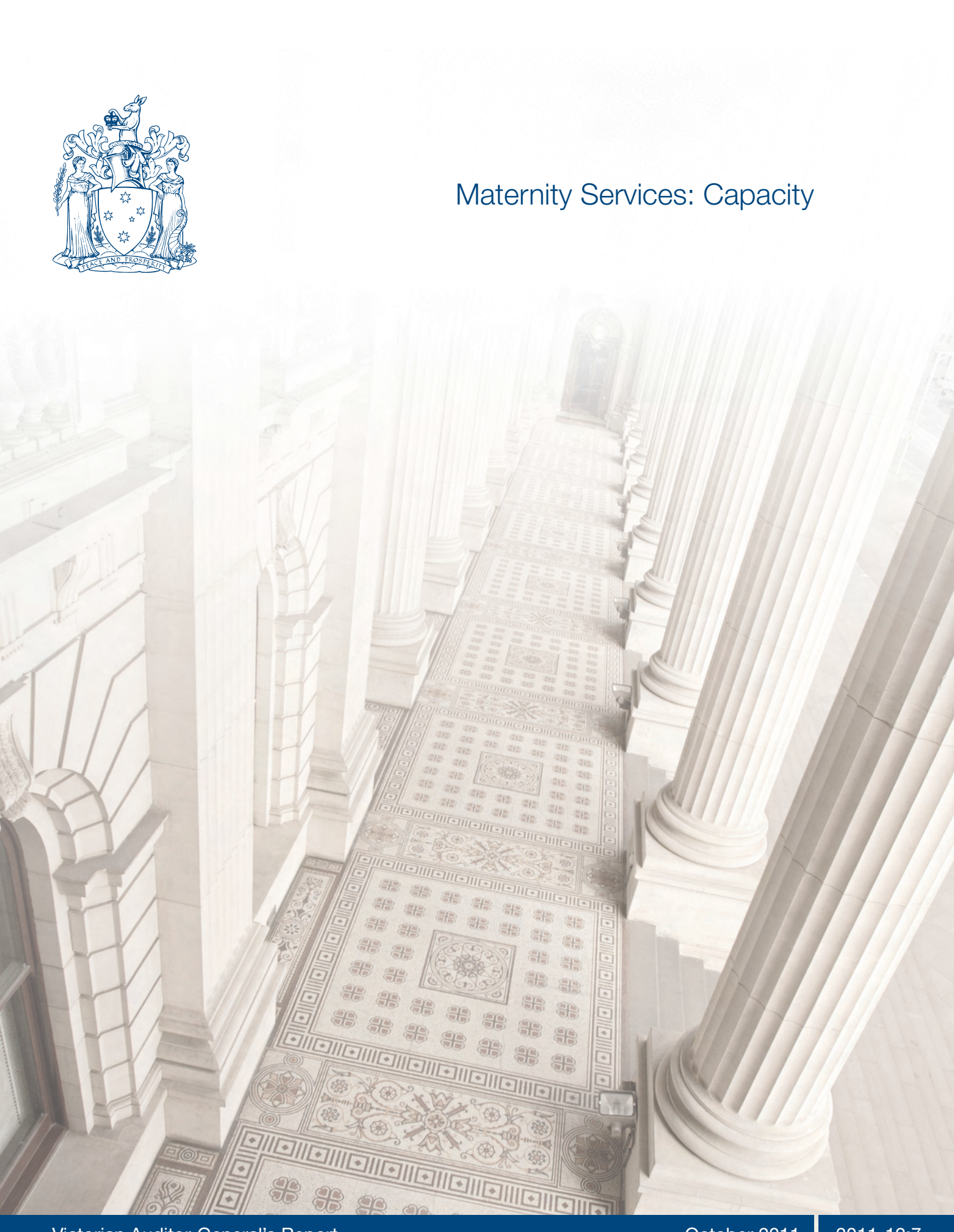
Maternity Services: Capacity



Victorian Auditor-General's Report | October 2011 | 2011-12:7

VICTORIA

Victorian
Auditor-General

Maternity Services: Capacity

Ordered to be printed

VICTORIAN
GOVERNMENT PRINTER
October 2011

PP No 71, Session 2010–11

This report has been produced to ISO14001 environmental standards. It is printed on FSC credited Novatech Satin paper. The print supplier, Blue Star PRINT has initiated an EMS promoting minimisation of environmental impact through the deployment of efficient technology, rigorous quality management procedures and a philosophy of reduce, re-use and recycle.

ISBN 978 1 921650 88 8

VAGO

Victorian Auditor-General's Office

Auditing in the Public Interest

The Hon. Bruce Atkinson MLC
President
Legislative Council
Parliament House
Melbourne

The Hon. Ken Smith MP
Speaker
Legislative Assembly
Parliament House
Melbourne

Dear Presiding Officers

Under the provisions of section 16AB of the *Audit Act 1994*, I transmit my performance report on *Maternity Services: Capacity.*

Yours faithfully

D D R PEARSON
Auditor-General

12 October 2011

Contents

Audit summary

Background

Healthy outcomes for women and their babies are dependent on adequately resourced maternity facilities and an appropriately skilled workforce. Maternity services are a core part of healthcare delivery, representing 5 per cent of all public hospital admissions and 17 per cent of state-funded hospital outpatient appointments. Responsibility for the delivery of antenatal care, or care during pregnancy, is shared between the Victorian Department of Health and the Commonwealth.

Pressure on maternity services has increased over the past decade. After a number of years of decline, birth rates started increasing in Victoria from 2001. This growth peaked during 2007–08, with the highest number of births since 1971. Rising numbers of women experiencing complex pregnancies due to increasing risk factors, such as age and obesity, are also placing greater demand on maternity services.

The department undertakes statewide planning for maternity services while health services plan locally to meet the needs of their communities.

The department is responsible for:

- monitoring demand and supply of maternity services
- developing policies and strategies to guide the provision of maternity service
- working with health services through capital and service planning to support the equitable distribution of resources.

The 2004 policy document, *Future Directions for Victoria's Maternity Services*, set out a framework for strategic changes to maternity services over a 5–10 year period. The policy focused on:

- providing maternity services for women with uncomplicated pregnancies in local settings, with appropriate access to tertiary care which deals with the most complex pregnancies, deliveries and newborns, if required
- providing women with greater control of their birthing experience
- promoting continuity of care by the same midwife or small group of midwives.

Health services are responsible for delivering services that meet the needs of their community in collaboration with the department. This includes local planning activities such as:

- predicting local demand and assessing service use patterns
- understanding community demographics and tailoring services to need
- assessing current and future capacity and identifying gaps
- developing local workforce strategies
- coordinating with other health services in the area.

The audit examined whether the department and health services effectively plan to meet current and future demand. It also examined whether women throughout the state can access the services they need at the optimal time.

Conclusions

Planning is critical to the delivery of effective, accessible maternity services. However, shortcomings in the department's planning approach have limited its understanding of maternity capacity in Victoria. Therefore, it cannot demonstrate that maternity services are provided when and where needed. The department:

- does not use individual health service plans to inform a system-wide view of maternity services
- has only recently undertaken to map maternity services across the state
- has limited data about the timeliness of access to antenatal services
- has not accessed external advice to inform strategic planning.

As a result, the department's planning decisions are not based on system-level knowledge of maternity service capacity. More positively, the department is now beginning to gather information on the maternity system which will allow it to reliably identify gaps in service delivery. It will be important that the department then sets out actions to address any issues identified.

Access to maternity services for antenatal, labour/birth and postnatal care is not equitable. This relates to a number of factors including a lack of state-level planning of maternity services, different approaches by health services in delivering care, and variable access to Commonwealth services through general practitioners. In particular, women at audited hospitals in metropolitan growth areas face increased costs and delays in accessing antenatal appointments due to fewer publicly available services.

Findings

Planning for maternity services

Planning for maternity services is essential as it is a basic healthcare need. To plan effectively, the department needs a thorough understanding of the system-wide demand for, and supply of, maternity services. A sound evidence base to inform this understanding is critical.

The department works with health services when preparing health service plans to assure consistency with statewide strategic and policy directions for maternity services at the local level. However, it was unable to demonstrate that it uses these service plans to form a system-wide view of maternity services and identify gaps. Until very recently, the department had not undertaken an assessment of the capacity of health services to deliver maternity services. It also lacks a formal avenue to obtain external advice on system-wide maternity planning issues. As a result, it cannot be assured that maternity services are provided when and where needed.

Improvements to the department's planning approach are underway to address these limitations:

- In 2011, the department released the *Capability Framework for Victorian Maternity and Newborn Services.* Health services use this to assess their maternity capacity and capability and report the results to the department. At the time of the audit all health services had submitted their self-assessments to the department.
- The establishment of an external advisory committee to consider both maternity and neonatal strategic planning issues was proposed in June 2011.
- In April 2011, the department conducted a census of maternity and labour ward beds to improve its understanding of statewide capacity.
- There have been a number of improvements to the demand forecasting model to improve reliability.

These are important inputs to planning and will assist the department to identify shortfalls and inform future service and capital planning.

At the local level, audited health services have an informed understanding of their demand and a sound evidence base for planning. A number of collaborative projects and arrangements using new models of care are in place to maintain or enhance maternity services.

All health services had experienced challenges in recruiting and retaining a maternity workforce but strategies such as promoting staff wellbeing and professional development, and introducing flexible working arrangements, are effectively addressing these shortages.

Access to maternity services

All services have developed a range of strategies to manage demand. The use of outreach clinics in the community is increasing timely access for women close to where they live, while maintaining access to hospital-based services for women with more complex medical needs.

To manage demand, and support access for women most in need, tertiary hospitals limit the intake of women with low-risk pregnancies who are outside their catchment area. While this appropriately targets tertiary services to local and high-risk women, the lack of structured acknowledgement and communication by the department about this approach has led to confusion among women about where they can access services.

At the audited health services in metropolitan growth areas we found that women experience poorer access to services, including higher fees and delays in antenatal appointments. In one region of Melbourne, women who are unable to access public antenatal care at their local service must pay several thousand dollars for their care or travel to another health service.

To improve maternity services, the department needs to know whether access is timely and equitable, but it has not routinely collected information about access to antenatal services. The department is improving its data collection, and health services are now required to report the number of weeks gestation at a woman's first antenatal visit as an indicator of timeliness of access.

Access to woman-centred care

Consultation with stakeholders and service providers revealed a widely held view that the maternity 'system' is not well understood by women and some general practitioners.

The department's website *Having a Baby in Victoria* explains different levels and models of maternity care, however, the information is not well organised and is not available in a printed format or in languages other than English. The audited hospitals gave women information on a range of pregnancy care topics, but the availability of this information in languages other than English varied.

To facilitate choice and help support informed decision-making, comprehensive information in a range of languages must be accessible to all women.

Continuity of care refers to women having the same caregiver or a small group of caregivers during their pregnancy, labour and birth, and postnatally. Continuity of care is a key principle of *Future Directions for Victoria's Maternity Services*. To improve continuity, three of the audited hospitals offer 'Midwifery Group Practice' where a primary midwife provides maternity care during pregnancy, birth and postnatally. However, women have limited access to this model because demand outweighs available places.

Health services do not routinely monitor or report on their progress in improving continuity of care. An annual survey of public hospital patients shows that, while health services have made some progress since the policy was released in 2004, less than half of the women surveyed experienced continuity of care. This survey relies on consumer response and is not as rigorous as requiring health services to routinely report progress against this policy objective.

All audited hospitals had responded to the needs of their local communities by establishing targeted programs for women from specific groups, such as a dedicated maternity clinic for Aboriginal women or women with an Aboriginal partner. However, audited health services are not evaluating these programs robustly and cannot assess whether they are improving care.

Recommendations

Number	Recommendation	Page
1.	That the Department of Health improve its understanding and planning of maternity services by: • routinely measuring and monitoring maternity service capacity • documenting a work plan for the *Capability Framework for Victorian Maternity and Newborn Services* which clearly articulates how it will address gaps and issues identified • establishing an advisory committee with external health sector and consumer representatives to provide strategic system-wide planning advice.	22
2.	That the Department of Health focuses on improving access to maternity services in growth areas.	34
3.	That the Department of Health prioritises its work with the Commonwealth to improve access to antenatal care.	34
4.	That the Department of Health provides information in relevant community languages, made available through general practitioners and hospitals, that informs women on how to navigate the maternity system, the range of maternity services options and likely costs.	42
5.	That the Department of Health requires health services to monitor and report their progress in improving continuity of care on an ongoing basis.	42
6.	That health services systematically evaluate targeted programs for vulnerable women to assess whether they are meeting objectives.	42

Submissions and comments received

In addition to progressive engagement during the course of the audit, in accordance with section 16(3) of the *Audit Act 1994* a copy of this report was provided to audited health services and the Department of Health with a request for submissions or comments.

Agency views have been considered in reaching our audit conclusions and are represented to the extent relevant and warranted in preparing this report. Their full section 16(3) submissions and comments, however, are included in Appendix A.

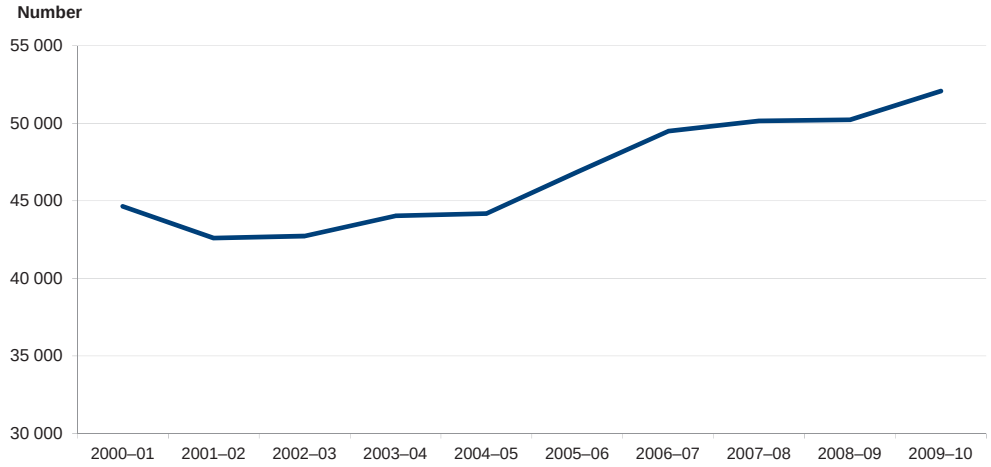
1 Background

1.1 Introduction

After a period of decline, birth numbers in Victoria began to rise from 2001, creating an increased demand for maternity services. Services came under pressure especially in Melbourne's growth areas. Sunshine Hospital, which services some of the fastest growing communities such as Brimbank and Melton, has the third highest number of births in the state.

Figure 1A shows the 16 per cent increase in births from 2000–01 to 2009–10.

Figure 1A
Births in Victorian public hospitals, 2000–01 to 2009–10



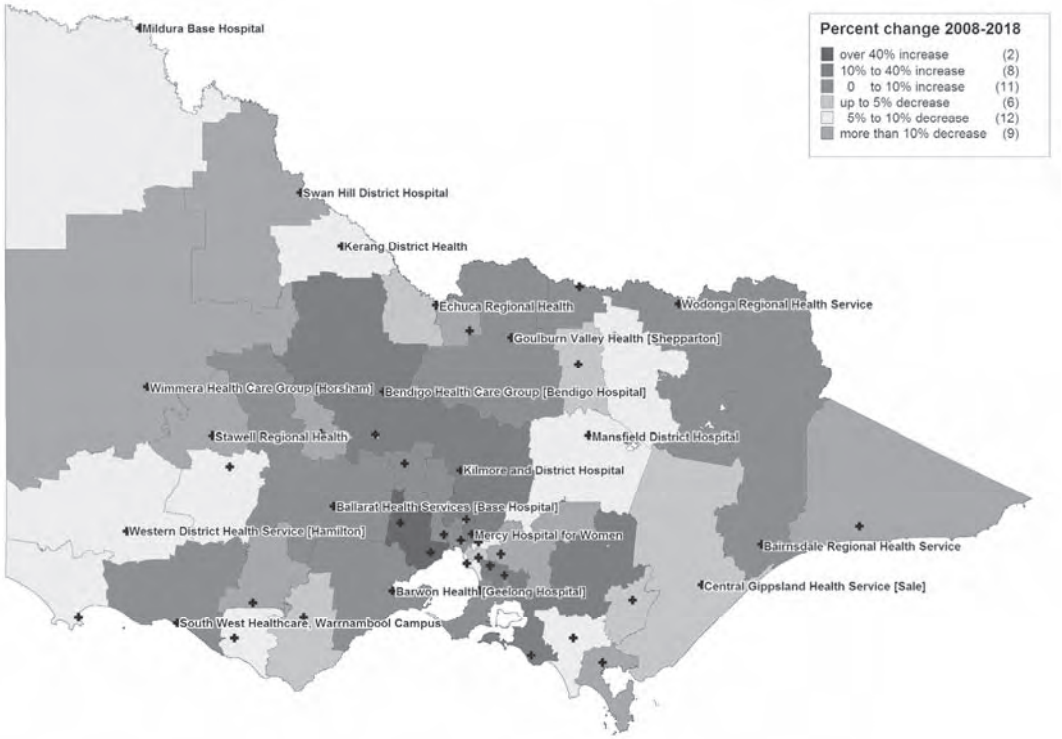
Source: Victorian Auditor-General's Office using data from the Department of Health.

Today, 54 health services provide dedicated maternity services. Three hospitals in metropolitan Melbourne have specialist or 'tertiary services' dealing with the most complex pregnancies, deliveries and newborns. The tertiary hospitals are in Parkville near the central business district, Heidelberg to the north and Clayton to the south. Private hospitals also rely on these centres for specialist care.

In 2010–11, 52 727 babies were born in Victorian public hospitals. Pregnancy and birth related treatments account for over 5 per cent of all overnight stays in public hospitals and 17 per cent of state-funded hospital outpatient appointments.

Figure 1B shows that increased demand is forecast in metropolitan Melbourne's growth corridors, while demand for maternity services in other areas of the state is likely to decline.

Figure 1B
Projected change in number of births, 2008–2018



Source: The Department of Planning and Community Development (2009 data).

The Department of Health is responsible for statewide planning for maternity services while individual health services are responsible for managing their local demand.

This audit reviews the state's maternity services capacity, and assesses whether the department and health services are planning effectively to meet current and future demand. It also examines whether women throughout the state can access the services as and when they need them. The rest of this Part examines relevant legislation and policy, the roles and responsibilities of agencies providing maternity services and the types of maternity care they offer.

1.2 Legislative and policy framework

Health Services Act 1988

The Secretary of the Department of Health has the primary responsibility for administering the *Health Services Act 1988* (the Act). Principal functions of the Secretary include:

- developing policies and plans with respect to public health services
- funding, monitoring, evaluating and reviewing health services
- encouraging safety and improvements in the quality of health services
- developing criteria or measures that enable comparison of health service performance
- collecting and analysing data.

The Act establishes public hospitals and other public health services as incorporated public authorities and sets out their governance, powers and functions. Under the Act, the board of directors or board of management is accountable for:

- effectively and efficiently managing the organisation
- providing high quality care and services
- meeting the needs of the community
- meeting financial and non-financial performance targets.

Each hospital board makes decisions locally to respond to their community's needs.

Future Directions for Victoria's Maternity Services

The 2004 *Future Directions for Victoria's Maternity Services* policy (Future Directions) sets out a 5–10 year framework to guide the policy-making, planning and delivery of maternity services.

The policy recognises that pregnancy and childbirth require timely, specialised responses for complications. Typically, a woman with an uncomplicated pregnancy does not need specialist supervision or intervention.

The vision in Future Directions is to give all women with normal pregnancies access to 'primary care', in which a midwife or general practitioner (GP) provides all pregnancy, labour and birth, and postnatal care, and works with an obstetric specialist if needed.

Continuity of care means the pregnant woman has either the same caregiver or a small group of caregivers during her pregnancy, labour and birth, and after birth. The policy acknowledges that continuity of care is important, as is women being able to make an informed choice and having greater control over their pregnancy and birth. It also promotes team-based care to improve communication between providers and ultimately the results for women and their babies.

In 2008, the department reviewed health service progress against Future Directions. Part 2 discusses the review in more detail.

1.3 Roles and responsibilities

The Commonwealth, state and territory governments share responsibility for the provision of maternity services.

The Commonwealth

The Commonwealth funds a significant proportion of primary health care services in Australia through the Medicare Benefit Scheme. For example, it subsidises antenatal care from GPs and obstetricians with rebates. About 30 per cent of women in Victoria get Commonwealth subsidised antenatal care.

The Commonwealth is also responsible for educating health professionals, and the vocational training of GPs.

The Commonwealth reviewed maternity services in Australia in 2008 and released the *Report of the National Maternity Services Review* in 2009. The Australian Health Ministers then released a National Maternity Services Plan in May 2011. The plan commits state and territory governments to working on improving patient access, service delivery and the maternity workforce over five years.

The Department of Health

The department's Hospital and Health Service Performance Division is responsible for planning, funding, monitoring, and developing policies and strategies for all public health services, including maternity services. The division's Maternity and Newborn Program is responsible for policy and program development for maternity and newborns and for advising the Minister for Health. It is also jointly responsible with other areas of the department for monitoring the performance of maternity and newborn services.

Health services

Health services negotiate activity and performance targets which are in line with organisational and government policy and planning objectives yearly, with the department. They also negotiate funding, which is documented in the 'Statement of Priorities', a contract between the health service and the Minister for Health.

The Maternity and Newborn Clinical Network

The Maternity and Newborn Clinical Network started in 2007 and comprises health professionals such as obstetricians, midwives and senior health service managers. Its aim is to improve women's and babies' health by making clinical practice between health services more consistent. A departmental management team is responsible for the delivery of network projects.

1.4 Phases of maternity care

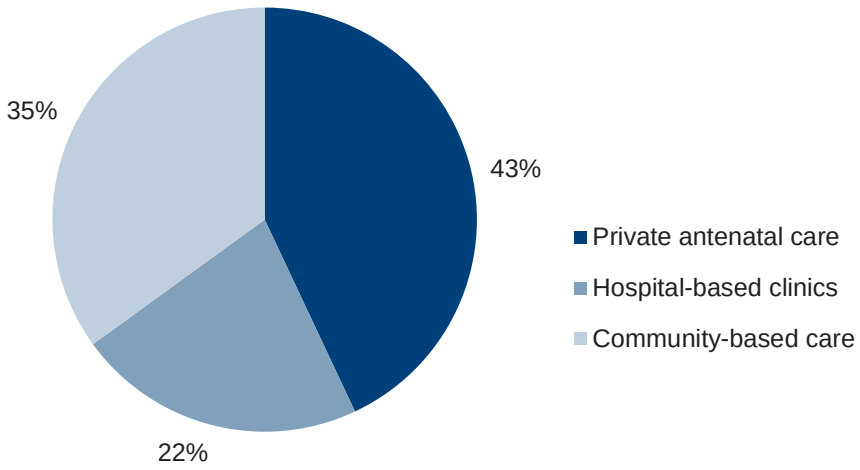
Maternity care covers antenatal, labour and birth, and postnatal care. Good maternity care is not just about the safe birth of healthy babies but also contributes to the longer-term health of mothers and their children. Low birth weight for example is associated with a higher risk of infant death in the first 12 months, long-term disability and disease, including diabetes and cardiovascular disease. Early parenting skills, mother-infant bonding and successful breastfeeding can all significantly benefit a baby's future health.

Antenatal care

The antenatal period refers to the time from conception to labour. The purpose of antenatal or pregnancy care is to monitor the health and wellbeing of mother and baby, screen for complications, offer routine tests, and offer pregnancy and childbirth information and education.

The public hospital system offers antenatal services in outpatient clinics with midwives or obstetricians as the main care providers. Women may also see community-based private practitioners such as GPs and midwives. Figure 1C shows the types of antenatal care.

Figure 1C
Types of antenatal care, 2008



Note: Private antenatal care includes care provided to women as private patients of specialist obstetricians and general practitioner obstetricians; hospital-based clinics include public hospital antenatal clinics and outreach clinics provided by medical practitioners and midwives; community-based care includes medical and midwifery care provided in the community such as care provided in a community health center and shared care involving a formal relationship between a public hospital and local practitioner.

Source: Victorian Auditor-General's Office based on *Healthy Mothers, Healthy Families Survey* (2008).

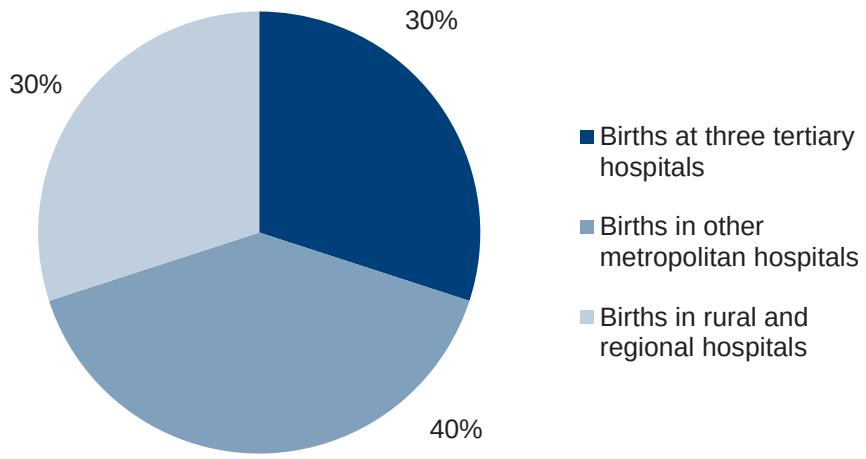
Labour and birth

Most women attending public hospitals have a normal birth. Hospital midwives usually attend labour when deliveries are straightforward. Caesarean section or other assisted birth, such as induction, vacuum extraction or forceps deliveries are generally done by specialist and general practitioner obstetricians.

Most women deliver their babies in a hospital labour ward, with planned homebirths and other births such as unexpected deliveries accounting for less than 1 per cent of births.

In 2010–11, 70 per cent of all public hospital births were in metropolitan Melbourne, with 30 per cent of all births occurring at one of the three tertiary services. Rural and regional hospitals manage the remaining 30 per cent of births, as shown in Figure 1D.

Figure 1D
Births by service type and/or location, 2010–11



Source: Victorian Auditor-General's Office.

Postnatal care

After birth, the mother and baby receive postnatal care, which includes support with breastfeeding, sleep and settling. At this time, carers assess the mother for any medical, mental, emotional and/or social issues.

The average length of stay in hospital for a typical labour and birth is 2.6 days. In the first week after a birth at a public hospital, the hospital midwife visits the mother and baby at home at least once, and then maternal and child health centres in each local government area support mothers in their community.

1.5 Audit objective and scope

1.5.1 Audit objective

The audit objective was to examine the capacity of maternity services in Victoria, focusing on whether:

- the department and health services effectively plan for maternity services to meet current and future demand
- service provision is accessible and timely across the state.

1.5.2 Audit scope

This audit examined planning activities carried out by the department, in particular the Maternity and Newborn Program and Capital Projects and Service Planning Branch. It examined four health services providing public maternity services in metropolitan and regional areas including:

- two tertiary hospitals in metropolitan Melbourne
- one regional hospital
- two secondary hospitals in growth areas of metropolitan Melbourne.

As part of the audit conduct, the audit team also met with staff from a rural health service and a Koori Maternity Service in regional Victoria.

The audit examined maternity services provided by public health services during the three phases of maternity care; antenatal care, labour and birth, and postnatal care.

1.6 Audit method and cost

The audit was performed in accordance with the Australian Auditing and Assurance Standards. The total cost including printing was $305 000.

1.7 Report structure

The rest of this report is structured as follows:

- Part 2 assesses how the Department of Health and health services are planning for future demand.
- Part 3 examines access to maternity services including timeliness of access.
- Part 4 examines access to woman-centred care, focusing on control and continuity of care.

2 Planning for maternity services

At a glance

Background

The Department of Health is responsible for health service planning, including maternity services, at the state level, while health services plan locally.

Conclusion

The department has limited information about the capacity and provision of maternity services in Victoria which makes the identification of service gaps and making informed planning decisions problematic. Work is underway, with the department mapping existing maternity services.

Findings

- The department does not use individual health service plans to form a systemic view of maternity services and has only just begun mapping maternity services.
- The department lacks external advice from the sector to inform planning.
- The department has introduced incentives to reduce turnover in the maternity workforce particularly in rural and regional areas. Locally developed strategies are also effectively addressing workforce shortages.
- Health services have an informed understanding of their local demand and a sound evidence base for planning.
- Collaborative arrangements such as regular meetings of maternity managers are an opportunity to share information and work together to improve services.

Recommendation

That the Department of Health improve its understanding and planning of maternity services by:

- routinely measuring and monitoring maternity services capacity
- documenting a work plan for the *Capability Framework for Victorian Maternity and Newborn Services* which clearly articulates how it will address gaps and issues identified
- establishing an advisory committee with external health sector and consumer representatives to provide strategic system-wide planning advice.

2.1 Introduction

The Department of Health is responsible for statewide health service planning, while health services plan locally to meet the needs of their communities.

Planning is critical for identifying medium- to long-term needs and the infrastructure and resources required. We expected the department to have a sound evidence base to inform its understanding of maternity service capacity and planning decisions. We also expected that the department and health services would communicate and collaborate with each other to improve maternity services across the state.

2.2 Conclusion

The department does not have a comprehensive evidence base or understanding of the maternity service system. Without knowledge of capacity and how well demand is being met across Victoria, the department cannot demonstrate that maternity services are provided when and where they are needed.

The relevant areas of the department, the Maternity and Newborn Program and Capital Projects and Service Planning Branch, coordinate well together and with individual health services so that health service planning priorities at the local level are consistent with government policy directions for maternity service delivery.

However, the department does not monitor maternity service capacity or identify gaps in maternity service delivery at a system-wide level to inform planning decisions. The department does not consolidate information from local level planning to form a statewide view. The absence of strategic advice from the health sector has further limited the department's understanding of statewide maternity capacity.

Initiatives to improve the department's planning approach are now underway. The department has started collecting information from health services on their maternity service capability and capacity through the self-assessment tool, the *Capability Framework for Victorian Maternity and Newborn Services,* and is reviewing the results of a bed census from April 2011.

It is important that the department routinely collects information on the capacity and provision of maternity services and uses this to inform statewide planning.

2.3 Statewide planning

The department's responsibility for statewide planning includes:

- monitoring the demand and supply of maternity services
- developing policies and strategies to guide the provision of maternity services
- working with health services through capital and service planning to support the equitable distribution of resources.

The department needs a sound understanding of health service capacity and capability if it is to plan effectively.

The audit examined the policy and planning frameworks guiding maternity service delivery as well as the evidence base used to inform statewide planning.

2.3.1 The planning framework

Several policy and planning frameworks guide health service planning.

The *Victorian Health Priorities Framework 2012–2022*

On taking office in 2010, the Victorian government initiated planning frameworks for metropolitan, rural and regional health services. The previous planning policies, *Metropolitan Health Strategy* and *Rural directions–for a stronger healthier Victoria*, date from 2003 and 2009 respectively.

The 2011 *Metropolitan Health Plan* recognises that the population increase in metropolitan Melbourne growth regions is putting pressure on existing services, and that demand growth estimates are well in excess of current facility and service delivery capacity. These issues were identified in the audit and are considered in Part 3.

At the time of the audit, the department was developing the *Rural and Regional Health Plan,* which will outline the development of Victoria's rural and regional services, and the *Capital and Resources Plan 2012* which will set the direction for future planning, development and investment in infrastructure and assets, workforce, information and communication technology, and health and medical research. These plans are both expected to be released later this year.

Future Directions for Victoria's Maternity Services

The key policy for maternity services is the 2004 *Future Directions for Victoria's Maternity Services* (Future Directions). It focuses on providing maternity services for women with uncomplicated pregnancies in local settings, with access to tertiary care when required, giving women greater control of their birthing experience and promoting continuity of care.

Future Directions articulates clear goals for maternity services and has the support of stakeholders. However, it did not specify milestones to monitor progress against outcomes. To drive improvements, there should have been an implementation plan and set time lines for progress against priorities.

In 2008, the department asked health services to assess their progress in implementing the policy. It identified several barriers to implementation including:

- an ageing maternity workforce
- recruitment and retention issues
- poor interdisciplinary relationships
- workforce needs for new models such as midwifery-led care.

In response, the department developed strategies to address these barriers including the workforce initiatives discussed in Section 2.5.1.

Capability Framework for Victorian Maternity and Newborn Services

Health services need to understand what resources they need for a safe and effective service. The 2011 *Capability Framework for Victorian Maternity and Newborn Services* (Capability Framework) provides a standard set of capability requirements including staffing, infrastructure and equipment, required for the provision of a safe maternity and neonatal service.

The Capability Framework will standardise how health services determine the resources they need. It will also give a better understanding of individual service provider and system capability.

All health services have recently assessed their maternity and neonatal services against the framework. This means the department can now map service capability across the state, identify hospital-specific and statewide gaps, and address them.

The Capability Framework is important for statewide planning. However the department has not articulated how it intends to address identified gaps, monitor and measure service providers against it, or set any specific or aspirational time frames or goals. Without a clear work plan, the results of health service self-assessments are unlikely to reliably inform statewide planning and make improvements to maternity services.

2.4 The service and capital planning process

Service planning is shared between the department and health services.

The department requires all health services to develop ‘service plans’ setting out their current and future service profile. Health service plans describe the current and projected health needs of a population, identify the changes needed, and outline the strategies for change.

The department’s Capital Projects and Service Planning Branch is responsible for coordinating this process and approving service plans. It reviews the plans to make sure they are feasible and appropriate, align with government policy, and make best use of available resources.

Where a service does not have sufficient resources and needs state capital investment, the department prepares a strategic business case in consultation with the health service to determine the context for capital priorities.

Service planning for maternity services

The department has effective internal coordination. The Maternity and Newborn Program advises the Capital Projects and Service Planning Branch so that its work aligns with strategic and policy directions for maternity services. The program also works with health services on their service plans, for example, to help determine planning options. However, the department was unable to demonstrate that it takes a system-wide view of health service maternity plans or that it reliably identifies and addresses gaps in service delivery.

The following case study shows the pressures experienced by a health service in a growth area of metropolitan Melbourne and the challenges faced in managing competing demands. It illustrates that without a comprehensive understanding of maternity service capacity at the system level, gaps in service delivery will not be sufficiently addressed.

Figure 2A
Case study

Date	Description of events
2005	Increasing demand was placing pressure on the hospital's maternity services as early as April 2005. This was raised at meetings of metropolitan health service maternity managers, which the department attended. A strategic business case was developed by the department for the replacement of buildings and to expand services to meet growing demand, including maternity services.
2006	The state government committed $184 million for a staged redevelopment of the hospital. This was part of the strategic business case. The $3.6 million Stage One of the redevelopment comprised approximately $1.9 million for maternity refurbishment works to include an additional two birthing rooms and eight postnatal ward beds.
2008	Tertiary hospitals in metropolitan Melbourne began diverting women at low risk of medical complications to hospitals in their local area, increasing maternity demand at the hospital.
2009	In 2009–10 there were 3 964 births at the hospital. The hospital's maternity service plan highlighted that birthing capacity would be reached at 4 500 births. Due to the very high expected demand for clinical services such as cancer treatment and dialysis, priorities put forward for Stage Two capital works focused on these areas and did not address the increasing demand for maternity services.
May 2010	The health service met with the department and delivered a presentation on the increasing maternity demand.
July 2010	The health service was allocated $90.5 million in the 2010–11 Budget for the construction of the acute services building as part of the Stage Three redevelopment. The building is expected to be operational in 2013. This includes an extended Special Care Nursery; however, expansion of the maternity service is not included in the planned works.
October 2010	The health service advised the department that it had experienced a 13 per cent increase in births in 2009–10 compared to 2008–09, with a predicted increase of 10 per cent in 2010–11. It also advised there had been an increase in the number of women birthing in the emergency department.

Figure 2A
Case study – *continued*

Date	Description of events
2011	In 2010–11 there were 4 339 births at the hospital. The 2011 service plan forecast demand to increase to over 5 500 births by 2015–16.
	A clinical assessment covered in an internal audit by the health service identified high clinical, financial and organisational risks due to the increased demand.
	The department is preparing a business case for the establishment of critical care services at the hospital and this will consider the inclusion of two additional birthing rooms. Given the lead time required for capital works, no new maternity facilities are likely in the short-term.

Source: Victorian Auditor-General's Office.

Figure 2A shows not only a failure by the health service to communicate the problems experienced in its maternity service in a timely way, but also the department's failure to identify these issues through its own statewide planning activities and system knowledge.

The Capability Framework should help the department identify gaps in the future. However, the department can also make better use of the information available to it through individual health service plans.

The department does not routinely collect information about bed numbers. In April 2011, it required health services to complete a bed census to identify public hospital maternity beds and birth rooms in Victoria. It is now reviewing the results, and this will also assist its understanding of capacity at the statewide level.

Forecasting demand for maternity services

The department's central unit forecasts hospital inpatient services annually, including long-term forecasts for maternity services. It has developed seven forecasting models since 2002. The models forecast 5–15 years out at a statewide and hospital level with the results being made available to health services.

The current model is robust but has inherent limitations. The publication of census and other demographic data every five years can affect the reliability of forecast figures. For example, until June 2008 population projections were based on the 2001 census as the 2006 census data was not yet available. Nevertheless all Australian jurisdictions use a similar methodology. The department also intends to use 2011 population data provided by the Department of Planning and Community Development to update the current figures. While the department keeps improving the forecasting model, it needs to closely monitor the limitations and review the forecast figures in the context of other indicators of future demand.

2.4.1 Advisory committees for planning

The department has set up advisory committees with external health sector representatives to advise on maternity and newborn related matters. It set up the:

- Maternity Services Advisory Committee (MSAC) in 1999 to advise on emerging issues in maternity services. It was dissolved in late 2008 amid concerns about duplication of work and membership with another committee, the Maternity and Newborn Clinical Network.
- Maternity Safety and Quality Committee in 1999, a sub-committee of MSAC, to advise on performance to help improve the safety and quality of childbirth.
- Maternity and Newborn Clinical Network in October 2007 to enhance the capability of maternity and newborn service provision, facilitate metropolitan and regional collaboration, advise on maternity demand and mitigation, and support workforce, infrastructure and service planning activities.
- Neonatal Services Advisory Committee in 2000 to advise the Minister for Health and the department on newborn infant services.

Advice gap

Although the Maternity and Newborn Clinical Network was intended to assist strategic and operational planning, in practice it has focused on improving clinical outcomes, including induction of labour, keeping mothers and babies together in hospital, and obesity in pregnancy. Consequently, since MSAC ceased in 2008, the department and the Minister for Health have had no external advice on strategic planning for maternity services.

Recognising the need for such advice, the Neonatal Services Advisory Committee proposed a new perinatal services advisory committee to advise on maternity and neonatal issues, in June 2011. At the time of the audit, the Minister for Health had not yet endorsed the Perinatal Ministerial Advisory Committee.

2.5 Statewide workforce planning

Achieving good health outcomes for women and their babies requires the right number and mix of trained staff. Currently, maternity services face several workforce challenges, such as national shortages in many maternity care professions including midwives, general practitioners (GP), obstetricians, anaesthetists, paediatricians, and neonatologists.

Women in regional and rural areas have fewer care options due to the shortages in the maternity workforce.

2.5.1 Maternity workforce initiatives

The Commonwealth government is responsible for educating health professionals and the vocational training of GPs. However, the department has introduced initiatives that are reducing turnover in the maternity health sector, particularly in rural and regional areas.

Rural Maternity Initiative

The department has made an ongoing and concerted effort to sustain rural maternity services with its Rural Maternity Initiative (RMI). RMI was started in 2003 to give rural women better access to maternity services through new models of care. Since then, RMI funding totalling $9.5 million has been used to fund midwifery continuity of care models and projects to improve antenatal services, for example by improving appointment booking processes. Many of the funded projects have incorporated collaboration between hospital midwives and local GPs.

The department evaluated RMI in 2007 to assess women's and staff satisfaction. It found that women's satisfaction with their local service was high, and the changes had improved staff's professional relationships and collaboration. The department did another evaluation in 2009, which found improved relationships between midwives and doctors and better retention and recruitment of midwives.

Education and training of the maternity workforce

Several workforce planning activities in addition to RMI have supported the maternity workforce in rural and regional Victoria. Figure 2B presents a sample of departmental workforce initiatives.

Figure 2B
Sample of Department of Health workforce initiatives

Initiative	Description of work
Strengthening Medical Specialist Training	This program funds posts in obstetrics and anaesthesia. It covers long-term placements, encouraging trainees to stay in the local area. Since 2008, the state has supported 54 obstetric and gynaecology training posts at a total cost of $5 250 000.
Procedural GPs Initiative	General practitioners play an important role in maternity services in rural and regional areas. This initiative aims to boost procedural GPs in rural areas of need, by funding training posts. Since 2006, the department has funded 67 GP Registrars to train in obstetrics or anaesthetics, at a total cost of $6.7 million.
Rural Medical Workforce Partnerships Program	The 2010–11 Budget allocated $1.5 million to the Rural Medical Workforce Partnerships Program. Small rural health services will collaborate on recruitment, retention, training and support for junior doctors and international medical graduates. The program will focus on succession planning and community consultation.
Maternity Education Program	The Maternity Education Program runs workshops to educate multidisciplinary teams working in rural and regional areas.
Rural Midwifery Program	The program includes creating Clinical Midwife Consultants to: • provide professional support and mentoring for rural midwives • support rural health services to analyse gaps in skill and practice requirements • facilitate access to education and up-skilling • support health services plan clinical practice improvements. Six regional health services are funded for 24 months to June 2012 to appoint Clinical Midwife Consultants.

Source: Victorian Auditor-General's Office.

These programs have made a positive contribution to workforce sustainability in rural and regional Victoria and are widely supported by stakeholders.

2.6 Local planning

Health services are responsible for delivering services that meet the needs of their community. This includes undertaking local planning activities such as:

- predicting local demand and assessing service use patterns
- understanding community demographics and tailoring services to meet needs
- assessing current and future capacity and identifying gaps
- developing local workforce strategies
- coordinating with other health services in the area.

Health service planning typically follows a common framework as shown in Figure 2C.

Figure 2C
Local planning components

Initiative	Description of work
Strategic and business planning	Strategic plans set the organisation's broad future direction and priorities and guide the business plans that describe the operational aims for the financial year, including goals, targets, strategies, accountabilities and performance measures.
Operational planning	The department funds hospitals for the amount and type of work they do. Payments comprise a base payment weighted for the average patient length-of-stay.
	Hospitals and the department negotiate activity targets annually in the Statement of Priority negotiations. Once the targets are set, hospitals allocate funding across their programs, which means that funding is not allocated specifically to maternity care.
Service planning	Service planning helps health services identify how to meet community need in the medium term (typically three to five years). Service plans identify the current and future profile such as the mix, level, and distribution of services. Key factors that health services consider include projected future demand, demographic trends and service-use patterns.
Strategic business case and master plan	When the health service needs additional infrastructure, the department prepares a strategic business case with the health service. The business case gives the preliminary justification for the project based on its likely costs and potential for success.
	A master plan report based on the service plan confirms the services to be delivered and the physical infrastructure required.

Source: Victorian Auditor-General's Office.

The framework for developing local service plans is sound. The audited health services had comprehensive plans setting out the resources and facilities for service delivery and for meeting strategic goals. They understood local demand for maternity services well, and used the service plans to prioritise current and future maternity service needs.

Women's role in local planning

It is important for women to be involved in service planning. Health services are required under the *Health Services Act 1988* to establish a community advisory committee that represents community views. Three of the four audited services had these committees. The fourth was re-establishing its committee after a period of review.

In addition to these committees, all health services used consumer surveys and feedback focusing specifically on maternity services. The health services obtained the views of mothers who had used their service to inform service development and improvements.

2.6.1 Health service workforce planning

Workforce planning determines the staff a health service will need to meet future demand, and details how it will respond to workforce issues in the short and long term. All health services had experienced challenges recruiting and retaining an appropriately skilled midwifery workforce, but produced evidence of comprehensive workforce planning.

Workforce strategies included:

- introducing family friendly and flexible working arrangements to help retain and support staff
- promoting wellbeing and professional development opportunities
- increasing the number of placements of newly qualified midwives.

Workforce strategies are addressing shortages in the audited hospitals. For example, at one audited health service, 97 per cent of graduate nurses and midwives had continued on as paid employees in 2010–11 compared to 73 per cent in 2007–08. However, audited health services in outer metropolitan areas continue to have difficulties recruiting permanent medical staff.

Although workforce shortages pose significant challenges for health services, they also stimulate them to consider innovative models of care.

2.6.2 Models of care

Health services had many collaborative projects and arrangements to maintain or enhance maternity services using new models of care.

Several hospitals have responded to their local communities by offering continuity of care. Consumer surveys in the 1990s highlighted that women wanted continuity of care, and international and national studies have consistently shown that it improves women's and health professionals' satisfaction, boosts the good health of mother and baby and reduces intervention rates.

Midwifery Group Practice

Three health services used Midwifery Group Practice (MGP). Also known as 'caseload', MGP allocates a primary midwife to each woman who does most of the maternity care during pregnancy, childbirth and postnatally. There is also a secondary midwife known to the woman when the primary midwife is unavailable.

MGP midwives are not rostered, but are available 24 hours with time rostered off. Typically the midwife will have a primary caseload of about 40 women a year. Should complications arise, she refers the woman to specialist care.

Research suggests the MGP model of care improves satisfaction and system efficiency. A 2010 study of midwives in New South Wales found continuity of care models were extremely important to job satisfaction. The audited health services also reported that a focus on continuity of care has helped improve recruitment and retention of midwives.

There has been limited evaluation of the MGP model and the results for women in Victoria. One of the audited tertiary hospitals was evaluating its model at the time of the audit, which should help other services considering it.

While MGP's focus on continuity of care is a positive step, women have limited access due to its restricted availability. This is considered in Part 4.

Team midwifery

Two of the hospitals use small teams of midwives who care for women at low risk of complications, and who refer to, and consult with, multidisciplinary colleagues such as social and mental health workers as necessary. They do not have a one-to-one relationship with the woman as with the MGP model, although women generally know who is on the team.

Initiatives to maintain services in rural areas

Maintaining a maternity service in a rural area largely depends on having skilled staff such as obstetricians and anaesthetists, and enough demand to retain their skills. Some smaller rural hospitals have set up 'low-risk' birthing services in response to staff shortages, allowing them to continue to provide a local service. Figure 2D describes one example.

Figure 2D
Rural low-risk birthing service

Until late 2010, a rural health service managed about 120 births a year with the support of local GP obstetricians. When the town's GP obstetricians left, the health service worked with the department and other health services to develop midwifery-led care at the hospital so that local women would have access to low-risk birthing services.

Midwives provide the antenatal, labour and birth, and postnatal care locally. Medical support is available on-call or through transfers. To deliver at this health service women must have low-risk pregnancies, with minimal medical conditions or complications such as high blood pressure. Women with high-risk pregnancies are referred to a regional or tertiary hospital as required.

Source: Victorian Auditor-General's Office.

This 'low-risk' service presents challenges for rural health services. The midwives must be highly skilled and trained in suturing and resuscitation, and be willing and committed to working under the model. As pregnancy and birth are unpredictable it can be hard to identify women who may develop complications. Access to medical backup is therefore critical in case of emergency.

Despite these challenges, this model shows how health services can cooperate to meet the needs of their local community.

2.7 Health service collaboration

It is important for health services to collaborate in planning, monitoring and improving maternity services so they can identify common issues and resolve them.

There are several well-regarded statewide collaborations working to improve clinical practice but they have no strategic system-wide planning focus as Figure 2E shows.

Figure 2E
Collaboration in clinical practice

Collaboration	Participants	Description of work
Maternity and Newborn Clinical Network	Representatives from health services across the state	Aims to reduce unnecessary variation in clinical practice
3centres Collaboration	Led by joint steering committee of midwives and obstetricians from the three tertiary maternity services	Development of practice guidelines, e.g. '*A guide to tests and investigations for uncomplicated pregnancies*'
Shared Care Maternity Collaborative	Representatives from the Royal Womens Hospital, Mercy Hospital, Northern Hospital, Western Health and affiliated GPs and midwives	Promotes shared maternity care between GPs and health services, and carries out GP credentialing, professional development and *Shared Maternity Care Guidelines* development

Source: Victorian Auditor-General's Office.

2.7.1 Regional collaboration

As part of the Rural Maternity Initiative the department has funded collaborations in rural and regional areas such as, the South West Area Maternity Initiative and the Grampians Maternity Network.

Figure 2F
Examples of regional collaborations

Collaboration	Description of work
South West Area Maternity Initiative	This multidisciplinary initiative aims to sustain services in the South-West Barwon sub-region by focusing on education and workforce initiatives such as running education workshops, identifying workforce shortages and learning from recruitment practices and models of care at other health services.
Grampians Maternity Network	The network aims to maintain maternity services by improving midwives' access to training and skill development. Quarterly network meetings are held with the Directors of Nursing to improve communication and collaboration, and training is provided to maternity staff.

Source: Victorian Auditor-General's Office.

Funding for these collaborations is not secure and once it ends, these arrangements may discontinue. Given that the sustainability of maternity services in rural and regional areas is a long-term issue for health services, ongoing collaboration to inform planning warrants sustained support.

2.7.2 Maternity managers' meetings

In 2005, the department began convening monthly meetings of all maternity managers in metropolitan Melbourne. The meetings allowed for the exchange of ideas and information about statewide projects, and the sharing of initiatives and improvements in service coordination.

The minutes record that participants discussed maternity capacity at each meeting, with each health service and the department updating key issues. They also discussed demand management strategies, which the services reported had led to more efficient antenatal clinics.

The meetings ceased in June 2010 but resumed quarterly in June 2011 with all maternity managers attending, including those from rural and regional health services.

The maternity managers' forum is valuable for health services to share information and work collaboratively to improve services. It will also regularly update the department on statewide demand for maternity services.

Recommendation

1. That the Department of Health improve its understanding and planning of maternity services by:
   - routinely measuring and monitoring maternity services capacity
   - documenting a work plan for the *Capability Framework for Victorian Maternity and Newborn Services* which clearly articulates how it will address gaps and issues identified
   - establishing an advisory committee with external external health sector and consumer representatives to provide strategic system-wide planning advice.

3 Access to maternity services

At a glance

Background

Timely, high quality maternity care during pregnancy supports women to give their babies the healthiest possible start in life.

Conclusion

Women attending the hospitals we audited in metropolitan growth areas do not have equitable access to maternity services as there is a demand and supply mismatch. This is projected to increase with population growth. The Department of Health has, however, now begun collecting data on the timeliness of access to antenatal care to inform service improvement.

Findings

- Tertiary hospitals manage demand by prioritising access to their services for local women and those with high clinical or social risks. However, this strategy has not been clearly communicated to women.
- Community antenatal clinics are improving timely access for women at the audited health services.
- Women at audited hospitals in metropolitan growth areas experience poorer access including higher fees and delays in their antenatal appointments.
- The department is improving its data collection, and health services are now required to report the number of weeks gestation at first visit, which will show the timeliness of access to antenatal care.

Recommendations

That the Department of Health:

- focuses on improving access to maternity services in growth areas
- prioritises its work with the Commonwealth to improve access to antenatal care.

3.1 Introduction

The *Future Directions for Victoria's Maternity Services* policy states that maternity care should be readily and easily accessible to all women. Understanding current and future demand is central to the planning that maps out the resources and infrastructure needed to provide all women with access to good quality services.

After five years of unpredicted steady growth in birth numbers and the 2007–08 peak in demand for maternity care, the Department of Health and health services developed strategies to manage demand and expand capacity.

3.2 Conclusion

Health services have been innovative in their management of demand for maternity services. The use of outreach antenatal clinics in the community is increasing timely access for women nearer to where they live while maintaining access to hospital-based services for women with complex medical needs.

Although tertiary hospitals have managed demand by prioritising access to their services for local women and those with high clinical or social risks, this strategy has not been clearly communicated to women. In particular, women in metropolitan growth areas surrounding the secondary hospitals we audited have poorer access to services, and experience higher costs and delays in antenatal appointments. Due to demand on birthing facilities and an inability to access labour ward beds, they also risk giving birth in non-admitted settings, such as an emergency department, without a legitimate clinical reason.

Health services and the department need to know what is preventing women from accessing care or keeping in contact with their maternity services so they can better meet women's needs. However, there is limited data about access to antenatal services.

Despite survey findings highlighting issues with postnatal care, such as a lack of policy and service guidelines, the department has been slow to deliver recommended improvements.

3.3 Meeting demand

The demand management strategy

The department set up a maternity demand steering committee to encourage health service executives to collaborate in managing demand. Meeting quarterly from 2006 to 2008, the committee developed strategies for diversion to secondary health services, developed a maternity demand action plan and routinely monitored progress.

Steering committee reports show that it identified capacity issues and developed short- and long-term strategies in response. For example, health services set up pregnancy day assessment units, where health services can monitor women without using an inpatient bed unnecessarily. The committee also worked with the department and education providers to increase the number of midwifery places and scholarships.

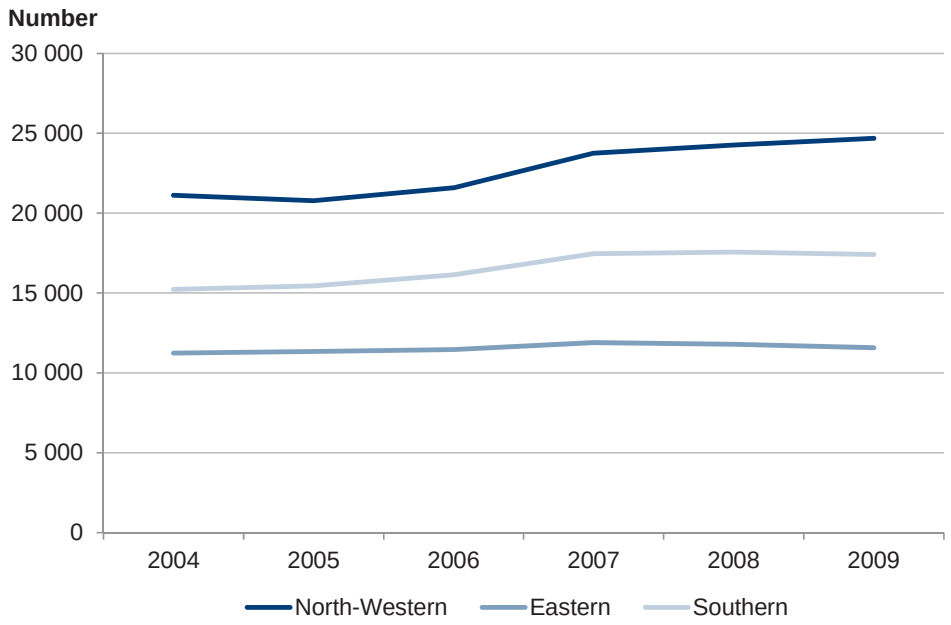
The committee stopped meeting in 2008 as demand had steadied. It referred outstanding actions such as developing regional collaboration between health services to the department's Maternity and Newborn Program. However, at the time of the audit the program had not progressed with the work. In the absence of a demand management steering committee, the department advised that the monthly maternity managers' meetings will be an avenue for ongoing monitoring of maternity demand.

Increasing demand on maternity services

While the birth rate has slowed or even declined in many parts of the state, demand continues to increase in the outer growth corridors of metropolitan Melbourne.

As Figure 3A shows, maternity demand as measured by births is unevenly distributed, with the greatest growth in the North-Western metropolitan growth corridor.

Figure 3A
Births by metropolitan region



Source: Victorian Auditor-General's Office using data from the Australian Bureau of Statistics.

A number of features of this region place additional pressure on maternity services in the area:

- The area does not have enough general practitioners (GP).
- The area and residents there have poorer health and higher rates of unemployment compared to other parts of Melbourne, limiting access to private healthcare.
- There is a large population of migrants and refugees with additional needs, such as language services.

Further, demand management 'catchment' strategies implemented by the three tertiary hospitals, while securing the availability of their services for local and high-risk women, have exacerbated demand for maternity services in the growth corridors.

Tertiary maternity service catchment strategies

Following the demand peak in 2007–08, tertiary hospitals trying to manage the demand from women with low-risk pregnancies also came under pressure from the increased complexity of many pregnancies, arising from factors such as maternal age, obesity, multiple pregnancies and diabetes.

They responded by allowing only women with low-risk pregnancies in their 'primary catchment'—the geographic area surrounding the hospital—to use their services. Those outside the hospital's designated area could use it only if they had clinical or social risks that warranted maternity care from a tertiary service. Women with low-risk pregnancies not in the local area, generally defined by postcode, were referred to a secondary service in their area. Although the tertiary hospitals worked with secondary health services during the transition, the department was not involved in helping to prepare secondary services for the change.

The aim of the catchment strategy was to redistribute services where capacity was available to assist tertiary hospitals maintain capacity for high-risk pregnancies needing specialist care. However, the strategy affected secondary maternity services, which had increased demand referred from tertiary hospitals.

In 2009, the department started a project to develop policy on primary catchments for maternity services. The purpose of the policy was:

- to manage pressures on the high profile, tertiary maternity services to better enable them to offer specialist services for women and babies at high risk
- to give women certainty about access to maternity services close to their homes and about getting appropriate care.

The project set up a working group that developed draft principles which included recognising the need for clear and timely communication with the community, and allowing services to relax the catchment boundaries during periods of reduced demand. Despite this, the department has no established position on the matter and this is causing confusion for women about the maternity system.

The department also does not monitor the strategy, assess its impact on individual health services, or develop actions in response.

3.4 Access to maternity services

The *Future Directions for Victoria's Maternity Services* policy aims to give women timely, high quality maternity care during pregnancy to provide the best possible start for their babies.

This part considers equity and timeliness of access in the three phases of maternity care: antenatal, labour and birth, and postnatal care.

3.4.1 Access to antenatal care

All women should be able to access antenatal care easily and readily. When a pregnant woman seeks antenatal care late or receives none at all, her health and her child's health may be at risk.

The World Health Organisation defines the aims of antenatal care as:

- to assist women to remain healthy, and find and correct adverse conditions when present to aid in the health of the newborn
- to provide support and guidance to the woman and her partner or family to help them in the transition to parenthood.

Increased demand has posed a daily challenge to hospitals in managing antenatal bookings. In response, health services have set up community-based or 'outreach' antenatal clinics, prioritised publicly funded ultrasounds and scans for those most in need, and collaborated with GPs to share maternity care.

Community-based services

To manage demand, and improve access for women, the audited hospitals have started to deliver some antenatal care in the community. Clinical staff use risk assessments to identify women at low risk who are suitable for their outreach services. The services, led mostly by midwives, offer timely access and care nearer to where women live, while reserving acute services for women with complex needs.

Concerns about the safety of small maternity units, and difficulties recruiting staff, have led to maternity services closing in rural areas, requiring pregnant women to travel. However, even if it is not possible to set up or maintain a birthing unit in these areas, it may be possible to offer antenatal and postnatal care locally.

For example, the audited regional hospital had worked with hospitals in surrounding communities so that women could get antenatal and postnatal care from their local hospital. This allows women to get care in their local communities while enabling the regional hospital to manage demand in its antenatal clinic.

Shared care

A woman's pregnancy care may be shared between her GP and the health facility she intends to give birth at. This may cost the woman more as she pays any gap between the GP fees and the Commonwealth Medicare rebate.

About 30 per cent of women who give birth at the two tertiary hospitals audited use shared care. However, few women use it at the audited services in outer Melbourne, because these areas are under-serviced by GPs.

3.4.2 The cost of antenatal care

Costs vary according to health service. For example, at a health service in a growth area of Melbourne, women have two choices:

- in the 'fee for service' model they pay for antenatal care from private practitioners
- in team maternity care model, they get a free antenatal service except for radiology and other diagnostic costs.

The hospital has about 180 births per month. However, the team model can only take 70 bookings a month. As a result, local women who cannot access the team model must either pay up to several thousand dollars or travel to another hospital for free care.

Diagnostic services and antenatal education

Ultrasound is used in standard antenatal tests such as for foetal abnormalities or Down's syndrome. Women may also need unscheduled scans urgently if they have complex conditions.

Costs vary according to hospital and service provider. Some health services have in-house radiology departments while others refer women to private providers. The Commonwealth subsidises some scans, but private providers will often charge more, requiring women to pay the difference.

Three of the audited health services had more demand for radiology services than capacity. Their response was to prioritise women according to clinical and socio-economic need so that vulnerable women could get access.

Growing demand has also affected antenatal education classes, which offer valuable information for women preparing for the demands of birth and parenthood. While health services offer classes after hours or on weekends, they typically charge women to attend.

During pregnancy women have a chance to make regular contact with services. However, the costs of antenatal care including ultrasounds and education classes discourage women in high need groups such as teenagers and women with a low income.

3.4.3 Timeliness of antenatal care

Timely antenatal care supports a healthy pregnancy and birth. In the United Kingdom, the National Institute for Health and Clinical Excellence guidelines recommend that the first appointment be in the first 12 weeks of pregnancy as this is an opportunity to identify clinical and other risks to the woman and her child.

A 2008 Victorian survey of 2 900 recent mothers in Victoria found just over 10 per cent attending a public clinic had their first appointment after 12 weeks gestation.

Vulnerable women and women in regional areas were more likely to attend later and to have fewer visits during pregnancy. Figure 3B summarises the survey results.

Figure 3B
Access to antenatal care: Results of statewide survey

Population group	First appointment 13 weeks or later (per cent)	Over eight antenatal visits attended (per cent)
Age		
under 24 years	13	50
over 24 years	4	54
Income		
below $20 000 pa	11	48
over $20 000 pa	3	56
Health care card holder		
Eligible card holder	11	46
Non health care card holder	4	56
Location		
Non metropolitan	7	51
Metropolitan	4.5	55

Source: Victorian Auditor-General's Office from *Antenatal Care in Victoria* (2010).

Since 2003 all Victorian public hospitals providing maternity care have reported annually against ten performance indicators.

In 2009–10, health services were required to report against a new antenatal indicator. The indictor measures a woman's gestation at the time of her first visit to a midwife or doctor specifically for the purpose of providing maternity care. It excludes visits for confirmation of pregnancy, and medical visits for incidental problems while pregnant. The department only received 2009–10 data in September 2011 and at the time of the audit was still verifying it. Final results are to be included in the 2009–10 performance indicator report, expected to be published in late 2011.

This data provides the department with important information about timeliness of care and where improvement should be targeted.

As part of the Commonwealth's *National Maternity Services Plan*, the department and the Tasmanian Department of Health and Human Services, in collaboration with the Commonwealth, are developing a tool to evaluate access to publicly-funded antenatal care for various communities. This work will support consistent data collection and identify gaps in services.

All audited health services had also reviewed their antenatal clinics in the past 24 months. Figure 3C shows how one service improved flow to reduce late booking appointments.

Figure 3C
Example of antenatal clinic review

At one audited hospital, the demand for services in 2009 meant that many women were first seen after 14 weeks gestation. The hospital appointed a consultant to improve capacity and demand management. In 2010, it increased the use of community clinics for women at low risk and ran additional midwife clinics. An audit of a sample of women found that 60 per cent were seen before 14 weeks gestation in 2010–11 compared to less than 20 per cent in 2009–10.

Source: Victorian Auditor-General's Office.

Other health services have improved by:

- providing midwives for women at low risk to reduce waiting times for obstetricians
- clustering interpreter bookings
- booking complex patients at the end of the day so other appointments are not delayed if they go over time
- adopting processes to reduce the numbers of those who do not attend such as confirming the date and time prior to the appointment.

3.5 Care during labour and birth

Maternity unit facilities and capacity

To manage demand, hospital maternity units must have the resources for women giving birth and their babies, including beds, staff, operating theatres and equipment for labour.

All health services considered trends in demand and access, which they then used to predict monthly activity. Three had enough beds for women during pregnancy and labour, and while recovering from birth. However, this does not reflect demand as they cap the number of women they accept. At one of the audited hospitals, women who could not access their local service due to the demand, travel at least 30 kilometers out of the area to access care.

One of audited health services experiencing increased demand was based in a growth area in metropolitan Melbourne. Although there are no agreed standards for bed numbers, Figure 3D shows the varying levels of capacity among metropolitan health services based on the number of births at each facility. The audited hospital is highlighted in bold. It delivers 434 births per labour ward bed compared to an average of 313 births per labour ward bed.

Figure 3D
Comparison of metropolitan hospital births and resources

Hospital	Births (2010–11)	Birthing beds	Bed to delivery ratio
Tertiary	6 670	17	1:392
Tertiary	5 809	17	1:342
Secondary	**4 339**	**10**	**1:434**
Tertiary	3 402	10	1:340
Secondary	2 669	9	1:297
Secondary	2 184	8	1:273
Secondary	2 418	7	1:345
Secondary	2 310	9	1:257
Secondary	1 368	10	1:137

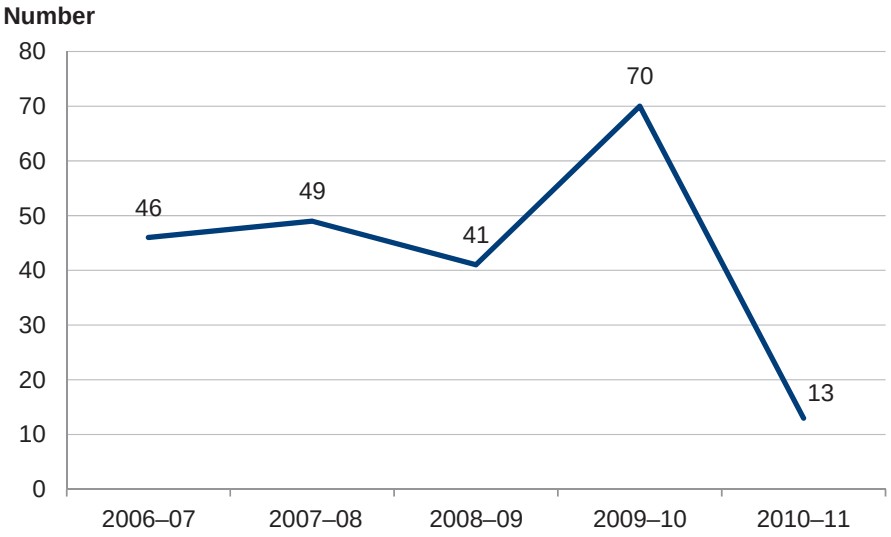
Source: Victorian Auditor-General's Office based on Department of Health data.

As a result of the demand pressures at this health service, women have given birth in settings such as the emergency department (ED). In some situations this may be appropriate, for example, because there is no time to transfer the woman to the labour ward. However, in the week the audit team attended the hospital, three women birthed in the ED due to a shortage of labour ward beds. Birthing in the ED presents clinical risks as the midwife must leave patients in the labour ward to attend to the woman in emergency. It also does not provide women and their families with adequate privacy and comfort. The high level of activity also increases the risk of staff 'burn-out', evident in interviews with staff at the health service.

To help manage the use of labour ward beds, the audited health service introduced a four-bed assessment centre in May 2010 to assess women going into labour and determine whether they require admission to a labour ward bed. The assessment centre is not designed for birthing as it lacks sufficient privacy and comfort.

As Figure 3E shows, since the assessment centre was created there has been a reduction in the number of women birthing in the ED. A file audit by the health service found that at least seven of 13 births in the ED in 2010–11 were imminent births and the women could not be transferred. Two women have also given birth in the assessment centre this year.

Figure 3E
Births in the emergency department, 2006–07 to 2010–2011



Source: Victorian Auditor-General's Office.

Emergency referral and transfers

Health services need to provide women with safe and effective services. Where a woman's pregnancy is complex and needs more intensive care, it is vital that she gets a timely consultation and/or referral to the appropriate service. All health services had processes for this to happen and this was supported by a statewide referral and transfer service, the Perinatal Emergency Referral Service.

The Perinatal Emergency Referral Service coordinates the transfer of women at risk of premature birth to the tertiary facility with the greatest capacity to take the woman and premature baby if the birth occurs. It also offers expert advice to health services. A 2008 departmental review found that the Victorian community and referring clinicians value the service highly. This was reflected in feedback received during the audit.

3.6 Postnatal care

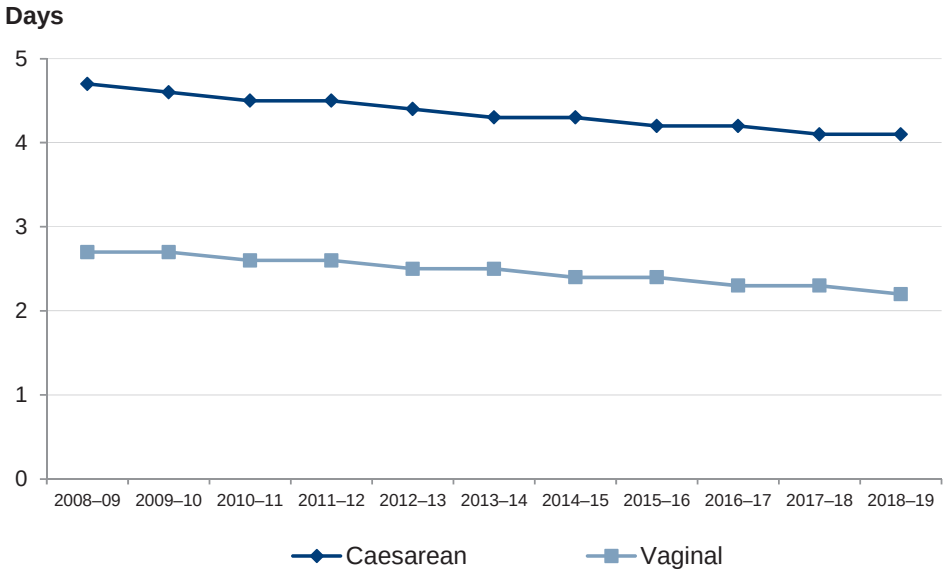
Postnatal care begins immediately after birth in hospital and continues at home.

Timely and effective postnatal care and support can have a major impact on the long-term health and wellbeing of women and their families. Despite this, results of statewide surveys show that many women report lower levels of satisfaction with this care than for any other phase.

The department funds public hospital midwives for at least one visit to the mother at home in the first week after birth. Women can have more visits if needed. About a week after the birth, the woman is transferred to the Maternal and Child Health nurses in each local government area.

The average time women stay in hospital after a birth has been declining for two decades. In 1994–95 it was 3.8 days for a normal birth. In 2008–09, it was 2.6 days and departmental analysis forecasts this to drop to just over two days by 2018–19 as Figure 3F shows.

Figure 3F
Maternity average length of stay



Source: Victorian Auditor-General's Office based on Department of Health data.

The department has not reviewed the postnatal funding model since 1998–99; however, in 2009 it surveyed postnatal home care activity. The survey highlighted a number of problems with postnatal care and showed that the department needed to:

- develop a robust policy and service guidelines on postnatal care
- determine the impact of shorter hospital stays on women's postnatal needs, particularly access to breastfeeding support
- focus on vulnerable women and families during the postnatal period and beyond
- strengthen the links between health services, Maternal and Child Health services and other community based service providers to improve results for women and their families
- be more consistent with funding and costing arrangements between health services where there is sub-contracting of postnatal home care
- review postnatal home care to reflect changes such as team and Midwifery Group Practice models of care.

The department has undertaken some activities in response to the survey:

- A literature review of better practice and a review of postnatal services in other Australian and international jurisdictions were conducted.
- A statewide policy, and service guidelines have been drafted and the department has advised it will consult key stakeholders on the guidelines prior to their anticipated release in 2011–12.

It has also committed to review alternative ways to fund postnatal home care and expects to implement the results in 2012–13.

While work is now underway, progress in improving the experience of women in the postnatal period in response to the survey findings has been slow.

Recommendations

2. That the Department of Health focuses on improving access to maternity services in growth areas.
3. That the Department of Health prioritises its work with the Commonwealth to improve access to antenatal care.

4 Access to woman-centred care

At a glance

Background

Once assured of safe care, women want choice, continuity of care and control of their pregnancy.

Conclusion

Access to woman-centred care is variable. Women are experiencing greater control of their maternity care. However, less than half of them are experiencing continuity of care and the lack of comprehensive, accessible information contributes to poor understanding of the maternity system.

Findings

- The Department of Health's website explains levels and models of maternity care but the information is not available in print or languages other than English.
- Audited health services are developing models of care focusing on continuity, however demand outweighs available places.
- Hospitals are responding to vulnerable women's needs with innovative programs but are not evaluating them robustly.

Recommendations

That the Department of Health:

- provides information in relevant community languages, made available through general practitioners and hospitals, that informs women on how to navigate the maternity system, the range of maternity services options and likely costs
- requires health services to monitor and report their progress in improving continuity of care on an ongoing basis.

That health services systematically evaluate targeted programs for vulnerable women to assess whether they are meeting objectives.

4.1 Introduction

Woman-centred care recognises a pregnant woman's right to self-determination in her choices, and continuity of care. It also addresses her social, emotional, physical and cultural needs and expectations.

Consumer surveys in the 1990s highlighted a demand for maternity care based on continuity of care and women having more choices about childbirth. This Part examines the principles of choice, continuity and control, which also underpin the 2004 policy, *Future Directions for Victoria's Maternity Services* (Future Directions).

4.2 Conclusion

There has been some improvement in providing women with an increased sense of control and continuity of care since the release of Future Directions in 2004. Women report feeling more in control and involved in decision-making, that they are being listened to and their concerns are being taken seriously.

However, access to comprehensive information to help women make informed choices about their care is lacking, particularly in its availability in relevant community languages. This can contribute to challenges in accessing care.

There is clearly a strong focus on providing continuity of care and the audited health services had implemented new models of care in line with this aim. However, demand for places in these programs far outweighs supply. The findings of a statewide survey show that less than half of women are receiving continuity of care. This indicates inequitable access to care by professionals familiar with them and their needs.

The Department of Health and health services are making progress to support access to maternity care for vulnerable women through a range of targeted programs. Health services in particular can enhance their programs through better evaluation of outcomes.

4.3 Women's satisfaction with maternity services

Women's satisfaction with their maternity care is an indication of whether a service is meeting their needs. This includes whether they felt listened to and well supported and if they felt they got timely and consistent information.

A woman needs accurate and timely information on available options as well as clinical information about pregnancy, child birth and caring for her baby so she can make informed decisions about her care.

4.3.1 Understanding the maternity 'system'

Information provided by the Department of Health

Recent mothers report greater satisfaction with care when they have good quality information and are more involved in decision-making. For most women their first pregnancy will be their first sustained contact with the health system as an adult.

Multiple reviews over the past 20 years have shown gaps in women's understanding of maternity services:

- The 1990 report of the Ministerial Review of Birthing Services in Victoria, *Having a Baby in Victoria,* found that women did not understand the maternity services system well and that generally it was only after the first birth that they become aware of the different options. The report recommended giving women better information about care options.
- A review of shared obstetric care in 1999 commissioned by the department also recommended distributing written information on the maternity care system to women and general practitioners (GP).

The department publishes most information about the maternity services system on its website *Having a Baby in Victoria*. The site explains different levels and models of care, and describes the care available at each of the state maternity services. However, the information is not well organised and is not all available in print or in languages other than English.

Consultation with stakeholders and service providers revealed a widely held view that women and even some GPs did not understand the maternity 'system' well.

Women need clearer information in English and other common community languages. New South Wales, for example, publishes information on pregnancy care options, the likely costs and how to make informed decisions in community languages.

Information provided by health services

The audited hospitals gave women largely consistent information on topics such as antenatal tests and screens, breastfeeding and medical interventions including caesareans and induction of labour. The availability of this information in languages other than English varied.

One of the audited health services had a dedicated working group, including mothers who have used the service, to monitor the relevance and currency of the information. This is good practice. By comparison, a number of information brochures at another audited health service were either out-of-date, or did not specify their review date.

4.3.2 Sense of control and continuity of care

Women should feel in control during pregnancy and childbirth. This principle is spelled out in the Future Directions policy.

A 1989 statewide survey of recent mothers asked a question about how women saw their role in decision-making. Only 38 per cent reported having an active say in decisions about what happened in labour. By comparison, a 2008 survey of recent mothers found that 83 per cent of women felt they were active in decision-making in most or all cases. When women have more control they feel:

- involved in decision-making
- they are being listened to
- the carer is taking their concerns seriously.

Although women increasingly report feeling more in control of pregnancy, progress in promoting continuity of care has been slow. The audit evaluated models of care at each of the audited hospitals for consistency with departmental policy. While women generally prefer to see the same caregiver during antenatal visits this is unlikely to happen.

The audited health services did not routinely monitor the number of caregivers seen by women during their pregnancy care. However, an internal audit at one health service in 2009 found that women were seeing 22 different caregivers on average, with some women seeing up to 32.

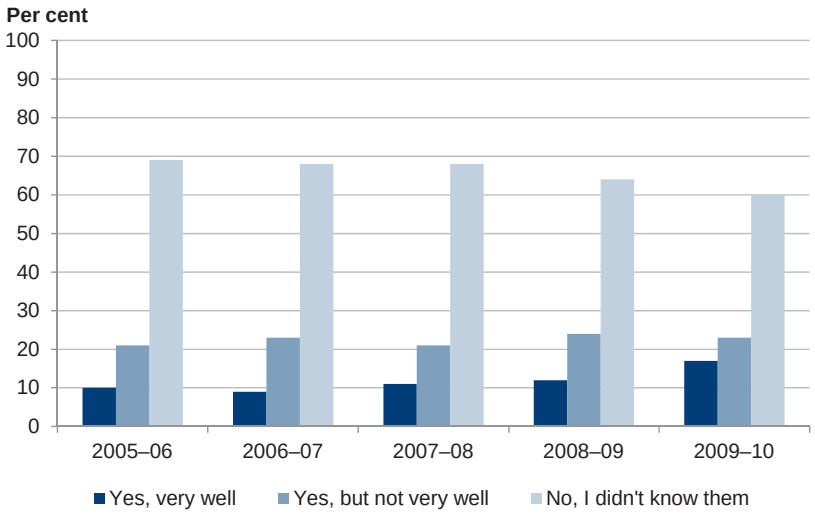
At this health service, all women were seen by obstetricians or medical registrars regardless of their level of risk. This increased the likelihood of women seeing a different caregiver at each appointment. In response, the health service implemented a midwifery-led model for women with a low risk of complications. An evaluation is currently underway to determine the extent to which continuity has improved.

As discussed in Part 2, the Midwifery Group Practice (MGP) model promotes continuity of care. However, it is only available at four of the thirteen metropolitan health services. In rural and regional Victoria, only a small number of health services have MGP. At the audited health services that do offer MGP, the demand far outweighs the places available.

Although continuity of care is a key objective of Future Directions, heath services are not required to routinely report their progress in achieving it. Instead the department monitors continuity with an annual survey of public hospital patients, the Patient Satisfaction Monitor Survey.

Survey results reflect the audit findings at the audited health services, that most women do not experience continuity of care. Figure 4A shows the percentage of women who knew the midwives who were present during labour before they had their baby. It shows that although there has been some improvement since 2005–06, 60 per cent of women did not have continuity in 2009–10.

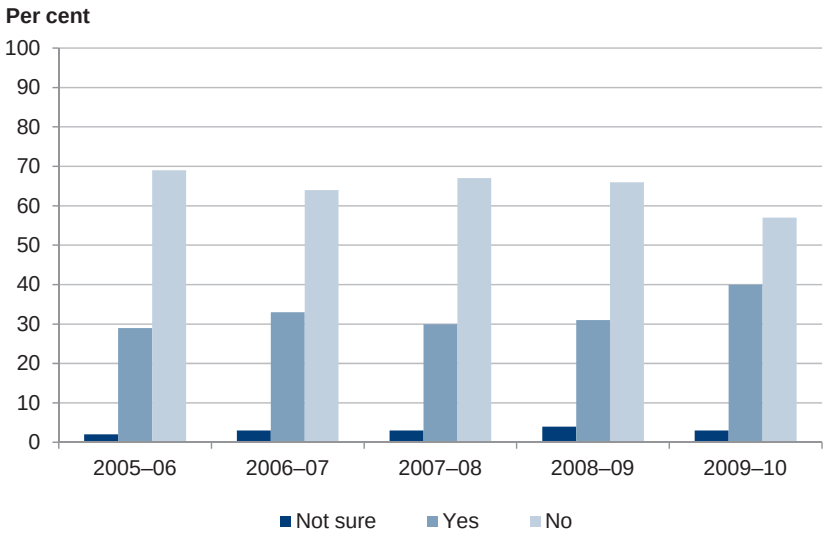
Figure 4A
Results of survey question: Did you know any of the midwives who cared for you in labour, before you had your baby?



Source: Victorian Auditor-General's Office using the Victorian Patient Satisfaction Monitor Survey data.

Figure 4B shows the percentage of women who knew the midwives during their postnatal stay in hospital. Again, there has been some improvement since 2005–06 but over half of the women surveyed did not experience continuity in 2009–10.

Figure 4B
Results of survey question: During your stay in hospital after the birth were you cared for by midwives you had met while you were pregnant?



Source: Victorian Auditor-General's Office using the Victorian Patient Satisfaction Monitor Survey data.

4.4 Targeted programs for vulnerable women

Accessible and appropriate maternity care is an essential element of good quality maternity services. However, women from vulnerable or disadvantaged populations are more likely to experience poorer outcomes because they do not receive timely care.

For example, Indigenous mothers and their babies suffer illness disproportionately, having higher rates of foetal and neonatal death, and a higher proportion of low birth weight.

4.4.1 Statewide services

The audit examined the services for vulnerable women and found targeted programs to help women access services. The department funds statewide programs including the Koori Maternity Service and the Healthy Mothers, Healthy Babies program. These programs have been successful in providing vulnerable women with support during pregnancy and improving access to maternity care.

Koori Maternity Service

The Koori Maternity Service (KMS) program, set up in 1999, aims to improve the delivery and health of Koori women and babies by offering culturally appropriate maternity care. There are 11 KMS sites co-located with Aboriginal-controlled organisations in the state.

A KMS site comprises a midwife and an Aboriginal health worker who give Aboriginal women antenatal and postnatal care. In areas with lower birth rates there is only a health worker to coordinate care with the onsite doctor and mainstream maternity services.

A 2001 evaluation found that Aboriginal women using KMS got maternity care earlier in their pregnancies and made more regular visits to GPs. KMS care was also found to be more flexible than mainstream services and offered better continuity of care. A further evaluation is currently underway.

The department plans to expand the program by adding two sites in 2011–12.

Healthy Mothers, Healthy Babies

The Healthy Mothers, Healthy Babies program aims to improve the health of disadvantaged or vulnerable pregnant women by supporting access to antenatal and postnatal care. It runs in eight local government areas in metropolitan Melbourne that have high numbers of births, higher rates of socio-economic disadvantage and fewer services.

Clinicians including midwives, work through local community health services, which allows them to refer women to resources such as counselling and allied health and dental services.

A 2011 evaluation found that the program was successful in supporting vulnerable women. Overall, it concluded that they had better mental and physical health.

Other statewide programs include:

- **Family and Reproductive Rights and Education Program** (FARREP)—the practice of female genital mutilation often impairs a woman's sexual and reproductive functions, causing serious complications in labour and delivery. FARREP supports changes in attitudes and better access to services, and builds health service capacity to respond to women and girls affected by or at risk of female genital mutilation.
- **Perinatal Emotional Health Program**—provides early assessment, support and referral of pregnant women in rural and regional Victoria at risk of perinatal mental health problems.
- **Women's Alcohol and Drug Service**—treats women needing intensive pregnancy care due to drug or alcohol problems. It also educates professionals statewide and supports health professionals and service providers.

These programs are improving outcomes for women from vulnerable or disadvantaged populations.

4.4.2 Local programs targeting vulnerable women

A number of locally based initiatives in the audited hospitals are delivering targeted services to vulnerable women. Many of these programs have been running for long periods but have not had rigorous or systematic evaluations. As a result, health services cannot adequately assess their results against objectives.

The following are examples of local programs run by health services.

Figure 4C
Examples of targeted programs for vulnerable women

Program	Description
Transitions Clinic	The Transitions Clinic is a dedicated maternity clinic in metropolitan Melbourne for Aboriginal women, women with an Aboriginal partner, very young women and women with a chemical dependency. Established in 2000, the clinic consists of a small multidisciplinary team of a midwife, social worker, Aboriginal Health Liaison Officer and obstetrician, who provide continuity of care.
Maternity Outreach Support Service	The Maternity Outreach Support Service, also based in metropolitan Melbourne, targets women with a high-risk pregnancy and complex physical, psychiatric and intellectual care requirements. It also provides a continuity of midwifery care model to incarcerated pregnant women. Established in 1999, the Maternity Outreach Support Service provides multidisciplinary care to vulnerable women requiring intensive medical or obstetric care, psychiatric services, emotional support, social support and educational guidance throughout their pregnancies which is not able to be provided through mainstream care models.

Source: Victorian Auditor-General's Office.

Interpreter services

All audited services had difficulties finding accredited interpreters when needed. At times there were no interpreters available for the appointment and women either had to reschedule or make do with informal interpreting, usually from a relative, which is not desirable.

Health services had a number of strategies to improve access to interpreting services, such as clustering interpreter appointments and allocating dedicated clinic days and hospital tours with pre-booked interpreters.

Recommendations

4. That the Department of Health provides information in relevant community languages, made available through general practitioners and hospitals, that informs women on how to navigate the maternity system, the range of maternity services options and likely costs.
5. That the Department of Health requires health service to monitor and report their progress in improving continuity of care on an ongoing basis.
6. That health services systematically evaluate targeted programs for vulnerable women to assess whether they are meeting objectives.

Appendix A.

Audit Act 1994 section 16—submissions and comments

Introduction

In accordance with section 16(3) of the *Audit Act 1994* a copy of this report was provided to audited health services and the Department of Health with a request for submissions or comments.

The submissions and comments provided are not subject to audit nor the evidentiary standards required to reach an audit conclusion. Responsibility for the accuracy, fairness and balance of those comments rests solely with the agency head.

RESPONSE provided by the Secretary, Department of Health

Department of Health
Secretary

50 Lonsdale Street
Melbourne
Victoria 3000
GPO Box 4541
Melbourne
Victoria 3001
Telephone: 1300 253 942
Facsimile: 1300 253 964
www.health.vic.gov.au
DX 210311

, 5 OCT 2011

RECEIVED
05 OCT 2011
VICTORIAN AUDITOR-GENERAL'S OFFICE

e2471365

Mr Des Pearson
Auditor-General
Victorian Auditor-General's Office
Level 24, 35 Collins Street
MELBOURNE VIC 3000

Dear Mr Pearson

Thank you for your letter dated 20 September 2011 enclosing the proposed report on *Maternity services: Capacity*.

Consistent with section 16(3) of the *Audit Act 1994*, please find attached the Department of Health's response for inclusion in the report.

Yours sincerely

FRAN THORN
Secretary

Enc
cc: Renee Cassidy, Acting Director, Victorian Auditor-General's Office

State Government Victoria

RESPONSE provided by the Secretary, Department of Health – continued

Department of Health response to recommendations provided to the department in the performance audit report on the capacity of maternity services in Victoria.

General

Maternity services are an important component of the Victorian public health system. Over 52,000 women access birthing services at a Victorian public hospital each year. Public maternity services also provide care to women before and after the birth of their baby through hospital based clinics and in the community.

Victoria's public maternity services experienced an unexpected increase in maternity demand between 2004 and 2007, with the number of births in Victorian public hospitals increasing from 44,032 babies born in 2003-04 to 50,148 in 2007-08.

Births at public hospitals in Victoria continue to increase and the department acknowledges that planning is critical to the provision of effective and accessible maternity services.

Since the commencement of the audit, the Government has released the *Victorian Health Priorities Framework 2012-2022* (VHPF). This document sets out the Government's and department's priorities to develop more sophisticated planning approaches and tools to deliver a system that is responsive to people's needs. These include:

- Area-based planning: Planning services based on geographic boundaries and local population health needs.
- Guidelines and principles for all levels of planning, from statewide to regional to sub-regional to local level, across the care continuum.
- Definitions of the role and scope of services across the care continuum.
- Service capability frameworks that provide definitions for minimum standards, workforce skills, and service arrangements to ensure safe, sustainable and effective health services. Service capability frameworks will also guide planning for new services or growth in existing services.
- A service-planning and asset development management framework that establishes principles and criteria for prioritising investments.
- Analysis of up-to-date and correct population statistics that is summarised and distributed to the Victorian health sector to inform planning.

The VHPF is expected to guide future improvements to the department's planning approaches.

The audit has highlighted to the department areas where improvements should be made towards enhancing the capacity of maternity services in Victoria. Where the audit recommendations align with the priorities outlined in the VHPF, these will be considered as part of the implementation process.

RESPONSE provided by the Secretary, Department of Health – continued

Recommendations

Recommendation 1: That the Department of Health improve its understanding and planning of maternity services by:

- *routinely measuring and monitoring maternity service capacity*
- *documenting a work plan for the Capability Framework for Victorian Maternity and Newborn Services which clearly articulates how it will address gaps and issues identified*
- *establishing an advisory committee with external health sector and consumer representatives to provide strategic system-wide planning advice.*

Partially Accepted.

The department views the provision of health services from a system wide perspective. Whilst the department monitors access and demand to maternity services, health services are responsible for managing and monitoring capacity.

Recommendation 2: That the Department of Health focus on improving access to maternity services in growth areas.

Accepted.

The department notes that access to maternity services is an issue in certain growth areas. The department has identified that additional birthing capacity is likely to be required in the future at one of the audited hospitals. This is currently being considered as part of the proposed capital developments at the site.

Recommendation 3: That the Department of Health prioritise its work with the Commonwealth to improve access to antenatal care.

Accepted.

Recommendation 4: That the Department of Health provide information in relevant community languages, made available through general practitioners and hospitals, that informs women on how to navigate the maternity system, the range of maternity services options and likely costs.

Partially accepted.

The department will work with health services and the Commonwealth Government to develop appropriate information for women on access and choices in maternity care. The department has concerns in regard to specifying the likely costs of care as these vary between health services and the model of care however it considers it important that women are informed of the likely points of care where they may be required to pay for services.

Recommendation 5: That the Department of Health require health services to monitor and report their progress in improving continuity of care on an ongoing basis.

Accepted.

Since the release of *Future directions for Victoria's maternity services* in 2004, health services have undertaken to implement the department's policy directions to improve continuity of care to women. This is evidenced through positive feedback from consumers and improvements in the proportion of women reporting through the *Victorian Patient Satisfaction Monitor* that they received care during labour, birth and the postnatal period from midwives they had met during their pregnancy.

Auditor-General's reports

Reports tabled during 2011–12

Report title	Date tabled
Biotechnology in Victoria: the Public Sector's Investment (2011–12:1)	August 2011
Developing Cycling as a Safe and Appealing Mode of Transport (2011–12:2)	August 2011
Road Safety Camera Program (2011–12:3)	August 2011
Business Planning for Major Capital Works and Recurrent Services in Local Government (2011–12:4)	September 2011
Individualised Funding for Disability Services (2011–12:5)	September 2011
Supporting Changes in Farming Practices: Sustainable Irrigation (2011–12:6)	October 2011

VAGO's website at www.audit.vic.gov.au contains a comprehensive list of all reports issued by VAGO. The full text of the reports issued is available at the website.

VAGO

Victorian Auditor-General's Office

Auditing in the Public Interest

Availability of reports

Copies of all reports issued by the Victorian Auditor-General's Office are available from:

- Victorian Government Bookshop
  Level 20, 80 Collins Street
  Melbourne Vic. 3000
  AUSTRALIA

  Phone: 1300 366 356 (local call cost)
  Fax: +61 3 9603 9920
  Email: bookshop@dbi.vic.gov.au
  Website: www.bookshop.vic.gov.au

- Victorian Auditor-General's Office
  Level 24, 35 Collins Street
  Melbourne Vic. 3000
  AUSTRALIA

  Phone: +61 3 8601 7000
  Fax: +61 3 8601 7010
  Email: comments@audit.vic.gov.au
  Website: www.audit.vic.gov.au