Quality of Care Report '07

the women's
the royal women's hospital

The Research Report provides information about research undertaken at the Women's, opportunities for research training and how the research relates to clinical practice.

The Clinical Report provides information for peer hospitals and professional groups on clinical activities at the Women's and is written to encourage critical reflection, accountability and peer commentary on our clinical performance.

The Quality of Care Report provides information for the public about the quality and safety of clinical care, how we compare with other hospitals and how we seek to improve care.

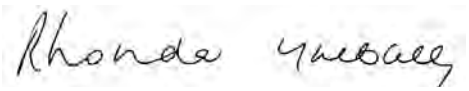
Welcome to the Quality of Care Report

This year, the Royal Women's Hospital celebrated 150 years of providing care for the women and babies of Victoria. We are proud of the history of the hospital and its leadership and advocacy for women's health and care of newborn babies. Next year, we will move to our new site, as an independently governed Women's hospital next to the Royal Melbourne Hospital in Parkville. The design of the new hospital has been centred on new ways of delivering care to ensure that our services meet the needs of women, newborn babies and their families.

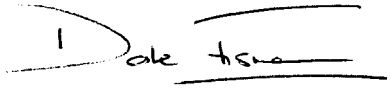
We have implemented exciting new initiatives during the past 12 months, in particular the Centre for Women's Mental Health, supported by philanthropic funding from the Pratt Foundation to improve services for women with mental health problems, an integrated breast service in partnership with Melbourne Health providing international best practice care for women with breast cancer, and we also announced the introduction of Magnetic Resonance Imaging (MRI) technology into our state of the art Pauline Gandel Imaging centre at the new hospital.

The Board, management and clinical leaders have a responsibility to ensure that we are always striving to improve and that we have the right systems in place to monitor and improve the quality and safety of care provided to women, babies and families. The Quality of Care Report is a public account of those systems and of the outcomes of our care.

We are confident that we have the right people and the right processes in place to ensure the quality of our care to our patients. Yet we also know that the pursuit of quality is a continuous effort – there are always improvements in services to be achieved and we need to be vigilant about our quality of care and support our staff to provide the standard of care that the community expects and has the right to receive.



Dr Rhonda Galbally AO
Chair, Royal Women's Board



Dale Fisher
Chief Executive

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Looking to the Future

This report provides a public account of quality of care at the Royal Women's Hospital (the Women's). Because the hospital will be moving in June 2008, we will outline work to improve services in the new hospital. The report also describes the hospital's work over the last 12 months to improve women's health, as well as reflecting on the past years.

This is the seventh Women's Quality of Care Report. The aim of the report is to inform the women for whom the hospital provides services, our community, staff and community partners, the public and the Department of Human Services about the quality and safety of health care provided. The report conveys information about how we improve quality and safety of clinical care, our progress, data about how we compare with other hospitals and what we think we need to improve.

What do we mean by quality of health care?

One way some people have described quality in healthcare is:

- doing the right thing (getting the health service you need)
- at the right time (when you need it)
- in the right way (doing the right procedure or test)
- to achieve the best possible outcome

Safety of health care is part of quality and is about avoiding mistakes and errors, dealing with them properly if they do happen, being open and learning from them, and trying to improve the way the hospital works together to prevent errors.

We write this report as one way of informing consumers about what we are doing to improve quality and safety of care. You as consumers have an important role to play in improving your care by being well informed about your health, providing information about your health, taking part in decisions about your health care, asking questions if you are concerned or worried, bringing a relative or friend with you and asking for a second opinion if you need to, and giving the hospital feedback about your experience.

Being accountable for quality of care

We describe this as clinical governance. The type of clinical information in this report is what the Women's uses to monitor and improve our clinical care, in line with our responsibility under government legislation.

The Board, executive and clinical managers have final responsibility for the quality and safety of clinical care. We have a Quality and Safety Committee which meets monthly and discusses quality and safety issues. The clinical directors and managers are responsible for quality and safety in their areas of responsibility.

Clinicians have a responsibility to strive for excellence in clinical care and patient safety, to learn from what goes wrong, find solutions and communicate openly with women if things do go unexpectedly.

Clinical Report 1999 – 2006

This year, we have also produced a Clinical Report, which covers the years from 1999 to 2006. The Clinical Report covers all areas of clinical care and is written to allow our peers (other hospitals, professional colleges and groups) to look at and review our clinical performance. For those who want to look at the more detailed Clinical Report, it is available on our website at **www.thewomens.org.au**

About the Women's

The Women's is Australia's largest hospital specialising in the health of women and babies. The hospital is an advocate for women's health and acknowledges that women's social, physical, emotional and cultural circumstances affect women's health. The Women's has a more culturally and linguistically diverse community of women using the hospital than many other Victorian hospitals. A broad range of women use our services across a range of women's health issues.

Like other maternity hospitals, last year was a very busy one for our maternity and specialist newborn services. We also have one of the largest outpatient services in Victoria.

Table 1: Stays, visits and births at the Women's

	2003/04	2004/05	2005/06	2006/07
Inpatient stays	30472	32168	32478	31685
Outpatient visits	141148	146944	149625	162895
Emergency visits	26378	27596	28379	30150
Women giving birth	5118	5661	5736	6364

Data source: Annual Report 2007

Accreditation – meeting national standards

The Australian Council for Health Care Standards (ACHS) accredited the Women's in March 2007. The Women's received 21 higher-level ratings compared to three in 2005 and none in 2003. This included two outstanding achievements and 18 extensive achievements.

The surveyors were particularly impressed by our work on health promotion, consumer involvement and research. Areas where we will need to make improvements include a more documented approach to falls management and skin integrity systems (pressure ulcers), measurement of staff competency and staff training.

During the survey, over 200 staff took part in group discussions with the surveyors and many staff met the surveyors as they toured the hospital. This involvement was a highlight as it enabled the surveyors to see the passion, energy and involvement of staff. We want accreditation to be not just something we comply with but also an incentive to improve services.

The Women's has also been re-accredited as a Baby Friendly Hospital and recognised as a Health Promoting Hospital by the World Health Organisation.

The new Women's hospital – the journey so far

In 2008, the Women's will move in to a new building next to The Royal Melbourne Hospital. The design of the new hospital was informed by consultation with over 1000 women. In briefing the architects and designers, we used the principles from the community consultation as well as staff consultation.

Community Consultation in 2001 – What did women want from the hospital?

- A separate specialist women's hospital based on community values and cultural and religious respect
- Quality staff, technology, teaching, training and research
- A hospital with good access to services, technology, expertise and research
- A balance in services, both critical and community care, general and specialist services
- Family-friendly patient care that responds to the needs of the whole patient and protects privacy and dignity

Some of the ways the new hospital is different from the current hospital are:

- Fifty per cent of rooms are single bed rooms and the other rooms have no more than two beds. This should address women's concerns in the Victorian Patient Satisfaction Monitor, that the current hospital is not restful and lacks privacy, especially for women with their newborn babies.
- The neonatal unit is designed as the sick or premature baby's first bedroom and will be more spacious and attractive, with more room around each baby's cot. This should be a better environment for the babies and their families.
- Easier access to theatres and critical care, with theatres closer to the birth suites and easy access to The Royal Melbourne Hospital. This will mean that we can look after women who may need access to adult intensive care.
- The Outpatient Clinics will all be on the same floor and easier to find.

One person said, "No one likes to go to hospital and the design conveys the sense that you will be fine here, we will take care of you, you will be safe".

As we reported last year, we tested the interior design with groups of consumers, including a group of Arabic speaking women. The feedback from women was overwhelmingly positive; women thought the colours were warm, soothing, calming and welcoming, that the colour coding for directions was great and that the design was classic, modern and tasteful.

Women and Our Community

In this chapter you can read about

Women and Our Community

Community Advisory Committee

The Community Advisory Committee (CAC) advises the Board of the Royal Women's Hospital on ways to involve consumers and get consumer feedback on all aspects of planning and service delivery, and was involved in the redevelopment of the new hospital. In this chapter, we discuss areas the Community Advisory Committee is currently working on, including the hospital's Diversity Plan and the Consumer Participation Plan.

Lydia Kauzlaric 12/12/1954 – 29/11/2006

The Board, members of the Community Advisory Committee and staff of The Women's remember with great sadness the death of Lydia Kauzlaric. Lydia came to the CAC in early 2006 and made an immediate impact. She inspired us with her courage, her warmth, her passion for improving life for people in Western Melbourne and her advocacy for better care for women with cancer.

***Elaine Canty** retired from the Board of the Royal Women's Hospital in June of this year. Elaine was the Chair of the Community Advisory Committee from December 2000.*

Elaine believed that the Community Advisory Committee's membership should reflect the diversity in the community that the hospital cares for. As the membership expanded, new members were welcomed into meetings where all were given the opportunity to speak and different points of view were valued. Elaine left the committee confident of its role and of its value to the Board.

Elaine understood the benefits of engaging the community in the development of the hospital. She was one of the champions of the consultation that asked over 1000 women what they wanted from their new hospital. That community consultation was a powerful piece of work that engaged the women of Victoria in the future planning of their hospital. Community Advisory Committee members as well as individual consumers were involved throughout the development of the new hospital. As a result, the new hospital has been designed and built in harmony with community principles and staff value community involvement as an asset to their work.

Our Diversity Plan

Over the years, the Women's has developed services that aim to improve access to appropriate and quality care for diverse groups of women in the community. The Women's provides advocacy and support services for Aboriginal women. Staff and external interpreters provide services in over sixty-five different languages for women and provide multi-lingual child birth classes. We provide advocacy and support for women affected by genital mutilation. The Women with Individual Needs Clinic works specifically with women with physical and intellectual disabilities. We redesigned our chapel into a sacred space that is welcoming of the diversity of faiths and spiritual beliefs held by patients and staff at the hospital. These are only some of our strategies for responding to diversity in the community.

In 2006 we started developing a Diversity Plan, which aims to build on current services and to integrate diversity competence (the ability to work well with people who are different from oneself) in a systematic way across the whole hospital. The plan will address the following Department of Human Services (DHS) requirements.

I think these committees have been the best thing I have ever done: they have really demonstrated for me how the principles can be put into practice. It's lovely to see it working.

Understanding clients and their needs

The large number of women who speak English as a second language and the difficulties they often experience negotiating the health care system made this group an obvious priority. The hospital recognises that diversity is broader than the language women speak. Other priority groups for our plan are Aboriginal women and women with disabilities.

The first step was to know more about women's needs and their experiences of using our services. In 2007, we received philanthropic funding to hold focus groups with women from the eight most commonly spoken languages (Arabic, Mandarin, Cantonese, Turkish, Vietnamese, Greek, Italian and Somali), as well as with women with disabilities and Aboriginal women. We were able to employ expert consultants in cross cultural consultations, to get information translated into women's first language and to use interpreters in the focus groups. This is the first time we have been able to consult so extensively and thoroughly with these groups.

Georgia Birch *lectures in health promotion at Victoria University and the Australian Catholic University, and is passionate about women's health and consumer participation. In 2006 she was appointed as a consumer member of the reference group overseeing the project to map the hospital's health promotion services. Earlier this year, she was appointed to the Primary Care and Population Health Committee. As part of improving our consumer participation strategies, Georgia was interviewed about her experience on these committees.*

What worked well? *The way I was introduced to the committee and made to feel welcome. People on the committee took me seriously, made me feel like I wasn't a token, that they valued that I brought a different perspective to the discussions, and raised issues that they hadn't thought about. That impressed me.*

What do you get out of being on the committees? *I think I learnt more than I was able to give: especially about how hospitals work and how all the different kinds of services came together around an issue like health promotion. I was really struck by how flexible and inclusive the managers and directors are. Even though they represent very big departments with lots of staff, the managers came to the meetings committed to making decisions that will work for everyone. The staff really put into practice the kinds of health promotion principles that I try and teach my students. What could we do better? In the meetings, staff use a lot of terms and concepts that people outside of a hospital system don't understand; sometimes you can work it out from the context but there needs to be more effort to speak in plain English or to explain what you mean when you use acronyms.*

What have you enjoyed? *I think these committees have been the best thing I have ever done: they have really demonstrated for me how the principles can be put into practice. It's lovely to see it working.*

Encouraging participation in decision-making

The Community Advisory Committee has been discussing the focus and priorities for the Plan since 2006. These discussions have been strengthened by the diversity of membership on our committee. Our members provide us with links into networks of young migrant and refugee women, women with disabilities, women from the Aboriginal community, the lesbian community, women with mental illness, first and second generation migrant communities and the Muslim community.

Partnerships with multicultural and ethno specific agencies

Through new appointments to the Primary Care and Population Health Committee, we have strengthened the partnerships with community-based organisations. We have representatives from service providers in local government, community health, Melbourne and La Trobe Universities, Gay and Lesbian Health Victoria, Victorian Women with a Disability Network and a consumer member contributing to the strategic development of services for different population groups using our hospital.

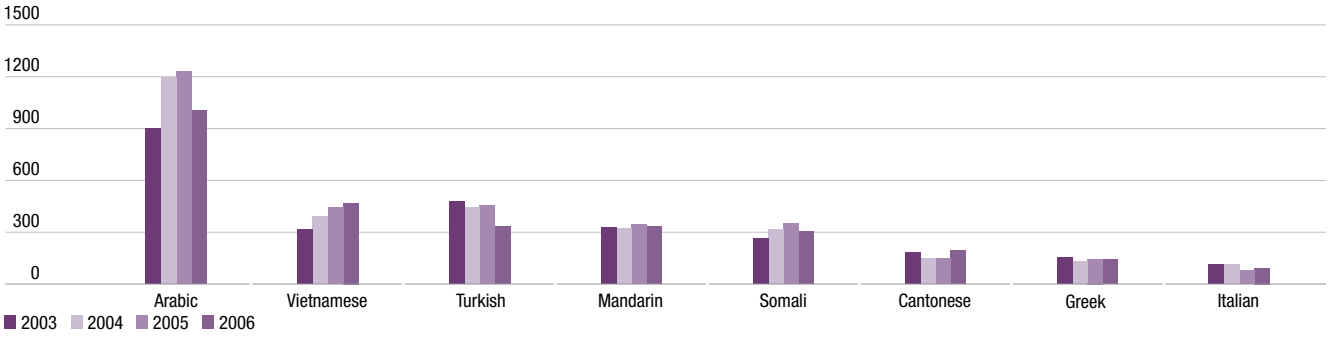
A culturally diverse workforce

Like the broader Victorian society, the hospital is a multicultural community. We are looking at how to collect information about the cultural and language profile of our workforce and the knowledge and skills of staff and incorporate this information into efforts to strengthen the hospital's culture of respecting and valuing diversity.

Using language services to best effect

The hospital experienced more than a forty per cent increase in bookings for interpreters between 2000 and 2006. We are developing strategies for further improving access to services, and information and support in women's preferred language. This includes a pilot project to recognise bilingual workers in the hospital, options for increased use of telephone interpreters for routine appointments, and exploring opportunities for using new technologies to provide health information.

Figure 1: Requests for interpreters and the top eight languages 2003 – 2006



Data source: Health Information Services

Promoting the benefits of a multicultural Victoria

The hospital develops and promotes a range of tools for communicating with linguistically diverse communities. This includes developing consumer health information in a range of languages and readily accessible to women and available for clinicians to download from the internet and print for women during their care.

Improving care for Aboriginal and Torres Strait Islander Women

The Women's recognises the harm caused to the Aboriginal community when the hospital participated in the removal of children from their families, under government policies at the time. Through the Aboriginal Women's Health Business Unit, the Aboriginal Women's Health Business Advisory Committee and the Reconciliation Working Group, the hospital is striving to build the Indigenous community's trust in our services. We monitor our work in this area against the following Department of Human Services ICAP (Improving Care for Aboriginal and Torres Strait Islander Patients) Key Result Areas.

Creating a welcoming environment

The Aboriginal Women's Health Business Unit (AWHBU) is the driving force behind the hospital's efforts to create a welcoming environment for Aboriginal people. Posters with photos of workers and details about the unit are hung in wards and outpatients. We fly the Aboriginal and the Torres Strait Islander flags, and use Aboriginal art to promote recognition and respect for Aboriginal people's status as Australia's first people. The unit, including the family meeting space, the flags and art will continue in the new hospital to acknowledge the Aboriginal community.

Cross cultural training

The Aboriginal Women's Health Business Unit organises and conducts cross cultural training sessions for staff. In the past year, this has included

- forums for Aboriginal Health Associates – staff members who provide a direct link between Aboriginal health workers in the community and hospital staff
- as part of Sorry Day activities, arranging for the Koori Heritage Trust to conduct cross cultural training for staff

Culturally sensitive post acute care planning

The Aboriginal Women's Health Business Unit gives staff across the hospital access to expert knowledge and advice about appropriate services for women. Workers in the unit have relationships with Aboriginal agencies across the state, and can link staff with these agencies.

Setting up a referral base

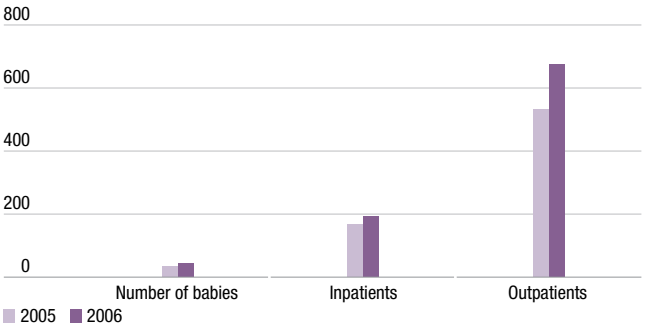
A new protocol has helped to strengthen the relationship between the Women's and the Victorian Aboriginal Health Service, the largest Aboriginal controlled primary health care service in Victoria and improve referrals between the two services. The Aboriginal Women's Health Business Unit is also working to build a relationship with the hospital's new Centre for Women's Mental Health and improve staff knowledge of Aboriginal community organisations.

Reconciliation Plan

The hospital's Diversity Plan includes a commitment to develop a Reconciliation Plan. The Reconciliation Plan will provide the means for staff and the community to work together on the wide range of activities conducted in the hospital each year.

The graph shows that the number of Aboriginal people using the hospital is increasing. This suggests that the Unit's strategies have been effective in increasing access and improving staff awareness of the needs of Indigenous women and their babies.

Figure 2: Aboriginal and Torres Strait Islander women coming to the Women's



Data source: Health Information Services

Community participation performance indicators

We report these performance indicators on consumer participation to the Department of Human Services (DHS). Performance indicators are standards or measures to assess how well we do.

The governing body is committed to consumer, carer and community participation and meets the ACHS standard on consumer participation at least to the level of moderate achievement (MA).

In March 2007, the Australian Council in Healthcare Standards (ACHS) rated the hospital against this standard as Excellent Achievement (EA) and found:

'The Royal Women's Hospital consumer participation model, level of representation, performance and genuine involvement in health service functions to be of an exceptional standard.'

There is participation in higher level decision making and consumers, carers or community members on key committees.

The ACHS surveyors went on to say:
"A strong culture of consumer participation is evident throughout the organisation. This is supported by policy and guidelines and integrated with strategic planning initiatives. Consumers are represented at relevant organisational levels and within organisational committees. Appropriate training and support is provided to those involved. Consumer participation is actively sought."

The service reports openly to its communities on quality and safety and the participation in its processes.

This annual Quality of Care Report outlines quality and safety performance and systems in the key areas that address the health care needs of the hospital's communities. We seek feedback from women about what they think about the report, what they want to read in it and how we can improve it.

A Community Participation Plan has been developed and is being reported against annually to the Department of Human Services.

Following feedback from women, the new Community Participation Plan for 2007 – 2010 includes guidelines for supporting consumers on committees and paying consumers for their time. The guidelines for managers and directors provide advice about making sure consumers on committees have a meaningful role and the information they need to make a contribution. In March 2007, an audit showed that the hospital had consumers involved in the following committees: quality, health promotion, pregnancy care, medication safety, breast services, neonatal services, consumer health information and cancer services.

There is consumer and, where appropriate, carer participation in clinical care and consumer participation in decision making about their care and treatment is assessed on the VPSM Consumer Participation sub-index.

This is calculated using three questions from the Victorian Patient Satisfaction Monitor (VPSM):

- the opportunity to ask questions about your condition or treatment
- the way staff involved you in decisions about your care
- the willingness of hospital staff to listen to your health concerns

	2005	2005/06	2006	2006/07
The Women's	81	81	80	80
Category 2 hospitals	80	78	77	78
State-wide	81	81	80	80

Our results are very good and significantly better than our peer group.

Appropriate information is available to enable all consumers and carers where appropriate to share in decision making about their care.

Health information that is based on evidence, clear and easy to read is important because it helps women make

decisions about their care. It is even more important that women get consistent information and advice as they may see different clinicians during the course of their care. This year we set up two new committees to oversee our processes for developing health information and using it in our care with women. One committee develops information for women around pregnancy, birth and post natal care, and the other looks at broader women's health conditions.

Each committee includes consumers who have used the hospital's services. These consumers have made a substantial difference to our work, providing us with advice about the information women want as well as a better understanding of the ways that health information improves women's confidence in themselves and in our care.

The consumer advocates: "tell us what you think…"

One other way we get input from women is when they contact the consumer advocates. The consumer advocate service aims to encourage and support women and their families to let us know what they think and give us the opportunity to improve our care through listening to their concerns and complaints.

During the past year, the consumer advocates have provided training for midwives, nurses and clerical staff about dealing with concerns, complaints and feedback, the role of the consumer advocate and skills for dealing with women and their families who are particularly upset or angry. More training will be offered during the next year.

Some people will contact the consumer advocates directly or be referred by other hospital staff. Similar to previous years, poor communication accounts for 46 per cent of issues brought to the consumer advocate, such as inadequate information, absence of care, poor attitude and rudeness. The other most common issues are concerns regarding treatment (20 per cent) and problems with access (19 per cent).

'Tell us what you think' brochure

It is important that women know about the consumer advocate's role to know where to take their concerns. This year, the consumer advocates redesigned their brochure to make the complaint process clear, simple and accessible. Consumers were consulted extensively in the design of the new brochure and the result was a bright pink, eye-catching brochure called 'Tell Us What You Think'. We have had good feedback about the new brochure, which has been printed in 15 different languages.

There were 383 complaints to the consumer advocate service from July 2006 to June 2007. This is an increase on the past few years when the number was slowly but steadily declining.

Figure 3: Complaints to the Consumer's Advocates Office

Data source: HCIP database

Complaints increased by 40 per cent in the first six months of 2007, coinciding with the new brochure. It is reasonable to conclude that the increase is because more women know about the consumer advocate service as a result of the new brochure.

Learning from women – the Victorian Patient Satisfaction Survey

The Department of Human Services funds the Victorian Patient Satisfaction Monitor (VPSM) and reports twice a year on satisfaction with Victorian hospitals.

Table 2: Our Victorian Patient Satisfaction Survey results

Index measure (20-100 Scale)	March 2006 to August 2006 Score	Sept 2006 to Feb 2007 Score	Category A2 Current Wave Average score
Overall Care	75	75	75
Access and Admission	76	74	73
General Patient Information	80	80	80
Treatment and Related Information	78	77	76
Complaints Management	81	79	79
Physical Environment	69	67	70
Discharge and Follow-up	74	73	74

Data source: VPSM

Our best results are for general patient information and complaints management, which measures the willingness of staff to listen and respond to women's health care problems.

Women having elective surgery rated us as better than our peer group on every measure. However, for maternity services, women's satisfaction with the

physical environment was a significant issue and features strongly in comments about what to improve. Recurrent themes are the problems of shared rooms, privacy, air conditioning, restfulness, and noisy visitors. These issues should improve in the new hospital.

When women say what they liked, most comments refer to the courtesy, caring and professionalism of hospital staff and the sense of a hospital team. This tells us that what women value most about the hospital are the people who work here.

"It was my first time and I was very afraid, but overcome it all by great staff."

On the other hand, women feel let down by the experience of one or two rude staff members or the sense that they are not listened to.

We use the results to work out what we need to improve. In 2005, when the number of women giving birth was unexpectedly rising, women's satisfaction with the response times of midwives went down. We were able to improve that as shown below. Our other consistent poor rating is for our food. We have taken that into account in planning for the new hospital.

Table 3: Responsiveness and satisfaction rates

	2005	2006	2006-07
Responsiveness of midwives	85	90	88
Satisfaction rates with response times	72	80	83

Data source: VPSM

Switchboard

The Women's has at least 100 different departments and more than 2,000 staff. This can make it difficult for people to find the clinic they need, which ward their friend or family member has been admitted to, or who to talk to for health advice. The first point of call for many people in the community is the staff members who work on our switchboard.

The switchboard provides a 24 hour service, seven days a week. It employs about ten operators, and answers around 83,000 calls each year. Most of the calls are about making an appointment, finding a relative, or someone wanting to talk to a doctor about symptoms and side effects from healthcare.

Switchboard staff work hard to put these calls through to the right person. The job requires patience, a caring attitude, good listening skills and team work, as staff work together to find the right doctor, patient or clinic. It helps

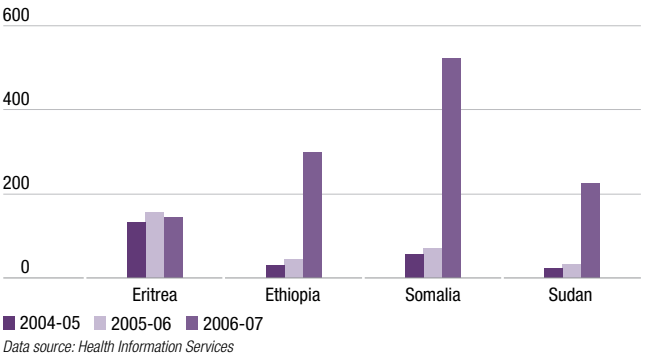
that many of the operators have worked at the hospital for ten and sometimes twenty years.

Switchboard's telephone number is **03 9344 2000**.

Getting feedback on services

While female genital mutilation (FGM) is illegal in Australia, many women born in Horn of Africa countries experienced FGM when they were children. In the past year, we provided inpatient care for nearly 1200 women from these countries. The Family And Reproductive Rights and Education Program (FARREP) has developed a tool to better understand these women's experiences of our care, which will be used to improve our services and the training and support for staff.

Figure 4: Inpatient care for women from the Horn of Africa



Data source: Health Information Services

A Safe Hospital is One That Learns

In this chapter you can read about

A Safe Hospital is One That Learns

In this chapter, we discuss what we do to prevent harm to women and babies during their care at the hospital. Even with the best intentions of our staff, errors will occasionally occur. Our job is to put protective processes and systems in place to reduce harm to patients and support our staff.

What do we do to make our hospital safe?

- We work to create a culture in which everyone is conscious of patient safety and looking for workable solutions.
- We promote reporting and review of anything that goes wrong – incidents, sentinel events and patient complaints.
- We talk with women and their families when an error happens.
- We review all major complications and deaths to see if our care was appropriate and if our care can be improved (mortality and morbidity review).
- We measure our clinical performance and compare it to other hospitals.
- We identify our risks – what we need to do to improve patient safety, by looking at incidents, medico-legal claims, complaints and reviews of clinical practice.
- We have commitment from the Board and Chief Executive.
- We report on patient safety to our Quality and Safety Committee and the Board.
- We base treatment on research evidence that it works. Our clinical practice guidelines (CPGs) are based on research and provide guidance for clinicians about the best way to manage clinical situations and conditions. See **www.thewomens.org.au/HealthProfessionals**
- We provide education, support and back up to junior doctors, nurses and midwives while they develop their skills and expertise.

Managing clinical risks of moving the hospital to Parkville

Moving a hospital is a major exercise, as the Women's moves from Carlton and opens at Parkville in a new building in June 2008. Clinical risk management is about trying to anticipate potential problems and making sure that we plan well so that there are no unexpected surprises during the move. We have put robust plans in place for the move. We learned from the experience of the Mercy Hospital for Women and its move to Heidelberg and looked at all the things that could possibly occur during our move to help us develop these plans.

What are we doing to manage this?

- We will reduce the number of woman and babies that need to be transferred to the new hospital. We will offer women the option of going home early, with home based support. This will allow us to concentrate on babies and women who are not well enough to go home. The specialist Newborn Emergency Transport Service will transfer babies from Neonatal Intensive Care and Special Care.
- We will work with other hospitals to reduce the number of women and babies admitted to Carlton just prior to the move so that fewer women and babies need to be moved.
- We will build-up patient surgery after moving to Parkville to allow time for staff to get used to the new hospital. We plan to move on a weekend and will reduce elective surgery for a few days.
- We will ensure staff are accustomed to the new hospital, as well as visiting the hospital before the move and being educated about the new hospital. Following and during the move, we will roster extra staff and develop a group of staff to act as guides.

Some terms we use

Sentinel events unusual incidents that cause significant harm to patients and mostly arise from system problems, for example, leaving a pack or instrument in the patient, or operating on the wrong side

Root cause analysis a multidisciplinary team method used when something serious goes wrong to identify what happened, why it happened and what can be done to prevent it happening again

Multidisciplinary a team made up of different health professionals working together

Prophylaxis/prophylactic measures taken to prevent disease or infection before they occur, such as vaccination or a dose of antibiotics

Audit an examination of a selection of patient medical records to check the type of care provided

Picking up on things that go wrong

We work hard to find all the things that could go wrong and do go wrong in the hospital, working out ways to prevent errors happening and creating more reliable systems. When something does go wrong, we involve staff in looking at why it happened, usually a chain of events rather than one single act by one person, and work out how to reduce the risk that the same thing will happen to other patients. We discuss with women and their families when things don't go as planned and especially when there has been an error that caused harm.

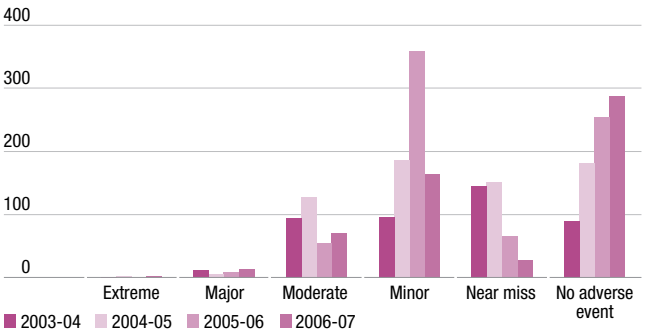
Staff report things that haven't gone to plan, circumstances that might lead to something going wrong or 'near misses', incidents that were picked up quickly and corrected. Incident reporting is important because it identifies things that are not working well early and increases awareness by staff of the need for vigilance on patient safety.

Figure 5 shows our incident reporting over the last four years and that most incidents don't result in serious harm to patients. We look at our patterns of incidents and spend a lot of time on the incidents where there was greater patient harm, or potential for serious harm.

We reviewed our incidents over the last three years with more serious harm and found that the top groups of incidents were:

- clinical complications
- delays in assessing the patient's condition, getting assistance, getting and acting on results
- inadequate assessment of a patient's condition
- communication problems
- access, for example, to theatre

Figure 5: Clinical incidents by seriousness 2003 – 2007



Data source: Riskman database

We review incidents and 'near misses' that could have caused harm using a root cause analysis method (see 'Some terms we use'). Sometimes, we find that we could have done things differently and make recommendations to reduce the risks that this will happen to another woman or baby. Sometimes we conclude that we could not have changed what happened but it still helps to reflect on our care and enables us to answer questions from women and their relatives.

Examples of improvement include:

- Neonatal services developed a nursing handover checklist for each shift as a safety check, for example, IV fluids are correct, drug doses are correct, the ventilation is set correctly.
- A thromboprophylaxis (prevention of blood clots) guideline was developed for gynaecology surgery.
- Communication was improved between Neonatal Services, Women's Alcohol and Drugs Service and Women's Social Support Service.
- We are developing and piloting a birth reflections service for women who had a very difficult labour (see next chapter).
- We reduced the risk of giving the wrong drugs to women in labour.
- Cancer services changed some of the dressings for women having chemotherapy and improved information for women about how to look after the dressing.
- We updated our patient identification policy to better identify women with similar names.

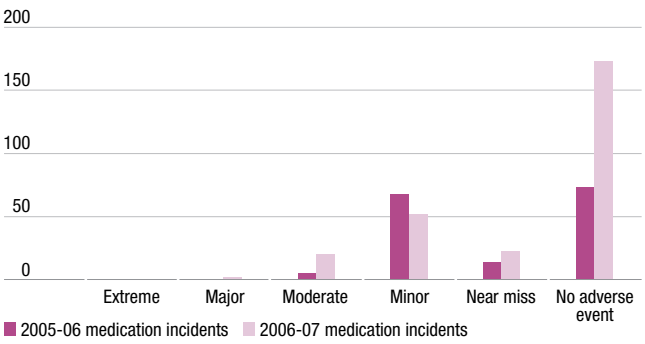
While we didn't have any sentinel events, we were concerned that we had a pattern of incidents and near misses about recognising a woman who was getting sicker and getting assistance for her. We believed the

solutions lay in better clinical handover of information about patients and having a system to call for timely assistance. So we made changes to our medical roster and clinical handover, and successfully applied for funding for a project working together with the Mercy Hospital for Women to address the issues.

Preventing medication errors

Figure 6 shows medication incidents. Most incidents don't result in patient harm, but show that we need to improve how medication is prescribed and given. Our pharmacists do a daily ward round and pick up any potential errors and correct them. The Medication Safety Committee reviews incidents and the errors pharmacists identify. Major issues that we have identified during the year are delays in patients receiving important medications, allergies not always being clearly identified and making sure that women who meet certain criteria receive appropriate medications to prevent blood clots developing. We have initiatives underway to improve these areas.

Figure 6: Medication incidents by seriousness



Data source: Riskman database

During the year we have also introduced the National Inpatient Medication Chart. In April 2004, Australia's Health Ministers agreed that in order to reduce harm to patients from medication errors, all public hospitals would use a common medication chart by June 2006.

Key improvements that have occurred include:

- one set of medication guidelines, replacing several different policies and procedures
- a medication chart for use in Emergency Department and Outpatients
- a Diabetes Medication (Insulin) Chart
- improved readability of the medication chart and drug doses – assessed as better than 90 per cent.

Reducing drug errors during labour

Last year, we had a near miss with a drug that makes the uterus contract and helps prevent post partum haemorrhage being given to a woman in labour instead of pain medication. The error was recognised immediately, quick action taken and the baby was fine. But we took this very seriously and did a root cause analysis.

During the root cause analysis, we wanted to make sure it couldn't happen again. Staff awareness was raised, because everyone knows when this kind of serious error happens and people are alert to possible errors. But this error has happened in other hospitals and is likely to happen again somewhere.

The potential for error occurs when two different drugs are in the birthing room at the same time. Two different drugs in standard green kidney dishes used for injections can easily be confused. If clinicians followed procedure and checked the ampoule before administering the drug, the error would not occur. But if there was an extra visual clue, would this make a busy, pressured clinician who thought they were administering the right drug, think again?

We decided that we needed a different kidney dish from the standard green one; something only used for Syntocinon. We consulted clinicians who thought this was a good idea. The dish needed to be obviously different, be big enough for the appropriate needle and syringe, and be easily replaced. After much searching, a bright yellow, oblong dish was found.

Introducing the yellow dish was simple. The dishes were located beside the fridge where the Syntocinon is kept. An information poster was located on the fridge and on the drug cabinets. Staff were informed at handovers. The change was adopted without fanfare or complaint and the feedback has been very positive. Some staff observed that they were 'surprised that no-one had thought of this before'. Almost a year on, the yellow dish is always used for preparing Syntocinon for administration in third stage of labour and has become routine practice within the Birth Suites.

Karen Moffatt
Clinical Midwife Consultant

Making sure clinicians are qualified (credentialing)

Credentialing is important for patient safety as it is a process for ensuring that professional staff are appropriately qualified and practicing within their qualifications and experience. In the last couple of years, we have a more rigorous process for making sure that qualifications are sighted for all doctors working at the hospital, and their Medical Practitioners Board of Victoria registration is checked yearly. When new surgery is introduced, we have systems to ensure that only doctors trained in that type surgery perform the surgery. Similarly, for midwives and nurses, we have improved our system for recording information about their skills and training. We are continuing to work on systems for junior medical staff to ensure that they have clinical skills appropriate to their level of training.

Preventing hospital acquired infections

The Infection Control team works with clinicians to reduce hospital infections

- The team identifies women and babies most at risk, collects data on infections and compares these to other hospitals nationally and internationally. This data is fed back to clinicians with recommendations from research about preventing infections.
- They review all infection control issues, for example, sterilising equipment, managing infectious waste and provide education for staff on infection control.
- They look after staff health, for example, vaccination of staff and preventing needle stick injuries.
- They conduct annual audits to measure compliance with infection control procedures and feed results back to staff along with areas for improvement.

Victorian Nosocomial (hospital acquired) Infection Surveillance System – VICNISS

VICNISS is funded by the Department of Human Services to collect infection data from metropolitan public hospitals. We submit data on neonatal blood stream infections, caesarean section, mastectomy and hysterectomy wounds. VICNISS reports back to us on how we compare with similar hospitals. There is research evidence that comparing infection rates this way is effective in reducing infections.

Infection rates

Infection rates for caesarean section, hysterectomy and babies in neonatal intensive care can be found in the relevant chapters.

Multi-resistant organism surveillance

No multi resistant organism such as MRSA ('golden staph') has become endemic at the Women's, which means that standard antibiotics are effective in treating infections in very sick women and babies. We keep this type of infection rate very low by:

- controlling inappropriate antibiotic use
- maintaining high rates of prophylactic antibiotic prescribing
- keeping urinary catheters in as short a time as possible
- adhering to precautions like wearing gloves and gowns
- nursing a women or baby with a resistant organism separately
- hand hygiene

This has stopped infections moving from patient to patient, especially in neonatal intensive care. We see about 10 MRSA ('golden staph') infections a year, but most are acquired either in the community or at other hospitals and there has been no transmission of infection within our hospital.

Clean hands at the Women's

Cleaning hands while dealing with a patient is a simple but important infection control strategy and one we are focused on at the Women's, working with staff and also parents. The volume of skin disinfectants and alcohol rubs has increased in all clinical areas, which is an indirect measure of compliance. The "Wash Up" website **www.washup.org.au** provides information about hand hygiene aimed at neonatal and women's health services. We are part of a state-wide strategy to improve compliance with hand hygiene.

Table 4: MRSA infections by acquisition and resistance pattern

Year	Multi-resistant MRSA	Non-multi-resistant MRSA	Total	Acquired at the Women's	Community acquired	External hospital acquired	Unknown acquisition
2005	1	7	8	0	7	1	0
2006	5	5	10	0	4	1	5

Data source: Infection Control Department

Sharps injuries and blood and body fluid exposures at the Women's

To protect themselves and other patients, we have measures to prevent and treat injuries to staff such as needle stick injuries and blood splashes, where staff may be exposed to blood borne infections. A total of 51 blood exposures were reported in 2006, down from 77 in 2005. From January to June 2007, 18 needle stick injuries have been reported. This data is submitted to the Victorian Blood Surveillance Exposure Group (ViBES) for comparison. We share ideas with other hospitals about prevention.

Staff vaccination program including annual influenza vaccination

Vaccinating staff helps to prevent infections such as 'the flu' moving between staff and patients and reduces staff sick leave, particularly during the winter. Influenza vaccination is offered to all staff from March each year. In 2007, 851 out of 2169 (39 per cent) of all staff were vaccinated, up from 735 in 2005. This rate has been consistently higher than the Victorian state average, which was 31 per cent in 2006.

Having a clean hospital

We audit our cleaning standards against the cleaning standards for Victorian hospitals. Our average score for our highest risk areas such as theatres was 91.9. The Victorian standard is 85.

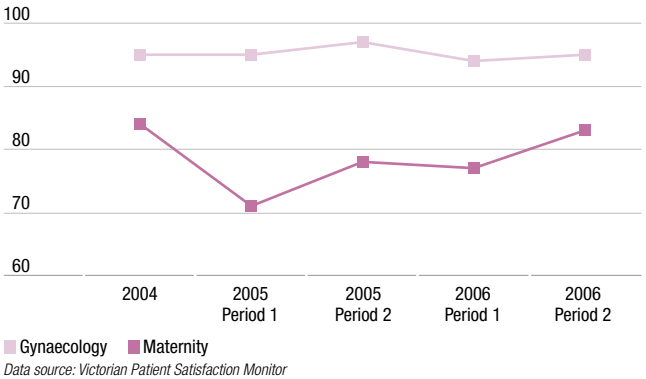
Table 5: Our cleaning standard

	2002/03	2003/04	2004/05	2005/06	2006/07
Our score	90	89	94.7	92.8	91.9
DHS cleaning standard	80	80	85	85	85

Data source: RWH auditing records according to DHS standards for Victorian public hospitals

The Victorian Patient Satisfaction Monitor asked women how satisfied they were with the cleanliness in the wards and bathrooms. Figure 7 shows that when the maternity wards initially got very busy in 2005, cleanliness dropped, but has improved with increased attention and resources, despite even higher numbers of women giving birth.

Figure 7: Satisfaction of women with cleanliness of wards and toilets

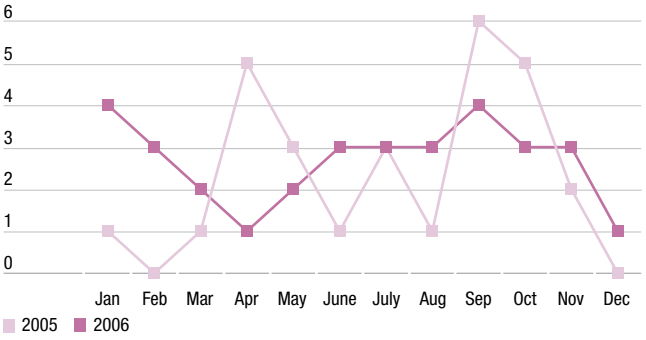


Data source: Victorian Patient Satisfaction Monitor

Preventing serious injury from falling

At the Women's there are approximately 30 patient falls per year. Most falls occur by the patient's bedside or in the toilet and bathroom areas. No woman or baby has had any serious injury from a fall.

Figure 8: Falls incidents by month



Data source: Riskman database

Although the majority of our patients are fit and young, we have a small but significant older group of women within cancer and gynaecological services at increased risk from injury from falls. So we need a falls program that works for our type of hospital.

Women with more risks of falling will be asked questions about themselves. If they are assessed as having a risk of falling, they will have their own individual fall prevention plan as part of their medical record. In the past we taken precautions to help prevent falls, but less formally and we have not written the plans down.

Preventing pressure ulcers developing

A pressure ulcer is an area of skin that breaks down when you stay in one position for too long without shifting your weight. This has been recognised as a serious patient safety issue which is mostly preventable. The neonatal unit and our women's cancer services participated in Victorian Quality Council surveys which showed that our incidence of pressure ulcers in neonatal services and women's cancer services is very low.

Very low birth weight babies have very delicate skin and are most at risk in our hospital. The babies are nursed on pressure reducing mattresses, moved constantly if they are not able to move themselves and checked for small skin injuries developing from interventions such as tubes in their noses for breathing.

We have developed tools to assess pressure ulcer risk for women, to identify prevention strategies for the particular woman and to communicate this plan to all team members, which will be documented in the woman's health record.

Occupational health and safety

We are committed to improving the health and safety of our staff. This table shows that our insurance injury claims rating is better than the industry average, thus reducing the insurance premiums we pay. This is a measure of our good management of occupational health and safety.

Table 6: Workcover insurance ratings for the Women's

	2005/06	2006/07	2007/08
Percentage that our Workcover insurance claims rating is better than the rest of industry for experience and size	26.09%	31.33%	44.14%

Having a Baby at the Women's

In the chapter you can read about

Having a Baby at the Women's

Maternity care at the new hospital

As well as moving to a better designed hospital, Maternity Services is changing its model of care to start in February 2008.

Why change the model of care?

We wanted to improve our maternity care, women's experience of their pregnancy and birth and midwives' and doctors' professional satisfaction. We also wanted to take advantage of the design of the new building. Women and staff were surveyed during the development of the new model, which also takes into account research evidence and policy regarding the best organisation of care.

What do we want to achieve?

We want women to have more consistent carers across their pregnancy and birth, with more consistent care and advice. We want more women to have midwifery-led, family friendly care and extend the role and scope of practice for midwives. We want to improve the way midwives and doctors work together. We want to increase community-based care with more community clinics.

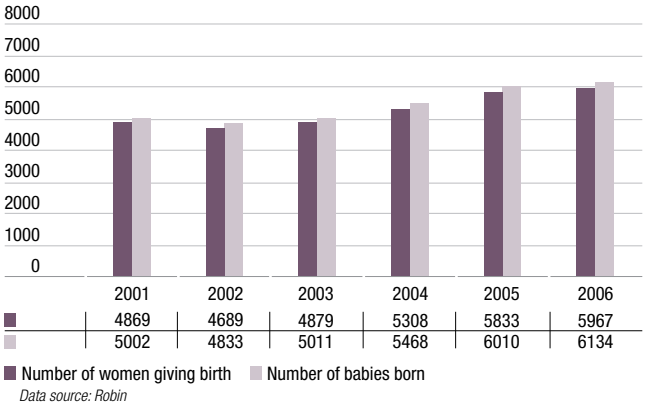
What will the new model of care look like?

At the moment, women belong to a team depending on whether their pregnancy is assessed as 'low risk' or 'high risk'. From early 2008, there will be four teams of obstetricians, midwives, other specialist doctors, social worker, dietician, physiotherapist and diabetes educator. Every woman will belong to a "home-team", which will provide her care from pregnancy care to home visits after birth. Women who have complex care needs will receive additional care through specialist clinics.

Managing maternity demand

Along with other Victorian hospitals, more women are giving birth at our hospital each year. This has been quite challenging for our staff. As part of a state-wide strategy, the Women's, like other tertiary maternity hospitals, is giving priority to specialist care for women with high-risk or complicated pregnancies, and women with low risk pregnancies who live near our hospital. The changes to our model of care will also assist us to better meet women's needs at a time of increased demand.

Figure 9: Number of births and women giving birth



Data source: Robin

Pregnancy care

Pregnancy care at the Women's is provided to about 6500 women who speak at least 60 different languages. The main non-English speaking countries where women were born are Vietnam, Lebanon, China, Turkey, India, Iraq and Somalia. Many women coming to the Women's have special needs. We have established specific pregnancy and post natal services for these women.

Shared pregnancy care

About 1500 women a year see a general practitioner (GP) or community midwife for pregnancy care and give birth at the hospital. The Women's, Mercy Hospital for Women, Sunshine Hospital and the Northern Hospital have a common process for accrediting shared care practitioners – we have accredited 686 GPs and obstetricians and 11 community midwives. They have access to our Clinical Practice Guidelines, website information, web based clinical results and regular professional development.

A survey of 120 women in February 2006 found that all were satisfied (85 per cent very satisfied) with shared care. Women liked it because there was less travel (69 per cent), less waiting time (49 per cent), a known GP or midwife and they would take their baby to the GP for care after going home. Twenty-six per cent of the women spoke a language other than English at home, with 25 per cent requiring an interpreter.

Regular audits have been done to improve the quality of shared care. Although the audits show continuing improvement, in general, shared care practitioners are better at communicating with the hospital than visa versa. This is where the Women's is focusing its efforts to improve.

Young women's services at the Women's

The Young Women's Program provides multi-disciplinary care for approximately 120 teenagers a year from varied cultural and social backgrounds who are pregnant or parents. Research shows that having younger women come to the same antenatal clinics as older women often resulted in poor attendance and that they needed the specialist knowledge and skill of a team dedicated to young women's needs.

We look at long term support for these young mums, their partner and family during pregnancy, and the days and weeks following birth, and work to address young women's social, educational and work needs.

A role that is unique to our service is that of the peer support worker, a non clinician, who assists with emotional and practical support such as childbirth education, sessions to prepare for obtaining a driver's license, regular newsletters and contributes to maintaining the 'Young Pregnant and Parenting' website **www.ypp.org.au**

Our program has strong links with community services for young parents, young people's mental health services as well as indigenous health groups, refugee services and the Child Support Agency. We work with general practitioners, early parenting centres, play groups, maternal and child health nurses including their home visiting program to link young women to their local community after the birth.

Inspirational 'Young' Woman

Kylie is 22 years old and the mother of five-year-old Taylah. She was pregnant at 16 and gave birth at 17. "I was in shock when I found out. It didn't register for a couple of weeks. My boyfriend came with me and when it really hit him he ended up leaving – which happens. It took me a long time to tell my mum – not until I was about four and a half months (pregnant). I'd actually moved out of home 'cos I was a rebellious child – I'd quit school and I was working."

"I'd have to say my main emotional support came from here (the Women's). My social worker helped me step by step and every time we met she'd ask, "Have you told your mum yet?" and I'd go, "No – I wrote her a letter…but I didn't mail it." Kylie received emotional support as well as help with legal issues, housing and with Centrelink.

When she finally told her mum "It was like watching a movie – I wished I was watching a movie! However she asked me to move back home and I've been there ever since."

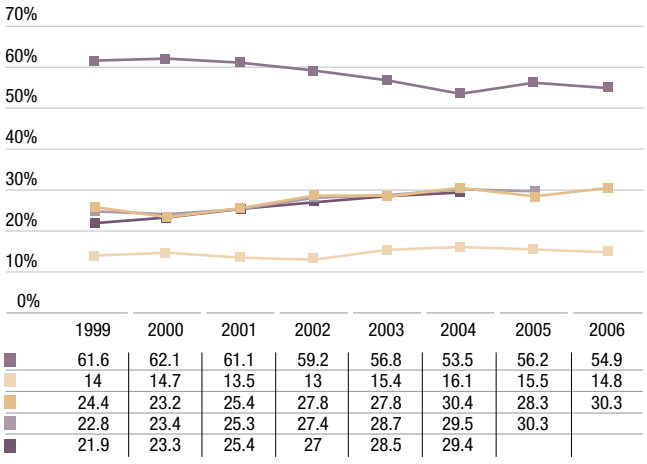
The support Kylie had from her family allowed her to return to study. "When Taylah had turned one I thought, what am I gonna do with my life – I haven't got my VCE and I don't wanna be a 'check-out-chick'. That week I got a call from the hospital to see if I wanted to do the peer educator job and from there, the careers counsellor at the Women's helped me with getting into nursing."

Kylie talks about her job as a peer educator in the Young Women's Service as "a great job. I helped to run childbirth education classes for the young mums and we ran a group where we would help young mums get their licences – practical stuff like that. I guess I was also an emotional support for them" says Kylie. "There's an automatic trust cos you've been where they are – they tend to open up to you a lot more."

What's the best thing about having a daughter? "I just love that I can share everything that's happening in my life with her and I love waking up everyday and seeing her face. Even if I have a bad day, I just see her and forget all about it, nothing else is important in comparison. She's a miracle and it's not just for me she does it for everyone. She brings happiness to everybody, even people we don't know and I love that I gave birth to her. She lights up a room – she's life."

Kylie is currently working at the Women's as a Graduate Nurse.

Figure 10: Vaginal births and caesarean sections



	1999	2000	2001	2002	2003	2004	2005	2006
Normal vaginal	61.6	62.1	61.1	59.2	56.8	53.5	56.2	54.9
Operative vaginal	14	14.7	13.5	13	15.4	16.1	15.5	14.8
Caesarean section	24.4	23.2	25.4	27.8	27.8	30.4	28.3	30.3
Victorian caesarean section rate	22.8	23.4	25.3	27.4	28.7	29.5	30.3	
Australian caesarean section rates	21.9	23.3	25.4	27	28.5	29.4		

Data source: Robin, Perinatal Data Collection Unit; National Perinatal Statistics Unit

Labour and birth

We review rates of normal vaginal birth and caesarean section to make sure that care in childbirth is appropriate. The rate of normal vaginal births has decreased over the last nine years. The rate of caesarean section has risen, although it has been steady at around 30 per cent for the past three years. The increase in caesarean sections is almost entirely due to an increase in emergency caesarean sections.

There are risks associated with caesarean section – both for the mother and the baby and over the longer term, so we have a number of projects underway looking at reducing caesarean sections:

- We analyse caesarean sections, using the Robson Ten Group Classification System. Through identification of the groups of women who are having caesarean sections, we are able to focus our efforts to create practice change. We are focusing on improving care for women who have their first baby by induction of labour.
- We are reviewing the reasons for emergency caesarean sections, most of which are undertaken because of concerns about the wellbeing of the baby, or labour taking too long. Our challenge is to balance the well being of the mother and baby in labour. We are focusing on skills in monitoring the baby's heart rate.
- Encouraging women who can do it safely to have a vaginal birth after a caesarean section (VBAC). To help women to make informed choices about their birth options, the Women's has developed new Clinical Practice Guidelines and a consumer decision-aid booklet.

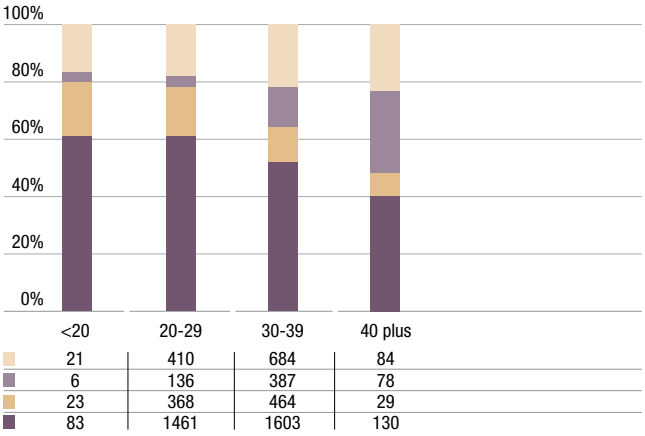
Terms we use

Operative vaginal birth the baby's birth is assisted by forceps or ventouse

Does women's age make a difference?

Our figures show it does. More women over 40 are having babies and they are less likely to have a normal vaginal birth and more likely to have a caesarean section (the caesarean section rate for these women is 50 per cent). As the proportion of older women giving birth is increasing, this is one factor in our higher caesarean section (C/S) rates.

Figure 11: Vaginal birth and caesarean section by women's age



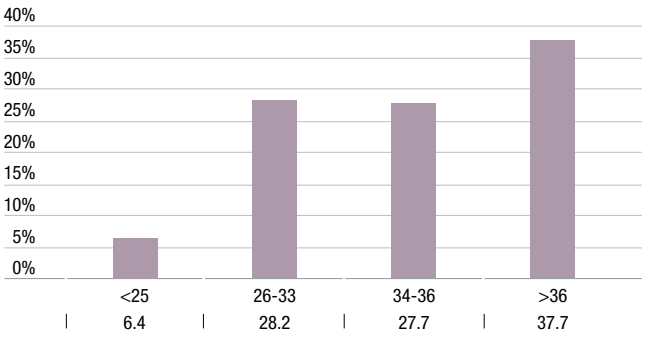
	<20	20-29	30-39	40 plus
Emergency C/S	21	410	684	84
Elective C/S	6	136	387	78
Operative vaginal	23	368	464	29
Normal vaginal	83	1461	1603	130

Data source: Robin

Twins

There has been an increase in twin pregnancies over the last nine years, some of which are as a result of couples using IVF. Twins are more likely to be born prematurely and by caesarean section.

Figure 12: Per cent of twin births by gestation (weeks of pregnancy) 1999 – 2006 total

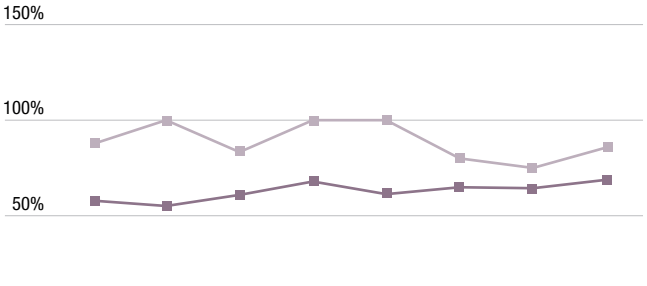


	<25	26-33	34-36	>36
Incidence of caesarean section for twin pregnancy	6.4	28.2	27.7	37.7

Data source: VAED

"I'd have to say my main emotional support came from here (the Women's). My social worker helped me step by step and every time we met she'd ask, "Have you told your mum yet?"

Figure 13: Incidence of caesarean section for multiple pregnancy



	1999	2000	2001	2002	2003	2004	2005	2006
Incidence C/S for twins	57.9	55.1	60.9	67.9	61.3	64.9	64.4	68.8
Incidence C/S for triplets	87.5	100	83.3	100	100	80	75	85.7

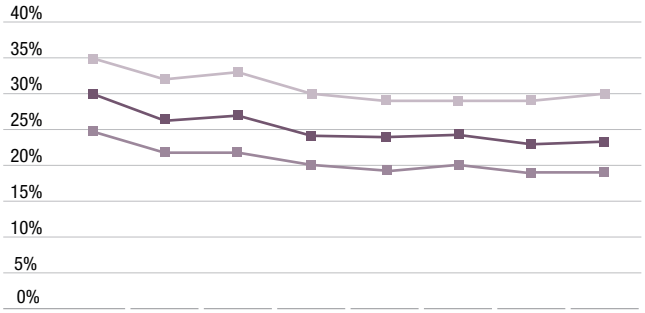
Data source: VAED

Because of the risks of multiple pregnancies, the number of embryos transferred during IVF cycles (fertility treatment) has been reduced. The aim with IVF is to raise the chance of conceiving, but reduce the risk of twins and triplets by transferring single embryos. Results for our reproductive services show an increase from 27 per cent single embryo transfer in 1999 to 61 per cent in 2006.

Induction of labour

Induction of labour (IOL) is an intervention to encourage labour to start. A decision is made to induce labour after discussion of the benefits and risks to the mother and the baby. We reviewed the evidence about induction and our own data. We have made changes in the way we manage induction of labour. It is our policy that induction of labour for an uncomplicated pregnancy should not usually be performed before 41 completed weeks of pregnancy.

Figure 14: Induction of labour rates



	1999	2000	2001	2002	2003	2004	2005	2006
Overall	29	26	27	24	24	24	23	24
Primipara	35	32	33	30	29	29	29	30
Multipara	25	22	22	20	19	20	18	18

Data source: Robin

How safe is our maternity care?

Maternal deaths are rare but can still occur. Maternal deaths are reviewed by the Women's, the Coroner and the Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity. Between 1999 and 2006, seven women who gave birth at the Women's died within 40 days after childbirth. Four women died from post partum haemorrhage: three of these women had their baby prematurely and had an abruption (the placenta coming away from the womb). The cause of one death was undetermined. Two women died after discharge from hospital from causes not directly related to their pregnancy and childbirth.

Perinatal deaths

All perinatal deaths (deaths of babies around the time of birth) are reviewed weekly by the multidisciplinary Perinatal Mortality Review Committee and the Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity Review. This is an important way of contributing information about why these deaths occur in the hope that future research may help prevent more of these deaths. Much is still unexplained about why many stillbirths occur. The Committee reports to the Women's Quality and Safety Committee. The Committee considers opportunities for improvements in care.

Table 7: Maternal deaths (women who gave birth at the Women's) 1999-2006

	1999	2000	2001	2002	2003	2004	2005	2006
TOTAL	-	2	-	2	1	1	-	1

Data source: Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity

Table 8: Perinatal deaths from 2001 to 2006

	2001	2002	2003	2004	2005	2006
Live births	4,919	4,758	4,929	5,390	5,932	5,984
Total births	4,994	4,827	5,005	5,470	6,005	6,068
Stillbirths	75	69	76	80	73	84
Neonatal deaths	72	76	68	59	72	68
Perinatal deaths	147	145	144	139	145	152

Table 9: Perinatal deaths for the years 2004-2006 by cause of death and gestation of baby

	Gestational age									
	20-27 weeks		28-31 weeks		32-36 weeks		37+ weeks		Total	
	n	%	n	%	n	%	n	%	n	%
Congenital abnormality*	159	50.3	10	33.3	24	46.2	13	34.2	206	47.2
Infection	9	2.8	2	6.7	3	5.8	1	2.6	15	3.4
Hypertension	11	3.5	2	6.7	2	3.8	1	2.6	16	3.7
Antepartum haemorrhage	20	6.3	1	3.3	5	9.6	–	–	26	6.0
Maternal conditions	5	1.6	–	–	1	1.9	–	–	6	1.4
Specific perinatal conditions	28	8.9	6	20.0	7	13.5	3	7.9	44	10.1
Hypoxic peripartum death	–	–	–	–	1	3.8	4	7.9	5	1.1
Fetal growth restriction	9	2.8	1	3.3	5	9.6	5	13.2	20	4.6
Spontaneous preterm	70	22.2	6	20.0	–	–	–	–	76	17.4
Unexplained antepartum death	5	1.6	2	6.7	3	5.8	10	26.3	20	4.6
No obstetric antecedent	–	–	–	–	–	–	2	5.3	2	0.5
Total	316	100	30	100	51	100	39	100	436	100

Data source: RWH perinatal mortality database

** Congenital abnormality includes terminations ≥20 wks*

This table shows that approximately 90 per cent of perinatal deaths at the Women's occur in preterm babies, which are about 15 per cent of babies born at our hospital. As a tertiary hospital providing expert specialist care, women are referred here if their baby is likely to be born very prematurely or they are not well themselves.

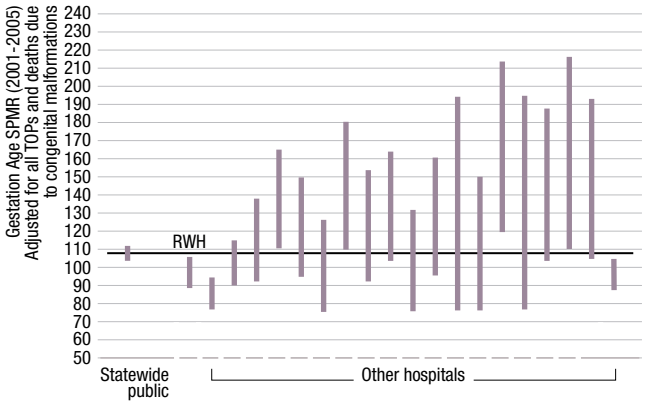
Over the past four years, there has been little change in the number of terminations of pregnancy over 20 weeks, about 50 a year. The vast majority of these are associated with congenital abnormalities in the baby, and a small number where the pregnancy is dangerous to the mother's health, such as conditions of abnormally high blood pressure.

Many staff support women and their families through these difficult times – obstetricians, midwives, neonatologists, neonatal nurses and trainees, geneticists, anaesthetists, physicians, pathologists, bereavement counsellors and other allied health professionals and trainees.

Our Sacred Space, with universal symbols of earth, fire, water and wind, is a quiet space for reflection or prayer, or for families to write in the memory book. Babies are remembered at a yearly memorial service, where families and staff come together to acknowledge the significance of their loss.

Figure 15 below shows our perinatal mortality rate, adjusted for congenital abnormalities, which is lower than the Victorian average and reflects good maternity and neonatal care.

Figure 15: Gestation standardised perinatal mortality ratios Victorian Hospitals 2001-2005



Data source: DHS Victorian Maternity Services Performance Indicators Report March 2007

Terms we use

Stillbirth the baby dies in the womb after 20 weeks

Neonatal death the baby dies before 28 days old

Perinatal deaths stillbirths and neonatal deaths added together

Congenital abnormality an abnormality present at birth

Hypertension high blood pressure

Antepartum haemorrhage when a woman loses blood vaginally before her baby is born

Antepartum before birth

Post partum after birth

Hypoxic peripartum death the baby does not get enough oxygen during labour

Fetal growth restriction the baby is smaller than expected for its gestation (weeks of pregnancy)

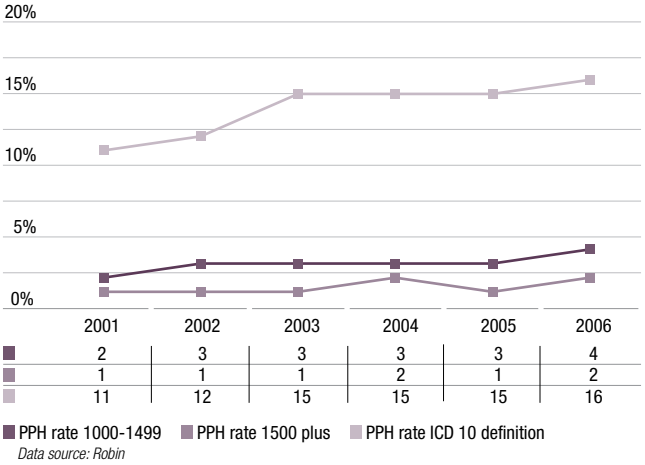
Post partum haemorrhage a woman loses excessive blood from her vagina after birth

Post partum haemorrhage

The overall post partum haemorrhage (PPH) rate has increased since 2001. This increase is consistent with national trends and the reasons for it are not clear.

According to the Women's Hospitals Australasia (WHA) Maternity Report, the average rate of blood loss more than 1500ml during vaginal birth for Australasian hospitals rose from 0.79 per cent in 2000-2001 to 1.41 per cent in 2004-2005. Our rate varies between 1 and 2 per cent.

Figure 16: Post partum haemorrhage



Data source: Robin

Since 2004, there have been a number of initiatives to address PPH, including early recognition and management, standardised responses, better measurement of blood loss and support for women. Research undertaken with three other metropolitan maternity units confirms that blood loss is underestimated. Strategies have been implemented to improve recognition of blood loss that may affect women's health.

Peripartum hysterectomy (after birth)

The WHA Maternity Report identifies an increasing average rate of peripartum hysterectomy in Australasia (from 0.58 per thousand in 2000-01 to 0.93 per thousand in 2004-05).

Despite the increased rate of caesarean section at the Women's, Table 10 shows no increase in peripartum hysterectomy associated with previous caesarean section. Two new techniques for controlling severe PPH have been introduced and these may have prevented peripartum hysterectomies.

Table 10: Hysterectomies after birth

	1999	2000	2001	2002	2003	2004	2005	2006
Peripartum hysterectomy	1	9	3	9	5	9	8	6
Peripartum hysterectomy per 1000 deliveries	0.2	1.7	0.6	1.9	1.0	1.7	1.4	1.0

Data source: VAED

Table 11: Incidence (percentage) of third and fourth degree tears

	1999	2000	2001	2002	2003	2004	2005	2006
Third degree tears	2.3	1.7	1.7	2.7	1.9	1.8	2.4	3.3
Fourth degree tears	0.0	0.2	0.0	0.2	0.2	0.2	0.0	0.3

Data source: VAED

Third and fourth degree tears

A very small number of women giving birth will have a major tear to the vagina - called 'third or fourth degree tears'. This can lead to later problems with incontinence, difficulties with sexual relationships or pelvic floor problems. We have been reviewing birthing practices to try to reduce the number of tears and make sure that all women with tears are identified and referred to Urogynaecology Service for early treatment and support.

Supporting women

The experiences of women such as that described in this story demonstrates the importance of communication and support for women who have had a traumatic birth experience even when the outcome, from a medical point of view, appears to be good. Earlier this year, Dr Penny Sheehan travelled to the UK on a Victorian Travelling Fellowship to investigate the "Birth Afterthoughts" program at various NHS hospitals. This service provides counselling for women following difficult births. We plan to commence our own service in 2008, offering women an appointment with a midwife initially. An important aspect of this service will be feedback of women's experiences to midwives and doctors to increase their awareness of women's experiences and to ensure women's concerns about future births can be addressed.

A Journey from trauma to healing

In January 2005, following a long and difficult labour, I gave birth to my first child, a beautiful daughter. I needed to be induced, and had an epidural, an episiotomy and a forceps delivery, so I was exhausted, swollen and still in considerable pain when I was transferred from the birth suite to the post-natal ward. Unfortunately my uterus was not contracting as expected, so a doctor was called. This doctor, without an introduction or explanation, used their hand to scrape the clots from my uterus. I felt shocked and humiliated by the manner in which this was done, not to mention the pain it caused. I was then transferred back to the birth suite to be given pain killers to complete the procedure.

I tried hard to put this experience behind me and move on. With a new baby to care for and an early return to work I did what I needed to get through each day. It was over a year later that I finally admitted to myself that all was not well and I rang PANDA (Post and Antenatal Depression Association) seeking help. Following many conversations with PANDA, my GP and eventually a psychiatrist, I was diagnosed with Post Traumatic Stress Disorder. This diagnosis came as some relief as it explained the strength of my feelings and my sense of terror when I thought about having another baby.

The idea of coming back to the Women's was daunting, but I knew I needed to find a way to deal with my trauma if I was ever to feel some sense of resolution and closure about my experience. Making my first phone call to the Consumer Advocate was a big step. I had no idea what I wanted or what was possible – I just needed to do something. This first call led to a number of difficult and tearful meetings, both with the Consumer Advocate and later with a consultant. The most important thing for me was that at all times I felt heard, I felt validated and I felt that whoever I spoke with really cared about my experience and helping me to move on.

I had a number of sessions with a psychologist at the Women's who was very helpful. These sessions were quite intense and confronting, but at the same time I began to feel like a huge weight was starting to lift from my shoulders.

One of the best things to come from all this is the change in my relationship with my daughter. It was never bad but I guess I didn't know how good it could be. I am so much happier as a mother, and more like the mother I always imagined I'd be. I am now pregnant again and am back at the Women's feeling positive and confident – something I could never have imagined a year ago.

Victorian Maternity Services Indicators 2002-2006

The Women's is compared with other Victorian maternity hospitals by the Department of Human Services. The Women's is either better than or consistent with Victorian averages on most maternity indicators. Our significantly increased consumer demand and high level of requirement for interpreters affects clinic waiting times and interpreter provision. While these indicators are improving, there is more work to do.

"It was never bad but I guess I didn't know how good it could be. I am so much happier as a mother, and more like the mother I always imagined I'd be."

Table 12: The Women's Maternity Service Performance Indicators

	2003/04 RWH	2004/05 RWH	2005/06 RWH	2005/06 VIC average
For a woman aged between 20 and 34 with no complication of her health or her pregnancy having her first baby at term				
The chances of having the baby induced	21.50%	8.80%	6.80%	15.90%
The chance of having a caesarean section	23.70%	18.80%	14.70%	18.60%
The rate of 3rd/4th degree tears for women having her baby vaginally	3.10%	2.90%	4.30%	4.70%
For women with one previous caesarean section having their next birth				
Rate of Vaginal Birth After Caesarean Section (VBAC) among women who planned for VBAC	41.50%	50.00%	51.20%	51.60%
For all women				
Rate of women referred to postnatal domiciliary care or Hospital-In-The-Home	88.00%	93.00%	94.40%	91.60%
Number of WHO Ten steps to successful breastfeeding achieved	10/10	10/10	10/10	9/10
Rate of women who wait more than 30 minutes for hospital antenatal clinics	34.00%	36.40%	31.40%	14.20%
For women assessed as needing an interpreter				
Rate of women who get an interpreter	60.00%	73.70%	79.40%	82.20%

Data source: Department of Human Services Maternity Services Indicator Reports

Our Special Care for Babies

In the chapter you will read about

The neonatal unit in the new Women's

Changing to a new 'neonatal model of care'

Babies admitted to the neonatal unit

The survival rates of premature babies

Our research to improve care of premature babies

Data about our quality of care

Our effort to reduce the risk of infections

Our Special Care for Babies

Neonatal care in the new hospital

When we designed the neonatal unit for the new hospital, we wanted to ensure that the design would provide the best environment for babies' development and support a collaborative multi-disciplinary team based approach to caring for babies and their families. We also wanted the new unit to be the 'baby's first bedroom' with the family a vital contributor to their baby's care. The knowledge that the nursery environment has an impact on the baby's development and long-term outcome was another important consideration, as was creating a pleasant working environment for our staff.

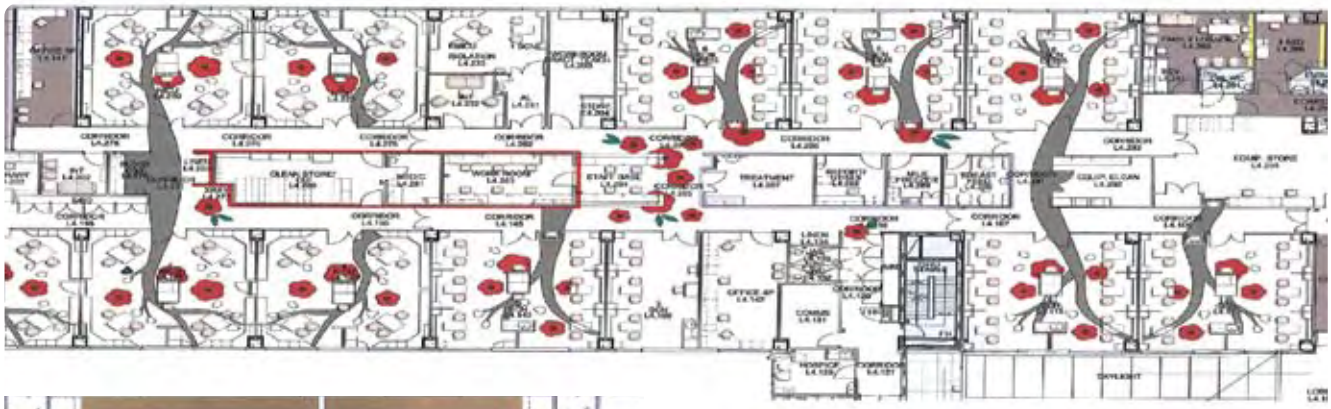
The new unit is designed as one unit with intensive and special care pods on either side of a central work station. Babies needing intensive care will be cared for in a four cot intensive care pod, and babies needing special care in a six cot special care pod. As much as possible, we will try to keep the baby in the same pod throughout their stay, except for the move to special care.

These drawings show an artist's impression of how the new neonatal unit will look. Those parents whose babies have been cared for in our current unit will know how big an improvement this new design is.

Changing the way we work

The new different physical design of Neonatal Intensive and Special Care has given us a unique opportunity to improve our care to better support the needs of babies, families and staff. We call this the 'Neonatal Model of Care'. The 'Neonatal Model of Care' aims to improve the consistency of care and caregiver and to engage families further in the care of their babies.

All members of the multidisciplinary care team were invited to be involved, including nurses, doctors, social workers, pastoral care workers, parents, administrators, clerical staff, allied health staff, lactation consultants, etc. We conducted surveys of staff and families whose babies were inpatients about our current 'model of care'. Staff and family focus groups provided feedback on how we could improve consistency and continuity of care and engagement of families. We also consulted other services within the Women's and other hospitals throughout Victoria. We looked at what is considered 'best practice' and sought advice from other similar newborn units within Victoria, Australia, New Zealand and Canada.



A Special Care pod will look like this

"...We also wanted the new unit to be the 'baby's first bedroom' with the family a vital contributor to their baby's care. The knowledge that the nursery environment has an impact on the baby's development and long-term outcome..."

The new neonatal 'model of care'

These are the principles that came out of our research and consultation:

- There will be fewer babies per room and more space around each cot. Each cot will have a family area with storage for both the baby's and family's belongings, a display area and family communication board. This will provide more privacy for the family to be with their baby and allow them to make the cot side their 'baby's first bedroom'. The design will provide staff with the opportunity to work better together as a smaller team.
- Multidisciplinary care teams will improve collaboration in how we deliver care through joint planning, sharing of expertise and learning. We believe that this will improve continuity and consistency of care, and will also provide staff with a greater sense of belonging.
- An 'Access Coordinator' will coordinate all access to and from the Intensive and Special Care. This 'Access Coordinator', a neonatal nurse, will be the first contact with families, and liaise with maternity teams within the Women's and other nurseries throughout Victoria.
- Babies will be admitted to a pod, and every effort will be made not to move babies between pods unless absolutely necessary. Teams of staff will work in the particular pods.
- Care Plans and Discharge Plans will be improved to provide consistent care while the baby is in hospital, following transfer to hospitals closer to home and at home.
- Breast feeding support will be improved.
- 'Life's Little Treasures' (a parent support group organised by parents) will be involved in supporting families and advocating for them on the 'Baby and Family Care Group'.
- Support families in their community through more availability of 'Neonatal Hospital in the Home'
- Improved outpatient care for babies.

We are planning to implement aspects of this new 'Neonatal Model of Care' before we move. Following the move, we will use the original staff and family surveys to assess improvements in continuity, consistency and family engagement within the Intensive and Special Care at the new hospital.

Who is admitted to the neonatal nurseries?

Neonatal Services at the Women's provides state-wide care, and when necessary accepts new born babies from interstate and from the Asia Pacific area. The number of babies admitted to the neonatal unit has increased over the last five years by five per cent, especially to the Neonatal Intensive Care Unit.

Table 13: Admissions to NICU and SCN

	2002	2003	2004	2005	2006
NICU	435	459	492	495	490
SCN only	696	815	747	750	735
Babies Admitted	1131	1274	1239	1245	1225
Babies admitted less than 4 hours and re-admissions	350	333	336	384	344
Total babies admitted	1481	1607	1575	1629	1569

Data source: Cartwright database

Multiple births

The number of babies admitted from multiple births has remained stable at around 10 per cent.

Table 14: Admissions related to multiple births

	2002	2003	2004	2005	2006
Percentage	9.9	8.7	9.9	7.6	10.0

Data source: Cartwright database

Babies with congenital abnormalities

The number of babies with congenital abnormalities has increased from 8 per cent in 2002 to 12 per cent in 2006. Some babies come from interstate for management of particular heart problems at the Royal Children's Hospital.

Table 15: Babies admitted to nurseries with congenital abnormalities

	2002	2003	2004	2005	2006
Number of babies	90	79	110	157	143
Percentage	8.0	6.2	8.9	12.6	11.7

Data source: Cartwright database

Consumer input into the model of care

Mandy's daughter, Charli, was born at 30 weeks gestation and spent three and a half weeks in neonatal intensive care and over five weeks in special care. Mandy had two other children at the time, aged three and five. She describes the level of care and support to herself and all family members as 'incredible'. Mandy was a consumer representative on the Model of Care Working Party.

I would just like to say thank you so much for allowing me to participate in the Model of Care (MOC) steering committee. I am truly honoured to be part of this committee and have found the entire process a great learning experience. I never truly appreciated the amount of behind the scenes work that goes on in ensuring the NICU (Neonatal Intensive Care Unit) and Special Care area functions on a day to day basis (not to mention the parties that need to be kept happy).

As a former patient (or participant) in the hospital you truly take for granted the work behind the scenes to ensure that top quality care is given at all times. I feel greatly blessed to have been part of something so important and now have an even greater respect for all that you do. I am sure the hospital's uptake of the recommended Model of Care will be successful and be of great benefit to all that need to use the facilities.

And from a personal point of view, I thank you for allowing me to give something back to a group of people who have given so much to me and my family.

Please keep in touch and let me know how it is all going.

All the best

Mandy

Making decisions with parents

For parents looking at a premature birth, the path is a hard one. When there is a risk of premature birth, or a baby with congenital anomalies, the paediatric team talk with parents. We give parents a booklet titled Anticipating the Birth of an Extremely Premature Baby, as well as information about the baby's chances of survival and the chances of long term disability. This information is based on our survival data, as in the table below. There is also an opportunity to meet with a Neonatal Care Manager and visit our Neonatal Intensive and Special Care. Parents are involved in all decisions about very premature babies and in decisions to withdraw intensive care support.

Resuscitation of babies below 23 weeks gestation is not usual as the rate of survival is so poor and the risk of long-term disability so high. At 23 weeks, we generally advise parents against active treatment of the baby. At 24 weeks the possibility of not treating the baby is discussed. Active treatment is initiated for all infants at 25 weeks and above. These recommendations are in keeping with national (NSW and ACT consensus statement, 2006) and international practices (Ethical guidelines on resuscitation of newborns - International Federation of Gynaecology and Obstetrics 2006).

Outcomes for very premature babies

The Women's and Victorian neonatal services more broadly are among the world leaders in survival and long-term neurodevelopment of extremely preterm infants. The Victorian Infant Collaborative Study (VICS) group continues to follow up the outcomes of extremely low birth weight (ELBW) infants delivered in Victoria in the years 1979-1981, 1991-1992, and 1997. Survival rates and survival without disability to two years have improved significantly over this time, especially in the smallest infants and those born in tertiary maternity/neonatal centres. However, extremely low birth weight infants still have higher rates of impairment and disabilities at 14 years of age and respiratory function is not as good in mid-childhood for some children.

The length of stay in the neonatal unit is varied, from a few days for babies born at term to three months and longer for very premature babies. This is one reason we need to engage and support families through the time their baby is with us.

Forty per cent of babies admitted to Neonatal Intensive Care/Special Care are discharged home from the Women's. The remainder are transferred to the Royal Children's Hospital for surgical or specialist care or, once they are well enough, to a hospital closer to the baby's home.

Table 16: Survival by gestational age for babies admitted to neonatal intensive and special care

Gestation	Number	Minimum Birthweight	Maximum Birthweight	Survived	Percent Survived
22 weeks	2	600	665	0	0
23 weeks	1	672	672	1	100
24 weeks	21	432	800	13	61.9
25 weeks	27	450	1078	20	74.1
26 weeks	23	622	1180	21	91.3
27 weeks	22	550	2100	21	95.4
28 weeks	37	710	1480	37	100
29 weeks	44	792	1755	43	97.3
30 weeks	47	860	2065	47	100
31 weeks	60	930	2876	60	100
32 weeks	82	1230	2550	81	98.7
33 weeks	81	999	3081	81	100
34 weeks	83	1315	3290	82	98.8
35 weeks	92	1480	3800	91	98.9
36 weeks	77	1774	3930	75	97
37 weeks	79	1985	4990	77	97
38 weeks	125	1970	4910	124	99
39 weeks	89	1964	5060	88	99
40 weeks	102	1890	4560	101	99
>=41 weeks	98	2250	5398	98	100
Total	**1192**			**1161**	

Data source: Cartwright database

Using research to improve care for premature babies

Research is very important in improving the care of premature babies, improving their survival and reducing long term disabilities. Clinicians and researchers work together on clinical trials with other national and international hospitals. The Women's neonatal unit is highly regarded worldwide.

Our major areas of research are: supporting the development of the brain and assisting breathing. The impact of this collaborative research on the care of babies at the Women's is shown below.

"...I never truly appreciated the amount of behind the scenes work that goes on in ensuring the NICU (Neonatal Intensive Care Unit) and Special Care area functions on a day to day basis..."

Caffeine is used to reduce apnoea (small pauses in breathing) in premature babies. Results, published in November 2007, show that caffeine is the first drug used in neonatal intensive care to have been proved conclusively to reduce long-term disability in very preterm babies.	***Caffeine for Apnoea of Prematurity (CAP) trial***
As blood transfusions always carry some risk, we do it only when necessary. Blood transfusion of preterm infants has been safely reduced by adopting a lower threshold for blood transfusion.	***Premature Infants in Need of Transfusion (PINT) trial***
Many very preterm infants can be managed from birth with nasal CPAP (supporting breathing with a short tube in the nose) and do not require intubation and ventilation (a longer tube passed down the windpipe into the lungs). CPAP is less invasive and makes it easier for parents to hold their baby.	***CPAP or Intubation for very premature infants (COIN) trial***
All babies are now initially resuscitated in air rather than oxygen to reduce oxygen damage to babies, such as damage to the eye. Also, the babies' oxygen levels and heart rate are carefully monitored from birth using techniques developed at the Women's.	***Cochrane Collaboration of Systematic Reviews, Resuscitation studies***
The oxygen level targets of very premature babies have been lowered due to concerns about the effects of oxygen on the eye, lung and brain. The most appropriate level is being investigated as part of an international study.	***Benefit of Oxygen Saturation Target (BOOST) trial***
The aim of the Victorian Infant Brain study is to improve understanding of the vulnerable newborn brain using state-of-the-art imaging and monitoring of the brain. MRI differences in preterm brain development are associated with how the child develops. Our improved understanding of preterm brain development has formed the basis of our early intervention, including increasing parental involvement while the baby is in hospital and intensive early neurodevelopmental interventions when the baby goes home.	***Victorian Infant Brain (VIBeS) study*** ***Premie Start Beautiful Beginnings study***

Table 17: Results for key ANZNN indicators

	Standard to aim at	2002	2003	2004	2005	2006
Cranial ultrasound	More than 95%	97%	96%	96%	96.3%	98.7%
Intraventricular haemorrhage 1-4	Less than 45%	26%	30%	36%	23.3%	35.7%
Eye examination	More than 90%	94%	90%	94%	87.1%*	96.5%
Stage 3 and 4 Retinopathy of prematurity	Less than 8%	12.6%	13%	9%	7.5%	8.1%
Chronic lung disease –babies still needing assistance with breathing at 36 weeks	Less than 20%	22%	26%	32%	28%	12.5%**

Data source: Cartwright database

** incomplete data*
*** this rate appears to be accurate and further analysis is being done*

How safe is our neonatal care?

ANZNN Clinical Indicators

Neonatal Services at the Women's contributes data to the Australian and New Zealand Neonatal Network (ANZNN) for all babies born at less than 32 completed weeks' gestation, or who weigh less than 1500 grams at birth, or who receive assisted ventilation for four or more consecutive hours, or who died while receiving mechanical ventilation prior to four hours of age.

We use these indicators to monitor our clinical care and guide our research. These terms are explained either here or in the glossary. Retinopathy is damage to development of the retina in the eye that can result in eyesight problems. Too much oxygen can affect the retina (the back of the eye). As we have already described, the Women's is a leading international research centre for researching the ideal oxygen levels for premature babies.

Chronic lung disease is a general term for premature babies who still need breathing help at 36 weeks. It results from lung injury to newborns who need assistance from a mechanical ventilator and extra oxygen for breathing. The high proportion of very premature babies in the unit affects our rate of chronic lung disease.

"Importantly, we have no MRSA ('golden staph') in the unit."

How do we reduce infections in new term babies?

Bloodstream infections related to central lines in babies carries significant risk of death and illness in very vulnerable babies. Neonatal Intensive Care Unit (NICU) staff work very hard to keep these rates as low as possible.

- Importantly, we have no MRSA ('golden staph') in the unit.
- We compare our rates with other hospitals in Victoria, Australia and the United States. The table below shows that our rates compared with Victoria (VICNISS) and the United States (CDC-NNIS). All are within the 95 per cent confidence intervals. 'Confidence interval' is a statistical way of getting a valid comparison.

Terms we use

Resuscitation intervention after a baby is born to help it breathe and to help its heart beat.

Cranial ultrasound a scan of the brain

Intraventricular haemorrhage a bleed on the brain cavities, babies less than 33 weeks are prone to this because of their immaturity

Central lines tubes that are passed through to get access to major veins of the body.

Blood stream infections infectious organisms in the blood that make a baby ill with infection.

The table below shows that our results are similar to, or better than other hospitals. We want to improve them further, particularly for the smallest babies and are looking at ways we can improve management of central lines.

Table 18: Central line associated bloodstream infections by baby's birth weight

Birthweight category	RWH infection rate per 1000 line days	VICNISS Aggregate Rate per 1000 line days	United States CDC NNIS
< 750 grams	18.5	14.8	–
751 - 1000 grams	9.4	8.8	–
1001- 1500 grams	6.5	5.0	5.4
1501 - 2500 grams	0.0	4.6	4.1
> 2500 grams	0.0	4.7	3.5

Data source: Cumulative VICNISS data April 2004 to March 2007; CDC-NNIS data January 2002 to June 2004.

- The next table compares us with the Australian and New Zealand Neonatal Network (ANZNN). This table shows that we have reduced infections over time.

A Neonatal Infection Review Committee meets regularly to improve the way procedures are done and to minimise the incidence of blood stream infections diagnosed 48 hours or more after birth (late onset sepsis) because of the serious effect on the baby's health. There has been a steady decrease in late-onset infection rates in the NICU from 5.8 infections per 1000 babies in 2002 to 3.5/1000 in 2005, a 40 per cent decrease over that time.

Strategies have included:

- promoting hand-hygiene eg the 'Wash-Up' project and using an alcoholic hand-gel in Neonatal Intensive Care/ Special Care, which parent use as well
- using improved skin antiseptic before invasive procedures
- developing evidence based guidelines for antibiotics
- oral anti-fungal prophylaxis for infants below 1000 grams at birth.

Table 19: Proportion of babies experiencing one or more episodes of infection

Gestational Age	ANZNN Benchmark 2000	ANZNN Benchmark 2004	RWH 2000	RWH 2002	RWH 2003	RWH 2004	RWH 2005	RWH 2005
< 28 weeks	41.9%	36.5%	53.4%	41.2%	38.8%	29.9%	21.0%	26.0%
Total	13.6%	10.3%	n/a	n/a	n/a	6.8%	6.3%	6.4%

Data source: ANZNN Reports and Cartwright database

Dr Neil Roy

Many parents will know Dr Neil Roy. This year Dr Roy retired from his position as Director Neonatal Services after more than 30 years at the Women's. Dr Roy was the first medical director of the Newborn Emergency Transport Service (NETS). NETS improved the survival of sick Victorian babies born outside tertiary hospitals and set the example for regionalised neonatal retrieval services throughout Australia and the world.

For the past 11 years Dr Roy has been Medical Director of the Neonatal Services at the Women's. His leadership has ensured that the unit provides the best care for sick babies. Dr Roy is a skilled doctor and a wonderful teacher and mentor to nurses, as well as junior and senior medical staff. Due to his leadership, the unit has gone from being good to one of the largest, busiest and best in Australia. The Neonatal Services is now one of the most productive neonatal research groups in Australia and Europe, rivalling some of the best in the USA.

The design of the neonatal intensive and special care at the new Women's owes much to Dr Roy's passion to have the best design for the care of babies and their development.

Services for the Future

In this chapter you can read about

The Centre for Women's Mental Health

Breast Services

Services for the Future

Centre for Women's Mental Health

Good mental health is fundamental to the wellbeing of women and their families. Five of the ten leading causes of disability worldwide are mental disorders, with depression the most significant.

In 2006 the Women's received generous funding from the Pratt Foundation and from the Department of Human Services to establish a Centre for Women's Mental Health. We think that women's mental health problems need an approach specifically designed for women because:

- Women as a group experience social, psychological, cultural and economic inequalities.
- There are characteristics of the assessment, treatment and management of mental health problems specific to women.

What will the centre do?

The Centre will work on prevention, recovery and preventing relapse and focus on the way physical health and mental wellbeing interacts.

The Centre will work on five areas:

- **Meeting women's mental health needs –** improving the range of services at the Women's, supporting women's mental wellbeing, preventing mental ill health and detecting and treating mental health problems/ disorders. In the first instance, we will focus on three areas: pregnancy and transition to motherhood, cancer treatment and survivorship, menopause and midlife.
- **Secondary consultation –** providing health professionals with expert opinion and advice and support about the care of women with mental health problems.
- **Information and resources –** developing resources such as Clinical Practice Guidelines and consumer information on mental health and wellbeing.
- **Education and awareness raising –** improving awareness and skills amongst staff, other services and the community, so that women's mental health needs are better identified and managed and the profile of women's mental wellbeing is raised.
- **Research and evaluation –** expanding research on women's mental health and wellbeing.

Breast services benefiting from working together

The combined Women's and Royal Melbourne Hospitals' Breast Service began in February 2007. The service has built on the strengths of the two hospitals' existing breast units to provide the best of what the two hospitals offer. The service offers assessment and diagnosis of all breast problems, a clinical genetics service, as well as multi disciplinary treatment for patients with breast disease. Staff and consumers have been involved in developing the new service.

Comprehensive data about the service we provide is being collected so we can assess and improve our service.

Supporting women

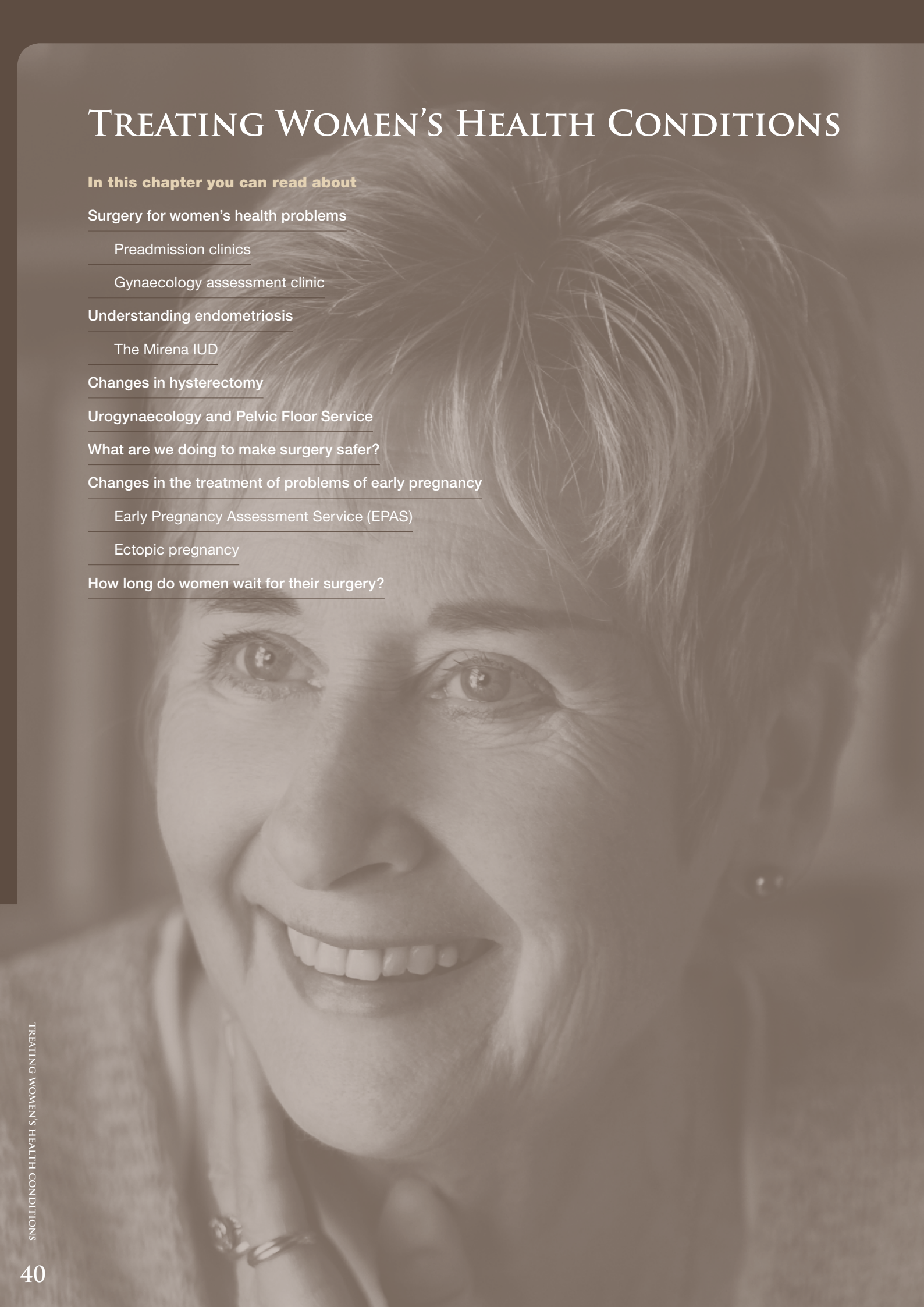
A key focus of the service is to deliver quality psychosocial care, which means dealing with all aspects of the impact breast cancer has on people with breast cancer and their lives. We are working with the Western and Central Melbourne Integrated Cancer Service (WCMICS), the Centre for Women's Mental Health and the Liaison psychiatry department at RMH to develop the best way to provide this.

The move from Carlton to Parkville will make it easier for those with breast cancer to move easily between the services they need from the two hospitals. The new Pauline Gandel Women's Imaging Centre will allow us to develop our diagnostic and surveillance imaging of high risk patients, and being in the middle of the Melbourne Biomedical Research precinct will give us the opportunity to be part of, and take advantage of, a range of research to improve treatment and care.

"From the first phone call, only days after my free mammogram at the Women's hospital, through diagnosis, surgery and follow-up appointments, I have been impressed with the speed and efficiency of the system. Every member of the team – surgeons, anaesthetists, counselors, ward staff, tea ladies and receptionists – have done their work with an excellent mix of professionalism and warmth…"

Treating Women's Health Conditions

In this chapter you can read about



Treating Women's Health Conditions

The Women's provides services for women across their lives and for gynaecological problems which have an impact on a woman's quality of life, such as abnormal or painful bleeding, pelvic pain, endometriosis, incontinence and prolapse as well as issues about women's fertility, such as contraception and abortion.

In last year's Quality of Care Report, we focused on our cancer and advocacy services. This year we focus on treating women's health problems through improvements in surgery and new alternatives to surgery and improved quality of care. When surgery is required, the increase in laparoscopic surgery means less invasive surgery, quicker recovery time, shorter stays in hospital, more day procedures, less pain and fewer surgical complications and less disruption to women's lives.

Surgery for women's health problems

Since 1999, gynaecology outpatient care has increased 30 per cent. Gynaecology One clinic has a special interest in women with bleeding disorders, Gynaecology Two clinic in pelvic pain and Gynaecology Three clinic in pelvic floor problems. We also have a Gynaecology Assessment Clinic, run by a nurse practitioner, who carries out a thorough assessment of the woman's symptoms and health history.

Preadmission clinics

At Preadmission Clinics we review women before their admission for surgery to check on any investigations and give women another opportunity to discuss their surgery. There are surgical and anaesthetic Preadmission Clinics. We decide which clinic by asking women to fill in a standard questionnaire. At the Preadmission Clinic, we assess a woman's general health and identify any issues which affect the type of anaesthesia and how this will be managed during surgery. We also identify needs for support following surgery and make referrals to community supports such as Post Acute Care. Doctors talk to women about risks that may arise from surgery. Often, women give their consent for surgery at the surgical Preadmission Clinic.

Understanding endometriosis

Endometriosis is a condition where tissue, which normally lines the uterus is found in sites around the body such as the bowel; most often though, endometriosis is found in the pelvis. These deposits can cause symptoms such as pelvic pain, bleeding and infertility. A small number of women are quite severely affected by endometriosis. We now understand that endometriosis is not a disease of the uterus, and that it can affect other organs. We now do fewer hysterectomies to treat endometriosis and have partnerships with an urologist and a colorectal surgeon who are experts in operating on the bladder and the bowel.

Surgical treatment and diagnosis of endometriosis is performed predominantly by laparoscopy, with diagnosis and treatment occurring during the one procedure. Seventy per cent of women are successfully treated for endometriosis this way. We are undertaking a study to develop a blood test to diagnose endometriosis which means some women may be able to avoid surgery all together.

Treatment may be by excision (cutting out endometriosis) or ablation (diathermy burning it out). It appears that excision is a more effective and less time consuming treatment. We are currently doing research to identify the more effective treatment. In addition endometriosis is treated with medications, one of which is the Mirena Intra Uterine Device (IUD) described elsewhere in this chapter. A gynaecology clinic with an endometriosis focus has allowed for more research, more consistent treatment and more expertise.

Dr Les Reti

Dr Les Reti is a gynaecologist and experienced surgeon who heads up the Gynaecology One Clinic.

Can you explain what a laparoscopy is?
Laparoscopic surgery is what is commonly known as key hole surgery. Several one cm incisions are made in the abdomen and an instrument akin to a telescope is inserted together with other operating instruments in the other incisions. All the instruments are attached to a monitor, which is where the surgeon is focused whilst operating.

Are surgeons specially trained to do this?
Absolutely. This surgery takes years of practice and all gynaecology surgeons currently training will acquire a standard level of laparoscopic skill. There are five levels of skill in this surgery, however not all surgeons will develop all five levels. The numbers of more highly skilled surgeons is increasing at the Women's.

How do you decide when to do a laparoscopy?
It depends on the procedure. Some conditions, such as ectopic pregnancies, are now almost exclusively treated by laparoscopic surgery. Other procedures, such as the removal of a large tumour, are never done by laparoscopy, and some are done either by open surgery or laparoscopy. Hysterectomies are still performed by both kinds of surgery. We have done about 30 hysterectomies by laparoscopy at the Women's. Each procedure is discussed by the Gynaecology team at clinical meetings to decide the best option given the unique circumstances of each woman's case.

What are the advantages and disadvantages of this kind of surgery?
The most significant advantage is shorter recovery time as the incisions are smaller. Laparoscopies are also less painful and have fewer complications than open surgery. However, the actual surgery takes longer. Whereas a hysterectomy takes about 20 minutes by open surgery, laparoscopic surgery will take about one hour. This can create concerns about theatre time, waiting lists and availability.

What kinds of complications are specific to laparoscopies?
When you make the first incision, you make what is called a 'blind entry'. At this point you cannot see inside the abdomen and very occasionally this may cause a problem. Also, in order to create space for operating, carbon dioxide is used to 'blow up' the abdomen. There have been complications, although rare, with this procedure. All complications are carefully monitored and recorded.

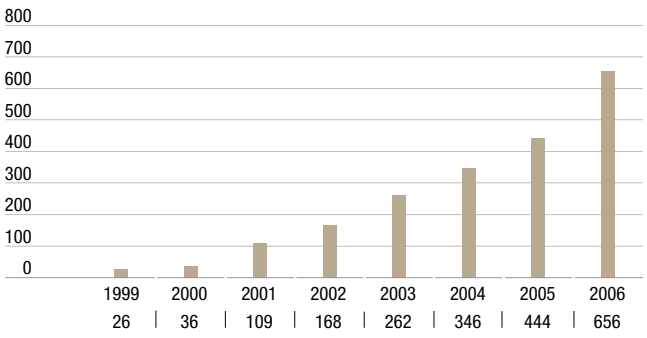
How do you see this surgery developing into the future?
I think we will see more surgery done in this way. Technology is improving at a rapid rate, and there is a great deal of research and development being done.

Laparoscopic treatment and new medication helps doctors assist a woman in protecting her ability to have children if this is her wish, by being able to treat endometriosis but leaving her uterus intact. We perform a hysterectomy (the surgical removal of a woman's uterus) only when other treatment options have not worked.

Mirena

The Mirena IUD is a small T-shaped plastic device containing the progesterone hormone. It is inserted into the uterus where the hormone is slowly released. It is used as a method of contraception, to treat excessive menstrual bleeding or to stop excessive growth of the lining of the uterus so that it can prevent bleeding and pain for women. The next table shows how the use of the Mirena IUD has grown.

Figure 17: Usage of Mirena IUD



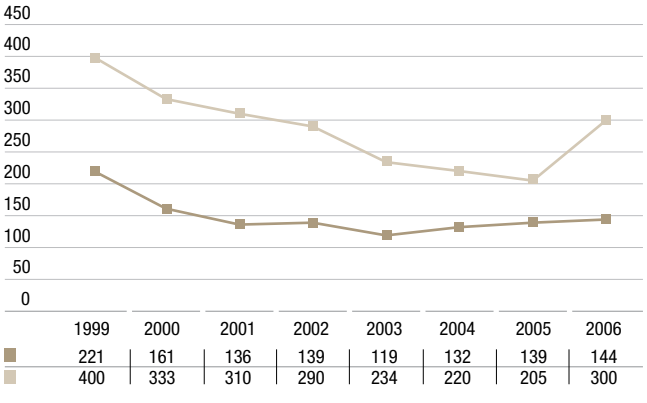
Data source: Clinic records and correlated with pharmacy prescriptions

Changes in hysterectomy

A hysterectomy is performed to treat conditions such as bleeding, prolapse, pain and cancer. We do an average of 400-600 hysterectomies per year, on women of all ages but mostly women aged 45-49. There are three types of hysterectomy: abdominal, vaginal and laparoscopic (see page 44). The decision to have a hysterectomy is often a difficult and emotional process and the decision is made in consultation between the doctors and the woman. As a hysterectomy rarely needs to be done urgently, there is time for women to consider other possible treatment options, such as the Mirena IUD.

Fewer women have hysterectomies, as the figure below shows, particularly for abnormal bleeding and endometriosis. This is appropriate and is consistent with research and trends elsewhere.

Figure 18: Number of women having vaginal and abdominal hysterectomies



Data source: VAED

Philomena Vs the Mirena

My name is Vanessa. I am 48 years old and have 3 children who are now 22, 20, and 10; I work, live a full life and am pretty healthy. About 12 months ago, I started to suffer from heavy bleeding. My periods were longer and much heavier. I went to my GP who told me that this was probably a fibroid but not to worry because fibroids tend to go away at menopause. I felt he didn't appreciate how disruptive the bleeding was in my life.

A friend advised me to contact the Gynaecology Assessment Clinic (GAC) at the Women's. I saw a nurse practitioner there and I thought the service was fantastic. I didn't expect to be asked questions about my general lifestyle such as exercise and how the bleeding may be affecting my energy. The nurse practitioner tested my iron levels, gave me information, organized a scan and diagnosed a fibroid, which I have named Philomena, as I needed some humour in my life. She then referred me to a gynaecology clinic.

I have now been to the gynaecology clinic four times. I found this very different from the GAC Clinic. I have seen different doctors each time and I would like to have some-one to call when I have questions in between appointments. The first doctor I saw just blurted out "it looks like you have to have a hysterectomy". I was shocked! He seemed to understand this. I told him I needed a lot more talking and information before I made that decision.

The doctor provided me with information about fibroids, and explained some treatment options. I could try medication to reduce the bleeding; and he told me about the Mirena IUD. I decided to try both these options. Still needing humour in my life, I decided to call it: Philomena versus the Mirena.

It looks like Philomena is definitely winning. While I am confident that the doctors have the best and most updated information about my problem, I need more time and support. I wish that the gynaecology clinics had nurses that I could talk to.

So it looks like I am facing a possible hysterectomy, but before this I will ask to do some more talking and get some more information...Philomena the race is not over yet!

When Vanessa told us her story for this report, she identified some issues for us to consider about support for women when they have difficult decisions like this to make. The nurse practitioners and gynaecologists will discuss what we can do to improve this.

Women's Health Nurse Practitioners

One of the ways we have improved women's health services is through the Women's Health Nurse Practitioner role.

***Alison Bean-Hodges** is Victoria's first Women's Health Nurse Practitioner.*

How long have you worked at the Gynaecology Assessment Clinic and what difference has it made to women?

I have been Manager of the Gynaecology Assessment Clinic for seven years. The clinic offers women with symptoms a consultation with a nurse practitioner, who carries out a comprehensive assessment and decides with the woman and in consultation with medical staff the best service to manage the woman's problems. I provide information, refer to specialist Gynaecology clinics, other hospital services or her GP. Women are seen much faster and have quicker access to understanding the problem and what can be done about it.

What do you do now that differs from before your practitioner training and what did the training involve?

The consultation goes for thirty minutes and during this time I get to know women. I can order diagnostic tests and prescribe some medications. I always work in collaboration with the doctors. I am one spoke of a wheel and we need many spokes to get the best care possible. My training involved a Masters degree in my specialist area, a subject in pharmacology and assessments by a panel of experts.

How do you see the future of nurse practitioners developing at the Women's?

I have had wonderful support from the Women's. There are currently three nurse practitioners at the Women's and we are the only ones working in women's health in Victoria. The Women's is currently developing a process for considering further nurse practitioner roles in other clinical areas which will open up opportunities for others.

Terms we use

An abdominal hysterectomy is performed by an incision to abdomen and is done when there is a need for extensive exploration (in the case of cancer), large fibroids or extensive adhesions or sometimes endometriosis. Fifty per cent of abdominal hysterectomies are done for fibroids.

A vaginal hysterectomy is the removal of the uterus through the vagina. The advantages are less pain, a shorter hospital stay and recovery time and the absence of a visible scar. This is the preferred option for non cancerous conditions. Prolapse of the womb accounts for 66 per cent of vaginal hysterectomy.

Laparoscopic hysterectomy is the newest approach and requires specific surgical and gynaecological skill and training. As more surgeons become skilled in this procedure, women will benefit from less invasive and safer surgery, shorter length of hospital stay and less pain. Initially, only consultants will do laparoscopic hysterectomy at the Women's. We closely monitor new surgery for complications and are looking for funding to set up a national database on laparoscopic hysterectomy to do this.

Fibroids irregular growth of the muscle of the uterus causing bleeding and pain

Social model of health

When we provide care in gynaecology, we take into account women's social, physical, emotional and cultural well being, and how these factors may affect her health. We call this the 'social model of health'.

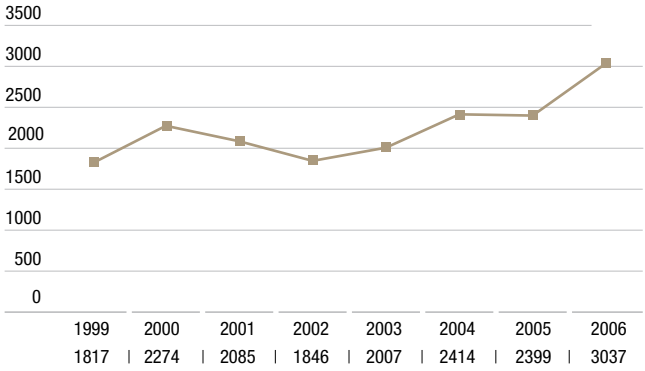
The Violence Against Women Clinical Practice Guideline available on our website provides staff with information and referral options if a woman discloses current or past violence or if the clinician suspects that woman may be in a violent situation. The presence of a social worker in the team allows women with a history of abuse support and an opportunity to talk about this and how it may affect their response to a physical examination. Social Workers can assist women with strategies to manage this anxiety and work together with the medical and nursing team.

Urogynaecology and Pelvic Floor Service

A multidisciplinary team consisting of doctors, physiotherapists, dietician and specialist nurses treat women who experience problems with the muscles in their pelvis leading to pain or not having full control of urine or one's bowels. This can be embarrassing, distressing and disabling and impair women's quality of life(**www.thewomens.org.au** – go to consumer fact sheets, pelvic floor). Over the last few years we have seen improvement in treating these problems. This is the largest service of its type in Australia.

More women are attending our outpatient service, as in Figure 19 and fewer women now have surgery for incontinence (Table 20).

Figure 19: Attendances at Urogynaecology outpatient clinics



Data source: VACS

New options for treatment

Physiotherapists work with women to strengthen the pelvic floor and dieticians work with women on diet and weight. We have a strong focus on prevention through following up women who experience tears during child birth and treating them early.

The tension-free vaginal tape (TVT) is a surgical treatment which helps treat incontinence by supporting the neck of the bladder. Other new surgical treatments include the use of synthetic grafts and mesh to treat pelvic organ prolapse. Mesh is a synthetic material inserted during surgery. The woman's own tissue can grow around the mesh allowing more permanent support and preventing the need for repeat surgery. Seventy per cent of women undergoing conventional vaginal prolapse surgery have a successful outcome. Using mesh increases the success of this surgery. The Women's is an international leader in the surgical management of pelvic organ prolapse as well as research.

"While I am confident that the doctors have the best and most updated information about my problem, I need more time and support. I wish that the gynaecology clinics had nurses that I could talk to."

Table 20: Urogynaecology admissions for surgery for urinary incontinence

	1999	2000	2001	2002	2003	2004	2005	2006
Stress and other urinary incontinence	233	219	193	232	182	179	160	172

Data source: VAED

*The Women's Health Information Service provides information on women's health issues. Information empowers women to make decisions about their treatment options and give properly informed consent. In the new hospital, the information centre will be located near the entrance to the hospital (see health information via **www.thewomens.org.au**).*

Table 21: Selected surgical complications

	1999	2000	2001	2002	2003	2004	2005	2006
Surgery for endometriosis								
Haemorrhage / haematoma	3	2	1	2	1	1	3	3
Accidental puncture / lacerations of an organ or vessel	7	5	2	4	6	6	1	3
Abdominal hysterectomy								
Haemorrhage / haematoma	18	18	10	13	16	14	12	11
Accidental puncture/laceration	8	4	3	2	1	1	7	4
Vaginal hysterectomy								
Haemorrhage / haematoma	7	6	4	2	2	5	4	6
Accidental puncture/laceration	4	1	1	1	1	4	5	1

Data source: VAED

Table 22: Wound infection rates for hysterectomy (percentages)

	Superficial Surgical Site Infection			Deep Surgical Site Infection			Organ Space			Total Surgical Site Infection		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
Abdominal	1.8	2.7	1.4	1.4	0	0	0.5	2.0	4.1	3.6	4.7	5.5
Vaginal	n/a	n/a	n/a	n/a	n/a	n/a	0.8	6.9	6.1	0.8	6.9	6.1

Data source: VICNISS
Surveillance periods: 2005: July 2004-June 2005; 2006: Jan-June; 2007: April-June

What are we doing to make surgery safer?

Complications are not always preventable. In our monthly gynaecology mortality and morbidity meetings, we review all deaths (usually expected deaths from cancer) and complications to see if we could have avoided them. This might be through better ways to use surgical equipment or having access to other types of surgeons. These meetings are an important quality improvement activity and help improve the skills of younger surgeons. The table above shows some important complications we monitor.

Terms we use

Haemorrhage bleeding

Haematoma blood in tissues, like a bruise

How are we reducing wound infections in women having a hysterectomy?

Women having hysterectomy are at risk of wound infections and also urinary tract infections because of the need for a urinary catheter for a short period after surgery. Infection rates are monitored and submitted to the Victorian Nosocomial Infection Surveillance (VICNISS) program for comparison. Our infection rates for periods surveyed over the last three years are shown in the table above. Our rates are consistent with other hospitals.

Our rates for urinary tract infections (UTI) associated with short-term catheters are consistently less than the United States Centres for Disease Control (CDC – NISS) comparison rate of 5%.

Table 23: Urinary tract infection rates (percentages)

	2005	2006	2007
UTI rate	3.8	4.7	3.8

Data source: Infection control surveillance

Improving antibiotic prophylaxis to prevent wound infections

Antibiotic prophylaxis is given to women during surgery and reduces infection rates by at least 50 per cent.

- In 2004-05, 86 per cent of women received appropriate antibiotics during their hysterectomy. Their overall infection rate was 1.7 per cent compared with 8.7 per cent in women who did not receive antibiotics.
- An education program increased antibiotic prescribing to 94 per cent in 2006.

Preventing blood clots

A blood clot (thromboembolism) can have serious health problems following any type of surgery and happens when a person is immobile for long periods. We have developed new Clinical Practice Guidelines and consumer information for women having major surgery.
(This information is available via our health information on **www.thewomens.org.au**)

Changes in the treatment of problems in early pregnancy

Early Pregnancy Assessment Service

In 2007, we established the Early Pregnancy Assessment Service which offers a prompt, efficient and supportive response to women who experience pain or bleeding in early pregnancy (before 16 weeks). Women attend a 'one stop shop' where specialist nurses and ultrasound specialists make a detailed diagnosis. The service has reduced the time that women wait for an ultrasound and presentations to Emergency as women can see a specialist nurse at the Early Pregnancy Assessment Service every weekday morning.

We have changed treatment options for miscarriage

Many women having a miscarriage are now less likely to have a dilatation and curettage (D&C) as research has shown that, where the woman has started to miscarry, it is often better to let nature take its course. In 1999, 96 per cent of women had a dilatation and curettage. In 2006, this dropped to 77 per cent. Dilatation and curettage is still used for women with particular types of miscarriage.

Social work support at EPAS

The diagnosis of an impending miscarriage can be a time of crisis for women and couples. As part of the team, a social worker is available at every Early Pregnancy Assessment Service clinic to offer counselling, referral to other services and practical assistance to manage the crisis. Social Workers can keep in touch with women for extra support when women leave the hospital.

Treatment of ectopic pregnancy

An ectopic pregnancy is a pregnancy that is not in the uterus, occurs in about 1 in 60 pregnancies and can be dangerous if it causes severe bleeding. Most occur in the tube leading from the ovaries to the womb. As well as using laparoscopic surgery, we use new medication options, such as methotrexate, to treat ectopic pregnancy, which research has proved to be effective. It requires careful monitoring and doctors assess each woman according to Clinical Practice Guidelines. When treated with methotrexate, women are followed up in Emergency. Table 26 shows the increase in the number of women treated with methotrexate. We have recently conducted a review of our treatment of ectopic pregnancy to make sure it is consistent with our clinical practice guidelines.

"...Some conditions, such as ectopic pregnancies, are now almost exclusively treated by laparoscopic surgery... Each procedure is discussed by the Gynaecology team at clinical meetings to decide the best option given the unique circumstances of each woman's case..."

Table 24: Medical management of ectopic pregnancy

	1999	2000	2001	2002	2003	2004	2005	2006
Methotrexate management for ectopic pregnancy.	9	25	14	37	79	77	91	119

Data source: VAED

How long do women wait for their surgery?

The Women's does very well on waiting times for surgery and meets all its targets. Doctors assess the need for surgery and how quickly it needs to be done. They rate it as urgent (category 1), semi-urgent (category 2) or less urgent (category 3).

Women are informed that they are on the waiting list, the type of operation, the category, how long they will wait, our contact details and followed up by phone to make sure they still wish to have surgery.

All patients are assessed to see if they can be admitted on the day of their surgery. The Women's day of surgery admission rate (DOSA) shows that the vast majority of women (94.6%) are admitted on the day of surgery.

Table 25: How does the Women's perform on waiting times?

RWH elective surgery performance 2001–2007	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
Category 1 proportion of patients admitted within 30 days (%)	100	100	100	100	100	100
Category 2 proportion of patients admitted within 90 days (%)	100	100	100	100	100	100
Average waiting times (days) for category 2 patients on the waiting list as at June 30th	29.3	24.5	24.4	28.5	27.7	33.6
Average waiting time (days) for category 3 patients on the waiting list as at June 30th	136	114	75	116.3	94.75	75.8
Hospital Initiated Postponements (HIP) – (State target 15% until 2005/06, then 8%)		2.85%	0.4%	0.87%	3.3%	4.2%
Day of Surgery Admission Rate (DOSA) (State target = 85%)					96%	96.2%

Data source: Elective Surgery Information System

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