



# O&G

**Magazine**

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## Indigenous health

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists



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Cover image ©Shutterstock Andrew Kerr  
 A hand-carved Maori spiral symbol. The  
 spiral represents a fern frond, bringing new  
 life and new beginnings.

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# From the President



**Dr Rupert Sherwood**  
President

Welcome to the Spring edition of *O&G Magazine*. The theme for this edition is Indigenous health, with an appropriate focus on the health of Indigenous women and their families.

In my capacity as President, I attended the recent RANZCOG Indigenous Women's Health (IWH) conference held 2–5 June 2011, in Cairns, Queensland. After the presentations and discussions at this very successful meeting it was clear to me that the issues around Indigenous women's health are

multi-dimensional and complex, often involving whole families. They require approaches that use both traditional health intervention models and also more innovative methodologies to ensure progress towards more equitable health outcomes for Indigenous peoples.

Media coverage often projects a rather negative view of our ability to reverse the numbers that describe a bleak outlook for Indigenous women and their babies. However, having attended the RANZCOG IWH meeting and seen the genuine enthusiasm and energy for a truly collaborative approach to the problems was more than just reassuring – it illustrated that real solutions will come from those delivering healthcare in the community, as much as from government interventions and bureaucratic re-modelling of existing health infrastructure.

I would encourage all Fellows, whether or not they are involved in Indigenous health, to attend one of these triennial meetings. Your support and input will be welcomed, and you will learn much more than you could from the news or medical literature.

Two important changes with respect to College training programs have been introduced since my last report to the membership in the Winter edition of *O&G Magazine*.

The first is the new suite of Diploma programs for general practitioner training in women's health. As well as aligning the existing Diploma and Diploma Advanced training programs to the recently revised curricula, the official launch on 22 July 2011 saw the introduction of the new Certificate of Women's Health (CWH). This recertifiable qualification, developed with input from members of RANZCOG, ACRRM and RACGP, is designed to enable the delivery of shared antenatal care and office-based women's healthcare in urban, regional and rural settings. The curriculum is supported by an online educational platform that, in combination with supervised and mentored training, means training can be undertaken either during hospital training or while in general practice.

Many GPs who provide shared care and office gynaecology as part of their practice currently have no formal links with our College and no recertifiable qualifications with mandated CPD requirements. Increasingly, the acute-care facilities with which these practitioners share antenatal care are requiring some recognised training and qualification for credentialling purposes.

The existing Diploma required at least some hospital experiential

component and this proved to be an understandable barrier to GPs in established practice who could not take time out from a practice where often they were the sole provider or part of a small and essential team of providers. The revised program, with the ability to up-skill to a recognised women's health qualification, without the need to return to a hospital position, seeks to address these issues; recognising the key role of the rural GP working in what is often isolated practice, to the provision of women's healthcare.

Secondly, the Training Program Review Working Party (TPRWP), chaired by immediate Past-President Dr Ted Weaver, has considered submissions from a very wide range of those involved in our College training program, including Trainees, supervisors, the hospitals and jurisdictions as well as Councillors and Fellows. Following extensive debate and discussions at three Council forums, the following recommendations were passed by Council on Friday 22 July 2011:

1. All requirements for membership must be met prior to the commencement of Advanced Training.  
This will mean that the MRANZCOG must be obtained before starting (elective) Advanced Training. Trainees with an expectation of completing all the requirements within six months may apply for, and be appointed to, Advanced Training positions, but that training time will only be credited if the requirements are met prior to commencing the position.
2. a. The maximum training time for completion of MRANZCOG is six years.  
b. The maximum training time for completion of FRANZCOG after obtaining MRANZCOG is three years.  
c. The maximum allowable leave time from the MRANZCOG/FRANZCOG training program is two years.  
These revised timeframes allow adequate training time to complete the program(s), while also accommodating parental and other approved leave.
3. Time taken\* in undertaking an approved higher research degree is exempted from the maximum allowable leave time from the MRANZCOG/FRANZCOG. (\*Maximum time to be determined.)  
This regulation aims to promote academic O and G and allow those undertaking higher degrees to not be penalised with respect to maximum times for the Integrated Training Program (ITP) and Advanced Training. Development of an academic stream and Advanced Modules, which are based on research, will allow Trainees to complete research as part of accredited Advanced Training.
4. The MRANZCOG Written Examination can be attempted as follows:
  - a. A Trainee may apply to attempt the written examination if they have completed six months of training and there is an expectation that 12 months of satisfactory training time from the commencement of training will have been completed by the date of the examination.
  - b. The first attempt to pass the written examination must be undertaken by the satisfactory completion of 30 months of training time.The most important aspect of this regulation is that the standard of the membership examination will not change, despite the ability to sit the examination earlier.
5. A Trainee may apply for the Structured Oral Examination if they have satisfactorily completed 18 months of training time and there is an expectation that 24 months of satisfactory training time will have been completed by the date of the exam.



There must be at least a six-month gap between passing the written examination and attempting the oral examination.

6. The written and oral examinations can each be attempted a maximum of three times.

There has been strong support for this revision to the number of allowable attempts at the exams. This is supported by the very low pass rates for candidates sitting the exams for the fourth attempt under current regulations. The usual provisions remain for candidates who request a fourth attempt to demonstrate exceptional circumstances to the Training Accreditation Committee and Board.

7. The following recommendation be referred to the Subspecialty Committee:

- a. Subspecialty training may commence in the first year of Advanced Training (in other words, following elevation to MRANZCOG) at the discretion of each Subspecialty Committee.

Recognising that subspecialty training takes an additional three years and often training in current year 5 can be of limited relevance to the eventual scope of practice of a subspecialist, starting subspecialty training immediately after completion of the ITP may be appropriate in some subspecialties with selected Trainees.

Much other work continues within the College and, as always, the strength of RANZCOG is in the combination of a hard-working and dedicated College staff and the unquantifiable pro-bono contributions of the Fellows and members who give their time and efforts to make sure that our College maintains its pre-eminent position as the leading women's health organisation in Australia and New Zealand.

As always, feedback is welcome by email to [president@ranzcog.edu.au](mailto:president@ranzcog.edu.au)

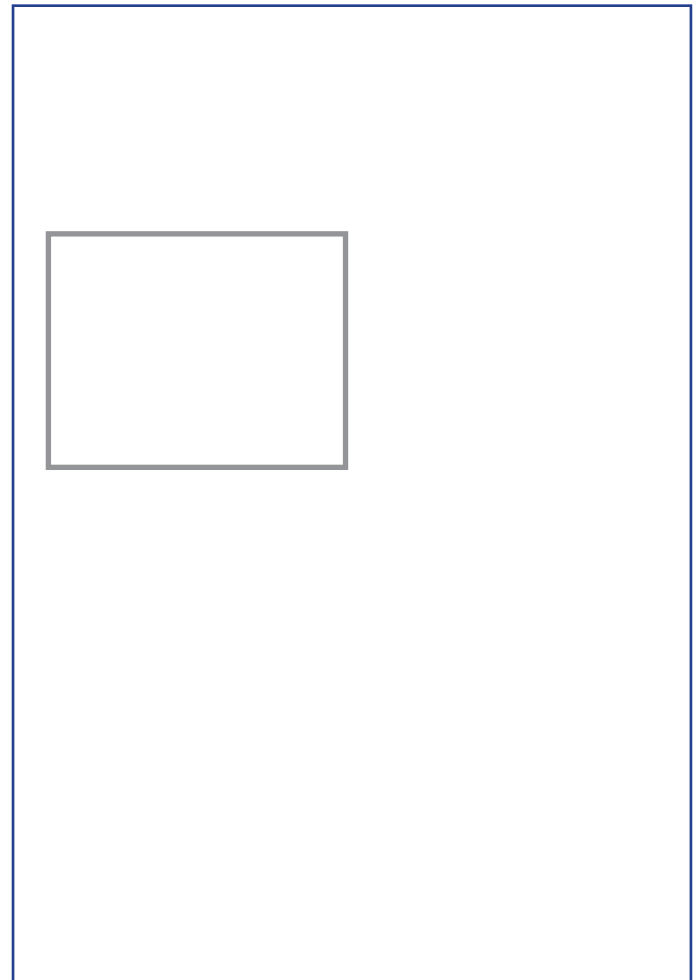
At this point it is intended that the revised program will apply to the intake of Trainees who commence in 2013, and who potentially complete the ITP at the end of 2016.

This allows the TPRWP subcommittee – charged with revising post-Membership Advanced Training, previously 'Elective' training, and also with developing a set of Advanced Training Modules – a five-year timeframe to ensure the educational and training tools and programs produced are fit for purpose.

There remains a significant body of work to be done with development of the Advanced Training program and ensuring appropriate assessment processes are in place so that all graduates with the FRANZCOG qualification are suitably trained and meet the stated outcomes of our curriculum. Dr Weaver will continue to oversee a working group to progress these aims.

Another increasingly important issue for our College is workforce planning: current numbers, where they work, how much and for how long into the future do they plan to continue? Our online Practice Profile, to which the membership (both Fellows and Diplomates) has responded with enthusiasm, resulted in the last survey reflecting the current practice of approximately 75 per cent of Fellows. This valuable information not only helps inform our College, but also the data is invaluable in my negotiations with government agencies that plan (and fund) the workforce and vocational training.

To manage the multiple aspects of the O and G workforce numbers, the Board has recently approved Terms of Reference for a Workforce Committee, a small group to be chaired by the Vice-President (Education and Training), currently Prof Michael Permezel. The College needs to be able to respond in a timely and informed manner to questions relating to capacity in training and service delivery across both public and private sectors. The subspecialty groups are particularly at risk from even small variations in the balance between intake and retirement, and it is issues such as these that will be part of the work of the Workforce Committee.



# From the CEO



Dr Peter White  
CEO

The theme for this edition of *O&G Magazine*, Indigenous Health, is timely for a range of reasons pertinent to the medical profession and the wider community generally, and organisations such as the specialist colleges collectively and individually. In the case of RANZCOG, it comes shortly after the holding of the second RANZCOG Indigenous Women's Health Meeting in Cairns in early June. Following the inaugural meeting held in 2008, in Darwin, the Cairns meeting attracted in excess of 300 delegates to discuss

a wide range of issues under the theme 'Nurturing, Providing, Gathering for Better Health'. The meeting delegates represented a cross-section of groups involved in the complex issues associated with Indigenous health in Australia. The Organising Committee for the meeting was coordinated under the leadership of Dr Margaret O'Brien, with the meeting program constructed by a group led by Dr Jacqui Boyle, and I offer my congratulations and thanks to them and their teams, as well as the College staff who worked tirelessly to ensure the success of the meeting.

The range of contributions contained in this edition of *O&G Magazine* provides those who were unable to attend the Cairns meeting with insight into some of the issues covered at the meeting, as well as enabling those who did attend to reflect on the meeting and the lessons gleaned from attendance. The contributions also address issues relating to Maori women's health in New Zealand, an area with both commonalities and points of difference to the situation facing Indigenous Australians.

In early July, the President and I attended the Ninth Biennial meeting of the Pacific Society for Reproductive Health (PSRH) in Honiara, Solomon Islands. The meeting theme was 'Maternal Health Matters: Accelerating Progress Towards MDG5 Targets' and provided those present who do not reside and/or work in environments akin to those covered by the bulk of the PSRH membership with insight into the varying complexities of delivering maternal and child healthcare in such settings. A review of the meeting can be found on p71.

The College has had a long involvement in the development and support of PSRH as an organisation, and attendance at the biennial meetings of the society reinforce the need for RANZCOG to remain committed to ongoing support, through the College's Asia Pacific Committee and other mechanisms. Congratulations are extended to Dr Alec Ekeroma on his election to the presidency of PSRH for the next two years, as well as to Ms Carmel Walker on her award of the inaugural President's Medal of the PSRH, bestowed at the meeting held in Honiara. As coordinator of the College's activities in relation to women's health in the Pacific Region, Carmel has been a long-term supporter of improving maternal and child health in the Pacific and this award is testament to her commitment to that area, as well as to the work of PSRH.

Of particular relevance to Provincial Fellows is advice regarding an extension of the Specialist Obstetrician Locum Scheme (SOLS)

program for a further 12 months, with funding to the value of \$1.5 million. The Commonwealth has indicated that a review of the program, along with other Commonwealth-funded rural locum programs (GP obstetric, anaesthetic), will be undertaken during this financial year. The program is significant in its ability to provide locum relief to rural specialists and GP obstetricians, and new indications of Fellows willing to be involved in providing locum relief are always welcome (email: [sols@ranzocg.edu.au](mailto:sols@ranzocg.edu.au)).

The College has also been advised of recent funding under the Rural Health Continuing Education (RHCE) program for projects relating to practice visits in Australia, as well as the conduct of a perinatal morbidity and mortality audit involving all O and Gs practising in rural Australia. Another RHCE project, involving the conduct of PRactical Obstetric Multi-Professional Training (PROMPT) workshops in Queensland, is subject to ongoing discussions between the College and the bodies responsible for the governance of the PROMPT course. It is hoped that these discussions will be concluded in the near future with a positive outcome for all involved so as to enable this activity to progress. In addition to the RHCE projects described above, 11 RANZCOG Fellows practising in rural and remote Australia have been successful in obtaining individual RHCE grants to undertake CPD activities in the most recent round of funding applications for this initiative of the Australian Government aimed at supporting rural and remote health practitioners, including medical specialists.

'In 2008, the College received an extension to its accreditation to the maximum possible period of ten years...the College is required to undergo a full reaccreditation before the end of 2013.'

One of the major activities to be undertaken by the College during the next 18–24 months is the process of reaccreditation by the Australian Medical Council (AMC). The College was first accredited by the AMC in 2003. The accreditation process involved the submission of comprehensive documentation addressing the accreditation standards, as well as a series of meetings by an AMC accreditation team with College stakeholder groups. The College received accreditation for an initial period of six years, subject to satisfactory reporting requirements.

In 2008, the College received an extension to its accreditation to the maximum possible period of ten years. As a result of this, the College is required to undergo a full reaccreditation before the end of 2013. This will require a significant commitment of College resources, as well as strategic planning in the lead-up to the reaccreditation process. The accreditation standards have undergone some changes since 2003, and there have been changes to the process itself due to factors such as the involvement of the Medical Board of Australia (MBA) in accreditation activities under the National Registration and Accreditation Scheme (NRAS) in Australia and the execution of a Memorandum of Understanding between the AMC and the Medical

Council of New Zealand (MCNZ) to align the accreditation activities of the two bodies.

As part of ongoing development, College activities are being reviewed in the context of the requirements for reaccreditation of the specialist medical colleges. Commencing with senior College staff, an iterative process will compose recommendations for consideration by the College Board for implementation in the period leading up to the reaccreditation process. It is anticipated that the initial recommendations will be presented to the Board at its September meeting.

I have written previously of externally initiated activities relating to the assessment of overseas trained doctors (the Australian Government House of Representatives Inquiry into Registration Processes and Support for Overseas Trained Doctors) and specialist international medical graduates (IMGs) (Australian Health Ministers Workforce Ministerial Council [AHMWMC] / Australian Health Workforce Advisory Council [AHWAC]; as well as the MBA).

'I wish to take this opportunity to thank all College members with whom I have interacted during my time at RANZCOG for their ongoing commitment to the organisation and support of the College staff.'

The House of Representatives Inquiry initially scheduled three public hearings; however, additional hearings have been announced. At the time of writing, there are currently a total of ten hearings scheduled at various locations throughout Australia, with a majority of the hearings having now been conducted (hearings in Cairns and Townsville are still pending). The Inquiry's report is expected to be tabled before the end of the year. The AHMWMC/AHWAC referral is in progress, with the College having met with the consultants appointed to undertake the task. The work of the MBA has commenced, with a recent meeting held to examine the issues associated with the assessment and registration of specialist IMGs under NRAS.

The issue of specialist IMG assessment is clearly an area in which the College must remain acutely aware of policy developments of the relevant regulatory bodies in both Australia and New Zealand. As such, the College takes available opportunities to contribute positively and constructively to activities that arise and which allow the policy debate to be actively contributed to in this complex and important area of College activity.

The report from the College Director of Education and Training, Ms Lyn Johnson, which was tabled along at the recent meetings of the College Board and Council, indicated the activity currently being undertaken in relation to these core aspects of College business. As indicated by the President in his column, the work of the FRANZCOG Training Program Review Working Party is significant and progressing, and there are initiatives in train in just about every area covered by the remit of education and training in the College. This involves areas such as CPD, e-learning resources, examinations and workplace-based assessment, and trainee selection.

The President has referred to the launch of the new suite of women's health qualifications at the College as part of the activity associated with the most recent meetings of the College Board, Council and associated major committees. The revised qualifications have been

developed under the auspices of the Conjoint Committee for the Diploma of Obstetrics and Gynaecology (CCDOG) and are a testament to the efforts of all involved. The implementation comes at an opportune time, given the range of initiatives being developed by health jurisdictions throughout Australia, and represents significant opportunities for the College to undertake constructive dialogue with health jurisdictions and related bodies in relation to the O and G workforce.

The College is also seeking to be proactively involved in workforce-related initiatives through discussion in the work of Health Workforce New Zealand and Health Workforce Australia. To this end, the Board has recently approved Terms of Reference for a Workforce Committee to be chaired by the Vice-President (Education and Training), currently Prof Michael Permezel. The primary function of the committee is to consider and recommend to the Board actions that may be taken to address the provision of a sustainable specialist and subspecialist O and G workforce in Australia and New Zealand.

As readers receive this issue of *O&G Magazine*, the process of nominations for elections to positions on all regional committees will likely have just been completed. This represents an opportunity for all RANZCOG Fellows to engage formally with the College through activities in their region, with a healthy, robust set of regional committees important to the wellbeing of RANZCOG as an organisation. I thank all who have nominated and, as I have before, would encourage all RANZCOG members who are not formally involved with the College and its activities to consider ways in which they may be able to contribute. The specialist colleges are reliant on the contributions of their members and there is no indication of this becoming any less true in the foreseeable future.

Due to a period of extended leave until shortly after the November meeting of Council, the next 'From the CEO' column that appears in the Summer 2012 edition of *O&G Magazine* will be the first since 2006 that will not be written by me. The role of Acting College CEO from mid-August to mid-November will be undertaken by Ms Valerie Jenkins and I wish Valerie well in working with the Board and Council to steward the College during this period. Valerie is a long-serving senior member of the College staff who has made significant contributions to areas such as CPD and Provincial Fellows matters during her tenure as Manager of Fellowship Services. Along with Mr Robert Kelly, the College Finance Manager, Valerie will be retiring at the end of this year and I wish to take this opportunity to thank them both for their service and contributions over the time that they have been associated with RANZCOG.

I acknowledge and thank three members of staff who were recognised at the July Council Week 'At Home' for ten years' service to the College: Andrew Haxton, Ann Robertson and Penelope Griffiths. They join a number of others who have been with the College for between ten and 25 years. The College is fortunate to have a dedicated and professional staff who are committed to progressing the work of the College.

As I contemplate a three-month period away from the daily activities of the College, I wish to take this opportunity to thank all College members with whom I have interacted during my time at RANZCOG for their ongoing commitment to the organisation and support of the College staff. As a membership organisation, RANZCOG represents a component of the healthcare system in Australia and New Zealand that plays an important role in ensuring the delivery of safe, high-quality care. I am indeed fortunate to have had the involvement with the College that I have to this point, and I look forward to continuing that involvement from later in the year.

# Indigenous health

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Prof Caroline de Costa  
FRANZCOG

of the College's Indigenous Women's Health Committee, which emphasises the importance the College places on contributing to improvements in the health of Indigenous women, and which amply fulfils the function of an editorial around our main theme.

Welcome to this year's Spring issue of *O&G Magazine*. The editorial on this occasion will be shorter than usual, as we have devoted much of the issue to articles derived from presentations to the second RANZCOG Indigenous Women's Health Meeting, which was held in Cairns at the beginning of June. These articles are preceded by an excellent introduction from Dr Margaret O'Brien, chair

You will also find two articles about the state of obstetric care in our near neighbour, Papua New Guinea (PNG). One is a short piece from Médecins Sans Frontières; the other describes a remarkable and concerning study undertaken by a PNG obstetric registrar, Dr Barry Kirby, on maternal mortality in Milne Bay Province. The contrast with Australian practice could not be greater. At the end of these articles are details of ways in which Australian practitioners can help colleagues in PNG to reduce numbers of maternal deaths in that country.

You will also find most of our usual features, including a review of antibiotic use in pregnancy, a treatment update on induction of pregnancy, Journal Club and a Q&A that addresses parvovirus in pregnancy. The gynaecology management update has been held over until the Summer edition.



# A meeting of hearts and minds



**Dr Margaret O'Brien**  
FRANZCOG  
Chair of the RANZCOG  
Indigenous Women's Health  
Committee

The second RANZCOG Indigenous Women's Health Meeting, held at the Cairns Convention Centre in June, was a great success. The theme of the meeting was: nurturing, providing, gathering for better health.

This was the second clinical conference organised by members of the RANZCOG Indigenous Women's Health Committee (IWHC) and other key parties. The conference was planned over the two preceding years, involving both academic and organising committees. Dr Jacqueline Boyle was chair of the academic committee and

I wish to thank her and her team for developing such a varied and stimulating program. I also wish to thank all the speakers for their efforts and time given so freely. The conference theme was 'nurturing, providing, gathering for better health'. The meeting

logo was adapted from a commissioned painting by Aboriginal health worker and artist Lillian Fourmile from Mulungu Aboriginal Medical Service at Mareeba on the Atherton Tablelands. The painting depicts women gathering food.

The current members of the RANZCOG IWHC are:

Chair	Dr Margaret O'Brien
Deputy Chair	Dr Jacqueline Boyle
Members	Dr Chris Hughes
	Dr Marilyn Clarke
	Dr Jenny Mitchell
	Dr Sue Jacobs
	Prof Ajay Rane
	Dr Anthony Geraghty
	Dr Kristine Barnden
Ex-Officio	Dr Peter White, CEO
College staff	Ms Nola Jackson, Ms Ann Robertson

The IWHC was established as a full committee of the Council on 17 July 2009, after the inaugural Indigenous Women's Health Meeting held in Darwin during August 2008. The Darwin meeting attracted 350 delegates, many of whom were Indigenous health workers, however, this was not the first ever RANZCOG Indigenous women's health activity. In 1994, Prof Michael Humphrey and others (including Dr Michael O'Connor and Prof Caroline de Costa) held a clinical meeting in Cairns, involving RANZCOG Fellows and Trainees, aimed at improving the outcomes for Indigenous mothers.

Aboriginal midwife Sister Alison Bush attended this conference and subsequently developed the antenatal skills transfer program that, despite overwhelming difficulties, instructed remote-area Indigenous health workers in the basics of antepartum and intrapartum care. This program continued for ten years until health worker training was fully integrated into mainstream educational institutions. For her great contribution to Indigenous education, the College has honoured the memory of Sr Bush (who passed away in October 2010) by instituting the Alison Bush Memorial Oration to be held as an opening address at each RANZCOG Indigenous Women's Health Meeting. Sr Bush was on the organising committee for both the Darwin and Cairns meetings and an Honorary Fellow of RANZCOG. The first Oration was given by the Acting Governor of Australia, Her Excellency Professor Marie Bashir, and Dr Robyn Shields (transcripts of their speeches can be found on p14).

Around 300 delegates attended the 2011 Cairns meeting for the three days of lectures and discussions, which ranged from clinical topics to a challenging presentation on family violence and abuse. Men's business had its own session and Cape York Health Service staff members were integral to Indigenous involvement in the conference. The welcome to country by Teresa Dewar and the Gimuy Walubarra Indinji Women's Dance Group set the collaborative spirit of the meeting, which was enhanced by a very interactive evening of Aboriginal culture and dancing at the



*The theme of the meeting – nurturing, providing, gathering for better health – was illustrated by the artwork of Lillian Fourmile.*

Tjapukai Aboriginal Cultural Park, just to the north of Cairns and the venue for the conference dinner. Fortunately, we were able to share this great experience with a large number of Indigenous delegates through Federal Department of Health and Ageing grants for registration and travel.

We were also fortunate to receive corporate sponsorship from Sonologic, Bayer Health Care and Merck Sharp and Dohme. The organising committee is grateful to all our sponsors and the many exhibitors who made the long journey to Cairns. I would also like to thank all the members of the organising and academic committees and the RANZCOG staff, especially Ms Kylie Grose, Ms Julia Serafin, Ms Nola Jackson, Ms Georgina Anderson, Ms

Lee-Anne Harris, Ms Val Spark and Ms Kate Lawrey for working so hard to bring many people from diverse backgrounds and locations together to share experiences and strive for a common goal of improving Indigenous health. Involving future generations of RANZCOG Fellows, and especially Indigenous RANZCOG Fellows, in future Indigenous Women's Health Committees and meetings is, in my view, crucial to the long-term success of RANZCOG engagement in Indigenous health, both clinically and politically.

Currently, the IWHC is exploring new ways to improve a RANZCOG Trainee curriculum in Indigenous health. This includes online portals for cultural competency training and links to other organisations involved in Indigenous medical training and education about Indigenous health.

RANZCOG engagement with the issues of Indigenous health outcome disparity in Australia has necessarily expanded since the pioneering work of visionaries such as Prof Michael Humphrey, who established an O and G outreach service to Cape York communities in the early 1990s. This service, affectionately known locally as 'FROGS', is now part of the core clinical responsibilities of the O and G staff at Cairns Base Hospital and consistently provides around 2000 consultations per year to women in remote and rural areas of Far North Queensland. The service now employs a full-time female Aboriginal health worker who is an independent provider of 'well woman screening' with her own provider number and client lists. We hope over time that Indigenous midwives and doctors will help fill the positions in this service.

In 1994, as a green and naïve O and G Trainee propelled into Royal Darwin Hospital by the illness of one of their registrars, I suddenly came into contact with the realities of Indigenous health disparity and Indigenous suffering. With the assistance of my fellow registrars, especially Dr Chris Hughes and Dr Michael O'Connor at RANZCOG, we submitted a proposal for O and G outreach services in the Top End based on Prof Humphrey's service in Cairns. This service is also now well established and many RANZCOG Trainees and Fellows have been able to experience remote Indigenous communities and health first hand through travelling on 'outreach'. Similar services followed in Alice Springs and, via Medical Specialist Outreach Assistance Program funding, throughout most of rural Australia.

Over the years there have been many reports about, and 'initiatives' to improve, the health and welfare of Indigenous Australians. There has, at times, been a bureaucratic tendency to view the disparity in health outcomes as unfathomable and even insurmountable. My personal belief is that actions are far more potent than the words contained in endless reports and the only way to overcome what was once described by a colleague as 'phenomenal indifference' is to become involved clinically, professionally and emotionally in Indigenous health. The 2011 meeting in Cairns is just the beginning of what I hope will be a long tradition of triennial RANZCOG Indigenous Women's Health Meetings for generations to come. Lastly, I would like to thank Dr Rupert Sherwood and Dr Louise Farrell for supporting the Committee and the meeting.

Dr Sherwood reminded us in his closing speech that many Australians are sadly still not aware of the full extent of Indigenous disadvantage in this country. We are thus dedicating this edition of *O&G Magazine* to the first Australians and first new Zealanders.

I hope you enjoy the following articles based on presentations delivered at the conference.



*Attendees of the Tjapukai conference dinner were invited to join the dancing.*

# Honouring Sister Alison Bush



Her Excellency Prof Marie Bashir  
Governor of New South Wales



Dr Robyn Shields  
Royal Prince Alfred Hospital

The inaugural Alison Bush Memorial Lecture was delivered at the 2011 RANZCOG Indigenous Women's Health Meeting by Her Excellency Prof Marie Bashir. This was followed by the first Alison Bush Oration, delivered by Dr Robyn Shields.

It was a singular honour to be asked to participate in the inaugural Alison Bush memorial lecture and a privilege to speak of her life and unique contribution. Alison Bush enlightened and enriched the lives of all with whom she came in contact. As a senior nurse in midwifery, with exceptional skills in both the practical application of her art and in contributing to the education of colleagues, medical students, senior consultants and Indigenous midwives in remote areas, she was accorded a unique honour by this College who conferred upon her an Honorary Fellowship.

the importance of cultural sensitivity and respect, bringing calm to sometimes chaotic situations.

Following her appointment in 1993 as the Aboriginal liaison midwife, she also provided consultation and education across all hospital departments and to community agencies, ever in demand for her expertise both within the hospital and the broader community. Across these years, she undertook a substantial responsibility in teaching and skills transfer, and in serving on a range of advisory and planning committees for the State of New South Wales and the nation. Her numerous prestigious awards included: the aforementioned Honorary Fellowship of this College as well as:

- Honorary Fellowship of the New South Wales College of Nursing
- Inductee in the Aboriginal Hall of Fame
- A finalist in the 2010 New South Wales Woman of the Year award
- The Centenary of Federation medal
- An Officer (AO) in the Order of Australia awards

'In all situations, she eloquently demonstrated the importance of cultural sensitivity and respect, bringing calm to sometimes chaotic situations.'

At the time of her death, at the age of 68 in October 2010, it was estimated that hers was the first face seen by over 1000 newborns over four decades. Alison, the eldest of ten children, was born at Royal North Shore Hospital in September 1942, one of twin girls whose mother had been evacuated from Darwin following the World War II bombing raids on that city by the Japanese. Both Alison's parents were from the Roper River area of Arnhem Land. They met however in the later years of their childhood at the Groote Eyland mission after their removal from family under the infamous, now discredited, policies of that period.

After the war, the family returned to Darwin, where Alison's mother, working as a teacher's aide, placed a high priority on the education of her children. Indeed, the twins were sent for several of their high school years to Bowral under the supervision of friends and subsequently they commenced their nursing training in Sydney.

Alison's professional career began at Marrickville Hospital, Sydney, in 1960, and following further studies in midwifery and infant welfare in New Zealand, she began her illustrious years at Royal Prince Alfred Hospital in 1969. It was in this environment, a teaching hospital of the University of Sydney, which valued its association with the nearby urban Indigenous community of Redfern, and which received numerous complex referrals from rural New South Wales, that Alison became a valued advocate for Indigenous people. In all situations, she eloquently demonstrated

But beyond her exceptional skills and numerous awards, Alison had an innate modesty, reflected in the quietness of her voice and the dignity of her presence. Nevertheless, she also had an extraordinary range of interests. Strengthened by her lifelong faith, she sang in the church choir. And from her days at school, she continued to play and to excel in sport, representing New South Wales in cricket in the 1960s and 1970s, and representative hockey in the 1970s.

It is noteworthy that during her illness last year, she recalled earlier years with delight, riding through the suburbs on her Vespa motorcycle, cracking the big waves at Bondi as they rolled into shore, attracting compliments from the local young surfers as she emerged from the water. Treasured memories held by Dr Robyn Shields and myself are of our travels with Alison to visit the sacred sites in Arnhem land and participate in gatherings of remote and rural health professionals.

It is with a deep sense of gratitude that we reflect upon Alison's life. And we know how deeply touched and proud she would be to know that we have gathered here together to honour her. I thank you all.





## The Alison Bush Oration

First, I would like to acknowledge the traditional owners, past and present of whose land we gather on today.

I am honoured to be able to present the first Alison Bush Oration. Sister Bush, as she was fondly referred to by many who knew and respected her, was certainly a trailblazer, not only in nursing but also in the much-respected area in which she practiced as a midwife at Royal Prince Alfred Hospital, in Sydney. Her lifelong career was dedicated and committed to the health and wellbeing of mothers and babies from all walks of life. Her love of Indigenous people was certainly a hallmark of her practice and she was known and respected by both many Aboriginal people and her peers, both nursing and in the medical field. All stood in awe of her presence, wisdom and sense of humour.

My professional background is not in O and G, but I have had a long association working in mental health and mostly dedicated to Aboriginal mental health. In the earlier years of my career, Alison and I shared many patients, most of whom were expecting a child and either had a mental illness or suffering mental distress. Our personal and professional lives were intertwined and helped build the foundations of a lasting friendship and bond. My years working in the field of mental health, working with some of the most disadvantaged groups in the mental health system and in the prison system in New South Wales, were an absolute privilege. It was here

that I developed a loving and long friendship with Prof Bashir who has been a mentor and inspiration to many of us, including Alison.

When I look back at my childhood, I have no doubts that I was destined to work in the area of mental health and with people who have suffered from a serious mental illness or disorder during some stage in their life's journey. I grew up in South East Queensland and our family home overlooked a large psychiatric institution called Sandy Gallop. The name changed later to Challinor Centre and it is now home to the University of Queensland. I can clearly recall passing by the large institution with its high barbed-wired fences. No one really talked about Sandy Gallop or about the people who were housed there, willingly or unwillingly.

Our history tells us that most psychiatric institutions were established to separate and protect the mentally ill and also to house those who were considered criminally insane. In among this hidden population it was easy to find Aboriginal people incarcerated behind the walls of the asylum, but most of these belonged to the generations who undoubtedly were unwillingly separated from their families.

For decades, Aboriginal people have been subjected to and have endured the continuation of bad policy decisions that have often resulted in long-term negative intergenerational consequences. These negative consequences have now become the foundation of our existence. We as Aboriginal people are no longer the proud hunter and gatherers of this land, but have become a group of people disempowered and alienated from participating in mainstream society. Government policies that are made on the run or in response to crises will often end in disasters. With the evidence that the development and implementation of policies that enable crises and negative cycles to continue and go on unchallenged, it is almost as though no one has learnt from our past mistakes.

The individuals I have worked with who have personally experienced separation from their families often tell heart-wrenching stories of travelling along a traumatic pathway associated with the poorest mental health and unbearable emotional pain. Their personal stories start with a familiar beginning and end with the most predictable outcomes. I am sure most workers sitting here today will have heard similar stories that often go like this:

'I was removed from my mother or family at a very young age. I can remember being placed into foster home after foster home, because my stay was only meant to be a short one. I did not have an opportunity to form relationships with my carers because I was moved around so often. I rarely saw my birth mother or family and I don't really know who my family are. While I was in foster care, I was subjected to mental abuse, emotional deprivation and neglect or was subjected to forms of physical abuse. At a young age I started drinking and taking drugs to take away the pain, because I felt I had no one who could help me. I have no friends and have been admitted to psychiatric hospitals a couple of times and have been in and out of prison. At least in prison I have a routine, given three meals a day and a bed. Prison has given me a sense of belonging.'

These stories are far too common and are the depiction of the confronting realities that individuals have had to deal with in a



lifetime. For individuals whose early separation from their only source of identity create patterns of certain coping behaviours, which set up cycles of helplessness and or hopelessness that often ends in disastrous outcomes.

This brings me to mention one group of people I would like to draw attention to. These are the individuals who are now sitting in Juvenile Justice Facilities or in the prison system. In general, there is very little sympathy for people in prisons and this is for all sorts of reasons and beyond this discussion today. However, this is a population that is booming and out of proportion, in particular for Indigenous Australians. More money is now spent on building prisons and less on education and schools.

The current rate at which Indigenous people are being incarcerated is in an upward trend and not abating. Incarceration in itself has major implications on the health and mental health of individuals as well as on Indigenous families and communities.

In June 2009, the census showed the Australian prison population to be just over 29000, 93 per cent were male prisoners; however, overall 25 per cent of this population is Indigenous. Between 2008 and 2009, the general prison population increased by six per cent, but for Indigenous people the prison population increased by ten per cent.<sup>1</sup>

It was found that those Indigenous Australians who were removed from their natural family were at significantly higher risk of arrest. Close links were found with early childhood trauma and the increased risk of juvenile involvement in crime. It is well documented, as far back as the 1970s and early 1980s in a number of studies, that children in sole-parent families are at heightened risk of involvement in crime, particularly where the sole caregiver was poor and or lacked close friendships and social supports.<sup>2</sup> Groups from lower socio-economic status and living in poverty have been known to have strong correlations to both juvenile and adult involvement in crime. For a long time it

was thought that this correlation simply reflected bias exercised in police discretion. It is now clearer there is a relationship between economic wellbeing and offending. Other factors, such as financial stress, increase the risks of child neglect and abuse, plus other parenting problems.

In 2009, an epidemiological survey of prisoners in general, consistently found higher levels of physical ill health, psychiatric illnesses, communicable diseases and engagement in risk behaviours such as illicit drug use. For Indigenous offenders it was noted that they were further disadvantaged as they suffered more prone to ill health and died at much younger ages. Their disadvantages were compounded by the fact Aboriginal people had reduced educational attainment leading to fewer opportunities in order to gain meaningful employment or employment at all because of their criminal background restricted them to types of employment.<sup>3</sup>

This is not new information. There were two major reports published in the 1990s: the Royal Commission into Aboriginal Deaths in Custody and the Bringing Them Home Report: The Separation of Aboriginal and Torres Strait Islander Children from their Families. Both reports found that removal of individuals from their families leads to incarceration and is linked to poor health and mental health outcomes as well as dying preventable, premature deaths.<sup>4,5</sup>

April this year marked the 20th anniversary of the handing down of the Royal Commission into Aboriginal Deaths in Custody, which investigated 99 deaths in custody. Since that report's release, there have been 269 Aboriginal and/or Torres Strait Islander people who have died in custody.

For generations of Aboriginal people, the ongoing cycles of trauma, a profound loss of identity and never experiencing a sense of belonging are stories that are daunting, but to have lived life in such circumstances would be even more terrifying. We need to

## The Alison Bush Trust Fund: her legacy

Alison had a unique presence, which is missed by so many of us at Royal Prince Alfred Hospital (RPAH), Camperdown, in Sydney. She could tell stories, make poignant observations and find humour in situations. Alison was a great friend and colleague. She was a wonderful advocate for Aboriginal and Torres Strait Island women at RPAH, from all over the State, and she also encouraged these women to take an active role in their own healthcare. Alison would facilitate, but not fuss. She believed that the basis of all good healthcare was deep respect. Alison was passionate about education and she wanted Aboriginal and Torres Strait Island doctors, midwives and nurses to be as good as any non-Indigenous counterpart. Sister Alison Bush was an excellent role model to all involved in healthcare. Alison wanted Aboriginal and Torres Strait Island health workers to maximise their knowledge base and play a leading role in health education in local communities. On a locum to remote communities in the Northern Territory, I saw how devoted Alison was to her large family. She liked making connections between people and places.

In accordance with Alison's wishes, expressed in the final days of her life, RPAH has established a memorial fund (The Alison Bush Trust Fund) to promote the health and well being of Aboriginal and Torres Strait Island women and babies, through education. The organising committee consists of Dr Andrew Child, Dr Sue Jacobs, Mr George Long, Maureen Ryan, Dr Robyn Shields, Valerie Smith and Prof Paul Torzillo. Her Excellency, Prof Marie Bashir is the patron. Initial ideas for the fund include clinical placements for Aboriginal and Torres Strait Island health professionals and assisting in a variety of other ways with education (for example, books, fees, equipment, possible conference registration fees for health workers).

Tax-deductible donations to the fund can be made by cheque, payable to the Alison Bush Trust Fund, and sent to the Executive Unit, RPA Women and Babies, Missenden Rd, Camperdown 2050.

### Dr Sue Jacobs

FRANZCOG, consultant obstetrician and gynaecologist  
Royal Prince Alfred Hospital

ask ourselves: why in 2011 this is still a common story? Today, for those of us who are in positions of responsibility and working with families, infants, children and young people, I believe the greatest challenge is to maintain solid family foundations and community unity. This is essential to the restoration of the health our Indigenous people.

There are reasons why the present health and social crises exist. These are complex issues that are deeply rooted in the problems that have been mentioned thus far. The evidence is clear and the pathway forward for current and future generations is to stop the pervasive destruction from past and current practices of separating and alienating individuals from their communities. Maintaining strong family units and well communities is sometimes very much dependent on the decisions that we make as clinicians. I urge every clinician not to be influenced by kneejerk reactions, but to seriously think through both the short- and long-term consequences of our actions. We need to examine the practice and urge to remove infants and children from their families. For the individuals who experience this have a long and lonely road back to their rightful place in a community and to earn the respect they rightfully deserve. We have to ask: can we do things differently and are our short-term solutions in the best interest of this child?

For all of us who work together – in health, social services or government departments – the solutions must be rooted in a better understanding of the impact of colliding cultures. The failure to recognise and accept the cultural differences and practices between groups brings about divisions and is a modern-day weapon to destroy Aboriginal society as it corrodes social cohesions at all levels.

As I fondly look back on my long-term friendship with Alison, her message was simple. It was about hope, change and working together, the aim was for better outcomes for our Indigenous children. It is my message too: I believe there is hope and that the long-awaited change will come. I believe the foundation of that change is our responsibility to make a difference. We must all learn from past mistakes. Ignorance about the long-term suffering of individuals can no longer be an excuse for inappropriate decision-making. Poor communication between people is problematic and, when open communication is lost, trust is broken.

Leadership is about moving forward and including individuals or groups of interest in discussions when negotiating important policy decisions for our future generations. Cooperation and positive working relationships acknowledge and accept other people as equals in partnerships. Our responsibility is to speak out when something is seriously wrong. If we are serious about changing the future, let's enable both Aboriginal and non-Aboriginal people the opportunity to close some chapters in our shared histories to be able to move on. In doing so, we must learn to work together to find ways to bridge the gap, before we can even attempt to close the gap.

#### Further reading

- 1 Review of Offender Health. Australian Indigenous Health Infonet. Grace, J., Krom, I., Bulter, T., Midford, R. 2011.
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These are edited versions of the speeches given by Her Excellency Prof Marie Bashir, AC CVO Administrator of the Commonwealth, and Dr Robyn Shields at the 2011 RANZCOG Indigenous Women's Health Meeting.

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#### Author profiles

Her Excellency Prof Marie Bashir, the first woman to be appointed Governor of New South Wales, took up her office on 1 March 2001. Before becoming Governor, Dr Bashir taught at the Universities of Sydney and NSW, increasingly working with children's services, psychiatry and mental health services, and indigenous health programs. At the time of her appointment as Governor of NSW, she was Clinical Professor of Psychiatry at the University of Sydney; Area Director of Mental Health Services Central Sydney; and Senior Consultant to the Aboriginal Medical Service, Redfern, and to the Aboriginal Medical Service, Kempsey.

Her interests have included juvenile justice, research on adolescent depression, health issues in developing countries, education for health professionals and telemedicine and new technologies for health service delivery. She was appointed an Officer of the Order of Australia, in 1988, for her services to child and adolescent health; and was invested by Her Majesty, the Queen, with the insignia of a Commander of the Royal Victorian Order (CVO) in 2006.

Dr Robyn Shields AM, is currently working at Royal Prince Alfred Hospital as a medical doctor; she is also a member of the Sydney Children's Hospitals Network (Randwick and Westmead) Board. Previously, Robyn worked in mental health and, in particular, in the development of mainstream Aboriginal mental health services in NSW, working in partnership with the Aboriginal Medical Service at Redfern. Other interests have included working with, and developing services for, Aboriginal inmates at Corrections Health Service, now known as Justice Health.

Robyn remains actively involved in mental health and continues in her role and appointment since 1996, as a NSW Mental Health Review Tribunal Member. Robyn has contributed to developing National and State-wide policies and service development in both Aboriginal Mental Health and Aboriginal Health. Past appointments have included being a member of the NSW Child Death Review Committee. She has also been a member of the Aboriginal Health and Medical Research Council of NSW Ethics Committee and the National Health and Medical Research Committee – Indigenous Health. Robyn has a special interest in working with disadvantaged groups and encouraging positive working partnerships to enhance capacity building in the community. In 2002, to commemorate the centenary of Australia, she was awarded an Australian Centenary Medal and, in 2004, was awarded the Member of the Order of Australia (AM), both medals were in recognition of her services to Aboriginal mental health.

# Putting our house in order



**Dr Caroline Harvey**  
Medical Director  
**Family Planning Queensland**

Improving family planning for Aboriginal and Torres Strait Islander women – ideas, directions and a useful conceptual model.

When I was asked to present at the 2011 RANZCOG Indigenous Women's Health Conference on the topic of family planning, it was with some hesitation that I accepted. The brief was family planning for Aboriginal and Torres Strait Islander women, particularly those in rural and remote communities in

Queensland. What are the issues, what are the gaps? What could we do better? Despite the availability of a range of effective methods of contraception, what do we know or sense about the unmet need? The discussion that follows is broad: it offers a framework of family planning that Aboriginal and Torres Strait Islander communities, their organisations and service providers can perhaps draw from.

Too often, the topic of family planning is assumed to be limited to a discussion about the provision of a range of contraceptive methods. It is easy for service planners to focus on these technologies, the drugs and the devices, the service interface that provides the means for preventing unwanted pregnancy. The problem with just this perspective, however, is that it overlooks the human factor, the reality of human lives. As the saying has it: most accidents are caused by humans and most humans are accidents. It is also said (although it is hard to know who to ascribe this reference to) that humans are the only species that have sex for non-procreational purposes, in other words, for pleasure!

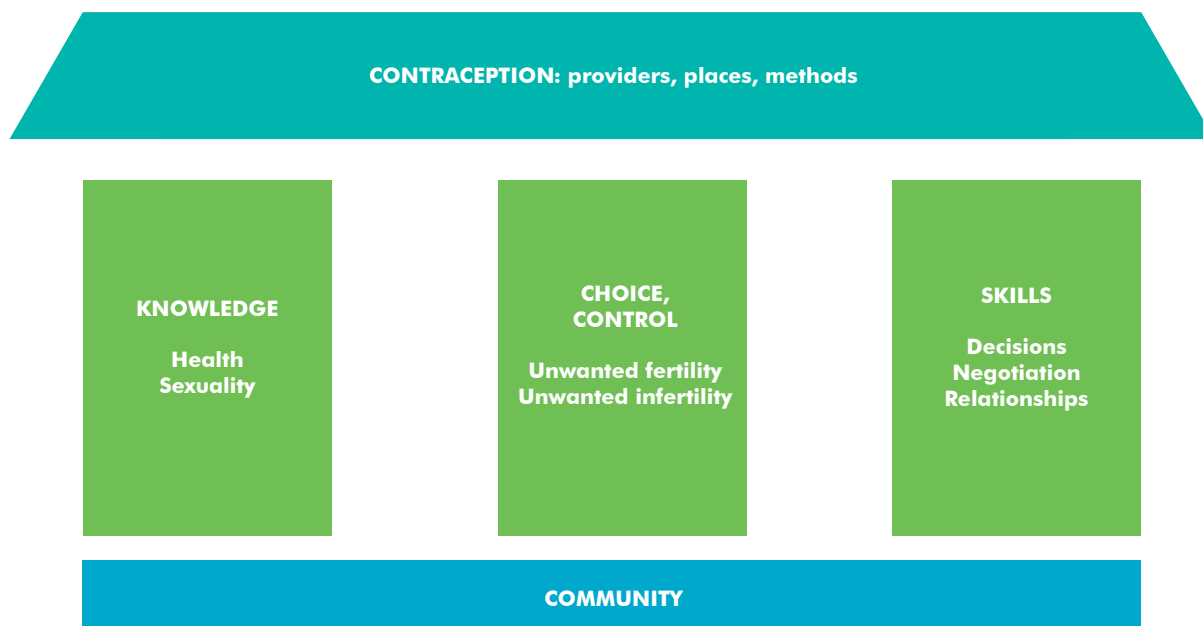
Globally, many countries have family-planning programs, the foundations of which may be any or all of the following objectives:

- Population control.
- Maternal and child health improvements.
- Reproductive rights of individuals.
- Economic/education advancement for women and communities.
- Empowerment of women as individuals.

Australia invests very little in family planning and, ironically, at a time where developing nations are now taking a broader view encompassing women's needs and rights (in addition to previous population-control and public-health perspectives), women's reproductive healthcare has seemingly vanished from our Australian policy landscape entirely. Closing the gap has many challenges, but could do well to specifically include family planning as one cornerstone for child and maternal health improvements and women's economic and educational advancement.

There is still important work to be done generally in ensuring quality contraception provision in Australia, particularly addressing access issues for Aboriginal and Torres Strait Islander women, young people, and those in rural and remote communities. Quality contraception service provision:

- occurs on the background of communities, families, peer groups, health settings and systems;
- supports informed 'choosers' and must ensure access to information on all available methods;
- works against barriers to access without being coercive;



*A conceptual model of contraception services as an over-arching roof of a house, which has the community at its foundation, but requires strong pillars to connect the two.*

- recognises and supports the healthy sexuality, specific needs and particular vulnerabilities of young people; and
- recognises that 'failures' occur (hence the importance of emergency contraception and access to safe legal abortion).

### The roof

As clinicians and/or health service providers and planners, our contribution to improve family planning for Aboriginal and Torres Strait Islander women may seem obvious. We should provide contraception advice, supplies and, where chosen, the associated procedures. We aim to be opportunistic in early postnatal contraception initiation; and we try to be flexible in making our services appropriate, accessible and affordable. The needs of remote communities should surely then be met if we can take the appropriate clinical services to the women and support the work of local health staff, including Indigenous health workers. Mobile women's health nurses, the Royal Flying Doctors Service, GPs and O and G services all do excellent work in this area in Queensland, so why is there still the sense of considerable unmet contraceptive need for Aboriginal and Torres Strait Islander women? Focusing on contraceptive methods, improving access to contraception and other reproductive health services is not how we can make the most difference. These services are simply the most visible solution – the roof, if you will, of the houses seen from the planning flyover. While it is important that we advocate for houses to have decent roofs, those roofs will fall down if there are not walls or pillars or if there are not substantial foundations.

### The pillars

From solid foundations, which lie within communities, come individuals who interface with health services. To seek and choose contraception effectively, women need knowledge and skills but they also need a sense of self determination, of control and choice. A wealth of literature in health promotion practice, from the Ottawa Charter through to evaluation of health literacy demonstrates this centrality of self-efficacy.<sup>1</sup>

Sexuality and relationships education (SRE) is a good thing: it helps prepare children to move from puberty through to adolescence confidently and the evidence shows that good-quality SRE delays sex and equips young people to negotiate and use contraception when they choose to have sex. We also know that if started early, it can be a child-protection strategy. Talking clearly and accurately is essential. Showing young children that parents, carers or early childhood workers are not ashamed or embarrassed about sexuality, helps children learn that they can talk with trusted adults. It is important for young children to learn about body parts, healthy relationships and consensual adult expressions of intimacy. Age-appropriate education involves teaching children the correct names for and functions of their body parts and teaching them to care for, respect and protect their bodies.<sup>2</sup>

Given the diversity of young people in schools, it is important that SRE programs cater to their varied needs. This also includes the provision of information in the broader context of relationships, values clarification and negotiation skills.<sup>3</sup> This is supported by research conducted with young people who have indicated that programs need to go beyond the provision of just biological information.

'Sexual education is not just about sex, but also social issues, such as personal safety, safe sexual activity, sexuality and puberty, safe partying, sexual assault and sexual wellbeing. Students also need to be educated on development issues, such as stereotypes, healthy relationships, defining stages of

relationships, family planning...gender and sexuality.'  
YMCA Youth Parliament Member, 2009

Understanding the underpinning principles for sexuality and relationships education is essential if we are to talk about the relevance of this education to Aboriginal and Torres Strait Islander children, especially those in remote communities. Too often, at the highest levels, this term is misunderstood, demonised or avoided with a plethora of excuses and perceived barriers including cultural background. Yet, if the following principles are incorporated, it seems hard to understand the resistance.

'We need to add our voice to the call for high-quality SRE to be delivered to all Australian children, especially the most disadvantaged.'

According to WHO<sup>4</sup>, sexuality and relationships education needs to:

- be more than the nuts and bolts and adverse outcomes;
- equip young people with skills;
- be delivered with inclusion of family, schools and wider community; and
- acknowledge the social norms and cultural, peer and family context of the adolescents.

There is no reason that culturally appropriate SRE, based on the above principles, should not be prioritised for Aboriginal and Torres Strait Islander children. In a study of young people's knowledge of sexually transmitted infections and safe sex in remote Far North Queensland, Fagan found that remote Indigenous youth had lower levels of STI knowledge than young people in a national survey and concluded that, 'there is an urgent need to strengthen school-based sex education and to develop innovative approaches to sexual health promotion'.<sup>5</sup>

At the 2011 Indigenous Women's Health Conference in Cairns, it was exciting to see some examples of innovative SRE programs now being run by Aboriginal and Torres Strait Islander community-controlled organisations in their schools and communities.

Sexual health is the freedom of worry from the unplanned consequences of sexual activity. Reproductive health implies that people are able to have a satisfying and safe sex life; they have the capability to reproduce; and that they have the freedom to decide if, when and how to do so. In a practical sense, globally, this translates to limiting the number of pregnancies, the spacing of births and delaying the age that young people become parents. We must, however, also acknowledge the social determinants of health and address poverty and disadvantage in all its manifestations and complexities and how these impact on the capacity and self-efficacy of individuals to exercise reproductive choice. This requires:

- A broader health-promotion framework; beyond clinics and beyond the health sector.
- Indigenous health worker training in sexual health that is broader than diseases and biological reproduction and that includes sexuality, relationships and sexual abuse and assault.
- Teaching non-Indigenous healthcare providers about cultural



issues in talking about SRE issues to Aboriginal and Torres Strait Islander people.

- Appropriate SRE and information: who is best placed to do this work and what training is needed?
- Peer education for adolescents, including young men.

As doctors, we must continue to strive to provide high-quality, flexibly delivered and affordable clinical contraception services to Aboriginal and Torres Strait Islander women, but we must also recognise our limitations and broaden our perspectives on this work. We need to advocate for the things that we know work and, while the specific evidence is not there yet for Aboriginal and Torres Strait Islander people, we know that sex and relationships education for young people works generally. We need to add our voice to the call for high-quality SRE to be delivered to all Australian children, especially the most disadvantaged.

Finally, I reflect on one of my favourite quotes: as a non-Indigenous person I believe it speaks to us as individuals or as organisations who seek to work with or for Aboriginal and Torres Strait Islander people in making a difference: 'If you have come here to help me, then you are wasting your time. But if you have come because your own liberation is bound up in mine, then let us work together' (Aboriginal activists' group, Queensland, 1970s).<sup>5</sup>

### Acknowledgement

I wish to thank Cecelia Gore, Director of Education and Community Services, Family Planning Queensland, for her invaluable assistance in the presentation and this article.

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### Author profile

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# Apunipima baby baskets



**Dr Jacki Mein**  
Public health medical officer



**Ruth Bullen**  
Family health manager



**Fiona Millard**  
Wujal Wujal Indigenous health worker



**Kirby Murtha**  
Community nutritionist

This program provides targeted education and resources for pregnant women from Cape York in the novel form of 'baby baskets'.

Although improving, maternal and child health in Cape York is poor, with high rates of maternal and neonatal morbidity and mortality in comparison to the rest of Australia.<sup>1</sup> In 2008, 70 per cent of Cape York pregnant women were reported to have smoked at some time in their pregnancy, the highest proportion in all health services districts in Queensland. They also had high rates of gestational diabetes and double the number of low birth-weight babies in comparison to the rest of Queensland (12.3 per cent of births compared to 5.3 per cent).<sup>2</sup>

In the same year, a paediatrician and experienced general practitioner from Cape York wrote a comprehensive report detailing these issues. Their recommendations on child health were presented to the Queensland Cabinet. As a result of a Cabinet-generated submission and allocated specific funding from Queensland Health's Making Tracks and, as one of several initiatives, in late 2008, Apunipima was asked to develop 'baby baskets' in an effort to give mothers and their children a better start to family life. Apunipima was chosen for this project by consensus by organisations providing health services to Cape York and with the aim that with community and Indigenous input, and flexibility, the program would be sustainable.<sup>3</sup> Although the funding allowed for only four pilot sites in Cape York, the scheme was rapidly broadened to all Cape communities. The initial aim was to spend about \$300 per Cape child that is born per year.

## Development of the baskets

The plan was to improve maternal and child health key performance indicators,<sup>3</sup> specifically to ensure the timing of first antenatal presentation was early in the pregnancy (using a baby basket as an incentive) and that women attended at least five antenatal visits. This was addressed by giving out a fruit and vegetable voucher for use in the local community at each antenatal visit, up to a maximum of ten visits, in the hopes of increasing the number of return visits to obtain vouchers.

Giving out the baby basket was also an opportunity to educate the pregnant woman on breastfeeding, birthing, baby care, the role of fathers, smoking and alcohol effects in pregnancy and specific health issues, such as sudden infant death syndrome, and eating well. As much of the advice given in pregnancy to Cape mothers has been framed negatively in the past a conscious effort was made to present information in a positive light to inform women's choices about a healthy pregnancy and birth.

The nutrition status of young Cape York women has been shown to be poor,<sup>4</sup> low birthweight babies are more likely to be born to young mothers in their teens, and pregnant women and children in remote Indigenous communities are at greater risk of malnutrition than the rest of the Australian population.<sup>2</sup> The effect of poor nutrition during pregnancy is intergenerational and is linked to anaemia, a lower birthweight infant and poorer growth and development outcomes for the child.<sup>5</sup> Therefore, the promotion of good nutrition throughout conception, pregnancy, breastfeeding and childhood should remain a priority in the delivery of comprehensive healthcare.

Emphasis on consuming adequate iron and calcium-rich foods is a major focus during pregnancy, in addition to the use of folate and iodine supplementation as per NHMRC recommendations. The importance of eating sufficient fruit and vegetables during pregnancy cannot be overlooked as this forms a balanced diet and assists to meet the fibre and micronutrient needs for the mother and her unborn child.<sup>6</sup> Consuming adequate fruit and vegetables also assists with a healthy level of weight gain during pregnancy, and is a major area of focus in the management of gestational diabetes. Once again, Indigenous Cape women are over-represented in the incidence of this condition.<sup>2</sup>

In order to assist people achieve an adequate fruit and vegetable intake, the provision of free or subsidised fruit and vegetables to at-risk groups, such as pregnant women and children, is regularly advocated for.<sup>7</sup> The fruit and vegetable vouchers and folate supplements were therefore planned as a major part of the budget for the baskets.

Apunipima convened meetings with maternal and child health staff from the Royal Flying Doctor Service, Mookai Rosie bi-Bayan (the specialist hostel that many Cape women use when they come to Cairns at 36 weeks to wait to give birth) and Queensland Health as well as internal staff. The meetings initially included health



From top to bottom: the three baby baskets and their contents in the order they are handed over.

workers, midwives, nurses, doctors and community nutritionists, but ended up very wide in scope and included as many community-based women as possible, community engagement and administration staff. Even the Apunipima CEO looked at the contents and made suggestions that are to this day still inclusions in the baskets.

The program was launched formally by the Queensland Premier Anna Bligh in 2009. At first it was difficult to cost the baskets overall as there was some variability between estimations of the number of births to women from Cape York, ranging from 120 to 180<sup>8</sup> births annually. After some years of operation, the birth rate is clearer, at around 150 births per year.

## What the baskets contain

From the consultations and planning developed a program of three baskets:

- First Baby Basket: is given on pregnancy diagnosis in the community by health worker or midwife. This contains a safe baby sleeper, a lot of information on healthy pregnancy, including a Bunjulbai booklet, developed specifically for Indigenous women in Queensland, initially by Queensland Health staff in Rockhampton, and the first of the fresh food vouchers.
- Second Baby Basket: is given at or around birth, in Cairns, and includes nappies, baby clothes and personal hygiene items for the woman to use in hospital.
- Third Baby Basket: is given by a health worker, nurse or midwife, when the baby is six months old, when both mother and baby are back in community. This contains a toothbrush and toothpaste, a toy and lots of information.

## Baby basket rollout

To begin with, the contents of the baskets were ordered and packed in house, a large operation that made the Apunipima office look something like a pharmacy. Later, basket production was outsourced as, once the pilot phase was over and feedback had resulted in minor basket content changes, the contents were less likely to be altered.

The Royal Flying Doctor Service assisted with delivery of baskets to communities and their midwives and child health nurses assisted in basket handover, which involved some time spent with the woman going over contents and covering specific education topics. Apunipima has a child health nurse, midwife and health worker Cairns visiting team, and they along with Mookai Rosie bi-Bayan staff give out most of the second baby baskets with education to Cape women while they are in Cairns, waiting to deliver.

The food voucher was one of the most challenging parts of the initiative to implement, as all the Cape York community food stores had to be brought on board, their staff educated on what was included (all fresh fruit and vegetables) and a system of reimbursement organised. This was undertaken by the Apunipima community nutritionist. Following an audit of use the food vouchers in 2010, their numbers were reduced from ten to five, but the value of each was increased.

## Baby basket evaluation

Three major evaluations have been carried out so far on the baby baskets: the first encompassing the first 30 evaluation forms returned in the initial three months of the program; the second a year later; and the third audit completed in 2011, 18 months later. The baskets come with an evaluation form for the health professional giving out the basket to fill in and return; around 40 per cent have been returned overall, which assists with formal audit, see below.

Of all responses, 170 said the baby basket was very useful, 57 said the baby basket was useful, one said it was of some use, eight responses were not recorded. Other options (a bit useful, not

useful) were not chosen so the feedback on their usefulness remains overwhelmingly positive.

Free text comments regarding the first six months of the basket program included 'thank you' 'Mum could not stop saying thank you' 'Good things for our Cape families' 'help us out lots'. Free text comments were not collected after the second reporting period as it was very clear that the baskets were valued.

'Apunipima has devised...a well-received, comprehensive and continuously evaluated baby basket program that has already contributed to improvements in key indicators in maternal and child health in Cape York.'

Suggested things to include ranged from items that are already included in the second Baby Basket (nappies, hairbrush, pads) to unusual requests 'oil for stretch marks' 'baby monitor' 'baby name book' (name books are already in our educators' bags for people to look at when the health workers and nurses are talking about the basket items) and the downright fanciful ('a set of car keys'!) Some women asked for more information – educational brochures, reading on normal pregnancy, information on feeding babies – indicating that women are keen for information to come with each of the baskets.

The timing of the handover for the first baby basket was really interesting. Once the blip when they first became available was over (including one woman who got the first and second baskets at the same time when the program started), they became more likely to be handed out in the first trimester. The time within the first trimester became earlier: median gestation for the quarter March to June was 15 weeks, and this fell to ten weeks for the quarter July to September 2009. This is important as one of the main aims was to see women very early in pregnancy. This gives excellent earlier opportunities to give education and link in with antenatal care.

### Home visiting and baskets

Baskets are now provided in the course of both clinic and family home visits, which is another linked Apunipima program, from Wujal Wujal, Laura, Hopevale, Aurukun and Coen, (Cape York communities) by health worker and midwife/child health nurse teams. Delivering and talking about the baby basket in the woman's home increases the likelihood that all family members benefit from the education that occurs with basket handover, and means they get an opportunity to ask questions in a familiar environment – the core of our family-centred approach.<sup>9</sup> The home visits, as a general rule, are provided by Apunipima staff with support in some communities from the Royal Flying Doctor Service or Queensland Health midwives and child health nurses.

There is potentially a bias in the audits as not all staff sent back evaluation forms and certain workers in particular communities were much better than others at returning them, meaning that some communities are likely to be under-represented in the

feedback. However, the consistently positive and sustained response from most communities suggests that overall the response to the program is excellent.

The pregnant women and mothers of Cape York have responded very positively to the baby basket program, and they are now being delivered as part of a home visiting education program by nurse and health worker teams. The median gestation for first antenatal contact has decreased from 15 to 10 weeks over the initial phases of baby basket implementation.

The program has attracted interest and queries from all over Australia. With planning, consultation and specific funding, Apunipima has devised and maintained a well-received, comprehensive and continuously evaluated baby basket program that has already contributed to improvements in key indicators in maternal and child health in Cape York.

Apunipima will continue to monitor acceptability, and median gestational age at first antenatal contact, and will examine median number of antenatal visits per woman during the next evaluation, which is planned for mid 2012. A subanalysis of food vouchers and some questions on breastfeeding practices are also being added to the revamped evaluation form for 2011 onwards. The form will now collect gestation information better, which is important for monitoring when women present in pregnancy.

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### Author profiles

Dr Jacki Mein is a public health physician working for Apunipima. She also works as a part-time GP at Family Planning Cairns and Mossman Gorge Primary Care clinic. Her background is in remote Indigenous health, with an interest in women's health.

Kirby Murtha has been a community nutritionist with Apunipima since August 2010. She has completed a bachelor of science – nutrition and postgraduate diploma in dietetics at Curtin University in Western Australia.



# A place for women



**Leshay Maidment**  
Former Manager  
**Alukura Midwifery Group Practice**

Alukura is helping women to maintain traditional ways and to keep women's business strong for the Arrernte women of Central Australia.

Congress Alukura is a culturally appropriate primary healthcare provider for Aboriginal women in Alice Springs, with a focus on maternity and child health. Set in a quiet and serene, leafy location, Alukura is secluded and private, essential for supporting women's business.

is vital for women to receive adequate health and maternity care. Other programs within the service include sexual and women's health education, in the form of the Young Women's Community Health Education Program (YWCHEP). YWCHEP is an educational package, delivered in schools and to community groups, and has recently been expanded to take on a male equivalent program Young Male Community Health Education Program (YMCHEP); notably, the first male to be employed by the branch. Although employed through Alukura, this position is located off-campus at a non-gender-specific office.



**Rosslyn Campbell**  
Aboriginal Liaison Officer  
**Alukura Midwifery Group Practice**

In a much wider context, Alukura is part of the Central Australian Aboriginal Congress, the largest and oldest Aboriginal Medical Service in the Northern Territory. Congress has a total client population of 9000, approximately 7000 from town and 2000 from remote communities.

The Australian Nurse Family Partnership Program (ANFPP) is based on the research of Professor David Olds from the USA. It is a non-clinical, nurse home visitation program for women who are pregnant, which works intensively pre- and postnatally with the mother and baby until the baby turns two years old. Congress is one of the three pilot sites in Australia hosting this program.

**'As a women's place, Alukura is a place not to be embarrassed, or feel 'shame', but to empower and provide options...'**

women's health to those living in the Central Australia region. It is believed that there are approximately 1500 speakers of the Arrernte language around the region.

The Arrernte (pronounced are-un-dah) are the Aboriginal people of Alice Springs. Since its inception in 1984, Alukura, meaning 'women's place' in the Arrernte language, has provided women's health

In order to attract local people to positions in healthcare at Alukura, two local Aboriginal student midwives are employed through the clinic. They complete their studies, attending block training in Brisbane, with intensive lecturer visits while working under supervision in the clinic. It is proving an excellent opportunity for two young women who ordinarily may not have pursued a career as a midwife; while retaining and building the local workforce.

In 1984, following a birthrights conference, Arrernte women began lobbying for a cultural service for their town, to fill a widening gap in Aboriginal health. Alukura was initially introduced as a two-year pilot program and, following a successful review in 1989 and subsequent funding in 1991, Alukura became a permanent branch of Congress.

Maternity care and women's health continue to be Alukura's main focus areas, through the recent introduction of the Midwifery Group Practice. Revising the Memorandum of Understanding (MoU) with Alice Springs Hospital, in late 2009, was an important step to providing continuity of care to Alukura clients on the Midwifery Group Practice program. The hospital acknowledged that Alukura midwives work with hospital staff to care for women from Alukura who come to birth at the hospital.

As an extended primary health service, birthing was made available at Alukura. However, as the service is located on the fringe of the town, seven kilometres from the nearest hospital, it was thought that without emergency support, it would be safer for women to birth at the Alice Springs Hospital. Despite pleas from the community, birthing at Alukura ceased in the mid-nineties, all births now occur at Alice Springs Hospital.

Four midwives provide intensive case management to their clients. Each midwife also engages with other clients on the program through cultural days and activities. While each midwife focuses on their own caseload, they also get to know all other clients within the program.

Alukura employs a general practitioner, nurses, Aboriginal health workers, Aboriginal liaison officers and midwives across each of its program areas. Regular O and G specialists – all of which are female, as males are not allowed at Alukura – visit from the hospital.

Providing continuity of care for Aboriginal women has been an enormous challenge in the past, but with case-led services this continuity is a much more achievable and culturally appropriate approach. Of the four midwives, there is always a midwife on call who can attend the hospital if a client goes into labour outside regular work hours.

Alukura runs a daily clinic and clients can see a doctor, women's health nurse, midwife or Aboriginal health worker. Aboriginal liaison officers speak local languages and provide cultural brokerage, which

Prior to a MoU with Alice Springs Hospital, Alukura clients would attend the hospital for births; however, Alukura staff would not be able to attend in a clinical capacity. Often clients birthed with an unknown doctor and midwife, and with no cultural brokerage. This placed Aboriginal women in incredibly difficult and overwhelming situations, as they might not have any family with them, might not speak much English and were already in a foreign environment.

Having the familiarity of a midwife who knows the client before birth has proved successful: childbirth is less overwhelming and can have a more positive outcome and improve a woman's experience.

Once the client has given birth, the midwife continues to provide postnatal care to the woman and her baby. Regular antenatal and postnatal checks are part of the requisite for joining the program. As a women's place, Alukura is a place not to be embarrassed, or feel 'shame', but to empower and provide options to best suit her health, such as the Group Practice. With this renewed focus on women's health and maternity care, more women are presenting earlier in pregnancy for antenatal care. There are much higher instances of well woman checks and pap smears.

Men and women's business are traditionally kept separate in Arrernte culture. Men are not usually involved in the birth of their child, because women's business is so private. Alukura has followed these traditional protocols. However, for the first time in Aboriginal culture, fathers are being encouraged to participate in their partner's maternity care. More fathers are involved in home visits and taking a more active role in the parenting partnership. All of this equates to better outcomes for Aboriginal health.

As a unique comprehensive women's health service, Alukura is guided by a Cultural Advisory Council of traditional, well-respected Grandmothers from the region and by the 'Grandmothers Law', a document that underpins practice at Alukura.

Alukura works in conjunction with other Congress services, often referring to, or receiving referrals from, the main clinic for immunisation and developmental checks and linking women to programs on parenting and early childhood development. Congress' other services include social emotional and wellbeing services that include counselling and therapy, a youth drop-in centre, Ingkintja Male Health Centre, a large general clinic, early childhood services, remote community services and training for Aboriginal health workers.

#### Author profiles

Leshay Maidment is currently the Deputy CEO of the Central Australian Aboriginal Congress Inc, a large Aboriginal Community Controlled Health Organisation. Leshay previously worked as the Branch Manager of the Congress Women's Health and Maternity Care Branch Alukura. She is a Central Arrernte woman from Alice Springs and has worked in Aboriginal community-controlled health for the past ten years.

Rosslyn Campbell is a very experienced Aboriginal Health Worker who has been working as an Aboriginal Liaison Officer at Congress Alukura, supporting community women to access women's healthcare and maternity care at Alukura, the Alice Springs Hospital and other relevant services. She draws upon her extensive community, language and cultural knowledge to provide high-level support and advocacy for clients and the team working at Alukura.



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# A smoother pathway to birth

Desley Williams  
Coordinator  
**Darwin Midwifery Group Practice**

The Darwin Midwifery Group Practice has implemented an innovative model of maternity care for Indigenous women from seven Top End remote communities.

The population of the Northern Territory (NT) is small (around 230 000), with a large number of very small communities scattered throughout. Every pregnant woman living in a remote area of the NT is encouraged to travel to an urban centre where birthing facilities can support a safe birth for the mother and baby. Many women, however, experience difficulties in leaving their families and communities. For Indigenous women, in particular, these difficulties can include, but are not limited to: separation from family and community, with its associated loneliness and boredom; negotiating travel and hospital systems; language and cultural differences; encountering many health providers who are mostly strangers; and having to repeat the story of their medical history and situation many times. In addition, they often have complex social and emotional needs that they are not able to articulate. Sometimes, the impossibility of overcoming these difficulties leads the woman to return to her community instead of remaining in the urban centre and an aero-medical evacuation in an emergency situation may then be required.

The Darwin Midwifery Group Practice (MGP) is a continuity model of care that has been developed in an attempt to overcome these well-recognised barriers to optimal care for pregnant women from remote communities. Before setting up the Darwin MGP, an extensive consultation process was undertaken, including assessments and discussion with providers of other continuity-of-care models. The research was also informed by studies such as Charles Darwin University's '1 + 1 = A healthy start to life: Targeting the year before and the year after birth in Aboriginal

children in remote areas' and the Northern Territory Department of Health's Maternity Services Review 2007. This Review made 63 recommendations, including improving continuity of care for Indigenous women from remote areas. Funding for the MGP model came from the Northern Territory Government's Closing the Gap initiative, with supplementary funding from the Federal Government's National Partnership Agreement for Indigenous Early Childhood Development.

The MGP began in 2009 and is located in purpose-built rooms in a suburban setting close to the hospital. At the time of writing, MGP has the following staff members:

- a coordinator;
- an administration officer;
- an Aboriginal health worker (who is currently studying midwifery);
- six full-time midwives, as well as a holiday relief midwife;
- an Indigenous 'Strong Woman, Strong Baby, Strong Culture' worker; and
- a senior Indigenous woman chosen by her community to accompany women while in Darwin, including into the birth room.

An anticipated outcome of the introduction of the MGP was the provision of a career pathway for Indigenous staff in the area of maternal and infant care. Presently, the Aboriginal health worker in the MGP is in her second year of midwifery education (BMid) at the Australian Catholic University (ACU) in Brisbane in the away



*The Senior Indigenous woman, Concepta Narjic, who accompanies women from her community while they are in Darwin.*



*A healthy and happy mother and baby: the end goal for everyone working at the MGP. This baby is enjoying his bath in traditional bush medicine.*





*Fathers' involvement is encouraged by the MGP team. Mobile phones and digital cameras allow remote family members to stay in contact while women are staying in Darwin.*

from base program. She attends residential courses in Brisbane four times a year. There are three other Indigenous women in the Northern Territory who are also undertaking midwifery studies at the ACU and all communicate frequently to support each other.

The MGP operates a caseload model and each full-time midwife is assigned up to 32 women per year. The MGP cares for all pregnant women from the seven communities covered by the service, regardless of their obstetric risk factors. Each woman is assigned a midwife after the first visit to a remote community health centre and when an estimated date of birth is known. Women are given the name and mobile telephone number of their assigned midwife and these details are entered into their notes. The staff in the remote health centre have photos of the MGP team and are able to discuss the model of care and identify the assigned midwife for the woman.

**'At all stages, and for all women, partnership with Indigenous staff is designed to respect and engender the feeling of cultural security and safety.'**

Antenatal care in the remote community is provided by remote health staff and communication with the MGP is by telephone and via an electronic medical record system. An MGP midwife and/or Aboriginal health worker meets and accompanies the woman to any visit in Darwin for medical, ultrasound or any allied health appointments. The MGP also offers assistance to access Centrelink and other services. Transfer from remote community to Darwin is arranged at 38 weeks gestation (earlier if medically necessary). Normal-risk pregnancies are assigned to midwifery-led care, but in cases of complex need, antenatal and birth care is provided in collaboration with obstetric staff of the Royal Darwin Hospital

At all stages, and for all women, partnership with Indigenous staff is designed to respect and engender the feeling of cultural security and safety. MGP staff members encourage and facilitate education and each woman's familiarisation with the hospital birthing facilities. An MGP staff member attends the birth, whether

in the birth centre delivery suite or the operating theatre. The primary midwife has backup from two colleagues should she not be available to provide birth care owing to, for example, days off, annual leave or sick leave.

The MGP care does not end at birth – postnatal care and education are provided along with support for the woman and baby until they return to their community.

### **Whole-family approach**

In general, Indigenous culture has recognised birthing as 'women's business'; however, more recently some requests for male partners to be more involved have emerged. The MGP encourages and supports partner involvement and has experience of some fathers participating in the birth, including the cutting of the baby's cord. Unfortunately though, owing to distance and expense, most family members remain in the remote community. The introduction of mobile phone technology has at least allowed pictures of the new baby to be sent to those family members – often immediately following the birth.

### **The difference is in the detail**

The MGP model fosters close relationships between the expectant mother and the midwife/Indigenous health worker and this has been augmented by the use of mobile telephones for calls and text messaging. MGP staff members are able to follow up on any missed appointments and, as a result, women are much less likely to fall through the cracks. Moreover, information sharing with other healthcare providers leads to their increased understanding of the lives of women and their families. This advocacy role is one that the MGP team values.

Since the MGP model has been in operation, there has been an increase in the early discharge of babies from the special care nursery, supported by daily visits and breastfeeding guidance from MGP. In addition, improved communication and coordination of care with remote health staff has been appreciated. Staff in remote area health centres report that women speak favourably about their birth experience, remember their midwife's name and can identify her in photos.

The MGP model of care is being extensively evaluated by researchers from the Charles Darwin University using a participatory action research model. The results of the evaluation will be available later in the year.



# Women and children first



Anne-Marie McHugh  
RGN RM MMid ENB 997



Rhonda Bradley  
RN, BSc, RM, M Mid



Dr Janet Hornbuckle  
FRCOG, FRANZCOG CMFM

Funding has been secured to set up centres of excellence in maternal and child healthcare in Western Australia to build capacity across the State.

The national 'closing the gap' initiative has brought Aboriginal and Torres Strait Islander disadvantage into sharp focus and highlighted the significant health disparities for Aboriginal women and children. The Aboriginal Community Controlled Health Sector, through its network of Aboriginal Community Controlled Health Services (ACCHS), provides essential primary healthcare to Aboriginal women and families within a culturally safe environment.

Western Australia is the largest Australian State, with an area of more than 2 500 000km<sup>2</sup>, a 12 500km coastline and a span of some 2400km from north to south, occupying a third of the Australian continent. These expansive distances, coupled with workforce shortages and a mining boom, present significant challenges to healthcare delivery. Nineteen ACHHSs across the State provide primary healthcare services to the Indigenous population of WA.

The Aboriginal Health Council of WA (AHCWA) received a one-off project grant from the Department of Health and Ageing (WA) to establish a maternal and child health

program for ACCHSs. The funding was used to prepare the sector for the rollout of the Council of Australian Governments (COAG) Early Childhood initiatives and to develop models of excellence in maternal and child healthcare across the sector. The project was monitored by a steering committee, with representation from Department of Health and Ageing, Office for Aboriginal and Torres Strait Islander Health, Aboriginal Health Council of Western Australia, The Telethon Institute for Child Health Research and Kimberley Aboriginal Medical Services Council and supported by a technical advisory group, including a midwifery consultant, also the project leader/manager, a specialist obstetrician and a paediatrician with expertise in Aboriginal maternal and child health.

## Three project components

### Funding of three ACCHSs

This was via a competitive funding round. The three ACCHSs



*Codi and Manny play at Meekaway, the local kindy for Aboriginal children in Geraldton.*

had already demonstrated: high standards of clinical practice; commitment to become learning hubs; and the ability to build on existing services. The funding was to enable the ACCHSs to further develop an aspect of their maternal and child health program to respond to an identified unmet need. Each site identified specific local priorities and implemented targeted strategies to address specific objectives. These objectives included improving multi-agency care planning and coordination together with improving sexual and reproductive health options for teenagers.

## 'Strengths and Needs' analysis

This was commissioned by AHCWA to document a State-wide picture of the maternal and child health services provided by ACCHSs across WA. Achieving excellence in maternal and child healthcare requires information on current health-service delivery, identifying strengths as well as gaps in service provision. The analysis was undertaken by the Combined Universities Centre for Rural Health and provided valuable information for ACCHSs and AHCWA to compare the current delivery of services against the model of excellence. The 29 recommendations fit within the model of care developed by the project group, with the focus on the following broad themes:

- Models of care: maternal and child health, including guidelines, standards of care inclusive of continuous quality improvement and action research at local level to inform this process.
- Infrastructure: funding, communication and IT.



*Natalie and Lila have accessed services at GRAMS.*



*Raven Sky lives at Kardaloo Farm, a small Aboriginal community about 45 minutes drive from Mullewa, she is being held by her grandmother.*

- Partnerships: integration and referral.
- Workforce: training and development.
- Health promotion.

Before the analysis, the services highlighted that comprehensive maternal and child health services require adequate resources and gaps in service provision reflect the complexities of care delivery, particularly in rural and remote settings. These concerns were noted by AHCWA Board members, with the Board reassuring services that

their commitment to undertake the analysis ensured services would be further supported at regional planning forums and would be better prepared for the implementation and roll out of the COAG national partnership agreement in WA.<sup>5</sup>

### **The maternal and child health model of care**

The maternal and child health model of care was developed using a toolkit approach with the overall aim of supporting all primary care services to make a significant contribution towards COAG's

### **Maternal and child health at Geraldton Regional Aboriginal Medical Service**

Geraldton Regional Aboriginal Medical Service (GRAMS) hosts a maternal and child health team that provides care to Yamatji women and their families. The team consists of nine health professionals offering child health checks, childhood immunisations, specialist paediatric consultations, maternity care, audiology, paediatric physiotherapy and specialist gynaecological consultations. As part of this service, two midwives, who have recently been awarded 'eligibility' status, provide antenatal and postpartum care to approximately 160 women a year and childhood immunisation to families from Geraldton (a coastal regional centre 424km north of Perth), Mount Magnet (333km east of Geraldton) and another country town, Mullewa (92km east of Geraldton). The midwives and Aboriginal health workers provide the majority of care, working collaboratively with two visiting GP obstetricians who also provide intrapartum care at Geraldton Regional Hospital. The model is best described as midwifery-led shared care. Care is provided through drop-in clinics that are a 'one-stop shop'. These are deliberate strategies designed to suit the spontaneous and sometimes infrequent nature in which Aboriginal women access health services. Access is facilitated through bulk-billing and the provision of transport. The majority of caregivers are female. Care is culturally safe and evidence based.<sup>2,3,4</sup> Many of the social determinants of health are addressed to enable Aboriginal families to easily access high-quality healthcare.

GRAMS was one of the ACCHSs to receive funding as part of the excellence in maternal and child health project. These monies enabled GRAMS to employ an additional midwife to provide dedicated postpartum care and regularly visit the country town of Mount Magnet; purchase audiology equipment, a cardiotocograph and portable ultrasound machine and meet staff training needs, including childhood immunisation certification, pap smear training and Midwifery Practice Review with the Australian College of Midwives. As a result, more women received a postpartum check and the current immunisation rate is 86.8 per cent.





*Brian and his father at Kardaloo farm.*

Indigenous Reform Agenda for Maternal and Child Health.<sup>5</sup> The process led by the Technical Advisory Group was continuously informed by the ACCHSs to ensure the document provided support to implement safe, high-quality, evidence-based care within a foundation of cultural safety. Although specifically designed for use in the Aboriginal Health Care Sector the model is easily transferable to other areas of maternal and child health supporting the development of primary healthcare and the importance of service linkages with other stakeholders.

Funding for ACCHSs comes from a variety of sources and in addition to the complexity of short-term project funding, services are overburdened with separate and frequently duplicated reporting requirements. However, in order to build capacity, it was essential that services were able to capture the changes that the targeted funding and support achieved, to report on capacity building strategies and share learning across the sector. The method chosen to capture this activity, in line with a quality improvement and clinical governance process was the development of a maternal and child health dashboard providing a user-friendly method to benchmark activity and monitor performance against the model



*Sarah is playing at Meekaway kindy.*

of excellence. The dashboard was adapted from a tool used to monitor the implementation of principles of clinical governance 'on the ground'.<sup>6,7</sup> Service managers, health professionals and fund holders using a visual 'traffic light system' received up-to-date information regarding resources, clinical activity, risk management issues and community engagement to enable early identification of issues of concern and ensure the overall goal to improve maternal and child health outcomes was on track.

The long-term value of the project will be evidenced by its ability to further develop capacity-building initiatives, provide learning opportunities and share expertise and best-practice knowledge, together with building on existing partnerships between ACCHSs and external stakeholders. This work has already commenced via a joint commitment to partnership by the AHCWA and Women and Newborns Health Service, WA Health. Both organisations have committed to working together with all providers to progress the recommendations of the Strengths and Needs Analysis and highlight the value of the maternal and child health model of care.

An Aboriginal Maternity Services Support Unit, funded as part of the



Kadel with his mother, who accessed antenatal care at GRAMS.



Margie, Aboriginal health worker, and child at a recent child health day held at GRAMS.

COAG IECD program has been established at the Women's and Newborns Health Service co-located on the site of King Edward Memorial Hospital, WA's only tertiary maternity service. The strategic purpose of the unit is to build capacity and sustainability within services providing care to Aboriginal women and their newborns. The commitment of all agencies is clearly evident and it is hoped that this will ensure a significant improvement in the health and wellbeing of Aboriginal women and children in WA.

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#### Author profiles

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#### About the project

The project documents are available for download at <http://www.ichr.uwa.edu.au/accare/reports> Alternatively, hard copies can be obtained by contacting Aboriginal Health Council of Western Australia via <http://www.achwa.org>. Initial Funding Project written by Jessica Stewart and Francine Eades. Project Steering Group: Karen Dunmore, Darryl Kickett, Dr Carmel Nelson, Nicole O Keefe, Glenn Pearson, Anna Sinclair, Craig Somerville. Technical Advisory Group: Dr Sandra Eades, Dr Janet Hornbuckle, Dr Christine Jeffries Stokes, Anne-Marie McHugh.



# Guided by women's voices



**Stephanie Brown**  
**Murdoch Childrens Research Institute**

**Karen Glover**  
**Aboriginal Families Study Aboriginal Advisory Group**

The Aboriginal Families Study will help policymakers, health service managers and service providers to keep community goals in mind.

Having a baby is an important life event in all families and all cultures. How supported women feel during pregnancy, how women and families are welcomed by services, how safe they feel coming into hospitals to give birth, and

what happens to families during a hospital stay are important social determinants of maternal and child health outcomes.

The Aboriginal Families Study will invite all mothers of Aboriginal babies giving birth over a 12-month period in South Australia to talk about their pregnancy and birthing care and the support they received from services after their baby was born. The study – which is supported by a three-year grant from the National Health and Medical Research Council (NHMRC) – is being conducted by the Murdoch Childrens Research Institute, in partnership with the Aboriginal Health Council of South Australia.

The project developed as a sister study to a population-based survey of women who gave birth in South Australia and Victoria in 2007. Community consultations were held across South Australia from late 2007 to early 2009. The purpose of the consultations was: to find out what issues were important to Aboriginal communities with regard to services used by families around the time of pregnancy; determine whether there was community support for research about women's experiences of using services during pregnancy, birth and the first few months after having a baby; and seek feedback on how the research should be done.

Two Aboriginal researchers – Roxanne Miller and Hayley Wilson – conducted consultations with Aboriginal community organisations and communities spanning urban, regional and remote areas of South Australia. The key messages from the consultations were:

- that communities wanted the research to lead to improved services for Aboriginal women and families; and,
- at the end of the project, communities must feel that their efforts in supporting the project have been worthwhile.

The research team was also told that:

- Families – including fathers – need more information about pregnancy and what happens at birth and afterwards provided in culturally respectful ways.
- Support for families managing social-health issues, such as family violence, drug and alcohol abuse, overcrowded and poor-quality housing and poverty, is important and needs to be seen as an integral part of antenatal care.
- Services need to respect Aboriginal culture and ways of doing things, including traditional birthing practices.

An Aboriginal Advisory Group was established in 2007, and has guided the research team and study investigators from consultation to the development of a research protocol; through the conduct of a pilot study, and refinement of recruitment and interview procedures; and the submission of several grant applications, including a successful NHMRC grant awarded to the study this year. Based on feedback from the consultation, the study will invite Aboriginal women from across South Australia to talk about pregnancy and birthing care, and the support they had from services before and after their baby was born. All women living in urban, regional and remote areas of South Australia who give birth to an Aboriginal infant over a 12-month period ( $n > 1000$ ) will be invited to take part. The interviews will be conducted at around six months postpartum by a small team of Aboriginal and non-Aboriginal interviewers using a booklet-based interview schedule.

Over and over again in the consultations, we heard this message: the research must be sound; and it must lead to improved services for Aboriginal families. Early on, the Aboriginal Advisory Group recognised that, for the study to make a difference, we needed service providers and policymakers to be engaged and listening. With this in mind, senior policymakers in SA Health and service providers involved in delivering services to Aboriginal families were included in the State-wide consultations held at the very beginning of the project, before the research protocol had been fully formulated. Towards the end of the consultation period, we convened a meeting with senior policymakers spanning the Department of Health, Children Youth and Women's Health Service and Country Health SA to discuss how the project could contribute to service improvements. Around one table there were senior Aboriginal women involved in service and policy roles from around the State, a representative of the Aboriginal Health Council of South Australia, several representatives of SA Health and senior members of the research team. This initial meeting led to what is now known as the Aboriginal Families Study Policy Implementation Partnership. This group brings together researchers, policymakers and Aboriginal community representatives with the explicit purpose of tackling issues arising from the research and working together to achieve knowledge translation – turning the information gathered in the research into action.

In South Australia, perinatal outcomes for Aboriginal infants are largely consistent with national figures.<sup>1</sup> Compared with non-Aboriginal infants, Aboriginal babies are: three times more likely to die before their first birthday, twice as likely to be of low birth weight, almost three times more likely to suffer fetal growth restriction, and almost twice as likely to be born preterm.<sup>1,2</sup> Aboriginal women are approximately five times more likely to die in childbirth or from childbirth-related causes as non-Aboriginal women.<sup>1</sup>

Recent data suggest that in some Australian States, including South Australia, the proportion of low birthweight babies born to Aboriginal mothers may be increasing. Data reported in 2008 by the National Perinatal Statistics Unit showed that 13 per cent of babies born to Aboriginal mothers in 2006 weighed less than 2500 grams, compared with six per cent of babies born to non-Aboriginal mothers.<sup>1</sup> In South Australia the proportion of low birthweight infants



Women and children gathering bush tucker – Katrina Williams, 2009 ©

This painting, by South Australian artist Katrina Williams, is the motif for the study. It shows: 'how a pregnant woman is looked after by her grandmother and mother, and they encourage her to eat healthy food and to go to the health service or the doctor regularly until she has her baby.' It is currently displayed in the foyer of the Adelaide Women's and Children's Hospital.

born to Aboriginal mothers has been higher than the national average for the last two data collection periods (14.3 per cent in 2006 and 17.6 per cent in 2007).<sup>3,4</sup> These data underline the need for urgent and immediate action.

There are many great examples – in South Australia and around the country – of local initiatives that provide culturally appropriate care for Aboriginal families.<sup>5,6</sup> However, these initiatives are commonly on short-term funding and are rarely well integrated into State-wide systems of care. In South Australia, a healthy start to life for Aboriginal children is a major focus of State Government policy.<sup>7</sup> Funding made available under the Council of Australian Governments (COAG) Indigenous Early Childhood Development Partnership has been directed to new service models involving Aboriginal Maternal Infant Care (AMIC) workers as members of the clinical team for pregnancy, intrapartum and postnatal care. New services are being developed in conjunction with metropolitan and regional maternity hospitals. In addition, SA Health has implemented cultural respect training for managers and clinical staff, with a particular focus on supporting the new AMIC worker model.

Too often when initiatives like these are implemented, the people most affected by changes to services don't have a voice in the process. The Aboriginal Families Study aims to ensure that the voices of Aboriginal women and families are accessible to policymakers, health service managers and service providers as evidence to inform ongoing efforts to strengthen services. By keeping community and policy goals in mind right from the start, the project is laying foundations for sustained improvements in Aboriginal women's and children's health.

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## Author profiles

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Karen Glover is the CEO of Pangula Mannamurna Inc. and chairs the Aboriginal Families Study Aboriginal Advisory Group.

Further information about the study: <http://www.mcric.edu.au/AboriginalFamiliesStudy> .



# Diabetes in pregnancy



**Dr Santosh K Chaubey**  
FRACP  
**Bronwyn Davis**  
Midwife, CDE  
**A/Prof Ashim K Sinha**  
FRACP

Diabetes is a serious and rapidly growing global medical problem. Australia has been affected by this pandemic and the Australian Indigenous population bears an unequal burden of diabetes and its complications.

Characteristically, the Indigenous population has a younger age of onset of diabetes and the disease is more common in females and, therefore, affects women of childbearing age.<sup>1</sup> The increasing prevalence of diabetes in

Group (IADPSG) has recently recommended universal screening in these high-risk groups. It also recommends revised guidelines to diagnose GDM. Although the new guidelines are yet to be adopted in Australia, published studies indicate there will be an increase in the total number of women with DIP. Implementation of these guidelines translates into more resource requirements for diabetes centres, across the entire spectrum of diabetes care in pregnancy.<sup>7</sup>

We will now discuss our experience in FNQ. Two audits were undertaken recently from the Diabetes Centre at Cairns and the maternity unit at Cairns Base Hospital (CBH). Based on these audits we were able to identify various issues, which are summarised below.

Aboriginal and Torres Strait Islander (ATSI) people is linked not only to genetic predisposition, but also to a rapid change from a hunter-gatherer lifestyle to unhealthy eating patterns, sedentary lifestyles, smoking, alcohol abuse with its associated adjustment disorder, poor social support, disruption in family structure and socio-economic disadvantage. Most of the communities in the Cape York, Torres Strait Islands and Northern Peninsula area are socially disadvantaged according to the Socio-Economic Disadvantage in Socio-Economic Indexes for Areas.<sup>2</sup>

Maternal diabetes in pregnancy (DIP) – gestational diabetes mellitus (GDM), Type 2 (T2DM) and Type 1 diabetes – is the most common complication in pregnancy and can lead to adverse maternal and fetal outcomes. Higher fertility rates in Indigenous populations compound the magnitude of the problem. Additional factors that might contribute to the increasing prevalence of DIP are higher fecundity, pregnancy in later age, obesity and manifestation of fetal programming.

DIP has both short- and long-term consequences for mother and child. Studies support the existence of a strong association between DIP and obesity and T2DM in childhood and adolescence.<sup>3</sup> The literature suggests that treating maternal diabetes may decrease the risk of diabetes and obesity in progeny.<sup>4</sup> This has strong implications for the Indigenous population and requires breaking the vicious cycle of DIP, childhood obesity and metabolic syndrome.

## Epidemiology and burden of the problem

The ATSI population makes up 12–16 per cent of the population of Far North Queensland (FNQ). ATSI mothers account for approximately 30 per cent of all births in FNQ.<sup>5</sup>

The prevalence of DIP in the Indigenous population of Australia varies from between seven and 13.3 per cent.<sup>6,7</sup> the prevalence of T2DM in the Torres Strait Islands is among the highest in the world, especially in women, with a frequency of 8.8 per cent in women 15–34 years of age and 55.7 per cent of women aged 35 years or older.<sup>1</sup>

The International Association of Diabetes in Pregnancy Specialist

A retrospective chart audit of all women who had DIP, and delivered during 2004 at CBH, showed:

- The DIP frequency was 6.7 per cent.
- The local data compared to national benchmark and Queensland data demonstrated a higher frequency of diabetes in Indigenous mothers and caesarean sections, more neonatal hypoglycaemia and respiratory distress, and fewer normal birth weights and full-term deliveries.
- Non-Indigenous versus Indigenous women showed fewer pregnancies, less T2DM, better glycaemic control, longer babies, more full-term deliveries and less severe neonatal hypoglycaemia.
- Comparing local and national Indigenous data, local showed poorer outcomes, however, only 11.8 per cent had diabetes or hypertension nationally.

A chart audit of all women from the Torres Strait Islands and Northern Peninsular Area who delivered during two time periods; from 1 January to 31 December 1999 and from 1 July 2005 to 30 June 2006, showed:

- DIP increased from 4.3 to 13.3 per cent and T2DM from 0.8 to 4.6 per cent. This is partly contributed by improvement in screening programs as screening increased from 89.2 to 99.5 per cent.
- DIP mothers were older and heavier, with more hypertension and previous miscarriages.
- Caesarean section was five times more common for DIP in 2005–2006 versus non-DIP, while in 1999, there was no difference.
- In 2005–2006, follow-up of GDM occurred in 47 per cent of cases.

Most of the known factors that influence increased fetal abnormality rates in pre-existing diabetes – poor attendance for pre-pregnancy counselling, poor glycaemic control during organogenesis, alcohol use, suboptimal use of insulin and late attendance for antenatal care – are all prevalent in this group. Frequently, DIP is not only a medical issue, but is also complicated by other medical co-morbidities, for instance, anaemia, rheumatic heart disease, malnutrition, obesity, hypertension, infections, smoking, alcohol use and so forth.

During 2002–04, the combined perinatal mortality rate for Indigenous babies in Queensland, Western Australia, South Australia and the Northern Territory was 13.4 per 1000 live births compared to 8.2 for non-Indigenous babies.<sup>2</sup> In the 2003–05 report, maternal mortality rate for Indigenous women was 21.5, compared with 7.9 per 100000 for non-Indigenous women, reflecting their poor health in pregnancy and childbirth, as it is in all areas of health of Indigenous groups.

A recent report from Western Australian Midwifery Notification Database (MND) suggest that in Aboriginal women there are extremely high stillbirth rates (22/1000 births GDM and 53/1000 births pre-existing diabetes). This compares to some of the highest stillbirth rates worldwide, ranging from 25 to 35/1000 births in southern Africa and Asia.<sup>8</sup> The most worrying aspect of this data is that, despite availability of health services, there has not been any change in outcomes over the last seven years.

### Current screening protocol

Universal screening has been in operation in the Torres Strait since early 2000. The same protocol for screening is now being used in the Cape York health district (Figure 1). A study from Western Australia suggests that when universal screening was adopted, the

recorded prevalence of DIP increased by 30 per cent over a five-year period.<sup>8</sup>

### Management

We have initiated a simplified protocol for the management of GDM and DIP.<sup>9</sup> This includes the use of both insulin and metformin either as monotherapy or in combination. Self-management includes recording of blood glucose levels throughout pregnancy and adjustment of medication doses based on the recordings. The safety data from the Metformin in Gestational Diabetes trial has promoted its wider use in DIP.<sup>10</sup>

Currently, CBH has a policy of organising transfer of all pregnant women from Cape York to CBH at 36 weeks gestation. High-risk pregnancy cases, which include all patients who have pre-existing T2DM and insulin-treated GDM patients, are transferred at an earlier gestation, depending on fetal and maternal wellbeing. The follow up of patients post-GDM remains poor because of the lack of coordination between the place of delivery and the community health centres.

Our centre offers a combined diabetes and high-risk obstetrics clinic, led by a multidisciplinary team involving both diabetes and obstetric healthcare workers. The Cairns Diabetes Centre provides programs for ambulatory insulin adjustment, GDM/DIP group education in pre- and post-delivery period. Telehealth is increasingly used by our centre to assist in management of DIP in remote communities. Currently, there are issues around 'technology phobia' among staff in remote communities and a lack of cultural acceptance of such technology by pregnant women. The use of a computerised Patient Information Recall System (PIRS) is proving to be useful in certain communities for recall of GDM and DIP subjects.

### Current barriers to implementing best practice

Once diagnosed with DIP, it is a challenge to provide optimum care (see Table 1).

Table 1. Various factors acting as barrier in implementing best-practice guidelines in management of DIP in rural and remote Australia.

Healthcare-related factors	Social factors	Personal factors
Distance from healthcare facility	Inter-generational poverty	Health awareness
Higher staff turnover	Domestic violence	Substance abuse
Shortage of trained staff	Cultural beliefs and preoccupations	Poor physico-psycho health
Cultural awareness among health service providers	Food availability and affordability	Poor preconception education
	Language barrier	
	Low social cohesion	

These issues are all well recognised in the management of chronic disease, but the time factor is crucial in the case of DIP in that it not only affects maternal health but also the health of the unborn child in both the short and long term.

### Summary and future directions

Health status in this remote population is influenced by social, environmental, behavioural and genetic factors. DIP is becoming more common and its management remains challenging. We feel

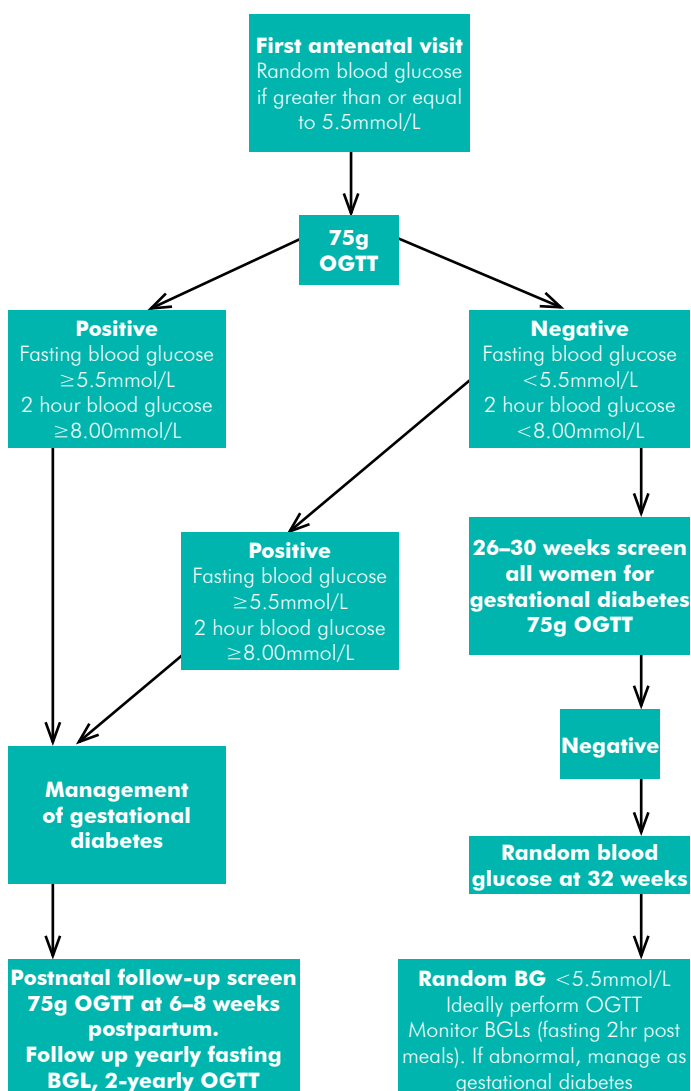


Figure 1. Current screening protocol for Cape York and Torres Strait Islands.



that, long-term follow up plan for DIP provides an opportunity to identify the onset of metabolic syndrome at an early stage. It is well known that 17–63 per cent of GDM women develop T2 diabetes within three to 16 years. This also provides opportunity for inter-generational education to mothers and their children to educate about lifestyle choices to prevent or delay diabetes and associated conditions.

As widely discussed, there are no quick fixes or a one-size-fits-all approach for the management of DIP in remote Indigenous communities around Australia. There are several cultural and logistical barriers that we need to overcome before we can improve the situation. The care for outreach areas initiated by the Cairns Diabetes Centre is only a small beginning. More active participation of Indigenous communities is needed to develop the local workforce. Other important factors are better education at school about general as well as obstetric health, greater health awareness as well as trained health educators and strengthened primary healthcare infrastructure. A long-term approach to develop mutual respect between health service providers and local communities and greater belief in health system by local communities is likely to prove a valuable investment. Federal and State Governments working in collaboration with non-government partners is the way forward.

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# Neonatal problems



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Problems faced by Indigenous babies are no different from those faced by non-Indigenous babies. However, in keeping with the health profiles of Indigenous people in Australia, most of these problems occur more frequently in Indigenous babies.

Common problems encountered in the neonatal period are prematurity, low birthweight (LBW), asphyxia, infections, problems seen in infants of diabetic mothers and congenital anomalies of the heart, gut and kidney, all of which may affect the very survival of the newborn baby.

Indigenous babies account for five per cent of all births in

Australia (15,800 of 295,700 in 2009), with four per cent being born to Indigenous mothers. The proportion of Indigenous births by State is as follows: Victoria one per cent, Queensland 6.1 per cent, NSW 2.8 per cent and the Northern Territory 36 per cent.<sup>1</sup>

The main reasons babies require admission to special care nurseries are those related to problems associated with prematurity and LBW. Problems connected to LBW include: feeding difficulties, jaundice, growth and long-term risks of adult chronic diseases such as heart disease, renal disease and diabetes mellitus. Premature babies may need ventilation, owing to hyaline membrane disease, and require specialised care to maintain temperature and provide nutrition. Complications associated with prematurity are retinopathy of prematurity, intraventricular haemorrhage and chronic lung disease, which have a significant impact on quality of life. The lower the birthweight and the smaller the gestational age, the worse the prognosis.

Perinatal mortality (sum of fetal and neonatal deaths per 1000 total births) of Indigenous babies continues to be higher than that of the wider population. National data puts these rates at 1.4 times the non-Indigenous rate in Western Australia, 1.2 times in South Australia and 2.1 times in the Northern Territory for 2003–05.<sup>2</sup> Northern Territory data report perinatal mortality of 31 in Indigenous babies compared to 23 in non-Indigenous babies in 2001–05.<sup>3</sup> There have been significant improvements in perinatal mortality over the last few decades, with the rates decreasing from a high of 44 per 1000 births in 1986–1990.

Preterm birth (before 37 completed weeks of gestation) is associated with a higher risk of neonatal problems that cause significant morbidity and mortality in newborn babies. Preterm births were classified according to the criteria of the WHO into groups of 20–27 weeks, 28–31 weeks and 32–36 weeks. Of all babies born in 2008, 8.2 per cent were preterm, with most of the preterm births occurring at a gestational age of 32–36 completed weeks. In 2008, 13.3 per cent of babies of Aboriginal and Torres Strait Islander mothers were born preterm, a proportion greater than eight per cent preterm rate of babies born to non-Indigenous mothers.<sup>4</sup> However, this proportion varies markedly across the country. The

Northern Territory had the highest proportion of preterm births, at 9.8 per cent of all births, and New South Wales had the lowest, at 7.5 per cent of all births. In the Northern Territory up to 15 per cent of Indigenous live born babies are preterm, and this is similar to the pattern seen over the last three decades.<sup>1</sup>

A baby's birthweight is a key indicator of health status. Babies are defined as LBW if their weight at birth is less than 2500g. Within this category, those weighing less than 1500g are defined as very low birthweight and those less than 1000g as extremely low birthweight.<sup>5</sup> LBW babies have a greater risk of poor health and dying, require a longer period of hospitalisation after birth and are more likely to develop significant disabilities.<sup>6</sup> A baby may be small due to being born early (preterm), or may be small for its gestational age (intrauterine growth retardation). Some factors contributing to LBW include socioeconomic status, size of parents, age of mother, number of babies previously born, mother's nutritional status, smoking and alcohol intake, and illness during pregnancy.<sup>7</sup>

**'The proportion of Indigenous live born babies born with LBW declined slightly over time, but not significantly.'**

The average birthweight of live born Indigenous babies in 2008 was 3196 grams, 189 grams lighter than the average of 3385 grams for live born babies of non-Indigenous mothers.<sup>4</sup> The proportion of LBW Indigenous babies was 12.3 per cent, twice that of non-Indigenous babies (5.9 per cent). The proportion of Indigenous live born babies born with LBW declined slightly over time, but not significantly.<sup>1</sup>

The Aboriginal Birth Cohort study, a prospective longitudinal study that is now in its 26th year, has detailed information on Indigenous mothers and babies. The participant mother-baby pairs were recruited at the Royal Darwin Hospital, which is the main hospital for the Top End of the Northern Territory, from 1987–90. Of the 686 babies that form the cohort, ten per cent were preterm, 18 per cent LBW and 24 per cent had intrauterine growth restriction (IUGR). IUGR is defined as a birthweight for gestational age that is less than the tenth centile on the growth curve and is a better decimator of the adequacy of intrauterine growth than LBW, which is an arbitrary cutoff below 2500 grams.<sup>8</sup> The three main factors associated with LBW in this cohort were young maternal age, low maternal BMI and antenatal smoking, all of which are amenable to change. At the last follow-up of this cohort (2006–08), a third of the female participants had already had a child.<sup>9</sup> Of major concern is that the rates of smoking had increased from 56 per cent reported by mothers of the cohort to 63 per cent of the cohort who had had babies. Cessation of smoking during pregnancy is extremely rare.

These rates are comparable to reported rates from the Midwives Data Collection in the Northern Territory.<sup>1</sup> In addition, 47 per cent of the participants who had babies had BMI <18.5 kg/m<sup>2</sup>. Alcohol use, both during pregnancy and otherwise, had also increased over the years. However, in this cohort we did not find an association of antenatal alcohol consumption with either prematurity or LBW.

Infants of diabetic mothers (including gestational diabetes) are increasing owing to the increasing rates of obesity and diabetes in the population. For a number of reasons these infants have higher morbidity and mortality.<sup>10</sup> Problems occur at delivery mainly due to the large size of the babies. Obstructed labour, in particular shoulder dystocia, is a major concern. Prematurity is common, often because of medical intervention. These infants have immediate problems with low sugars owing to the continued high insulin levels while the nutrient supply is turned off with the removal of the placental circulation. There are higher rates of congenital anomalies, some of which are life threatening.

Overall, the survival rate of Indigenous babies is improving, although the gap persists. There are continuing high rates of prematurity, LBW and increasing rates of gestational diabetes. Of most concern is the continuing high rate of smoking in general, and in particular in pregnancy, as smoking is a major risk factor for LBW and is potentially preventable.

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## Author profile

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# Providers, protectors, warriors



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Aboriginal and Torres Strait Islander men have an important role to play in the improvement of Aboriginal and Torres Strait Islander women's health.

*The role of the man was held in high esteem. He performed ceremonial rites and guided the young boys through their initiation into manhood. We guided our young men to understand their world, to know their country, to make their tools, to dance and paint, to learn our stories, to know the spiritual world. Traditionally, Noongar men were providers for their families, they were at one with the land that provided them with life and, most importantly, great inner strength and spirituality.*

Noongar (Western Australia) Men's Manual

Aboriginal and Torres Strait Islander males are fathers, partners, uncles, brothers, nephews, grandchildren and sons. All of these identities play significant roles in Aboriginal and Torres Strait Islander women's lives and are intimately related to women's social and emotional wellbeing, both socially and culturally, at individual, family and community level.

The Aboriginal and Torres Strait Islander gender constructs are traditionally quite different from modern western constructs. These gender constructs had always been complementary, with survival in some of the harshest country in the world dependant on the effectiveness of these complementary roles.

Although, historically, in the dormitory system at many Aboriginal and Torres Strait Islander missions, the father was excluded from the parenting role, there is opportunity to re-colonise this area and ensure the inclusion of men. This doesn't necessarily cut across men's and women's business culture lore, but it does need to be done sensitively and in partnership with both local men's and women's groups.

There are numerous cultural traditions around the nurturing of children where the role of the father is important. Brian McCoy, in his book on the western desert Aboriginal men, describes this in the context of 'Kanyirninpa', which can be described as 'holding' or nurturing, especially in the context of older men nurturing and caring for younger males.<sup>1</sup> This is a central part of traditional Aboriginal culture in this region and dynamically connects nurturance, relatedness, authority, and autonomy, together with family, land and Dreaming in the context of Aboriginal men. The ability of our programs to be able to understand and acknowledge these cultural principals, if not work within them, is central to their success in resonating with men in Aboriginal and Torres Strait Islander communities.

In many areas, the uncle/nephew relationship was responsible for the teaching, training and discipline, and many still practice

this way, though some need to be re-connected culturally to this process. With this understanding, it is imperative that some of the root causes of problems such as violence, dysfunctional relationships and poor parenting are addressed with males, as well as responding to the consequences of dysfunction for women and children.

'There are a number of key areas where there is an evidence base for interventions targeting males, as well as areas that are fairly intuitive in this social context.'

Aboriginal and Torres Strait Islander men have been very proactive in attempting to address their own issues, but at community level lack capacity, resources and real support to do this, even though Aboriginal and Torres Strait Islander men's groups have developed in almost every Aboriginal and Torres Strait Islander community across Australia.

## Political context

In the context of the Northern Territory Emergency Response (NTER), initiated in 2007 and still in place, support for programs to improve men's health and wellbeing and to address community violence with males was not politically expedient, as there was a media-driven stereotyped view of Aboriginal and Torres Strait Islander males (drunken, welfare dependant, wife bashing, child abusers) that was a political disincentive.

Aboriginal and Torres Strait Islander males were not invited to the then Federal Minister Brough's Aboriginal and Torres Strait Islander Domestic Violence Summit and the 'Framework for Aboriginal and Torres Strait Islander Male Health'<sup>2</sup> developed by Aboriginal and Torres Strait Islander males was shelved by the Federal Health Department as not being a priority.

The new National Male Health Policy has now picked up this important policy document, and newer Australian Government funding for programs for Aboriginal and Torres Strait Islander men as fathers has started rolling out.<sup>3</sup>

'We the Aboriginal males from Central Australia and our visitor brothers from around Australia gathered at Inteyerrkwe in July 2008 to develop strategies to ensure our future roles as husbands, grandfathers, fathers, uncles, nephews, brothers,





*Fathers' Program health coordinator, Bernard David, makes a point with some male Indigenous school students.*

grandsons and sons in caring for our children in a safe family environment that will lead to a happier, longer life that reflects opportunities experienced by the wider community.

'We acknowledge and say sorry for the hurt, pain and suffering caused by Aboriginal males to our wives, to our children, to our mothers, to our grandmothers, to our granddaughters, to our aunts, to our nieces and to our sisters.

'We also acknowledge that we need the love and support of our Aboriginal women to help us move forward.'

Ross River Statement, July 2008

'The importance of quality family relationships, such as effective and loving parenting, is well established for children to obtain a better start in life...'

There are a number of key areas where there is an evidence base for interventions targeting males, as well as areas that are fairly intuitive in this social context. Gilligan's paper<sup>4</sup>, on Aboriginal and Torres Strait Islander women's knowledge and attitude to smoking during pregnancy, showed a good understanding of the harmful effects of tobacco for these antenatal women, but what drove the reinforcing of tobacco smoking for them were key issues such as: having an Aboriginal and Torres Strait Islander partner; having a partner who smoked; and the number of smokers in the household, as well as high stress levels (often related to partner).

Also, Hunter's work<sup>5</sup>, describing 'stress hormone' rises for pregnant Aboriginal and Torres Strait Islander women at pension day, showed significant responses based on the increased risk of

violence on these days, with potential implications for the fetus and the mother.

The importance of quality family relationships, such as effective and loving parenting, is well established for children to obtain a better start in life with evidence around adverse childhood events and exposure to trauma, such as family violence, abuse and neglect, and substance misuse being the key to later life outcomes in chronic disease and mental health and wellbeing.<sup>6</sup>

'...there is vast untapped potential in supporting these men to do their business, with improved outcomes for women and families.'

#### **Fathers' programs**

Based on broad evidence, Apunipima Cape York Health Council's fathers' programs attempt to address these areas of need, including: engaging young fathers, ensuring they are seen as part of the family structure and have an important role to play in protecting, caring and nurturing their families. Other areas include the following:

- Targeting the male partners of women who smoke during pregnancy to support her as well as quit themselves.
- Addressing fetal alcohol spectrum disorders by targeting the partners of females who do drink alcohol during pregnancy to conscript their support to help their partners not to drink during pregnancy, and often this means the male will need to stop drinking as well to provide this support.
- Education about the role of the partner in pregnancy – 'why is she acting so weird?' – and how to support these women.
- Educating Aboriginal and Torres Strait Islander males about positive loving relationships, how to treat women, women's physiology, the father's role with the newborn, the male role in contemporary society are all central to our programs.

Aboriginal and Torres Strait Islander men's groups in many communities attempt to address these issues from a grassroots, organic approach and our programs fit with this as there is vast untapped potential in supporting these men to do their business, with improved outcomes for women and families.

As Neville Bonner, the first Aboriginal Senator, said:

'As parents, uncles, cousins or brothers, we [Indigenous males] must take responsibility for the future of our young people...emphasis is placed on sporting personalities, but the best role model a son can have is a patient, caring father. The attitude towards life of the son will mirror that of the father, which is the way things used to be done before white settlement...I am convinced there is absolutely no reason why a system that worked so well in the past cannot work today.'

Former Senator Neville Bonner, NSW Indigenous Men's Healing and Cultural Affirmation Conference, 1997

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## Author profiles

Dr Mark Wenitong, Adjunct A/Prof, James Cook University, School of Tropical Public Health, is from the Kabi Kabi tribal group of South Queensland. He is the senior medical officer at Apunipima Cape York Health Council, working on health reform across the Cape York Aboriginal communities. He was the senior medical officer at Wuchopperen Health Services in Cairns for the previous nine years. He has also worked as the medical advisor for the Office for Aboriginal and Torres Strait Islander Health in Canberra.

He is a past president and founder of the Australian Indigenous Doctors Association, was on the National Health and Medical Research Committee – National Health Committee, chairs the Andrology Australia-Aboriginal and Torres Strait Islander Male Reference group and sits on several other committees. He is a council member of the Australian Institute of Aboriginal and Torres Strait Islander Studies and a member of the Queensland Aboriginal and Torres Strait Islander council.

Mark has been heavily involved in Aboriginal and Torres Strait Islander health workforce policy and helped develop several national workforce documents. He sits on the COAG Australian Health Workforce Advisory Council. He is involved in several research projects and has worked in prison health and refugee health in East Timor, as well as studying and working in Indigenous health internationally. He was a member of the NTER review expert advisory group in 2008.

He is involved in clinical and policy work with the aim of improving Aboriginal and Torres Strait Islander health outcomes in Australia.

Bernard David is of Aboriginal and Torres Strait Islander descendant from Iama (Yam Island) in the Kalaw Lagaw Ya group and Kaanju Tribal group in Cape York Peninsula. He is the men's health coordinator at Apunipima Cape York Health Council in the Family Health Team and is a current board member of Wuchopperen Health Service, a local Aboriginal Medical Service in the Cairns and surrounding area.

He has been active in male health for the past 12 years in Far North Queensland, and is passionate about improving health and well-being outcomes for Aboriginal and Torres Strait Islander men and their families.

# RHD: women and pregnancy



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Rheumatic heart disease has been all but forgotten in mainstream Australia. However, Aboriginal and Torres Strait Islander people, particularly those living in regional and remote Australia, have among the highest rates of the disease in the world. This burden is disproportionately borne by women.

Rheumatic heart disease (RHD) is a consequence of an earlier group A streptococcal infection and associated acute rheumatic fever (ARF). In Australia, RHD is particularly seen in Aboriginal and Torres Strait Islander peoples.<sup>1</sup> However, with immigration from areas with a higher risk of RHD (Africa, South America and Asia<sup>2</sup>), it can also be seen in young, non-Indigenous Australians. Generally, the onset of RHD occurs in childhood and adolescence; it affects more women than men. It can often be first detected in women of childbearing age and can potentially complicate pregnancy and labour. While the presence of RHD rarely means women cannot become pregnant, there are a number of factors that are important in ensuring a good outcome for both mother and child (see box below).

number of criteria, including: clinical signs and symptoms and the findings of ECG, echocardiography, throat swab and blood tests (see Table 1).

*Table 1 Australian criteria for the diagnosis of ARF (see Diagnosis and management of acute rheumatic fever and rheumatic heart disease in Australia: An evidence-based review<sup>6</sup> for more details)*

	High-risk groups	All other groups
Initial episode of ARF	Two major OR one major and two minor manifestations PLUS evidence of preceding GAS infection	
Recurrent episode of ARF if past ARF or RHD	Two major OR one major and two minor OR three minor manifestations PLUS evidence of preceding GAS infection	
Major manifestations	1. Carditis (including RHD seen on echocardiogram without a murmur) 2. Polyarthritits or aseptic monoarthritis or polyarthralgia 3. Chorea 4. Erythema marginatum 5. Subcutaneous nodules	1. Carditis (excluding RHD seen on echocardiogram without a murmur) 2. Polyarthritits 3. Chorea 4. Erythema marginatum 5. Subcutaneous nodules
Minor manifestations	1. Fever 2. ESR $\geq 30$ mm/hr or CRP $\geq 30$ mg/L 3. Prolonged PR interval on ECG	1. Fever 2. Polyarthralgia or aseptic monoarthritis 3. ESR $\geq 30$ mm/hr or CRP $\geq 30$ mg/L 4. Prolonged PR interval on ECG

## What is it?

ARF is a non-infective response of a person's immune system to an earlier throat infection with a common bacterium, group A streptococcus (GAS).<sup>3</sup> It has also been suggested that skin infection with GAS may cause ARF though the evidence for this is less clear.<sup>4</sup> The signs and symptoms of ARF include painful, stiff and swollen joints, fever, skin rash and heart and brain inflammation. In Australia, ARF is diagnosed on the basis of a

RHD results from the cumulative effects of ARF-induced heart inflammation (carditis). It is a chronic heart condition associated with thickening and scarring of heart valves. This damage can affect the

## Important factors in the early detection and management of RHD in women who are planning to become pregnant or who are pregnant

1. Detect early and exclude RHD
  - a. In populations at high risk of RHD, all women who have a heart murmur require an early echocardiogram.
  - b. If there is a history of ARF, the result of a recent echocardiogram should be reviewed.
2. Assess and treat before pregnancy
  - a. Refer anyone with RHD for specialist physician/cardiologist review.
  - b. Discuss fertility planning and contraception with women with RHD.
  - c. Ensure fertility planning informs discussions regarding management in all women in whom surgery is planned.
3. Ensure a coordinated and multidisciplinary care team is in place early – pregnant women with RHD require a team approach linking primary healthcare, obstetric services, anaesthetics and specialist physicians/cardiologists.





Figure 1. Echocardiography is both portable and accessible.

function of valves (particularly the mitral and aortic valves) leading to leaking (regurgitation) or blockage (stenosis). More severe RHD can result in tiredness, shortness of breath, heart failure, infection of the heart valves (endocarditis)<sup>6</sup> and stroke.<sup>2</sup> During pregnancy, additional blood volume and workload on the heart can worsen many of these problems. In more severe RHD, surgery may be required to replace damaged valves with bioprosthetic (tissue valves derived from animals or humans) or mechanical valves, with the latter requiring lifelong anticoagulation (warfarin) to prevent clotting. In selected patients it may be possible to repair rather than replace valves at surgery or even open a stenosed mitral valve using less invasive percutaneous balloon mitral valvuloplasty.

Echocardiography is an essential tool in the diagnosis, assessment of severity and management of RHD. Like obstetric ultrasound, it is non-invasive and, with the development of smaller and portable echocardiography machines, it is now possible to provide local echocardiography services even to people living in very remote communities. This requires investment in suitable equipment and resourcing to ensure that there are mobile outreach echocardiography technicians or that staff providing visiting specialist outreach services have the requisite skill to perform echocardiography.

### Epidemiology

The international incidence of ARF is almost 500 000 per year and 60 per cent of these cases will develop RHD each year. The prevalence of RHD is believed to be at least 15.6 million cases, with 282 000 new cases and 233 000 deaths each year.<sup>2</sup>

While there has been a decrease in the incidence and prevalence of ARF and RHD in industrialised countries during the past 50–100 years, these diseases remain major public-health concerns in developing countries. However, there are some population groups in developed countries that remain at risk. This is the case within

### Specific recommendations for management of RHD and prosthetic heart valves in pregnancy

- Mitral regurgitation: generally tolerated well during pregnancy. Heart failure may require diuretics and vasodilators (hydralazine, nitrates, dihydropyridine calcium channel blockers). Vaginal delivery is usually possible when heart failure is controlled.
- Mitral stenosis: if moderate or severe often causes heart failure. If symptoms are not severe, medical therapy with diuretics, digoxin and/or beta-blockers to slow heart rate is indicated. If symptoms remain there is significant risk to both mother and fetus and relief of mitral stenosis is usually required. Percutaneous balloon valvuloplasty is preferred given the high risk of fetal loss with surgery. Vaginal delivery is the usual approach although caesarian section should be considered in cases of severe disease with severe pulmonary hypertension.
- Aortic stenosis: if mild or moderate can usually be safely followed during pregnancy. Severe disease involves significant risk of adverse outcomes and percutaneous balloon aortic valvuloplasty may be required.
- Prosthetic heart valves: choice of valve prosthesis in the childbearing age group is complicated by the fact that while tissue valves have the advantage of not requiring anticoagulation most will require later replacement. Most patients with prosthetic valves and few symptoms tolerate pregnancy well.
- Mechanical prosthetic valves and anticoagulation: mechanical valves are a high-risk group as all anticoagulation options pose maternal and/or fetal risks. Patients taking warfarin need early counselling and specialist advice before becoming pregnant. Women on warfarin who can become pregnant require reliable contraception.

See Diagnosis and management of acute rheumatic fever and rheumatic heart disease in Australia: An evidence-based review<sup>5</sup> for more details.

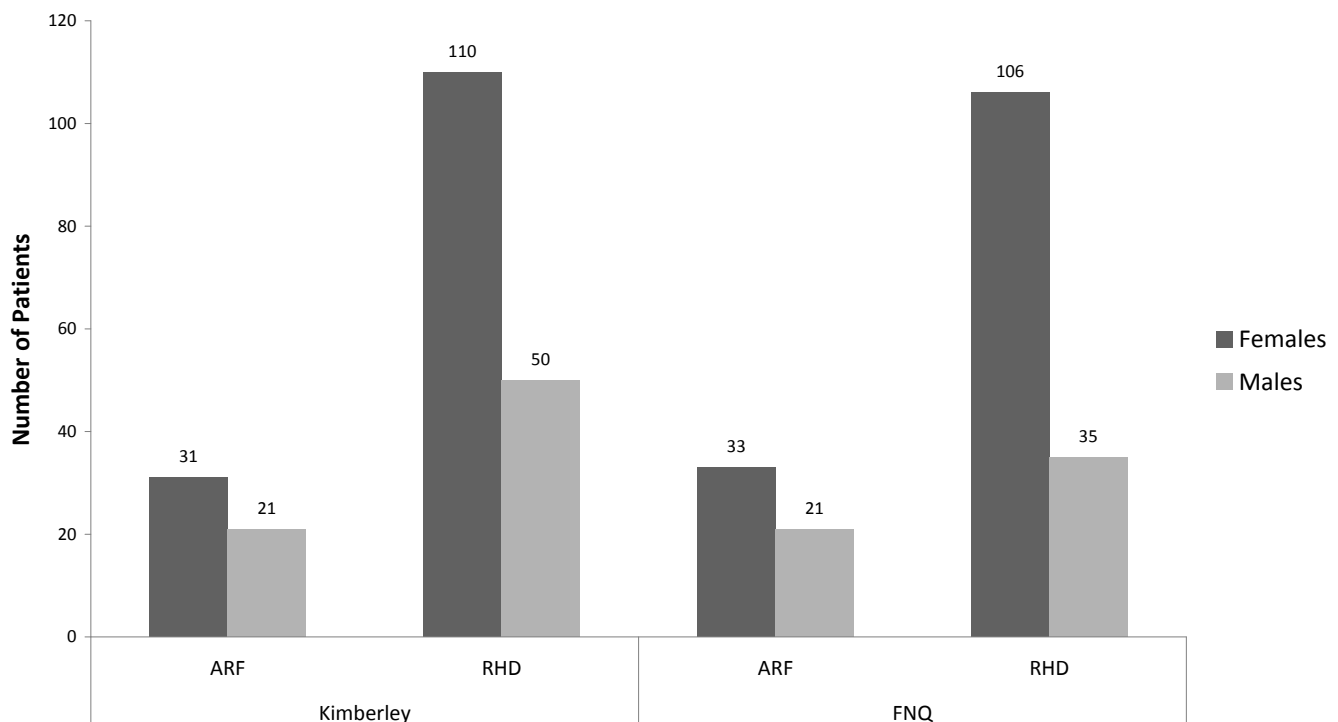


Figure 2. Over-representation of women with RHD in the Kimberley (Western Australia) and Far North Queensland.

Australia, where the acquisition of ARF and RHD is almost exclusively restricted to Aboriginal and Torres Strait Islander populations, particularly those living in rural and remote central and northern Australia. In these populations, the burden of ARF and RHD is among the highest in the world. The annual incidence of ARF in Aboriginal people in the Northern Territory has been reported as 250–350 per 100 000 per year in the 4–15 age group, and the prevalence of RHD between 1.3 and 1.7 per cent (all ages).<sup>1</sup> Similar levels of disease have been reported in northern Queensland and the Kimberley in the far north of Western Australia. By contrast, ARF is now rare in other Australian populations groups and the relatively small number of RHD cases seen in these groups occur mostly among the elderly and people born in Asia, Africa and South America who have subsequently migrated to Australia.

### Management and antibiotic prophylaxis

In Australia, a guideline for the diagnosis and management of ARF/RHD has been published by the National Heart Foundation of Australia and the Cardiac Society of Australia and New Zealand.<sup>5</sup> This guideline has been adapted for local use by jurisdictions to reflect local healthcare systems.<sup>7–9</sup> While the long-term priority for addressing ARF and RHD remains identifying effective targets for primary prevention, the current priority remains the secondary prevention of GAS infection with prophylactic antibiotics in those with a history of ARF or known RHD. The most effective form of secondary antibiotic prophylaxis is intramuscular benzathine penicillin, usually on a monthly (but ideally on a three-weekly) basis. This aims to prevent further attacks of ARF that could lead to the development of RHD in those with normal heart valves or worsen valve damage in those with the earliest changes of RHD.

### RHD and women

Women are at higher risk of developing RHD compared with men, despite similar rates of ARF. A prospective surveillance program of ARF and RHD in Fiji between 2005 and 2007 revealed that the relative risk of admission for RHD for females compared with males was 2.5 (95 per cent CI, 1.6–3.8).<sup>10</sup> A recent audit of the

management of ARF and RHD, in the Kimberley region of Western Australia and Far North Queensland revealed a similar disparity in disease (see Figure 2). Of the 301 people with RHD 216 (71.8 per cent, 95 per cent CI 66.3–76.8) were women. Overall, the odds of having RHD in women was 2.2 (95 per cent CI 1.6–3.1) compared with men.

The reasons for this far greater risk of RHD in women remain poorly understood. While it may be explained by a greater exposure to GAS in women caring for children, this would fail to explain the lack of a similar gender disparity in ARF incidence in younger people. It may also be, at least in part, attributable to women having a greater opportunity for diagnosis of RHD by accessing healthcare more frequently than men or a gender-related predisposition to autoimmune disease.<sup>11</sup>

### RHD in pregnancy

Pregnancy places an increased demand on the heart even in otherwise well women. Changes associated with pregnancy include an increase in blood volume and heart rate, a reduction in the resistance of the arterial circulation and an associated increase in cardiac output. These normal changes tend to worsen pre-existing heart valve problems, including those associated with RHD. For this reason it is not uncommon that RHD can sometime be first diagnosed in pregnancy through finding a heart murmur or the onset of heart failure. Unexplained shortness of breath in pregnancy and during and after delivery in patients at risk of RHD should always raise the suspicion of RHD and heart failure.

The National Heart Foundation of Australia and Cardiac Society of Australia and New Zealand's Diagnosis and management of acute rheumatic fever and rheumatic heart disease in Australia: an evidence-based review<sup>5</sup> highlights five maternal risk factors associated with RHD during pregnancy. These are:

1. Reduced left ventricular function.
2. Significant aortic or mitral stenosis.

3. Moderate or severe pulmonary hypertension.
4. A history of heart failure.
5. Symptomatic valvular disease before pregnancy.

Health providers caring for pregnant women with RHD should refer to these guidelines for detailed advice (see box on p48). In general, regurgitant valve lesions are much better tolerated in pregnancy compared with stenotic lesions. Mitral and aortic stenosis should therefore raise particular concern. The importance of identifying RHD in women before they become pregnant is reinforced by the high risk of fetal loss associated with valve surgery during pregnancy. The key to RHD management in pregnancy remains early and regular monitoring by a multidisciplinary team. Management of labour and delivery in women with RHD and mechanical valves is complicated and is outlined in the review by Sartain.<sup>12</sup>

## Conclusion

The normal cardiovascular changes associated with pregnancy exacerbate problems associated with pre-existing RHD and pregnant women with RHD must be managed according to the severity of their valve lesion and symptoms. Women with mechanical prosthetic valves who require anticoagulation are particularly at risk. The key to RHD management in pregnancy is detection and management before women become pregnant and early and regular multidisciplinary care in pregnancy, including primary healthcare providers, obstetricians, anaesthetists and specialist physicians/cardiologists. If managed early and proactively most women with RHD can become pregnant with a positive outcome for mother and child.

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## RANZCOG RESEARCH FOUNDATION



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Membership of the RANZCOG Research Foundation is open to all members of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists and to all others with an interest in the aims and objectives of the Foundation.

By joining the RANZCOG Research Foundation you are directly contributing to the internationally recognised research conducted in Australia and New Zealand.

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The RANZCOG Research Foundation supports research in the fields of obstetrics, gynaecology, women's health and the reproductive sciences through the awarding of various scholarships, fellowships and grants.

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### Further Information

Further information about the work of the Foundation is available on the website at: [www.ranzcog.edu.au/research](http://www.ranzcog.edu.au/research)

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helping to drive **research** excellence in women's health



# Prison bars are health barriers



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A study is currently assessing the mental, physical and social wellbeing of Indigenous women who are involved with the criminal justice systems in Australia.

The over-representation of Aboriginal and Torres Strait Islander Australians (Indigenous Australians) in the criminal justice system and the prison environment, in particular, is well documented. Twenty years ago the Royal Commission into Aboriginal Deaths in Custody (RCIADC) highlighted that the rate of imprisonment for Aboriginal Australians was 11 times higher than that of the general population.<sup>1</sup> Since the RCIADC that rate has increased significantly, with Aboriginal and Torres Strait Islander peoples now 14 times more likely than their non-Indigenous counterparts to be imprisoned and Indigenous Australians form over 26 per cent of the prison population.<sup>2</sup> Overall, the rate of Aboriginal prisoners increased 71 per cent between 2001 and 2009, compared with a 25 per cent increase for non-Aboriginal prisoners. Alarming, in

New South Wales alone, the incarceration of Aboriginal women increased from 17 per cent, in 1996, to 29 per cent in 2009, making Aboriginal Australian women the most over-represented group of women in prisons of the Organisation for Economic Cooperation and Development (OECD).

Aboriginal and Torres Strait Islander peoples with mental health disorders and cognitive disabilities (MHDCD) in Australia's criminal justice systems (CJS) is a matter of importance to Government, policymakers, Indigenous and non-Indigenous Australians. The 2009 New South Wales Inmate Health Survey reported poorer general health for all Aboriginal people, but in particular for Aboriginal women in custody. The responses also confirmed that social and emotional wellbeing concerns – and poor mental health in particular – are highest among Aboriginal female inmates. More than half demonstrate signs of moderate to severe depression and are more likely than other inmates to:

- have been admitted to a psychiatric hospital (21 per cent);
- to be on psychiatric medications (31 per cent); and
- to have ever attempted suicide (37 per cent).

Targeted and culturally valid healthcare services and programs are fundamental to meeting these complex health needs.<sup>3</sup> These high rates, as well as the barriers to accessing healthcare services,

are both a cause and effect of health inequality. Shockingly, it appears some Indigenous Australian women only receive mental health care and disability support in prison – this is a deep-seated social injustice and a breach of their human and health rights. The fundamental question is why women with such vulnerabilities are in prison in the first place. Why did they not receive support earlier in their lives to help prevent criminalisation?

‘The majority of Indigenous women in prison today will return to prison quickly upon release; of course, this exacerbates poor health, especially mental health...’

To support Indigenous women and their children towards greater wellbeing it is important to understand how they become caught up in the CJS. The majority of Indigenous women in prison are mothers with dependent children, but most lose custody of their children when they are incarcerated. Their primary concerns while in prison are for their children<sup>4</sup>, they see them rarely and desperately wish to reconnect with them when they are released, but this often does not occur. Most of the women have experienced sexual assault and/or domestic violence, experience post-traumatic stress and intergenerational trauma and return to the same circumstance they were in before prison.<sup>5,6</sup> Transitional and post-release support and services are poorly targeted for Indigenous women and in most cases, particularly for women returning to regional and remote communities, are nonexistent.<sup>5</sup> Housing is a perpetual problem and most are effectively homeless upon release.<sup>7</sup> The majority of Indigenous women in prison today will return to prison quickly upon release; of course, this exacerbates poor health, especially mental health, because they cycle from a structured period in prison to a chaotic period out of prison and back again. Those with cognitive impairment are very poorly understood or supported either in the community or in prison.<sup>8</sup>

The ARC Linkage Project brings an Indigenous-informed, mixed method research approach to the study of this issue. Qualitative interviews will afford new and in-depth understandings from an Indigenous perspective and will help us gain an understanding of the quantitative findings from an existing dataset to allow a whole-of-life picture of institutional involvement. The dataset will be used to investigate the pathways Indigenous Australians with MHDCD take into, around and through the CJS and their experiences. The intent of the research is to provide evidence to work with and assist Indigenous peoples to improve outcomes for people with MHDCD.

As New South Wales accounts for over one-third of Australian prisoners and over one-quarter of Indigenous prisoners, the

original dataset was drawn from the 2001 New South Wales Inmate Health Survey and the New South Wales State-wide Disability Services of Corrective Services client database. Data on the 2731 cohort members from 12 human service and criminal justice agencies were linked then merged. The cohort contains 676 Indigenous Australians. Of the Indigenous cohort, 86 per cent is male, with the remaining 14 per cent female. All but nine per cent of this Indigenous cohort has been identified as having MHDCD, a significantly higher proportion than for non-Indigenous Australian members of the cohort. A very large proportion of this group has complex needs (multiple diagnoses/disability); for example, of those with mental health disorder, 77 per cent also have a history of substance abuse, with over one-third also having a cognitive disability.

The IAMHDCD project will, in the qualitative phase, work with Indigenous communities that would like to partner with the project in New South Wales, Alice Springs and the Kimberley area to understand how MHDCD intersects with the criminal justice system for Indigenous Australians and how to change their pathways into prison.

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## Author profiles

Dr Eileen Baldry is Professor of Criminology at the School of Social Sciences and International Studies at the University of New South Wales. Eileen's main areas of research and publishing are in: the criminal justice system, focusing on critical criminology-critical disability studies development, vulnerable persons and minority groups – people with mental health disorders and cognitive disability, women and Indigenous persons; throughcare, transition from prison, post-release and homelessness; and criminal justice-human service system interactions; and in Indigenous social work; and community and social development in social housing.

Elizabeth McEntyre is a Goori woman from the Wanaruah and Worimi peoples of the Hunter Valley and coastal NSW. An accredited Social Worker and Mental Health Social Worker by profession, she is presently undertaking a PhD in Social Work with the University of NSW, through collaboratively working with Aboriginal communities State-wide and Aboriginal Australians with mental health disorders and cognitive disabilities in the criminal justice system.

## About the study

The ARC Linkage Project: Indigenous Australians with Mental Health Disorders and Cognitive Disabilities in the Criminal Justice System is based at the University of New South Wales. The chief investigators are: Prof Eileen Baldry, Dr Leanne Dowse, A/Prof Julian Trollor and Prof Patrick Dodson. The partner investigator is: Dr Devon Indig and the PhD candidate is Elizabeth McEntyre.

A website is under construction that will contain project publications, research documents and links to nested studies and partner organisation studies relevant to the IAMHDCD Project. If you would like to be added to the IAMHDCD Project mailing list please email your details to: [mhdcd@unsw.edu.au](mailto:mhdcd@unsw.edu.au).

# A bridge between worlds

Les Mulligan  
Midwifery Unit Manager  
**Bathurst Base Hospital  
Maternity Unit**

Maori and Aboriginal birthing cultures share some striking similarities, but it is more important to recognise that ignoring women's cultural needs is a determinant in poor health outcomes.

As a Maori woman working within the Australian health sector as a midwife, I bring my own cultural framework and world view with me, informed by 15 years of working in New Zealand. Before moving to Australia, I worked with Maori women and their whanau (family), trying to give them, within reason, the birth experience that they wanted. I encouraged women to have a detailed birth plan; informing them that if they chose a homebirth there would be two midwives for the safety of them and their baby. I also encouraged the partner to catch their baby. I discussed with them that if things went outside the norm that they would be transferred to a base hospital, explaining that I have two people's lives in my hands and I am not going to jeopardise their lives. I have found that by being upfront with women and their whanau and by giving them the ability to make informed choices, then decisions are made collaboratively.

Now that I am working with Aboriginal women and their whanau, I am learning a lot and at times it has been really testing, more so for not being aware of cultural needs. I challenged myself to find and learn about the Aboriginal culture and how I could make their birthing experience better for them. Upon researching Aboriginal women's birthing culture and comparing it with Maori women's, I have found many similarities, particularly between birthing practices and how the whenua (placenta) is dealt with. Tellingly, I have gained more insight of Aboriginal culture from research than I have from talking to clients. While working with Aboriginal women I have asked about their cultural beliefs and they could not tell me much, other than that their mother would take the umbilical cord and peg and bury them.

Aboriginal health workers I have worked with have spoken about the smoking ceremony. This is performed after the birth and is awe-inspiring to observe, but only those invited get to see it. It is an Aboriginal belief that birth is a powerful time when unseen spirits find a way into the world and choose to be born. In traditional Aboriginal belief, if a mother goes to a sacred space filled with spirits such as Uluru, she can invite the spirit into her in the form of a child. Some Aboriginal beliefs also hold that the umbilical cord should be planted beneath a sacred tree and that a portion of the cord should be wound like a necklace around the baby's neck. Another belief that shapes practice in Aboriginal culture during pregnancy is that the woman would be kept away from her partner, so that the unborn baby is not hurt in any way.

Traditionally, to prepare for birth, the Putari dug trenches that were lined with green weed from the lake. Putari would gather and use cobweb if the woman was haemorrhaging. Maori would also use cobweb to stop the bleeding, it was used for deep cuts on limbs and it worked very effectively. Aborigines bury their placenta under a special tree, which is very spiritual for them and as it is for Maori.

Some Maori women believe their genital area is tapu (sacred) and cover up rather than have themselves exposed. The baby's head is also regarded as tapu and one must have the mother's permission to touch the baby's head (permission is granted before the birth of the baby).

Once the baby is born, in some Maori tribal areas it is traditional to take the baby to the four winds for blessing. Traditionally, the whenua is placed into an ipu (clay pot) and, in some tribal areas, is buried either under a sacred tree or in the urupa (cemetery) where the whanau is buried, some place the ipu in the rocks where the waves will take it out to sea.

'The current model of remote area maternity service fails altogether to take into account the importance of culture as a determinant of health.'

## Poor health outcomes

Indigenous women are three times more likely to die in childbirth and twice as likely to lose their babies in birth; this is particularly true for women from remote areas. Research in remote Australia has shown that Aboriginal women have their own views on the reasons for these poor health outcomes, but these beliefs are not included in the risk equation, nor are they factored into service provision. Some women feel that their relationship to the land, established through the birthing experience, is vitally important to their culture and may be compromised by birthing in hospitals where many do not feel culturally safe when experiencing a western medical model of childbirth. Some Aboriginal women identify giving birth in the hospital as the cause of infant mortality: when babies are not welcomed properly into the world, and do not have the appropriate ceremonies performed at birth, the baby's weakened spirit gets sick. The current model of remote area maternity service fails altogether to take into account the importance of culture as a determinant of health.

There are similar issues in New Zealand, where some Maori women believed that their cultural beliefs were not being respected in the western medical model. In both countries, Indigenous culture is getting lost, which I think is a shame, because there is a sense of belonging and once it is gone it will never be regained. With the introduction of the western medical model to Australia and New Zealand, for both Aboriginal and Maori women, antenatal care has been inadequate because it has not met, or frequently even acknowledged, their cultural needs.

Although Aboriginal and Maori peoples and their cultures are different, at their root they share the same core belief: a vital relationship with the land. I know that, despite what has been lost, there is a lot more within Aboriginal cultures to learn about. However, learning is only the first step along the path to shaping service provision to meet cultural needs.

**References and further reading are available from the author upon request.**



# The right balance



Phyllis Huitema  
Layperson

Evidence shows that when the medical workforce that serves a community is representative of it, in terms of gender and ethnicity, the result is an improvement in health outcomes.

In New Zealand, we currently offer some 14 opportunities per year in the RANZCOG Integrated Training Program (ITP) for O and G. These opportunities are oversubscribed and, as a result, many hopeful applicants are turned away. The applicants

come from a broad range of ethnic groups, reflecting the increasing diversity of the New Zealand population. However, there never seem to be enough young Maori medical graduates who consider O and G as their career of choice. We need to attract more.

My call for more Maori medical graduates to consider O and G as their career choice takes into account my perspective as the layperson on the New Zealand Committee of RANZCOG as well as the ethnic drivers that feature in New Zealand's national statistical data. I agree with those who argue that gender and ethnic balance brings positive qualities to our health services.

## Maori women's health challenges

Statistical data on Maori women's health indicate that there are higher health needs across the spectrum than the general population. Childbirth and cervical cancer within the population of Maori women are two such examples:

- Maori women are younger mothers (average 26 years old in comparison to an average in the wider population of 30 years old) and have more children than the total population (2.8 in comparison to 2.1). They are also more likely to be single mothers and, although there has been a significant decrease in recent years, their babies have a higher mortality rate (6.8 versus 5.1).<sup>1</sup>
- Four times more Maori women than non-Maori die from cervical cancer, and Maori women are less likely to undergo screening.<sup>2</sup>

The combination of personal cultural sensitivity and statistically obvious needs suggests there is a clear added value to the outcome of women's health and that of their children and whanau (family) from the recruitment of more Indigenous graduates to the field of O and G.

Over the last few years in New Zealand there has, from time to time, been an extended advertising campaign on television to encourage Maori women of all ages to take responsibility for their gynecological health. With this call for more Maori medical graduates to take the profession of O and G, there is the potential to the strengthen the base we are currently working from.

## Maori doctors in New Zealand

The New Zealand Medical Workforce in 2010, released by the Medical Council of New Zealand in June 2011, reported that the proportion of doctors who identified as Maori remained at

3.0 per cent, and the proportion of Pacific doctors dropped from 1.4 per cent to 1.3 per cent.<sup>3</sup> It is evident from these figures that both Maori and Pacific doctors continue to be underrepresented compared to their proportion of the population. It is also useful to note that doctors who identified as Maori were younger than the wider workforce average. These doctors reported their main work role as:

- General practitioner (32 per cent).
- Specialist (24 per cent).
- Registrar (17 per cent).
- House officer (16 per cent).<sup>3</sup>

'...the earlier the College can gain access to Indigenous medical trainees, the better the opportunity to influence their choices for their future career.'

RANZCOG ITP applicants are assessed on a number of fronts, including an interview by a panel of four Fellows, a Trainee representative and the layperson (me). During the interview there is an opportunity for the applicant to discuss the reasons why they desire to specialise in O and G. I have observed from these interviews that the vast majority have had an interest in women's health from early on in their medical training. It would seem that the earlier the College can gain access to Indigenous medical trainees, the better the opportunity to influence their choices for their future career. For example, if a medical trainee has a positive experience during their O and G run and feels well integrated into the team in a supported learning environment, he or she is more likely to seek to pursue a career in O and G.

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## Author profile

Phyllis Huitema is in her fifth year as the layperson on the New Zealand Committee of RANZCOG and in her seventh year on the ITP interview panel. She is also the consumer representative on the panel that interviews overseas trained O and G specialists seeking vocational registration within New Zealand and Australia as well as College Fellowship. She is a Trustee of the Dr Mercia Barnes Trust, which funds research into Women's Health, and a Justice of the Peace.

# Maternal deaths in PNG



Dr Barry Kirby

In an ongoing verbal autopsy survey, conducted in the Milne Bay Province of Papua New Guinea, maternal mortality cases are being investigated to find out why women suffer fatal delays in receiving appropriate obstetric care.

Papua New Guinea (PNG) has some of the worst maternal mortality (MM) statistics in the world and the lifetime risk of dying in pregnancy for a PNG mother is one in 20. That's hard to imagine when you consider the same risk if you're a mother

in Australia is one in 10 000. In a province that has 12 300 births a year, only one in six mothers will have a supervised delivery at a rural health facility.

A survey of all MM cases in Milne Bay Province found that, of the 31 cases examined, five women were having their first baby while three were having their sixth child. Their age group was normally distributed between 18 and 35 years and none had had previous complications in pregnancy. Women having their first baby were choosing to deliver in a health facility, but subsequent deliveries were more likely to be village births. Previous uncomplicated pregnancies no doubt give women confidence to deliver in the village in subsequent pregnancies. Haemorrhage was by far the most common cause of maternal death. Out of the 20 mothers that died from haemorrhage, 11 suffered postpartum haemorrhage (PPH), six had retained placentas and three had antepartum haemorrhages (placenta praevia). Other causes of MM were sepsis, ectopic pregnancy, toxemia, CVA, pneumonia and TB.

The three-phases-of-delay model was chosen to classify factors associated with maternal deaths. This model defines socioeconomic/cultural factors, accessibility of facilities and quality of care as key indicators affecting utilisation and outcome.

- A Phase 1 delay was estimated from the moment somebody – the birth attendants, husband or relatives – realised there was a problem until the decision to seek care was made. In 25 of the 31 cases, the process of seeking medical help was delayed. The delay ranged from one hour to 14 days.

- A Phase 2 time delay was taken from the decision to seek help to arriving at the health facility. Of the cases surveyed, 12 women had phase 2 delays of more than two hours.
- A Phase 3 delay was a subjective analysis of the time spent in a health facility. If we take the attitude that all of the deaths were preventable, then the delay before getting definitive lifesaving care after getting to a facility was the total time in the facility. In this study, 16 women had phase 3 delays. Eleven of these mothers (68 per cent) experienced delays greater than six hours and they then died. Three mothers died less than an hour after arriving at the health centre (HC).

You will note the sums don't add up; this is because some women experienced delays in all three phases.

## Which delays were critical to the outcome?

Occasionally, there was more than one delay that could be seen to play a critical role and then both phases were counted as critical. In summary then:

- Phase 1 critical if died in the village.
- Phase 1 critical if prolonged so much that resuscitation not possible or likely to have been more difficult on arrival at the HC.
- Phase 2 critical if prolonged and patient died within a short time of arrival at HC and also the phase 1 time was short enough that the outcome was not already predetermined.
- Phase 3 critical if patient probably well enough to resuscitate on arrival (judged by the fact she survived there for a significant time) and there was an opportunity for resuscitation in the HC. There were 12 mothers who had a delayed phase 3 and died.

In one-third of cases where phase 1 factors were critical, the progress of events was so rapid that opportunity for further intervention was limited. Something might have been done for these mothers if they had already been admitted for confinement in a waiting house and could have their delivery supervised by a skilled health worker.

## Case report

Lyneth was a 32-year-old P4 G5 who delivered a live male infant in Lomitawa village on 3 February 2009. Lomitawa village is a two-hour flat walk followed by a three-hour strenuous climb from Sehulea HC. Her four previous village deliveries were all normal. She was technically an unbooked mother, but she had attended two or three antenatal clinics when they were conducted near her village. She was given an expected date of delivery (EDD) and asked to come to the HC for delivery. Lyneth walked to the health centre two days before her EDD. On arrival she was told by a health worker that her dates were wrong and she wasn't ready to deliver, so she walked back to the village. Two days later, Lyneth went into labour at 4am. The baby was delivered normally at around 10am and was placed beside the mother with the cord still attached to the placenta. The placenta failed to be delivered and Lyneth started to bleed. The three sisters-in-law in attendance sat her up to allow the placenta to come out and rubbed her fundus, but they did not try controlled cord traction as this involves them viewing the exposed perineum and touching the mother's blood. For in-laws to actively pull on the cord requires a directive from the mother according to local custom, but Lyneth said nothing throughout the birthing process. She was given traditional herbs used to stop bleeding, but there was no change. After Lyneth had been bleeding for three hours, the birth attendants told the husband, Nepin who was waiting outside, that Lyneth was still bleeding. Nepin realised that Lyneth had a problem. Nepin first went to Lyneth's relatives to explain what was happening and ask for help. They live about an hour's walk away from Lomitawa village. As they were busy working in the garden, they told him to make a stretcher and take Lyneth to the HC, but they couldn't help at that time. Nepin hurried back to Lomitawa village to make the stretcher, but was met on the way by a messenger saying that Lyneth had passed away. The baby's cord was cut after the mother died. About six hours had passed since delivery.



*The maternal mortality survey boat.*

Mothers who passed away within a short time on arriving at a HC were probably already too unwell to resuscitate and the difficulties of getting IV lines into a mother in shock made the opportunity for resuscitation in a HC almost impossible.

Whether a mother dies in the village was the only factor that comes close to significance ( $p=0.08$ ) with respect to male dominance:

- In 13 cases the husband alone took responsibility for the finances compared with three for the wife.
- In seven cases the husband alone took responsibility for health compared with nine for the wife and the remainder both.
- In eight cases the husband alone took responsibility for daily household needs, compared with four for the wife only and in the majority both.
- In eight cases the husband alone took responsibility for visits to family compared with two for the wife and majority both.
- In ten cases at least occasional wife beating was confirmed.
- In nine cases the husband made the decision to call for help, in nine cases the wife, and in the remainder either nobody or others.

The key indicators were whether the husband made the decisions in two of the above responses and/or there was evidence of occasional wife beating. Using male dominance to equal a score of more than two, or evidence of beating, there were 18 village deliveries and 11 mothers died in the village. Eight of the 11 mothers were in a male-dominated relationship.

*Table 1. Impact of male dominance on Phase 1 delays.*

	Dominant	Non-dominant	Total
Died in village	8	3	11
Died in HC	8	12	20
Total	16	15	31
p value	0.08		

While the difference between eight from 16 and three from 15 seems like it should be important, it does not quite reach significance here, but it indicates a trend (if the same proportions were maintained, a total number of 45 cases would be needed to reach significance). Association does not prove causality. There appears to be an association with male dominance, but this association is likely to be with an overall cultural background and not just male domination.

If men are part of the equation for PNG's dismal maternal mortality figures then they must also be part of the solution. Men have traditionally been excluded from antenatal clinics and this must



*The view from outside Lyneth's nearest health centre, Sehulea. Lyneth's village is up on the ridge hidden in the clouds in the background.*

change. Well-informed husbands, with basic knowledge of the birthing process and danger signs around time of delivery, could adopt a more proactive role. Men's health groups conducted in conjunction with each antenatal clinic must emphasise the importance of planning a supervised delivery and promote family planning and the ideal PNG family of two or three children, instead of five or six.

The other contributing factor was the cultural practice of village nurses waiting for the mother to expel the placenta without assistance or until the mother asks for assistance. This request confers an expensive customary payback later, as the woman's family are obligated to compensate anybody who had to touch her blood or private parts. The perceived seriousness of the complication was another cause of long delays in the village. Perhaps surprisingly, there was no significant association between the husband's or mother's level of education and the phase 1 delay to seek help. Similarly, the availability of money (economic status) had no significant influence on delay to seek help, although intuitively one might expect the lack of it would be a big disincentive to seek help. Most mothers (and husbands) in fact rely on the generosity of others and local business people to provide assistance (stretcher carriers, dinghy with outboard motor and fuel) when they have a difficult delivery, and they usually get it.

Although 22 of 31 questionnaires report at least one level of dissatisfaction with their health centre and 13 had two or more negative responses, there was no correlation between perception of healthcare and whether phase 3 factors were likely to have an impact on the delay in the village ( $p=0.6$ ).

The phase 3 delay in effect was from the time of arrival to maternal death in all cases and ranged from 30 minutes to six days. From personal testimonials and patient admission records, lack of basic drugs and supplies, lack of suitably trained staff and poor management of obstetric emergencies were the identifiable causes. Sixteen women made it to a health facility and then died.

## Why don't women choose a supervised delivery?

One obvious question arose from this survey: why do women attend antenatal clinics, but when it comes time to deliver they prefer to deliver in the village? Reasons given by mothers for delivering at home clustered around five major concerns. They are confused over their estimated date of delivery and do not like to present too early due to their homemaking responsibilities. The cost of delivery in a health centre is 5–10 kina (\$2–4.50), which is simply too much for most village mothers. Village women feel shy at presenting in an impoverished state and not having baby's clothes. They find it hard to communicate to health staff and find them unfriendly in many





*The Sehulea HC, where Lyneth should have had her baby.*

instances. Most health facilities have poor washing and toilet facilities and lack decent waiting houses and, as such, are not mother-friendly places for confinement.

Antenatal clinics are conducted in health facilities and also in villages by health staff on patrol. It is convenient for mothers to attend a village antenatal clinic, but not to walk long distances to a HC for delivery. As one Walibe Island mother beautifully pointed out:

- Mothers see having a baby as normal and feel it is safe to deliver in the village.
- Husbands look after the children while mothers deliver.
- There is a problem with providing food for mother and guardian when at the HC for delivery.
- Women deliver in the village with help from native herbs.

It is simply more convenient to have a village delivery, except when a problem is encountered, as is the case with all homebirths. Encouraging mothers to have a supervised delivery and encouraging staff to adopt mother-friendly attitudes will require a radical rethink on how we offer antenatal services to mothers in the rural setting.

Most Milne Bay Province women who die in childbirth die from preventable causes. They may choose to deliver in the village for reasons of convenience or they may get 'trapped' in the village unexpectedly, because of early onset of labour, and then suffer delay factors that are strongly associated with PNG's gender imbalanced society. In addition, poor utilisation rates of the existing health facilities, poorly equipped and maintained health centres, health staff who lack clinical skills to deal with obstetric emergencies, and the inability of the provincial hospital to respond to obstetric emergencies in a meaningful way are major factors contributing to the high mortality rate in Milne Bay Province. Innovative solutions such as demand-side financing and offering baby bundles at time of delivery may change the delivery choices of mothers and should be trialled in selected areas. Making oral misoprostol available to mothers who are approaching delivery and live far from a health facility will save lives. Regular training of health staff in dealing with obstetric emergencies and placement of midwives in 'hot spots' while also improving direct communication to a referral obstetrician can make a difference. Finally, family planning and family completion services need to be freely available.

If we can change the delivery preferences of mothers in Milne Bay Province and, at the same time, improve midwifery skills of health

staff and delivery conditions at health centres, it would mark the turnaround of the forever outgoing tide of the health system in Milne Bay Province, if not PNG. PNG has an enormous task ahead if it is to lower its MM and achieve the UN Millennium Development Goal 5 (improve maternal health) by 2015 and time is fast running out. All women and some men would agree.

The current MM study in Milne Bay Province will continue until 2015.

#### **Acknowledgement**

I would like to thank Dr Colin Case for his painstaking and innovative statistical analysis, without which this study would have far less impact.

**References are available from the author upon request.**

#### **Author profile**

Dr Barry Kirby undertook to study medicine after working as a project manager in a health-poor remote region of Morobe Province, PNG in the late 1980s. He completed a premedical honours degree in biomedical science at Griffith University, Queensland in 1995. He graduated with his MBBS from the University of Papua New Guinea (UPNG) in 2002 at age 52 years. He obtained his Australian Medical registration after passing the AMC examinations in 2007, while working as an ED doctor at Redlands Hospital, Brisbane. He returned to PNG in 2008, and undertook a Diploma in obstetrics and gynecology at UPNG in 2010.

Barry now lives in Alotau, Milne Bay Province and is forming The Hands Of Rescue Foundation to address maternal mortality in Milne Bay Province. Those wishing to find out more can contact him via email: [doctorbazza@gmail.com](mailto:doctorbazza@gmail.com).

# Delivering in PNG

Working overseas with Médecins Sans Frontières can change lives as well as save lives, leading those who work with the organisation to gain challenging clinical experience and reassess their career goals.

Dr Julia Stinshoff graduated from medical school at the University of Heidelberg after finishing her medical thesis at Harvard University in 2006, before embarking on a number of internships in general medicine, surgery and obstetrics at various hospitals around the world and, finally, a three-year obstetric residency at the Dr Horst Schmitt Clinic in Wiesbaden, near Frankfurt. These considerable achievements each brought her a step closer to reaching her ultimate destination: a small hospital in Tari, Papua New Guinea (PNG), run by medical humanitarian organisation Médecins Sans Frontières (MSF).

'I always wanted to work with MSF, ever since I started medical school,' the 30-year-old said. 'I wanted to help people who really need the help in other countries and cultures, and gain hands-on medical experience in the basics.'

To this end, after medical school, Dr Stinshoff sought out a hospital where many medical services were provided and she was confident of gaining the most practical experience in the shortest possible time. 'I did that for three years, during which time I gained a lot of clinical experience and then I felt ready to work with MSF,' she said. So she sent in her application and was accepted.

**'It involves a lot of learning by using all your senses – hands, eyes and nose...It's very clinical medicine.'**

Dr Stinshoff had wanted to be posted somewhere like PNG, but first placements are a lottery so she felt extremely lucky to be offered a position in the small hospital in Tari, the centre of Huli country in the Southern Highlands province of PNG.

Her responsibilities in the project include: management of the Family Support Centre, a clinic for survivors of rape and family violence; support for the maternity ward; and staff healthcare. Despite her delight, she found the experience rather unsettling at first: 'In the beginning it was a bit of a shock to see how different the level of medicine was to what I was used to in Germany,' Dr Stinshoff said.

Problems ranged from the high incidence of grand multiparas, malpresentations, twins and the accompanying complications, to many medical conditions now rarely seen in western countries, such as congenital syphilis, gonorrhea and chlamydia. More disturbing were the recurring violence-related obstetrical problems such as internal bleeding, separation of the placenta and intrauterine fetal death due to beatings.

'I see a lot of severe trauma due to violence and a lot of rape cases, even in very young children,' she said. 'We treat the wounds caused by violence, offer them medical reports to use in court and give emergency contraception, post-exposure prophylaxis for HIV as well as treatment for sexually transmitted infections (STIs).'

STIs, such as syphilis, gonorrhea and chlamydia, are much more common than in western countries. 'Sexual diseases in newborns are very rare in Germany. Yes, this has all shocked me, but it's rewarding to see how you can save lives every day with a little skill and knowledge, even without resources and equipment.'

This lack of resources has meant dealing with conditions such as severe postpartum haemorrhage or miscarriages followed by severe bleeding, without access to a blood bank and limited access to a laboratory. 'In these cases you call in the whole wantok (tribe). It can take hours, even days, until they get to the hospital and then you have to persuade them to donate blood, a very difficult task. We do the testing to establish blood group, test for hepatitis and HIV. It's quite a challenge to convince the family to give blood and do all these tests while dealing with a very ill patient.' These conditions are made all the more life threatening because of difficulties in accessing immediate medical assistance.

'It takes women a long time to get to the hospital – it can take up to two days to reach us – and they don't usually come unless they're having serious problems,' she said. The result is that Dr Stinshoff has had a crash course in emergency treatment, expanding her clinical knowledge by leaps and bounds: 'I've definitely gained a lot of experience, dealing with severe medical problems, especially working under very basic conditions and with only very basic medical equipment. It involves a lot of learning by using all your senses – hands, eyes and nose. I don't have access to a lab, CT or MRI. It's very clinical medicine. I am also dealing with all kinds of medical problems, surgical, medical, neurological, ophthalmological and so on, therefore my scope for medical experience broadens every day.

'Working in a relatively small team also means there's not always someone else to ask. After the first few months this has made me more independent and increased my confidence. I learned a lot about how to deal with acute medical crises.'

Vacuum extraction, emergency caesareans and dilation curettage are routine business for Dr Stinshoff. 'These are all relatively simple things that save lives and I do these things nearly every day,' she said. Since her arrival four months ago, the women of Tari have also gained access to ultrasound scanning. 'This is a great way to identify risks during pregnancy in advance. There was no one here for a long time who could do ultrasound and for the high-risk pregnancies I can provide an ultrasound.'

Another satisfying part of her job is to impart her knowledge to the midwives and nurses at the small hospital. 'I teach at least once a week and the nurses are so eager to learn more. They really appreciate learning and it's great to see the improvement in the last four months,' she said.

'Only by passing on our skills and knowledge to the national staff do we make a long-term difference. We have a lower neonatal and maternal mortality now. We see fewer severe medical complications

and we can identify risks earlier during pregnancy. Now women can seek help and that's a big benefit for the community here.'

Dr Stinshoff's field placement is for nine months, but she's already thinking of extending her stay. 'I think I will continue this kind of work because it is so rewarding. People are so grateful and I really feel like I'm making a difference. Once you've started doing this kind of work it's really hard to stop so I think I'll probably continue, maybe in different countries.'

For the future, Dr Stinshoff sees herself working in small clinics in developing countries and returning to Germany from time to time, perhaps to complete the gynaecological part of her training, which will take another year. She hopes to find a way to continue this work and also have a family. 'I'm definitely planning to continue working with MSF. I really like their team spirit, independence and how they're so well-organised. I feel really well taken care of, both medically and personally, and I get the support I need for my work on the project here.'

Dr Stinshoff assures obstetricians thinking about working with MSF that they will benefit from helping people who won't get help otherwise: 'You learn a lot about other people and cultures and you also gain a lot of medical experience: you're confronted with medical problems that you wouldn't get to see in the west and have to deal

with those problems on a very basic level and without the input of other specialists. You also gain broad exposure to medical problems that are non-obstetrical. Yes, it's very challenging work, but I really enjoy it. Looking at the happy smiling faces of my patients is the best reward. Every day is a new adventure here which is another plus. There's no room for boredom.'

MSF is always looking for competent obstetricians and gynaecologists who are willing to live and work within an international team, share their skills and dedicate their time to support the organisation's medical humanitarian work around the world. All field workers are insured for health, medical repatriation, death and disability for the period of their project. All costs associated with the work are covered, including travel from home to the project and living expenses. The basic monthly stipend for people without previous field experience for the first 12 months is \$1400. To find out more about working with Médecins Sans Frontières, visit: <http://www.msf.org.au/join-our-team>.

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A German-trained obstetrician, Dr Stinshoff is halfway through her nine-month placement at Tari hospital in PNG.



# Induction of labour

Dr Rose McDonnell  
DRANZCOG Advanced Trainee

A quarter of all labours are induced in Australia; it is thus one of the most important obstetric interventions. This article reviews induction of labour, with a focus on data from the King Edward Memorial Hospital in Perth.

As a general principle, induction of labour is undertaken when continuing a pregnancy is associated with greater level of maternal or fetal risk than delivery. The Australian Council on Healthcare Standards (ACHS), in its clinical indicators, lists a number of 'defined' indications for induction: diabetes, premature rupture of membranes, hypertensive disorders (including chronic renal disease), fetal growth restriction, isoimmunisation, fetal distress, in utero fetal death, chorioamnionitis and prolonged pregnancy (41 completed weeks, or more). In reality, the range of indications for inducing labour is somewhat broader. For example, Figure 1 outlines the indications for labour induction at the King Edward Memorial Hospital (KEMH) for patients induced between 2008 and 2010.

The UK National Institute for Health and Clinical Excellence (NICE) guidelines on induction of labour state that:

'Although a variety of specific clinical circumstances may indicate the need for induction of labour with a greater or lesser degree of urgency, the essential judgment that the clinician and the pregnant woman must make is whether the interests of the mother or the baby, or both, will be better served by ending or continuing the pregnancy. In making that judgment, it is necessary to factor in the attitude and wishes of the woman in response to her understanding of the actual risk of continuing the pregnancy, as well as the possible consequences of the method employed and the response to induction of labour.'<sup>1</sup>

The overarching consideration, then, is judging the point at which the benefits of inducing labour outweigh the disadvantages of allowing a pregnancy to continue.

## Successful induction of labour

The likelihood of a successful induction depends on a number of factors. These include the woman's parity, her body mass index, how 'favourable' her cervix is, and the ultimate birthweight of the

baby.<sup>1,2</sup> Another important factor that should not be underestimated is the duration of an induction attempt. A number of studies have demonstrated that a latent phase of up to 18 hours can still result in vaginal delivery for many patients, and it is important to emphasise this to women (and their families) before abandoning attempts at inducing labour.<sup>3</sup>

A variety of societal expectations exist around induction of labour, and our experience is that the perceived benefits and risks vary among different groups of patients. On the rise are elective inductions, whereby a woman is induced for convenience of the woman and her family. This is evident in Western Australia, particularly for logistical reasons such as a risk of rapid labour or lack of obstetrically trained staff for women who live a long distance from obstetric services. Another important consideration is the 'fly in, fly out' nature of the workforce in the all-important resources sector in our state. Husbands and partners do not want to miss the birth, but also want to minimise the amount of time that they need to be away from work.

There are well-documented maternal risks associated with induction of labour, including higher rates of caesarean delivery, chorioamnionitis and uterine atony. Each of these is associated with an increased rate of postpartum haemorrhage. A caesarean section obviously impacts on the mode of delivery for the next pregnancy and, to a certain extent, the size of a woman's family; there is an increased risk of abnormal placentation after three caesarean sections. Elective induction of nulliparous patients is associated with a two-fold increase in caesarean delivery (ten versus seven per cent), instrumental delivery (32 versus 29 per cent), and use of epidural anesthesia (80 versus 58 per cent). It is, however, always difficult to tease out the reasons for these increases, as they are commonly confounded by the indication for induction in the first place. It is also important to give due consideration to the financial and 'social' costs associated with an unsuccessful attempt at induction of labour. These include a

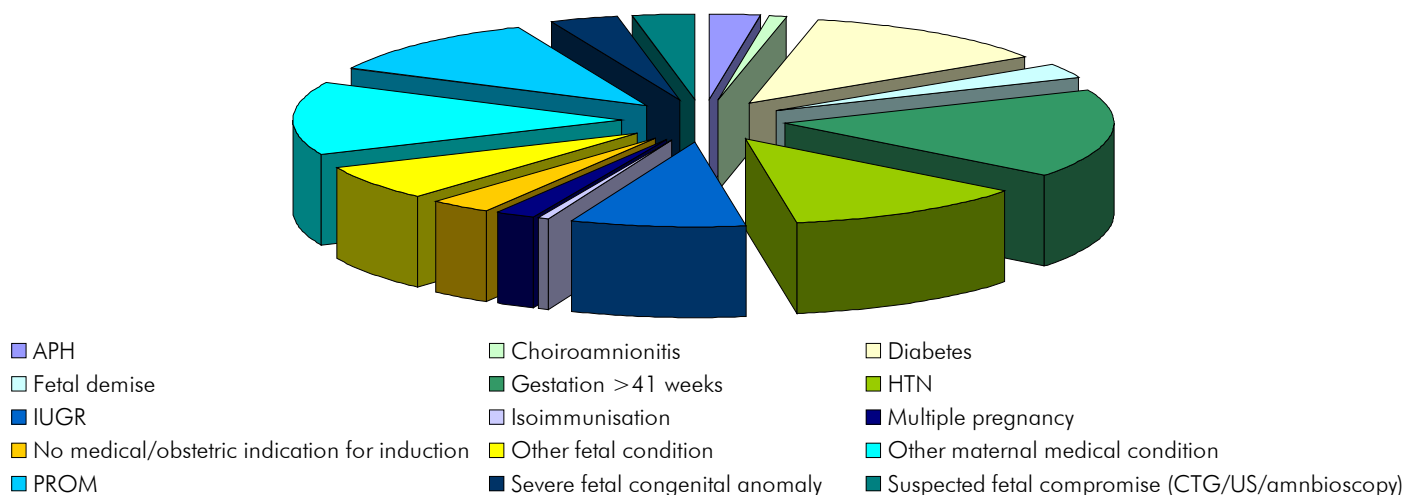


Figure 1. Indications for induction of labour at KEMH (2008–10).



Table 1. Common methods used to induce labour.

Method	Potential risks	Contraindications	Potential benefits
ARM	Infection, cord prolapsed	Placenta praevia HIV infection Active herpes lesions Vasa praevia Malpresentation*	Shorter labour duration Reduction of labour dystocia
Oxytocin infusion	Uterine hyperstimulation Hyponatraemia Hypotension Nausea/vomiting Rarely: arrhythmias, anaphylactoid reaction	Placenta praevia HIV infection** Active herpes lesions Vasa praevia Malpresentation*	May reduce duration of the latent phase
Transcervical Foley catheter	Infection Discomfort	Placenta praevia HIV infection Active herpes lesions Vasa praevia Malpresentation*	Non-pharmacological Associated with lower uterine hyperstimulation rates Cost-effective Preferred method for VBAC patient requiring ripening
Prostaglandin (PGE <sub>2</sub> ) gel	Uterine hyperstimulation with or without fetal heart rate abnormalities <sup>3,4,5</sup> Maternal gastrointestinal side-effects <sup>2,3</sup> Uterine hypertonus – placental abruption <sup>2,3</sup> Postpartum haemorrhage <sup>2,3</sup> Fever <sup>3</sup> Amniotic fluid embolism <sup>3</sup> Vaginal effects include – irritation, warm feeling felt in the vagina <sup>3</sup> Back pain	Previous uterine surgery (including caesarean section) Grandmultiparity (≥5)** Malpresentation Abnormal CTG/suspected fetal compromise CPD Vasa praevia/placenta praevia Known hypersensitivity to PGE <sub>2</sub> gel  Caution: epilepsy <sup>3</sup> ; glaucoma/raised intraocular pressure, asthma, epilepsy <sup>3</sup> ; compromised cardiovascular, hepatic, renal, or pulmonary systems <sup>2,3</sup> ; women at risk for disseminated intravascular coagulation <sup>2,3</sup>	Very useful with the unripe cervix Usually comfortable

\*e.g. transverse lie, \*\*relative contraindication

potentially longer duration of hospital stay, a reduced capacity of a mother to care for her newborn, and other familial responsibilities as well as the cost of theatre resources, staff and medications, to name a few.

### Choosing a method to induce labour

There are a number of methods used to induce labour, and the common ones are summarised in Table 1. Selection of a method for induction is often determined by the favourability of the cervix. A commonly used method of staging 'favourability' of the cervix is use of the Bishop's score (see Table 2). Formal calculation of a Bishop's score is undertaken at the commencement of every attempt to induce labour at KEMH.

Table 2. Modified Bishop Scoring System

Score	0	1	2
Station	-3cm	-2cm	-1/0cm
Dilation of the cervix	0cm	1–2cm	3–4cm
Length of the cervix	3cm	2cm	1cm
Consistency	Firm	Medium	Soft
Position	Posterior	Mid-position	Anterior

A Bishop's score of nine or more is associated with a high

likelihood of successful induction. However, a score of less than seven implies that the cervix requires 'ripening' to better prepare the uterus for labour. The method of choice of induction for a woman with a 'favourable' cervix can include artificial rupture of membranes (ARM) and/or oxytocin infusion. ARM is the deliberate surgical rupture of the amnion and chorion membranes in order to induce or augment labour, or to enable the use of fetal scalp electrodes or intrauterine pressure transducers. Although infection and cord prolapse are two potential risks associated with ARM, it is an effective and very commonly used method for shortening the duration of labour and reducing the incidence of dystocias. In their Cochrane review of this technique, Howarth and Botha conclude that:

'The review of trials found that oxytocin combined with amniotomy compares well with other forms of labour induction. However, adverse risks of amniotomy include pain and discomfort, bleeding, possible infection in the uterus and a decreased heart rate in the baby. The risk of infection following amniotomy is particularly important in areas where HIV is prevalent.'<sup>4</sup>

Methods for induction of labour used at KEMH for an unfavourable cervix include trans-cervical placement of a Foley catheter, or vaginally administered prostaglandins including prostaglandin E<sub>2</sub> (PGE<sub>2</sub>) gel (Prostin) or a PGE<sub>2</sub> controlled-release vaginal insert (Cervidil). Cervadil is promoted as safer due to the reduced chance of hyperstimulation secondary to the ability to remove it easily and

completely. The majority of patients seen at KEMH are induced with a Foley catheter, following a study by A/Prof Craig Pennell.<sup>5</sup>

At KEMH, prior to inserting a Foley catheter, the woman is encouraged to empty her bladder after which an abdominal palpation is performed to confirm presentation. A CTG is performed for 20 minutes to assess fetal wellbeing and the woman is placed in the lithotomy position for the procedure. After the vulvovaginal area is cleansed a speculum is inserted, the cervix is visualised and the Foley catheter is passed through the internal os of the cervix, using a sponge forceps to assist in the placement of the catheter. The balloon is inflated with 50ml of sterile water and the catheter spigoted. The catheter is then gently withdrawn until it rests at the level of the internal os and is then taped to the inner aspect of the woman's thigh. The fetal heart rate is assessed after the procedure and the woman is monitored as required.<sup>6</sup>

Kelly and colleagues, reviewing the available literature on vaginal PGE<sub>2</sub> for induction, concluded that:

'Vaginal prostaglandin E<sub>2</sub> is an effective induction agent as it increases the likelihood of vaginal birth within 24 hours with no evidence of an effect on the rate of caesarean section. Requirements for oxytocin augmentation were reduced. Prostaglandin E<sub>2</sub> tablets, gels, or pessaries appear to be as effective as each other. Sustained release inserts were associated with a reduction in instrumental vaginal deliveries compared to vaginal PGE<sub>2</sub> gel or tablet, an effect that was greater in women with an unfavourable cervix. Comparing vaginal prostaglandin E<sub>2</sub> to placebo or no treatment, the risk of uterine hyperstimulation with fetal heart rate changes was increased. Sustained release pessaries were associated with trends of increased hyperstimulation, with and without fetal heart rate changes, compared to gel or tablets. Lower dose regimens, as defined in the review, appear as efficacious as higher dose regimens.'<sup>9</sup>

'Mechanical' methods for labour induction, such as the Foley catheter used at KEMH and other devices such as laminaria tents, are introduced into the cervical canal and are intended to occupy the extra-amniotic space. The advent of vaginal prostaglandins for induction saw widespread abandonment of the 'older' mechanical methods for induction, but their use was never completely given up. There are a number of potential advantages to such methods compared with prostaglandins. These include simplicity of storage (no refrigeration is necessary), low cost and a theoretical reduction in the risk of side effects. There are, nonetheless, potential disadvantages that include a risk of infection and not inconsiderable discomfort. They are also contraindicated in low-lying placentas.

At KEMH, the Foley catheter is found to offer an advantage over PGE<sub>2</sub> gel by producing a greater change in the Bishop's score and a reduction in risk for uterine hyperstimulation and fetal distress, which may be particularly important when considering induction of labour to expedite delivery of an already compromised fetus. Although the balloon method of induction is less likely to achieve birth within 24 hours and is associated with higher rates of oxytocin use in labour, we have found no difference in caesarean section rates between the two methods for nulliparous patients. This however may not stand true for multiparous patients due to several confounding factors; some of which may include increased BMI, less aggressive use of oxytocin and perhaps the Foley catheter being displaced prior to the uterus becoming receptive. Further research into these confounding factors is needed.

Boulvain and colleagues' Cochrane review concluded that:

'Mechanical methods were developed to promote cervical ripening and the onset of labour by stretching the cervix and/or stimulating the release of prostaglandins. There is insufficient evidence to assess the effectiveness of mechanical methods, compared with prostaglandins, in women with unripe cervixes. The use of these methods, as compared with the use of prostaglandins, was associated with fewer episodes of excessive uterine contractions, without modifications of the risk of caesarean section. Maternal discomfort during the procedure was not assessed by the authors of the included studies.'<sup>12</sup>

## Conclusion

When choosing whether or not to induce labour for a woman, it is good practice to ask the question: what is the indication for this induction, and if the woman ultimately requires a caesarean section was that initial indication a good enough reason? If the reason the pregnancy is being ended seems appropriate, the choice of the method of induction must take account of the resources available in the particular setting, including not only a delivery room but also adequate midwifery back up, and access to theatre if things don't go as planned.

## Acknowledgement

Rose McDonnell went into labour early and was unable to complete the article as she had originally planned. She would like to thank Stephen Robson for stepping in.

## Relevant RANZCOG College statement

<http://www.ranzcog.edu.au/publications/statements/C-obs22.pdf>.

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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 How do you manage a woman with parvovirus B19 infection who is 18 weeks pregnant?

Dr James Brodribb  
FRANZCOG

**a** Human parvovirus B19 (hPV B19) requires the receptor globoside (also called the red cell blood group P antigen), with other co-factors, to allow the virus to enter cells. Tissues that are rich in P antigen are the villous trophoblast, fetal erythrocytes, fetal cardiomyocytes and endothelial cells. Viral replication, however, is only in the red cell progenitor cells. hPV B19 results in cell cycle arrest at specific phases: G1 and G2 with apoptosis.

The 'hepatic' phase of fetal erythropoiesis extends from the first trimester to the second trimester and during this time the red cells production, and turnover, is high with a short half-life of 50–75 days. Following this period, the fetus produces a higher proportion of mature red cells from the bone marrow and spleen, with the normal half life of about 120 days, so turnover is slower and the susceptibility to hPV B19 infection is lessened.

There is a decreasing expression of the P antigen on the trophoblast as the gestational age increases. This, along with passive transfer of maternal antibodies after 26 weeks, probably explains the decreasing morbidity and mortality from infection in the last trimester of pregnancy. In addition, the fetus has an increasing ability to mount an immune response after this time.

The fetal myocardium possesses the P antigen and is susceptible to infection with hPV B19, which may result in a viral myocarditis. This can add to the haemodynamic dysfunction associated with hPV B19 erythroid cell infection of the fetus.

Non-immune fetal hydrops (NIFH) develops from two to six weeks following fetal infection. The risk of NIFH is 7.1 per cent with infection in the 'hepatic' phase, particularly from 17 to 24 weeks. The overall risk of NIFH from hPV B19 infection throughout pregnancy is 3.9 per cent.<sup>1</sup> The risk of fetal death from hPV B19 infection has been documented in fetuses at ten weeks, presumably associated with placentitis, and rarely as late as 41 weeks, although not always associated with NIFH.<sup>2</sup> The overall risk of fetal death associated with hPV B19 infection in pregnancy is approximately nine per cent<sup>3</sup>, with most associated with infection in the first 20 weeks of pregnancy.

The woman, in this case, has acquired hPV B19 at the most susceptible gestation period of pregnancy. As such, fetal anaemia with NIFH can develop within two weeks. The woman and her

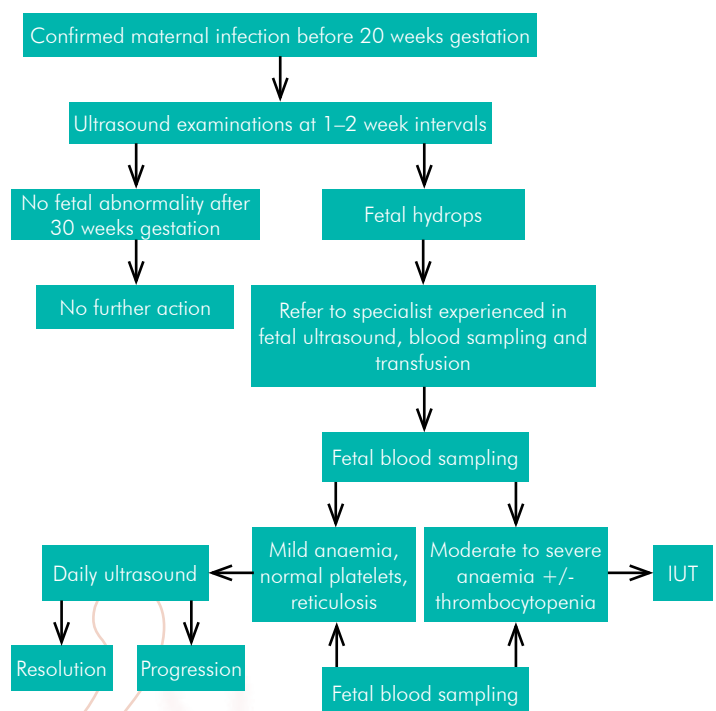


Figure 1. Parvovirus B19 infections during pregnancy: management of proven maternal infection. (Reproduced with permission.)

### Comments

- No intervention is available to prevent fetal infection or damage.
- Termination is not indicated because of low risk of fetal damage.
- Amniocentesis for diagnosis of asymptomatic intrauterine fetal infection is not recommended.
- Alpha fetoprotein levels are not helpful – previous reports that increased levels predict poor outcome have not been confirmed.
- Fetal infection may be identified by using (non-quantitative) PCR on amniotic fluid or fetal cord blood. Quantitative PCR is available in some centres.
- Pregnancy should be monitored by repeated ultrasound examination to detect hydrops fetalis.
- A fetus with mild hydrops may be profoundly anaemic.
- Fetal blood sampling – measure haemoglobin, platelets and reticulocyte count.
- No specific investigation is indicated in normal infants.
- Infants in whom hydrops has occurred and resolved should be monitored for evidence of anaemia.

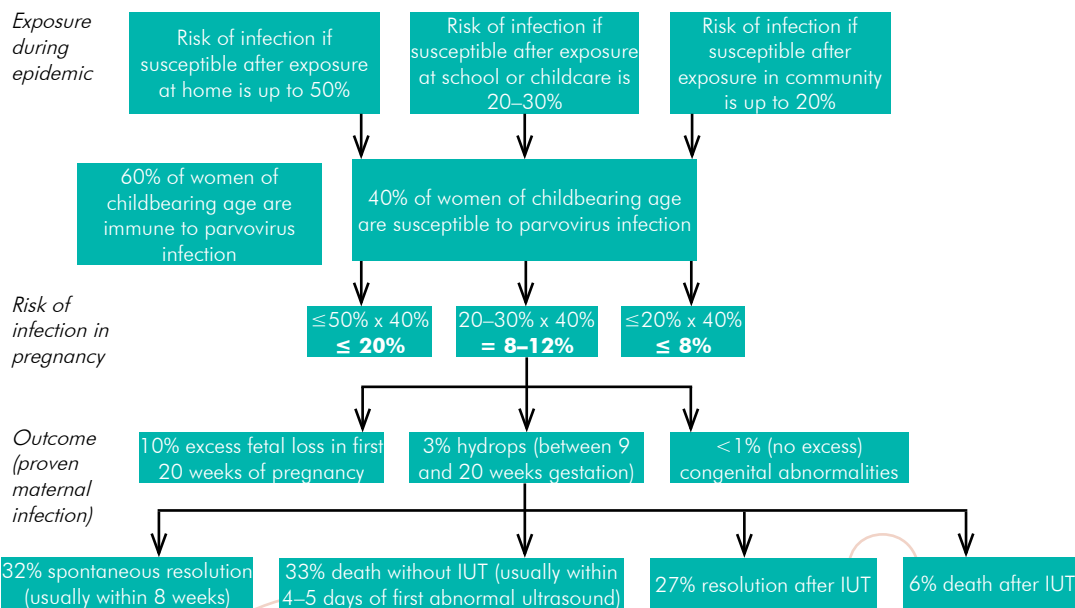


Figure 2. Parvovirus B19 infections in pregnancy: risk assessment.

Table 1. Overall risks.

	Any pregnant woman exposed to parvovirus	Pregnant woman with proven recent infection
Excess fetal loss in first 20 weeks	0.4–1% (1 in 100 to 1 in 250)	5% (1 in 20)
Death from hydrops or its treatment	0.05–0.1% (1 in 850 to 1 in 2000)	0.6% (1 in 170)

Pregnant women who are exposed should be informed of risks and offered serological testing.

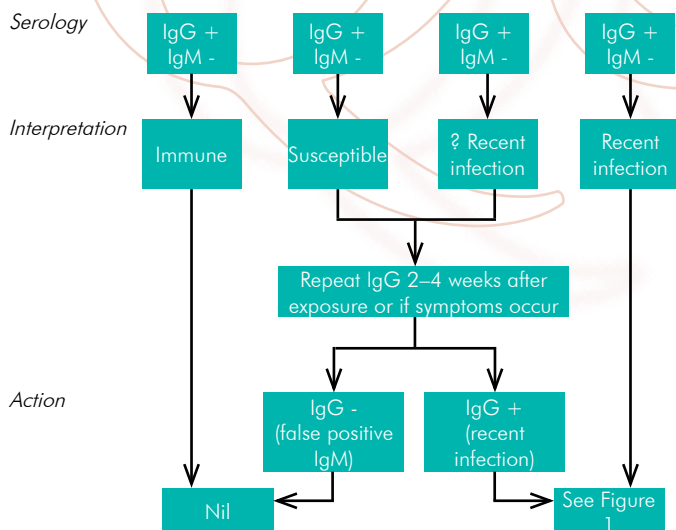


Figure 3. Parvovirus B19 infections during pregnancy: antenatal diagnosis and management – diagnosis of infection following contact or illness with rash during pregnancy. (Check rubella serology – symptoms are similar and cross-reactions can occur.)

partner will require careful counselling about the possible course this pregnancy might take. Fetal monitoring will be frequent and this will add to the stress this couple is likely to experience. They will almost certainly need psychological support, so such management should be put in place early in collaboration with the family doctor.

Figure 1 shows an algorithm for the management of parvovirus B19 infection in pregnancy produced by the Australian Society for

#### Comments

- It is not practicable to prevent exposure at home. Exclusion from work of pregnant school teachers or childcare workers is not recommended during a parvovirus epidemic (nor is exclusion of infected children).
- Susceptible pregnant healthcare workers should not care for patients with known complicated parvovirus infection (such as aplastic crisis) or chronic parvovirus infection (such as in an immunocompromised host).
- Routine antenatal screening is **not** indicated.
- There is a 50% risk of transmission from an infected mother to her fetus.
- Fetal loss equals 15%, compared with 5% overall (excess loss equals 10%).
- Onset of hydrops 2–17 weeks (average five weeks) after maternal infection.
- Congenital abnormalities – anecdotal reports only – (less than rate of major malformations in newborns of 2%).
- Interauterine transfusion (IUT)

Infectious Diseases (ASID).<sup>4</sup> This is the current revision, 2011 and is as yet unpublished. It is used with the kind permission of the authors.

#### Management strategy

The woman in the question has had infection confirmed at 18 weeks gestation, and as such her pregnancy has become high risk. The management strategy is to prospectively assess the wellbeing of the baby, weekly, using ultrasound, to detect the signs of fetal anaemia and/or fetal hydrops.

#### Fetal anaemia

As is known from the experience with Rh iso-immunisation, ultrasound can be used to detect fetal anaemia by utilising middle cerebral artery peak systolic velocities (MCA-PSV). When the MCA-PSV exceeds 1.5 multiples of the median (MoM), the fetal haemoglobin is about 40g/dl or less. Online calculators exist to help with estimating the MoM value.<sup>5</sup> Delivery should be considered after 35 weeks gestation as the sensitivity and specificity of MCA-PSV, as a screening tool, decreases after this gestation.

#### Fetal hydrops

This presents as generalised oedema, cardiomegaly and pericardial effusion. Fetal hPV B19-related hepatitis and hypoalbuminaemia can also lead to oedema and cardiac failure.

Once fetal anaemia or hydrops is detected, referral should be made to a tertiary centre. Such a centre should be equipped to perform cordocentesis and fetal blood sampling, for haemoglobin and platelet count, and intra-uterine transfusion (IUT), if required. The use of IUT markedly reduces the risk of fetal death. Usually only one IUT is required. The requirement for more than one IUT and slow recovery from hydrops are felt to be indicators of poorer prognosis.



Babies treated by IUT should be carefully monitored for the duration of the pregnancy, as there is still a risk of fetal anaemia and death not related to hydrops. Only one study has followed up surviving infants after IUT and 5/16 had a significant neuro-developmental problem.<sup>6</sup>

### Diagnosis of parvovirus B19 infection in pregnancy

Figures 2 and 3 show the current update from ASID for the diagnosis of hPV B19 in pregnancy. This update is included with the permission by the authors.

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# Antibiotic use in pregnancy



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Infectious Diseases Registrar  
**Cairns Base Hospital**

When prescribing antibiotics for pregnant women, it is worth considering, in turn, the interactions between infection, pregnancy, mother and baby.

The complex interaction between bug, drug and patient is the bread-and-butter of the infectious diseases (ID) physician. When an unborn child is thrown into the mix though, most ID physicians will go running for the books. Although 'always look it up' is advice worth following in practice, it is not particularly helpful from an educational point of view.

pregnancy, as is asymptomatic bacteriuria. Guidelines recommend against treatment of asymptomatic bacteriuria, except in the setting of pregnancy.<sup>7</sup> Pregnant women are no more likely to have asymptomatic bacteriuria than non-pregnant women, although the consequences are more severe. It is more likely to progress to pyelonephritis and can precipitate preterm labour. The predisposition to infection is thought to be related to changes in smooth muscle tone and altered ureteric mobility. Treatment of asymptomatic bacteriuria has been shown in a Cochrane review to reduce perinatal mortality, although the data about ideal drug and duration is conflicting.<sup>8</sup> For uncomplicated cystitis or asymptomatic bacteriuria, five days of antibiotics is sufficient.<sup>7</sup>

## Evidence of drug safety in pregnancy

For an area as complex as prescribing in pregnancy, unfortunately, there is very little information in the literature to support practice. Newer antimicrobials are trialled excluding pregnant women for reasons of risk-avoidance and, therefore, prescribers must rely on post-marketing surveillance data. For some medications, this takes the form of a formal registry (for example, the antiretroviral pregnancy registry).<sup>1</sup> Obviously, prospective safety data from Phase I/II clinical trials is preferable, but in the absence of this, registry data provides some reassurance. Older antibiotics, on the other hand, may have many years of practical experience to suggest their safety, but little robust scientific evidence to support their safe use.

## Evidence of treatment efficacy in pregnancy

Large prospective trials of treatment in pregnancy are conspicuously absent from the literature. There have been a number of Cochrane reviews on different topics in the treatment of infections in pregnancy – from asymptomatic bacteriuria<sup>2</sup> to bacterial vaginosis.<sup>3</sup> All of the reviews have in common very heterogeneous primary articles and cautious recommendations based on lack of data. In general, antibiotics are effective at treating the infection in question, but studies are underpowered to provide information on optimum therapy or fetal safety.

## Infection and pregnancy

'Immune tolerance' in pregnancy is widely discussed and there are some data to suggest that pregnant women are at slightly higher risk of developing disease from some infections (including poliomyelitis, smallpox, hepatitis A and falciparum malaria).<sup>4</sup> Also, the risk of severe disease and death are increased for some infections. During the 2009 influenza pandemic, the relative risk of admission for influenza in pregnant women was 4.3.<sup>5</sup>

Severe infections, as with other (non-infectious) medical conditions do pose an increase risk of miscarriage or fetal death. This may be either through direct fetal infection; placental infection, resulting in placental insufficiency; or through effects on the mother's health, resulting in increased risk of miscarriage.<sup>6</sup>

Urinary tract infections are common in women irrespective of

'Given the lack of evidence for safety in pregnancy, common practice is to avoid prescribing antibiotics wherever possible...'

## Preventing infection in pregnancy

The key to management of infection in pregnancy (as elsewhere) is prevention. This is why pregnant women are advised to avoid deli meats and soft cheese despite very low rates of listeriosis in the community (fewer than ten cases per year in Queensland 2003–07).<sup>9</sup> Similarly, measures such as washing hands after changing nappies and avoiding changing cat litter trays will significantly reduce the risk of exposure to many infections for pregnant women.

Another important preventive health measure in pregnancy is immunisation. Ideally, this is done at pre-conception counselling. Vaccines that do not contain live-attenuated viruses, however, are safe in pregnancy. The vaccines that are contraindicated in pregnancy are BCG, oral typhoid (no longer routinely used), MMR, varicella and yellow fever (although the yellow fever vaccine has been given extensively in pregnancy without reports of adverse effects).<sup>10</sup> Other vaccines are either polysaccharide or conjugated vaccines and may be given safely. Due to severe outcomes in pregnant women with pandemic 2009 H1N1 influenza, vaccination of pregnant women against influenza is recommended.

## Pregnancy and antibiotics

The physiologic changes in pregnancy result in changes in drug pharmacokinetics that may affect plasma levels of antibiotics. Increased plasma volume results in an increase volume of distribution that lowers plasma levels and increased renal blood flow results in increased clearance of renally excreted drugs. Other than limited data for amoxicillin,<sup>11</sup> there are few formal studies of plasma antimicrobial levels. In cases where long-term treatment is required, therapeutic drug monitoring can be performed, although this is rarely practical for short courses of antibiotics or outside of major teaching hospitals.

The recommended duration of treatment for infections in pregnancy generally errs to the more conservative end of the spectrum, for example, five days for cystitis or bacteriuria as opposed to three days in non-pregnant women. This is based on expert opinion rather than solid evidence of these infections requiring prolonged treatment.<sup>7</sup>

### Antibiotics and the fetus

Few antibiotics are truly contraindicated in pregnancy and, as with most areas of medicine, the risks and benefits of treatment should be considered. Unfortunately, assessment of the risk is complicated by the scarcity of data surrounding use in pregnancy. For example, the aminoglycosides cross the placenta well and streptomycin has been associated with fetal vestibular toxicity.<sup>12</sup> For this reason, gentamicin is Therapeutic Goods Administration (TGA) pregnancy category D, although it is still commonly used in the treatment of severe sepsis in pregnant women owing to its efficacy in treating severe gram negative infections. Similarly, although no data is available for intravenous artesunate, it remains the treatment of choice for severe malaria throughout the developed and developing world.

Tetracyclines are associated with maternal toxicity in pregnancy<sup>13</sup> – acute fatty liver, pancreatitis and acute kidney injury – and although they are safe for the fetus before 18 weeks gestation (which is when teeth begin to form), they are generally avoided throughout pregnancy. Efavirenz, an antiretroviral used in treatment of HIV, is listed as category D on the basis of teratogenicity in animal studies. It is not recommended for use in HIV-positive women in their childbearing years; however, accumulating registry data suggests no increase in frequency of congenital malformations.<sup>14</sup>

Most of the commonly used antibacterials (penicillins, cephalosporins and antituberculous antibiotics) are safe to use in pregnancy on the basis of past experience over many years. The newer antibiotics generally fall into TGA category B: insufficient data with either no suggestion (B1); limited data (B2); or a possible association (B3) with human malformations. Category C antibiotics affect the fetus, but are not teratogenic, and Category D antibiotics are suspected to cause fetal malformations or have other permanent effects on the child. Category X drugs are those drugs that have a high risk of causing fetal malformations and are contraindicated, although it is worth noting that the current edition of Therapeutic Guidelines: Antibiotic does not list any antibiotics as category X.<sup>7</sup>

### Prescribing in practice

Given the lack of evidence for safety in pregnancy, common practice is to avoid prescribing antibiotics wherever possible or, if considered absolutely necessary, then to prescribe in such a way as to minimise potential fetal exposure to antibiotics. The most common example of this variation from standard practice is in administration of perioperative antibiotic prophylaxis for caesarean section. Guidelines for general surgical procedures are that prophylaxis be given 30 minutes prior to the skin incision. For caesarean sections, administration is sometimes delayed until after the cord has been clamped to minimise the risk of antibiotic effects on the child. A meta-analysis of trials evaluating preoperative versus post-cord-clamping antibiotics showed a relative risk of all infections of 0.5 for the pre-incisional antibiotics with no evidence of adverse effects on the newborns.<sup>15</sup>

In general, after consulting Therapeutic Guidelines: Antibiotic

or another similar source to ensure safety, antibiotics should be prescribed the same way for pregnant women as non-pregnant women. Doses are rarely altered, although in some cases durations for gravid women may be slightly longer than would be standard. Oral prescribing is preferred and the duration should be as short as possible to treat the infection adequately.

### Conclusions

Although evidence for treatment regimens in many areas of infectious diseases medicine are scarce, it is particularly so in pregnancy. Lack of proof of safety, however, does not indicate lack of safety and there is considerable anecdotal evidence to support the use of the antibiotics that are commonly prescribed for pregnant women. In general, the balance of risk to the mother, the pregnancy and the fetus is almost always in favour of treating the mother and, although a reason to pause and consider prescription carefully, pregnancy should not alter prescribing habits significantly.

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# Journal Club



Not 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.

## Thyroid autoantibodies and poor obstetric outcome

Thyroid autoimmunity is the most common cause of hypothyroidism in the developed world. While clinical hypothyroidism is known to be associated with adverse pregnancy sequelae it now appears that the presence of thyroid autoantibodies can result in poor outcomes, even if thyroid function tests are normal. The authors suggest that this effect may reflect either a subtle deficiency in the availability thyroid hormones, or is evidence of a global enhanced autoimmune state that adversely affects pregnancy. This meta-analysis looks at the relationship between thyroid autoantibodies on miscarriage and premature birth, as well as a small number of studies that used levothyroxine to attempt to prevent these outcomes. In women with normal thyroid function, the presence of thyroid autoantibodies more than tripled the risk of miscarriage (odds ratio 3.90, 95 per cent confidence interval 2.48 to 6.12;  $P < 0.001$ ) and doubled the risk of preterm delivery (2.07, 1.17 to 3.68;  $P = 0.01$ ). The authors also analysed two randomised studies in which women with thyroid autoantibodies but normal thyroid function were allocated to receive levothyroxine during pregnancy. Both studies showed a reduction in miscarriage rates with a pooled significant 52 per cent relative risk reduction in miscarriages with levothyroxine (0.48, 0.25 to 0.92;  $P = 0.03$ ). One of the two studies reported on preterm birth; this study ( $n = 115$ ) found a 69 per cent relative risk reduction in preterm births with levothyroxine (0.31, 0.11 to 0.90). These results indicate that thyroid autoimmune status may be an additional factor to consider when attempting to reduce the risk of miscarriage and preterm delivery.

Thangaratinam, S, Tan, A, Kilby, MD, Coomarasamy, A. Association between thyroid autoantibodies and miscarriage and preterm birth: meta-analysis of evidence. 2011. *BMJ*, 342: d2616.

## Hysterectomy versus endometrial ablation

The authors of this Scottish study report that endometrial ablation is becoming more common as a treatment for menorrhagia than hysterectomy, partially driven by cost concerns. Australasian gynaecologists are familiar with the large range of techniques for endometrial ablation promoted at meetings and conferences. This retrospective study reports on over 50000 women who had surgical treatment for heavy menstrual bleeding between 1989 and 2006. The study analysed surgical records to determine how many women receiving each treatment went on to require additional surgery. Of the 14000 women who originally had endometrial ablation 20 per cent went on to have hysterectomy, a median interval of 1.25 years later, with 80 per cent of those women requiring hysterectomy having it within two years of the ablation. Women who had endometrial ablation (and did not later have a hysterectomy) were less likely to undergo pelvic floor repair (adjusted hazards ratio, 0.62; 95 per cent CI, 0.50, 0.77), insertion of TVT for stress urinary incontinence (adjusted hazards ratio, 0.55; 95 per cent CI, 0.41, 0.74) or genital fistula repair (adjusted hazards ratio, 0.18; 95 per cent CI, 0.06, 0.58) compared with the hysterectomy group. Within the hysterectomy group women receiving abdominal hysterectomy were significantly less likely to require future pelvic floor surgery than those receiving vaginal hysterectomy (adjusted hazards ratio, 0.54; 95 per cent CI, 0.45, 0.64). The authors comment that it is difficult to assign causality to these findings and that their data do not allow them to determine the degree of preoperative prolapse in the women receiving each type of hysterectomy. These data provide further evidence with which clinicians may counsel their patients regarding treatment for menorrhagia.

Cooper K, Lee A, Chien P, Raja E, Timmaraju V, Bhattacharya S. Outcomes following hysterectomy or endometrial ablation for heavy menstrual bleeding: retrospective analysis of hospital episode statistics in Scotland. 2011. *BJOG*, DOI: 10.1111/j.1471-0528.2011.03011.x.

## Medical pamphlets

RANZCOG members who require medical pamphlets for patients can order them through:  
Mi-tec Medical Publishing  
PO Box 24  
Camberwell Vic 3124  
ph: +61 3 9888 6262  
fax: +61 3 9888 6465  
Or email your order to: [orders@mitec.com.au](mailto:orders@mitec.com.au)

You can also download the order form from the RANZCOG website: [www.ranzcog.edu.au](http://www.ranzcog.edu.au).

## Postpartum urinary incontinence

The effect of pregnancy and childbirth on urinary incontinence is an area of diverse opinions on the prevalence of symptoms and factors that may protect against the development of urinary symptoms. This large cohort study of over 1500 nulliparous Australian women provides some interesting results. Using a definition of urinary incontinence as leaking at least once a month the authors reported that over ten per cent of nulliparous women were incontinent in the 12 months before becoming pregnant. Of those women continent prior to pregnancy, 54 per cent reported incontinence during pregnancy while 26 per cent were still incontinent at three months postpartum. Women who had a caesarean section either prior to labour (adjusted odds ratio [OR] 0.2, 95 per cent CI 0.1–0.5) or in the first stage of labour (adjusted OR 0.2, 95 per cent CI 0.1–0.4) had a reduced risk of being incontinent at three months postpartum, compared with women who had a spontaneous vaginal birth. A prolonged second stage of labour ( $> 2$  hours without regional anaesthesia,  $> 3$  hours with regional anaesthesia) was associated with a higher risk of incontinence at three months postpartum. The study highlights that urinary incontinence is a relatively common symptom, both during and after pregnancy, and assessment of it should be part of routine care of pregnant women.

Brown S, Gartland D, Donath S, MacArthur C. Effects of prolonged second stage, method of birth, timing of caesarean section and other obstetric risk factors on postnatal urinary incontinence: an Australian nulliparous cohort study. 2011. *BJOG*, 118: 991–1000.



# Meeting maternal health goals



**Dr Alec Ekeroma**  
President of PSRH, FRANZCOG

The 9th Biennial General Meeting of the Pacific Society for Reproductive Health, 'Accelerating Progress Towards MDG5', which was held in July in Honiara, Solomon Islands, was a resounding success and perhaps the most spirited meeting ever.

For 300 attendees and speakers from a range of reproductive health interests and across the Pacific Islands, New Zealand, Australia and the UK, the 9th Biennial General Meeting (BGM) of the Pacific Society for Reproductive Health (PSRH)

began with a stimulating opening address by the Prime Minister of the Solomon Islands, the Honourable Danny Philip. He was followed by Dr Jackie Blue, Chair of the New Zealand Parliamentary Group on Population and Development, with an overview of the New Zealand enquiry into Maternal Health in the Pacific. Of relevance to all was a well-targeted and timely presentation by Prof Glen Mola, exploring some of the challenges facing the Pacific in the effort to reduce maternal morbidity and mortality and, importantly, the connection and inter-dependency of the UN Millennium Development Goals (MDGs) globally as well as locally.

Key conference discussions ranged across initiatives to strengthen, support and accelerate progress towards MDG4 and 5 targets, sexual health, sexually transmitted infections and family planning, the impact of obesity and non-communicable diseases on maternal health, cervical cancer prevention, and training and workforce development, including midwifery capacity for the Pacific.

A feature of the meeting, as in past years, was the Brian Spurrett Oration, with a stirring dissertation by Prof Ian Rouse, Dean of the Fiji College of Medicine, Nursing and Health Sciences, titled, 'Something Old, New, Borrowed and Blue'.

A number of highly successful workshops were held in conjunction

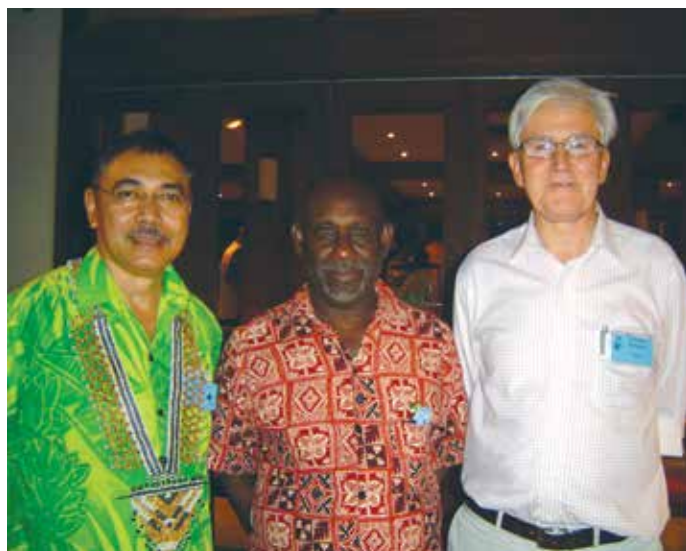
with the meeting, starting with the pre-conference RANZCOG/PSRH Pacific emergency obstetrics course (PEMOC), specifically for Solomon Island midwives and doctors, led by Dr Miriam O'Connor and a team of excellent facilitators.

Other workshops included the Pacific O and G ultrasound course, conducted by Prof Peter Stone, Ms Jenny Mitchell and Ms Fika Vucago; a suturing skills workshop, conducted by Drs Jackie Smallbridge and Jyothi Kathuria; emergency obstetrics and newborn care, led by Dr Tim Draycott; and audit and research chaired by Drs Alec Ekeroma and Wame Baravilala. All workshops featured the integral involvement of midwifery leaders from the Pacific, Australia and New Zealand. It is worthy of mention that the extent of midwifery input to meetings is what makes the PSRH forum so successful in demonstrating the importance of the healthcare team across all areas of health service delivery.

Socially, the meeting social program was exciting, all-embracing and physically exhausting for those who participated in dancing and socialising until the music stopped. The cultural evening part of the social program has grown in significance for all participating countries over the years, and an impressive amount of preparation, country-pride, entertainment value and individual and group effort was on show for all to enjoy. The awardee for the best country performance in 2013 went to the Solomon Islands, who contributed six items from various provinces, celebrating and demonstrating cultural diversity within a region, through traditional dance and song with audience participation adding to the festivities.

During the BGM, a new Executive Committee was elected as follows:

President	Dr Alec Ekeroma, New Zealand
Vice President	Ms Kathy Gapirongo, Solomon Islands



*L-R: Retiring PSRH President Dr John Ah Ching, Minister for Health Hon Charles Sigoto and RANZCOG President Dr Rupert Sherwood.*



*Dr Ekeroma presents a donated ultrasound machine to Dr Leeanne Panisi, obstetrician, in Honiara.*



*Delegates at the 9th Biennial General Meeting of PSRH, held in Honiara, 5–8 July 2011.*

Honorary Secretary	Dr Pushpa Nusair, Fiji
Honorary Treasurer	Dr Gunzee Gawin, PNG
Member	Sr Aliote Galuvakadua, Fiji
Member	Dr Falahola Ah Kuoi, Samoa
Past-President	Dr John Ah Ching, American Samoa
Secretary-General	Dr Rajat Gyaneshwar, Fiji

A note of appreciation is recorded to retiring Executive members Drs Rufina Latu and Levi Hou and Ms Sulu Duvaga for their contributions to the work of the Executive Committee.

PSRH acknowledges the fundamental support provided by RANZCOG since its inception and the College's support and involvement in continuing initiatives over the past 20 years. Once again, the College President, Dr Rupert Sherwood, and CEO, Dr Peter White, took an active role in the meeting, along with other Fellows. The RANZCOG President took the opportunity to present the following awards for academic achievement to awardees from the Pacific medical schools closely associated with the College:

- Best candidate in the Master of Medicine (O and G) examination, University of Papua New Guinea, 2010, awarded to Dr John Bolgna (PNG).
- Joint best candidates in the Master of Medicine (O and G) examination, Fiji School of Medicine, 2010, awarded to Drs Leeanne Panisi (Solomon Islands) and Tony Harry (Vanuatu).
- Best candidate in the Diploma of Gynaecology and Obstetrics, University of Papua New Guinea, 2010, awarded to Dr Robert Jones (PNG).
- Best research project for the Diploma of Gynaecology and Obstetrics, University of Papua New Guinea, 2010, awarded to Dr Barry Kirby (PNG). An article based on the project is on p57.
- Associate membership of RANZCOG was awarded to Dr Yakep Angue (Vanuatu).

Another highlight for RANZCOG during the meeting was the award

of the inaugural PSRH President's Medal to Ms Carmel Walker, the senior coordinator of Asia Pacific Services at RANZCOG, for her contributions to PSRH since its formative years and her continuing involvement in training, education and professional development support for reproductive health workers across the Pacific.

My thanks go to the local organising committee, headed by Dr Levi Hou and Ms Kathy Garipongo, for their wholehearted energies and their helpful and cheerful approach to making the meeting an enjoyable time for all visitors to Honiara from near and far. Finally, a sincere acknowledgement of the excellent efforts in bringing the meeting together as a warm, friendly and successful event that will be remembered for many years to come, to the executive officer of PSRH, Yvonne Kainuku-Walsh, and executive assistant, Vanessa Williams.

Acknowledgement is also made to the sponsors and supporters of the 2011 meeting including the Solomon Islands Government Ministry of Health and Medical Sciences, Solomon Islands Midwifery Association, Ministry of Health PNG, Paradise Hospital Port Moresby, AusAID, NZAid, Unicef PNG office, WHO PNG office, Republic of China (Taiwan), UNFPA PNG and UNFPA Fiji, AOFOG, PROMPT, the Pacific Women's Health Research and Development Unit Auckland, and a number of individual sponsors.

We look forward to an exciting two years ahead as we evolve our action plans and take on new challenges and innovative ways to promote and improve the delivery of maternal health services in the Pacific. With the countdown to the MDG targets in 2015 always a motivation, we work together to achieve improvements in MDG4 and 5 through innovation, collaboration and skill sharing.

I hope to see as many of you as possible at our next meeting in Samoa in 2013.



# Livin' la vida locum



**Dr Pieter Mourik**  
Chair, SOLS Advisory Committee

The Specialist Obstetrician Locum Scheme (SOLS) seeks obstetricians to support colleagues in the bush.

The highly successful Specialist Obstetrician Locum Scheme (SOLS), requires more obstetricians, both specialist and general practitioner, to register to travel to rural and remote Australia to support obstetric colleagues in the country.

The Federal government has recently signed a \$1 500 000 contract supporting this locum scheme; this makes it cost-effective to subsidise locums and now provides travel expenses for the locum's partner. It is a great way of seeing many parts of Australia you may otherwise never have an opportunity to see.

'An average of at least four birth and/or obstetric transfers to another medical centre were avoided per SOLS placement for rural women during the absence of their regular obstetrician, enabling them to remain in their community.'

Table 1. SOLS achievements 2010–11.

	Number of locum placements	Number of days locum relief
Specialist obstetricians	78	722
GP obstetricians	32	229
Totals	110	951

Most rural towns have interesting tourist attractions, scenic spots, art galleries, golf courses and restaurants, away from the traffic and pollution of the city; a working holiday away from home. For example, in Bundaberg, my wife and I had time to visit the rum distillery, and buy the special rum liqueur only available at the factory. The many art and craft shops were an added attraction.

As rural obstetricians are getting older, sudden emergency locums are sometimes required to keep the rural maternity unit open. Many rural units just require weekend locum support, to give the local obstetrician some relief. Again, the locum is usually not onerous, labour wards and operating theatres are very similar around Australia, but having an on-site obstetrician is essential to avoid closure of the unit and the transfer of women out of the town to the nearest maternity unit; this may be hundreds of kilometres away.

## Transfers avoided

An average of at least four birth and/or obstetric transfers to another medical centre were avoided per SOLS placement for rural women during the absence of their regular obstetrician, enabling them to remain in their community. Based on an estimated average transfer cost of \$5 500 this represents an average saving of approximately \$23 100 per placement (these figures are taken from the SOLS 2009–11 Internal Evaluation Report).

SOLS needs more locums willing to travel to rural and remote Australia to support obstetric colleagues. Are you nearing retirement, an urban obstetrician or a newly elevated Fellow wanting to experience rural Australia? Sign up for a locum placement.



Do you want to: **Help your rural colleagues?**  
**Keep up your obstetric skills?**  
**Experience rural Australia?**



**Register as a  
SOLS Locum!**

For more information:

[www.ranzcog.edu.au/sols/index.shtml](http://www.ranzcog.edu.au/sols/index.shtml)

(03) 9412 2912 | [sols@ranzcog.edu.au](mailto:sols@ranzcog.edu.au)

The Specialist Obstetrician Locum Scheme is funded by the Australian Government



# College Statements Update

## July 2011

Dr Louise Farrell  
FRANZCOG  
Chair, Women's Health  
Committee

The Women's Health Committee (WHC) re-issued the following statements in July 2011, which were subsequently endorsed by Council. College statements can be viewed on the College website at: [www.ranzcog.edu.au/womenshealth/statementsupdate.shtml](http://www.ranzcog.edu.au/womenshealth/statementsupdate.shtml).

### New College Statements

The following new statements were endorsed at July Council 2011:

- Clinical Handover (WPI 19)
- Surrogacy (C-Gen 16)

### Revised College Statements

The following statements were re-endorsed at July Council 2011 with significant amendments:

- Uterine Artery Embolisation for the Treatment of Uterine Fibroids (C-Gyn 23)
- The use of Nifedipine in Obstetrics (C-Obs 15)
- Vitamin and Mineral Supplementation in Pregnancy (C-Obs 25)

The following statements were re-endorsed at July Council 2011 with minor or no amendments:

- Alcohol in Pregnancy (C-Gen 13)
- RANZCOG/RACGP Joint statement on Cervical Cytology – Please note that this statement was previously titled 'RANZCOG/RACGP Joint Statement on Pap Smears'.
- Filshie Clip Tubal Occlusion – Please note that this statement was previously titled 'Filshie Clip Sterilisation'.
- Vaginal 'Rejuvenation' and Cosmetic Vaginal Procedures (C-Gyn 24)
- Warm Water Immersion during Labour and Birth (C-Obs 24)
- Screening and Treatment for Group B Streptococcus in Pregnancy (C-Obs 19)
- Guidelines for College Fellows participating in the RANZCOG Expert Witness Register (C-Gen 1)
- Re-entry guidelines following a prolonged period of absence from practice and retraining programs for Fellows (WPI 13)

### Statements of other bodies endorsed by RANZCOG

National Gynaecological Cancers Service Delivery and Resource Framework – This resource framework was a collaboration between Cancer Australia and The Royal Australian College of Obstetricians and Gynaecologists. Copies are available online at [www.canceraustralia.gov.au](http://www.canceraustralia.gov.au).

### New College Statements under development

- Cultural Competency
- SSRIs in the first trimester and the association with Congenital Heart Defects
- Illicit Drugs in Pregnancy

### Prescriber Status for Mifepristone

RANZCOG has developed an aide package to assist Fellows with their application to TGA to become an authorised prescriber for Mifepristone. If you would like a copy of the aide to be emailed to you, please contact the College on +61 3 9412 2920.

### News update

#### **RANZCOG Women's Health Services Department**

Please note that the RANZCOG Women's Health Services (WHS) Department has recently moved. Should you have any queries for the Women's Health Committee or WHS, please use the following contact details:

Ms Nola Jackson

(t) +61 3 9412 2920

(e) [njackson@ranzcog.edu.au](mailto:njackson@ranzcog.edu.au).

Posted correspondence can be still sent to the College House address.

#### **Nuchal Translucency – Ultrasound, Education and Monitoring Program (NT Program)**

Please note that the NT Program office has also moved. See the website for contact details: [www.nuchaltrans.edu.au](http://www.nuchaltrans.edu.au)

(t) +61 3 9412 2938 or +61 3 9412 2939

(e) [nuchaltrans@ranzcog.edu.au](mailto:nuchaltrans@ranzcog.edu.au)

### College website

#### **College statements**

Can be viewed at: [www.ranzcog.edu.au](http://www.ranzcog.edu.au). Should you have any difficulties with any documents from the web page, please contact Nola Jackson at the College (t) +61 3 9412 2920 (e) [njackson@ranzcog.edu.au](mailto:njackson@ranzcog.edu.au).

#### **Resources for Fellows**

This section includes local and international guidelines and articles of interest such as links to new titles on ACOG Committee Opinions and Practice Bulletins, SOGC Clinical Guidelines, National Institute of Clinical Excellence (NICE) guidelines and Department of Health and Ageing reports. Access at: [www.ranzcog.edu.au/locked/members/fellowsresources.shtml](http://www.ranzcog.edu.au/locked/members/fellowsresources.shtml) then type username and password and scroll down to 'Information from Women's Health Services'.



# WPI 19: Clinical Handover

**Date of this document:** July 2011

**First endorsed by Council:** July 2011

**Next review due:** July 2014

Clinical handover is an essential part of good clinical practice. This has been an area identified in a number of reports and surveys as one requiring improvement.

The Australian Council for Safety and Quality in Healthcare (May 2005) defines Clinical handover as 'the transfer of information from one healthcare provider to another when:

- A patient has a change of location of care and/or
- When the care of a patient shifts from one provider to another'

Another definition from the Australian Medical Association (AMA) 'Safe Handover Safe Patients' guideline is 'the transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis.'

All organisations providing obstetric and gynaecological services should develop:

- An organisational policy for clinical handover
- Some level of accountability and audit of clinical handover practices
- Appropriate resources for efficient and quality handover

The issues that require specific consideration:

- Time allocation for this process
- Formalised structure of the process
- Involvement of Senior Staff
- Provision of training in communication, clinical handover and teamwork skills
- Access and availability of all the information such as Pathology, Radiology and other tests necessary to ensure the best care of the woman

Obstetrics is an area of Medicine where there is particular need for good clinical handover, as the pregnant woman will usually require a number of professionals to care for her and her baby during pregnancy, delivery and postpartum. Her care will be enhanced if all professionals involved in her care have accurate, relevant and timely transfer of information.

When a woman is admitted to the Delivery Suite there must be ready access to a record of her antenatal visits and all pathology and ultrasound tests that have been performed during her pregnancy.

For hospitals where this care has not been provided at the hospital and this information is not an integral part of the hospital records, then this should be provided by way of a personal record provided to the pregnant woman.

For women in labour it is essential that there is handover from one set of carers to another.

The information provided must include all the relevant information necessary for on-going care of the woman in labour – including all risk factors, all departures from normal in labour so far, all pain relief and medications administered and information regarding the woman and her partner's expectations and wishes regarding their care.

There must be detailed contemporaneous records of all vaginal examinations, recording of maternal observations, details of the liquor and fetal heart recordings plus all medications administered in the course of the labour.

For high risk pregnancies information about other medical staff such as Physicians, Paediatricians and Anaesthetists involved in her care should be noted.

In hospital situations where there is a lead midwife in charge of the delivery suite, he/she must be provided with a list of all women on the Delivery Suite, any women awaiting induction of labour or Caesarean section and any identified problems in the Delivery Suite.

In situations where there is junior medical staff, it is essential that this information is provided to the most senior medical clinician taking responsibility for the Delivery Suite as well as all the junior medical staff with Delivery Suite responsibilities.

Anaesthetists attending the expectant mother in labour, particularly in the urgent situation, should be provided with all relevant medical history and any relevant pathology tests such as haematological investigations related to bleeding disorders or abnormalities of clotting.

Paediatricians attending either the delivery of newborn, or in the postnatal period, should have access to all relevant information from the antenatal period related to conditions or medications of the mother that may in impact on the baby, and to all imaging results of the baby demonstrating abnormality in the baby.

In both Obstetrics and Gynaecology some important principles of effective clinical handover are outlined in a number of resources. There are a number of resources concerning Clinical Handover in the Australian setting see:

- Ossie Guideline to Clinical Handover Improvement: [http://www.health.gov.au/internet/safety/publishing.nsf/content/F72758677DAFA15ECA2577530017CFC5/\\$File/ossie.pdf](http://www.health.gov.au/internet/safety/publishing.nsf/content/F72758677DAFA15ECA2577530017CFC5/$File/ossie.pdf)
- eMJA: Clinical handover: critical communications: [http://www.mja.com.au/public/issues/190\\_11\\_010609/jor11299\\_fm.html](http://www.mja.com.au/public/issues/190_11_010609/jor11299_fm.html)
- Australian Commission on Safety and Quality in Health Care: <http://www.safetyandquality.gov.au/>

## Reference

- 1 Improving Patient Handover, RCOG Good Practice No. 12, Dec 2010.

# C-Gen 16: Surrogacy

**Date of this document:** July 2011

**First endorsed by Council:** July 2011

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- Surrogacy. The first surrogate pregnancy following IVF conception was reported in the USA in 1985. Since then, many countries around the world have allowed surrogacy while others (Spain, Saudi Arabia and Japan) have not.
- Traditional surrogacy. This may involve conceiving a pregnancy through insemination (either by sexual intercourse or by assisted methods) with sperm from a commissioning male. This form of surrogacy has been perceived to be associated with problems because of the genetic relationship with the birth mother. It may be permissible in some jurisdictions.
- Gestational surrogacy. This involves the surrogate acting as a 'gestational carrier'. Embryos are created by in vitro fertilisation (IVF) techniques from the sperm and oocytes of the commissioning parents; the resulting embryos are transferred to the uterus of the surrogate. In all Australian jurisdictions it is unlawful for the surrogate to receive payment for this service; but the commissioning parents may cover 'reasonable costs' (e.g. medical, travel) incurred by the surrogate. The pregnancy outcome for babies has been comparable or better than standard IVF pregnancies. Follow up of the experience of the commissioning parents, and surrogate mothers has been generally favourable. There is little reported long-term follow up of the surrogate mothers or of babies born to date.
- Legislation regarding surrogacy varies across jurisdictions. It is essential that practitioners are aware of the legislation that applies in the jurisdiction in which they practice. Uniformity and clarity of legislation would benefit both the health practitioners and women for whom they care. Previously there has been marked variance between the states of Australia with respect to surrogacy law. Uniformed legislation has been foreshadowed by Australian governments (Commonwealth and State), such that all Australian states will allow non commercial surrogacy. In New Zealand altruistic surrogacy is permitted.

While altruistic surrogacy in general is allowed and 'commercial' surrogacy is not, the restrictions governing this practice vary across jurisdictions and are usually subject to some form of regulatory approval condition or consent.

Surrogacy may allow those parents who are otherwise unable to conceive or carry a child to realise their desire to become parents. Legislation does not usually define for which patients surrogacy may be used. Patients for whom it may be appropriate include:

- Women for whom the uterus is the cause of their infertility or inability to carry a pregnancy (e.g. previous hysterectomy, Ashermans syndrome, mullerian agenesis).
- Women with certain medical conditions, such as severe heart disease, which might threaten the life of the woman should she become pregnant, provided she is considered fit enough to look after the child after birth and her life expectancy is reasonable.
- Surrogacy has also been used successfully for women with multiple miscarriage or repeated failure of IVF, and expert opinion should be sought in these circumstances.

The issues involved in surrogate pregnancy are complex and expert counselling regarding the legal, social/ethical and psychological dimensions will be required for the involved parties. RANZCOG members may become involved with any or all of the

following areas: pre-pregnancy counselling, evaluation of fertility, management of the IVF cycle and the management of the pregnancy and delivery.

Pre pregnancy counselling of the surrogate should occur as per RANZCOG guidelines (<http://www.ranzcog.edu.au/publications/statements/C-obs3.pdf>). In particular the surrogate would need advice regarding lifestyle and medical issues which could affect the pregnancy outcome, and medical risks to which she will be exposed by the pregnancy, so that she may give informed consent to participate.

The usual treatment and professional obligations will also apply, including informed consent of all parties.

Those establishing a surrogacy service would be prudent to consider protocols of management used at centres which have established surrogacy programs, with regard to protocols of management – medically, legally, and psychologically before, during and after a surrogate pregnancy. The status of approval by an independent ethics committee, and the inclusion of a cooling off period after approval and before proceeding have merit.

A critical factor for surrogacy also involves consideration of legal provisions for each of those affected, including:

- The ability of the commissioning 'parents' to be legally recognised as the legal parents of the child;
- The rights of the surrogate in the event of any adverse outcome;
- The rights of the commissioning parents if the surrogate involved changes her intentions;
- The rights of the surrogate if the commissioning parents change their intentions; and
- The birth record of the child.

The legal provisions of those matters vary across jurisdictions. All parties involved should be advised to get legal clarification before considering surrogacy.

## Related College Statement

RANZCOG Statement: Pre Pregnancy Counselling and Antenatal Screening Tests (C-Obs 3)

## References are available online

### Correction and clarification

*O&G Magazine* Vol 13 No 2 mistakenly listed Paul McNamara as Dr Paul McNamara.

Due to space constraints, the references were omitted from 'Infection in the puerperium' by Raj Kumarasamy, published in *O&G Magazine* Vol 13 No 2; these are available from the author upon request.

# Council meeting report

RANZCOG Council and Board meetings were held at College House in Melbourne, 20–22 July.

## President's report

The President summarised the work of the Board and major committees since the March Council meeting. The following issues are detailed in his column: the new suite of Diploma programs, the recommendations of the Training Review Working Party, the new Workforce Committee and attendance at the recent RANZCOG Indigenous Women's Health Conference. Other issues covered in his report to Council included:

- The new Publications Management Committee, with oversight of *ANZJOG* and *O&G Magazine*; the new Ultrasound Management Committee to stay 'across' the various ultrasound issues that impact on College business.
- Meetings attended by Board members including the American Congress of Obstetricians and Gynaecologists, Asia and Oceania Federation of Obstetricians and Gynaecologists, the Pacific Society for Reproductive Health Conference, the Committee of Presidents of Medical Colleges, Regional Annual Scientific Meetings, and a meeting with the new President of NASOG.
- Maternity reforms/regulations/guidelines/government documents.
- Appointment of Prof Caroline de Costa as the Honorary Curator of the College Historical Collection.

The President advised that at each Council meeting he would present information about selected RANZCOG committees, with the aim of increasing understanding of their purpose and function. At the July meeting, he addressed the Standards and Complaints Committee and the Progression Review Committee. The former provides a mechanism to deal with disputes and other issues that have the potential to negatively impact on the image and reputation of the College; the latter was formed in view of legal advice and provides a mechanism to ensure that due process is followed in cases where individuals are facing exclusion due to lack of progression.

## CEO's report

The CEO presented his report, incorporating the report from the Director of Education and Training, Ms Lyn Johnson. The items he spoke to are detailed in his column and included: attendance at RANZCOG Indigenous Women's Health Conference and the Pacific Society for Reproductive Health Conference, the House of Representatives Inquiry, specialist International Medical Graduate assessment, the upcoming reaccreditation of the College by the Australian Medical College, extension of the SOLS program, the new suite of women's health qualifications, and workforce-related activities. Dr White thanked Council and the College for its support of his work as CEO and wished Ms Valerie Jenkins well as Acting CEO during his period of leave from August to November.

### Report from the Treasurer

Prof Ajay Rane presented his report as Treasurer, drawing Councillors' attention to the average return on investments of 8.13 per cent.

### Reports from Standing Committees of RANZCOG

New College Statements on Surrogacy and on Clinical Handover were submitted by the Women's Health Committee, discussed and endorsed by Council, and subsequently approved by the Board. Other reports and recommendations from Women's Health and various Standing Committees were also addressed, committee by committee, and questions invited. This included numerous amendments to existing College Statements and a wide variety of regulation and policy proposals. As detailed in the CEO and President's columns, the Training Review Working Party's recommendations were also considered by Council and subsequently approved by the Board for implementation.

### Honours awarded

Several Queen's Birthday Honours were noted (see p74). A number of College honours, such as Distinguished Service Medals, were noted by Council and approved by the Board. These awards will be presented at various meetings and functions in the coming months.

### Practice Profile – Workforce Report

The Practice Profile, compiled from over 1000 responses from Fellows, was commended to Councillors by the President as an excellent source of information that should be used to inform their discussions with their jurisdictions. It is available on the College website; its dissemination is encouraged.

### *College Connexion*

Is there an event you'd like to advertise?  
Want to know the latest College news  
or clinical information?

Check out *College Connexion*,  
RANZCOG's notice board.

[www.ranzcog.edu.au/connexion/index.shtml](http://www.ranzcog.edu.au/connexion/index.shtml)

# Letter to the editor

## Recognition and management of laparoscopic complications

I was disappointed to read the article 'Recognition and management of laparoscopic complications' by Dunkley E, Patel P and Lam A in the recent edition of *O&G Magazine* Vol 13(2) Winter 2011.

For someone who has spent the majority of his specialist career teaching O and G residents, registrars, fellows and indeed other specialists the importance of safe surgery, maintaining standards and avoiding complications, I was surprised by some of the comments made in the article.

The concept 'that complication is an inevitable reality of laparoscopic surgery' implies either the procedure is inherently unsafe or overall the quality of laparoscopic teaching and surgery performed in this country is substandard. For the authors to quote a 'ten per cent' complication rate, and that 'almost every laparoscopic surgeon will encounter not one but several major complications', is unacceptable to me and I dare say the public. Compounding this staggering high rate of injuries is the fact that many surgical injuries often result in long-term morbidity for the patient and the cavalier attitude expressed in this article sends a poor message to our registrars and indeed the general public.

To state that 'complication is an inevitable reality of laparoscopic surgery' and that learning to recognise and manage these complications is essential for 'gynaecologists wishing to ....

advance their laparoscopic skills' implies laparoscopic surgeons may be more interested in the advancement of their skills rather than the completion of surgery in the safest manner, which may still be by laparotomy.

My questions to the authors are, (i) rather than identifying and managing laparoscopic injuries, what should be done to reduce the incidence and avoid these injuries in the first place? (ii) should clinical audit become a compulsory part of recertification for all procedural gynaecologists (as is required by the Royal Australian College of Surgeons)?

Clinical audit is one of the fundamental principles of clinical governance, the process by which clinicians improve the quality of the care they provide, making them accountable to the public, by monitoring and maintaining standards, and being transparent. It is what the public expect. I would argue strongly that it does not really matter how or by which route surgery is performed, as long as the procedure is completed without complication or long-term morbidity. Laparoscopic surgery with its inherent risks may not be for everyone (patient and surgeon). The public should have the right to know of the quality outcomes of the surgeon who is to perform their surgery and the outcomes of the route by which it is to be performed.

**Prof Jonathan Carter**

MBBS, DipRACOG, FACS, FACA, FRANZCOG, MS, MD, CGO

# Obituary

**Dr William Geoffrey Jasper**  
1917 – 2010

Geoff Jasper was born in Sydney on 5 October 1917. He studied medicine at the University of Sydney, graduating with his MBBS in 1940. Geoff trained initially at the Royal Prince Alfred Hospital, and later at Prince Henry Hospital and The Women's Hospital, Crown Street. He was then appointed Registrar at the Royal North Shore Hospital (RNSH).

Geoff Jasper was closely involved in the development of RNSH from a 'country club', as it was then called, into a teaching hospital of the University of Sydney. After gaining his specialist qualification (then the MRCOG from London) in 1951, he was appointed to the honorary staff of the hospital. He was elevated to the FRCOG in 1965 and became a Foundation Fellow of the RACOG in 1979.

He was the first recognised specialist devoted specifically to obstetrics and gynaecology at the RNSH, coping then with the influx of new medical students requiring to be taught and registrars in training. Geoff took on this new challenge. At this time, there

was a huge demand for specialist obstetric services in Northern Sydney, requiring cooperation among the staff at all levels, particularly as private health insurance was readily affordable in the area.

Geoff was a man of few words, but a dark sense of humour that was carried off with a smile, which sometimes concealed what he was really thinking. He has a special place at RNSH.

Geoff passed away on 20 July 2010 aged 92 years. He is survived by his two daughters Carolyn and Roslyn and his grandchildren.

**Emeritus Prof Douglas Saunders**  
FRANZCOG  
Sydney