australia and New Zealand. Recognised as an obstetric emergency training course that focuses specifically on teamwork rather than individual skills, the PROMPT license has been generously gifted to the College by Victorian Managed Insurance Authority (VMIA) and, after revisions to 'Australianise' the course content, will be introduced in New South Wales regional centres using Commonwealth Rural Health Continuing Education funding. Promoting training as a team with colleagues in midwifery, paediatrics and anaesthesia is evidence of RANZCOG's commitment to collaborative care in maternity health care.

Within College House, and as part of maintaining engagement with relevant external agencies, we have two new committees. The first, mentioned briefly in the Spring edition of *O&G Magazine*, is the Workforce Committee, whose brief is to collate and respond to the various issues relating to medical workforce. Our online Practice Profile, which had a participation rate of nearly 70 per cent from the Fellowship, has provided valuable contemporary data to inform government and various agencies such as Health Workforce Australia about the current and projected requirements for a sustainable O and G workforce in both Australia and New Zealand. A similar Practice Profile for Diplomates is now active. The second is a new group that is charged with coordinating all the various aspects of diagnostic imaging that impact on both obstetric and gynaecological practice. With the expiry of the Memorandum of Understanding between the Department of Health and Ageing, the Royal Australian and New Zealand College of Radiologists and RANZCOG, there is a pressing need to monitor and respond to both the intrusion of regulation and also the training needs in this key area of daily practice in O and G. This group, while reporting to the Board and Council, is complementary, rather than in opposition, to ongoing work by the COGU subspecialty, the Australasian Society for Ultrasound in Medicine and, of course, the political voice of O and G, the National Association of Specialist Obstetricians and Gynaecologists.

Interacting with the international O and G community is part of the strategic plan to ensure RANZCOG has a voice in both our region and on the world stage. The Asia Oceania Federation of Obstetrics & Gynaecology (AOFOG), of which Australia, New Zealand and Papua New Guinea are members from our region, meets biennially to hold a Congress and deals with administrative matters through its Council. With the recent addition of Cambodia and China, to make the membership 26 countries in total, the organisation represents over four billion people. RANZCOG's involvement has included co-hosting the 2009 AOFOG Congress with the 2009 ASM in Auckland and, recently, Dr Digby Ngan Kee (Vice-President, New Zealand) and I attended 2011 Congress in Taipei. RANZCOG will host the next Council meeting in Fiji in 2012, with the aim of highlighting the maternal and perinatal health needs of the Pacific region to members of AOFOG, as well as showcasing the cooperative work of the Pacific Society for Reproductive Health (PSRH) and RANZCOG. I believe in this, the 'century of Asia', we need to increase our contribution to both the expert working committees of this organisation and through participation rates in the next Congress, to be held in Thailand in 2013.

The International Federation of Gynecology and Obstetrics (FIGO), occupies centre stage in both world O and G medical politics and clinical leadership for addressing the not-insignificant health problems of the world's women and newborns, particularly those in the developing nations, where the statistics on maternal and perinatal outcomes remain stubbornly alarming. The College's official nomination and support of former RANZCOG President Dr Ken Clark as a candidate for FIGO President-elect, to be voted upon at the Rome Congress in October 2012, is an opportunity to place our College at the forefront of leadership and reform on the international stage. The Board has no hesitation in backing Dr Clark for this position of international medical leadership and I ask any Fellow who is able to promote the RANZCOG nomination at international meetings and through contacts in other O and G colleges to do so at every opportunity. A biography and letter of support is available from Georgina Anderson via email at ganderson@ranzcog.edu.au .

I wish to draw your attention to the new website, with http://www.ranzcog.edu.au now directing members to a much more user-friendly interface. New features include current news items, announcements, rapid access to college opinion pieces and responses to current issues, in addition to a platform that will soon provide a 'one-stop shop' link for Fellows, Trainees, Diplomates and other member categories to access online CPD, educational resources and audit tools. As with all things new, there will be some adjustments to the new layout and features, and feedback is welcomed to the senior IT Coordinator, Andrew Haxton, at websupport@ranzcog.edu.au .

In November I attended a meeting in Perth to acknowledge new frontiers in gynaecological surgery (The Complicated Pelvis) and also pay tribute to Prof Ian Hammond's outstanding contribution to our specialty, in particular, the science and teaching of pelvic surgery. As part of that meeting I was invited to address the topic: 'Is the College relevant?' Preparing that talk caused me to focus on the key factors in promoting RANZCOG as the standard bearer of our motto 'Excellence in Women's Health'. Despite my concerns expressed in the opening lines of this editorial, I remain very confident we can maintain and improve our position and influence in this important, but increasingly volatile, health environment.

Between editions of *O&G* Magazine the College lost two great members of our profession (see p80 for their obituaries). Profs Carl Wood and Tony McCartney can only be described as luminaries and great leaders in their chosen fields of reproductive medicine and gynaecological oncology. Countless thousands of women benefited both directly and indirectly from the contributions of these greatly admired and respected colleagues. RANZCOG extends its sympathies and thoughts to their families, friends and colleagues.

Over the last three months the CEO of RANZCOG, Dr Peter White, has been taking a well-earned break on long-service leave, with his position filled by the Acting CEO Valerie Jenkins. On behalf of the Board and staff of College House, I thank Valerie for the magnificent job she has done in Peter's absence and also welcome Peter back to work on 14 November.

My best wishes and season's greetings to RANZCOG members, College staff and all those involved in our collegiate endeavours.

From the Acting CEO

Valerie Jenkins
Acting CEO

This edition of *O&G Magazine* takes homebirth as its theme, a controversial topic that involves only a small percentage of births in Australia and New Zealand. However, it is an issue that arouses passions on both sides of the debate. The articles are varied and I hope that reading them you gain an added insight and understanding of the issues.

This edition of *O&G Magazine* also marks the end of my time as Acting CEO. During the last three months, while Dr Peter White has been on long-service leave, the work of the College has continued at a rapid pace with membership, subspecialty and Diploma examinations, national Trainee selection, the launch of the new RANZCOG website, the establishment of new committees and working parties – namely the Workforce Committee, the Diagnostic Imaging Management Committee, the Fetal Surveillance Guideline Review Working Party and the Training Review Implementation Working Party – and the initial preparation for what will be a major undertaking for the College, accreditation by the Australian Medical Council (AMC) in 2013, being just a few of activities that have been undertaken.

In September, the Medical Council of New Zealand notified the College that it had extended the College accreditation to December 2013, to align with the AMC Accreditation period. No longer will the College have to undergo two accreditation processes, following the signing of a Memorandum of Understanding between the AMC and MCNZ to align the accreditation activities of the two bodies. At the meeting of the Board in September, consideration was given to the steps needed in order to best position the College for the requirements of accreditation, and work on the Board's recommendations commenced at the November meetings of the relevant committees so as to ensure that the College is in a position to meet all of the accreditation standards.

In 2011, the Trainee-selection process in Australia was coordinated centrally as a national process. As the New Zealand training year starts earlier than it does in Australia, the New Zealand selection process necessarily operates separately and earlier than that in Australia. The basic selection process in both countries is, however, identical in terms of selection criteria, scoring, scoring guidelines and the three core components of online CV/application form, referee reports and interview.

It was only following confirmation of accepted positions that Regional Training Accreditation Committee (TAC) Chairs were notified of the allocated list for their state, with requests for preferences, liaison with local authorities, preference matching and allocation to regional Integrated Training Programs/hospitals subsequently undertaken at a local level. On both sides of the Tasman, RANZCOG Fellows were major contributors to the selection process via application assessment and serving on interview panels. Their input was essential, as was the advice, commitment and support received from the Chairs of the regional TACs.

In July, the Board established the Workforce Committee, which has a broad remit to consider issues that impact on the provision of a sustainable O and G workforce in both Australia and New Zealand now and in the years ahead. It will come as no surprise that this Committee has oversight of the RANZCOG Practice Profiles of Fellows and Diplomates along with the College Activity Report. I have been very pleased to see how well the Practice Profiles have been received; however, to be truly effective, we need a response rate of 100 per cent. I can recall only too vividly how difficult it was in my early years at the College to explain to various government departments that the College could not provide statistics on the number Fellows practising obstetrics in Australia and New Zealand. I also found it frustrating to know that surveys on obstetric issues approved by the CPD Committee were sent to all Fellows rather than solely those whose scope of practice included obstetrics. I encourage those of you who have yet to complete your profile, to go to my.ranzcog (http://my.ranzcog.edu.au) and complete your profile now, in order that the College can better advocate on your behalf.

> 'In September, the Medical Council of New Zealand notified the College that it had extended the College accreditation to December 2013, to align with the AMC Accreditation period.'

Of particular interest to Provincial Fellows and other College members working in rural and remote Australia is advice from the Department of Health and Ageing that the Specialist Obstetrician Locum Scheme (SOLS) has been designated an ongoing program. This designation guarantees that SOLS will be funded into the future, although the level of funding is not specified. The Commonwealth has indicated that a review of the program, along with other Commonwealth-funded rural locum programs (GP anaesthetists and Rural GP locum program), will be undertaken during this financial year. SOLS is an important workforce support program that provides locums for specialist and GP obstetricians in rural and remote locations. Unfortunately, each year some requests for locum assistance go unfilled, so if you are interested in supporting your rural colleagues by doing a week or more of locum work please contact the SOLS Secretariat: sols@ranzcog.edu.au . Perhaps you are a recently qualified FRANZCOG or DRANZCOG/DRANZCOG Advanced and have contemplated rural or regional practice, SOLS offers an ideal opportunity to try rural practice before making the move.

By the time you read this edition of *O&G Magazine,* the RANZCOG 2011 Annual Scientific Meeting (ASM) will have been held in Melbourne. I'm sure that those of you who attended will have enjoyed an interesting and varied scientific program and social activities. The Organising Committee, chaired by Prof Michael Permezel, has worked closely with Ms Kylie Grose, the ASM coordinator, to ensure the success of the meeting. Those of you who were unable to join your colleagues in Melbourne should make note that the next ASM will be held from 9–12 September 2012, in Canberra.

Events such as an ASM provide a valuable opportunity for Fellows, Trainees and Diplomates to come together and the collegiality enjoyed at these events provides great support to those who often work in professional isolation. They also provide a valuable opportunity for the membership to meet members of the College House staff, who work tirelessly to ensure the success of each event.

The College owes an enormous debt to the *pro bono* contribution of Fellows and Diplomates in supporting the College's training and educational activities. Not to mention the contributions made to Council; committees, both national and regional; RANZCOG self-funded projects such as the Fetal Surveillance Education Program and the Nuchal Translucency, Ultrasound Education and Monitoring Program; and the development of externally funded programs and projects, which include SOLS, the General Practitioner Procedural Training Support Program, Specialist Training Program and Rural Health Continuing Education projects. Without these *pro bono* contributions the College would not be able to undertake half of what it does.

It is interesting to reflect that my first official duty as Acting CEO was to attend a morning tea for the Friends of the College held in the Frank Forster Library at College House (see p76 for a report). This was a wonderful opportunity for senior Fellows and their partners to tour the College and for them to meet the President and newly appointed curator of the College Collection, Prof Caroline de Costa. The conversations were very engaging, with fascinating tales of O and G practice from earlier days – punishing schedules and exhausting on-call commitments – no doubt practices that would be frowned upon in the safety and quality culture of today.

Finally, I would like to thank the President, Board, Councillors and, particularly, College staff for the wonderful support they have given me during my tenure as Acting CEO. May I also join with the President in extending my best wishes and season's greetings to all RANZCOG members, staff and those associated with the College.

Homebirth

O&G Magazine
Editorial Committee

Regular readers of *O&G Magazine* will know that the editorial team does not shy away from controversy. Publication of material dealing with contentious topics in reproductive health is grist to our mill – a vital part of the magazine's existence. In recent years we have devoted issues to death, religion, ethics and blood; we have discussed abortion and published viewpoints for and against caesarean section on request. No topic in our specialty, however, seems to inflame the passions, excite controversy and polarise opinion in quite the same way as this one. Despite the fact that fewer than one baby in a hundred is born at home in Australia, hardly a week passes without the subject appearing somewhere in the mainstream media. As we go to press, Midwives Australia has issued a public statement lamenting the lack of Commonwealth Government support for independent homebirth midwives in Australia. The group claims that this is leading to more midwives dropping their midwifery registration and becoming doulas, so they can attend homebirths.

In view of the enormous amount of attention paid to homebirth in the lay and medical press, it is timely to publish an issue devoted to homebirth. In preparing it, we approached a large number of people to write for us, in order to solicit a wide range of viewpoints. Normally those we ask to write for *O&G Magazine* are happy to do so. However, on the topic of homebirth many declined, citing the political and social fallout that might follow. Those who declined include not only Fellows of our College with a known interest in the subject, but also the Australian Commonwealth Health Minister, Ms Nicola Roxon, among others. We are most grateful to all those who did accept the invitation and whose work appears in this issue.

The team here at *O&G Magazine* appreciates that there is unlikely ever to be consensus on this topic, but we hope that by including a variety of views in a single issue of the magazine we may progress somewhat in an exchange of opinion. We therefore offer articles by midwives, obstetricians, academics and women who have been there, to provide what we hope is a comprehensive overview of the subject of planned homebirth, supervised by registered midwives, in an Australian and New Zealand setting.

Many authors have noted that there is a lack of good evidence on the safety of homebirth in developed countries – and we see this as one indisputable fact to emerge from the issue. At the same time, it is important to use what evidence there is. Many of our authors have done this; but, as readers will find, interpretations of that evidence can differ markedly.

New Zealand differs from Australia in that legislation changed in 1991, allowing independent midwifery practice. This developed out of a political ideal supporting women's choice. As a result, homebirth is available in New Zealand today as a woman's choice and, as the New Zealand-based articles suggest, homebirth and risk assessment, with informed choice, go hand in hand.

Unfortunately, data from New Zealand are also limited; it is only in the last few years that we have accurate information on national maternal and perinatal mortality. However, as this audience is well aware, when reviewing data on homebirth safety this has to include 'near misses' and these data are incomplete and often inconsistently collected.

The issues around homebirth in New Zealand are by no means resolved, but there is more discussion, encouraging homebirth midwives to be trained, experienced and under the same regulatory body as hospital-based midwives. However, the secret of success for any model of care has to be collaborative work; no one works in isolation. Midwives specialise in the normal, while obstetricians specialise in the deviation from this; homebirth is no exception.

It is important to note that we are discussing homebirth in developed countries, where women are fortunate to have the skills and experience of properly trained doctors and midwives available. Our second article from Médecins Sans Frontières deals with the lack of choice in childbirth experienced by the majority of the world's women, above all those living in developing countries (see p50). Only a brief plane flight away in Papua New Guinea, most women have a homebirth because there is nothing else. Only a small proportion receive any antenatal care and even fewer give birth in a hospital or clinic; the result is a maternal mortality rate 100 times that of Australia and New Zealand. We need to see the provision of homebirth in Australia and New Zealand in a global context.

Shifting paradigms

Homebirth in the Netherlands and its relevance to Australian practice: a review of the available evidence.

Prof Caroline de Costa
FRANZCOG

Hans Pols
Senior lecturer
Unit for History & Philosophy of Science, University of Sydney

Less than one per cent of all births in Australia are planned homebirths, yet the topic continues to provoke heated discussion between advocates for increased support and funding of homebirth services, and opponents of such measures.[1–11] Much of the discussion is informed by reference to homebirth services in other developed countries, including Canada, the UK, New Zealand, the USA and, particularly, the Netherlands, in the latter case usually with an implication that the Dutch system could serve as a model for Australia.[5–9,11] Of developed countries, the Netherlands has the highest rate of planned homebirths supervised by midwives, with the availability of transfer to obstetric care if needed: currently 30 per cent of all births, a figure down from 35 per cent in 1979 and 74 per cent in 1958.[12,13] In this article we review all reports and studies of homebirth in Australia published in the period 1990–2011, together with relevant peer-reviewed literature regarding homebirth from the same timeframe from the Netherlands, with the aim of assessing overseas experience that might be relevant to Australian practice.

Homebirth in the Netherlands

Midwives in the Netherlands do not require prior training in nursing, but undertake four years of training in midwifery schools, including working with midwives in independent practice. Qualified midwives have been formally recognised as autonomous practitioners in the care of normal pregnancy and childbirth since 1941. Most now work in group practices, each midwife averaging 110 deliveries annually. They are legally permitted to undertake certain intrapartum interventions, including perineal suturing, but may not perform instrumental deliveries, fetal electronic monitoring or labour augmentation.[12,13,14]

Any pregnant woman in the Netherlands can refer herself directly to a midwife and provided she remains within certain defined risk criteria, the midwife can undertake all maternity care, with the delivery being conducted either at home, in a *kraamhotel* (maternity hostel) or in a polyclinic attached to a hospital. Responsibility for deciding that a woman fulfils the risk criteria lies with the midwife. A list of medical indications that would exclude a woman from midwife-only care has been developed in conjunction with Dutch obstetricians.[15] About 15 per cent of women are initially judged as high risk and therefore unsuitable for midwife care and the percentage of deliveries performed or overseen by hospital doctors, usually obstetricians, has risen from 28 per cent in 1970 to around 50 per cent in 2010.[12,15]

Under the Dutch system, women are assigned to the midwife on-call on the day of booking. In the course of her antenatal care, a woman can expect to meet all the midwives in the group so that those attending her in labour and birth will be known. All routine antenatal investigations are organised by the midwife, with obstetric referral if abnormal results so indicate; the decision for referral is made by the midwife under the criteria already described.

There are three 'lines' of maternity care in the Netherlands. The first consists of midwives only, who provide care for women (in any setting) provided pregnancy and birth remain normal. The second line includes hospital midwives caring for higher risk women under the supervision of an obstetric team (as occurs in Australian public hospitals). The third line of maternity care is that provided directly by medical practitioners including subspecialist obstetricians.[12,15,16] A first-line midwife must be able to reach the home of any woman booked for homebirth within 15 minutes and emergency care should be not more than 15 minutes away by ambulance. A midwife conducting a labour at home is not necessarily present throughout the first stage, but will call frequently to the woman's home to check on her condition and progress. Thus a single midwife may involve herself in a woman's care over 24 hours or more.[16,17]

The cost of maternity care is covered by private health insurance schemes. Where the woman has care provided entirely by first-line midwives, the full cost is covered by insurers, as it is when there is a medical indication for hospital care. Where the woman chooses hospital care for no medical indication, she is liable for at least some of the cost, dependent on the level of insurance she holds. First-line midwives are independent practitioners, owning their practices and billing insurers for their fees. Insurance funds will not cover maternity care by general practitioners in districts where a midwife is in practice; general practitioners attend only about four per cent of births in the Netherlands. Funding schemes therefore tend to direct low-risk women towards homebirth or other forms of first-line care.[12]

The Dutch system is designed to allow the smooth transfer of women from first- to second- or third-line care.[16] Where urgent transfer is required, the regular Dutch ambulance service is used and the midwife accompanies the woman to the hospital, with which she has been encouraged to become familiar with during her pregnancy.[17,18] Over the last two decades there have been increasing numbers of transfers to second- or third-line care. In a large retrospective study of transfers, involving nearly two million pregnancies between 1988 and 2004, the proportion of women transferred increased from 36.9 per cent of all those booked for first-line care to 51.4 per cent.[12]

Another large retrospective study included 280 000 women who were under the care of a midwife at the time of starting labour (either at home or in a clinic/hospital) during the period 2001–03.[16] Women in preterm labour or who were referred for induction of labour were excluded. Sixty-eight per cent of the women completed childbirth under midwife care and 32 per cent were referred for hospital care, with 11.2 per cent of those being urgent referrals.

Midwives conducting home and hospital births are authorised to administer nitrous oxide gas and narcotic analgesia. There

has been a strong tradition in Dutch homebirth practice of not encouraging pharmaceutical pain relief in labour that recently has come under scrutiny. Dutch feminists have called for the right of women to pain relief, in particular with epidural analgesia, and questioned 'the ideology of natural delivery and the positive meaning attached by midwives to women's capacity to deal with pain without pharmacological support'.[19] Following a 2006 directive from the Dutch Ministry for Health, women may now access epidural analgesia on request, but if they are under first-line care they must be transferred.[20] Epidural analgesia is now used in 22 per cent of hospital births.

From 1993–2002, the caesarean rate for the Netherlands rose from 8.1 per cent to 13.6 per cent. However, current rates in hospital practice are reported at approximately 24 per cent, with an overall national rate of around 16 per cent, considerably lower than rates in most other European countries, North America and Australia.[21–23]

The maternal mortality rate (MMR) in the Netherlands has increased since 1983–92, when it was 9.7 per 100 000 live births.[24] In the period 1993–2005 the MMR was 12.1 per 100 000 births (in comparison, the Australian MMR for 2003–05 was 8.4 per 100 000).[25] Women aged less than 20 years or more than 45 years, those of high parity and those from non-European immigrant populations were all at greater risk of pregnancy-associated death, and there has been an increase in the numbers of such women in the pregnant population of the Netherlands over the last two decades, although the same is also true of Australia.

In 1999, the perinatal Dutch perinatal mortality rate (PMR) was substantially higher than in other European countries.[26,27] A retrospective study of all Dutch births in the period 2000–06 reported an improvement, with a decline in the PMR from 10.5 to 9.1 per 1000 births (in the same period, the Australian PMR was 8.2 per 1000).[27,28,29] The high PMR was attributed to formerly restrictive policies on the resuscitation and intensive care of very preterm infants, the absence of antenatal screening programs for congenital anomalies and 'substandard care, including homebirth'.[27] The decline in PMR noted by 2000–06 was most marked among very preterm infants and births complicated by congenital anomalies. Table 1 summarises all relevant Dutch studies comparing outcomes of women booked for homebirth with women booked for hospital birth in the last 20 years. These studies show that where low-risk women are booked for homebirth and deliver at home, perinatal outcomes are similar to those of low-risk women booking in hospital under midwife care and delivering in that setting. When women are transferred from low-risk to high-risk care intrapartum, perinatal death rates rise. In the single, but important, study in which PNM among infants of high-risk women booking for hospital care by obstetricians was compared to that of low-risk women booking for 'low-risk' midwife-led care, PNM was lower in the former group.[29]

In 2009, a committee was appointed by the Dutch Minister for Health to investigate perinatal mortality rates. Among contributing factors, the committee noted increasing age at first pregnancy among native-born Dutch women, late booking by women at high-risk of pregnancy complications, failure of collaboration between the different lines of care and the fact that a significant proportion of homebirth women lived farther from a hospital than recommended.[20]

Homebirth in Australia

RANZCOG does not endorse planned homebirth, outlining

Table 1. Summary of comparative homebirth studies from the Netherlands, 1990–2010.

Location and year of publication	Nature of study	Outcomes and comments
Gelderland, 1996[43]	Prospective cohort	There were 1140 women planning to give birth at home at onset of labour, under care of 54 midwifery practices, 1990–1993, compared to 696 low-risk women planning hospital birth under care of a midwife. No perinatal deaths in home group, two in hospital group. In the homebirth group, 37 per cent of primiparous women and nine per cent of multiparous women transferred to obstetric care, 41 per cent of primiparous women and 13 per cent of multiparous women in hospital group transferred to obstetric care. No details of timing, indications or outcomes of transfers. Measured 36 items related to labour, birth and postnatal condition (maternal and neonatal) to derive 'perinatal outcome index' that was more favourable for planned homebirths than hospital births.
The Netherlands, 2008[16] (nationwide)	Descriptive study data from Dutch Midwifery Perinatal Database, 2001–2003	There were 280 097 low-risk women in midwifery care at start of labour: 62 per cent planning homebirth; 29 per cent planning hospital birth; nine per cent unknown. No control group. Retrospective assignment to homebirth, obstetric transfer and 'non-urgent' transfer groups: 3.6 per cent referred 'urgently', 28.3 per cent referred 'non-urgently'. No details of time or distance provided. No perinatal deaths in homebirth group. PMR 0.3/1000 in 'non-urgent' referral group. Intrapartum death rate 8.3/1000 and early neonatal death rate 2.6/1000 in 'urgent referral' group. Authors conclude that percentage of urgent referrals 'relatively small' and overall neonatal outcomes 'satisfactory'.
The Netherlands, 2009[15] (nationwide)	Population-based cohort study, 2000–2006	There were 529 688 low-risk women under midwifery care at start of labour: 60.7 per cent planned homebirth, 30.8 per cent planned hospital birth, remainder unknown. No significant differences in crude and adjusted PMRs and NICU admission rates in planned homebirth and 'unknown' groups compared to planned hospital births. Authors conclude that homebirth in the Dutch system does not increase risk of perinatal death or severe perinatal morbidity, 'provided the maternity care system facilitates this choice through the availability of well-trained midwives and a good transportation and referral system.'
Utrecht, 2010[29] (13 per cent of Dutch population)	Prospective cohort study Aggregated data from national perinatal register	There were 18 686 infants born to women who began labour under primary care (at home or in under midwifery care), compared to 18 958 infants born to women who commenced labour under obstetrician care because of risk factors (elective caesarean section excluded). Infants of low-risk women whose labour began in primary care under a midwife had a significantly higher risk of delivery-related perinatal death than did infants of high-risk women starting labour under obstetrician care. NICU admission rates for women under midwifery care were similar to those of high-risk women obstetrician care. Authors describe findings as 'unexpected'.

(PMR = perinatal mortality rate; NICU = neonatal intensive care unit)

the reasons in its statement C-Obs2 (see p58). Most currently practising midwives in Australia are nursing graduates with a further 12 months of midwifery training. However, direct-entry three-year Bachelor of Midwifery courses are being offered by increasing numbers of Australian universities. Both courses aim to prepare students for hospital-based midwifery practice. It has been suggested the graduates of direct-entry midwifery courses may be more inclined to pursue careers involving the provision of homebirth care, although no evidence has been offered for this.[7]

Current Australian obstetric and midwifery practice includes a booking visit with a medical practitioner, who makes the decision, when required, as to whether a woman is medically low risk and therefore suitable for midwife-led care. Where formal homebirth programs have been established in Australia, as in the St George Hospital program in Sydney (see article on p44), obstetricians act as direct referral sources in the event of an abnormality arising.[11]

Some established Australian homebirth programs, for example St George, have replicated aspects of Dutch care in limiting planned homebirth to women living within defined geographical regions around a base hospital to which midwives and supporting medical staff are attached.[11] Midwives work both in the hospital and in the homebirth service and good relationships are reported between midwifery and medical staff. Normal ambulance services are used for transfer to hospital when required. In all Australian studies and reports, there is reference to the fact that women seeking homebirth are older, of higher educational, social and employment status and are less likely to smoke, than women giving birth in hospital.

Table 2 summarises all studies and reports on homebirth in Australia published since 1990.[30–36] Apart from the St George report, all studies are retrospective. Two are simply descriptive and have no control groups; among the other four, three have control groups of state-wide hospital births that would have included those to many medium- and high-risk women (including in some cases women planning a homebirth, but transferred to hospital due to some complication of pregnancy or birth). Only one has a matched control group, but although women in this are matched for age, parity, social status and previous pregnancy loss they are not matched for medical and obstetric complications in the index pregnancy.

The St George study includes 100 women over a period of three-and-a-half years, of whom 30 were transferred to hospital care antenatally. Of the remaining 70 women, 63 gave birth at home (where each was attended by two midwives) and seven (ten per cent) were transferred intrapartum. Women were assessed as low-risk by an obstetrician prior to their acceptance into the program. There was no perinatal mortality or significant morbidity reported.[11]

In all other studies and reports, the homebirth groups contained women with important obstetric risk factors, including previous caesarean section, previous perinatal death and breech presentation or twins in the index pregnancy. In most cases the birth attendant was a registered midwife, although on occasion births were attended by lay midwives or by medical practitioners. In all studies and reports where perinatal death rates are reported these are either similar to those reported for hospital births (whereas they might be expected to have been lower, if only low-risk women had been selected for planned homebirth) or are significantly higher for homebirths. No details are given of proximity to available obstetric care, either geographically or in terms of the time required for transfer, in any study or report apart from the St George study.[11,30–36]

That the option of homebirth is widely accepted in the Netherlands, generally functions well and is appreciated by many Dutch women is indisputable. However, there has been animated discussion about the safety and appropriateness of first-line care following increased public awareness of Dutch perinatal mortality figures and the input of Dutch feminists into the rights of women to choice in childbirth.

The long tradition of homebirth, the very specific training of midwives and the existence of an established body of first-line midwives and women delivering at home indicate that a very different environment exists for the provision of safe homebirth services in the Netherlands, in comparison to the current Australian situation. The Netherlands is a western European country with an area of 41 500 sq km, a population of 16.5 million and a birth rate of 10.4 (per 1000 of the population per year); in comparison, Australia has an area of 7.7 million sq km, a population of 22.5 million and a birth rate of 12.4.[37,38] The small size of the Netherlands and the high urban density mean emergency services are, in general, able to respond to requests for urgent transfer within prescribed time limits. The number of women delivering at home and being transferred also means emergency services personnel are more familiar with intrapartum complications that may need to be dealt with during the journey to hospital.

While 89 per cent of Australian women live in urban areas, those areas are considerably more dispersed than in the Netherlands and ensuring safe transfer in urgent cases may pose problems. The homebirthing woman transferred to hospital in the Netherlands finds herself part of a system specifically designed to take over her care. In Australian programs, such as St George, this is also the case, but in other areas of Australia obstetricians are called upon to deal with unbooked homebirthing women arriving suddenly in the hospital birth suite, often out of hours, requiring considerable input from staff having little access to information about their previous care.[4,11,39,40]

An increasing proportion of women in the Netherlands initially booked for homebirth and considered low risk by first-line midwives are nevertheless transferred to hospital, either antenatally or intrapartum. Medical claims and litigation are still exceptional in Dutch midwifery practice so defensive obstetrics is not a significant cause of these increased numbers of transfers. It does appear that women at increased risk are not always identified or transferred to second- and third-line services in a timely manner. This phenomenon has been noted in several Australian homebirth studies, where independent homebirth midwives have accepted women for planned homebirth who were not low risk.[1,39,40]

The 12th Triennial Western Australia (WA) Report of the Perinatal and Infant Mortality Committee in 2007, recommended a review of homebirths in that state, after identification of a higher mortality rate in term neonates whose mothers had planned a homebirth compared to planned hospital births.[41] The review, duly conducted in 2008 by Dr Michael Nicholl and Prof Caroline Homer, made a number of recommendations concerning homebirth practice in WA, including: improved mechanisms for the assessment, accreditation and registration of homebirth midwives, and for improved systems for professional development and clinical governance; the identification of planned homebirths in perinatal data collections; and the auditing of all homebirth outcomes.[36,40] Nevertheless, in December 2010, in its 13th Report, the Committee noted with concern that the perinatal death rate for term homebirths in WA remained almost four times higher than that for hospital term births. The Committee recommended an independent audit of the implementation of the recommendations of the 2008 Review, and commented that some women were choosing homebirth 'as a surrogate means to access

midwifery continuity of care and waterbirth.'[40] It should also be noted that comprehensive guidelines for homebirth published by the South Australian Department of Health in 2007 have not yet been implemented in that state.[42]

As well as raising questions about rates of adverse outcomes for both mothers and babies, lessons for advocates of increased access to homebirth in Australia include the vastly different demographic features of the two countries, the differences in midwifery training

Table 2. Summary of Australian homebirth studies and reports, published 1990–2011.

Location and year of publication	Nature of study	Outcomes and comments
South Australia 1990[30]	Retrospective comparative	There were 799 women planning a homebirth with GPs and midwives 1976–87, compared with all SA hospital births (low and high risk) during 1983. The homebirth group included 58 women with previous adverse obstetric outcomes including caesarean (ten), stillbirth, low birthweight and neonatal death. Study group did not include all homebirths during the study period. Thirteen perinatal deaths in homebirth group (crude PMR 16.2/1000), five times higher than hospital birth group. Intrapartum asphyxia death rate for homebirths 3.8/1000, compared to 0.5/1000 for hospital births. PPH rate 9.4 per cent in homebirths, 3.7 per cent hospital births.
Western Australia 1990[31]	Retrospective comparative	There were 995 homebirths by doctors and midwives 1981–87 (believed to be all homebirths for the state during the period) compared to all singleton births to Caucasian women in the same time period (all risk groups, and including planned homebirths transferred to hospital intrapartum). Homebirth group included four previous caesarean or uterine scar, 36 previous prolonged labour, 30 previous third-stage complications, 22 previous perinatal deaths, 14 previous homebirth/hospital transfers and one previous shoulder dystocia. Incomplete data for 99 homebirths. Homebirth PMR 10.1/1000 compared to 9.7/1000 for all hospital births. Homebirth PPH rate 8.5 per cent: 'higher than for all WA births during study period' but hospital rate not reported.
Australia, 1992[32]	Descriptive	Report on all homebirths in Australia 1998–90: 3595 planned homebirths, including 13 twin births, attended almost entirely by midwives. Of these, 60 women with previous caesarean, 43 with previous perinatal death, 30 with breech presentation. No comparison group provided. PMR of 6.4/1000, with congenital anomaly causative for three perinatal deaths. Ten shoulder dystocia (with three perinatal deaths). One other baby admitted to NICU. Overall, 23.6 per cent tear or episiotomy requiring suture, 10.4 per cent PPH.
Western Australia, 1994[33]	Retrospective matched cohort study	Study included 976 homebirths (comprised study group in reference 45) and excluding seven multiple births and 18 major congenital anomalies. Matched cohort of singleton Caucasian hospital births from WA Maternal and Child Health database: three matches for each homebirth (matched for age, parity, previous perinatal death, height, marital status, postcode). Dataset incomplete for both groups, including postpartum blood loss. Crude PMR 5.1/1000 for homebirth, 4.1/1000 for hospital group. After adjustment for birthweight and gestational age, OR for perinatal death in homebirth group = 3.0.
Australia, 1998[34]	Descriptive comparative	There were 7002 planned homebirths in Australia 1985–90. Risk factors in homebirth group including post-term birth, twin pregnancy, breech and 'a lack of response to fetal distress'. Dataset acknowledged as incomplete. PMR of 5.7/1000 for birthweight 2500g or more, compared to national average (3.6/1000) and international figures. Intrapartum deaths not due to prematurity or congenital abnormalities also increased (PMR 2.7 versus 0.9/1000), with 52 per cent of all homebirth perinatal mortality due to intrapartum asphyxia.
Victoria, 2002[35]	Descriptive	Study covered 440 planned homebirths attended by registered midwives in Victoria, 1995–2008: 22 with previous caesarean, five with previous perinatal death, 29 grand multiparae, nine breech, three sets of twins. No control group. Data for about 50 homebirths not available. Five babies died (three in pregnancy, one as a neonate, one with trisomy 13). Authors did not give PMR as: 'numbers too small and comparison with state data not valid.'
Western Australia, 2008[36]	Retrospective commissioned review	Planned homebirth in Western Australia 2000–07. 'High-risk women' noted to be included among those planning homebirth, but details not given. Some comparisons given with term births in the state during the same time period. Probably underestimation of number of homebirths in the time period. Homebirth PMR data for term babies: 2000–03, 10.3/1000; 2004–05, 8.8/1000; 2006–07, no perinatal deaths. Total 2000–06 PMR for term babies 8/1000 for planned homebirths, compared to 2.2/1000 for planned hospital births.
Sydney, 2009[11]	Prospective	First 100 women booked for homebirth at St George Hospital, 2005–09. Attended by registered midwives. Low risk – no previous or current obstetric or medical risk factors, overseen by obstetricians with referral for medical care as indicated. Two midwives present at each homebirth. No control group provided and data incomplete. No perinatal deaths. No severe perinatal morbidity.
South Australia, 2010[4]	Retrospective comparative	Population-based study using South Australian perinatal database. All births and perinatal deaths 1991–2006: 1141 planned homebirths compared to all hospital births in the state over the time period. Not possible to differentiate between antenatal and intrapartum transfers. Crude perinatal death rates similar in home and hospital births (7.9 vs 8.2/1000). Seven-fold higher risk of intrapartum death and 27-fold higher risk of intrapartum asphyxia in homebirth group compared to all hospital births (of any risk).

(OR = odds ratio; PMR = perinatal mortality rate; NICU = neonatal intensive care unit)

and the structured relationships between all lines of maternity care in the Netherlands.[43] While some of the features of the Dutch system have proved portable to Australia, others have not and in many outer suburban and rural areas safe care on the Dutch model could not be replicated in current Australian practice.

Although impossible to determine from Australian studies, evidence from overseas – in particular from the Netherlands, which may or may not relate to the Australian situation – suggests that homebirth for women who are carefully screened and who plan to deliver at home, but with sympathetic collaborating hospital staff, may be as safe as delivering under midwifery care in hospital/birth centre settings, although not as safe as in obstetrician-led care.[12,29,43] This presupposes that the woman lives an acceptable distance from the hospital, with accessible emergency transport systems. It is likely that serious adverse outcomes are reduced where midwives have an adequate caseload (possibly combined homebirth/hospital practice). However, for the small proportion of low-risk women who develop serious intra- or postpartum complications, outcomes are probably worse than for women having conventional hospital care. Where high-risk women are accepted for homebirth then outcomes are, and will be, correspondingly poorer.

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Trouble in paradise

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In international debates about birthing practices, the Netherlands is often portrayed as the 'homebirth paradise' – a country where most children are born at home, placed in the arms of happy mothers who are assisted by capable, supportive and understanding midwives. How accurate is this portrayal?

For many mothers, giving birth at home without too much medical interference, analgesia and in familiar surroundings is almost impossible to attain – except in the Netherlands, where it is allegedly standard practice. Even though the high rate of homebirth in the Netherlands is often considered inspiring and worth emulating, Dutch practices have not always been scrutinised in great detail. A closer look would reveal that giving birth at home has recently received considerable criticism because it is seen as the main culprit for the relatively high Dutch perinatal mortality rate; one of the highest in Europe. Today, in the Netherlands, many people think that the practice of giving birth at home puts young lives at risk unnecessarily. In this article, I will give an overview of the public debate about 'baby mortality' in the Netherlands – how it has been presented in the media and how non-medically trained people think about it. It should be emphasised that many mothers, mothers-to-be, physicians and midwives hold highly nuanced opinions – yet when they are covered in the media, these nuances tend to disappear. The opinions presented here are not universally shared, but they have been highly visible and have shaped the debate.

The Netherlands has a problem

It all started in 2003, when a major European study showed that perinatal mortality rates in the Netherlands were among the highest in Europe (10.5 per 1000 births, or just over one per cent, or around 1700 babies, every year). After initial disbelief, denial (mostly by politicians) and criticism of the study's methodology (by physicians), it was concluded that 'the Netherlands has a problem'. 'Only when we were confronted with international monitoring figures did it become clear that our cherished feeling of complacency had been unjustified. 'The shock was great,' as two researchers later described this moment. Could it be that the treasured practice of homebirth was to blame (around 30 per cent of women intend to deliver at home, attended by a midwife). A number of outspoken obstetricians and gynaecologists surely believed this and did not hesitate to present their opinions to the media. Midwives quickly rebutted their claims, pointing to the increasing and unnecessary medicalisation of childbirth as the cause of the problem. After all, they argued, a baby is not a problem or a disease, but a wonderful little creature best received lovingly into the world in one's natural surroundings.

Initially, physicians and other commentators suggested that a number of not entirely unexpected conditions were to blame: Dutch women give birth relatively late in life; not all of them give up smoking and drinking while pregnant; there is a relatively high number of immigrant women who do not frequently consult physicians and report to midwives very late in their pregnancy; and there are issues related to poverty and social disadvantage. Perinatal mortality rates and other complications during and after delivery are certainly higher in poor and disadvantaged neighbourhoods. The city of Rotterdam organised more maternal healthcare in such neighbourhoods – to good effect. Nevertheless, even though all these factors are of importance, they are not sufficient to explain the differences in perinatal mortality rates in Europe. Even when they all are corrected for, the Dutch still have a problem.

Sniping between midwives and obstetricians

As presented by the media, which covered it widely, the debate on the high Dutch perinatal mortality rate became highly polarised. It often turned into finger-pointing and mutual recrimination between midwives (at one point branded as the 'midwife mafia') and obstetricians, with the voices of a few worried mothers-to-be mixed in. Not surprisingly, it was partly inspired by professional rivalry. Midwives and obstetricians conducted surveys and studies to buttress their views, published these in their own journals, wrote articles for the newspapers' opinion pages and appeared on current events shows to present their viewpoints and rebut those of others. However, more than just professional rivalry is at stake. Both groups operate from an entirely different philosophy. Midwives consider giving birth an entirely natural process that constitutes a high point in a woman's life. Giving birth is a celebration of life that best takes place in one's natural surroundings without men in white coats interfering and disempowering them. Obstetricians, on the contrary, view the process of giving birth as inherently perilous and fraught with dangers, which require quick medical intervention that can best be provided by highly trained and specialised medical professionals.

The media followed the debate about giving birth in the Netherlands closely (every new medical study and government initiative is now covered extensively) and Labour politician Khadija Arib continued to bring the matter to the attention of parliament. Leading obstetricians

Highlights from 2010 research

From a midwife: 'Epidural anaesthetic and pain medication on indication is fine, for someone who really cannot cope, but I have a lot of problems with giving it on demand. There is a range of side effects. It happens that women are offered pain medication at a bad moment (during labour), they take it, but a few are rather upset about it afterwards.'

From a new mother: 'What struck me was the way homebirth has been greatly encouraged over the past ten years, and I wonder if that is a cost-containing exercise. It is currently considered normal to give birth at home and the GP and midwife encourage this. During my labour I had the same midwife until I was taken to hospital – my labour lasted 28 hours, of those 21 were at home. The midwife did her first check with me at 2pm, the last one at 2am, in the meantime I could reach her by phone. I was rather taken aback when I found out how normal it is these days to ask for pain medication during delivery. I always thought that that only happened when complications occurred, but it turns out that you can get what you ask for, during delivery or ahead of time. '

blamed the archaic and ill-informed practices of midwives, who, according to them, are insufficiently trained to recognise complications during childbirth early enough. In the Netherlands, midwives make an early selection of women whose pregnancy is associated with one or more risk factors; these women are referred to obstetricians. In 2000, about 30 per cent of women opted to give birth at home and were screened as low risk. Yet, more than 30 per cent of these women were transferred to the hospital during their delivery (for first deliveries this number rises to 40–50 per cent) because of complications. Obstetricians argued that risk factors had not been recognised. It became clear the detection of risk factors should be improved – even though it was not clear how this could be accomplished.

Doctors nowhere to be found after hours

Even though it was acknowledged there was a problem, little was done during the next five years. In 2008, the debate flared up again. This time, obstetricians bore the brunt of criticism after it became clear the perinatal mortality rate of women who give birth in hospitals increases by 23 per cent after hours and seven per cent during the weekend. This is not hard to explain: it is almost impossible to find medical specialists in hospitals after hours, leaving mothers who encounter problems during delivery high and dry (for example, no caesareans can be conducted or epidurals administered). The residents who are on call are often hesitant to contact specialists after hours and, when they are called, it takes some time for them to get to the hospital (not surprisingly, it takes even more time to fully staff an operating theatre). The absent obstetrician rather than the ignorant midwife was now blamed for the high baby mortality rates in the Netherlands. In addition, it was also claimed that obstetricians had too much of a wait-and-see attitude both towards preterm babies as well as towards babies that are overdue. Obstetricians were generally hesitant to intervene, preferring to let nature take its course, with, at times, disastrous consequences.

In the summer of 2008, a number of leading advocates of homebirth found that a significant number of young mothers (16.5 per cent) were dissatisfied with their birth experience looking back after three years, a rate almost double that of other developed nations. It did not matter very much whether these mothers had given birth at home or in the hospital. The interviews these researchers had conducted provided a bleak image of blunt obstetricians, insensitive assistants and overly pressured midwives. They were particularly dismayed by these findings because, for years, international delegations had visited the Netherlands to admire its obstetrics system. Two of the researchers stated that the Low Countries could no longer be portrayed as a model for others. Midwives were not happy either. The time that a midwife would attend the birth process from first contraction to delivery is long since gone; these days, they frantically cycle between deliveries which, not surprisingly, decreases the quality of care they can give to each future mother. Mothers, midwives and obstetricians were not happy. In the portrayals provided by the media, it appeared that strife, dissatisfaction and unhappiness reigned in the former homebirth paradise.

To make matters worse, it turned out, through a replication of the large European study of 2003, which had been the source of all concerns, that hardly any improvements had been made during the previous five years. The Netherlands still had the same problem as it had had five years before. The Minister of Health, in a quick reaction, urged hospitals to make around-the-clock services available that are within easy reach of the whole population. Others suggested building birth centres next to hospitals so that specialist help would always be close at hand. Still, today, little progress has been made.

Heated debate

During the second part of 2009, two current affairs programs gave attention to the debate featuring several prominent obstetricians and parents who had lost their babies during delivery. The Dutch system of homebirth, late referrals to the hospital and the absence of around-the-clock specialist delivery care were blamed. The physicians featured in these programs advocated that all deliveries should take place in specialised hospitals with around-the-clock specialist care only. Or they could take place in special birth centres to be built next to hospitals. New research demonstrated that women who were transferred to the hospital after delivery had started at home encountered the greatest number of complications. They were most unhappy about their birth experience afterwards as well. Many pregnant women who intended to give birth at home became worried. Research indicating homebirth was not unnecessarily risky was mostly ignored. A committee appointed by the Minister for Health recommended pregnant women be better informed, midwives and obstetricians should cooperate better and a select number of hospitals should provide specialist care 24 hours a day. Women should not deliver at home when there are any risks.

Transfer from midwife to obstetrician the problem

In the second quarter of 2010, the results of a large research project commissioned by the Ministry of Health were published. It concluded that the chances of an adverse outcome increase dramatically for women who were transferred to a hospital during delivery. In addition, the researchers noted that 25 per cent of risk factors had not been recognised by midwives, who are responsible for screening for them. Deficiencies in the organisation of care were thought to be responsible: in particular, the lack of communication, coordination and cooperation between midwives and obstetricians. Later that year, a study claimed that babies of women classified as low risk and starting care under the supervision of a midwife, had a higher rate of perinatal death and the same rate of admission to a neonatal intensive care unit when compared to babies of high-risk women starting labour under the care of obstetricians. When a woman was transferred from home to the hospital during her delivery, perimortality rates increased almost fourfold. Both studies intensified the public debate.

Public opinion started to shift away from women who like to give birth at home, 'surrounded by cats, lit candles, doing contraction-dances…with Norah Jones as background music and a skippy ball for pain relief.' Instead, as newspaper editorials put it: 'The typical Dutch system with midwives and home-deliveries is bankrupt' and 'Don't try this at home'. The few voices disputing these conclusions were hardly heard. In response to the new consensus favouring hospital births, it was demonstrated that the rate of caesareans among women giving birth there was markedly higher, which could cause problems during their second delivery. When these were taken into account, would specialist care still appear better?

In December 2010, a forum consisting of 20 health professionals informed parliament on ways to improve things. Integration of delivery care and around-the-clock availability of specialist care were the main recommendations. One physician explicitly urged them not to conduct any further research, since the problems were already very well known. They had been known for years and it was time to take action.

Nothing new in 2011

Giving birth at home appears to be falling out of favour in the Netherlands. The number of women opting for hospital births is

increasing (from 70 per cent ten years ago to 75 per cent today), even though women classified as low-risk are required to pay additional fees. Many hospitals are building birthing suites to meet the demand and an increasing number of midwives are now working in hospitals. The main reason is the extensive negative publicity related to homebirth and the availability of pain relief in hospitals. For a long time, both midwives and physicians discouraged pharmaceutical pain relief during labour. Dutch feminists have called for the right of women to pain relief, in particular epidurals, and questioned 'the ideology of natural delivery and the positive meaning attached by midwives to women's capacity to deal with pain without pharmacological support.' Following a 2008 ministerial directive, women should receive pain relief on request; no longer is the decision in the hands of the physician only.

Midwives and obstetricians continue to be on somewhat less than friendly terms. Both associations of midwives and gynaecologists have developed and presented plans for improvement. The Minister of Health has again expressed her commitment to change. A few scholars from North America who recently received appointments at Dutch universities admonished against drawing hasty conclusions. The increasing medicalisation of childbirth there, which is, paradoxically, now held up as example for the Dutch healthcare system to emulate, is not without its problems either (as the increasing rate of caesareans indicates). At the same time, an almost puritan approach to delivery care was expressed by an MP who decried the scandal of pregnant women having ultrasounds 'just for fun'. One ultrasound is standard; a second scan has to be paid for or demanded by a physician. One could be inclined to conclude that Dutch approaches to pregnancy and birth have not yet taken full advantage of the technological developments of the last 50 years. An emphasis on cutting healthcare costs is partly responsible for this.

Conclusions

Things still don't look good in the former homebirth paradise. During the last few years, the Dutch healthcare system has received rather negative media coverage in which sub-standard care, malpractice, inept reactions to crises, lack of communication and coordination between specialists, fraudulent behaviour by suppliers and self-enrichment by top administrators have been central. Policies promoting the influence of market forces to reduce the cost of healthcare have not had the expected effects. The sorry state of healthcare in the Netherlands today does not provide an ideal context for the improvement of delivery care. Successive Ministers of Health have long favoured homebirth and delivery care by midwives because it was cheap. The initiatives of the current (Liberal) and previous (Labour) Ministers of Health have thus far been disappointing. In the Netherlands, giving birth at home increasingly appears as an archaic procedure, once supported by an overly idealistic belief in the benign powers of nature. Although a great number of recommendations has been made and many plans developed, the amount of actual change thus far is disappointing. The Netherlands is the homebirth paradise no more and few international delegations will be visiting the Low Countries to see how delivery care is organised there.

Further reading

The Royal Dutch Organisation of Midwives (KNOV): http://www.knov.nl .
The Dutch Association of Obstetricians and Gynaecologists (NVOG): http://www.nvog.nl .
Dossier perinatal death of *Medisch Contact*, a medical weekly magazine published by the KNMG, the Royal Dutch Society of Physicians: http://medischcontact.artsennet.nl/Dossiers/Alle-dossiers-1/Perinatale-sterfte.htm
Dossier perinatal death of the Nederlands Tijdschrift voor Geneeskunde [Dutch Medical Journal]: *http://www.ntvg.nl/dossier/perinatale-sterfte.*
Newspaper articles can easily be found at http://www.volkskrant.nl and http://www.nrc.nl .

References are available from the author upon request.

Author profile
Hans Pols is senior lecturer in the Unit for History & Philosophy of Science at the University of Sydney and is interested in the history of medicine. Hans was born in the Netherlands but left for the USA in 1989 (where he obtained a PhD from the Dept. of the History and Sociology of Science at the University of Pennsylvania) and moved to Australia in 2001. He returns to the Netherlands regularly and, in 2010–11, has conducted in-depth research on the topic of Dutch birthing practices.

An international perspective

A/Prof Stephen Robson
FRANZCOG

While each country's health system and environment differs, an international review of the literature can illuminate the homebirth debate.

When *The Economist* devotes two pages to homebirth, you know something is definitely up. To put this in context, the dumping of Kevin Rudd scored less than a page. The article was triggered by the conviction and jailing of an Hungarian midwife, Agnes Gereb, following the death of a baby in a homebirth gone wrong. The article began:

> 'A risky and self-indulgent eccentricity, or a return to natural obstetrics? A medical and political row rages between supporters of homebirth, many of them midwives and expectant parents, and its detractors, many of them doctors. Start telling women where they may or may not give birth, with hints that their choice may endanger their child's life, and the gloves come off.'

The homebirth feature, running in the first week of April 2010, captured a new spirit of combativeness between the groups. As *The Economist* put it, 'many doctors think they are trying to curb a bunch of lentil-munching fanatics,' while 'the homebirthers decry grasping, bossy doctors.' Ultimately, the fundamentals of the issue as seen in the public domain were pinned down nicely:

> 'Giving birth at home may be safe most of the time, but when things do go wrong, they are more serious. In hospital more things go wrong because intervention is more common, but the complications are less likely to be lethal or to cause permanent damage.'

Considering that homebirth constitutes less than one per cent of births in Australia, it commands a disproportionate amount of media time and makes the 'blogosphere' ring like a bell.

When an American celebrity, former talk-show host Ricki Lake, funded and released a documentary that prominently featured homebirth, 'The Business of Being Born', the American Medical Association (AMA) censured her with the support of the American College of Obstetrics and Gynecology (ACOG). The mixture of big medicine and big Hollywood was explosive. Ms Lake delivered her second child at home, 'in her bathtub'. State legislation purportedly outlawing homebirth was discussed, and the backlash from homebirth supporters was predictable and loud.

Australia had its own celebrity homebirth frenzy when Dannii Minogue embarked on an unsuccessful attempt to deliver her first child at home. As the *Sydney Morning Herald* put it, 'Dannii Minogue and her new son are resting in a Melbourne Hospital after the pop star's plans for a homebirth were scrapped due to complications.' Ms Minogue had an intrapartum transfer from home to the Royal Women's Hospital, something that occurs in about a third of planned homebirths.

All of the media coverage at the time prompted Prof Cathy Warwick, general secretary of the UK Royal College of Midwives, to lash out at what she called a 'calculated campaign against homebirths, intended to scare women into believing it was unsafe' (reported in *The Guardian*, 29 December, 2010). When asked during a subsequent radio interview exactly who was spreading the 'anti-homebirth message', she memorably replied:

> 'Researchers from across the world, who seem to be collaborating with the media … [are] publishing studies which suggest homebirth is not safe and give the impression that hospital birth, on the other hand, is completely safe.'

How does this extraordinary claim stack up? And who is claiming hospital birth is 'completely safe'? A recent meta-analysis of planned homebirth included peer-reviewed English-language studies from Western countries and assessed a range of intrapartum interventions as well as maternal and perinatal outcomes.[1] Only 12 studies of suitable quality were identified, though this still allowed comparison of 34 2056 planned homebirths with 20 7551 planned hospital births. The homebirth group underwent fewer interventions (neuraxial anaesthesia, episotomy and operative deliveries) and had a lower rate of reported infectious morbidity, anal sphincter injuries and haemorrhage. However, the overall neonatal death rate was almost three times higher for babies born without congenital anomalies in the homebirth group (0.15 per cent versus 0.04 per cent, OR 2.87, 95 per cent CI 1.32 – 6.25).

Homebirth accounts for less than two per cent of births in Canada[2] although it is supported by the Society of Obstetricians and Gynaecologists of Canada (see p55). Canada has many geographical similarities to Australia, with 'the rugged geography and mixed weather conditions … [presenting] unique challenges for homebirth.'[2] In Ontario, two midwives attend homebirths and random practice audits are undertaken by the College of Midwives of Ontario. Three published studies address homebirth in Canada. One compared 6692 midwife-assisted homebirths with the same number of midwife-assisted 'low-risk' hospital births[2], and reported no difference in perinatal mortality rates between the groups.

Two studies from British Columbia, the first a smaller study from a homebirth pilot program[3], the other a larger study covering the period 2000–04[4], revealed a higher rate of perinatal death in the homebirth group, although this did not reach statistical significance. The second paper, as published[4], had major errors in the reporting of statistics including incomplete data and mislabelling of data. These errors were identified by readers, not during the peer-review process, making interpretation difficult.

Homebirth appears to be more common in New Zealand, although accurate incidence data remain unpublished due to the methods by which statistics are collected. Midwives attending homebirths do not require additional training or certification and any midwife can work in independent practice as a lead maternity carer (LMC). The system of care is described as follows:

> 'Registered midwives practice autonomously and can choose to birth women in any setting available to them and for which they have an access agreement, for example, at home, in a primary birthing unit, or in a secondary or tertiary-level hospital. Midwives are required to give information about the options available in their area to assist [women] to make an informed decision. The choice is driven by the woman rather than the midwife, however, the midwife guides the woman depending on the health of the woman and her baby.'[5]

A single study, published in 1997, reviewed selected self-reported data from the period 1973–93 and reported a perinatal mortality rate no different from a 'selected' comparison group of women delivering in hospital.[6] No more recent data were available at the time of writing.

The rate of homebirth in the UK is approximately 2.8 per cent.[7] The joint statement regarding homebirth by the Royal College of Midwives (RCM) and the Royal College of Obstetricians and Gynaecologists (RCOG)[8], (see p55 for a review), supports homebirth, stating:

> 'There is no reason why homebirth should not be offered to women at low risk of complications and it may confer considerable benefits for them and their families.'

Only two studies from the UK – a study of 202 general practitioner homebirths compared to 185 hospital births conducted between 1978–83,[9] and a very small study of 11 women conducted in 1994[10] – have reported comparative data, so claims that the safety of homebirth in the UK are backed up by data are difficult to support using recent data from the published literature.

Homebirth is rare in the USA, with a rate of approximately 0.6 per cent[11], and is opposed by ACOG and AMA. The ACOG statement on homebirth is reviewed in this issue of *O&G Magazine* (see p56). Two studies of planned homebirths, one from births from 1989 to 1996 in Washington state[12], the other from 1989–2005 in Missouri[13], both reported increased relative risks for perinatal deaths in the planned homebirth groups. All of the above papers are summarised in Table 1.

It is worth discussing two oft-quoted papers that were not included in Wax and colleagues' systematic review[1], owing to the poor quality of the data available for inclusion in the meta-analysis. The first was by Johnson and colleagues, published in the *BMJ* in 2005.[14] That paper used the North American Registry of Midwives, a body providing a professional credential for direct-entry midwives who attend planned homebirths. Towards the end of 1999, the Registry made participation in the study mandatory and over 400 midwives duly submitted data on the outcome of homebirths for women due to deliver in the year 2000 in the USA and Canada. These submissions resulted in data from 5418 women planning homebirths being available for study. Comparison data were obtained from the set of all term singleton cephalic births in the USA that year, a cohort of well over three million. A comparison of intervention rates between the planned homebirths and the year's overall birth cohort revealed the homebirth group had lower rates of 'intervention' (episiotomy, instrumental delivery and caesarean section). Recognising that this comparison included high-risk pregnancies, perinatal mortality was compared with a number of published studies of 'low-risk births'. The rate in the planned homebirths (after exclusion of babies with congential abnormalities) was 1.7 deaths per 1000 births, but studies provided for comparison were published from as long ago as 1969. The most recent comparison group was from a Canadian study using data from the period 1998–9, and the perinatal mortality rate in that study was 1.4/1000 births, considerably lower than the homebirth group under study.

The second paper, published in 2008 by Mori and colleagues[15], details a population-based cross-sectional study focusing on 'booked homebirths'. The study extracted data from published sources and extracted data on perinatal death from national inquiries. The authors begin their conclusion with a stark warning: 'the results of this study need to be interpreted with caution due to inconsistencies occurring in the recorded data.' The study found that rates of intrapartum fetal death did not improve over the course of the study period, and that the rate of such deaths was high in women transferred to hospital during attempted homebirth, suggesting in effect that the mortality was counted in the hospital statistics where the women ultimately ended up, rather than in the group who actually delivered at home. Using the authors' words:

> 'Thus, although those women who had intended to give birth at home and did so had a generally good outcome, those requiring transfer of care appeared to do significantly worse and indeed had IPPM rates well in excess of the overall rate. It is not possible to tell from the available data when transfer occurred, that is during pregnancy or at labour onset.'

Ultimately, it seems unlikely that any data will have any impact at all on the debate regarding homebirth. The reason for this is well-illustrated in an academic editorial from the *Journal of Perinatal Education*, published in 2010:

> 'For me, the decision to give birth at home was not only a rational, evidence-based one, it was also an emotional, even instinctive one. I knew in the core of my being that I could give birth without drugs and without routine interventions – after all, hadn't millions of women been doing so for eons?'[16]

In contrast, Chervenak and colleagues[17] appeal to the ethical principles of patient autonomy and beneficence (acting to serve the best interests of the patient) to argue:

> 'The immutable truth is that planned homebirth imposes unnecessary increased risk of neonatal mortality and morbidity and perinatal mortality. The pregnant woman is ethically obligated to prevent these clinical risks by accepting hospital-based delivery.
>
> 'The obstetrician's ethical and clinical obligations to the pregnant, fetal, and neonatal patient regarding planned homebirth include an adequate disclosure of neonatal mortality and morbidity risks and perinatal mortality risks specific to healthcare in the United States, directive counseling in the form of recommending against planned homebirth.'

I leave the last word to *The Economist*:

> 'A definitive statistical answer to the relative perils of home and hospital births is unlikely. Randomized trials, which are the gold standard in medical research, will be tricky to impossible: women are unlikely to accept a researcher's arbitrary instruction about where they should give birth. As with many other aspects of child-rearing, birth will come down to parental disposition – whether for a hospital's bright lights and plentiful pain relief, or for the familiar comforts of home.'

References are available from the author upon request.

Table 1. Summary of homebirth studies in Canada, the UK, New Zealand and the USA:1990–2011.

Location and year of publication	Nature of study	Outcomes and comments
Canada, 2002[3] British Columbia	Prospective cohort Comparative	Data from a pilot project of homebirth, 1998–9. Comparison of 862 low-risk women planning a midwife-attended homebirth, 571 women having a midwife-assisted hospital birth, and 743 women having a doctor-assisted hospital birth. The doctor-assisted group was matched by age, lone parent status and parity, but included ten per cent VBACs, gestational diabetes if not managed with insulin and other complications (ie, a higher risk group). The perinatal death rate was 3/1000 in the homebirth group and 1/1000 in the doctor-assisted group (p=0.63).
Canada, 2009[2] British Columbia	Retrospective cohort Comparative	All planned homebirths 2000–04 in the province, although homebirth VBACs were undertaken, these were excluded from analysis post hoc. Comparison group (2 to 1 random matching) of doctor-attended births in hospitals: 2899 homebirths compared to 5331 doctor-attended hospital births. The statistics as published in the paper were detected as incorrect, with incorrect labelling of data and inconsistency between data presented in tables and the complete dataset available online (this was discovered by readers, not during the pre-publication peer-review process).
Canada, 2009[4] Ontario	Retrospective cohort Comparative	Births conducted by midwives, either as planned homebirths or planned hospital births. Antenatal transfers to doctor care excluded post hoc. There were 6692 in the homebirth group, compared with same number of randomly selected hospital midwifery births: three per cent VBAC in both groups; 21 per cent transfer rate in homebirth group. No difference in perinatal mortality rates between the two groups. Conclusion is that there are no differences in serious adverse outcomes for low-risk women between midwife-managed deliveries in hospital or at home.
UK, 1996[10] Leeds	Prospective Randomised	Eleven women, randomised to either homebirth (five) or hospital birth (six) by a single obstetrician. One post-allocation withdrawal from the homebirth group left four women in the homebirth group. No differences in outcomes. Authors concluded: 'the trial was too small to draw any conclusions.'
New Zealand, 1997[6] nationwide data	Retrospective Comparative	Data from 9776 homebirths collected by the Homebirth Associations of New Zealand/Aotearoa during the period 1974–93. Data submission by 'invitation' and was not systematic. Comparison group data obtained from The National Women's Hospital in Auckland comprised 'low-risk' women (age 20–35, parity 1 or 2, term delivery, singleton cephalic presentation, 'no medical disease' and birthweight >2500g). No further data regarding risk profile of hospital-birth group available. No data regarding the reasons that datasheets from excluded homebirths were not submitted for analysis. PMR for homebirth group 2.97/1000, compared to 2.34/1000 for crude data with adjustment not possible.
USA, 2002[12] Washington state	Retrospective population-based Cohort study	Birth certificates for the period 1989–96 were reviewed to extract data for uncomplicated singleton births >36 weeks gestation delivered at home by a 'health professional.' Comparison group randomly selected hospital. Deliveries matched for year of birth. All women with 'pregnancy complications' excluded, as well as birthweight <2500 grams. Final groups comprised 6052 homebirths (of which 4.4 per cent were transferred) and 10 347 hospital births. Neonatal mortality was 3.5/1000 homebirths and 1.7/1000 hospital births. The adjusted relative risk for neonatal death in the homebirth group was 1.99 (95 per cent CI: 1.06, 3.73).
USA, 2011[13] Missouri	Retrospective population-based Cohort study	Data extracted from birth and death registries for the period 1989–2005. Singleton births 36 to 44 weeks, with major congenital anomalies and breech presentation excluded. A total of 859 873 births were available for analysis: 1738 homebirths by doctors or nurse/midwives were compared to 853 542 doctor-assisted hospital or birth centre deliveries (2155 homebirths by neither doctor nor nurse/midwife were excluded). The adjusted odds ratio for intrapartum death in the homebirth group was 20.3 (95 per cent CI: 4.98, 83.07).

(CI=confidence interval; PMR = perinatal mortality rate; VBAC = vaginal birth after caesarean)

Views from South Island

Dr Celia Devenish
FRANZCOG

New Zealand supports homebirth, but assessments of the associated benefits and drawbacks differ according to the individual's experience.

Homebirth appeals to those women who feel that the benefits for their family and themselves outweigh the risks of adverse events. A woman's perception of risk will be individual and her views on what constitutes significant risk will vary with circumstance, culture and clarity of understanding the issues. The likelihood of potentially serious events during a homebirth involving a screened low-risk woman is no greater than for those planning to deliver in hospital. However, it is the proximity of support in a hospital setting for such events that can make the difference.

A planned homebirth for a low-risk, well-informed woman, should be differentiated from an unplanned homebirth where antenatal care and circumstances may be suboptimal. Similarly, water birth is also a completely different topic not addressed here. In this article we will look at the screening, the safety and the incidence of homebirth in rural and urban areas of Southern New Zealand and also explore the different viewpoints of those involved.

In contrast to RANZCOG's current statement on homebirth, the recent Royal College Obstetricians and Gynaecologists (RCOG) report recommends homebirth in the UK, in particular circumstances, for those women who are screened as low risk. The RCOG and Royal College of Midwives joint statement[3] supports homebirth for 'women with uncomplicated pregnancies who are at low risk of complications'. It also states that homebirth may confer considerable benefits for women and their families. Overall, the benefits of homebirth include: reduced experience of pain; family bonding; participation by children and family; cultural aspects; and avoidance of travel in labour. The ability to perform culturally traditional care, such as massage, in labour is important to some. The recommendations state an experienced midwife should be present, who has regularly updated skills from appropriate workshops in emergency obstetric procedures and neonatal resuscitation.

In the UK, the incidence of homebirth is around three per cent, whereas in Scandinavia and the Netherlands it exceeds 30 per cent. In New Zealand, the homebirth rate is seven per cent, and appears to be increasing, while in Australia it is static at 0.2 per cent. We can usefully explore the reasons for these differing approaches. It may be that New Zealand, with its smaller size and experienced midwifery population, is closer to the UK and Dutch model of care than that of Australia. However, geographical distances, weather and time delays in transfer do impact on the delivery of care.

There is unlikely to be a randomised study regarding the safety of homebirth, but large cohort studies can give reasonable evidence, such as a large retrospective cohort study from Holland involving 0.5 million births in primary care over a six-year period. The neonatal outcomes (NICU admission or mortality) for this group were identical to those with planned hospital births. Babies of those delivering at home were equally likely to be admitted to NICU as hospital planned births. Adverse neonatal outcomes in first 24 hours and first week of life were the same for each group: 7/1000. In the Netherlands, the relatively high incidence of homebirth necessitates efficient infrastructure and transfer services: 40 per cent of primipara and 14 per cent multipara require transfer during labour. The outcomes were

Sleeping blissfully at home; do these babies realise their mother's choice of place of birth was contentious?

found to be less favourable for primiparous and non-Dutch women and for those women over 35 or under 25 years old. While primipara experienced more transfers, multipara who had previously delivered two or more children and were on average 41 weeks gestation had the least incidence of transfer. Despite this evidence, Sturdee concludes that while this study's findings were significant, its context was in a totally different practice environment and geographical area to Australia.

Safety of homebirth in England is currently being assessed and the 'Birthplace study' results are soon to be published. Safety considerations are not only physical, but also include emotional and psychological wellbeing.

Safety and transfer issues

Up until 60 years ago, 60 per cent of births were at home, as there were few alternatives available to most women. In 1950s New Zealand, a public program of building maternity and surgical facilities, alongside a new National Health System, gave all women equal access to maternity care, even in rural areas. Antibiotics, progress in anaesthesia and neonatal knowledge as well as nutrition also added to the improved pregnancy outcomes from 1950s onwards. However, there remain women who choose to have only essential medical interventions. Where there is minimal risk to mother and child, midwifery primary care or homebirth can be appropriate. In 2011, women settling in the resort towns of Otago have no secondary hospital facility, however, nine primary care facilities exist in the Southern Region, and altogether deliver more than 400 babies each year, with an additional estimated 150 homebirths.

Such maternity facilities are supported by emergency transfer to appropriate base hospitals. The current increasing birth rate in these areas necessitates appropriate future-proofing, with outreach secondary care clinics and facilities from the base hospitals. Some low-risk women still prefer to travel to the base hospital during labour or, if high risk, will relocate near the main centre prior to the delivery date.

By definition 'rural' in New Zealand is more than one hour's travel (approximately 80km by road) from the base hospital. In the Southern Region, three to four hours' road travel is common. This may become six hours, with changes in ambulance and voluntary drivers necessary en route. In adverse weather a transfer can take even longer in any season and there are no all-weather helicopters. Furthermore, in New Zealand the local ambulance is not used for maternity cases alone. Competing needs of trauma, acute medical and surgical cases must also be met by the same service.

Within New Zealand, the Otago and Southland need for transfer data parallels that in the UK, but in rural areas there are the additional risks of transfer time and complications. An Otago study of 'investigated transfers to the region's tertiary unit over a five-year period in the Southern Region' looked at this. The reasons for transfer from primary care and outcomes were assessed in the context a total of 20 000 births; of these, 415 transfers from rural primary units to tertiary centre were identified. The most frequent reason was failure to progress in labour (30 per cent) of which half subsequently required delivery by caesarean section.

Pragmatism, rather than fashion, seems to be the driving force for women who choose homebirth.

A remote location can make homebirth less than ideal, even for low-risk pregnancies.

Table 1. Reasons for transfer in labour Southern Region to Dunedin Hospital.

Reason	Percentage
Failure to progress in labour >12hr	35
Fetal concerns	12
APH	5
Hypertension/PET	8
Postpartum or placental concerns	8
Malpresentaions in labour	4
PTL/PPROM	20
Other	5

More than 80 per cent of all transfers were by ambulance, the alternative being helicopter or, rarely, LMC vehicle. In the absence of all-weather flying transport, rural ambulance (often voluntary) was the only back up. In the UK, the main reasons for transfer are slow progress and pain relief in labour, along with vaginal bleeding, fetal concerns and neonatal concerns.

How can homebirth be made safer?

RCOG recommends that midwives have a colleague at delivery and undergo regular training in the emergency events that may be faced. Telephone contact at the home and normal standards of care in labour, preferably with partograms, are stressed. Likewise, routine fetal heart assessment and active management of the third stage are expected to ensure normal labour and fetal wellbeing. The infrastructure for transfer to allow this to occur in a timely and safe manner, in all weathers, is essential.

A primary unit midwife's viewpoint

Sue Wood has worked as a midwife in Queenstown for 12 years, and is currently employed by the District Health Board as a midwife in the primary unit that is attached to the local hospital. During this time she has not noticed the increase in primary unit births or homebirths that have been noted in other Southland units that lie closer to the base hospital:

> 'Our midwifery practice continuously strives to promote birth as a normal life event. We are conservative in our approach to place of birth, whether it is at home or in the primary unit. We factor in to the woman's care plan, our resources, the season and weather, midwifery support and adhere to Ministry of Health Guidelines.[7] Most women are self-directive and well informed about their care. They feel able to exercise choice regarding the place of birth.'

A woman's viewpoint

Tuakana Tollich's decision-making process was typical of those who choose home care by a midwife. A 36-year-old Maori woman who recently delivered her fifth child in rural Central Otago; Tuakana knew about the birthing options available to her through her midwife. She lives close to a primary unit, but two hours from a secondary centre. For her fifth pregnancy she chose a homebirth. Tuakana has had a range of birth experiences. For her, the choice of homebirth was mostly about the family being able to be part of the process and in familiar surroundings. Avoiding travel with young children was also important, so there was less family disruption.

Tuakana's first two births were normal, the first in hospital and the second at home. The next pregnancy required an operative delivery from a baby diagnosed with a congenital hydrops. After this Tuakana had a successful homebirth, this time in a rural setting, and was uneventful.

The most recent birth was planned as a homebirth. However, progress in this post-term labour was slow, so transfer to the local primary centre was arranged where a spontaneous vaginal delivery was achieved without intervention, allowing her and family to be home again together the same night.

The benefits of family support and involvement were the important issues for her, rather than cultural issues. Tuakana says she felt safe throughout the process, because of the support and open discussion of risk management by her midwife and support team.

A lead maternity carer's viewpoint

Mary Richie is a Dunedin-based lead maternity carer (LMC) who supports homebirths, but with clear criteria. She suggests the screening checklist for women suitable for homebirth should include the following:

- A normal obstetric history.
- A previous normal birth.
- A normal pregnancy.
- An understanding of what homebirth entails, including restricted pain-relief options.
- A willingness to transfer should a complication arise for mother or newborn and understanding of potential unpredictable risks.
- A mobile or land line telephone connection, support of another midwife and transport.
- An understanding of the need for the woman and partner to undertake the responsibility for the homebirth and inherent risk however minimised.
- A willingness to accept assessment of fetal wellbeing and progress in labour. Physiological management of third stage of labour, unless there were risk factors or heavy bleeding. (As unexpected post-partum haemorrhage (PPH) can occur, Mary carries syntocinon and syntometrine, IV equipment and fluids.
- A restriction of care to those living within a 30-minute travel radius from the hospital.

Mary attends a handful of births at home each year with good outcomes. Over the last ten years her transfers have been few and chiefly for pain relief. She reports the women note several benefits: greater comfort in their own surroundings; less pain; family participation in the birth of a new family member; their own bed and avoidance of travel.

A specialist's viewpoint

The obstetrician's view will inevitably be coloured by experience of an incident or near misses whether women were low risk or not. They will be less aware of the normal homebirth outcomes.The Dunedin Unit receives transfers from a wide hinterland, where the significant majority of midwives are practising within safe guidelines suggested above. Nevertheless, transfers from home have included the range of intrapartum obstetric emergencies that can occur, including cord prolapse with membrane rupture in early labour, transverse lie with arm presentation and preterm breech. Haemorrhage has associated with atony, retained placenta, trauma, antepartum placental problems and uterine rupture. While the outcomes are good for most of these acute complications, it is important that appropriate audit and discussion follow such transfers. This ensures maximal learning from these events for both individuals and care systems.

Women's perception of risk is inevitably different to that of their medical carers, who from time to time see avoidable maternal morbidity and adverse fetal outcomes. Education of women, adequate numbers of skilled midwives who are regularly updated in obstetric emergency drills, a smooth interface for communication and transfer to secondary care, and transport services are the essential prerequisites before homebirth can approach the safety of hospital birth or quality of outcome achieved in some European countries. Rurality poses additional risks that are hard to convey to the low-risk woman. Overall, this specialist will always advise safety over convenience. I may not understand why some women choose homebirth. Similarly they might not understand why I would not. The reason is very clear to me: with my obstetric history, I simply would not be alive to tell the tale.

References are available from the author upon request.

Whose choice is it?

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The issue of patient choice in healthcare is nowhere more fractured than in the subject of homebirth.

Patients, as consumers, believe their freedom of choice is sacrosanct. However, the UK's National Health Service (NHS), faced with ever-increasing financial and resource pressures may not be in the position to provide this choice. Similarly, healthcare professionals may only be willing to offer choice when it is clinically appropriate. These differences of opinion create, on occasion, significant tensions between midwives, obstetricians and women.

This schism was demonstrated in last year's editorial in *The Lancet*[1] that stated:

> 'Women have the right to choose how and where to give birth, but they do not have the right to put their baby at risk. There are competing interests that need to be weighed carefully.'

The lines were drawn and the debate still continues.
The homebirth rate in the UK was 2.7 per cent in 2009.[2] This contrasts with 33 per cent in 1955.[3] Proponents of homebirths state that childbirth is a natural process and ensuing health policies have over-medicalised this process. Subsequently, they say, hospitals births have led to the increase in caesarean sections and interventions which do more harm than good. After all, as the statistics show, it was only two generations ago, when homebirths were the norm.

On the other hand, as doctors, we are well aware of the unpredictability of birth and our focus therefore has to be in ensuring the safety of the mother and baby, balanced by their individual needs. The fact is, patterns of childbearing have changed over the decades. There are now more complex pregnancies as a result of lifestyle trends such as the increase in the numbers of older first-time mothers and the rise in maternal obesity. These factors have an impact on whether a hospital or a homebirth is recommended.

Maternity services within the UK involve midwives, GPs and specialists, including obstetricians, anaesthetists, neonatologists and others as required. In contrast to most countries, all healthcare, including maternity care, is free at the point of access for all patients entitled to such care. Historically, antenatal care was shared between midwives, GPs and hospital-based specialists, but over the last ten years, the input from primary care has lessened. We expect this trend to reverse since GPs hold the vital key: knowledge and information about a woman's medical history. They should have a greater role in maternity, working collaboratively with midwives and obstetricians.

In the UK, birth can take place at home, in a stand-alone midwifery unit, a co-located midwifery unit or consultant-led unit with access to ultra specialised support, such as level 3 neonatal care. The availability of these services, however, is constrained by geographical and financial imperatives.

In theory, a mother has the choice of delivery in any unit. Choice has been gaining political leverage and various publications have been produced in the UK trying to argue the case for extending choice.

The Cumberlege Report, Changing Childbirth[4], published in 1993, advocated a return to 'normal' birth, in the face of what was then perceived to be the rapid medicalisation of childbirth. At the time of publication, it was considered a radical document and interpreted by some as a threat to patient safety. Many obstetricians were concerned about the unpredictable nature and outcome of labour and believed that a hospital birth was the safest option. These arguments have been plagued by the absence of robust data on outcomes for mothers and their babies.

Maternity Matters[5], a discussion document produced by the Department of Health in 2007, argued that high-quality and safe maternity services should go hand-in-hand with the rights of patient choice. Parallel to these developments, the RCOG and the Royal College of Midwives published a joint statement[6] that made the case for planned homebirths for uncomplicated pregnancies. This approach was shown to result in better continuity of care and a good birth experience for the mother.

This was followed by 'Safer Childbirth: Minimum Standards for the Organisation and Delivery of Care in Labour'[7], which took the quality agenda further. In this report, the focus shifted to placing the woman at the centre of care. The importance of professional integrity and respect between maternity professionals, together with increased input from senior clinicians on the labour floor was emphasised.

More recently, 'High Quality Women's Health Care'[8] argues for a more balanced evidence-based approach around a network of providers. This document concentrates on the premise of having: 'the right care, in the right place, with the right staff with the right skills and the right outcome.'

There is broad acceptance now that some women need very complex interventions while those with low-risk pregnancies could deliver safely in a range of settings. With all these factors in mind, how then can a woman make the best decision on the most appropriate place of birth for her and how can a doctor advise the patient accordingly, against a backdrop of the increasing complexity of problems impacting on pregnancy? The challenge for us is in obtaining the good-quality data.

The National Perinatal Epidemiology Unit (NPEU) at the University of Oxford has completed a study of 80 000 women to compare the maternal and baby outcomes of birth planned at home, in different types of midwifery units and in hospitals with obstetric services. The study aims to establish what proportion of mothers and babies require transfer during labour or after birth from other birth settings to obstetric units, measuring duration of transfer and whether such transfer is acceptable in terms of safety. This study, when published, should define the parameters and assist women and professionals in decision-making.

In anticipation of this study, what other reliable information have we got at the moment? Recent data[9] indicate that neonatal death rates treble for planned homebirths, but emphasise that the death rate was very low. The same study showed that successful delivery at

home results in less medical interference, with less morbidity. A recent study,[10] showed what can be achieved when maternity services are organised and good-quality care is offered.

The National Institute for Health and Clinical Excellence (NICE) intrapartum care guidelines[11] contain sections on place of birth from published literature up until 2007. There were slightly higher perinatal mortality rates related to intrapartum events and neonatal complications with homebirths. Frustratingly, there is lack of robust data on short- and long-term outcomes for babies. Interpretation of these studies is difficult due to inclusion of high-risk cases in the homebirth populations.

This guidance provided clear criteria on defining risk to assist in the decision-making process on the place of birth. There are two categories: firstly, medical conditions suggesting increased risk and therefore the need for a planned delivery in an obstetric unit; and, secondly, the existence of other obstetric factors justifying a hospital birth. The NICE guidelines also state that giving birth at home increases normal delivery rate with less intervention. In addition, a normal delivery in the first pregnancy was found to have a reduced intrapartum complication rate in subsequent pregnancies.

The prevailing advice therefore is that homebirths are a safe option in uncomplicated pregnancies and they should be encouraged. However, these women must have quick access to emergency transfer to an obstetric unit as part of their birth plan.

Alongside the medical issues over the choice of place of birth, there are the economic and resource considerations. A hospital birth is more expensive because of the hospital overheads. Although a homebirth may be cheaper financially, it is resource-intensive with regard to the need for one-to-one midwifery care.

Our responsibility must be to relay the evidence to women in a gentle, supportive and informed way. Extreme polarisation does not help the woman. At times, decisions will be made that do not accord with our own standards and guidelines, but obstetrics is not unique in such dilemmas. Other domestic, social and cultural elements will influence a woman's decision and these must be respected. We must support her and ensure that the appropriate emergency protocols and services are available.

Future policy over the place of birth will be greatly influenced by the much-anticipated NPEU Birthplace study.

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Can we reach middle ground?

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A highly polarised debate between midwives and obstetricians runs the risk of ignoring the voices of women and families – how can we move the discussion forward?

Homebirth is an option for only a few women in Australia through publicly funded models of care and for women who choose to hire a privately practising midwife. The private models of homebirth remain unfunded and uninsured. Recent maternity service reforms have excluded private homebirth from insurance cover and Medicare rebates, despite 60 per cent of the over 900 submissions to the recent Maternity Services Review mentioning homebirth, with women describing in detail the benefits and barriers in accessing this option of care.[1] This is out of step with maternity service reforms in comparable countries such as New Zealand, the UK and Canada, where homebirth is supported as a mainstream option with public funding and affordable insurance available. As a result, a small number of women (0.3 per cent) choose to have a planned homebirth in Australia and a further 0.5 per cent of women give birth in places other than planned hospital or home.[2] This group includes birth before arrival (unintentionally unattended birth at home) and freebirth (intentionally unattended birth at home).

Why not just go to hospital?

The intervention rates during childbirth have skyrocketed over the past ten years in Australia, leaving many women traumatised and fearful. A first-time mother in Australia now has a greater chance of having surgical intervention during her birth than of not having it. This is not safe, either physically or psychologically. It is also expensive, has many consequences and is counterproductive to optimising normal birth and healthy mothers and babies. While it is indeed very safe to have a baby in Australia, the perinatal and maternal mortality rates have remained virtually unchanged for over a decade, despite a steep rise in obstetric intervention. Fragmented care received during what is a major life event further impacts on women's satisfaction. The ramifications of these issues are:

- more traumatised women due to interventions during birth;
- limited options for continuity of midwifery care;
- fewer experienced, networked midwives available to attend women privately; and
- very limited access for women to a hospital birth under a private midwife.

The rise in doulas and the numbers of freebirths births is being seen in two countries – Australia and the USA – both with high intervention rates in birth and limited access to continuity of midwifery care.[3] While there has been little research into freebirth in Australia, there is some evidence this is increasing.[3,4] Where homebirth is not offered as a valid choice (funded and accessible) to women there also appears to be a corresponding increase in the incidence of freebirth.[5]

What does the evidence say?

One argument against the practice of giving birth at home is the lack of scientific evidence or different opinions as to what that evidence actually says. While homebirth advocates cite research that supports the safety of homebirth and homebirth critics cite research that show a lack of safety, the studies examining the safety of homebirth have consistently found comparable perinatal mortality among low-risk women giving birth at home with a midwife and low-risk women giving birth in hospital, but lower intervention rates and maternal morbidity.[6–12] Likewise, studies have shown that when women with high-risk pregnancies give birth at home the perinatal mortality is increased.[13–15] There is good evidence to support low-risk homebirth with a qualified midwife who is well networked into a responsive maternity care system as a safe, reasonable and cost-effective birth option that results in less medical intervention and government spending on maternity care and high levels of satisfaction.

> 'It remains a woman's right in Australia to determine what happens to her body during pregnancy and birth and most midwives and doctors value this right.'

The more complex, but equally relevant, argument about how women understand safety and how safety is examined scientifically is debated less and considered less valid by some. Cultural, emotional, psychological and spiritual safety rarely appear in the mainstream debates about the safety of homebirth, yet qualitative research would indicate this dominates in women's decision-making regarding choice of place of birth.[16,17] With suicide a leading cause of maternal death in Australia[18], the UK and USA, we can no longer dismiss the importance of women's psychological wellbeing.

Is evidence the answer?

The continued focus on the safety of homebirth in research (primarily perinatal mortality), while important, is not going to end the debate that has now raged for a couple of hundred years. If we discovered conclusively through a randomised control trial (RCT) that perinatal mortality is higher among babies born at home, would this end the debate and would homebirth cease? The answer is no. Those who support homebirth would argue women's right to choose, the generalisability of the study, the inclusion of women with risk factors and the long-term benefits that can't be measured by an RCT. What if we found through a RCT that the perinatal mortality was the same or better, would this end the debate? The answer again is no. Those opposed to homebirth would argue generalisability, sample size and differences in population, geographic distances and professional standards. Research will not end the debate; If anything the debate

is becoming more polarised with each scientific publication. So, where to next?

Can we reach middle ground?

Of course we must continue to take a scientific approach to studying the outcomes associated with the place of birth, but we must also find new ways to do this and embark on new and more insightful strategies to come to a balanced middle ground in this debate. If our aim in undertaking research is only to prove the danger or benefit of homebirth, we will miss a vital opportunity to examine how we can all work together to make birth, at home and in hospital, safer for all women.

The most successful example we have of achieving the middle ground is the joint statement from the UK on homebirth, where all the evidence (43 references cited), not just that which suits an agenda, is examined and defined support is given for homebirth by the Royal College of Obstetricians, Royal College of Midwives and National Childbirth Trust.[19] This is the inevitable benefit of joint health professional and consumer statements rather than profession-specific ones, as bias and belief is directly challenged and moderated.

The debate is about more than place of birth

The debate around homebirth is about more than place of birth or associated perinatal mortality, it raises deeper and more complex issues: the right of women to have control over their bodies during childbirth, the rejection of the prevailing medical model and risk paradigm of pregnancy and childbirth, societies' belief that they have an investment in the product of childbirth and therefore should determine what is considered safe, the culture of childbirth in a country and the position and status of women within a society. Homebirth also represents starkly the different philosophical frameworks held by midwifery (essentially a social model of care) and medicine (essentially a medical model of care) and hence the debate over this issue is ideological, contested, longstanding and circumscribed by relationships of power. Sadly, it is rarely about women and women's voices are often dismissed or denied in the debate. While the law in most developed countries stands strongly behind the consumer on the issue of choice and self-determination, this fundamental human right is repeatedly breached in practice and during debates. On the one hand, the same professionals who fight for the right for a woman to terminate her pregnancy will fight against her right to give birth at home. On the other, the professionals that fight against a woman's right to choose an elective caesarean section without medical indication will fight for a woman's right to have a homebirth. We appear to be consistent at least in our inconsistency.

The reality is there are advantages and disadvantages with all places of birth for different women at different times with different practitioners; therefore, we are left with a couple of options. We recognise women's choice as valid and we try to reduce the disadvantages and improve the advantages of all options of care or we obstinately put our heads in the sand and hope if we ignore it long enough homebirth will go away. Never in history and in no country on earth has this ever happened, but in some countries concerted efforts to cater for women's choice means hospital birth and homebirth have been made safer.

Ultimately, whatever your beliefs, homebirth will not go away. It remains a woman's right in Australia to determine what happens to her body during pregnancy and birth and most midwives and doctors value this right. Perhaps it is time finally to exchange the entrenched divide between midwives, consumers and obstetricians on the issue of homebirth for a shared responsibility.

ACM Homebirth Position Statement

The Australian College of Midwives (ACM) developed an interim homebirth position statement in August 2011. The College sought feedback and received over 250 submissions, which are being considered by a Review Panel. Membership of the Review Panel arises internally from the ACM Branches and the Consumer Advisory Committee. It is anticipated that, by the end of 2011, the ACM National Board of Directors will have considered recommendations made by the Review Panel. Once endorsed by the ACM National Board of Directors, the College's Position Statement on Homebirth will be available on the ACM website.

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Birth at home: NZ's position

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Providing midwifery care for women who choose homebirth is in line with the midwifery profession's aim of keeping birth as normal as possible.

Where a woman gives birth and a baby is born has cultural, social and emotional implications far greater than is often acknowledged by many health systems and health providers. While the focus on the physical outcomes for babies and their mothers is essential, wellbeing also relies on the health system caring for the person as an integrated person. The 'non-physical' dimensions of a person or persons carry the potential for a positive or negative effect on their physical and mental wellbeing. There is a consequent need and demand for maternity care that is woman-, baby- and family-friendly and safe at the same time.

The land and place of one's birth, the presence or otherwise of the family, the cultural mores, the need for environmental and cultural safety (or secure haven) within which to give birth and the burial place of the whenua (afterbirth) can all impact on the wairoa (or spiritual aspect) of a baby's birth. These factors resonate with people across almost all cultures. The World Health Report 2005 states that, 'There is a value in the rituals surrounding birth and in keeping these as a central feature of family life.'

Maori families in New Zealand traditionally place great emphasis on where a baby is born. Of the 3379 homebirths documented in the 2009–10 New Zealand College of Midwives Clinical database, almost 18 per cent are Maori.

Homebirth as a human right

The midwifery profession has always strongly supported women's choice of birth place and has done for centuries. Birth at home is seen, not just as a valid choice, but as a human right. The International Confederation of Midwives (ICM) position on homebirth was reconfirmed this year at their Council meeting and it is clear: 'The ICM supports the right of woman to make an informed decision to give birth at home supported by a midwife.'

The ICM believes that in environments where women can make a choice as to where to give birth, among the options they are able to consider for a safe birth, should be their homes. They also believe the midwife who elects to provide professional services for women in their homes should be able to do so within the nation's health service. In the ICM statement on keeping birth normal they 'support normal childbirth since for the majority of women, pregnancy and childbirth are physiological life events.' As part of their evidence-based approach to keeping birth normal, they specifically refer to homebirth. They say 'women should have access to midwifery-led care, one-to-one support and interdisciplinary working, including the choice of a homebirth and immersion in water.' The ICM position goes on to say, 'ICM regrets that not all nations have the legislation or health systems which support planned homebirth, and urges national governments to review the scientific literature and work towards a maternity care system which includes this option.'

The New Zealand Government agrees with this position and homebirth is a state-supported option for all New Zealand women who choose this. Midwives providing homebirth care are also supported to do so and while many midwives attend births at home some eight per cent of midwives regularly provide a homebirth service.

In 2010, the European courts also supported the 'rights' aspects of place of birth in a judgement that declared 'the choice of homebirth is a European human right.'

International Bill of Rights for Women and Midwives

ICM have also recently highlighted their commitment to human rights for women, specifically in pregnancy and childbirth and as a woman-dominated profession. At a 2009 meeting in Hyderabad, India, the Asia Pacific Region of the ICM (12 countries which included Australia and New Zealand) drafted and approved a Bill of Rights for women and midwives. They called for women in their region to be able to make their own choices around their pregnancy and birth. This statement was reinforced and approved at the ICM Council meeting in South Africa 2011. The ICM Bill of Rights lists the following as women's rights in relation to her health and maternity; every woman has the right to:

- receive care in childbirth from an autonomous and competent midwife;
- be respected as a person of value and worth;
- security of her body;
- be free from any form of discrimination;
- up-to-date health information;
- participate actively in decisions about her healthcare and to offer informed consent; and
- privacy.

Moreover, every newborn baby has the right to a healthy and well-informed mother.

The Bill also identified that both women and midwives require the support and respect of governments if childbirth (regardless of where it takes place) is to be a safe and satisfying option for women and their newborns. 'Women and midwives have the right to be respected by governments and government institutions for health and education.'

At the same 2011 Conference, the ICM launched its new Global Competencies and Global Standards for Regulation and Education, the first profession to do so. These global statements set the standards for midwives everywhere and recognise midwives will attend and provide care wherever women and their families choose to give birth to their baby, including at home. These standards gained pledges of support from the International Federation of Obstetricians and Gynaecologists (FIGO), the WHO and the UN Population Fund.

Homebirth in New Zealand

The New Zealand College of Midwives statement on normal birth reflects both New Zealand's and the international midwifery position

Table 1. Homebirth outcomes (%) 2009–10 (n=3379).

Normal birth	Caesarean	Instrumental	PPH>1000ml	Perinatal mortality	Maternal mortality	Baby referral to NNU/2ndry care
95.9	2.5	1.7	1.3	0.33	Nil	0.9

on birthplace choices and the safety of homebirth. The 2006 collaborative statement from 19 wide-ranging health professional and consumer groups, was re-ratified in 2009 and provides a further social mandate in New Zealand for this choice.

> 'Women who are experiencing normal pregnancies should be offered the option and encouraged to give birth in primary maternity facilities or at home. The evidence clearly demonstrates that women, who receive effective antenatal care and are assessed to be at low risk for complications, will give birth to healthy babies and need fewer interventions if they are supported to give birth in a primary maternity unit or at home.'

New Zealand women have had legislation supporting the right to a homebirth attended by a midwife since 1938. From the 1980s until the 2000s the Domiciliary Midwives Society and the Homebirth Association collected and reported data on the outcomes. A study from this considerable dataset was published in the *NZ Medical Journal*. The New Zealand College of Midwives has also published midwifery outcome data for homebirth since 2004, and currently has a research report in press on homebirth outcomes (see Table 1). All of these reports over seven years continue to demonstrate excellent outcomes for planned homebirth for both the mother and the baby.

However, excellent outcomes are more easily attained in an environment that is supportive of homebirth. Where there is no support, decisions are compromised as blame and legal challenge become the norm rather than the exception.

Integrated primary and secondary services

Good outcomes require the supportive continuum of care that may be needed by an individual pregnant woman from all those who provide maternity services. This collaboration is the chain that links community-based primary midwifery care with district and regional care from hospital-based midwives and medical specialists.

It is the positive and supportive relationships between midwives and obstetricians that make a homebirth service safe and trustworthy for women and their families. It is the maturity of New Zealand maternity services and the good relationships between midwife and obstetric colleagues that enables the safe homebirth option. In fact, about 20 per cent of births in New Zealand occur in localities without on-site medical back-up, which has allowed this country to develop more mature systems of consultation and referral. The outcomes of these births are excellent. For example, the adjusted relative risk of emergency caesarean section for women of the same risk status at a homebirth is 0.81(0.56–1.15) compared to an adjusted relative risk of 2.73 (2.17–3.44) in a secondary hospital ($p<0.001$) and 4.62 (3.66–5.84) ($p<0.001$) in a tertiary hospital.

Consultation and Referral Guidelines contribute to each discipline's understanding of risk. These have been in place since 1996, and have stood the test of time. They were reviewed by a multidisciplinary team in 2011, with minor changes and coding clarifications. The Guidelines are owned and respected by all parties and help assist everyone to make sound and safe decisions about when another level of care is required.

Midwives know that if they need to transfer to hospital they will be received by obstetricians that respect their expertise and support the woman's right to minimum intervention. The women are treated with respect and care plans maintained as much as possible in light of the need for transfer and obstetric involvement. Midwives and women are not castigated for opting to give birth at home, but supported when they are admitted to hospital due to circumstances that require extra obstetric support. This supports safety because women (and their midwives) know that their treatment at hospital will continue to respect and support the woman's choices as much as possible.

At each level of care, women should receive respect, quality care, timely consultation and referral when necessary to doctors, midwives and other specialists. The collaboration between midwives, specialists, other health professionals and consumer groups should be constructive and focused on women's and babies needs at every level. If professional care and services are accessible, integrated, responsive, affordable and effective the issue of where a women and her family choose to give birth will be factor of the past.

References are available from the author upon request.

Who is being unethical?

Prof Michael Permezel
FRANZCOG

Arguably, no discipline is more exposed to ethical dilemmas than obstetrics. Homebirth is one important example, but many of the ethical principles can be applied broadly.

Obstetricians make decisions: planned vaginal delivery or elective caesarean section? Induce or await spontaneous labour? Instrumental delivery or emergency caesarean section? All of these types of decisions are made many times each day by clinicians equipped with the necessary knowledge and skills. The fundamentals that allow such decisions to be made are instilled during training and later enhanced by clinical experience. Such is the College way. But do Fellows perform equally well when the decision is one of professional ethics?

In basic ethical terms, a decision to provide homebirth can be seen as a balance between beneficence (doing good) and maleficence (doing harm). If the balance favours harm, it should not be offered, given that the mere provision of a service by a 'respected' authority (in other words, a health practitioner or health service) is likely to be interpreted as imputing a level of risk acceptable to most women. For example, most of us could not even guess the risk of aircraft failure mid-flight. We make the assumption that the experts providing the service have determined the risk tolerance as acceptable to passengers. Can the same be said for homebirth?

The beneficence and maleficence of homebirth

Birthing in a familiar environment has obvious appeal. However, a greater beneficence in homebirth may derive from a desire for personal achievement. Summiting Everest comes at huge personal risk, with perhaps one in 20 not returning, but for some the enormity of the personal achievement justifies such a risk. Provide a challenge and someone will want to overcome it. I believe that homebirth has become a challenge.

Maleficence in homebirth derives from cases where there is an adverse outcome for mother or child that would have been avoided by hospital birth. The frequency of these events is described elsewhere, but a claim that these events do not occur in low-risk populations is untenable. They clearly do occur – and at a measurable frequency.

A further and less-defined maleficence comes from a potential impact of resource utilisation on other users of the health system. Difficulties experienced by the ambulance service are well publicised. Demands on emergency services at the receiving hospital are just as real and can impact on other patients. It is not a matter of whether this ever occurs, but how often. The frequency of emergency transfer from home to hospital remains considerable even after careful selection of patients. We train (and examine) our registrars in skillful management of labour ward to minimise the likelihood of simultaneous emergencies. The unexpected transfer from a homebirth bypasses that important safeguard.

Is it ethical to provide medical support for homebirth that is undertaken despite recommendations to the contrary? Here is the most obvious of dilemmas. In the event of unexpected complications of homebirth, the provision of emergency care is an obvious ethical obligation. However, provision of a 'back-up' service may lead to more women choosing homebirth than would otherwise do so. More homebirths would potentially result in an overall net increase in bad outcomes compared to the situation where back up is not provided.

The maleficence of a 'comprehensive back-up' service is maximised where it is mischievously portrayed as moving the risk profile to that of a hospital birth. The image is created of some sort of superior homebirth service that has made a Rolls-Royce out of a car with poor brakes, no seat belts and a zealot at the wheel. Mostly the latter will still reach their destination – but few would suggest it is wise to do so.

The only solution to this ethical dilemma is the provision of passive support. Mostly this is in terms of transfers from home to a public hospital. This is not easily portrayed as obstetricians supporting homebirth and represents a suitable ethical compromise.

Is it wise to polarise the community view of homebirth?

As indicated previously, a major incentive for homebirth enthusiasts is a simple human response to a challenge. Allowing that challenge to be politicised into homebirthers versus the rest creates a mindless frenzy resembling a collective of the least presentable football supporters. Add to this recipe, a substantive measure of perceived deliberate misinformation from the other side and the value of the personal satisfaction side of the decision equation rises to fever pitch.

Why do so many of our colleagues consistently exaggerate the risks of homebirth? The outcomes are quite bad enough, but it is a simple fact that the vast majority of women who attempt homebirth will accomplish that end without harm. Almost all women contemplating birth at home will know women who have had a successful homebirth experience. To directly or indirectly impute that a bad outcome is inevitable, or even likely, immediately destroys professional credibility. Further discussion becomes futile. Much wiser if the obstetrician advocates a risk-avoidance position aided by appropriate analogies. If you choose homebirth you are still likely to reach your destination, but was it a wise thing to do?

The fetus gains exponentially in status as pregnancy advances from its beginnings as a fertilised egg through to a term pregnancy, but even a term infant is not valued at the same level as an older child. This is true both in a legal sense (in other words, no legal protection to prevent the mother acting against the interests of the fetus; no coronial powers for investigation of late fetal death) and also from the commonly accepted risk tolerance in the course of normal obstetric practice (for example, attempting vaginal birth after a previous caesarean delivery).

To argue on the grounds of potential death to the child will be hugely influential for some women, but much less of a priority for others.[3] For the latter group, the child itself may have little in the way of its own ethical rights. A much stronger influence may come from the prospect of caring for a disabled child – seeing it not from the child's perspective but from the impact on their own lifestyle. But, do we as a profession acknowledge this outcome as a possible consequence of risk-prone obstetric practice?

Is it wise to deny pregnancy care at term as a potential cause of long-term disability? Legal determinations and clinical experience would suggest that for many parents, a potential for long-term disability of their child is a very influential factor in decision-making around birth choices. Yet many of our profession engage in an enduring campaign of misinformation with respect to late pregnancy management and the causation of life-long disability. Some actually believe there is no causation. The much quoted Blair and Stanley paper attributed approximately ten per cent of cerebral palsy to intrapartum events.[4] A parallel literature suggests severe intellectual and/or motor disability in approximately 50 per cent of survivors of hypoxic ischaemic encephalopathy (HIE) at term[5], which in turn can be expected in 1000–2000 term births.[6] As evidenced by these figures, long-term disability is fortunately an uncommon outcome with modern pregnancy management. However, to think or indicate that pregnancy care at term is not a potential causal factor in long-term disability is both erroneous and dangerous.

Is it wise to have a restricted view of evidence?

The next mistake that indirectly advocates for homebirth is an unhealthy obsession with the randomised controlled trial (RCT). There is a common failure to appreciate that RCTs are the least appropriate evidence to use in situations where the outcome is rare, but of high clinical importance. The broader medical profession is widely complicit in this most obvious of errors, but fortunately there are researchers advocating a broader view evidence.[7-9] If a more sensible approach to evidence is taken, patient care will only benefit and give obstetric practice greater credibility in areas where serious adverse outcomes are rare but calamitous. For example, where an epidemiological overview observes an unusually high number of deaths in association with homebirth, that evidence requires serious consideration. This is all the more so where there is an underlying premise that the patients who are selected for homebirth have a lower risk profile.

The cost of obstetric mishaps and their causation

If the community assesses the cost of an adverse outcome to be high, there is a strong financial incentive to be risk averse with respect to that activity. A powerful tool in the promotion of homebirth would be a decision to subsidise professional indemnity premiums for homebirth midwives. However, such a subsidy perverts market forces that would assign a true cost to risk-prone professional activities. Yet most obstetricians benefit from various indemnity subsidies and those that practice in a more risk-averse manner go largely unrewarded in terms of lower premiums.

In the public sector, there are even greater distortions. A CEO is financially rewarded for overbooking obstetric numbers, reducing medical staffing and other risk-prone activities. The true cost of bad decisions is hidden by public hospital insurers that poorly relate hospital premiums to the cost of adverse outcomes, therein promoting bad administration. This fallacious management also applies to public hospital-supported homebirth, in that the community pays for the adverse outcomes while the health administrator reaps the financial reward resulting from freeing up a hospital bed.

No-fault compensation is a very worthy goal. Those with genetic, postinfective or traumatic disability are deserving of much improved support. However, should parallel legislation simultaneously reduce recourse to legal action in the event of risk prone professional behaviours, an inhibitor of these practices is subdued.

Unwise or unethical?

To conclude that the beneficence of homebirth outweighs the maleficence is mostly to be blinkered by a professional fervour that has clouded good clinical judgement. How could it ever be that a quanta of great homebirth experiences could compensate for a single parent denied the immeasurable and repeated joys of raising a healthy child? But to fault the parents is unfair. Almost without exception, they are guided by health professionals in whom they trust – as it happens, unwisely.

So is the health administrator unethical when he/she advocates for homebirth, knowing that there may be praise and even reward from factions within the health department? Is the health professional unethical when he/she declares a patient to be low risk and not in need of modern obstetric care? Is it even more unethical if the motivation (consciously or subconsciously) is to gain personal advantage as the primary provider of maternity care, protecting the patient from unnecessary medical intervention?

In my view, these are not examples of unethical behaviours. They are the product of distorted thinking that advantage their own position – rationalisation. When these thoughts are further ratified by colleagues of similar disposition, the delusion is reinforced. They are unwise. Practitioners ascribing to such ideologies have not dared to closely scrutinise their rationalisation and show it to be false. The obstetric profession must lead the homebirth debate with a wisdom it is yet to show.

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Jumped or pushed?

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Insights gained from a homebirth review conducted in Western Australia show that the decision to have a homebirth is more complex than is often assumed.

The traditional reason given as to why women seek homebirth is that, in the eyes of the woman, home provides the ideal environment in which to welcome your newest member of the family; a familiar environment with your own bed, access to your own bathroom, and care from people you trust. Medical orthodoxy taught me and my colleagues that this was irresponsible as it did not take into account the inherent risks associated with all births.

In 2008, along with Prof Caroline Homer, I was asked by the Western Australian (WA) Department of Health to review homebirths in WA.[1] The insights gained from that review suggest a rather different story. Reflecting on those insights since 2008, together with examination of my own personal dealings with 'failed homebirths' at the hospitals where I have worked over the last 25 years, indicates that the truth, at least in part, probably lays elsewhere. In metropolitan areas rather than an active decision to birth at home, the reasons for homebirth were often an active decision not to give birth in hospital. It wasn't that homebirth was the only option, but rather that hospital birth wasn't an option. The stories from women and their partners are ones of 'being backed into a corner' with 'nowhere else to go' or a perception of being 'pushed' away from hospital care rather than 'jumping' for homebirth. Which begs the question: are the systems of care we have set up in hospitals contributing to the demand for birth at home?

The WA review was not directed to question the future of homebirth in WA, but was to make recommendations to optimise the safety of mothers and babies who choose homebirths. The review uncovered issues that could be divided into the three broad categories: structure, process and outcome. It subsequently made 24 recommendations directed at various levels within the maternity care system. Many of these recommendations were aimed at the issues that were driving the demand for homebirth.

There were four main themes that emerged from our interviews during the review:

- midwifery continuity of care;
- access to water immersion for labour and birth;
- vaginal birth after caesarean; and
- access to 'birth centre' environments.

Other themes related to the management of breech presentation, management of multiple pregnancy and autonomy in decision-making around screening, testing and monitoring. The issues raised were often against the background of a personal previous poor hospital experience, both public and private, or the poor experience of a relative or close friend.

Continuity of care

Midwifery continuity of care was a dominant theme. Women and their partners wanted care that began early in the pregnancy and continued through to labour and birth and, ultimately, to the end of the postnatal period. They wanted this care to be given by a single clinician or by a small group of clinicians they could get to know during the course of the pregnancy. Many had been disappointed by a previous experience of fragmented public hospital care or incomplete private care.

Water immersion

Water immersion for labour and birth was perhaps the most emotive issue. The restrictive physical environments and the lack of non-pharmacological methods of pain relief in many hospitals were deterrents to hospital birth. The desire for access to water immersion in labour and birth was strong. Where the physical infrastructure was available in hospitals, often the restrictions on their use meant they were effectively not able to be used by these women. There was often strong medical opposition to the use of water immersion based on folklore rather than the evidence or lack thereof.

Vaginal birth after caesarean

Vaginal birth after caesarean appeared to be a particular sticking point. Many women were unhappy with the circumstances surrounding their previous caesarean section birth or births. Many felt that while they had signed consent for the procedure(s) that they felt pressured into making the decision. Many felt that the counselling for the caesarean section did not include all the options available to them at the time or that the information provided was not balanced. Thus women wanted more involvement in decision-making for their next birth and wanted to avoid fighting for their choice of mode of birth. This is particularly borne out in women I have come across over the years who have had two previous caesarean sections who subsequently elect to labour at home. They have often attempted to engage with public or private hospital providers but the issue of a vaginal birth in these circumstances is 'not negotiable', hence the women go elsewhere for care. Rather than managing the 1.6 per cent risk of uterine rupture[2] in an environment with ready access to recognition and rescue of an emergency situation, the lack of 'negotiation' results in an attempted birth in an environment with rudimentary safety systems.

Birthing environment

Access to 'birth centre' environments remains a desire for many women and their families. The inability of many hospitals to provide a comfortable, private, labour-enhancing environment is a strong disincentive for hospital birth for some women. Many hospital environments are not seen as family friendly nor are they seen as capable of providing 'individualised' rather than 'standard' care.

Clinical risk management

This concept of 'individualised' rather than 'standard' care came up in the other themes as well, particularly regarding obstetric issues such as breech and multiple pregnancy and the decision-making to do with screening, testing and monitoring. The inability of care providers to 'negotiate' some issues, particularly in cases where there is inconsistent evidence, contributes to some women opting out of hospital-based care. The inflexibility of hospital systems may give clinicians certainty in their practice, but it gives some women the feeling of a need to seek alternatives. Individualised clinical risk management rather than risk avoidance, with its subsequent risk transference, is surely more preferable from a health system perspective.

Lessons learnt

The themes identified in the review are echoed in the published literature on the choice of birth settings. So, what are the lessons learnt from my perspective? Firstly, it has strengthened my belief that maternity care does not sit well with a hospital's primary focus on acute adult medicine and surgery. Maternity care begins and ends in the community and only briefly intersects with the acute setting. While the birth event is clearly important from a safety and quality perspective, the way we organise care needs to focus more on the other issues raised in the review and elsewhere. While some of these issues are addressed in the National Maternity Services Plan[3] under the work streams of access, service delivery, workforce and infrastructure others require particular work. These include:

- truly woman-centred care;
- the availability of continuity of care(r) models in the public sector;
- access to midwifery care in the private sector, including groups of obstetricians and midwives working collaboratively;
- more innovative birth unit design;
- individualised clinical risk management rather than individuals and/or hospitals practising pure risk avoidance; and
- improved communication between care providers and women.

It seems apparent that existing maternity care systems are for some women too medicalised and restrictive, and do not meet their needs. Developing a maternity care system with a diversity of options that are both safe and satisfying for women and their families is essential.

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St George's homebirth service

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For a small number of women, the recently established homebirth service offered by St George Hospital Maternity Service is allowing them to achieve the birth they want in the safest possible manner.

Over the last 15 years, St George Hospital Maternity Service, in conjunction with the University of Technology, Sydney (UTS), has led a number of innovations in provision of models of maternity care for pregnant women. These have included STOMP, one of the early birth centres in Australia, and, more recently, a community-based outreach service specifically for obese pregnant women. All these models have been run collaboratively with medical and midwifery stakeholders. These models have flourished because of an increase of trust between obstetricians and midwives. That culture has not been easy to establish and sustain. It has depended upon committed leadership on both sides.

> 'The major issue was making it as safe as possible, while acknowledging the small risks associated with an emergency in the home.'

There has always been a small, but vocal, demand for homebirth as a model of care. Its provision had always been the domain of independent midwives working in isolation. The hospitals' experiences tended to be of picking up of the pieces when women experienced problems at home, with at times disastrous consequences. Not surprisingly, obstetricians have been opposed to this model of care. In addition, there had been significant discussion in regards to practices outside of accepted norms and, ultimately, withdrawal of indemnity insurance for these midwives. Thus, it was timely to look at a system that would provide homebirth within a framework to maximise its safety.

When analysed unemotionally and with data from the UK experience, the evidence encouraged our group to explore the possibility of catering for the demand in a manner that minimised risks. We therefore undertook a project to provide a homebirth model under the jurisdiction of hospital policies and procedures.

When first proposed there was the inevitable division of opinion among the consultant staff in obstetrics, with the standard view of the danger in homebirth being the primary argument for a negative view on setting up such a service. However, there were champions of a homebirth service who, although in the minority, were comfortable moving forward with the proposal.

The major issue was making it as safe as possible, while acknowledging the small risks associated with an emergency in the home. The first principle in addressing this issue was that all midwives participating in the program were to be hospital employees and agree to abide by the policies and procedures laid out as part of our normal maternity service. Some of these policies were contrary to the 'natural' approach to childbirth, for example, the giving of oxytocics in the third stage. However, the midwifery participants involved in the evolution of the service accepted the overriding importance of abiding by hospital policies and have continued to do so. It was also agreed that only 'low-risk' women would be provided with the service. The second part of maximising safety was to enshrine a level of training and expertise beyond that of the standard midwives. This included mandatory Advanced Life Support in Obstetrics (ALSO) training as well as specific training in resuscitation of the newborn. The attending midwives had to have a significant record of experience in the labour ward of at least three years. These midwives also had agreed to undertake home confinements as part of a roster, which enabled them to be available 24 hours a day. We had previously negotiated a unique industrial arrangement that paid midwives who were on call for their group practice to receive a 25 per cent on-cost loading on their salaries rather than claim penalty rates and overtime. This meant the cost of the service was always going to be containable, but also allow flexibility for the midwives to provide care when required within an on-call system rather than working within a predetermined roster.

> 'Homebirth at St George continues, with the midwives running it based in the Birth Centre. The model has been picked up by other maternity services around the state.'

The final plank in maximising the security of the program was to seek indemnity through the Treasury Managed Fund (TMF) by approaching the NSW Department of Health (DOH) with our proposal. This proposal was finally accepted under TMF coverage on the proviso that the previously stated arrangements were followed. TMF approval took some 18 months to achieve, since it was to be the first homebirth model in NSW working out of the public hospital system. The process was drawn out as it involved the Area Health Service legal team, DOH legal opinion and finally machinations at TMF level. Fortunately, there was a positive view within the upper hierarchy of the DOH who kept the process from stalling.

Developing the model, writing the submission and final implementation was undertaken by a Homebirth Group who had been meeting monthly for nearly two years by the time we started taking women on the program. The Group consisted of the two obstetricians who were prepared to cover the service, senior

midwives, consumer and general practitioner representatives and the Ambulance Service. A project officer was appointed with funding from the Area. An evaluation project was established through UTS, to assess both the safety of the project and its economic impact. The first birth took place in November 2005. Subsequently, we published on the first 100 deliveries, demonstrating its safety and efficacy in providing an alternative model of care under the umbrella of the public health system.[3] Of the first 100 booked women, 63 achieved a homebirth, 30 were transferred to hospital or independent midwifery care in the antenatal period and seven were transferred intrapartum. Two women were transferred to hospital in the early postnatal period, one for a postpartum haemorrhage and one for hypotension. One baby suffered mild respiratory distress, was treated in the emergency department and was discharged home within four hours. The transfer process is little different to that from the birth centre to the labour ward.

One obstetrician vets the notes of all women who request homebirth and is available for consultation in the antenatal period. Now all the on-call obstetricians are comfortable dealing with these women when they are on the labour ward – a large step forward from the 'bad old days' of dealing with women whom they perceived as being dumped by their private midwife when problems arose.

Homebirth at St George continues, with the midwives running it based in the Birth Centre. The model has been picked up by other maternity services around the state. In our minds, the effort to achieve this was always only going to cater for a tiny minority of our patients. The demand has not grown substantially, but for that small group of women who wish to deliver at home it is providing a worthwhile service.

References are available from the authors upon request.

Seeking simplicity

Sharon Easterling
RN RM

To homebirth or not to homebirth is not an existential question – the factors involved are complex and the decision-making process is lengthy.

To homebirth was a big decision in our house for quite some time. There were a lot of considerations and the final choice did not come easily. Like most families who consider homebirth, we did a lot of research and subsequent planning. As a midwife and childbirth educator working within the public-health system, I had a good head start. We had also had a baby before, which unlike some women's births was not a traumatic hospital birth. It was a great hospital birth among colleagues and, therefore, among friends – a wonderful experience for my husband and me.

Physically the birth was perfect, but there was one complex intervention that was extremely difficult for me: the transfer to hospital. Transfer is not viewed as an intervention in most obstetric circles, but when labour hormones are disrupted to this degree, it interferes with the flow of labour. My first labour began at home at 40+3 days after a very healthy pregnancy. We stayed at home for ten of the 12 hours of labour, I moved in and out of a shower as I needed to through the night. I was also reassured by the sounds I was making as they were very familiar to me: I sounded just like the many women I had cared for over the years. Everything was fine, until it was time to go to hospital – a 50 minute drive. Prior to labour, I thought the transition would be quite smooth as we had our bags packed and someone to drive. I had not considered the effect transfer would have on me. I had read about it, but thought as I was going to a very familiar environment and would be cared for by good friends I would be unaffected. I was naive to expect myself to be immune to this hormonal imbalance. I cannot begin to imagine how transfer feels for women who are not familiar with their birth attendant or environment.

Towards the end of natural labour, and particularly in transition, many women lose their inhibitions and have an overwhelming urge to be naked. I needed to put my clothes on for transfer, which also interfered with the progress of labour. The turbulence of transition and transfer to hospital both coincided with the sunrise of a hot December morning. My neo-cortex was in full swing and my catecholamines were overflowing. I had lost all focus, with my mind and body in panic mode. I felt out of control and my body had now completely overtaken my mind instead of vice versa. Obviously, this huge disruption was a pivotal moment in my life. This seemed to be a massive insult to my natural birth and the intervention that would form the basis of a decision to homebirth in the future. Luckily for us, the birth did proceed after some time quite smoothly once at the hospital. After two hours of pushing, our beautiful daughter was born into her father's hands with no drugs, no needles and no stitches. It was the birth we wanted and we could not have been happier, but I knew I could make the next birth much simpler.

I am well aware that not all births are as straightforward and I have been there when the unexpected has occurred; even low-risk women do sometimes have trouble birthing. Working as a midwife and watching these unfortunate outcomes unfold makes me realise how much we need a good medical model in place. Homebirth is definitely not for everyone and neither is hospital birth. I have never been an advocate for 'high-risk' homebirth and I am saddened by some women choosing homebirth at all costs.

After the birth of our first baby, I gained complete confidence in being able to do it again someday. For the second birth, three years later, I hoped to simplify things further and have more family input, particularly from our daughter. We wanted to normalise the birth process for her by staying together. I had never been apart from my daughter, so it seemed logical to stay at home with her if possible. As a family, this birth would be the biggest and most exciting experience we would ever share so if the pregnancy remained low risk I certainly didn't see the sense in separating my family at this important time in our lives. Older siblings do miss many opportunities when families are separated in hospital and we did not want to miss a thing.

We repeatedly went over the 'what if's while planning our second birth, as every homebirth couple does. For us, it seemed a safer option for me to stay home rather than travel in a car in labour, given our past experience. In the rural hospital where I am employed, we have an on-call roster system and we certainly don't have theatre staff in the hospital at all times. We need to call staff in who are asleep in their own beds, in their own homes and who sometimes also live out of town. I knew that if I was in need of urgent obstetric assistance, there would be a delay anyway. I had also booked into my closest hospital only ten minutes away. I am a realist and am well aware that if something was going to go terribly wrong, for example stillbirth, then it would happen no matter where we were.

After much consideration, we employed the services of an independent midwife with 30 years of home and hospital birth experience. We had very clear guidelines of what we needed and wanted from this birth. Open communication is obviously extremely important when embarking on a homebirth. We were reassured by her knowledge and use of national midwifery guidelines for consultation and referral. She was also very clear about particular issues, for example, thorough antenatal screening including pathology, ultrasound, regular visits and very strict gestation cut-off criteria for care (36–42 weeks). We were also impressed with the equipment that our midwife carried with her: with a one-hour supply of oxygen, neonatal resuscitation equipment, postpartum haemorrhage medication and a complete IV kit. When all this is in place and all the boxes ticked, it feels extra reassuring that everything is normal and will be safe. The further the pregnancy progressed and the more antenatal visits we had (also conveniently at home) the more evident it became that we had made the right choice.

The time came, at 39 weeks, for the birth of our baby. After three hours of labour I gave birth to our daughter into her father's hands in our bedroom. I felt so relaxed and relieved that we didn't need to travel. Our eldest daughter was asleep in her own bed during the birth, but we did wake her to come and meet her new baby sister and to help cut her cord. What a wonderful memory for all of us. To then recover in my own bed and be surrounded by the people I love the most was priceless. We were able to remove the complexities that we felt with our first birth. The experience was so wonderfully simple, just as we had intricately planned. If a third baby was to come along in the future and the pregnancy was low risk then we keep it as simple as possible and have another homebirth.

Why try VBAC at home?

Kylie Rose

The reasons for and against a planned homebirth can be as individual as the people involved; however, minimising risk is a concern for everyone.

'We can't have a homebirth, we have a septic tank, it's just not sterile here. And, besides, our house is too messy.' When I first broached the idea of a homebirth I didn't expect my partner Lindsay to be open to the idea, so I was surprised by his minimal objections. We ascertained that it was in fact possible to give birth in a building that was neither sterile nor tidy, and we then set about a more serious decision-making process with some urgency, as I was seven months pregnant with our second child.

During my first pregnancy I never considered homebirth. It appeared to be something that women did with second or subsequent babies, so I assumed that homebirth wasn't 'allowed' with first babies. At that time it sounded like a nice option to consider next time, after of course ensuring that I could birth naturally without incident. Paradoxically, it was only in response to a caesarian section that I seriously considered homebirth, as I felt that it was quite probable that I would be railroaded into another caesarean if I presented at the hospital. I would have been happy to deliver at a birth centre, but that option is not available where we live.

> 'I read countless studies and articles and descriptions of uterine rupture, compared statistics, listened to birth stories and analysed advice from a variety of sources, all with the goal of improving my chances of a natural hospital birth.'

The day after my caesarian I was visited by a doctor who informed me that for any subsequent babies I would have to see an obstetrician during the pregnancy, I would have to birth in the hospital and I would have a 50 per cent chance of another caesarean. Coupled with terms such as 'trial of labour' and further rules and requirements for a vaginal birth after caesarean (VBAC) labour, I felt that I was merely being humoured rather than provided with a valid opportunity to birth my babies naturally. It appeared to me that my chances of a natural delivery were poor, so I set about researching what I could do to improve my prospects.

I read countless studies and articles and descriptions of uterine rupture, compared statistics, listened to birth stories and analysed advice from a variety of sources, all with the goal of improving my chances of a natural hospital birth. In particular, I was interested in the sizeable discrepancy between caesarean rates for first-time mothers and for those with a previous caesarean birth. When I read about the timing of uterine rupture and that a sizeable proportion occur before labour or during early labour before going to hospital, I surmised that planning to go to hospital for the latter stages of labour and delivery would not significantly reduce my risk of rupture. I began to question whether I was really high risk in comparison to first-time mothers (especially having previously laboured spontaneously and fully dilated) and whether a hospital birth was imperative.

I tentatively asked our midwife if there was any possibility of a homebirth. She was cautiously supportive and sought experience and advice from other midwives. We agreed on a conservative approach, including monitoring. Lindsay and I knew and communicated with her well, and we learned that she was highly regarded by the hospital staff we encountered and that she had considerable experience in both hospital and homebirths. I would not have considered homebirth with any midwife not routinely working within the hospital system. We trusted our midwife's judgment with regard to any change in plans or transfer to hospital.

> '... my decision to homebirth was as much a decision not to birth in a hospital as it was a decision to birth at home.'

We discussed the risks of not being in a hospital in the event of complications and made plans for potential transfer to hospital. We considered our proximity to the hospital, noting that women requiring emergency transfer from Waitakere hospital would travel a significant distance before passing our gate.

I was desperately aware of the responsibility of making this decision and the enormity of the consequences that this decision could have. I spent a lot of time questioning whether I was foolhardy, selfish or disregarding the baby's safety in favour of my own ideals and, in particular, I had reservations about whether Lindsay was in fact a truly well-informed consenting participant and therefore whether it was fair of me to lead him down the homebirth path. While I resented the obligatory obstetrician sign off for a trial of labour, which I regarded as seeking permission to give birth, it did provide clarity and structure to the decision-making process. I didn't want to put my baby at risk. Yet I recognised that any pregnancy and birth involves some risk and that choosing to undergo a second pregnancy post-caesarean involved some inherent risk not present in my first pregnancy. While wary of increased risk of other complications without immediate medical care, by at least planning to birth at home I hoped to reduce the risks associated with caesarean delivery.

In the end, my decision to homebirth was as much a decision not to birth in a hospital as it was a decision to birth at home. I had a short labour and an easy delivery, and Rory was born at home early in the morning on his due date. The septic tank didn't present any issues and the house is still messy.

Homebirth in Laos

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The interaction of cost, culture and tradition with modern medicine makes the decision where to give birth less than straightforward.

It seems difficult to understand why, in a country with a maternal mortality ratio of well over 400 per 100 000 live births, women would choose a homebirth: often hours from any facility offering medical care should problems occur in the course of labour, delivery or the puerperium. Yet at least 80 per cent of Lao women do so and only about 20 per cent have their birth attended by what are loosely termed 'skilled health personnel'. Lao women are not stupid and few of them would not know of at least one relative or acquaintance that has either died or nearly died in relation to pregnancy and childbirth. Recent research that I was asked to review and put into a form suitable for publication sheds light on some of the issues.

Reasons for choosing a homebirth

While seldom mentioned as the main reason for choosing a homebirth, cost is a major issue. All hospital services in Laos attract a charge. Healthcare spending is estimated to be about US$11.50 per person per year, of which about 60 per cent is paid by the consumers, 30 per cent by external donors such as non-governmental organisations (NGOs) and ten per cent by the government. Between 50 per cent and 80 per cent of the budgets of major hospitals are provided by user fees and the sale of pharmaceuticals. The fees are, relative to the income of families, substantial. About 80 per cent of the Lao population survives on less than US$2 per day: to put this in perspective, petrol costs about US$1 a litre. Very few families have any significant savings and most, especially among the 75 per cent or more of the population who live in rural or remote areas, live a hand-to-mouth existence: cash expenditures impact immediately on daily living. Not only are all hospital services charged for, but there are also other significant costs, such as transport to and from hospitals for the woman and her support people, the cost of food for her and the support people who must stay in the hospitals to provide care for the woman during hospitalisation and accommodation for those who cannot fit into the hospital rooms. In rural communities, every person is a producer of income in one way or another and their absence from home diminishes the family income substantially, adding greatly to the expense of healthcare.

A very common reason given for choosing homebirth is the need, felt by all Lao, to be surrounded by family and friends at the times of major life events. This is difficult for most women from rural areas, should they choose birth in a healthcare facility, given the distances involved and the very poor state of the roads, together with very poor public transport. For Lao people, with their very strong sense of community, this is a serious consideration. Moreover, if death were to ensue, to die away from home and without family and friends around would be a major source of distress for all concerned, and carry numerous problems related to the disruption of the stable spirit life that Lao spend a great deal of time and energy to develop in the home and among the family members. In a similar vein is the inability of women in hospital to follow traditional practices they feel have benefitted endless generations of their family during and after birth. Some of these include the use of 'magic water' or 'nam mon' to wash or anoint the woman with during labour, the placing of eggs on the abdomen to facilitate contractions and a copious intake of coconut milk. Traditional birth attendants, with little or no training, help the family care for women in labour at home. Their approach is a mixture of superstition and wishful thinking, as evidenced by one, aged 57, who commented that in cases of difficult delivery he: blew sacred water over the patient to improve contractions, then placed soap in the vagina to facilitate delivery and if this failed sent the woman to a healthcare facility. Access to known support people during labour and delivery is limited during a hospital birth for both practical and institutional reasons. Practices such as squatting while holding a rope or walking around are more difficult. The traditional drinks, salves and incantations are not valued by many of the 'skilled' birth attendants, who have been trained in 'modern' birth techniques. Birth with the woman on a high delivery bed, on her back, with her legs spread and sometimes strapped in stirrups to afford good access for the accoucher is uncomfortable and embarrassing. The virtual universal use of episiotomy, often with little or no analgesia, and its repair by relatively inexperienced staff, is considered inappropriate. After a hospital delivery, women have the choice of single rooms with en suite for quite a significant cost or beds in a communal room lacking toilet facilities and with no privacy with up to seven others (and their families) which are also paid for. As hospitals become more crowded, it is common for reception areas and corridors to become makeshift wards, with no privacy at all.

Caesarean section is far less common in Laos than in the West, but it is a major issue that women associate with institutional delivery. The teaching hospital in which my office is situated has a caesarean rate of around ten per cent, but it is rising, and it is over 20 per cent in one other hospital. In the cities there is an increasing minority of 'educated' women who demand caesareans without labour, either to preserve the integrity of their lower genital tract, in the belief that the procedure is safer for the baby or to avoid the possibility of a long and painful labour. For rural women, however, caesareans mean more cost, a longer period of recuperation (and associated loss of productivity) and a much higher chance of a further caesarean. Caesarean deliveries are an attractive proposition for doctors, taking away the stress of overseeing a labour and reducing the risk of some sudden and dramatic event requiring immediate intervention. One doctor explained how she had overseen the delivery of an unexpected stillborn infant and 'would not run that risk again'. It is traditional for Lao families to present money 'for a meal' to doctors who perform surgery: the amounts vary, but can be substantial, especially if the doctor is believed to have saved a possible obstetric disaster by a 'timely' abdominal delivery. There is some evidence that in neighbouring Thailand this practice is related to an increasing caesarean rate.

Traditional practices

It is traditional that women have a hot bath as soon as possible after delivery and further hot baths and saunas with herbs during the puerperium, but no hospitals are equipped for this. Furthermore, most Lao women believe it is important to 'rest over fire' for up to 30 days postpartum to dry up the lochia, restore the pelvic muscles and tissues and regain their physical and emotional strength.

Not a great place to have a baby: antenatal, postnatal and gynaecological patients accommodated in the ward reception area at a central hospital in Laos.

This requires a bed with a grate underneath, where a small fire is maintained. Family and friends visit, and the woman is given a special diet to ensure recovery. This practice is obviously not possible in a heathcare facility. Burying the placenta is also a critical ritual for Lao of most ethnic backgrounds. The burial must occur at the family home as soon after delivery as possible so the spirit of the child will remain intact and return home. This is much more difficult following a hospital birth far from the family home.

A little harder to understand is the attitude that borders on denial: 'my mother and grandmothers, my husband's mother and grandmothers all delivered at home and had no problems, so why should I go to a hospital?' Perhaps, barely stated, is the thought: 'if I have a problem, maybe it is my fault anyway, for not being as strong as the other women in my family.' The principal decision-makers in most Lao families, especially in rural areas, are the mothers and grandmothers of both the wife and the husband. They control all aspects of family life and have experience, perceived knowledge and a natural right to be respected because of their seniority in the hierarchical Lao social system. Their decisions are based, not so much on the individual circumstances of one person, but the perceived benefits to the entire extended family.

One approach to bridging the gap between traditional birthing practices and modern medical approaches has been the introduction, in some of the more remote southern provinces, of 'maternity waiting homes' called in the Lao setting 'silk homes'. These are places where women and family members can live in the later weeks of pregnancy, close to modern facilities but with the ability to follow more traditional birthing practices in the absence of complications. The project was initially funded by a grant of €2 million from the EU. While there are reports of initial success of the project, a significant number of problems have been identified that have compromised its full implementation. It is far from certain that these can be overcome.

The government is planning to introduce free maternity care and confinement in healthcare facilities in the near future, although it is not yet clear where the money to fund this will come from. However, it is obvious that until many of the social and cultural issues are addressed, homebirth is likely to be favoured by a large proportion of the population into the foreseeable future, despite the manifold dangers. And, for those in the West, perhaps some reflection on the Lao situation will shed light on the reasons many women in the developed world express dissatisfaction with the processes of maternity care, if not the outcome.

Life and death matters

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Providing access to emergency obstetric and neonatal care units in resource-poor settings is vital to reducing the global maternal mortality rate.

In a developed setting such as Australia, women may ask: 'Who will I choose to look after me during pregnancy and where will I choose to deliver my baby?' The question for women in settings where Médecins Sans Frontières (MSF) works is more often: 'Will there be someone skilled to look after me during my pregnancy and delivery?'

The maternal mortality ratio in developing countries is 290 per 100 000 live births compared with 14 per 100 000 live births in developed countries.[1] Of the maternal deaths worldwide, 99 per cent occur in the developing world.[1] According to WHO, a woman dies every 90 seconds from pregnancy-related complications, yet an estimated 74 per cent of maternal deaths could be averted if all women had access to the interventions required for preventing or treating pregnancy and birth complications.[1] Preventing and treating the five direct causes of maternal mortality – haemorrhage, sepsis, hypertension, unsafe abortion and obstructed labour – has been possible for at least 50 years. However, in developing countries many women deliver their babies at home. These births can take place in dangerous conditions, unattended or attended by unskilled birthing assistants. The absence of a trained birth attendant, the correct medication and appropriate medical equipment means treatments that could reduce the risk of death are often not provided in time, if at all. While levels of antenatal care have increased during the past decade, only 66 per cent of women in developing countries benefit from skilled care during childbirth.[2]

MSF conducts medical programs in resource-poor settings in more than 70 countries around the world. Many of these projects include emergency obstetric activities. MSF encourages all pregnant women within a project's catchment area to come to its clinics or hospitals for pregnancy care and to deliver their babies. Maternal mortality can occur at any time in pregnancy, but delivery is by far the riskiest time for the mother and for the baby. There are clear guidelines to assess a high-risk pregnancy and manage it, thereby reducing risk to the mother and her child. What remains difficult, however, is that high risk deliveries are unpredictable and complications can arise with little or no warning at all, even among women with pregnancies that have been assessed as low risk. Since it is difficult to predict which deliveries will develop a complication, MSF believes that all deliveries should take place in an accredited health structure, with access to appropriate drugs and equipment, where a skilled birth attendant can monitor both the woman and the fetus during labour and delivery, in order to promptly identify and treat those complications. This is what we take for granted in the developed world and is what we sometimes struggle to provide in resource-poor settings, particularly when the cultural norm is to birth at home. This remains a major challenge for MSF; in most of the settings where we work, women deliver at home. This is due to a variety of factors including issues of poverty, gender and other inequalities, insecurity, a lack of information, weak healthcare systems, cultural barriers and a lack of political commitment to maternal health.

> '...the ability to access essential drugs to treat infection, instruments to expedite delivery if required and a skilled attendant who can identify and treat complications, is the key to assisting a safer pathway to pregnancy and birth.'

The safety of the location of the delivery should take into consideration the structure, supplies and skilled human resources available. Research shows that by identifying alarm signs and treating on time mortality can be reduced. This can be achieved by skilled attendants and there is multiple evidence of its benefits.[2–5] Such good documentation and evidence is lacking regarding the place of birth even in developed settings and most investigations underestimate the risks associated with planned homebirth as many require intrapartum transfer to hospital.[6–10] However, the risks are magnified where MSF works, since women in these settings are the least likely to receive adequate health care. MSF considers a safe delivery one that takes place in an Emergency Obstetric and Neonatal Care (EmONC) unit, where a skilled attendant will be in charge, at a structure that achieves the specific conditions needed (in terms of hygiene, drugs and equipment) for the mother and the newborn. This can be in a Basic Emergency Obstetric and Neonatal Care (BEmONC) unit, which provides: administration of antibiotics, oxytocics and anticonvulsants; manual removal of placenta; removal of retained products; assisted vaginal delivery and newborn care. It can also be in a Comprehensive Emergency Obstetric Care (CEmONC) unit, which includes the availability of surgery, blood transfusion and care for sick and premature newborns. For example, the ability to access essential drugs to treat infection, instruments to expedite delivery if required and a skilled attendant who can identify and treat complications, is the key to assisting a safer pathway to

pregnancy and birth. Different activities are carried out, depending on the specific needs of a project, from within a wide range that includes direct patient care as well as training of local staff by international doctors and midwives.

While this article specifically addresses maternal death, it should also be considered that for every woman who dies as a result of an unsupervised delivery at home, many more will face serious or long-lasting medical problems. Women who survive severe, life-threatening complications (due to conditions such as vesico vaginal fistula) often require long recovery times that can have profound and devastating consequences for the patient's physical and psychological health.

MSF provides humanitarian assistance to populations affected by wars, epidemics and natural or man-made disasters, and considers women's health an integral aspect of its emergency healthcare provision. MSF currently has large-scale obstetric programs in Pakistan, Nigeria, South Sudan and the Democratic Republic of Congo. In 2010, the organisation's staff delivered more than 151 000 babies in its facilities worldwide. The number of programs incorporating maternal and child health activities is increasing each year and MSF remains committed to addressing maternal mortality as a global health priority.

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Risky business?

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Homebirth and collaborative care agreements: an assessment of risk management for obstetricians.

Homebirth remains a contentious topic in Australia. At issue is the concern about the safety of giving birth at home. Opponents of homebirth point to the fact that any labour can develop sudden and unpredictable complications, leading to adverse outcomes for mother and/or baby. Those supporting homebirth state that with appropriate selection of low-risk pregnancies, and with care provided by accredited and competent health professionals, the incidence of problems is low, and safe outcomes can be achieved.

Published articles support either argument, but attempts to produce irrefutable evidence, in the form of adequate randomised controlled trials have failed.[1]

Differences of opinion exist between RANZCOG and the Royal College of Obstetricians and Gynaecologists (RCOG):

- RANZCOG does not endorse homebirth and cannot support the practice of homebirth due to its inherent risks and the ready availability of safer birthing practices.[2]
- 'RCOG and the Royal College of Midwives support homebirths for women with uncomplicated pregnancies.'[3]

Both Colleges provide references in support of their positions. RANZCOG emphasises that homebirth in Australia is associated with poorer outcomes for mother and baby, as compared to hospital birth. RANZCOG, however, supports the principle of personal autonomy in decision-making, but advises that if a woman is planning a home birth, she should be fully informed of all the potential adverse maternal and perinatal outcomes, as well as considering all the possible benefits. RCOG supports homebirth for low-risk pregnancies on the ground that it is safe, plus the fact that a successful birth gives an increased sense of empowerment, control and self esteem to the woman. RCOG however acknowledges 'there are no known risk assessment tools which have an effective risk predictive value concerning outcomes in the antenatal period or in labour.'[3]

Both Colleges agree that women choosing homebirth should be cared for by experienced health professionals. RANZCOG states that both a doctor and midwife should be involved. Both Colleges agree that arrangements must be in place to facilitate rapid transfer to hospital if necessary.

The exact incidence of homebirth in Australia is not known. RANZCOG estimates that around 0.2 per cent of births in Australia occur at home. In 2009 this would have equated to around 590 births.

Philosophically, it is apparent that the obstetrician can adopt a position for or against collaborating in a homebirth, depending on which College statement he or she prefers.

For the obstetrician who chooses not to support homebirth and not enter into a collaborative care arrangement, there still remains the possibility of being asked to attend in an emergency situation when a complication of a planned homebirth has occurred. It is generally accepted that medical practitioners have an ethical responsibility to provide medical assistance to a person in need of urgent or emergency care, even where there is no pre-existing doctor-patient relationship.

In some circumstances, a medical practitioner (in addition to this ethical obligation) also has a legal duty to provide medical care in an emergency. Factors governing whether a legal duty exists include:[4]

- whether the request to attend is made of the medical practitioner in his/her professional capacity;
- the degree of physical proximity between the patient and practitioner;
- the practitioner's competence to respond to the emergency, such as being appropriately qualified, having the necessary equipment and being available (in other words, not currently providing urgent treatment); and
- the condition of the person in need being made known to the practitioner.

What should the obstetrician who wishes to collaborate with a homebirth practitioner do? The most important action would be to meet with the homebirth practitioner (HBP) to establish agreed principles and practices, and to formalise these in writing. Several issues need to be discussed.

1. Is the HBP compatible with you and your style and standards of practice?
   Continuing and mutually supportive communication between the parties (including the patient) is essential to provide high quality care. All parties should be comfortable in discussing issues of management in a pregnancy.
2. Is the HBP accredited, competent and confining pregnancies in your geographical area?
   If the HBP is not known to you it is essential to request and check references. Geographical proximity to the hospital is necessary to enable rapid transport in the event of a complication occurring in labour.
3. How much care should the obstetrician provide?
   The Birth Centre model recommends the obstetrician see the patient at or around booking, at 36 weeks' gestation, and at any other time if a problem develops. This arrangement should also apply to homebirth collaborative care.
4. What are the exclusion criteria for homebirths?
   The obstetrician and HBP must agree on what criteria indicate that a homebirth is no longer appropriate. There are many lists from many institutions of criteria which indicate a pregnancy is no longer low risk. All are very similar. Strict adherence to these criteria is essential for a safe homebirth, and only low risk pregnancies should continue with a planned homebirth.
5. Who takes charge when a patient is transferred to hospital?

This must be agreed from the commencement of the collaboration. There have been many instances of resistance to medical obstetric management in hospital from homebirth patients and at times HBPs, when transfer to hospital occurs. There should be an agreement that once the patient is in hospital the obstetrician will make decisions and discuss these with the patient. The HBP should be supportive of these decisions.

Having reached a situation of mutual agreement and compatibility, a formal contract including the list of exclusion criteria should be drawn up and signed by both parties.

Probably the greatest concern for many obstetricians contemplating a collaborative care arrangement is the uncertainty about who is liable in the event of an adverse outcome caused by the negligence of the obstetrician, HBP or both. The uncertainty is increased when the HBP does not have indemnity insurance, as the only avenue for likely financial compensation is then with the obstetrician and his or her indemnity insurance provider. Generally speaking in the absence of an employment arrangement, or an arrangement where the obstetrician has agreed to supervise or direct the HBP in the performance of the HBP's professional duties, at law[5] each practitioner will be responsible for their own provision of health services to the patient.

Currently, midwives cannot obtain insurance cover for planned homebirths. They have a two-year exemption from 1 July 2010 until 30 June 2012 during which their registration does not require they hold professional indemnity insurance for planned homebirths.[6] When assisting in relation to a planned homebirth, if the obstetrician and the midwife were both found to have been negligent in providing treatment and the midwife has no insurance cover or assets, then the obstetrician may be liable for 100 per cent of any compensation amount awarded to the patient.[7]

Should an obstetrician collaborate? The choice is up to the individual. There is agreement among many obstetricians, including the immediate Past President of RANZCOG, that collaborative maternity care in any pregnancy is likely to produce the best outcome for the patient. Both doctors and midwives want to have a healthy mother and baby at the end of a confinement. With cooperative collaborative care it is anticipated that, in addition to achieving the desired safe outcome, there is a greater likelihood that all parties will experience a high level of satisfaction about the birth.

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5 The decision of the NSWCA in Elliot v Bickerstaff [1999] NSWCA 453 involved a claim arising from a retained surgical swab and provided authority for the proposition that a consultant medical officer may reasonably rely upon other members of the treating team to perform the functions to which they have the responsibility.
6 Section 248 of the National Law.
7 At common law if two or more defendants are responsible for a plaintiff's loss then each of the defendants is liable for the full amount of that loss. While all states and the Commonwealth have enacted proportionate liability legislation which reverses this common law position, the legislation does not apply to damages awarded for personal injury. See for example section 34(1) (A) Civil Liability Act 2002 NSW.

Medico-legal aspects in NZ

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The medico-legal issues of a homebirth are the same for any other pregnancy: rights for patients and responsibilities for doctors, with the central need for good communication and documentation, all based on the ethical duty of care of the medical profession.

Details of homebirth in New Zealand are hard to find because, unlike in Australia, the place of birth is not a requirement for registration and the issue of a birth certificate. The rate of homebirth in New Zealand is thought to be somewhere between two and five per cent of all births which, probably, has not altered much since 1990, when legislation was passed (the Nurses' Amendment Act 1990) with the intention of increasing the number of homebirths through midwifery autonomy. Previously, there was a legal requirement for a doctor to be in attendance at all births. The legislative change was part of a campaign predicated on choice for women and a diminished role for medical practitioners.

In June 2009, the latest mortality data that is available in New Zealand, 11 stillbirths and neonatal deaths were reported for women who intended to have a homebirth, about two per cent perinatal mortality for that year. Seven of the 11 women were transferred to hospitals for the actual birth, which shows astute selection processes were at work.

Like antenatal care, the provision of hospital beds for births is a relatively recent development for the human race and, in countries like ours, it came with the creation of a social welfare system 60 years ago. The basis for these changes was improving safety for women and babies and they have been spectacularly successful, in combination with better general health for most women, the specialisation of the people providing care and improved facilities.

Women, in legislation, have the right to choose who provides care and where they have their babies although, in real life, the choice is limited for many women. The Homebirth Association can claim, rightly, that homebirth is safe because if women are within a health service there will be a process of selection, the assessment of risk and the availability of specialist services. Some women will find themselves being referred for a specialist opinion, in accordance with various guidelines for referral that include the same sort of indications that led to the provision of hospital beds for maternity in the last century. In my experience, women who are keen to have a homebirth have a positive attitude in the first place. Sometimes there may be a background of antipathy towards the medical profession and our propensity to intervene in what is perceived to be a natural process. It is unwelcome, although essential in my opinion, to recognise that Nature can be cruel: she is not a loving, benign creature at all times. Roses have thorns and, even with the best intention, some of the women who seek a homebirth will be unsuccessful. It is our duty then to make the way to birth as fulfilling as possible.

It starts with listening carefully to any woman who is referred to an obstetric unit, being non-judgemental, regardless of how crazy the notion may seem to want to give birth at home and, if the referral is just a consultation rather than a handover of care, my usual practice is to say yes, why not, and then the conversation can be a friendly, constructive one. It is rare for women not to agree to a compromise – to accept extra monitoring, for example – because they want a healthy mother and baby just as much as we do. Advice should be given impartially, preferably written at the time of the conversation with a copy for the woman, and certainly documented carefully in any clinical record that is required.

Doctors have the right, except in an emergency, to refuse care to a patient should the situation become impossible. A doctor may withdraw from or decline to provide care as long as an alternative source of care is available and the woman is aware of how to secure this care and notice given. However, an emergency with transfer from home or a primary care birthing place is a frequent occurrence, so doctors are obliged to provide the best care that they can in the circumstances and the word 'reasonable' appears in the Code of Rights for patients.

There may be times when a woman refuses an intervention that is recommended and sometimes it is the father of the child or other members of the family who refuse an intervention. It is important, then, to have a signed statement similar to the one provided by Jehovah Witnesses (who are prepared to absolve medical staff from any responsibility for adverse outcomes that occur as a result of the refusal of a blood transfusion). Hospital managers should be involved in such situations. In our jurisdictions, the fetus has no legal rights until born, but a Court may recognise potential rights for an unborn child, which is a nice legal argument.

Patients have a responsibility to provide the information we require to provide good care and doctors have the right to practise to the best of our ability, which gives us some influence over the conduct of the birth, if necessary down to the detail of the use of oxytocin during third-stage labour and the behaviour of onlookers in a delivery room. Obviously, it is best to avoid a confrontation, to enlist the help of colleagues or seniors should be there be a disagreement and if withdrawal from care seems to be the only solution, there is an ethical duty to help arrange alternative care at the same level of expertise.

One of the prime principles of professionalism is to put the needs of the patient before our own and the legal test is that of a reasonable woman, meaning the focus is on the person who is the patient rather than the reasonable doctor or the man on a suburban bus. Autonomy is always important in the health service, perhaps even more so in the maternity services because only rarely are women so ill that they are unable to make decisions for themselves, and it is our duty as doctors to show respect for their wishes, while recognising the enormous spectrum of human eccentricities.

Modern obstetricians know a great deal more than previous generations, but we still do not have supernatural powers and we do not need to control every event. For women who seek a homebirth, our role is to listen, give advice constructively and do our best to help them to achieve their goals because homebirth can be a beautiful and safe experience.

A personal disclaimer: I was born at home!

International Statements

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Brief summaries of applicable statements concerning homebirth from interested organisations in English-speaking countries are presented below, together with a commentary.

Canada

Canada does not have a College of Obstetricians and Gynaecologists. The Society of Obstetricians and Gynaecologists of Canada (SOGC) was formed in the 1940s as a professional society and continues in that role to fulfill: 'the need to promote physician education, research and excellence in care – including an unmatched Continuing Medical Education program and the *Journal for Obstetrics and Gynaecology*. Over the past two decades, the SOGC has broadened this purpose to include international women's health, advocacy, aboriginal health, public education, patient safety, and human resources in ob/gyn. The society has also opened its doors to other professions such as nursing and midwifery.'

The SOGC does not have a specific policy on planned homebirth. However, the College of Physicians and Surgeons of British Columbia, based in Vancouver, does have such a statement. The College is 'governed by provincial legislation that entrusts the College with the responsibility to establish, monitor and enforce high standards of qualification and medical practice across the province.' This statement was approved and promulgated in 2009, representing a position that 'supports collaborative communication between physicians, their patients and other health care providers, and is not intended to direct a specific course of action.'

As with other similar positional statements, the College makes the point that:

> 'The College supports a woman's right to personal autonomy and decision making in obstetrical care. When a woman is considering planned homebirth, physicians play an important role in providing advice and information so that it is an informed choice, considering all the benefits and potential adverse outcomes.'

The importance of the doctors' discretion in their involvement is explicit:

> 'Physicians who choose to provide consultative prenatal care or counseling for a planned homebirth are not obliged to be involved in the homebirth unless they have previously agreed to do so. Physicians involved in planned homebirths need to ensure that they have appropriate knowledge, training, equipment and understanding of the assessments necessary in planned home delivery.'

The statement provides a warning about the unpredictable nature of labour and delivery, pointing out the potential for rapidly evolving complications that can be difficult (or impossible) to predict and can tax the resources of even a large hospital:

> 'Labour and delivery, while natural events, may present potential hazards to both mother and fetus before and after birth. Unpredictable complications such as postpartum hemorrhage, shoulder dystocia, meconium aspiration, abruption, and cord prolapse may require the immediate resources in the hospital setting which may note be available in the home, regardless of the expertise of the attendant. In some emergent circumstances, optimal care is best provided in a hospital setting and, where possible, the patient should be immediately transferred to a hospital. Due consideration should be given to the availability of emergency services in the community including the location of the nearest hospital.'

No doubt noting the data presented in published Canadian studies on homebirth, which include women with a previous caesarean section, the statement specifically gives this advice:

> 'Women who have had a prior cesarean section should be advised that the hospital setting provides the safest environment for delivery because of the higher risk of potential adverse outcomes for mother and baby.'

You can view the full statement at: https://www.cpsbc.ca/files/u6/Planned-Homebirths.pdf .

UK

The Royal College of Obstetricians and Gynaecologists (RCOG) and Royal College of Midwives (RCM) published their joint statement on homebirth in April 2007, and this statement remains extant. The statement is summarised as follows:

> 'The Royal College of Midwives and the Royal College of Obstetricians and Gynaecologists support homebirth for women with uncomplicated pregnancies. There is no reason why homebirth should not be offered to women at low risk of complications and it may confer considerable benefits for them and their families. There is ample evidence showing that labouring at home increases a woman's likelihood of a birth that is both satisfying and safe, with implications for her health and that of her baby.'

The background to the document states that the rate of planned homebirth in the UK is approximately two per cent but that, if women were given the choice, that rate would probably be higher. It is stated that pressures, including financial ones, have seen a concentration of birth in hospitals over the last four decades, but that there has been pressure from community groups and others that challenges, 'the one-dimensional approach to options for place of birth and have influenced the portfolio of evidence

now available to support a return to a more diverse range of childbirth environments.'

A review of the evidence is presented, prefaced with the statement:

> 'The review of the diverse evidence available on homebirth practice and provision demonstrates that homebirth is a safe option for many women. However, this is not to define safety in its narrow interpretation as physical safety only but also to acknowledge and encompass issues surrounding emotional and psychological wellbeing. Birth for a woman is a rite of passage and a family life event, as well as being the start of a lifelong relationship with her baby. Homebirths will not be the choice for every woman.'

It is pointed out that:

> 'Overall, the literature shows that women have less pain at home and use less pharmacological pain relief, have lower levels of intervention, more autonomy and increased satisfaction. The studied interventions included induction, augmentation, perineal trauma and episiotomy, instrumental delivery and caesarean section. These are not insignificant interventions and may have considerable impact on a woman's long-term health and emergent relationship with her baby, as well as her satisfaction with her birth experience.'

In the statement, considerable weight is placed upon qualitative studies of planned homebirth:

> 'The studies into women's descriptions of homebirth experiences have produced qualitative data on increased sense of control, empowerment and self esteem, and an overwhelming preference for homebirth.'

The principle of informed choice is highlighted in the statement, in the following terms:

> 'The key principles include providing unbiased information on birth environment options and being transparent about the potential advantages or disadvantages of homebirth. Written information regarding place of birth should be available for all women, all women should be encouraged to participate actively in the full range of antenatal care and women can make the choice for a particular place of birth at any stage in pregnancy.'

The point is made that risk assessment in the antenatal period is difficult:

> 'It is acknowledged that there are no known risk assessment tools which have an effective predictive value concerning outcomes in the antenatal period and labour.'

The principle of continuity of care is emphasised as follows:

> 'Continuing communication between health professionals, women and their families is requisite for continuity of care. A midwife providing care to women, regardless of the setting, must take care to identify possible risk and pre plan to mitigate those risks through her approach to care, knowledge of local help systems and communication with colleagues and the woman and her family. Planned referral pathways in pregnancy are designed to facilitate effective communication and feedback at all levels and with any agency involved in providing care.'

The statement deals with the importance of multidisciplinary teams at several points, including the following:

> 'It is essential that formal local multidisciplinary arrangements are in place for emergency situations, including transfer in labour and midwives referring directly to the most senior obstetrician on the labour ward and/or to the paediatrician. The midwife is responsible for transfer and must remain to care both for the woman and the baby during transfer and, where possible, continuing on in the transferred unit. These protocols need to encompass the independent practitioners providing homebirth service. The use of 'flying squads' is no longer supported and in the event of an emergency, transfer in is the only option.'

The issue of competence is addressed in the following points:

> 'Midwife practitioners must be competent within the homebirth environment and may require enhancement or updating of their existing midwifery skills prior to providing homebirth services. The [jurisdiction's] responsibility is to provide resources for acquiring new or maintaining existing skills associated with homebirth practices, both linked to facilitating and observing physiological labour, as well as acting on emergencies. The mandatory 'drills and skills' training must include environments outside labour ward and simulation models should be available to encourage practising of skills. Up-to-date registers should be kept of those participating in skills drills to ensure that all staff participate regularly in a rolling programme.'

> 'Risk assessment must take place with what limited tools are available. Careful selection of low-risk maternities is important to minimise complications. Ideally, this should be by senior midwifery and obstetric staff.'

The statement also deals with the issue of audit and quality improvement:

> 'Areas of service or practice for audit should include homebirth, transfer and intervention rates as a minimum. User satisfaction surveys and focus groups need to be linked with homebirth services. There should be robust clinical governance systems for monitoring the quality of homebirth services. These should include both qualitative and quantitative audit data. Consideration should be given to women's experiences, stories, transfer rates, ambulance response times and emergency scenarios. In the case of serious adverse outcome a detailed root cause analysis should be undertaken.'

The joint statement ends with the comment, 'good communications, adequate training and emergency transfer policies are vital.'

The Royal College of Obstetricians and Gynaecologists/Royal College of Midwives Joint statement No.2, April 2007 can be downloaded from: http://www.rcog.org.uk/files/rcog-corp/uploaded-files/JointStatmentHomebirths2007.pdf .

USA

The American College of Obstetrics and Gynaecology (ACOG) statement on planned homebirth was published in *Obstetrics and Gynecology* in February 2011. The statement is explicit that ACOG does not support planned homebirth:

> 'Although the Committee on Obstetric Practice believes that hospitals and birthing centers are the safest setting for birth, it respects the right of a woman to make a medically informed decision about delivery. Women inquiring about planned homebirth should be informed of its risks and benefits based on recent evidence. Specifically, they should be informed that although the absolute risk may be low, planned homebirth is associated with a twofold to threefold increased risk of neonatal death when compared with planned hospital birth. Importantly, women should be informed that the appropriate selection of candidates for homebirth; the availability of a certified nurse-midwife, certified midwife, or physician practicing within an integrated and regulated health system; ready access to consultation; and assurance of safe and timely transport to nearby hospitals are critical to reducing perinatal mortality rates and achieving favorable homebirth outcomes.'

The statement comments on the fact that there are no randomised trials of homebirth, and that 'high-quality evidence to inform the debate is limited'. This paucity of data is summarised in the following terms:

> 'Most information on planned homebirths comes from observational studies. Observational studies of planned homebirth often are limited by methodological problems, including small sample sizes; lack of an appropriate control group; reliance on birth certificate data with inherent ascertainment problems; ascertainment relying on voluntary submission of data or self-reporting; a limited ability to accurately distinguish between planned and unplanned homebirths; variation in the skill, training, and certification of the birth attendant; and an inability to account for and accurately attribute adverse outcomes associated with antepartum or intrapartum transfers. Although some modern observational studies overcome many of these limitations, the reports describe planned homebirths within tightly regulated and integrated provincial health care systems, which may not be generalizable to current practice in the United States.'

The statement makes extensive use of the Wax systematic review of homebirth[1], both on the positive side…

> 'When compared with planned hospital births, planned homebirths are associated with fewer maternal interventions, including epidural analgesia, electronic fetal heart rate monitoring, episiotomy, operative vaginal delivery, and cesarean delivery. Planned homebirths are associated with fewer third-degree lacerations or fourth-degree lacerations, less maternal infection and similar rates of postpartum hemorrhage, perineal laceration, vaginal laceration, and umbilical cord prolapse. Rates of preterm birth before 37 weeks of gestation and low birth weight were lower for planned homebirth, likely because of selection bias.'

…and the negative:

> 'The reported risk of needing an intrapartum transport to a hospital is 25–37% for nulliparous women and 4–9% for multiparous women. Most of these intrapartum transports are for lack of progress in labor, nonreassuring fetal status, need for pain relief, hypertension, bleeding, and fetal malposition.'

> 'Perinatal mortality rates were similar among planned homebirths and planned hospital births, planned homebirths were associated with a twofold-increased risk of neonatal death. When limited to only nonanomalous newborns, the increased risk of neonatal death was even higher – almost threefold higher in planned homebirths. These results did not change when the investigators performed sensitivity analyses excluding older studies or poorer quality studies. No maternal deaths were reported among 10,977 planned homebirths (95% confidence interval, 0–27.3/100,000 live births).'

The issue of integration into patient transport systems and local healthcare facilities is highlighted:

> 'Another factor influencing the safety of planned homebirth is the availability of safe and timely intrapartum transfer of the laboring patient. The relatively low perinatal and newborn mortality rates reported for planned homebirths from Ontario, British Columbia, and the Netherlands were from highly integrated health care systems with established criteria and provisions for emergency intrapartum transport. Cohort studies conducted in areas without such integrated systems and those where the receiving hospital may be remote with the potential for delayed or prolonged intrapartum transport generally report higher rates of intrapartum and neonatal death. The Committee on Obstetric Practice believes that the availability of timely transfer and an existing arrangement with a hospital for such transfers is a requirement for consideration of a homebirth.'

The last consideration made in the statement is in regards to the standard of training of the midwife attending homebirth:

> 'According to the National Center for Health Statistics, more than 90% of attended homebirths in the United States are attended by midwives. However, only approximately 25% of these are attended by certified nurse–midwives or certified midwives. The remaining 75% are attended by other midwives; the category used by the National Center for Health Statistics that includes certified professional midwives, lay midwives, and others. The recognition and regulation of certified professional midwives and lay midwives varies tremendously from state to state. At this time, for quality and safety reasons, the American College of Obstetricians and Gynecologists does not support the provision of care by lay midwives or other midwives who are not certified by the American Midwifery Certification Board.'

The full reference for this statement is: Committee on obstetric practice. Planned homebirth (committee opinion number 476). *Obstet Gynecol* 2011; 117: 425–8. Copyright ACOG. Reproduced with permission.

Reference

1 Wax JR, Lucas FL, Lamont M, et al. Maternal and newborn outcomes in planned homebirth vs planned hospital births: a metaanalysis. *Am J Obstet Gynecol* 2010; 203: 243.e1 - 243.e8.

Home births (C-Obs 2)

College Statement
C-Obs 2
1st Endorsed: March 1987
Current: November 2011
Review: November 2014

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) does not endorse planned homebirth.

Fewer than one per cent of deliveries in Australia, and perhaps a greater proportion in New Zealand, are planned homebirths. The true incidence of planned homebirth is somewhat difficult to accurately assess, particularly in New Zealand.

While supportive of the principle of personal autonomy in decision-making, RANZCOG cannot support the practice of planned homebirth owing to its inherent risks and the ready availability of safer options for labour and delivery in Australia and New Zealand. Where a woman chooses to pursue planned homebirth, it is important that reasons for this are explored and that her decision represents an informed choice, considering all the possible benefits and potential adverse maternal and perinatal outcomes.

Perinatal and maternal outcomes

Perinatal mortality

The most recent meta-analysis of planned homebirth in Western countries[1] identified 12 studies of suitable quality for inclusion, providing a comparison of 34 2056 planned homebirths with 20 7551 planned hospital births. The overall neonatal death rate (NND) was almost three times higher for babies born without congenital anomalies in the homebirth group. Since that study was published, an additional paper from the USA has reviewed planned homebirths during the period 1989–2005 in Missouri, and also reported and increased relative risk for perinatal death in the planned homebirth group.[2]

Data from Australia are not reassuring. Of the nine studies of planned homebirth in Australia published in the last 20 years, all are retrospective except for a study from St George Hospital.[3-11] Two do not report data from a control group for comparison, and three use control groups that include medium- and high-risk labours. The one study with a matched control group did not match for medical and obstetric complications in the pregnancy.

The prospective study from St George Hospital reported results from 100 women of whom 30 per cent were transferred to hospital care before labour began. Of the women remaining in the homebirth group, 90 per cent ultimately delivered at home. It is important to note that women in that study were assessed to be at low risk by an obstetrician before being recruited to the planned homebirth group. No perinatal mortality or significant morbidity was reported.

In the studies where perinatal death rates are reported, the results for planned homebirth are either similar to, or are significantly higher than, those reported for hospital births. This is important, since hospital births are not necessarily low risk, meaning that the risk for a planned homebirth group should be lower.

The available data report that planned homebirths undergo fewer interventions and have a lower rate of reported maternal complications.

Alternatives to homebirth

Collaborative model of care

Collaborative care between midwives and obstetricians (specialist or GP) in a hospital setting is considered the best model of maternity care. This model provides the opportunity for close surveillance of mother and baby during labour and the implementation of appropriate and timely interventions if problems arise. In the absence of complications, minimal intervention is required.

Alternative birth centres and low-intervention models of care

It seems likely that birth in a 'home-like' setting with close proximity to hospital care can achieve some of the aesthetic appeal of planned homebirth but with reduced exposure to risk. Even so, a review of the relevant clinical trials reveals a strong trend towards higher perinatal mortality with hospital birth in a home-like setting. An overview of the perinatal mortality in five trials (n = 8529) showed a relative risk of perinatal death of 1.83 (95 per cent CI 0.99 to 3.38) when compared with conventional hospital birth.[12]

Homebirth for Australia and New Zealand?

Why should Australia have lower frequencies of homebirth?

Australia is a geographically diverse country and has a poorly developed infrastructure for planned homebirth. The geography does not suit itself to obstetric "flying squads" that are readily available to retrieve mothers from home when problems have arisen during labour and birth. Australia has the dual problems of vast distances in rural settings, and heavy city traffic in Melbourne and Sydney. Evidence is that approximately 12–43 per cent of those identified as 'low risk' in pregnancy will develop a complication necessitating transfer to care in a conventional birth suite setting.[13,14] In many locations in Australia this cannot be accomplished expeditiously.

Consideration should be given to the availability of emergency services in the community including the location of the nearest hospital that provides maternity services.[16] In the event of an emergency requiring transfer to hospital, delays in expediting transfer may compromise the outcomes for mother and infant.

New Zealand

Although planned homebirth appears to be more common in some areas of New Zealand, there are no robust, published data that prove that planned homebirth is as safe as hospital birth. A single study, published in 1997, reviewed selected self-reported data from 9776 planned homebirths during the period 1973–93, with a comparison group of 'low risk' women delivering at the National Womens' Hospital in Auckland during the same period.15 The crude perinatal mortality rate for the planned

homebirth group was 2.97/1000 compared to 2.34/1000 for the hospital group. No statistical adjustment was made and no information was given about missing data from the homebirth group.

Resource utilisation

Homebirth caters for only a relatively few women. No studies are available to evaluate the cost effectiveness of homebirth in comparison to birth in other settings.

Informed choice?

A decision to give birth at home must be taken in the knowledge that there are relatively few resources available for the management of sudden unexpected complications that may affect any pregnancy or birth – even those without any acknowledged obstetric risk factors. Women contemplating planned homebirth need accurate information about these risks.

Should planned homebirth be offered as a model of care?

RANZCOG believes that planned homebirth should not be offered as a model of care.

Summary

a. Planned homebirth is not endorsed as it is associated with an unacceptably high rate of adverse outcomes.

b. Planned homebirth should not be offered as a model of care as there is a reasonable public expectation that any model of care that is offered has a margin of safety that would be acceptable to most women. This is not present in the setting of planned homebirth.

c. Women contemplating planned homebirth must be provided with accurate information about the risks involved.

d. Health professionals supervising planned homebirth should have appropriate indemnity insurance.

e. Women planning homebirth should seek information from their homebirth provider about the provider's experience and their contingency arrangements in the event of an emergency, including options for hospital transfer.

f. All women booked for planned homebirth should be recorded by the relevant Health Authority. The Health Authority and care provider must ensure adequate and compulsory documentation so that meaningful data can be obtained for quality assurance at both a local and national level.

g. Individuals conducting planned homebirth have the same responsibility as other maternity carers to engage in multidisciplinary peer review and audit of practice.

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Treating vulvodynia

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Provoked vestibulodynia (formerly known as vulvar vestibulitis syndrome) resulting in entry dyspareunia is the commonest clinical presentation of vulvodynia in young women and unprovoked generalised vulvodynia and clitorodynia are the commonest presentations in post-menopausal women.

Vulvodynia is a chronic vulvar disorder that is defined by the International Society for the Study of Vulvovaginal Disease (ISSVD) as: 'vulvar discomfort, most often described as burning pain, occurring in the absence of relevant visible findings or a specific, clinically identifiable neurologic disorder.'[1] Vulvodynia is classified by whether it is generalised or localised, and whether it is provoked, unprovoked or mixed (see Table 1).

The incidence of provoked vestibulodynia has been reported to be as high as 15 per cent of the female population, although this figure was obtained when patients attending a general gynaecology clinic were assessed purely for pinpoint vulvar tenderness and were not necessarily presenting with dyspareunia.[2] The true incidence of significant dyspareunia related to vulvodynia is unknown, but our clinical impression is that it would not be greater than one to two per cent of sexually active females.

For assessment of therapeutic response, Marinoff classified dyspareunia into three grades: grade 1 dyspareunia, preventing intercourse occasionally; grade 2 dyspareunia, preventing intercourse on most occasions; and grade 3: apareunia.[3] In a recent study of 150 patients presenting with entry dyspareunia due to provoked vestibulodynia, five per cent were grade 1, 55 per cent were grade 2 and 40 per cent were grade 3.[4]

Aetiology

The exact pathogenesis of vulvodynia remains unclear and a variety of contributing factors have been suggested, including embryologic abnormalities, genetic or immune factors, hormonal factors, inflammation, infection and neuropathic changes.[5]

An elegant study comparing the concentration of type C nerve fibres in vestibulectomy specimens from patients with vestibulodynia to perineal skin removed from asymptomatic women during a vaginal repair, showed a significant increase in nerve fibre numbers in those patients with vestibulodynia.[6] In the vulvar vestibule, type C fibres are multifunctional, but if they are damaged they revert to their primary function, sensation of pain, whenever any nerve stimulation occurs, however slight. It has been postulated that vulvodynia, and in particular vestibulodynia, may manifest following exposure to trigger factors in these susceptible women. These events may also result in chronic nerve fibre irritation. Proposed trigger factors include recurrent thrush, sexual intercourse without adequate lubrication, sexual trauma and possibly overstretching of the vestibule during vaginal delivery, as patients with vestibulodynia often present following vaginal delivery. In these patients, the tenderness is not related to the episiotomy. In addition, affected women are more likely to demonstrate increased pelvic floor muscle tone on electromyography. This increase in pelvic floor tone is secondary to the hyperalgesia, but it also contributes to nerve hypersensitivity via a dorsal horn reflex pathway.[7]

Presentation

Generalised unprovoked vulvodynia and clitorodynia can present at any age, but generally occur in middle-aged and elderly women. The pain is typically described as burning, stinging or throbbing, and is often associated with entry dyspareunia. The severity of pain may range from mild to debilitating and may last for hours to days at a time. Symptoms may have been present for a number of years prior to the patient seeking medical advice. Provoked vestibulodynia presents with entry dyspareunia and pain on insertion of tampons. There may have been prior pain-free intercourse and the triggering factor may be an episode of recurrent candidiasis, following sexual assault, following vaginal

Table 1. ISSVD terminology and classification of vulvar pain (2003).[1]

Vulvar pain related to a specific disorder	Vulvodynia
1. Infectious (candidiasis, herpes and so forth) 2. Inflammatory (lichen planus, immunobullous disorders etc) 3. Neoplastic (Paget's disease, squamous cell carcinoma etc) 4. Neurologic (herpes neuralgia, spinal nerve compression etc)	1. Generalised a. Provoked (sexual, nonsexual or both) b. Unprovoked c. Mixed (provoked and unprovoked) 2. Localised (vestibulodynia, clitorodynia, hemivulvodynia etc) a. Provoked (sexual, nonsexual or both) b. Unprovoked c. Mixed (provoked and unprovoked)

delivery or just following a single episode of sexual penetration without adequate lubrication.

Evaluation

Vulvodynia can be diagnosed following a careful clinical history and physical examination. A thorough history should include the characteristics of the pain, other symptoms (for example, itch, discharge and so forth), treatment history, trigger factors, sexual history, medical and surgical history, and impact on quality of life. The vulva, vagina and cervix should be carefully inspected to exclude other causes. A cotton swab (cotton-wool bud) test will make the diagnosis of vestibulodynia with tenderness confined purely to the vulvar vestibule. The main tender areas are at the base of the hymen, usually around the openings of the Bartholin's ducts, and may also extend to the para-urethral glands and subclitorally. Focal erythema is often seen confined to the areas of tenderness. A biopsy is not required to make a diagnosis of vulvodynia and should only be considered if there is a clinical suspicion of other pathology known to cause vulvar pain, for example, lichen planus.

> 'Many patients presenting with vulvodynia (particularly provoked vestibulodynia) have tried multiple treatments, have had multiple diagnoses, often being labelled as having a purely psychosexual disorder and consequently become understandably frustrated.'

Chronic vulvar candidiasis is often seen in patients with vestibulodynia. It may not be associated with itch or vaginal discharge and vaginal swabs are unreliable. The typical symptoms of chronic candidiasis are a burning sensation in the vulva, with occasional skin splitting. It is often cyclical, becoming worse in the week prior to menses, as well as occurring postcoitally. Diagnosis of chronic candidiasis can be suspected on the clinical history and by vulvoscopy, and confirmed by culture of vulvar skin scrapings.[8]

Management

The optimal management of vulvodynia requires a multidisciplinary approach. Many patients presenting with vulvodynia (particularly provoked vestibulodynia) have tried multiple treatments, have had multiple diagnoses, often being labelled as having a purely psychosexual disorder and consequently become understandably frustrated. An important part of the management is giving the patient a diagnosis, an explanation of her condition and a plan of management. The patient should also be reassured that any psychological distress she is experiencing is purely secondary to her pain and is not a primary component of vulvodynia itself. The initial approach involves general vulvar care and encouragement in the use of an oil-based lubricant during any sexual activity. Therapeutic interventions include: oral and/or topical medication, physiotherapy, counselling and finally surgery.

Drug therapy

Tricyclic antidepressants, such as amitriptyline, have been used with good response rates of 60–70 per cent.[9,10] This is usually given orally, starting at 10mg nocte, and increasing the dose every fortnight until a therapeutic response is achieved or a maximum of 150mg daily is reached. Drowsiness is the commonest side effect and is the main limiting factor. Nortriptyline can be substituted if dryness of the mouth is a problem. Once a therapeutic dose is achieved, therapy is continued for six months and then slowly reduced. If symptoms reoccur, another six months of therapy is given and only rarely does a patient require a third course. Anticonvulsants, such as carbamazepine, have been used as second-line agents with limited success[10] and gabapentin has been moderately effective,[11] although the cost can be prohibitive.

Recently, a topical cream containing amitriptyline two per cent with baclofen (a neuromuscular blocking agent) was reported to have a 71 per cent success rate, although this was only a small study.[12] In a much larger study at the Royal Women's Hospital, Melbourne, using a topical cream with just amitriptyline two per cent alone, we had a success rate of 56 per cent.[4] At present, we are evaluating a topical amitriptyline five per cent ointment with encouraging initial results. Using topical amitriptyline is an excellent way of introducing the patient to the concept of using an antidepressant drug for another purpose and hence removing any stigma associated with it. Interestingly, the topical agent has worked in a significant number of patients who failed to respond to the oral drug. Thus we are now using topical amitriptyline therapy as our first-line treatment. Topical xylocaine ointments should be avoided if possible because of the risk of trauma and laceration if the vulva is completely numb.

Botox injections have been hypothesised to reduce the hypertonicity of the pelvic floor muscles and peripheral neuropathy. However, problems with unpredictable anal incontinence have limited their use.[13]

Physiotherapy

Physiotherapy is an integral component in the management of vulvodynia. The aim is to re-train the pelvic floor muscles so that the resting muscle tone is reduced. This can be achieved by pelvic floor muscle exercises, manual therapy (for example, touch desensitisation, local massage, trigger point therapy), use of vaginal dilators and combination treatment using electromyographic biofeedback.[14]

Psychological

One RCT has shown that cognitive behavioural therapy is associated with a 30 per cent decrease in reported vulvar pain with intercourse.[15] When compared to biofeedback and surgery, all three groups demonstrated equally significant improvement in psychosexual functioning. As a result of any chronic pain, interpersonal and individual psychological difficulties may develop. Sexual, individual and marital counselling should also be considered in patients with ongoing difficulties in these areas.

Surgery

Surgical treatment for vulvodynia has greatly improved over the past 25 years since Woodruff and Pamley initially described perineoplasty for vestibular pain.[16] It is usually reserved for patients with localised vestibulodynia where conservative management has failed. A surgical vestibulectomy removes the hypersensitive portion of the vestibule and is performed under general anesthetic. The procedure typically consists of excising a horseshoe-shaped area of vestibular skin from the two to ten o'clock position with the proximal incision just in the vagina above the hymen so that the minor vestibular glands at the base of the hymen are completely removed. The

width of skin excised is determined by the extent of the tenderness (usually 1–2cm) and then the posterior vaginal wall is mobilised by sharp dissection and advanced to cover the defect. Additionally, the para-urethral and subclitoral minor vestibular glands can be excised by separate incisions. In a retrospective study, over 80 per cent of patients reported that they would recommend the procedure as an effective treatment.[17]

Conclusion

Vulvodynia is a chronic condition that causes vulvar discomfort in the absence of any clinically identifiable neurological disorder. A thorough clinical assessment, recognition of the emotional and sexual implications, and knowledge of the treatment options available can lead to effective management for the patient. Treatment should be performed in a multidisciplinary setting. A wide range of therapeutic interventions are available with variable efficacy. Systematic, randomised controlled trials are required to evaluate the efficacy of the current therapeutic options.

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Q&a

Q&a attempts to provide balanced answers to those curly-yet-common questions in obstetrics and gynaecology for the broader *O&G Magazine* readership including Diplomates, Trainees, medical students and other health professionals.

Q *Should I request a routine cervical length scan at 20 weeks in all women?*

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a Cervical length measurement is commonly used in women with risk factors for preterm birth to more accurately predict those at highest risk who may benefit from interventions such as cervical cerclage or progesterone therapy. Recent clinical trials have also explored the potential of these interventions in women with short cervices, with or without other risk factors. A demonstration of a reduction in preterm birth rates associated with progesterone use has led some to suggest that universal cervical length screening should be introduced.

Maternity care providers are therefore asking the important question as to whether or not a routine cervical length should be done in all women at the time of the second trimester ultrasound. Indeed, in some settings this is being done as part of the routine scan without any specific request or even knowledge of the woman and her caregiver. However, before introducing a policy of universal cervical length screening there are several questions that should be asked and considered.

What test should we use, is it acceptable and reliable?

A transvaginal scan is the gold standard test for measurement of cervical length.[1] It is easily reproducible[2] when accepted methodology[3] is followed (see Table 1 and Figure 1) and the vast majority of women have only mild or no discomfort associated with the test.[2] The predictive ability of many different cervical parameters have been assessed including funnel length, funnel width, cervical index, loss of cervical plug and altered mucus glands. However, functional (closed) cervical length is the best single predictor and these other parameters do not appear to add significantly to the predictive value.

Table 1. Technique for transvaginal cervical length scan.

1	Ensure maternal bladder is empty
2	Place probe in anterior fornix of vagina
3	Obtain a sagittal view of entire endocervical canal
4	Withdraw probe until image just blurs and then apply just enough pressure to restore the image
5	Enlarge the image so the cervix occupies approximately 2/3 of the screen view
6	Measure the length of canal from int os to ext os
7	Obtain at least three measurements over a minimum of three minutes and record the shortest best measurement
8	Apply transfundal pressure for 15 secs and record shortest best measurement

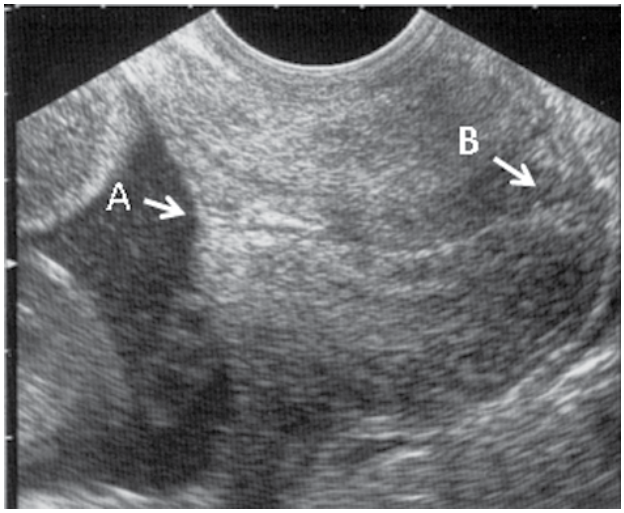


Figure 1. Transvaginal image of cervix. A – int os. B – ext os.

The alternative of an initial transabdominal approach followed by a transvaginal scan if the cervical length is short has been proposed[4], but has not yet been evaluated in large studies. This may have the advantage of being more acceptable to women and easier to implement in a routine setting. However, recent intervention studies have been based on transvaginal measurement and so, if we are to consider routine cervical length screening to select patients for these interventions, a transvaginal scan should always be undertaken, performed by someone skilled and experienced in the technique.

How good is the test?

It is clear that the relative risk of preterm delivery increases as the length of the cervix decreases[3], but it is less clear how short the cervix must be before an intervention should be considered in a low-risk population. The majority of prediction studies using cervical length have been in general populations, which include women with risk factors for preterm birth, multiparous women with no previous preterm birth and nulliparous women.[5,6] It is likely

that for each of these groups of women the test and potential interventions will behave differently and this should be considered when reviewing their results.

One of the earliest prediction studies is from a UK general population, including 2567 women with a cervical length measurement at 23 weeks gestation, identifying women with a very short cervix (≤15mm).[5] Of 43 women with a cervical length ≤15mm, only 21 were observed (the remainder had a cervical cerclage) and compared to 1231 women with a cervical length >15mm. The test identified 58 per cent of the women delivering <33 weeks gestation and the overall risk of delivery <33 weeks with cervical length ≤15mm was 52 per cent. However, the risk rose exponentially in those with a short cervix (see Figure 2). This suggests the cervix must be very short to significantly increase the risk of early preterm birth. Similar risks of preterm birth with cervical length ≤15mm were seen in a study of a general US population where scans were performed at a mean gestational age of 19 weeks.[6] For delivery <33 weeks, a cervical length ≤15mm had a positive predictive value of 47.6 per cent, negative predictive value of 96.7 per cent, sensitivity of 8.2 per cent and specificity of 99.7 per cent.

It should be noted that the prevalence of a very short cervix in a general population is low, with only 1.7 per cent and 0.6 per cent of the populations in the UK and US studies respectively having a cervical length ≤15mm. Similar low prevalence rates have been seen in much larger population screening for intervention studies with cerclage (one per cent ≤15mm)[7] and progesterone (1.7 per cent ≤15mm and 2.3 per cent 10–20mm)[8,9], however, again these studies include women at varied risk. In the SCOPE study of nulliparous women in an Australian and New Zealand population (likely to be at lower risk than a general population) only 0.5 per cent of women had a cervical length ≤20mm at 18–23 weeks (personal communication).

A very short cervical length is associated with an increased risk of early preterm birth; however, a very short cervix has a low prevalence in a general population. If women with previous preterm births are excluded the prevalence is even lower and so very large numbers of women need to be screened to find a small number of cases that may benefit from possible interventions.

What can we do about the result?

The two main interventions that have been considered are cervical cerclage and progesterone therapy. However, these have been applied to different populations of women and the results need to be considered in this context.

Women with risk factors for preterm birth

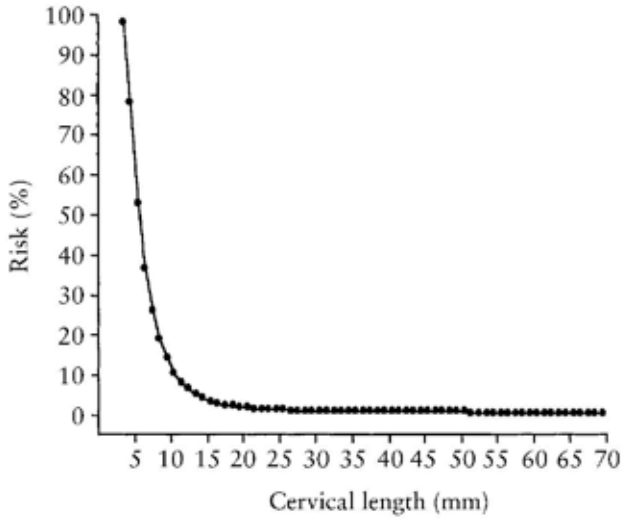
Cervical cerclage for a short cervix has been demonstrated to be beneficial in women at high risk. A recent meta-analysis of randomised trials included 504 women with singleton pregnancies, a history of preterm birth and a short cervical length. All but one study randomised women to cerclage or no cerclage with a cervical length <25mm (one study ≤15mm). Cerclage was associated with a reduction in the rate of delivery <35 weeks from 45 per cent to 28 per cent (RR 0.70, 95 per cent CI 0.55–0.89).[10]

There are no specific trials of progesterone in high-risk populations with a short cervix, but subgroup analysis of women with a history of previous preterm birth in the most recent progesterone trial in women with a cervical length 10–20mm demonstrated no significant difference in preterm birth rates <33 weeks (16 per cent versus 21 per cent, RR 0.77 95 per cent CI 0.3–2.1). However, the study was not powered for this small subgroup. It is unlikely that further intervention trials in high-risk women with a short cervix will be undertaken as progesterone has been demonstrated to reduce rates of preterm birth when used in women with a history of preterm birth, regardless of cervical length.[11,12]

Women with no risk factors for preterm birth

There are no specific studies assessing cervical cerclage in women with a short cervix with no history of preterm birth. However, in a general population with a short cervix (≤15mm) at 23 weeks gestation, despite the inclusion of women with previous preterm birth, cervical cerclage has no apparent affect on early preterm birth.[7]

Progesterone therapy has been associated with a reduction in preterm birth in two studies of women in a general population with a short cervix. The first published study included twin and singleton pregnancies and randomised women with a cervical length ≤15mm at 20–25 weeks to placebo or 200mg of vaginal micronised progesterone.[9] The rate of delivery <34 weeks was lower in the progesterone group, 19 per cent versus 34 per cent



Cervical length (mm)	Risk of delivery <33 weeks
≤15	52 per cent
15	four per cent
5	78 per cent

Figure 2. Risk for spontaneous delivery <33 weeks according to cervical length at 23 weeks gestation.[5]

(RR 0.56 95 per cent CI 0.4–0.9) and the relative risk did not seem to vary regardless of obstetric history but was non-significant when analysed as independent groups. In the more recent published study of singleton pregnancies, women with a cervical length 10–20mm at 19–24 weeks were randomised to placebo or 90mg of vaginal progesterone gel.[8] Again, progesterone use led to a significant reduction in early preterm birth and this was significant when assessing only women without a history of preterm birth, eight per cent versus 15 per cent (RR 0.5 95 per cent CI 0.3–0.9).

It has therefore been demonstrated that once a short cervix has been identified, progesterone is likely to be beneficial. However, it is important to note that very large numbers of women were screened in both studies to identify only a very small group who may have benefited from the intervention. Over 24 000 women were screened to identify 413 women with a cervical length ≤15mm and over 32 000 women to identify 733 women with a cervical length 10–20mm.[8,9]

Summary

Current evidence and practice supports cervical length scanning in women with previous preterm birth. Cervical cerclage has been shown to be of benefit in these women if they develop a short cervix. Other interventions such as elective cerclage and routine use of progesterone invite further debate and, at present, should be considered on an individual basis according to risk. The same applies for additional risk factors such as large cone biopsy and congenital uterine/cervical anomalies.

As for women without risk factors for preterm birth, recent evidence from clinical trials supports the use of progesterone in the event of an incidental finding of a short cervix in an asymptomatic low-risk woman. However, these trials do not yet support routine cervical length measurement in all women. To accurately assess if there is a benefit to such a change of practice, both in terms of clinical outcome and cost, a randomised trial of a policy of screening with treatment in the event of short cervix would be required. Such a study will help to determine if routine cervical length scanning at 20 weeks ultimately improves outcome and if it should be introduced to antenatal care for all. The health benefits and economic aspects of such a screening program would need to be carefully considered in any interpretation of the results.

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RANZCOG members are invited to submit questions, tips or interesting cases to *Q&a*.
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Journal Club

Had time to read the latest journals? Catch up on some recent O and G research by reading these mini-reviews by Dr Brett Daniels.

Essure v Adiana

The last decade has seen the emergence of two transcervical hysteroscopic permanent sterilisation methods. These are Essure®, in which coils (made of stainless steel, titanium and polyester terephthalate) are placed in the tubal ostia, and Adiana®, in which a lesion is caused in the proximal fallopian tube with radiofrequency energy, followed by the introduction of a non-absorbable silicone matrix. In comparison with laparoscopic tubal ligation, both techniques remove the need to enter the abdominal cavity. Both procedures have the potential to be performed as office procedures, but anecdotally this is currently rare in Australia. These articles review the clinical data concerning these two techniques. Basinski reports that there were no pregnancies reported in the 643 women in two published studies performed in the first nine years of using the Essure procedure. Clinical trials reporting on 570 women using the Adiana reported 12 pregnancies over five years. Both techniques have comparable rates of successful placement (about 95 per cent).

An important part of both procedures is confirmation of tubal occlusion post procedure. Despite Basinski citing that hysterosalpingogram (HSG) is not used outside the USA for post Essure confirmation of tubal occlusion, the manufacturer's Australian website describes the use of an Essure confirmation test, which appears to have many similarities. Palmer and Greenberg review similar literature and arrive at essentially the same conclusions. Bluntly, 'Hysteroscopic tubal occlusion with Essure represents the most effective of all female or male sterilization techniques, whereas the Adiana failure rate is higher than all methods except for spring clip ligation.' Both articles conclude that an advantage of Adiana may be that it could allow the cannulation of fallopian tubes where proximal occlusion and spasm could prevent placement of Essure. It may well be that transcervical hysteroscopic sterilisation will become an increasingly common procedure. However, there are commercial considerations in the adoption of each technique and gynaecologists will need independent evidence before making their own decisions. It is interesting to note that Dr Basinski has provided consultant services to the manufacturers of both Essure (Conceptus) and Adiana (Hologic).

Basinski, CM. 2010. A Review of Clinical Data for Currently Approved Hysteroscopic Sterilization Procedures. *Reviews in Obstetrics and Gynecology*, 3: 101–110.
Palmer, SN, Greenberg, JA. 2009. Transcervical sterilization: A Comparison of Essure Permanent Birth Control System and Adiana Permanent Contraception System, *Reviews in Obstetrics and Gynecology*, 2: 84–92.

Vulvar cancer

Vulvar cancer is a relatively uncommon cancer in women, accounting for about four to five per cent of female genital malignancies. These three articles highlight recent advances in the diagnosis and treatment of vulvar cancer. Spencer et al report on a small case series of 118 women, focusing on the diagnosis of their vulvar cancer. Eleven of the 80 women with squamous cell disease in the study had presented with persistent vulvar ulcers as their initial complaint. Nine women had received a punch biopsy as a diagnostic procedure with five biopsies being reported as benign, but eventually being diagnosed with invasive carcinoma on wider excision. The authors caution that gynaecologists should still consider cancer as a diagnosis for persistent vulvar ulcers even if office biopsies are negative. Dittmer et al provide a current review of vulvar cancer. They observe that in recent years there has been an increase in vulvar cancer in young women due to HPV disease and anticipate a reduction in the disease in this age group as HPV vaccination proceeds. Vulvar cancer in older, post-menopausal women is mostly independent of HPV infection and will not be affected by the vaccination rates.

A major change in the management of vulvar cancer in recent years has been the change from a large en bloc dissection of the vulva and inguinal nodes via a single butterfly incision, to a triple incision with separate excision of the vulva and inguinal node dissection. This has led to a reduction in wound breakdown and late complications, including lymphoedema, without increasing the rate of recurrence or mortality compared to the earlier en bloc dissection. Sentinel node biopsy has previously been used as an alternative to lymphadenectomy in breast cancer and melanoma. Both Dittmer et al and Robison et al review the evidence for the use of sentinel node biopsy in early stage vulvar cancer, as an alternative to routine inguinal lymphadenectomy. The negative predictive value of sentinel node biopsy in vulvar cancer is reported to be approximately 95 per cent. However, Robison et al report a high (75 per cent) mortality rate associated with false negative results and caution that the adoption of sentinel node biopsy needs to the supported by careful training and quality control.

Dittmer, C, Fischer, D, Diedrich, K, Thill, M. 2011. Diagnosis and treatment options of vulvar cancer: a review. *Archives of Gynecology and Obstetrics*, DOI 10.1007/s00404-011-2057-9.
Robison, K, Holman, L, Moore, RG. 2011. Update on sentinel lymph node evaluation in gynecologic malignancies. *Current Opinion in Obstetrics and Gynecology*, 23:8–12.
Spencer RJ, Young RH, Goodman A. 2011. The risk of squamous cell carcinoma in persistent vulvar ulcers. *Menopause*, 18: 1067–71.

Candida and preterm labour

The prevention of preterm labour remains one of the central problems of obstetrics. Roberts et al report a prospective randomised open label blinded endpoint study examining the effect of treating asymptomatic vaginal candidiasis on the incidence of preterm labour. Their sample consisted of 500 pregnant women of less than 20 weeks gestation who were asked to self-perform a vaginal swab. Ninety-eight asymptomatic women were culture positive for Candida and were randomised to receive either 100mg vaginal clotrimazole or normal care (culture result not revealed, no treatment given). The women repeated the swab at 24–28 weeks gestation and had a positive culture rate of 49 per cent in the clotrimazole treated group and 76 per cent in the normal care group. There was one case of spontaneous preterm labour in the clotrimazole group and three cases in the routine group. The authors acknowledge that the small numbers in this study are an obvious limitation in interpretation of these results and have published a protocol for a larger trial using similar methodology.

Roberts, CL, Rickards, K, Kotsiou, G, Morris, JM. 2011. Treatment of asymptomatic vaginal candidiasis in pregnancy to prevent preterm birth: an open-label pilot randomized controlled trial. *BMC Pregnancy and Childbirth*, 11, 18.
Roberts, CL, Morris, JM, Rickard, KR, Giles, WB et al. 2011. Protocol for a randomised controlled trial of treatment of asymptomatic candidiasis for the prevention of preterm birth [ACTRN12610000607077]. *BMC Pregnancy and Childbirth*, 11, 19.

DRANZCOG examinations

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DRANZCOG OSCE coordinator,
Education and Assessment Committee

The following article provides a summary of some of the topics that were covered in either the April or September 2011 exams.

In April and September 2011, the DRANZCOG oral structured clinical examinations (OSCEs) were conducted in the Outpatients Department of the Royal Women's Hospital, Melbourne. This change was necessary as the previous venue of Dallas Brooks Hall was no longer available for the examinations. The Outpatients Department provided a far more realistic clinical scenario for candidates and examiners.

The OSCE has 15 stations, in which there are four critical stations that are chosen from a list of seven known critical stations. Pleasingly, a renewed interest in the Diploma has seen increased demand for examination positions from candidates, leaving the examinations close to full capacity.

Induction of labour
This station assessed a candidate's knowledge about induction of labour at term plus ten, in which the candidates were expected to explain to the standardised patient about vaginal examination findings, the meaning of the Bishop's score, the risks of induction and the risks of waiting for the onset of labour spontaneously.

Infertility
This important topic was assessed in both the April and September exams. In one of the scenarios the candidate was expected to take a detailed history of a patient presenting with symptoms that were suggestive of polycystic ovarian syndrome. Candidates were expected to give an explanation of this condition, its affect on fertility and an emphasis was placed on the candidate's ability to educate the patient regarding the importance of weight loss through diet and exercise.

Gestational diabetes
In this scenario, the candidate was presented with a patient for review presenting with a glucose tolerance test that was diagnostic of gestational diabetes. Candidates were expected to take a detailed history and to educate the patient regarding dietary advice towards foods that decreased the carbohydrate load for the patient. Candidates were also expected to discuss the role of medication in the management of gestational diabetes, as well as discussing with the patient possible problems for the baby, both during delivery and in the postnatal period.

Postnatal visit
In this clinical scenario, candidates were expected to play the role of the general practitioner performing a six-week baby check on a mother who had a forceps delivery at 39 weeks with an associated episiotomy. Candidates were expected to take a detailed history, both of the mother in terms of her mode of feeding and vaginal blood loss as well as bladder and bowel status. It was also considered important for a candidate to perform a screening test for postnatal depression.

In September of this year, candidates were expected to perform an eight-week baby check on a mannequin, demonstrating to examiners their ability to perform a detailed and structured examination from 'head to toe'. Candidates were also expected to answer questions pertaining to the management of congenital dislocation of the hips.

Infections in pregnancy
The management of hepatitis B as well as exposure to parvovirus were examined in 2011. Candidates were faced with clinical scenarios in which the standardised patient had been exposed to either of these infections. Candidates were expected to be able to take a detailed history, provide information to the standardised patient in terms of the consequences and required management to both the standardised patient and the baby during the intrapartum and postpartum periods. Interestingly, candidate knowledge of parvovirus, which is seen quite commonly in general practice, was considered to be poor.

> 'Pleasingly, a renewed interest in the Diploma has seen increased demand for examination positions from candidates, leaving the examinations close to full capacity.'

Management of the abnormal pap smear
In both the April and September examinations, candidates were faced with the standardised patient presenting with an abnormal pap smear. Candidates were expected to be able to take a detailed history, interpret a cervical cytology report and outline their management following current Australian guidelines as recommended by the National Health and Medical Research Council, both in terms of current management and follow up requirements following an abnormal pap smear.

Cholestasis in pregnancy
In this situation, candidates were expected to take a detailed history from a patient presenting at 37 weeks gestation with a pruritic itch that initially occurred in the hands and migrated to their main trunk. Candidates were expected to educate the patient regarding this condition, its formal diagnosis and options available to the patient.

Abnormal first trimester screening test
At this station, candidates were expected to manage the standardised patient presenting at 12 weeks with an increased risk of trisomy 21. Candidates were expected to, in an empathetic way, explain the result to the patient, as well as giving them options in terms of further investigations, for both the first and second trimesters. Candidates were expected to be able to discuss the advantages and disadvantages of these tests and at the same time answer any of the standardised patient's questions.

Jaundice
In both the April and September examinations, candidates were expected to be able to manage the newborn baby presenting with jaundice. While jaundice is a common condition, in which the cause is often physiological, candidates were expected to take a detailed history over the phone from the midwife in order to exclude other causes such as infection and dehydration. It was expected that candidates would be able to perform the necessary investigations as well as be able to interpret those investigations for the examiners.

Neonatal resuscitation
For the past 15 years, neonatal resuscitation has been on this examination. It continues to be the most poorly performed station, despite the step-by-step requirements needed to pass this station being well advertised on the College website. Criticism has been made in the past of the lack of a realistic resuscitation and, in 2011, we instigated the use of neonatal resuscitors that have both oxygen and neopuff resuscitation. This enabled a far more realistic presentation as well as allowing candidates to perform the required steps of resuscitation in a realistic way. I would encourage all candidates sitting future exams to practice this clinical scenario with their paediatric and neonatal colleagues. A recurring theme of people who fail this station has been their lack of complete exposure to this clinical scenario. The examination panel considers this scenario of the utmost importance and this station will remain on subsequent OSCEs.

CPR of the pregnant woman
This scenario was introduced in 2011. Once again it was a poorly performed station. While not being a critical station, one would expect medical practitioners to be confident in the performing of basic CPR. Emphasis was placed on consideration for the patient to be placed with left lateral tilt through the use of a wedge, the importance of airway management through bag and mask on a mannequin, as well as the consideration of the performance of cardiac compressions. The poor performance of candidates at this station was somewhat 'breathtaking'.

Urinary incontinence
This scenario revolved around a patient presenting with urine leakage. Candidates were expected to take a detailed history, in which either urge or stress incontinence was able to be achieved. Candidates were then expected to be able to educate the patient regarding the condition and outline management options for the patient both medically and surgically.

Obstetric emergencies
In 2011, the critical stations assessed included management of antepartum haemorrhage, postpartum haemorrhage, instrumental delivery and the patient with pre-eclampsia. All of the clinical scenarios were designed to allow the candidate to demonstrate their ability to follow what could be considered structured clinical drills, enabling the candidate to cover all of the important areas for the management of the above-mentioned obstetric emergencies. Further discussion regarding the management of these topics is located on the College website: http://www.ranzcog.edu.au .

Management of vulval itch
This clinical scenario involved the candidate taking a detailed history from a standardised patient presenting with a vulval itch. Candidates were then expected to perform an examination in which the findings were given and then outline the management of the patient. Candidates were expected to provide a differential diagnosis as well as guidance to the standardised patient, if the treatments recommended, failed to remove the symptomatology.

While the above list is not exhaustive in terms of all of the topics that were examined in 2011, it is designed to provide guidance for subsequent candidates in their preparation for sitting the DRANZCOG OSCE. It is certainly recommended that candidates, prior to taking this examination, seriously consider attendance at one of the many Diploma revision courses, as well as one-on-one teaching in the performing of the neonatal resuscitation.

PROMPT delivery in NZ

Dr Martin Sowter
FRANZCOG

This article chronicles the development of the PROMPT course in New Zealand and discusses what we have learnt as the course has evolved to become an essential part of in-house training for most New Zealand maternity units.

In August 2011, RANZCOG, the Royal College of Obstetricians and Gynaecologists (RCOG) and the PROMPT Maternity Foundation reached a formal agreement to permit PRactical Obstetric Multi-Professional Training (PROMPT) to be adapted and disseminated as a standalone course throughout Australia and New Zealand.

Although PROMPT will be new to much of Australia, over the last four years it has become firmly established in New Zealand, with more than two-thirds of New Zealand maternity units now running regular local PROMPT courses. Nearly 1000 New Zealand midwives and doctors have attended a PROMPT course.

Firstly, what is PROMPT and how does it differ from Multi-Disciplinary Obstetric Emergency Training (MOET) and Advanced Life Support in Obstetrics (ALSO), which are globally the most recognised providers of obstetric emergencies training? PROMPT has been developed as a response to the fact that obstetric emergencies are almost always attended by a multidisciplinary team. Individual medical and midwifery staff may know how to manage an obstetric emergency, but often function poorly as a team. The course was developed at Southmead hospital in Bristol, UK, by a multidisciplinary team led by Prof Tim Draycott and 'train the trainers' courses have been run by the RCOG for the last five years. The course uses a series of scenarios based on obstetric emergencies such as shoulder dystocia, postpartum haemorrhage and eclampsia. Rather than using a skill station or a mannequin within a Sim-centre, scenarios take place on delivery unit using patient actors, supplemented by a range of simple props to produce a high-fidelity simulation experience. Real drugs, equipment and disposables are used. Attendees are expected to simulate ordering blood, record vital signs, resuscitate any baby delivered and put out emergency or arrest calls exactly as they would in real life. The course has been validated through a series of prospective studies, including the Department of Health funded SaFE study, which have demonstrated demonstrating the improved management of obstetric emergencies in units where PROMPT is run.[1,2,3,4,5]

Table 1. A typical full-day PROMPT course program.

Time	Activity
08.00	Blood loss estimation exercise
08.30	Lecture: introduction to course and team building exercise
09.00	Lecture: introduction to PROMPT themes
09.20	Basic life support training
09.45	Drill: eclampsia (team A)
10.05	Lecture: hypertensive disorders in pregnancy and communication
10.25	Drill: eclampsia (team B)
10.45	Break
11.00	Lecture: maternal collapse and leadership/teamwork
11.30	Drill: maternal collapse (teams A and B)
12.30	Lunch
13.15	Drill: postpartum haemorrhage (team A)
13.40	Lecture: postpartum haemorrhage and situational awareness
14.05	Drill: postpartum haemorrhage (team B)
14.30	Break
15.00	Short 20 minute skill stations: neonatal resuscitation, undiagnosed breech delivery, shoulder dystocia (split into three teams)
16.00	Course summary and feedback

The key philosophies behind the course, which make it different in approach to MOET and ALSO, include:

- This is not an expert course and all delivery unit staff should attend regularly.
- The course is developed and adapted locally.
- Equal priority is given to participation by obstetric, anaesthetic and midwifery staff. It is also a course for staff working either in a public setting or in independent or private practice.
- The four 'PROMPT themes' of effective communication, leadership, teamwork and situational awareness are a central part of the course.

A typical course begins with a blood loss estimation exercise on delivery unit using expired blood units and a short team-building exercise to allow participants to meet fellow team members. After a lecture on the four PROMPT themes, the day progresses through a series of scenarios with short lectures between each drill (see Table 1). Attendees are divided into two teams, with one team performing the drill and the other team observing. The observing team uses a series of checklists to assess team performance in undertaking defined medical objectives. The observing team also assesses how well the PROMPT themes are accomplished, beginning with communication and then, by the final drill, assessing all four themes.

Faculty have an important role in ensuring that criticism is constructive and succinct in what can be a fast-paced day. In New Zealand we have tended to finish the day with a series of shorter scenarios or skill stations to avoid 'drill-fatigue'. We have also explored using videos of drills from earlier in the day to debrief the teams as frequently attendees have little recall of how important failures of teamwork within a scenario occurred.

A key difference between PROMPT and MOET is that midwives are attendees (and are usually also course organisers) rather than observers. ALSO does have a multidisciplinary approach, but both MOET and ALSO are run offsite, without an emphasis on localising the course. All three courses complement each other, but for both MOET and ALSO there is less scope for changing

Staff working through a postpartum haemorrhage scenario during a PROMPT session. Other course attendees, at the edge of the room, are observing and assessing their colleagues' performance.

course content and slides. The lecture content of a PROMPT course changes from course to course and in New Zealand we have encouraged different units to adapt lectures and scenarios both to reflect their local situation and to maintain interest.

PROMPT began in New Zealand in 2007, with a pilot course run by the UK PROMPT faculty and attended by medical and midwifery educators from several New Zealand hospitals. Progress stalled initially in part because of a lack at that time of a published course manual and, as often happens, attendees from most hospitals found that they had too many other tasks filling their week to set up a locally run course. Most units also found that getting funding locally was impossible, with little appreciation among hospital managers of the importance of such training to reduce clinical risk.

However, at National Women's we had a sufficient number of interested medical and midwifery staff to form a faculty and run our own locally based course. The model for disseminating the course nationally has evolved by chance, but has proved very effective with three quarters of the country's hospitals now running their own PROMPT courses and every possibility that all New Zealand units with a stable senior medical roster will be running PROMPT courses by the end of 2012.

Table 2. A typical timetable for half-day 'drill-intensive' PROMPT course.

Time	Activity
08.00	Introduction and coffee
08.15	Drill one (team A): eclampsia
08.35	Lecture: recap of PROMPT themes
09.00	Drill one (team B): eclampsia
09.20	Lecture: neonatal resuscitation
09.50	Drill two (team A): shoulder dystocia, postpartum haemorrhage, neonatal resuscitation
10.10	Break
10.30	Drill two (team B): shoulder dystocia, postpartum haemorrhage, neonatal resuscitation
10.50	Lecture: what's in the arrest trolley, defibrillator safety
11.10	Drill three (team A): anaphylaxis, cardiac arrest, perimortem section, neonatal resuscitation
11.30	Drill three (team B): anaphylaxis, cardiac arrest, peri-mortem section, neonatal resuscitation
11.50	Facilitated review of videos of drills and debrief

Rather than running a train the trainers course, we have asked interested units to attend a course in Auckland, sending – where possible – a midwifery educator, an obstetrician and an anaesthetist. They have taken part as attendees rather than observers. We have then set a date for them to run their first course while their enthusiasm is high and then one or two members of the Auckland faculty (usually a midwifery educator and an obstetrician) have flown to their unit to help them run their first course.

Visiting almost every delivery unit in the country has been fairly onerous, but it has ensured that the first course runs smoothly and in a similar manner to how we run courses in Auckland. Although apparently straightforward, setting up the scenarios, adapting the lectures, organising a lecture venue and ensuring an appropriate skill mix among the attendees can be challenging. The level of preparedness among local faculty has varied from near perfect to chaos. Despite these issues, every hospital we have visited has run PROMPT courses independently since, with relatively little ongoing support.

Enthusiasm among midwifery staff has been uniformly high, with many staff coming to the course on days off or going to great lengths to ensure they have cover for their practices and can attend. Enthusiasm from medical staff has been more varied with many concerned that running regular courses might become another unpaid task for them. One of the key strengths of PROMPT is that it is 'locally owned' by each unit, but this possibly makes it less inviting for some than a course offsite in another centre.

One remarkable aspect of how the course has evolved is how easy it has been to adapt it to a range of settings and how so many

midwives 'get it', very quickly realising the value of this sort of training. It has also often been apparent that medical staff know little about how their own unit's protocols function or important equipment works. The course invariably leads to improved dialogue between medical and midwifery attendees. It also allows units to troubleshoot local protocols and senior staff (both midwifery and medical) to identify staff in their unit who need extra training and support to overcome any weakness in their clinical practice. This latter area is one of the more potentially challenging aspects of the course for faculty members.

We have also been able to adapt the course for units in the South Pacific, with the Cook Islands, Fiji and the Solomon Islands all running obstetric emergency courses based on the PROMPT model.

We have recently developed a half-day 'drill intensive' course, with longer more complex drills for returning staff who have already attended a full-day course (see Table 2). We anticipate running this course four times a year in Auckland, with a full-day course every six months. Our expectation is that all staff will attend regular half-day refresher courses after attending the full-day course.

We are reaching a stage in New Zealand where we need to move the course on from being considered a great idea and develop an expectation that all facilities where women give birth will provide regular drill-based training for all their staff and private maternity providers that use their facilities. One of the key recommendations of the most recent New Zealand Peri-Natal and Maternal Mortality Review Committee annual report is that: '*all* staff involved in the care of pregnant women should undertake *regular multi-disciplinary* training in managing obstetric emergencies.'[6] For this to have any chance of happening it needs to become an auditable activity that hospitals must fund and provide rather than just encourage.

There are also some other challenges ahead. One is that as the course is adapted and developed by faculty locally it may become difficult to define just what a PROMPT course actually is. Maintaining a high-quality course in every unit is heavily dependent on having a local champion who can update the course regularly and keep organising new courses. The organisation of the course is also heavily reliant on midwifery educators. In New Zealand, midwifery educators have embraced PROMPT with great enthusiasm, but are an increasingly poorly supported asset in many underfunded units. In some units it has also difficult to persuade senior medical staff to attend more than once and we have been emphasising that they are not necessarily attending the course to acquire CPD points, but to also be part of the scenario for their junior medical and midwifery colleagues.

For me, as leader of the Auckland faculty, the course has also confirmed how little training doctors have in leadership, teamwork and communication in an emergency. Ensuring a team performs effectively, while under intense pressure to accomplish a challenging technical task, is a skill that all other emergency services and our colleagues in aviation and the military expend extraordinary energy in developing and this is an area we urgently need to develop further in our trainees and ourselves.

The next year looks to be an exciting one for PROMPT. New Zealand has reached a tipping point where PROMPT is likely to become a core part of training in all facilities where women give birth. In Australia, the course will hopefully become established and, with support from RANZCOG and a locally published manual, PROMPT training will be 'adopted and adapted' widely.

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Workforce planning

Prof Michael Permezel
Chair, Workforce Committee

Kate Lording
Workforce Coordinator

The development of the RANZCOG Strategic Plan 2010–12 led to the establishment of a Workforce Committee and identified the need to develop proactive communication and interactions with jurisdictional and statutory bodies such as Heath Workforce Australia (HWA) and Health Workforce New Zealand.

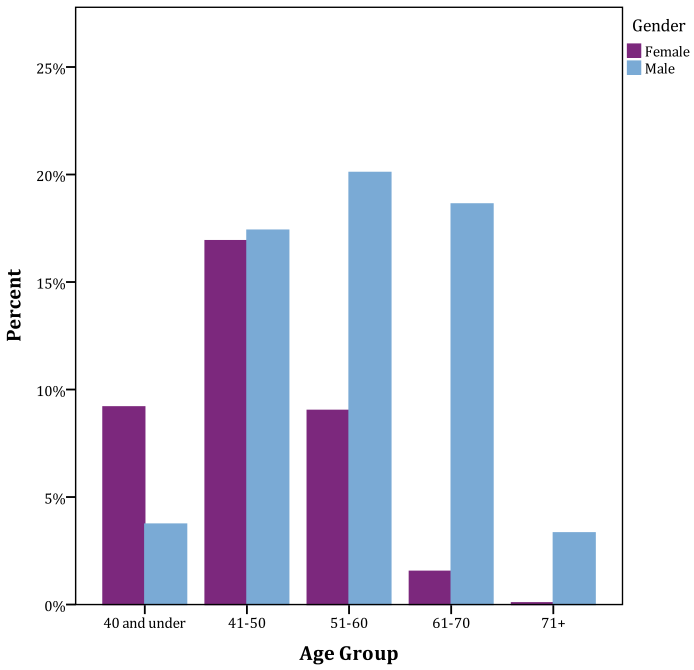
A range of crucial workforce issues are facing the College as it seeks to develop a sustainable O and G workforce in Australia and New Zealand, for example:

- rural and provincial shortages;
- subspecialty training applications have declined;
- academic O and G positions frequently filled from overseas;
- increasing number of part-time practitioners; and
- increasing prevalence of 'special interest' practice (exclusively or in parallel with general O and G).

The committee comprises Prof Michael Permezel (Chair and RANZCOG Vice-President), Dr Deryck Charters, Dr Gregory Jenkins, Dr William Milford, Dr Lucinda Pallis, Dr Martin Ritossa, Dr Sarah Tout, Dr John Tait and A/Prof Anuschirawan Yazdani.

Health Workforce Australia

HWA is in the process of developing a National Training Plan for the larger medical disciplines, including obstetrics and gynaecology. The plan will model the workforce needs with a view to estimating numbers of specialist O and Gs required to meet a goal of achieving self-sufficiency by 2025. In this context, self-sufficiency is taken to mean achieving an adequate workforce with a reduced dependence on international medical graduates. Only a broad overview is possible at this stage and there is no intent that HWA will address subspecialty needs in this phase of the project. RANZCOG is working with HWA to ensure that the data being used are current and that specific issues surrounding O and G specialist practice (for example, increasing feminisation of the O and G workforce) are considered in the HWA modelling.



RANZCOG Fellows (Australian and New Zealand) by age group.

The College is also seeking to be proactively involved in workforce related initiatives in New Zealand through discussions with Health Workforce New Zealand.

Practice Profiles and Activity Report

The key to understanding workforce issues is to have robust data on the size and scope of practice of Fellows and Diplomates, along with data on current Trainees. To this end, RANZCOG established the Fellows and Diplomates Practice Profiles and the RANZCOG Activities Report.

The Workforce Committee will take on the management of the Practice Profile, an invaluable instrument that provides a snapshot of the current O and G workforce as well as a means of tracking changes and trends. The Practice Profile has now been operational for two years, and this year has been a time of refinement and consolidation. The Profile is an online survey that provides the College with previously unknown data about the nature and scope of the O and G workforce and future work intentions.

The changing nature of the O and G workforce can be seen clearly from Practice Profile data from all Fellows, showing the dramatic variation in gender across age distribution. Fellows in their 60s are largely males, whereas newer Fellows are more than twice as likely to be female. With women more likely to adopt part-time practice, there are flow-on implications for workforce requirements.

Some interesting facts from the Practice Profile analysis:

- 32 per cent of those in private practice work a 1:1 weekend rotation.
- 60 per cent in private practice are on call four nights a week.
- 28 per cent are on call four nights a week and work a 1:1 weekend rotation.
- 71 per cent of males and 65 per cent of females in private practice in Australia work in solo practice. New Zealanders, however, are more likely to work in a group private practice, with only 38 per cent of women and 44 per cent of men in solo practice.
- 25 per cent of Australian Fellows report that they now practice in gynaecology only. New Zealander practice is similar, with 22 per cent working in gynaecology only.

Twenty-nine per cent of all current private obstetricians and 21 per cent of those doing public obstetrics plan to stop performing deliveries within five years. Thankfully, as most of these obstetricians are approaching retirement, their plans do not necessarily indicate dissatisfaction with obstetrics. However, five per cent of those planning to stop obstetrics in the next five years are aged 50 and under.

Rural and provincial
In Australia, 89 per cent of rural Fellows practice obstetrics and gynaecology, compared to only 59 per cent in the cities; 82 per cent practice ultrasound; and more of them work in group practice (33 per cent provincial, 27 per cent metro). Provincial Fellows take more study leave, with 20 per cent of those from metropolitan areas taking no study leave, compared to eight per cent from provincial areas. They do more on-call in public hospitals, with 65 per cent of provincial Fellows working between six and 15 nights a month, compared to 29 per cent of metropolitan specialists.

Diplomates
In 2010, the Diplomates Practice Profile was introduced, following consultation with the GP Obstetric Advisory Committee. All Diplomates were contacted throughout August and September 2010, via email or letter, and a response rate of 29 per cent was achieved. Many Diplomates contacted the College to provide feedback that they were unable to fill in the Practice Profile adequately as they did not work as a GP obstetrician. An additional question has been added to allow all Diplomates to indicate the type of work they are engaged in, and how they use their diploma.

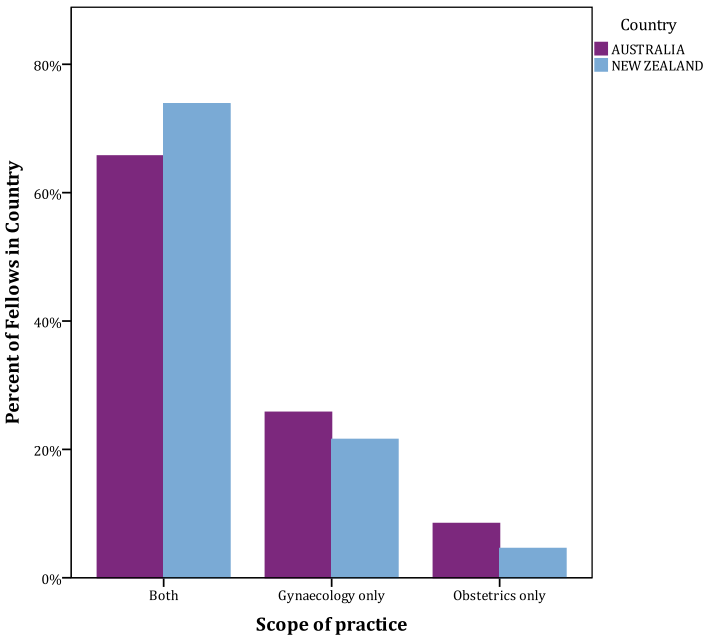
The Profile shows that 86 per cent of Diplomates practice antenatal care. As would be predicted, 53 per cent of provincial Diplomates and only nine per cent of metropolitan Diplomates practice intrapartum care. More provincial Diplomates indicated that they intend to cease practicing intrapartum care within five years (29 per cent) compared to those from metropolitan areas (12 per cent).

Fill in your Practice Profile and win an iPad
It is important that all Fellows and Diplomates complete their Practice Profile. Those who did so by June 2011 were eligible to win one of five iPads. This year's winners are: William Ridley, Michael Peek, Priya Sivadas, Douglas Graham and Ken Hazelton.

The College will run the competition again in 2012, and will select winners from members who complete or update their profile before the end of March 2012.

To update your Profile, change your contact details, or to view all current Practice Profile reports, visit the College website and log on to my.ranzcog.

Activity Report
The Activity Report focuses on providing details of the O and G workforce, as well as information regarding training of Fellows, subspecialists, and Diplomates across Australia and New Zealand, breaking down data into useful subcategories, such as geographical locations, gender and age demographics. The Activity Report can be downloaded from the College website.



Scope of practice of Fellows 2009–10.

The Mercia Barnes Trust

Promoting research into women's health since 1994, the Mercia Barnes Trust has a solid track record of sponsoring groundbreaking studies.

In 1993, the Royal New Zealand College of Obstetricians and Gynaecologists (RNZCOG) discussed the formation of a research trust, which came to fruition the following year. The founding trustees were Drs David Davidson and Helen Sill, and Sir Graham (Mont) Liggins. Dr Mercia Barnes had recently ended her term as President of the RNZCOG in 1994; sadly she died suddenly a few weeks after she completed her term of office. The trust was named in her memory.

Dr Barnes was born in Raetihi. An Otago graduate, she worked in a number of New Zealand hospitals before beginning her O and G training at St Helen's in Christchurch. She went to the UK and worked in a number of places, including the Elizabeth Garrett Anderson Hospital under Dame Josephine Barnes. She returned to New Zealand to Hamilton, initially as a locum, but then as a permanent member of the staff of Waikato Hospital and was a life member of the Waikato Medical Research Foundation. She was Secretary of the Royal College of Obstetricians and Gynaecologists' New Zealand Regional Council, then the first Secretary of the local College when it was formed in 1982. In 1990, she was elected President of the RNZCOG.

Aim of the Trust

The aim of the trust is to provide funds to assist and promote research covering a variety of subjects pertaining to the area of women's and reproductive health. The preferred option is for a fellowship to encourage young medical researchers, but not exclusively. Smaller or multiple grants are considered.

Since 1994, there have been 17 grants and the recent focus has been to support young researchers. The Mercia Barnes Trust was involved in funding the following significant research:

- a study of the clinical and biochemical predictors of preterm delivery in women presenting with preterm labour;
- a prospective study of the short-term outcomes of hysterectomy with and without oophorectomy;
- safety of pleurodesis with OK-432 in the fetal sheep; and

Table 1. Mercia Barnes Trust grant recipients.

Year	Recipient	Grant details
1997	Matthew Coleman	A study of the clinical and biochemical predictors of preterm delivery in women presenting with preterm labour
1998	Cindy Farquhar	Princess Diana Memorial Fund Grant
1999	Bryony Allen	Intraoperative lymphatic mapping of vulval cancer
2000	Andrew Shelling	Inhibin and premature ovarian failure
2002	Cindy Farquhar	A prospective study of the short-term outcomes of hysterectomy with and without oophorectomy
	Neil Johnson	Summer studentship for Kaye Wang (metformin for polycystic ovarian syndrome) the establishment of a randomised control trial & ovarian surgery for symptoms of PCOS
	John Doig and Christina Chan	A retrospective survey of a ten-year experience of chronic villus sampling for cytogenic diagnosis
	Ansulette Von Splunder	Audit and retrospective assessment of multidisciplinary surgical approach to dissection of advanced grade 3 & 4 endometriosis
2003	Cindy Farquhar	The management of dysmenorrhoea
	Larry Chamley	The interactions of trophoblasts, endothelial cells and antiphospholipid antibodies
2004	Neil Johnson and VP Singh	Multicentre trial in women with polycystic ovarian syndrome, evaluating metformin for infertility with clomiphene (the PCOSMIC trial)
2005	Emma Parry	Safety of pleurodesis with OK-432 in the fetal sheep
	Katie Groom	Prediction of babies who are small for gestational age by customised birthweight centiles using clinical markers and/or uterine and umbilical Doppler waveforms (ex grant approved Chern Lo)
2007	Peter Sykes and Olivia Smart	Pilot study to assess the feasibility and cost benefit of human papilloma virus testing in the follow-up of women treated for high-grade squamous intraepithelial lesions within the National Cervical Screening Program
	Cindy Farquhar and Jye Ru Lu	The impact of body mass index on semen parameters
2010	Catherine Appleby	Breastfeeding rates in IVF patients
	Vivien Wong	The incidence of levator injury in Polynesian nulliparous women compared to non-Polynesian nulliparous women following vaginal delivery

- prediction of babies who are small for gestational age by customised birthweight centiles using clinical markers and/or uterine and umbilical Doppler waveforms (ex grant approved Chern Lo).

The Mercia Barnes Trust approved funding to the value of approximately NZ$88 000 for four projects in October 2011:

- maternal sleep practice and risk of late stillbirth;
- an evaluation of BMI and ethnicity for endometrial hyperplasia in premenopausal women with abnormal uterine bleeding;
- a randomised single blind controlled study assessing the affect of endometrial injury on live birth rates in women who are undergoing an IVF/ICSI cycle; and
- immunological and biological markers of regression of CIN 2 in women under 25.

Honours

The Mercia Barnes Trust was honoured at the University of Auckland Chancellor's Dinner in November 2010, being recognised as a member of Sir Douglas Robb Society (members have given between $100,000 and $1 million in grants to the University).

Income sources

The Trust has been supported from a mixture of sources. Some Fellows have donated money and there have been significant bequests from Dr Barnes and her sister Vaudine. A major source of funds has been RANZCOG itself; from proceeds of the New Zealand Committee Annual Scientific Meeting and, recently, a decision by the College to pay a subscription on behalf of each active New Zealand Fellow.

Trust administration

The Trust is currently administered by the New Zealand Committee of the College, with its trustees being Drs Alastair Haslam (Chair), Gary Fentiman, Richard Fisher and Digby Ngan Kee, Prof Lesley McCowan and Mrs Phyllis Huitema.

Further support from the membership of the College is welcomed and needed. If you are interested in supporting The Mercia Barnes Trust, please contact:

MERCIA BARNES TRUST

Executive Officer, New Zealand
RANZCOG
Phone: +64 4 472 4608
Email: mbt@ranzcog.org.nz

Corrections

In O&G Magazine Vol 13 No 3 p35 Figure 1, the arrow from negative to positive should have led from the 26–30 week scan to positive.

In O&G Magazine Vol 13 No 3 p66 Figure 3 was mislabelled; the serology should have read: IgG+, IgM-; IgG-, IgM-; IgG-, IgM+; IgG+, IgM+.

C-QuIP
Colposcopy Quality Improvement Program

DO YOU PRACTISE COLPOSCOPY? WANT TO BE CERTIFIED?

The Colposcopy Quality Improvement Program (C-QUIP) is a RANZCOG initiative supported by the Federal Department of Health and Ageing, which aims to improve the care of women who are referred for colposcopy and treatment of screen detected abnormalities.

The C-QUIP would like to offer all medical practitioners in Australia and New Zealand who are currently practicing colposcopy the opportunity to be certified in this field.

To obtain Certification as a Practising Colposcopist – a simple application process involving the completion of two forms is required and are available to download from the C-QUIP website: http://www.ranzcog.edu.au/cquip/certification.shtml

Why be certified?

This certification and participation in audit allows you to reflect on your practice and implement strategies for improvement if required.

Applications will be accepted until 31 December 2011 via email, fax or post to:
Ms Jordan Chrisp
C-QUIP Coordinator
(t) +61 3 9412 2978
(f) +61 3 9417 7795
(e) jchrisp@ranzcog.edu.au

College House, 254-260 Albert Street, East Melbourne, VIC 3002, Australia

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists

Funded by the Department of Health and Ageing

A morning tea for Friends

Ros Winspear
Coordinator, Historical Collections

RANZCOG President Rupert Sherwood hosted a morning tea to honour the Friends of the College Collection.

On 26 August 2011, a morning tea was held in the Frank Forster Library at College House in Melbourne, in honour of the Friends of the College Collection. The Friends were invited by the President, Dr Rupert Sherwood, to visit the College for the express purpose of thanking them for their continued support and commitment to the historical collections over many years.

The Friends were welcomed to the College by Acting CEO Valerie Jenkins. Valerie said how pleased she was to greet the Friends, some of whom had not previously visited the College. She introduced Dr Rupert Sherwood, who hosted the gathering. Dr Sherwood welcomed the Friends to the College and spoke about the importance of history and the value of the Historical Collections and thanked them for their generosity in supporting the work of the historical section. He referred to the late Dr Frank Forster who had the foresight to establish the Historical Collections and was such a generous benefactor. Dr Sherwood also paid tribute to Dr Geoffrey Bishop, the former Honorary Curator, for his considerable input over many years and for his long association with the Collections. The President then introduced the newly appointed Honorary Curator, Prof Caroline de Costa, who gave a most interesting talk about the colposcope and the history of colposcopy to the assembled guests. Prof de Costa referred, in particular, to an original colposcope (on view) from the Museum Collection, which was designed by the late Dr Paul Mitchell, FRACOG. This colposcope formed part of a large collection of instruments and memorabilia donated to the Museum by the Mitchell family.

During the morning, guests had an opportunity to meet the President, Ms Jenkins and Prof de Costa and College staff. Following the morning tea, guests were free to view the Frank Forster Library and the Museum as well as the displays in the Museum and Library foyers. Many of the guests enjoyed a guided tour around the building and viewed some of the special features and items of interest in the Collections.

A number of donations were received on the day, including a FRACOG gown, a MRCOG case record book, collections of books, and a monetary donation. Other Friends offered items for the Collections to be delivered at a later date. The College thanks all the donors.

Top, left to right: Dr Keith Layton and Ros Winspear, Archivist.
Bottom, left to right: President Dr Rupert Sherwood and Dr Kevin Barham.

Top, left to right: Di Horrigan, librarian and Ms Mary Russell.
Bottom, Mrs Kerry Spurrett.

Top, left to right: Dr Norman Morris and Acting CEO Valerie Jenkins.
Bottom, left to right: Valerie Jenkins and Mrs Pamela Barham.

Top, left to right: Drs Tony Krins and Keith Layton.
Bottom, left to right: Prof Caroline de Costa, Honorary Curator and Dr Kevin Barham.

News from the Historical Collections

Di Horrigan
Librarian
Gráinne Murphy
Museum Curator
Ros Winspear
Archivist

We wish to thank the following Fellows and Friends who kindly donated items to the Historical Collections in the latter half of 2011:

Butterfield, Dr Lou (Vic)	Books
Crowe, Dr Peter (NSW)	Book
Doig, Dr John (NZ)	Papers relating to Dr Alan Foate
Dudgeon, Dr Grahame (Tas)	FRACOG gown
Hon family (NSW)	Prof Edward Hon papers, medal, books
Howell, Dr Euan (Vic)	Books
Layton, Dr Keith (Vic)	FRACOG gown
Nelson, Ms Lindy	Collection of books
Pettigrew, Prof Ian (Vic)	Electric ventouse machine, instruments
Rao, Dr Jay (Vic)	Medical case containing instruments that originally belonged to Dr Alison Wright and also a range of contraceptives
Roche, Dr James (NSW)	Papers relating to Prof Edward Hon
Spurrett, Mrs Kerry (NSW)	MRCOG case record book, books

We are grateful to the following people who have generously donated to the Friends of the College Collection during the latter half of 2011:

- Day, Mr Arthur (Vic)
- de Costa, Prof Caroline (Qld)
- Farrell, Dr Elizabeth (Vic)
- Heycock, Ms Merle (Tas)
- McGlashan, Dr Hamish (WA)
- Kirsop, Mr Wallace (Vic)
- Roche, Dr James (NSW)
- Sparrow, Dr Margaret (NZ)
- Svigos, Prof John (SA)

Escaping domestic violence

Catherine Gander
Executive officer
NSW Women's Refuge Movement

Each year, RANZCOG College House staff members select a charity to which all monies from their fundraising activities are donated. By the end of 2011, we will have raised a sizeable amount of money to present to our charity. This year, RANZCOG staff selected the NSW Women's Refuge Movement as our charity.

Domestic and family violence is the leading cause of homelessness in Australia. Refuges provide a broad range of services, support and advocacy to women and children who have experienced domestic and family violence who are homeless or at risk of homelessness. Over the years, women's refuges, both individually and as part of the Women's Refuge Movement, have been significant contributors in the development of laws, policy, research and diverse programs. Two out of five women in Australia have experienced some form of violence since the age of 15, sadly much of the violence is committed by someone close to them.

One in every 38 Australian children aged newborn to four years old accessed a homeless assistance service last year. Every day, two in every three children who request immediate accommodation are turned away from homeless services. Over 60 per cent of children accommodated in homeless assistance services in Australia, which include women's refuges, have witnessed or been victims of domestic or family violence.

Pregnancy is usually a time of celebration and joy. Unfortunately this is not the case for many women in Australia. The Australian 1996 Women's Safety Survey drew attention the onset and escalation of domestic violence experienced by women during pregnancy. Of the women surveyed by the Women's Safety Survey who experienced violence by a previous partner, 42 per cent experienced violence during pregnancy, with half of these women stating that violence occurred for the first time while they were pregnant.

The Australian Bureau of Statistics' 2005 Personal Safety Survey, found of the women who experienced violence by a previous partner, 701 200 had been pregnant at some time during their relationship. Of these women, 42 per cent experienced violence for the first time while they were pregnant. Internationally, it is estimated that up to nine per cent of all pregnant women are victims of intimate partner violence.

Because pregnant women are at a high risk of domestic violence, it is important that obstetricians, gynaecologists and physicians screen for domestic violence at various times during the pregnancy. It is also important to take the approach that domestic violence is not a private matter, it has significant health implications for the mother and the baby and its occurrence is unfortunately common and requires monitoring.

How to screen for domestic violence

Domestic violence screening does not need to be a complicated process. It can be conducted by making the following statement and asking some simple questions: 'Because violence is so common in many women's lives and there is help available, I ask every patient about domestic violence':

1. Are you in a relationship with someone who threatens or hurts you?
   If yes,
2. Since you have been pregnant have you been, threatened, hit, kicked or otherwise physically hurt?
3. In the last year, has your partner put you down, humiliated you or tried to control what you do?

There is no point screening for domestic violence unless you have a range of up-to-date and appropriate referrals for the woman. Make contact with your local women and children's refuge as they can provide a range of confidential support services, not just accommodation.

Having accurate information and providing a supportive response to an expectant women's disclosure can determine whether the mother will seek further help now and in the future.

The work of the NSW Women's Refuge Movement

The NSW Women's Refuge Movement (NSW WRM) has two distinct arms. The first arm functions as a representative body of women's refuges and associated specialist domestic and family violence services within NSW, with a specific focus on the provision of support and advocacy for women and children who have experienced domestic and family violence. The WRM provides a representative and advocacy function for women's refuges and associated specialist domestic violence services and the women and children they support, and also remains committed to facilitating and supporting ongoing improvement and good practices within women's refuges. The second arm of the organisation supports the operations and effective delivery of 11 women and children's refuges across NSW.

Throughout its history, members of the NSW WRM have represented the issues for women and children experiencing or escaping domestic violence on government and inter-agency working groups, steering committees and advisory councils to provide advice and influence policy and legislation. In this manner, the NSW WRM has had significant input into improving the overall responses to women and children escaping domestic violence and sexual abuse.

The WRM's vision is that all women and children who experience domestic violence have access to quality services. Much of the WRM's current advocacy to, and work with, governments is focused on reducing the number of women and children turned away from women's refuges. Despite the commitment and incredible range of work undertaken by the WRM and women's refuges individually, refuges are not able to respond to all requests for accommodation from women making the courageous decision to leave violence. Over half of new requests for accommodation in women's refuges are turned away due to a lack of capacity.

References are available from the author upon request. More information on the work of NSW WRM is available at http://www.wrrc.org.au .

Obituaries

Prof Edwin Carlyle Wood
1929 – 2011

Prof Carl Wood, as he was universally known, was born in Melbourne on 28 May 1929. His father was a respected gynaecologist and his elder brother, Alex, a consultant urologist. He was always top of his class at school and at university and was a champion athlete. When qualified as a gynaecologist from Melbourne University in the 1950s, he dedicated his life to making obstetrics and gynaecology a more personally satisfying experience for women.

Carl was an unconventional man, a man whose vision was to stretch the norms and to challenge the possible. He inspired those who worked with him to make a difference, to feel comfortable working 'outside the norm' and to believe in the possible. He was a creative genius who made clinical gynaecology a holistic subject. He studied reproductive medicine as a natural integrated process, linking love and sexual desire to conception, pregnancy, birth and ultimately the bonding of mother and baby. His work in endocrinology, fetal monitoring, tubal microsurgery, psycho-sexual medicine, endoscopic surgery and independently, in vitro fertilisation (IVF), were extraordinary in scope and impact internationally.

He joined Queen Victoria Hospital, Melbourne, in 1965, and was responsible for the world's first IVF pregnancy in 1973. Carl received many honours, including being made a Commander of the British Empire in 1982, he was awarded the Axel Munthe Prize in 1988 for his accomplishments in pioneering IVF and was named a Companion of the Order of Australia in 1995. His team produced 14 of the 16 world's first deliveries of IVF children, the first frozen embryo babies, the first donor embryo babies and numerous other major advances in assisted conception. Foundation Chair of O and G at Monash University, Carl taught most of the teams around the world the method of IVF involving the use of fertility drugs that evolved into the modern methods of IVF-ICSI assisted conception. He established the business model for modern IVF clinics and exported this model to help treat infertile patients across the globe. He was recognised as the visionary who changed reproductive medicine forever, enabling couples the opportunity for creating a family where previously there existed no hope. He was a man rich in ideas who was interested in those of others and was the nicest and most interesting man you could ever meet. He had a very large following of students and registrars from around the world.

Carl is survived by his daughter Caroline and sons Gavin and Simon. His first wife Judy brought him back into the family soon after 2001, when he began showing the symptoms of Alzheimer's disease. In the last five years he lived in a home for the severely disabled, visited by close family and a few friends who cared deeply for this wonderful man.

Prof Alan Trounson
FRANZCOG (Hon)
California, USA

Prof Anthony McCartney
1941 – 2011

Prof Anthony John McCartney, affectionately known as 'Tony', died peacefully at home surrounded by his family on 22 October 2011. He was working until one week before his untimely death from cancer.

Tony was born in Perth at St John of God Hospital, Subiaco, WA. He attended St Joseph's Marist College in Subiaco and then went on to the University of Western Australia (UWA). At UWA, he not only completed his MBBS, but was also a leading light in the university football club. After graduation, he spent two years at Royal Perth Hospital as a Resident. He then went to the Royal Women's Hospital in Melbourne, where he commenced training in O and G. After two years in Melbourne, he moved to the UK and did a further two years of training in O and G in Birmingham. He returned to Perth in 1973 as a Senior Registrar at the King Edward Memorial Hospital for Women (KEMH). During that time, he spent two months in New York as the Galloway Fellow at Memorial Sloane Kettering Cancer Center. At the completion of his term as a Senior Registrar at KEMH, he was awarded the PF Sobodka Scholarship from UWA and used this to return to Memorial Sloane Kettering as a Fellow in Gynaecologic Oncology for two years. He returned to KEMH in 1976 as Australia's first fully trained gynaecological oncologist.

Tony established the Western Australian Gynaecological Cancer Service at KEMH and St John of God Hospital, Subiaco, and led this service until 2008. In this role, he was responsible for the training of a large number of gynaecological oncologists and gynaecologists especially in the areas of cancer surgery and surgical skills. He was a pioneer in the development of gynaecological laparoscopic surgery in Australia and performed the first laparoscopic hysterectomy in Western Australia in 1990. He developed the McCartney tube to facilitate the performance of total laparoscopic hysterectomy and enable the removal of pelvic masses. Though, initially, the technique was used for benign surgery, Tony was at the forefront of the evolvement of the technique for the more extended surgery required for the treatment of gynaecologic malignancy.

In later years, in addition to his clinical responsibilities, he became Professor of O and G at Notre Dame University at Fremantle, Western Australia, and very much enjoyed the contact with medical students. He was internationally renowned as a gynaecological cancer surgeon and a pioneer in advanced laparoscopic pelvic surgery. He will be sadly missed by his wife Jacinta, his children and family, many friends, his professional colleagues and, most importantly, his patients.

Dr Louise Farrell
FRANZCOG
WA