

7 30.4% 32.0% 35.7% 25.0% 28.0% 33.0% 31.4%  
 1.0 1.5 4.0 4.2 10.2 1.0 (1.37-2.20)

5 21.7% 25.0% 12.2% 45.0% 14.3% 23.5%  
 0.4 1.4 1.4 7.7 5.1 1.3 1.51  
 (1.13-1.89)

8 33% 30% 42% 23% 42% 43% 35.9%  
 1.9 1.7 1.3 5.4 9.1 1.3 (1.75-2.62)

1 1.5% 1.2% 2.0% 1.2% 1.2% 1.2% 1.76  
 1.0 1.1 0.9 0.8 1.3 1.3 (0.42-0.57)

1.2 1.8 2.2  
 1.1 1.1 0.9

# Measuring Maternity Care

The Final Set of Performance Indicators-2002

# MEASURING MATERNITY CARE

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## The Final Set of Performance Indicators-2002

This is the second of a two-part report detailing the development of performance indicators for the State's maternity services.

# ACKNOWLEDGEMENTS

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In 2001, the Royal Women's Hospital was contracted by the Department of Human Services Victoria as the lead agency to develop a set of performance indicators for the State's maternity services. This report documents the trial of four of the nine recommended indicators. The trial was designed and conducted on behalf of the Department of Human Services by the Royal Women's Hospital between October 2001 and April 2002.

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The Project Team would like to thank the six trial site hospitals for their enthusiastic participation. This helped the trial achieve far beyond its objectives.

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The Project Team would also like to thank the staff of the Perinatal Data Collection Unit, QUIT Victoria and Dr Robin Bell from the Department of Perinatal Medicine at the Royal Women's Hospital.

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APPENDIX 1	TRIAL SITE DESCRIPTION OF MATERNITY SERVICES.
APPENDIX 2	TRIAL SITE REPORTS.
APPENDIX 3	TEMPLATE FOR REPORTING.
APPENDIX 4	ASSESSMENT TOOL FOR SMOKING.
APPENDIX 5	PROCESS FOR ASSESSING INTERPRETER REQUIREMENTS.



## SECTION 1

# THE TRIAL OF FOUR INDICATORS FOR THE STATE'S MATERNITY SERVICES





## Background

In 2001, the Victorian Government Report, *Measuring Maternity Care*, commissioned by the Department of Human Services (DHS), recommended that a set of performance indicators be implemented throughout the State's maternity services. The nine recommended indicators form one part of the Department's Acute Health Performance Indicator Strategy for Victoria. The indicators span a range of domains of care and address both process and outcome measures for the three phases of maternity care.

The Maternity Services Indicator Program aims to improve the hospitals' accountability for the quality of care. Implementing the indicators is expected to:

- Enable comparisons about performance.
- Promote discussion between hospitals about performance against the indicators.
- Promote discussion about what level of performance should be achieved in a given area.
- Promote discussion and shared learning about how to improve the quality of maternity care generally (Department of Human Services, 2001: 18).

The nine recommended indicators are:

- Outcomes for standard primiparae.
- The rate of term infants transferred or admitted to special care nursery (SCN) or neonatal intensive care unit (NICU) for reasons other than birth defect.
- The rate of administration of antenatal corticosteroids to women delivered or transferred before 34 weeks' gestation.
- The rate of vaginal birth for women in the birth immediately following a primary caesarean section.
- Standardised perinatal mortality ratio.
- The proportion of women offered appropriate interventions in relation to smoking.
- The provision of appropriate breastfeeding support and advice.
- The proportion of women who receive timely hospital antenatal clinical services.
- The proportion of women from a non-English speaking background (NESB) without proficiency in English who receive appropriate interpreter services.

## The trial of four indicators

*Measuring Maternity Care* acknowledged that implementing four of the nine indicators would require changes in service design or the design of specific audit systems. Some information could only be collected after hospital information systems were adapted. Consequently, the report recommended trialing these four indicators in several hospitals before implementing the complete set of nine indicators across all hospitals.

The four indicators trialed were those related to smoking, breastfeeding support, the timeliness of antenatal services and the use of interpreters for NESB women. The Royal Women's Hospital (RWH), the leading member of the group that developed the indicator set, trialed the indicators in a range of maternity settings from October 2001 to April 2002.

This Report is structured as follows:

Section 1 – A description of the trial.

Section 2 – Trial findings including recommendations.

Section 3 – The Final Set of maternity performance indicator statements for Victoria.

Section 4 – A template for reporting.

Appendices are available on the Department of Human Services, Victoria website at: <http://www.dhs.vic.gov.au/ahs/quality/effect.htm>

## The sites

All acute Victorian hospitals with maternity services were invited to participate. Six sites were selected, each of which met the following criteria:

- Executive level support.
- An identified person responsible for collection and reporting.
- An identified group of people in the hospital who could verify the accuracy of data, interpret their meaning and comment on them.
- A manual and/or automated data system.
- Experience of collecting and reporting on indicators.
- Participation in the Maternity Performance Indicator Project consultation.
- Relevant pre-existing resources, for example, QUIT.

All levels of perinatal care were represented. Community hospitals offer Level 1 care for uncomplicated and low-risk pregnancies and normal babies. These hospitals are able to identify the degree of risk and, where necessary, arrange transfer to a higher service level. Level 2 hospitals provide both Level 1 services and diagnose and treat some at-risk pregnant women and sick infants, but do not have neonatal intensive care services. Level 3 hospitals provide, in addition to Level 1 and 2 services, obstetric and neonatal intensive care, and a broad range of other specialist services (Health Department of Victoria, 1990).

The trial sites were:

### LEVEL 3

Mercy Hospital for Women.  
The Royal Women's Hospital (RWH).

### LEVEL 2

Goulburn Valley Health.  
Sunshine Hospital (Western Health).

### LEVEL 1

Bairnsdale Regional Health Service.  
Echuca Regional Health.

Appendix 1 provides a description of maternity services at each site.

Level 1 hospitals have contact with most women at hospital booking during the first trimester. The hospitals also have contact with some women at:

- Antenatal assessments in conjunction with GPs, at midwives' clinics, or in outreach programs for isolated areas.
- Childbirth education/classes.
- Discussion of birth plan during third trimester.

As the provision of antenatal care was necessary to be able to implement the indicators on NESB and waiting times, the two Level 1 hospitals did not trial these indicators.

**LEVEL 2 HOSPITALS** have contact with all women at antenatal clinic. Women using shared care attend the hospital for booking and one other assessment.

**LEVEL 3 HOSPITALS** have contact with all women at antenatal clinic. Women using shared care attend for booking, 28 weeks' gestation pre-admission assessment, 36 weeks' gestation and, where relevant, 41 weeks' gestation.

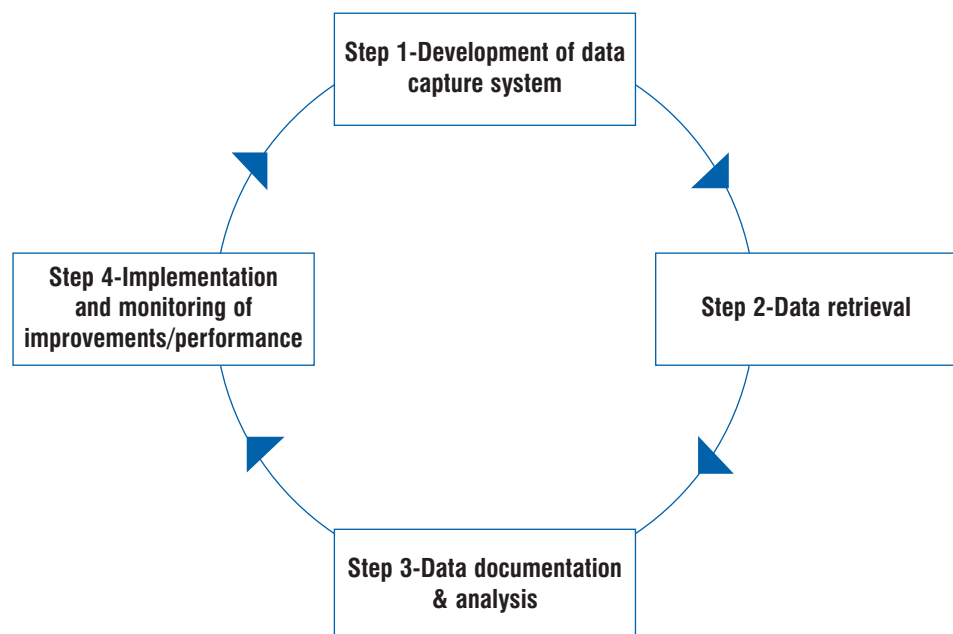
## Trial design

Given the differences between trial sites in resources and service levels, it was critical that the Project Team provide opportunities for the sites to discuss the implementation of the indicators. An initial face-to-face workshop was conducted with the sites, the Project Team and DHS. Regular teleconferences were also held between the Project Team and the sites. Sites also submitted monthly reports to the Project Team (Appendix 2 provides a summary of all monthly site reports). These reports identified:

- What made it **easy** to implement the indicators.
- The **difficulties** anticipated or encountered.
- The **strategies** used.
- **Results** for each indicator.
- **Improvements** initiated.

The trial applied a four-stage process of indicator implementation, depicted in Figure 1.

Figure 1 – Process for implementing the indicators





## SECTION 2

## TRIAL FINDINGS

7	32	18	10	4	80
30.4%	32.0%	36.7%	25.0%	28.8%	33.8%
0.59	1.55	4.02	4.28	10.20	1.30
5	29	6	18	2	36
21.7%	29.0%	12.2%	45.0%	14.3%	23.8%
0.42	1.40	1.34	7.71	5.10	1.30
10	36	24	12	6	88
43.5%	36.0%	49.0%	30.0%	42.9%	40.3%
0.84	1.74	5.36	5.14	15.31	2.30
1	3	1	0	2	4
4.3%	3.0%	2.0%	0.0%	14.3%	2.7%
0.08	0.15	0.22	0.00	5.10	0.16
			11		(0.05-
					100%
				14	100



## General findings

The hospitals best able to negotiate and implement change seemed to gain most from the trial.

A critical early factor was the support of hospital executive, clinical leaders and midwives. Midwives were most likely to be responsible for the data and for generating reports for the DHS. Having a midwife lead the monitoring and reporting of performance indicators was a key to success.

Events outside the control of the Project Team affected the trial. One site was involved in a major organisational restructure. This resulted in repeated changes of trial management personnel, leading to discontinuity in knowledge of the trial and the indicators. At this site, at times it was unclear which department was responsible for the implementation of the trial or, in the long term, the maternity performance indicators (MPIs).

Most sites established teams or working groups to steer the implementation of the indicators. Some included MPIs on the agenda of the hospital's Quality Committee. One hospital documented a Policy and Procedure specifically for Maternity Performance Indicators.

The trial required sites to examine current systems and processes around the four MPIs. Where it was not possible to record or retrieve data, sites modified systems and processes. For example, with the indicator on smoking, Level 1 hospitals were required to negotiate the retrieval of data recorded by community-based providers (general practitioners) in the antenatal phase.

Level 1 and 2 sites noted the key to success was the enthusiasm of midwives, and the willingness of general practitioners (GPs) and clinicians to use indicators in daily practice. These hospitals drew on small teams of midwives to record data, required minimal education and found it relatively easy to achieve consistent recording.

The accurate recording of data is essential for calculating performance indicators. Poor recording processes will produce inaccuracies. This occurred when staff were not adequately briefed on the intent of the indicator, the data elements and/or the calculation formula. One site did not realise its recording processes for NESB women were inadequate until the final results were found to be inaccurate.

Level 2 and 3 sites with electronic information systems and interlinking databases were better able to capture and retrieve data. Sites with established systems or processes for recording data related to these MPIs were also at an advantage. They found minimal time was required to modify existing recording systems and educate staff.

The four indicators largely relied on manual systems to record and retrieve data. When all indicators are implemented, smaller hospitals reliant on manual recording, retrieval and analysis of data can be expected to encounter resourcing issues.

Some sites reported clinician reluctance as a key problem. This may be due in part to the:

- Trial of only four of the MPIs.
- The absence to date of a formal communication by DHS on the indicators.
- Expected increased resource requirements.
- The possibility that the final set of MPIs might change.

At both Level 3 sites clinicians decided to implement the *Three Centres Consensus Guidelines on Antenatal Care* (March 2002) before collecting data or trialling the MPI for smoking. However, one Level 2 site did not see the release of the guidelines as an impediment and enthusiastically trialled the smoking indicator. This notable contrast in approach may reflect differences in the complexity of each organisation's stakeholder groups, or the organisations' flexibility and capacity to change clinical practice.

A significant concern was the need for sites to apply the calculation formulae as documented in *Measuring Maternity Care*. Sites were inclined to vary the numerator and denominator as they saw fit and in accord with their particular circumstances. A state-wide set of performance indicators will be rendered meaningless if the calculation formula is applied differently from hospital to hospital. In the case of the indicator for smoking, for example, sites challenged the application of the indicator prior to or by 20 weeks' gestation. Sites attempted to adjust the calculation formula to suit the available data or to suit their preferred system for data collection. Some sites submitted incomplete data as a result of not following the calculation process to derive a percentage. For example, one site provided comprehensive data for each of the indicators, but did not apply the calculation formula as documented in the indicator statements. The comprehensive data might be useful at a local level but does not supply indicator data required by the DHS.

It became clear that sites would benefit from a standardised framework for reporting to the DHS. Accordingly, the Project Team developed a template for reporting of each indicator (Appendix 3).

# The proportion of women offered appropriate interventions in relation to smoking

## SUMMARY

The implementation of this indicator depended on clinician support and the availability of QUIT resources. At those sites where key clinicians and nurse leaders supported the trial, the indicator was readily collected and reported on, and changes in service delivery were made easily. As stated previously, Level 1 and 2 sites found clinicians strongly supported this indicator, while Level 3 sites were reported as considering the trial of the indicator prior to the release of the *Three Centres Consensus Guidelines on Antenatal Care* as a reason for not trialing the indicator.

Due to the trial timeframe of seven months, sites were required to retrieve data in ways that differed from the "Data Source" outlined in *Measuring Maternity Care* (Department of Human Services, 2001: 68).

The smoking indicator requires information to be recorded at two points. Data on smoking assessment and advice is recorded at the first antenatal appointment, which generally occurs at booking, by the 12th week of gestation. There were no difficulties with this. More problematic was the requirement for hospitals to record data on smoking assessment and advice at a subsequent antenatal appointment before 20 weeks' gestation. This is because hospitals vary the timing of antenatal appointments, and because some care is offered by community-based providers such as GPs and community clinics. Sites were keen to change the week at which reassessment would take place to suit their usual routine.

However, evidence about the effectiveness of smoking interventions during pregnancy has found that the best outcome, in terms of babies' birthweight, is achieved if the mother quits by 16 weeks (MacArthur and Knox, 1988). If women are reassessed as late as 28 weeks, it is less likely that the two interventions will be provided early. Assessment by 20 weeks will ensure that the second intervention is provided at the second antenatal visit, optimising early quitting. The Project Team therefore strongly supports the reassessment of smoking between 16 and 20 weeks.

## WHAT MADE IMPLEMENTATION EASY?

- Alignment with the *Three Centres Consensus Guidelines on Antenatal Care*.
- A small and cohesive team of clinicians.
- Formal clinician education.
- Established practice of asking women about smoking.
- A point at which the initial assessment could be conducted.
- Established practice of midwives interviewing women attending the hospitals for their first visit ensuring the first assessment is completed, noted in the medical record and available for retrieval.

## WHAT MADE IMPLEMENTATION DIFFICULT?

- Limited awareness among some clinicians as to the evidence and the *Three Centres Consensus Guidelines* that support this MPI.
- Limited access to QUIT resources and on-site training.
- Inconsistencies in the way clinicians provide advice, information and recording of smoking assessment.
- Variation in the time of attendance of women for their first and subsequent visit.
- Where the 20 weeks' gestation antenatal assessment was conducted in the community, access to information was variable.
- Antenatal data was not available electronically at most hospitals and so required

time-consuming manual retrieval. Incomplete and inconsistent data recording limiting comparability of performance between hospitals or clinics.

### STRATEGIES TO ASSIST IMPLEMENTATION

- Meet with and brief key clinicians.
- Ensure evidence and the *Three Centres Consensus Guidelines* for smoking are available.
- Use QUIT resources and training.
- Provide each GP with a distinct folder (including QUIT information for women and the assessment tool) to help make implementation consistent.
- Incorporate the assessment tool into the existing antenatal recording, such as antenatal care plans and patient-held medical records. (Appendix 4 is an example "Assessment tool for smoking").
- Establish a routine of completing the initial assessment at hospital booking visit, ensuring this information is kept.
- Use flyers to remind clinicians to complete the assessment tool.
- Designate a person to do the manual retrieval and analysis of data.

# The provision of appropriate breastfeeding support and advice

## SUMMARY

The internationally accepted World Health Organisation (WHO) document *Ten Steps to Successful Breastfeeding* provides the framework for this MPI. The WHO assessment tool is available to hospitals for a nominal fee from the Australian College of Midwives Incorporated (ACMI). ACMI, which is responsible for the Baby Friendly Hospital Initiative (BFHI) program in Australia, also supports hospitals preparing for external assessment. For example, a BFHI project worker is available to provide onsite education, referral to BFHI educators and assessors for pre-assessment consultation, and information about preparing for accreditation. But implementation of this indicator does not require hospitals to become accredited as Baby Friendly, nor does it equate with accreditation. This indicator requires sites to undertake an organisational assessment; those that score 10/10 are considered to be applying best practice (Department of Human Services, 2001: 70).

Overall, sites did not experience significant problems with this indicator. The tool was widely accepted by midwives, who found it easy to access.

Trial sites that were already accredited saw the indicators as a way of monitoring compliance with WHO's *Ten Steps*. Those hospitals not accredited used the indicator to assess readiness for accreditation.

One site was able to provide data readily because it had an electronic database for Baby Friendly information. Another site found the manual audit process slow and labour-intensive and is now investigating whether to set up an electronic database.

## WHAT MADE IMPLEMENTATION EASY?

- Trial site familiarity with the:
  - Internal and external assessments.
  - Requirements for an organisation to meet the *Ten Steps to Successful Breastfeeding*.
  - Current evidence and requirements for women regarding breastfeeding knowledge and practices.
- The support of clinical staff.
- Established systems such as a breastfeeding committee to ensure ongoing compliance with accreditation requirements, including the review of relevant procedures and documentation.
- For one site, retrieval of data was easy because of an extra page on its electronic database to record infant feeding information on hospital discharge. Definitions were clarified with ACMI to ensure the statistical data complied with BFHI requirements.

## WHAT DIFFICULTIES WERE ENCOUNTERED?

- Data were not available electronically at most trial sites and had to be retrieved manually. This was time-consuming and resulted in either incomplete data or data that was inconsistent within or between hospitals.
- Doctors were sceptical about whether this indicator would lead to improvement.

## STRATEGIES TO ASSIST IMPLEMENTATION

- Hospitals set up new systems to help complete the annual self-assessment and monthly data review.
- A person or team designated to retrieve and analyse data, ensuring greater accuracy and consistency.
- Results reported to staff to increase their awareness of breastfeeding practices.

# The proportion of women who receive timely hospital antenatal clinical services

## SUMMARY

As antenatal care in rural areas is provided in community settings, this indicator was trialled at Level 2 and 3 trial sites only.

Although this indicator could be seen as a device for focusing on poor performance in under-resourced areas, clinicians at two sites were keen to participate. One site was keen to show its high standard for this indicator. This suggests that many hospitals are attuned to patients' preference for timely services and are already trying to streamline outpatient appointment systems.

The accuracy of data for this MPI depends on clarity and consistency in data recording at two time points: actual appointment time and consultation commencement time. Some sites applied this indicator to all clinics, and others applied it to select clinics. Sites also varied in how long they recorded the data for; data was captured by one hospital for two weeks and at another site for one month. As a result, the calculation formula now specifies a data collection timeframe. Sites are now also required to collect data on patients' late arrivals to the antenatal appointment.

Although both Level 2 hospitals had electronic data systems, neither captured the data required for the trial. Both these sites implemented a simple manual data recording process. One of these sites had to link data from its electronic and manual systems. Data collection and analysis were found by sites to be time-consuming. Ongoing application of this MPI will require improvements to hospitals' information systems.

At one site, the trial of this indicator led to a review of clinic attendance by clinicians and resulted in reduced waiting time for patients.

## WHAT MADE IMPLEMENTATION EASY?

- A small and cohesive group of clinicians involved in antenatal care.
- A finite period being set for data collection.
- Minor changes to existing data-recording processes.
- A time element on the appointment slip attached to the medical record, allowing staff to record how long a woman waited for her consultation.
- Completed data forms being returned to a specified "box" for collation.
- Electronic appointment systems and networked computers in each consulting room in the main antenatal clinics.
- A person designated for data retrieval.
- The assistance of information technology staff.
- An established process for regular reports on the indicator.

## WHAT WERE THE DIFFICULTIES?

- Variable compliance in the recording of data. Reasons for this included:
  - Human error, resulting in gaps.
  - Lower rates of compliance when the clinic was running late, as data recording was not considered a priority.
  - Clinician attitude.
  - Level of stress/pressure.
- Varying skill levels of entering information.
- "Late arrivals" were not factored into the calculation formula or listed as an exclusion in the MPI.

- Inadequacies in the electronic appointment system meant some appointments could not be tracked, or that there were difficulties cross-referencing where appointments were concurrent.
- Manual collation of data was time-consuming and meant data were more likely to be incomplete and might not be consistent within the hospital or between hospitals. One site had to collate electronically recorded appointment times and manually recorded (actual) consultation times.

### **STRATEGIES TO ASSIST IMPLEMENTATION**

- Clear accountability and management of antenatal clinics.
- Involvement of all clinic staff in data recording.
- Consistent data recording by clinicians.
- Minimal interruptions to clinics by ensuring other medical rosters were covered by doctors other than those involved in antenatal clinic.
- Educating staff before implementation and providing ongoing education to permanent, sessional and occasional staff.
- Use of “flyers” to remind clinicians to complete the trial information.
- Using the electronic system where it is available.
- Computer terminals in each consulting room to enable clinicians to record the starting time of the woman's consultation.
- Minor adjustments to the electronic appointment system to obtain data required by the calculation formula.
- Involvement of information technology and health information staff.
- Resources to analyse data and provide accurate information about waiting times.

# The proportion of women from a Non-English Speaking Background (NESB) without proficiency in English who receive appropriate interpreter services

## SUMMARY

For non-English-speaking women, the initial hospital contact is an important time to assess proficiency in English and arrange appropriate interpreting.

The trialing of this indicator, undertaken in Level 2 and 3 sites, identified inconsistent practices within and between sites in:

- Assessing women's needs.
- Recording women's interpreter requirements.
- Processes for booking interpreters.
- Recording interpreter presence at booked consultations.

This was compounded by the shortcomings of hospital information systems that use a combination of manual and electronic systems, and unlinked databases. This has implications for resourcing, data accuracy and benchmarking.

Due to the shortcomings of current information systems, hospitals appear unable to accurately identify the level of demand for interpreter services, limiting their capacity to advocate for increased DHS funding for interpreter services. The implementation of this indicator can be expected to provide a clearer understanding of the demand for interpreter services.

The definition of "proficiency in English" remains unresolved. Processes to assess a woman's need for an interpreter were discussed at length throughout the trial. Although one Level 2 site had a "Communication Assessment Tool", other sites considered self identification by women as to their interpreter requirements to be adequate. As a result of discussions with the trial sites, the Project Team documented a step-by-step process for hospitals to apply in assessing interpreter requirements (Appendix 5).

The trial resulted in adjustments to the calculation formula, separating the data elements relating to the assessment of women and the time frame for data retrieval.

## WHAT MADE IMPLEMENTATION EASY?

- The support of interpreters and outpatient clerical staff.
- All clerical and clinical staff complying with data recording.
- The inclusion of mandatory fields for "Language Required" and "Interpreter required and booked" in the patient registration database.
- Women being asked to indicate the language they speak at home and whether they require an interpreter at the point of registration.
- Clinic staff making an appropriate referral and recording the booking of an interpreter for the next visit.
- The capacity to capture and link the various data elements of the calculation formula. Data retrieved included the identification of women who require an interpreter linked to:
  - The type of interpreter required.
  - Time and date of referral.
  - Visit schedule.
  - Actual attendance of an interpreter.

## WHAT DIFFICULTIES WERE ENCOUNTERED?

- No agreed definition of “proficiency in English”.
- Interpreting needs not communicated at initial contact.
- Difficulties in the process of providing interpreters due to:
  - Clinician decision not to use an interpreter.
  - Use of a family member or friend to interpret at appointments.
  - Lack of availability of female interpreters.
  - Lack of appropriately qualified interpreters.
  - Limited DHS designated funding.
  - Inability of interpreter to wait for the consultation to start, due either to:
    - waiting times or other demands on the interpreter’s time, or
    - limited staff awareness of how to access interpreters.

## STRATEGIES TO ASSIST IMPLEMENTATION

- Education of all staff who have initial contact with women attending the hospital, including clerks, midwives and doctors.
- Identification of interpreting needs by women, at the point of registration.
- A system (either manual or electronic) to record at booking:
  - women who require an interpreter (time and mode of access to
  - interpreter services – telephone/agency/inhouse).
  - interpreter use (women seen, date and time).
  - use of Level 3 accredited interpreters.
- Procedures to ensure accurate data entry.
- Commitment to identify and address gaps in assessment and documentation.
- The assistance of information technology expertise to establish data links and obtain required data.

# Recommendations for Implementation in all Victorian Maternity Hospitals

## Recommendations to DHS

### GENERAL

1. DHS promote and increase the awareness of both the report *Measuring Maternity Care* and this report. The DHS should inform hospitals providing maternity services of the need to implement the nine Maternity Performance Indicators (MPIs). Key audience(s) include:
  - Chief Executive Officer (CEO), Director of Nursing (DON) and Medical Directors of each hospital.
  - Chair and members of hospital Quality Committees.
  - Representatives of the RANZCOG and ACMI.
  - Obstetricians and maternity service Unit Managers.
  - General Practitioners involved in maternity care.
  - Health Information staff.
  - Representatives of the Perinatal Data Collection Unit.
2. DHS consider and develop a policy on the application of penalties and/or bonuses in relation to each indicator.
3. DHS communicate its timeframe for hospitals to implement the MPIs by incorporating dates for reporting in the Business Rules for Funding Agreement.
4. DHS identify a nominated person responsible for liaison with hospitals in relation to the MPIs.
5. All recommendations arising from this report relating to electronic information systems should be referred to the Maternity Services Advisory Committee – Data Subcommittee.

### THE INDICATORS

6. DHS Quality and Care Continuity Branch, in partnership with the Department's Public Health Branch, meet with QUIT personnel to develop a way of ensuring appropriate training and resources are provided through the QUIT program.
7. DHS explore current information systems that may be able to automate data capture for the MPIs.
8. The assessment for the MPI on smoking should be incorporated in any future review or development of a patient-held medical record at either local or State level. (Appendix 4 is an example "Assessment tool for smoking").
9. DHS continue to develop strategies for ensuring that hospitals' information systems can uniformly collect performance indicator data.
10. DHS promote the availability and accessibility of the Baby Friendly Hospitals Initiative kit from ACMI.
11. DHS consider the application to non-maternity hospitals of an indicator for hospital clinic waiting times.
12. DHS consider the application to non-maternity hospitals of an indicator measuring access to interpreter services by NESB patients.
13. On the basis of data collected for this MPI over 12 months, DHS, in partnership with maternity hospitals, review the funding of interpreting services in light of the level of demand.

# Recommendations to Hospitals

## GENERAL

14. In reporting to DHS, hospitals use the template for reporting located in Appendix 3. Reports should include the process for data review and validation at a local level. The report should also include verification and approval for data to be released by an authorised hospital clinician or executive.
15. Hospitals use Quality Committee structures to oversee the implementation of MPIs. Implementation of each indicator will require the recording, retrieval and analysis of data, appropriate recommendations for improvements for each indicator, and a process for reporting to DHS.
16. Hospitals consider systematically incorporating the requirement for staff to implement, monitor and improve performance in relation to the MPIs. For example, achievement could be included as part of performance appraisal.
17. Hospitals ensure that DHS funding for information systems is made available for collecting MPI data.
18. Hospitals consider automated data capture and retrieval of all MPIs.
19. Hospitals should record, retrieve and analyse data according to the refined Calculation Formula of each indicator.
20. Hospitals should apply the MPI (Calculation Formulae) numerator and denominator as detailed in the template for reporting.

## THE INDICATORS

21. Hospitals set up systems capable of recording data on smoking assessment and advice at the last antenatal appointment before 20 weeks' gestation. This may require collaboration with community-based providers, including shared documentation systems.
22. Hospitals ensure clinicians have access to ongoing education on MPI implementation.
23. Hospitals ensure the "Process for assessing interpreter requirements", as recommended in Appendix 5, is incorporated in the first contact of a patient with the hospital (for consistency of assessment across the health-care sector).
24. Hospitals incorporate the "Process for assessing interpreter requirements" as a mandatory field on the patient registration database.
25. Hospitals provide ongoing training for staff to reinforce the importance of accurate data entry.
26. Hospitals establish a central database of requests for and use of interpreters for access by clinicians, clerical staff, interpreters and health information staff.
27. Hospitals ensure medical staff receive information stressing the importance of using the booked interpreters appropriately and the medico-legal implications of not using an accredited interpreter.

## Refinement of the Indicators

28. All hospitals to collect data for each of the nine MPIs for the same time period.  
For example, the indicator for timely hospital antenatal clinical services:

**Frequency of data collection and review:** Six-monthly for a one month period for the months of February and August. These months are recommended because they have no public holidays and no predictable conflicts.

### MAT-7 THE PROPORTION OF WOMEN OFFERED APPROPRIATE INTERVENTIONS IN RELATION TO SMOKING

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29. The **Data Source** be rewritten to ensure smoking assessments during the antenatal phase are captured.

Hospitals will need to have a system capable of recording smoking assessments and advice at the first hospital appointment and at the subsequent antenatal appointments. This may require collaboration with community-based providers, including shared documentation systems. An example Assessment Tool for smoking is located in Appendix 4.

30. The **Data Source** include a process to ensure retrieval of relevant data.

**Identify the total population:** women who had their first antenatal visit at the hospital and subsequently gave birth at the hospital within the last six months.

**Identify the population sample:** every fourth woman listed in the total population (ie 25%).

**Audit hospital antenatal medical record of those women in the population sample:**

- For evidence that clinicians have completed Steps 1, 2, 3 and 4 according to the *Three Centres Consensus Guidelines on Antenatal Care*.
- Of the women who have had Steps 1, 2, 3 and 4 completed at the first visit, note those women identified as smokers (see definition), including spontaneous quitters (see definition).
- For evidence that women identified as smokers (including spontaneous quitters) at the first antenatal visit who were reassessed regarding smoking status at least once before 20 weeks' gestation.

**Frequency of data collection and review:** six-monthly.

31. **Calculation Formulae** be rewritten to clarify the population sample:

**Ask/Assess/Advise/Assist**

**Numerator:** For the population sample, the number of women who were asked about smoking status, assessed as to motivation to quit and offered advice and assistance at the first hospital antenatal appointment.

**Denominator:** The population sample (every fourth woman who had their first antenatal visit at the hospital and subsequently gave birth at the hospital within the last six months).

**Ask again**

**Numerator:** For the population sample, the number of women identified as smokers (including spontaneous quitters) at the first hospital antenatal appointment who were asked again about smoking status by 20 weeks' gestation.

**Denominator:** For the population sample, the number of women who attended an antenatal visit by 20 weeks' gestation (either hospital or community) and who had been identified as smokers (including spontaneous quitters) at the first hospital antenatal appointment.

32. Assessment and advice regarding smoking be undertaken within the usual antenatal care processes of the maternity service, involving both hospital and community-based providers.

## MAT-8 THE PROVISION OF APPROPRIATE BREASTFEEDING SUPPORT AND ADVICE

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### 33. Clarification of the intention of this indicator by including the following in the **Purpose and Rationale:**

The indicator supports care practices for women who wish to breastfeed their baby to ensure:

- Breastfeeding initiation is enhanced.
- Breastfeeding advice and support is in line with WHO's *Ten Steps to Successful Breastfeeding*.
- Babies separated from their mothers (due to illness/prematurity) receive breast milk.

This indicator provides a means of monitoring ongoing compliance with WHO's *Ten Steps* for Baby Friendly accredited hospitals. Alternatively, it can be used as an opportunity to assess readiness for accreditation.

The implementation of this indicator does not require hospitals to become accredited as Baby Friendly Hospitals, nor does it equate with accreditation.

## MAT-9 THE PROPORTION OF WOMEN WHO RECEIVE TIMELY HOSPITAL ANTENATAL CLINICAL SERVICES

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### 34. **Calculation Formula** be refined to clarify the two points at which data must be recorded – actual appointment time and consultation commencement time. The formula should also be refined to ensure consistency in the time period for which data is collected:

**Numerator:** For the period of one month, the number of women waiting more than 30 minutes from hospital antenatal appointment time to the time clinician consultation begins.

**Denominator:** For the period of one month, the number of women presenting for hospital antenatal appointment.

### 35. **Data Source** be rewritten to clarify that the indicator be applied to all antenatal clinics for the same time period. These months are recommended as they contain no public holidays and no predictable conflicts.

Data to be collected for all clinics providing antenatal care.

**Frequency of data collection and review:** Six-monthly for a one month period for the months of February and August.

### 36. **Exclusions** be amended to include:

Women who arrive after their appointment time. This figure should be reported and monitored.

**MAT-10 THE PROPORTION OF WOMEN FROM A NON-ENGLISH SPEAKING BACKGROUND (NESB) WITHOUT PROFICIENCY IN ENGLISH WHO RECEIVE APPROPRIATE INTERPRETER SERVICES**

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37. The “Process for assessing interpreter requirements” (Appendix 5) should be incorporated in the **Definition of Key data Elements** for this MPI.
38. **Calculation Formulae** should be rewritten to ensure processes for assessing and providing accredited interpreter services for antenatal women and to incorporate a time period for which data are to be collected.

**Assess interpreter requirements**

**Numerator:** For the period of one month, the number of women presenting for hospital antenatal appointment who have had interpreter requirements assessed.

**Denominator:** For the period of one month, the total number of women presenting for hospital antenatal appointment.

**Provision of accredited interpreter services**

**Numerator:** For the period of one month, the number of women presenting for hospital antenatal appointment identified as requiring an interpreter and who receive accredited interpreter services.

**Denominator:** For the period of one month, the number of women presenting for hospital antenatal appointment identified as requiring accredited interpreter services.

39. The **Data Source** be rewritten to specify the duration of the data collection period:

**Frequency of data collection and review:** six-monthly for a one month period for the months of February and August.

## References

Department of Human Services. (2001) *Measuring Maternity Care*. Victorian Government Publishing Service.

Health Department of Victoria. (1990) *Having a Baby in Victoria: Final Report of the Ministerial Review of Birthing Services in Victoria*. Women’s Health Unit, Health Department of Victoria, Melbourne.

MacArthur C. and Knox E. (1988) Smoking in pregnancy: effects of stopping at different stages. *British Journal of Obstetrics and Gynaecology* 95: 551-555.

Mercy Hospital for Women, Southern Health and Women’s and Children’s Health. (2001) *Three Centres Consensus Guidelines on Antenatal Care Project*. Victorian Government Publishing Service.





This section details nine Maternity Performance Indicator statements.

Each statement is headed by one of five principles, which the Project Team recommends guide good maternity care. These principles were endorsed by consumers and clinicians consulted during the development of the indicators. The principles are:

- Maternity services provide optimal safety for women and their babies.
- Maternity services ensure early detection and appropriate intervention.
- Maternity services provide appropriate clinical care.
- Maternity services promote parenting confidence and optimal health of mothers and their babies.
- Maternity services respond to the needs of women and are customer-focused.

Each of the nine Maternity Performance Indicator statements includes:

- Key question.
- Calculation formula(e).
- Anticipated benefit.
- Description and type.
- Purpose and rationale.
- Evidence from the literature.
- References.
- Definition of key data elements.
- Data source (including frequency of data collection and review).
- Exclusions.
- Limitations.
- Analysis considerations.

The Final Set of indicator statements incorporates findings from the trial as well as recommendations arising from discussions with key experts.

## PRINCIPLE: MATERNITY SERVICES PROVIDE APPROPRIATE CLINICAL CARE

### MAT-1 OUTCOMES FOR STANDARD PRIMIPARAE

**KEY QUESTION** How does this hospital achieve outcomes for standard primiparae compared to the overall rates for standard primiparae in Victorian hospitals?

**CALCULATION** **Induction of labour**

**FORMULAE**

Numerator: The number of standard primiparae undergoing induction of labour.

Denominator: The number of standard primiparae who give birth.

**Caesarean section**

Numerator: The number of standard primiparae undergoing caesarean section.

Denominator: The number of standard primiparae who give birth.

**Perineal tear**

Numerator: The number of standard primiparae who sustain a third-degree or fourth-degree tear.

Denominator: The number of standard primiparae who give birth vaginally.

**ANTICIPATED** The standard primipara is, by definition, at low risk in labour, and intervention rates should accordingly be low in this group. While there is no “gold standard”, if a hospital had unusually high rates of intervention, this would require exploration and justification. Reducing unnecessary obstetrical intervention in this group means overall rates of obstetrical intervention will fall.

**BENEFIT**

**DESCRIPTION AND TYPE** These are outcome indicators.

**PURPOSE AND RATIONALE** Using the standard primipara (rather than all women giving birth) as the basis for internal hospital comparison of maternity care controls for substantial differences in case mix (pre risk-adjustment) and increases the validity of those comparisons.

A “cascade” effect of birthing interventions has been described, starting with induction of labour and progressing through augmentation and epidural anaesthesia to increased risk of operative vaginal delivery or caesarean section. This effect is greater for nulliparous women (women who have not given birth) (Dublin, et al, 2000). By reducing the number of nulliparous women who have induced labour, the number of women undergoing unnecessary operative birth and other interventions will be reduced.

**EVIDENCE FROM THE LITERATURE** Cohort studies (Level III-2) from the United Kingdom and United States have been published but, as with most qualitative studies, the usefulness of this indicator has not been assessed by comparing participating hospitals with controls.

There have been no controlled trials in which women without pre-defined clinical indication were randomised to induction or expectant management. The evidence for the “cascade” effect comes from consistent findings from retrospective analyses (Level III).

**REFERENCES** Cleary, R., Beard, R.W., Shapple, J., Coles, J., Griffin, M., Joffe, M., Welsh, A. (1996) 'The standard primipara as a basis for inter-unit comparisons of maternity care' in *British Journal of Obstetrics and Gynaecology* 103: 223-229.

Dublin, S., Lydon-Rochelle, M., Kaplan, R.C., Watts, D.H., Critchlow, C.W. (2000) 'Maternal and neonatal outcomes after induction of labor without an identified indication' in *American Journal of Obstetrics and Gynecology* 183(4): 986-994.

**DEFINITION OF KEY DATA ELEMENTS** Standard primipara  
20-34 years of age, baby not small for gestational age (SGA) (birth weight greater than 10th percentile), singleton pregnancy, at term (37-41 weeks' gestation), with a cephalic presentation and free of medical complications of pregnancy.

Third-degree tear  
Tear of the perineum into the anal sphincter that does not extend to the rectal mucosa.

Fourth-degree tear  
Tear of the perineum into the anal sphincter that extends to the rectal mucosa.

**DATA SOURCE** The Perinatal Data Collection Unit (PDCU) will collect data for this indicator and report back to hospitals.

**Frequency of data collection and review:** annual.

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**EXCLUSIONS** All women who do not fit definition of standard primipara (see definition).

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**LIMITATIONS** There may be subgroups within this population who, despite this risk-adjustment, still have an increased risk of intervention. This may need to be taken into account in comparisons.

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**ANALYSIS** Nil.

**CONSIDERATIONS**

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**PRINCIPLE: MATERNITY SERVICES PROVIDE OPTIMAL SAFETY FOR WOMEN AND THEIR BABIES**

**MAT-2 THE RATE OF TERM INFANTS TRANSFERRED OR ADMITTED TO SPECIAL CARE NURSERY (SCN) OR NEONATAL INTENSIVE CARE UNIT (NICU) FOR REASONS OTHER THAN BIRTH DEFECT**

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<b>KEY QUESTION</b>	Is the rate of admission of inborn term infants to special care nursery (SCN) or neonatal intensive care unit (NICU) for reasons other than birth defects principally due to non-avoidable factors?
<b>CALCULATION FORMULAE</b>	<p><b>Level 3 hospital</b></p> <p>Numerator: The number of inborn term infants admitted to its SCN or NICU, for reasons other than the management of birth defects.</p> <p>Denominator: The number of inborn term infants without major birth defect.</p> <p><b>Level 2 hospital</b></p> <p>Numerator: The number of inborn term infants admitted to its SCN or transferred to a NICU for reasons other than the management of birth defects.</p> <p>Denominator: The number of inborn term infants without major birth defect.</p> <p><b>Level 1 hospital</b></p> <p>Numerator: The number of inborn term infants transferred to a SCN or NICU for reasons other than the management of birth defects.</p> <p>Denominator: The number of inborn term infants without major birth defect.</p>
<b>ANTICIPATED BENEFIT</b>	For those institutions identified as having high rates of such admissions or transfers, practice improvements are required.
<b>DESCRIPTION AND TYPE</b>	This is a process indicator acting as a proxy for the quality of antenatal and perinatal care.
<b>PURPOSE AND RATIONALE</b>	<p>Inborn term infants without birth defects are not normally expected to be admitted to a SCN or NICU.</p> <p>The indicator focuses on unplanned admission of term infants (without a birth defect), resulting from adverse events occurring in labour or immediate neonatal period which require the facilities of SCN or NICU. This will include term infants with low five-minute Apgar scores, as well as those with birth trauma, early seizures/hypoxic ischaemic encephalopathy (HIE), intrauterine growth retardation (IUGR) and sepsis.</p> <p>This indicator will also highlight inappropriate use of resources.</p>
<b>REFERENCES</b>	<p>Australian Council of Healthcare Standards (2000c) <i>Determining the potential to improve the quality of care in health care organisations</i>. Health Services Research Group, University of Newcastle. ISBN 1 8 75544 90 9.</p> <p>Joint Commission on Accreditation in Healthcare Organisations (1992) <i>Development and application of indicators for continuous improvement in perinatal care</i>. ISBN 0 86688 281 2.</p>
<b>DEFINITION OF KEY DATA ELEMENTS</b>	<p>Major birth defects</p> <p>Includes birth defects as listed in table 26, page 12-17 of the report by Riley, M. and Halliday, J. (2000) <i>Birth Defects in Victoria 1983-1998</i>, Perinatal Data Collection Unit, Victorian Department of Human Services, Melbourne, (excluding items 7525, 75260/3-5, 75261, 75262, 75430, 7545-7).</p> <p>Inborn term infant</p> <p>Infant born at the reporting hospital, at gestational age of 37 weeks or more.</p>
<b>DATA SOURCE</b>	<p>Hospitals identify infants born at term (minimum 37 weeks' gestation) without birth defect and admitted or transferred to a SCN or NICU through in-house data or the Victorian Admitted Episodes Dataset (VAED). No additional data is required.</p> <p><b>Frequency of data collection and review:</b> quarterly.</p>
<b>EXCLUSIONS</b>	Infant born at another hospital.

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**LIMITATIONS** The rate of inborn term infants transferred to SCN or NICU (for reasons other than the management of birth defects) should be low. Comparison of rates between individual institutions and the State, when the number of births is small (as in most Level 1 units), will need to be made with caution. However, because such an admission is an indicator of concern for the process and the outcome of care, each case deserves review. The indicator will be a reminder of the importance of this.

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**ANALYSIS** As this indicator will capture data for quality of care and appropriateness of SCN admission, significant  
**CONSIDERATIONS** variations will require further analysis.

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**PRINCIPLE: MATERNITY SERVICES ENSURE EARLY DETECTION AND APPROPRIATE INTERVENTION**

**MAT-3 THE RATE OF ADMINISTRATION OF ANTENATAL CORTICOSTEROIDS TO WOMEN DELIVERED OR TRANSFERRED BEFORE 34 WEEKS' GESTATION**

**KEY QUESTION** Are women who give birth before 34 weeks' gestation receiving an antenatal course of corticosteroids?

**CALCULATION FORMULAE** **Level 1 and 2 hospitals**

Numerator: The number of women who are transferred to a Level 3 hospital prior to 34 weeks' gestation and have received an initial dose of corticosteroid.

Denominator: The total number of women who are transferred to a Level 3 hospital before 34 weeks' gestation.

**Level 3 hospital**

Numerator: The number of women who give birth between 25 and 34 weeks' gestation who have received an initial dose of corticosteroid (excluding transfers).

Denominator: The total number of women who give birth between 25 and 34 weeks' gestation (excluding transfers).

**ANTICIPATED BENEFIT** There will be an increase in the proportion of women who give birth before 34 weeks' gestation who have received a completed course of corticosteroids, thus improving their babies' outcome.

**DESCRIPTION AND TYPE** This is a process indicator measuring compliance with internationally accepted best practice.

**PURPOSE AND RATIONALE** In Victoria, a Level 1 or 2 maternity service should give a first dose of corticosteroids to women at risk of preterm birth, before they are transferred to a Level 3 hospital. A Level 3 hospital would ensure women at risk of preterm birth received a completed course of corticosteroids. However, it is recognised that some women will give birth before completing the course, and the numerator has been changed to take account of such cases.

The administration of a single course (two doses, 24 hours apart) of corticosteroids to such women has been shown to improve neonatal outcome significantly. There is Level I evidence that such treatment helps to mature the baby's lungs and prevent death. There are also demonstrated protective effects on other systems, such as reducing intraventricular haemorrhage.

Clinical and administrative managers are the users of this indicator.

**EVIDENCE FROM THE LITERATURE** The Cochrane Review identified 18 trials assessing the effects of corticosteroids administered to pregnant women to accelerate fetal lung maturity.  
Conclusion: A single course of corticosteroids given before preterm birth (as a result of either preterm labour or elective preterm birth) is effective in preventing respiratory distress syndrome and reducing neonatal mortality (Crowley, 2000).

**REFERENCES** Crowley, P. (2000) 'Prophylactic corticosteroids for preterm birth' (Cochrane Review). In: The Cochrane Library Issue 3. Oxford: Update Software.

**DEFINITION OF KEY DATA ELEMENTS** Corticosteroids.  
Intramuscular betamethasone.

**DATA SOURCE** Hospitals identify infants born between 25 and 34 weeks' gestation and audit relevant medication charts for corticosteroid administration.

**Frequency of data collection and review:** six-monthly.

**EXCLUSIONS** Women with contraindications to corticosteroid therapy.

Stillbirth.

Gestation at birth less than 25 weeks.

Gestation at birth 34 weeks or more.

**LIMITATIONS** This indicator increases hospitals' data-collection burden because medication charts will need to be reviewed. But the monitoring is justified because this is a robust proxy for evidence-based perinatal care.

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**ANALYSIS** Nil.

**CONSIDERATIONS**

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## PRINCIPLE: MATERNITY SERVICES PROVIDE APPROPRIATE CLINICAL CARE

### MAT-4 THE RATE OF VAGINAL BIRTH AMONGST WOMEN IN THE BIRTH IMMEDIATELY FOLLOWING A PRIMARY CAESAREAN SECTION

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**KEY QUESTION** Do maternity hospitals provide appropriate care for women with a previous primary caesarean section?

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**CALCULATION** **VBAC (Vaginal Birth After Caesarean) planned**

**FORMULAE**

Numerator: The number of women (para 1) whose previous birth was a caesarean section who enter labour at term with a plan for a vaginal birth.

Denominator: The total number of women (para 1) at term whose previous birth was a caesarean section.

**VBAC achieved**

Numerator: The number of women (para 1) whose previous birth was a caesarean section who enter labour at term with a plan to deliver vaginally and who achieve this.

Denominator: The total number of women (para 1) at term whose previous birth was a caesarean section and who enter labour with a plan for a vaginal birth.

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**ANTICIPATED BENEFIT** To increase the proportion of women offered a vaginal birth after caesarean section (VBAC) at term, and to increase the proportion who achieve a safe vaginal birth. An added benefit will be lower maternal morbidity and a fall in caesarean sections for this indication.

This indicator will encourage hospitals to establish protocols for facilitating an informed decision regarding a plan for VBAC, to formally record that decision, and to set up data recording mechanisms for VBAC.

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**DESCRIPTION AND TYPE** This is a process indicator.

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**PURPOSE AND RATIONALE** This performance indicator measures the extent to which:

- VBAC is offered to eligible women.
- Such women are managed appropriately.
- There are facilities for urgent caesarean section or laparotomy.
- Women and staff are educated about VBAC.

The purpose of this indicator is to identify the proportion of women with a history of a primary caesarean section who are offered VBAC and who achieve a term vaginal birth. This reflects appropriate management of these women.

Maternity consumers, clinical and administrative managers are the users of this indicator.

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**EVIDENCE FROM THE LITERATURE** A recent Victorian study compared outcomes of 4,663 women undergoing repeat elective caesarean section with those of 1,482 women attempting VBAC. Uterine rupture occurred in two per 1,000 VBACs, compared to nil with elective caesarean section. This study found no difference in risk-adjusted perinatal mortality in women undergoing VBAC compared to those undergoing repeat elective caesarean section (Stone, Halliday, Lumley, Brennecke, 2000).

A meta-analysis of observational data comparing VBAC with planned vaginal birth, involving 47,682 women, suggested women undergoing a trial of labour, compared to those having a repeat elective caesarean section, had more risk of uterine rupture, perinatal mortality and low Apgar scores. Although these differences were statistically significant, the actual rates of these complications were very low. Because these are observational data, the results need cautious interpretation (Mozurkewich and Hutton, 2000).

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## REFERENCES

- Appleton, B., Targett, C., Rasmussen, M., Readman, E., Sale, F., Permezel, M. and the VBAC Study Group. (2000) 'Vaginal Birth after Caesarean Section: an Australian Multicentre Study' in *Australian & New Zealand Journal of Obstetrics & Gynaecology* 40(1): 87-91.
- Flamm, B.L., Goings, J.R., Liu, Y., Wolde-Tsadik, G. (1994) 'Elective Repeat Cesarean Delivery versus Trial of Labour: A prospective Multicentre Study' in *Obstetrics & Gynecology* 83: 927-932.
- Miller, D.A., Diaz, F.G., Paul, R.H. (1994) 'Vaginal Birth after Cesarean: A 10-Year Experience' in *Obstetrics & Gynecology* 84(2): 255-8.
- Mozurkewich, E.L., Hutton, E.K. (2000) 'Elective repeat Cesarean delivery versus trial of labor: A meta-analysis of the literature from 1989 to 1999' in *American Journal of Obstetrics and Gynecology* 183(5): 1187-1197.
- Stone, C., Halliday, J., Lumley, J., Brennecke, S. (2000) 'Vaginal births after Caesarean (VBAC): a population study' in *Paediatric and Perinatal Epidemiology* 14(4): 340-8.
- Targett, C. (1988) 'Caesarean Section and Trial of Scar' in *Australian & New Zealand Journal of Obstetrics & Gynaecology* 28: 249-62.

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## DEFINITION OF KEY DATA ELEMENTS

- Planned vaginal birth after a previous caesarean section  
Includes women who have a recorded intention for vaginal birth after a previous primary caesarean section, with single cephalic presentation at term.
- Vaginal birth  
Includes women who have a spontaneous cephalic birth, forceps birth or ventouse extraction at gestational age of 37 weeks or more.
- Vaginal birth after a previous caesarean section (VBAC)  
Women who have a spontaneous cephalic birth, forceps birth or ventouse extraction following a previous primary caesarean section and have no intervening pregnancies of 20 weeks' gestation or greater.

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## DATA SOURCE

The Perinatal Data Collection Unit (PDCU) will identify and track outcomes for women (Para 1) at term whose previous birth was a caesarean section and who experience labour. This data will be collected by the PDCU and reported back to hospitals.

**Frequency of data collection and review:** annual.

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## EXCLUSIONS

Breech presentation.

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## LIMITATIONS

Plan for VBAC is not always recorded.

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## ANALYSIS

### CONSIDERATIONS

In promoting this indicator, the Project Team is aware of the ongoing debate about relative risks to mothers and babies of repeat elective caesarean section compared to a planned VBAC. A recent meta-analysis of the literature concluded the "trade-off" was this: Women choosing VBAC had increased satisfaction overall, but also had a slightly increased risk of uterine rupture and the attendant complications of perinatal mortality/morbidity, and maternal haemorrhage and hysterectomy. This compared with the increased hospital stay and other attendant risks of caesarean section. The perioperative morbidity for caesarean sections conducted during labour was also higher than for elective caesarean section (Mozurkewich and Hutton, 2000).

This trade-off needs to be discussed when seeking informed consent for VBAC. Being mindful of that, the purpose of this indicator is to identify the proportion of women with a history of a primary caesarean section in a previous birth who are offered the option of VBAC and who achieve a term vaginal birth.

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**PRINCIPLE: MATERNITY SERVICES PROVIDE OPTIMAL SAFETY FOR WOMEN AND THEIR BABIES**

**MAT-5 STANDARDISED PERINATAL MORTALITY RATIO**

**KEY QUESTION** Does the perinatal care provided in this hospital result in optimal survival of infants?

How does this hospital compare with the state average with respect to perinatal mortality, adjusted for birth weight (Birth Weight Standardised Perinatal Mortality Ratio = BWSMPR)?

**CALCULATION FORMULA** For each hospital, the BWSMPR is calculated in the following way. The number of perinatal deaths of infants born in a given hospital are calculated (observed deaths).

The expected number of perinatal deaths is determined by multiplying the number of births that occurred in each specified birthweight group by the State perinatal mortality rate for that birthweight group (calculated by the Perinatal Data Collection Unit (PDCU)). Then the deaths are added to derive a total of expected deaths. The BWSMPR is calculated by dividing the observed deaths by the expected deaths and multiplying by 100. Confidence intervals of 95% are constructed around the ratio. PDCU presents the ratio for each of the previous five years, and to add stability, also presents a pooled estimate for the five-year period. When the BWSMPR is greater than 100, this indicates that the hospital's perinatal mortality rate is higher than would be expected, taking into account the birthweight distribution at that hospital.

$$\text{SPMR} = \frac{\text{Observed Deaths}}{\text{Expected Deaths}} \times 100$$

**ANTICIPATED BENEFIT** This indicator will enable identification of those hospitals where:  
a) Care meets the statewide reference standard  
or  
b) More detailed evaluation is indicated because of a consistently raised SPMR.

**DESCRIPTION AND TYPE** This is an outcome indicator.

**PURPOSE AND RATIONALE** The standardisation is a risk-adjusted calculation, enabling those hospitals with higher proportions of low birth-weight infants (and therefore higher likelihood of perinatal mortality) to be more validly compared with hospitals with a different case mix.

The purpose of collecting this indicator is to provide assurance that mortality rates are within a safe range and to identify high-performing and poorly-performing services. Pooling the data over five years adds stability and reduces the risk of over-interpretation of chance fluctuations.

This indicator also takes into account the integrated system of care across Victoria. Crude (unadjusted) perinatal mortality rates do not take into account the regionalisation of perinatal care, in which hospitals provide care for women and babies for whom they have the appropriate services available, transferring those who require a more intensive service.

The rationale for collecting this indicator is that care promoting the survival of newborn babies is one of the primary objectives of a maternity service.

Users of this indicator will be the services themselves, staff providing maternity care, service users and potential service users (patients and their families), the Department of Human Services, and statewide bodies such as the Consultative Council on Obstetric and Paediatric Mortality and Morbidity.

**EVIDENCE FROM THE LITERATURE** There is no high-level evidence about whether the reporting of standardised PMR encourages those hospitals with high standardised PMR to improve their outcomes. However, risk-adjusted comparisons are much more likely to be valid than those that do not take variations in case mix into account.

**REFERENCES** Kiely, J.L., Kleinman, J.C. (1993) 'Birthweight adjusted infant mortality in evaluations of perinatal care: towards a useful summary measure' in *Statistics in Medicine* 12: 377-392.

Knox, E.G., Lancashire, R., Armstrong, E.H. (1986) 'Perinatal mortality standards: construction and use of a health care performance indicator' in *Journal of Epidemiology and Community Health* 40: 193-204.

Lumley, J. (1989) 'The safety of small maternity hospitals in Victoria 1982-84' in *Community Health Studies* XII: 386-393.

Vandenbroucke, J.P. (1982) 'A short-cut method for calculating the 95% confidence interval of the standardised perinatal mortality ratio' in *American Journal of Epidemiology* 115: 303-4.

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<b>DEFINITION OF KEY DATA ELEMENTS</b>	Live birth	The complete expulsion or extraction from its mother of a baby of at least 20 weeks' gestation (or, if gestation is unknown, weighing at least 400 grams) who, after being born, breathes or shows any evidence of life, such as a heartbeat.
	Stillbirth	The complete expulsion or extraction from its mother of a baby of at least 20 weeks' gestation (or, if gestation is unknown, weighing at least 400 grams,) who did not, at any time after birth, breathe or show any evidence of life, such as a heartbeat.
	Neonatal death	A death occurring within 28 days of birth in a live born baby of at least 20 weeks' gestation (or, if gestation is unknown, weighing at least 400 grams).

(Definitions from the National Perinatal Statistics Unit.)

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<b>DATA SOURCE</b>	PDCU currently calculates and provides birth weight adjusted SPMR to all hospitals having five or more perinatal deaths in the year of analysis.
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**Frequency of data collection and review:** annual, with pooling for previous five years.

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<b>EXCLUSIONS</b>	Births and perinatal deaths to women transferred to another hospital for care.
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<b>LIMITATIONS</b>	Currently the risk-adjusted SPMR corrects for low birthweight only. This risk adjustment can be refined to exclude birth defects and termination of pregnancies at gestational ages of 20 weeks and beyond.
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<b>ANALYSIS CONSIDERATIONS</b>	<p>The BWSPMR is valid for comparing the hospital's performance with similar institutions, and with the State at large, but there is no "gold standard". It is also important to view Victoria's perinatal mortality rate compared to that of other states, and to the overall rate for Australia. International comparisons are difficult because of marked differences in inclusion criteria. For example:</p> <ul style="list-style-type: none"><li>• Australia: 20 weeks/400 grams.</li><li>• United Kingdom: 24 weeks.</li><li>• Sweden and Holland: 28 weeks.</li></ul>
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**PRINCIPLE: MATERNITY SERVICES PROMOTE PARENTING CONFIDENCE AND OPTIMAL HEALTH OF MOTHERS AND THEIR BABIES**

**MAT-7 THE PROPORTION OF WOMEN OFFERED APPROPRIATE INTERVENTIONS IN RELATION TO SMOKING**

**KEY QUESTION** Does the hospital help pregnant women to quit smoking and to reduce the risk of smoking-associated adverse health outcomes for the baby?

**CALCULATION FORMULAE**

**Ask/assess/advise/assist**

Numerator: For the population sample, the number of women who are asked about smoking status, assessed as to motivation to quit and offered advice and assistance at the first hospital antenatal appointment.

Denominator: The population sample (every fourth woman who had their first antenatal visit at the hospital and subsequently gave birth at the hospital within the last six months).

**Ask again**

Numerator: For the population sample, the number of women identified as smokers (including spontaneous quitters) at the first hospital antenatal appointment who are asked again about smoking status by 20 weeks' gestation.

Denominator: For the population sample, the number of women who attended an antenatal visit by 20 weeks' gestation (either hospital or community) and who had been identified as smokers (including spontaneous quitters) at the first hospital antenatal appointment.

**ANTICIPATED BENEFIT**

On the basis of Level I evidence, smoking cessation intervention will result in a higher rate of smoking cessation, a decrease in smoking relapse and an increase in the mean birthweight of babies born to women receiving advice and assistance. This evidence also indicates that costs to the hospital will be reduced.

**DESCRIPTION AND TYPE**

This is a process indicator.

**PURPOSE AND RATIONALE**

This indicator assesses the performance of providers of maternity care in providing smoking cessation advice, assistance and follow-up during routine antenatal care. It aims to reduce the rate of smoking among pregnant women and improve outcomes for their babies.

The antenatal phase is an ideal opportunity for smoking cessation or reduction education programs, which might involve both hospital and community-based carers.

Clinicians and health promotion staff are the users of these data.

**EVIDENCE FROM THE LITERATURE**

There is evidence that advice to quit by a clinician increases abstinence rates, on average, by 3% (US Department of Health and Human Services, 2000). However, 25% of pregnant women have already quit before the first antenatal visit.

Smoking during pregnancy is probably the most important preventable cause of poor reproductive outcomes among women in the Western world. Level I evidence indicates that smoking cessation programs during pregnancy have a beneficial impact on birthweight.

Systematic reviews and studies on interventions have concluded that the use of multiple strategies and a cognitive behavioural approach enhances the impact of a smoking cessation/reduction intervention. A cognitive behavioural approach focuses on restructuring the person's beliefs about their smoking and their ability to quit, while emphasising appropriate coping strategies. Coping strategies may be cognitive (telling yourself that you can quit smoking if you want to) or behavioural (replacing smoking with other activities).

About one quarter of women who smoked before pregnancy say that they have quit by their first antenatal visit. One-fifth of "spontaneous quitters" are still actively smoking but about one-third of these will quit by late pregnancy. Among the spontaneous quitters, one-fifth will start smoking again by late pregnancy. Spontaneous quitters are therefore likely to benefit from advice/support to stay quit.

## REFERENCES

Donatelle, R.J., Prows, S.L., Champeau, D., Hudson, D. (2000) 'Randomised controlled trial using social support and financial incentives for high-risk pregnant smokers: Significant Other Supporter (SOS) program' in *Tobacco Control* 9 (Suppl 3): iii 67-69.

Johnson, J.L., Ratner, P.A., Bottorff, J.L., Hall, W., Dahinten, S. (2000) 'Preventing smoking relapse in post-partum women' in *Nursing Research* 49(1): 44-52.

Lumley, J., Oliver, S., Waters, E. (2000) 'Interventions for promoting smoking cessation during pregnancy.' (Cochrane Review). In: *The Cochrane Library* Issue 4. Oxford: Update Software.

Melvin, C.L., Dolan-Mullen, P., Windsor, R.A., Whiteside, H.P., Goldenberg, R.L. (2000) 'Recommended cessation counselling for pregnant women who smoke: a review of the evidence' in *Tobacco Control* 9 (Suppl 3): iii 80-84.

Ratner, P.A., Johnson, J.L., Bottorff, J.L., Dahinten, S., Hall, W. (2000) 'Twelve-month follow-up of a smoking relapse prevention intervention for post-partum women' in *Addiction Behavior* 25(1): 81-92.

US Department of Health and Human Services (2000) *Treating tobacco use and dependence: Clinical practice guideline*. US Department of Health and Human Services, Public Health Service.

## DEFINITION OF KEY DATA ELEMENTS

### Smokers

Self-declared smokers who have smoked at least part of one cigarette in the week prior to the first antenatal visit.

### Spontaneous quitters

Women who indicate that they have been smokers but say at the time of their first antenatal appointment that they have given up smoking because of their pregnancy.

### Five-step interventions:

Step one – **Ask:** All women should be screened at every antenatal visit to detect current or recent smoking status.

Step two – **Assess:** All spontaneous quitters and smokers should be assessed at every antenatal visit with regard to their motivation to quit or to stay quit.

Step three – **Advise:** All spontaneous quitters and smokers should be advised at every antenatal visit:

- To quit.
- About the risks to their own and the baby's health, including the high risk of having a sickly baby due to low birthweight, prematurity or intra-uterine growth retardation.
- About the obstetric implications of continuing to smoke, including spontaneous abortion, stillbirth, perinatal death and SIDS.
- About the benefits of quitting at any stage in the pregnancy.

Step four – **Assist:** All spontaneous quitters and smokers should be assisted to quit or remain quit.

a) Provide written material on the:

- Effects of smoking on mother and baby.
- Role of the partner in helping to reduce the health risks to the baby.
- Ways to quit and stay quit.
- Where to go to seek extra support.

b) Where appropriate, arrangements should be made for the women to receive additional support. This may involve:

- Staff providing routine antenatal care.
- Referral to in-house services.
- Referral to external agencies for specific assistance, including counselling, about quitting and other potentially related issues.

Step five – **Ask again:** All spontaneous quitters and smokers should be followed up at least once before 20 weeks' gestation, preferably at each antenatal visit. (Refer to Victorian *Three Centres Consensus Guidelines on Antenatal Care: Provision of Smoking Cessation Interventions During Pregnancy*)

**DATA SOURCE** Hospitals will need to have a system capable of recording smoking assessments and advice at the first hospital appointment and at the subsequent antenatal appointments. This may require collaboration with community-based providers, including shared documentation systems. An example Assessment Tool for smoking is located in Appendix 4.

The following process is required to retrieve relevant data:

**Identify the total population:** women who had their first antenatal visit at the hospital and subsequently gave birth at the hospital within the last six months.

**Identify the population sample:** every fourth woman listed in the total population (25%).

**Audit hospital antenatal medical record of those women in the population sample:**

- For evidence that clinicians have completed Steps 1, 2, 3 and 4 according to the *Three Centres Consensus Guidelines on Antenatal Care*.
- Of the women who have had Steps 1, 2, 3 and 4 completed at the first visit, note those women identified as smokers (see definition), including spontaneous quitters (see definition).
- For evidence that women identified as smokers (including spontaneous quitters) at the first antenatal visit were reassessed regarding smoking status at least once prior to 20 weeks' gestation.

**Frequency of data collection and review:** six-monthly.

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**EXCLUSIONS** Women presenting for their first visit after 20 weeks' gestation.

Women who give birth at another hospital.

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**LIMITATIONS** Identification of all spontaneous quitters may be inconsistent.

Need to be able to ascertain that all continuing smokers are identified.

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**ANALYSIS** Nil.

**CONSIDERATIONS**

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**OTHER CONSIDERATIONS AND GENERAL DISCUSSION** When screening women for smoking status, use a multiple answer format rather than a narrow closed question such as "Do you smoke?" (See attachment for suggested format). Consistency in the way questions are asked to elicit smoking status is vital, as are simplicity and clarity in the details of the intervention.

Clear recording of interventions in the medical record will facilitate auditing. There may be a separate sheet generated for recording interventions around smoking.

Also refer to the Victorian *Three Centres Consensus Guidelines on Antenatal Care: Provision of Smoking Cessation Interventions During Pregnancy*.

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### SUGGESTED FORMAT FOR ASKING ABOUT SMOKING BEHAVIOUR OF PREGNANT WOMEN.

- Please note: This is a potential format only and the exact wording should depend on how the “script” is to be used, eg in a face-to-face setting, a written form to be completed by the patient or an assisted form.  
Specifically, it would be important to know whether simply reading out the various categories works or whether this confuses some or all patients. The format should be piloted before being finalised.
- **All** pregnant women should be screened for smoking behaviour, using the same question format to ensure that all possible smoking situations can be identified and appropriate **Advice** and **Assistance** can be provided.
- This question format relates to **Asking** or screening smoking behaviour only. It should be remembered that a format needs to be developed for **Assessing** motivation to quit, for identifying and recording the **Advice** and **Assistance** that were provided, and for recording the results of **Asking Again**.

**Ask all women** about current smoking status

1. Which statement best describes you now?
  - a) I smoke regularly now – about the same amount as **before** I found out I was pregnant.
  - b) I smoke regularly now, but more than **before** I found out I was pregnant.
  - c) I smoke some now, but I have cut down **since** I got pregnant.
  - d) I stopped smoking **after** I found out I was pregnant, and I am not smoking now.
  - e) I stopped smoking **when** I planned to get pregnant, and I am not smoking now.
  - f) I stopped smoking **before** I planned to get pregnant, and I am not smoking now.
  - g) I have **never** smoked.

2. Does your partner smoke?

Interpreting Responses

- Women who answer a), b) and c) are current smokers.
- Women who answer d) and e) are spontaneous quitters.
- Women who answer f) are ex-smokers.
- Women who answer g) are women who have never smoked.

This should be followed by a series of tailored questions to assess the extent of current and past smoking of members of each relevant group and their motivation to quit.

**PRINCIPLE: MATERNITY SERVICES PROMOTE PARENTING CONFIDENCE AND OPTIMAL HEALTH OF MOTHERS AND THEIR BABIES**

**MAT-8 THE PROVISION OF APPROPRIATE BREASTFEEDING SUPPORT AND ADVICE**

<b>KEY QUESTION</b>	Does the hospital provide information and support on breastfeeding in accordance with the Baby Friendly Hospital Initiative (BFHI), which is based on the World Health Organisation (WHO) <i>Ten Steps to Successful Breastfeeding</i> ?
<b>CALCULATION FORMULA</b>	Numerator: Number of WHO <i>Ten Steps</i> approved at time of assessment. Denominator: (WHO) 10 Steps.  This is an organisational assessment; a score of 10/10 is considered best practice.
<b>ANTICIPATED BENEFIT</b>	Increase the number of women and their families receiving advice, care and support consistent with the WHO <i>Ten Steps to Successful Breastfeeding</i> .
<b>DESCRIPTION AND TYPE</b>	This is a rate-based indicator, which is an administrative/clinical measure for care and the process of care delivery on a range of parameters.
<b>PURPOSE AND RATIONALE</b>	The indicator supports care practices for women who wish to breastfeed their baby to ensure: <ul style="list-style-type: none"> <li>• Breastfeeding initiation is enhanced.</li> <li>• Breastfeeding advice and support is in line with the WHO <i>Ten Steps to Successful Breastfeeding</i>.</li> <li>• Babies separated from their mothers (due to illness/prematurity) receive breast milk.</li> </ul> <p>This indicator provides a means of monitoring ongoing compliance with WHO <i>Ten Steps</i> for Baby Friendly accredited hospitals. Alternatively it can be used as an opportunity to assess readiness for accreditation.</p> <p>The implementation of this indicator does not require hospitals to become accredited as Baby Friendly Hospitals, nor does it equate with accreditation.</p>
<b>EVIDENCE FROM THE LITERATURE</b>	Randomised trial of hospitals in Belarus showed a major impact on breastfeeding and infant health (decreased infections, atopy) associated with implementing BFHI.
<b>REFERENCES</b>	National Health and Medical Research Council (1997b) <i>Infant Feeding Guidelines for Health Workers</i> . Commonwealth of Australia, Canberra.  Saadeh, R. (Ed.) (1993) <i>Breastfeeding: the technical basis and recommendations for action</i> . World Health Organisation, Geneva.  World Health Organisation (1998) <i>Evidence for the 10 Steps to Successful Breastfeeding</i> . Division of Child Health and Development (WHO/CHD/98.9).  Kramer, M.S., Chalmers, B., Hodnett, E.D., Sevkovskaya, Z. et al. (2001) 'Promotion of Breastfeeding Intervention Trial (PROBIT)' in <i>JAMA</i> 285: 413-420.
<b>DEFINITION OF KEY DATA ELEMENTS</b>	Nil.
<b>DATA SOURCE</b>	Assessment and documentation in line with WHO accreditation governed and coordinated by the Australian College of Midwives Incorporated (ACMI).  <b>Frequency of data collection and review:</b> Hospitals conduct annual self assessment using BFHI Self Assessment Tool.
<b>EXCLUSIONS</b>	Nil.
<b>LIMITATIONS</b>	Nil.
<b>ANALYSIS CONSIDERATIONS</b>	As part of the analysis of indicator results, the organisation must try to determine factors preventing the implementation of the WHO <i>Ten Steps for Successful Breastfeeding</i> .

## ATTACHMENT TO MAT-8

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### WHO: THE TEN STEPS TO SUCCESSFUL BREASTFEEDING

Every facility providing maternity services and care for newborn infants should:

- Step 1            Have a written breastfeeding policy that is routinely communicated to all health care staff.
  - Step 2            Train all health care staff in skills necessary to implement this policy.
  - Step 3            Inform all pregnant women about the benefits and management of breastfeeding.
  - Step 4            Help mother initiate breastfeeding within a half-hour of birth.
  - Step 5            Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
  - Step 6            Give newborn infants no food or drink other than breastmilk unless medically indicated.
  - Step 7            Practice rooming-in, allow mothers and infants to remain together 24 hours a day.
  - Step 8            Encourage breastfeeding on demand.
  - Step 9            Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
  - Step 10           Foster the establishment of breastfeeding groups and refer mothers to them on discharge from the hospital or clinic.
-

**PRINCIPLE: MATERNITY SERVICES RESPOND TO THE NEEDS OF A DIVERSE RANGE OF WOMEN AND ARE CUSTOMER-FOCUSED**

**MAT-9 THE PROPORTION OF WOMEN WHO RECEIVE TIMELY HOSPITAL ANTENATAL CLINICAL SERVICES**

<b>KEY QUESTION</b>	Does the hospital provide antenatal care in a timely and efficient way?
<b>CALCULATION FORMULA</b>	<p>Numerator: For the period of one month, the number of women waiting more than 30 minutes from hospital antenatal appointment time to the time clinician consultation begins.</p> <p>Denominator: For the period of one month, the number of women presenting for hospital antenatal appointment.</p>
<b>ANTICIPATED BENEFIT</b>	Several studies have identified waiting times as a factor in maternal satisfaction. It is anticipated that by using this indicator there should be a fall in the percentage of women who wait for more than 30 minutes from time of appointment to the time attended by the clinician.
<b>DESCRIPTION AND TYPE</b>	This is a process indicator as a proxy for customer service.
<b>PURPOSE AND RATIONALE</b>	<p>This indicator measures organisational efficiency and a key component of patient satisfaction.</p> <p>Administrative and clinical managers and consumers are the users of the indicator results.</p>
<b>EVIDENCE FROM THE LITERATURE</b>	Several studies have examined antenatal care and client satisfaction and have identified waiting times as a critical component.
<b>REFERENCES</b>	<p>Brown, S., Dawson, W., Gunn, J., and McNair, R. (1999) <i>Review of Shared Obstetric Care: summary report</i>. Centre for the Study of Mothers' and Children's Health, La Trobe University, Carlton.</p> <p>Department of Human Services (1997b) <i>Non-Admitted Patient Services: A Literature Review and Analysis</i>. Victorian Government Department of Human Services, Melbourne.</p> <p>Health Department of Victoria (1990) <i>Having a Baby in Victoria: Final Report of the Ministerial Review of Birthing Services in Victoria</i>. Women's Health Unit, Health Department Victoria.</p> <p>National Health and Medical Research Council (1998) <i>Options for Effective Care in Childbirth</i>. Commonwealth of Australia, Canberra.</p> <p>National Health Strategy (1992) Background Paper No. 10. <i>A study of Hospital Outpatient and Emergency Department Services</i>.</p> <p>Senate Community Affairs References Committee (1999) <i>Rocking the Cradle: A report into childbirth procedures</i>. Commonwealth of Australia, Canberra.</p>
<b>DEFINITION OF KEY DATA ELEMENTS</b>	Nil.
<b>DATA SOURCE</b>	<p>Outpatient booking systems.</p> <p>Data to be collected for all clinics providing antenatal care.</p> <p><b>Frequency of data collection and review:</b> six-monthly for a one-month period for the months of February and August.</p>
<b>EXCLUSIONS</b>	<p>Non-hospital attendances (for example, appointments at shared care practitioner).</p> <p>Women who arrive after their appointment time. This figure should be reported and monitored.</p>
<b>LIMITATIONS</b>	Not all facilities have computerised booking systems. Some hospitals may need to institute manual audits.
<b>OTHER CONSIDERATIONS AND GENERAL DISCUSSION</b>	Women have identified that being informed of any increase in waiting time results in a greater degree of satisfaction than waiting without any explanation.

**PRINCIPLE: MATERNITY SERVICES RESPOND TO THE NEEDS OF A DIVERSE RANGE OF WOMEN AND ARE CUSTOMER-FOCUSED**

**MAT-10 THE PROPORTION OF WOMEN FROM A NON-ENGLISH SPEAKING BACKGROUND (NESB) WITHOUT PROFICIENCY IN ENGLISH WHO RECEIVE APPROPRIATE INTERPRETER SERVICES**

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**KEY QUESTION** Do women from NESB have access to accredited interpreter services at hospital antenatal appointments?

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**CALCULATION** **Assess interpreter requirements**

**FORMULAE**

Numerator: For the period of one month, the number of women presenting for hospital antenatal appointment who have had interpreter requirements assessed.

Denominator: For the period of one month, the total number of women presenting for hospital antenatal appointment.

**Provision of accredited interpreter services**

Numerator: For the period of one month, the number of women presenting for hospital antenatal appointment identified as requiring an interpreter and who receive accredited interpreter services.

Denominator: For the period of one month, the number of women presenting for hospital antenatal appointment identified as requiring accredited interpreter services.

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**ANTICIPATED BENEFIT** It is anticipated that the number of women who fail to receive accredited interpreter services when they are needed can be reduced. This will help ensure women who are not proficient in English receive accurate and appropriate information.

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**DESCRIPTION AND TYPE** This is a process indicator.

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**PURPOSE AND RATIONALE** The purpose of this indicator is to identify the percentage of women accessing maternity services who require interpreter services and who are able to access them.

The indicator supports an assessment of informed decision-making and equity in access to services. NESB women require adequate information to ensure informed decision-making from a medical, legal and ethical perspective. The literature recommends that women be offered the use of accredited interpreters rather than relying on family or other staff.

Administrative and clinical managers and consumers are the users of the indicator results.

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**EVIDENCE FROM THE LITERATURE** Several studies have identified the need for women from NESB to have access to accredited interpreting services.

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**REFERENCES** Borg, V., Abela, C. (1994) 'The right of NESB patients to be properly informed about medical treatment' in *Journal of Post Migration* 94: 12-15.

Health Department of Victoria (1990) *Having a Baby in Victoria: Final Report of the Ministerial Review of Birthing Services in Victoria*. Women's Health Unit, Health Department of Victoria, Melbourne.

National Health and Medical Research Council (1998) *Options for Effective Care in Childbirth*. Commonwealth of Australia, Canberra.

Senate Community Affairs References Committee (1999) *Rocking the Cradle: A report into childbirth procedures*. Commonwealth of Australia, Canberra.

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<b>DEFINITION OF KEY DATA</b>	<p>Accredited interpreter services</p> <p>Include interpreters employed by the hospital and those accessed by the hospital through telephone services or the Interpreting Service Agency.</p> <p>Assessing interpreter requirements (see “Process for assessing interpreter requirements” located in Appendix 5)</p> <p>It is essential the information regarding interpreter requirements is accurate. The most effective way of assessing interpreter requirements is through self-determination.</p> <p>Different approaches are recommended to work out interpreter requirements depending on whether the first contact with the hospital is by:</p> <p>a) The woman registering, or by</p> <p>b) A friend or relative of the woman registering.</p> <p>Step one – <b>Advise</b> that although a friend or relative may accompany the woman to the hospital, including to appointments, it is essential that non-English-speaking women are provided with accredited/professional interpreter services.</p> <p>Step two – <b>Ask</b> all women before the first appointment at the hospital, including at telephone registration, about their interpreting needs.</p> <p>Step three – <b>Ask again</b> at the completion of the antenatal booking visit and each subsequent pregnancy.</p>
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**DATA SOURCE** The collection and recording of information relevant to this indicator varies from hospital to hospital. Data may be accessed through linking data from sources including the patient registration database, outpatient booking systems, individual hospital interpreter service data bases and Interpreting Service Agency records. Incorporating the “Process for assessing interpreter requirements” (located in Appendix 5) as a mandatory field on the patient registration database will enable accurate retrieval of data.

The first Calculation formula will require linkages between the hospital antenatal appointment data, patient unit record number and assessment of interpreter requirements.

The second Calculation formula will require linkages between hospital antenatal appointment data, patient unit record number, assessment of interpreter requirements and the use of accredited interpreter services.

**Frequency of data collection and review:** six-monthly for a one-month period, for the months of February and August.

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**EXCLUSIONS** Nil.

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**LIMITATIONS** Hospitals do not have ready access to data that link proficiency in English and the receipt of accredited interpreter services.

For data to be accurate they must include:

- Accurate identification that interpreter services are required.
- The incidence/proportion of women using interpreting services.
- When an interpreter was booked/requested.
- When an interpreter was booked but the service was not provided.

It might be difficult to capture use of telephone services or the Interpreting Service Agency.

This indicator could not be applied to the up to 55% of NESB women who attend “shared care” programs.

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**ANALYSIS** Availability of accredited interpreters for all languages.

**CONSIDERATIONS** Organisation-based factors.

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## SECTION 4

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### TEMPLATE FOR REPORTING (INCLUDING EXAMPLE REPORTS)

The background image shows a tilted table with the following data points:

7	32	18	10	4	80
30.4%	32.0%	36.7%	25.0%	28.8%	33.8%
0.59	1.55	4.02	4.28	10.20	1.30
(1.37-					
5	29	6	18	2	36
21.7%	29.0%	12.2%	45.0%	14.3%	23.8%
0.42	1.40	1.34	7.71	5.10	1.30
(1.13-					
10	36	24	12	6	80
43.5%	36.0%	49.0%	30.0%	42.9%	40.3%
0.84	1.74	5.36	5.14	15.31	2.30
(1.75-					
1	3	1	0	2	4
4.3%	3.0%	2.0%	0.0%	14.3%	2.7%
0.08	0.15	0.22	0.00	5.10	0.16
(0.05-			49		
40	14	100			



During the trial of the Maternity Performance Indicators, it became clear that sites would benefit from a standardised framework for reporting to the Department of Human Services. The following Template includes examples of reports submitted by “fictitious” hospitals.

The Template for Reporting aims to guide the hospital through the requirements of a report. All sections of the Template must be completed.

Each indicator has a specific Template report. The report includes:

Title of the indicator.

Purpose and rationale for the indicator.

Information about the hospital including:

- Hospital title.
- Level of perinatal care provided at the hospital.
- Location of the hospital.
- Names and title of the clinician/executive who has verified and approved the data to be released.

Description of the processes used by the hospital to complete:

- Data recording.
- Data retrieval.
- Data review and validation.
- Dates/timeframe of the sample.

Record of results using the calculation formula specified for the level of hospital reporting.

Opportunity for hospitals to comment on results.

Proposed recommendations for improvement/future action to be undertaken by the hospital in response to results.

## PURPOSE AND RATIONALE

Using the standard primipara (rather than all women giving birth) as the basis for internal hospital comparison of maternity care controls for substantial differences in case mix (pre risk-adjustment) and increases the validity of those comparisons.

A “cascade” effect of birthing interventions has been described, starting with induction of labour and progressing through augmentation and epidural anaesthesia to increased risk of operative vaginal delivery or caesarean section. This effect is greater for nulliparous women (women who have not given birth) (Dublin, et al, 2000). By reducing the number of nulliparous women who have induced labour, the number of women undergoing unnecessary operative birth and other interventions will be reduced.

---

## HOSPITAL

- Title            Hospital “X”
  - Level 1                    Level 2                        Level 3        ✓
  - Regional                  Metropolitan    ✓
  - Clinician and/or Executive verification and approval for data to be released  
     Name: *Ms Who*            Title: *Director of Nursing*
- 

## METHODOLOGY

(A description of processes used by the hospital to complete the following activities)

- **Data recording**

Standard information for every woman who gives birth at the hospital is entered onto a birth outcomes electronic database. This information can be extracted/printed from the electronic database and is provided to the Perinatal Data Collection Unit (PDCU) on a bi-monthly basis.

- **Data retrieval**

Indicator data for 2001 is included in the *Hospital Profile of Perinatal Data* (2002).

PDCU reported the following selection criteria were used to identify the standard primiparae:

- Parity = 0
- Maternal age  $\geq 20$  and  $\leq 34$
- Plural = 1
- Gestation  $\geq 37$  and  $\leq 41$
- Not small for gestational age (classified using birthweight percentiles rather than clinical suspicion of light for dates)
- Free of medical complications of pregnancy

There were a total of 5306 confinements at the hospital during 2001, 819 of which meet the above criteria.

Data for the 819 standard primiparae was reviewed to identify how many had:

- Induction of labour
- Caesarean section
- Of those who delivered vaginally, the number who sustained a third or fourth degree tear.

- **Data review and validation by clinician(s)**

The unit managers and consultant obstetricians involved in antenatal and delivery suite care reviewed data.

Comments and recommendations for improvement were formulated and discussed at the multidisciplinary Maternity Services meeting before presentation at the monthly Quality Committee meeting.

- **Dates/Timeframe of sample**

Women who gave birth at Hospital “X” between 1.1.2001 and 31.12.2001.

## RESULTS

### Induction of labour

The number of standard primiparae undergoing induction of labour.	182	
The number of standard primiparae who give birth.	819	= 22.2%

### Caesarean section

The number of standard primiparae undergoing caesarean section.	132	
The number of standard primiparae who give birth.	819	= 16.1%

### Perineal tear

The number of standard primiparae who sustain a third-degree or fourth-degree tear.	31	
The number of standard primiparae who give birth vaginally.	687	= 4.5%

## COMMENT ON RESULTS

Data on the rate of third and fourth degree tear had not previously been considered by the Quality Committee and warrant further investigation. A review of the histories will be conducted and reported.

The data need to be compared with the state-wide results to assess our performance with this indicator.

## RECOMMENDATIONS FOR IMPROVEMENT/FUTURE ACTION

Sites may consider recommendations for improvement/future action along the following lines:

1. Review/document relevant **protocol(s)**.
2. Ensure it is possible to **record information** required by the Maternity Performance Indicator.
3. Facilitate the **opportunity** for information to be recorded.
4. **Educate/inform** relevant staff/clinicians.
5. Conduct a **concurrent audit** to elicit gaps/inaccuracies.
6. Obtain relevant support information/**evidence** for each of the indicators (see Section 3: The Final Set of Maternity Performance Indicator Statements for Victoria).

**MAT-2 THE RATE OF TERM INFANTS TRANSFERRED OR ADMITTED TO SPECIAL CARE NURSERY (SCN) OR NEONATAL INTENSIVE CARE UNIT (NICU) FOR REASONS OTHER THAN BIRTH DEFECT**

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**PURPOSE AND RATIONALE**

Inborn term infants without birth defects are not normally expected to be admitted to a SCN or NICU.

The indicator focuses on unplanned admission of term infants (without a birth defect), resulting from adverse events occurring in labour or immediate neonatal period which require the facilities of SCN or NICU. This will include term infants with low five-minute Apgar scores, as well as those with birth trauma, early seizures/hypoxic ischaemic encephalopathy (HIE), intrauterine growth retardation (IUGR) and sepsis.

This indicator will also highlight inappropriate use of resources.

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**HOSPITAL**

- Title Hospital “X”
  - Level 1  Level 2  Level 3 ✓
  - Regional  Metropolitan ✓
  - Clinician and/or Executive verification and approval for data to be released  
Name: *Ms Who* Title: *Director of Nursing*
- 

**METHODOLOGY**

(A description of processes used by the hospital to complete the following activities)

- **Data recording**  
Standard (deidentified) information about all admissions and discharges, including International Classification of Diseases (ICD) coding data, is provided on a regular basis by each Victorian hospital for inclusion in the Victorian Admitted Episodes Dataset (VAED). Therefore all babies admitted to the SCN and NICU are identified in this database.
- **Data retrieval**  
VAED information is provided to hospitals by the DHS in the quarterly Quality Reports.  
VAED can exclude all babies born at 36 weeks’ gestation or less, and term infants with birth defects.
- **Data review and validation by clinician(s)**  
The unit managers and consultant obstetricians involved in delivery suite and neonatal care reviewed data.  
Comments and recommendations for improvement were formulated and discussed at the multidisciplinary Maternity Services meeting before presentation at the monthly Quality Committee meeting.
- **Dates/timeframe of sample**  
Babies born at the hospital between 1.1.02 and 31.3.02

## RESULTS

### Level 3 hospital

The number of inborn term infants admitted to its SCN or NICU, for reasons other than the management of birth defects.	32
<hr/>	
The number of inborn term infants without major birth defect.	1120 = 2.9%

## COMMENT ON RESULTS

Consideration should be given to reviewing the case records of the babies delivered by caesarean section and instrumental delivery to identify any contributing cause.

## RECOMMENDATIONS FOR IMPROVEMENT/FUTURE ACTION

Sites may consider recommendations for improvement/future action along the following lines:

1. Review/document relevant **protocol(s)**.
2. Ensure it is possible to **record information** required by the Maternity Performance Indicator.
3. Facilitate the **opportunity** for information to be recorded.
4. **Educate/inform** relevant staff/clinicians.
5. Conduct a **concurrent audit** to elicit gaps/inaccuracies.
6. Obtain relevant support information/**evidence** for each of the indicators (see Section 3: The Final Set of Maternity Performance Indicator Statements for Victoria).

**MAT-3 THE RATE OF ADMINISTRATION OF ANTENATAL CORTICOSTEROIDS TO WOMEN DELIVERED OR TRANSFERRED BEFORE 34 WEEKS' GESTATION**

---

**PURPOSE AND RATIONALE**

In Victoria, a Level 1 or 2 maternity service should give a first dose of corticosteroids to women at risk of preterm birth, before they are transferred to a Level 3 hospital. A Level 3 hospital would ensure women at risk of preterm birth received a completed course of corticosteroids. However, it is recognised that some women will give birth before completing the course, and the numerator has been changed to take account of such cases.

The administration of a single course (two doses, 24 hours apart) of corticosteroids to such women has been shown to improve neonatal outcome significantly. There is Level I evidence that such treatment helps to mature the baby's lungs and prevent death. There are also demonstrated protective effects on other systems, such as reducing intraventricular haemorrhage.

Clinical and administrative managers are the users of this indicator.

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**HOSPITAL**

- Title Hospital "X"
  - Level 1  Level 2  Level 3
  - Regional  Metropolitan
  - Clinician and/or Executive verification and approval for data to be released  
Name: *Dr Who* Title: *Medical Director-Maternity*
- 

**METHODOLOGY**

(A description of processes used by the hospital to complete the following activities)

• **Data recording**

A research nurse enters details about all babies admitted to the Special Care Nursery (SCN) and Neonatal Intensive Care Unit (NICU) into a specific Neonatal electronic database. Data is updated daily.

All neonatal records are reviewed by the Neonatal Research Nurse at discharge.

• **Data retrieval**

**Denominator**

The Neonatal database enables identification of those babies born at Hospital "X" admitted to SCN and NICU between 25 and 34 weeks' gestation. It filters most babies born following intrauterine transfer to the hospital (n=118).

Health Information Services provided access to the maternal medical records.

**Numerator**

Review of maternal medical records enabled:

Further exclusion of intrauterine transfers.

An audit of maternal medication charts for the documentation of corticosteroid administration (betamethasone) (n=112).

Reason for no corticosteroids prior to the birth.

• **Data review and validation by clinician(s)**

The unit managers and consultant obstetricians involved in antenatal and delivery suite care reviewed data.

Comments and recommendations for improvement were formulated and discussed at the multidisciplinary Maternity Services meeting before presentation at the monthly Quality Committee meeting.

- **Dates/Timeframe of sample**

Women who gave birth at the hospital between 1.7.01 and 31.12.01.

## RESULTS

### Level 3 hospital

The number of women who give birth between 25 and 34 weeks' gestation who have received an initial dose of corticosteroid (excluding transfers).	112		
The total number of women who give birth between 25 and 34 weeks' gestation (excluding transfers).	118	=	95%

### COMMENT ON RESULTS

During the period 1.7.01 and 31.12.01, 118 women gave birth between 25 and 34 weeks' gestation. Of those women, 112 (95%) received an initial dose of corticosteroids.

Analysis of the medical records indicated those women who did not receive corticosteroids gave birth within two hours of arrival at the hospital. Given this analysis, the observed number of patients who received antenatal corticosteroids was at an acceptable level.

### RECOMMENDATIONS FOR IMPROVEMENT/FUTURE ACTION

Sites may consider recommendations for improvement/future action along the following lines:

1. Review/document relevant **protocol(s)**.
2. Ensure it is possible to **record information** required by the Maternity Performance Indicator.
3. Facilitate the **opportunity** for information to be recorded.
4. **Educate/inform** relevant staff/clinicians.
5. Conduct a **concurrent audit** to elicit gaps/inaccuracies.
6. Obtain relevant support information/**evidence** for each of the indicators (see Section 3: The Final Set of Maternity Performance Indicator Statements for Victoria).

**MAT-4 THE RATE OF VAGINAL BIRTH AMONG WOMEN IN THE BIRTH IMMEDIATELY FOLLOWING A PRIMARY CAESAREAN SECTION**

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**PURPOSE AND RATIONALE**

This performance indicator measures the extent to which:

- Vaginal birth after Caesarean (VBAC) is offered to eligible women.
- Such women are managed appropriately.
- There are facilities for urgent caesarean section or laparotomy.
- Women and staff are educated about VBAC.

The purpose of this indicator is to identify the proportion of women with a history of a primary caesarean section who are offered VBAC and who achieve a term vaginal birth. This reflects appropriate management of these women.

Maternity consumers, clinical and administrative managers are the users of this indicator.

---

**HOSPITAL**

- Title Hospital "X"
- Level 1  Level 2  Level 3
- Regional  Metropolitan
- Clinician and/or Executive verification and approval for data to be released

Name: *Dr Who* Title: *Medical Director*

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**METHODOLOGY**

(A description of processes used by the hospital to complete the following activities)

• **Data recording**

Standard information for every woman who gives birth at the hospital is entered into a birth outcomes electronic database. This information can be extracted/printed from the electronic database and is provided to the Perinatal Data Collection Unit (PDCU) on a bi-monthly basis.

• **Data retrieval**

Indicator data for 2001 is included in the *Hospital Profile of Perinatal Data* (2002).

PDCU reported the following selection criteria were used to identify the outcomes:

- Parity = 1
- Gestation  $\geq 37$  weeks' and  $\leq 41$  weeks'
- Previous Caesarean = 1
- Went into labour.

• **Data review and validation by clinician(s)**

The unit managers and consultant obstetricians involved in antenatal and delivery suite care reviewed data.

Comments and recommendations for improvement were formulated and discussed at the multidisciplinary Maternity Services meeting before presentation at the monthly Quality Committee meeting.

• **Dates/timeframe of sample**

Women who gave birth at Hospital "X" between 1.1.2001 and 30.6.2001.

## RESULTS

### VBAC planned

The number of women (para 1) whose previous birth was a caesarean section who enter labour at term with a plan for a vaginal birth.	89		
The total number of women (para 1) at term whose previous birth was a caesarean section.	217	=	41%

### VBAC achieved

The number of women (para 1) whose previous birth was a caesarean section who enter labour at term with a plan to deliver vaginally and who achieve this.	46		
The total number of women (para 1) at term whose previous birth was a caesarean section and who enter labour with a plan for a vaginal birth.	89	=	51.7%

## COMMENT ON RESULTS

The hospital has recently developed a protocol and related clinician education program for helping women with the options for birth following a previous caesarean section.

This protocol, including the associated documentation and tools, were implemented in the hospital in February 2002. This is expected to increase the number of women registered as entering labour with a plan for a vaginal birth, and therefore the number of women who achieve VBAC.

## RECOMMENDATIONS FOR IMPROVEMENT/FUTURE ACTION

Sites may consider recommendations for improvement/future action along the following lines:

1. Review/document relevant **protocol(s)**.
2. Ensure it is possible to **record information** required by the Maternity Performance Indicator.
3. Facilitate the **opportunity** for information to be recorded.
4. **Educate/inform** relevant staff/clinicians.
5. Conduct a **concurrent audit** to elicit gaps/inaccuracies.
6. Obtain relevant support information/**evidence** for each of the indicators (see Section 3: The Final Set of Maternity Performance Indicator Statements for Victoria).

### PURPOSE AND RATIONALE

The standardisation is a risk-adjusted calculation, enabling those hospitals with higher proportions of low birth-weight infants (and therefore higher likelihood of perinatal mortality) to be more validly compared with hospitals with a different case mix.

The purpose of collecting this indicator is to provide assurance that mortality rates are within a safe range and to identify high-performing and poorly performing services. Pooling the data over five years adds stability and reduces the risk of over-interpretation of chance fluctuations.

This indicator also takes into account the integrated system of care across Victoria. Crude (unadjusted) perinatal mortality rates do not take into account the regionalisation of perinatal care, in which hospitals provide care for women and babies for whom they have the appropriate services available, transferring those who require a more intensive service.

The rationale for collecting this indicator is that care promoting the survival of newborn babies is one of the primary objectives of a maternity service.

Users of this indicator will be the services themselves, staff providing maternity care, service users and potential service users (patients and their families), the Department of Human Services, and statewide bodies such as the Consultative Council on Obstetric and Paediatric Mortality and Morbidity.

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### HOSPITAL

- Title            Hospital "X"
  - Level 1                    Level 2                        Level 3        ✓
  - Regional                  Metropolitan    ✓
  - Clinician and/or Executive verification and approval for data to be released  
                   Name: *Ms Who*            Title: *Director of Nursing*
- 

### METHODOLOGY

(A description of processes used by the hospital to complete the following activities)

- **Data recording**  
       Standard information for every woman who gives birth at the hospital is entered into a birth outcomes electronic database. This information can be extracted/printed from the electronic database and is provided to the Perinatal Data Collection Unit (PDCU) on a bi-monthly basis.
- **Data retrieval**  
       The Birthweight Standardised Perinatal Mortality Ratio (SPMR) for 2001 is included in the *Hospital Profile of Perinatal Data* (2002).
- **Data review and validation by clinician(s)**  
       The unit managers and consultant obstetricians involved in delivery suite and neonatal care reviewed data.  
       Comments and recommendations for improvement were formulated and discussed at the multidisciplinary Maternity Services meeting before presentation at the monthly Quality Committee meeting.
- **Dates/timeframe of sample**  
       Women who gave birth at Hospital "X" between 1.1.01 and 31.12.01.

## RESULTS

SPMR =	Observed Deaths x 100	79
	Expected Deaths	81.4 = 96.99%

## COMMENT ON RESULTS

PDCU comment “The observed number of deaths in 2001 is not significantly lower than expected” (95% CI 76.4-120.0).

Five years of data are then shown individually and pooled for the years 1997-2001 inclusive. PDCU comment “The pooled SPMR (94) is not significantly lower than the State-wide SPMR (100).”

## RECOMMENDATIONS FOR IMPROVEMENT/FUTURE ACTION

Sites may consider recommendations for improvement/future action along the following lines:

1. Review/document relevant **protocol(s)**.
2. Ensure it is possible to **record information** required by the Maternity Performance Indicator.
3. Facilitate the **opportunity** for information to be recorded.
4. **Educate/inform** relevant staff/clinicians.
5. Conduct a **concurrent audit** to elicit gaps/inaccuracies.
6. Obtain relevant support information/**evidence** for each of the indicators (see Section 3: The Final Set of Maternity Performance Indicator Statements for Victoria).

**MAT-7 THE PROPORTION OF WOMEN OFFERED APPROPRIATE INTERVENTIONS IN RELATION TO SMOKING**

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**PURPOSE AND RATIONALE**

This indicator assesses the performance of providers of maternity care in providing smoking cessation advice, assistance and follow-up during routine antenatal care. It aims to reduce the rate of smoking among pregnant women and improve outcomes for their babies.

The antenatal phase is an ideal opportunity for smoking cessation or reduction education programs, which might involve both hospital and community-based carers.

Clinicians and health promotion staff are the users of these data.

**FIVE-STEP INTERVENTION**

- Step one – **Ask:** All women should be screened at every antenatal visit to detect current or recent smoking status.
- Step two – **Assess:** All spontaneous quitters and smokers should be assessed at every antenatal visit with regard to their motivation to quit or to stay quit.
- Step three – **Advise:** All spontaneous quitters and smokers should be advised at every antenatal visit:
  - To quit.
  - About the risks to their own and the baby’s health, including the high risk of having a sickly baby due to low birthweight, prematurity or intra-uterine growth retardation.
  - About the obstetric implications of continuing to smoke, including spontaneous abortion, stillbirth, perinatal death and SIDS.
  - About the benefits of quitting at any stage in the pregnancy.
- Step four – **Assist:** All spontaneous quitters and smokers should be assisted to quit or remain quit.
  - a) Provide written material on the:
    - Effects of smoking on mother and baby.
    - Role of the partner in helping to reduce the health risks to the baby.
    - Ways to quit and stay quit.
    - Where to go to seek extra support.
  - b) Where appropriate, arrangements should be made for the women to receive additional support. This may involve:
    - Staff providing routine antenatal care.
    - Referral to inhouse services.
    - Referral to external agencies for specific assistance, including counselling, about quitting and other potentially related issues.
- Step five – **Ask again:** All spontaneous quitters and smokers should be followed up at least once before 20 weeks’ gestation, preferably at each antenatal visit. (Refer to Victorian *Three Centres Consensus Guidelines on Antenatal Care: Provision of Smoking Cessation Interventions During Pregnancy*.)

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**HOSPITAL**

- Title Hospital “X”
- Level 1  Level 2  Level 3
- Regional  Metropolitan
- Clinician and/or Executive verification and approval for data to be released  
Name: *Dr Who* Title: *Medical Director*

## METHODOLOGY

(A description of processes used by the hospital to complete the following activities)

- **Data recording**

Women carry their antenatal record throughout pregnancy to enable recording of antenatal assessments both in the community and hospital. Included are the Pregnancy Clinical Path and the “Smoking in Pregnancy Assessment” Tool. The completion of the “Smoking in Pregnancy Assessment” Tool is recorded by the clinicians (midwives and medical staff) on the Pregnancy Clinical Path at each antenatal assessment.

The antenatal record accompanies women when they are admitted to hospital and is filed by health information staff.

- **Data retrieval**

Data from BOS and HOMER patient registration information was accessed to identify the following.

Total population: Women who gave birth between 1.2.02 and 31.7.02 and had their first antenatal visit at the hospital (n = 1400).

Population sample: Every fourth woman in the total population was selected from the complete list (n = 375).

Access to the medical records of these women was obtained.

Manual audits of the population sample identified the outcome of the booking visit as:

- Those women who had Steps 1, 2, 3 and 4 completed according to the *Three Centres Consensus Guidelines on Antenatal Care* = 365.
- Those women who were identified as smokers (ie spontaneous quitter/continuing smoker) = 75.

Manual audits of the population sample identified the assessment outcome before 20 weeks’ gestation as:

- Of those 75 smokers identified as the booking assessment, only 65 attended an antenatal visit by 20 weeks’ gestation.
- Of these 65 women, 60 were reassessed (according to Step 5 of the *Three Centres Consensus Guidelines on Antenatal Care*).

- **Data review and validation by clinician(s)**

The staff facilitator, research and education, and the team leader of antenatal clinics undertook and initial review of the data.

Explanations for apparent “gaps” in the data include:

- Women who delivered at another hospital.
- Women who had an abortion.
- Where there is no record of Steps 1, 2, 3, 4 and/or 5, it is assumed these steps have not been undertaken.

Results were subsequently reviewed by clinicians involved in antenatal care at the hospital and the manager of maternity services before presentation at the monthly Quality Committee meeting.

- **Dates/Timeframe of sample**

Women who gave birth at Hospital “X” between 1.2.02 and 31.7.02.

## RESULTS

### Ask/Assess/Advise/Assist

For the population sample, the number of women who are asked about smoking status, assessed as to motivation to quit and offered advice and assistance at the first hospital antenatal appointment.	365		
The population sample (every fourth woman who had their first antenatal visit at the hospital and subsequently gave birth at the hospital within the last six months).	375	=	97%

### Ask again

For the population sample, the number of women identified as smokers (including spontaneous quitters) at the first hospital antenatal appointment who are asked again about smoking status by 20 weeks' gestation.	60		
For the population sample, the number of women who attended an antenatal visit by 20 weeks' gestation (either hospital or community) and who had been identified as smokers (including spontaneous quitters) at the first hospital antenatal appointment.	65	=	92%

## COMMENT ON RESULTS

For the population sample of women who delivered at Hospital "X" between 1.2.02 and 31.7.02, 97% of women at the first hospital pregnancy were assessed for smoking status and interventions/advice given to quit.

Ninety-two per cent of women identified as being smokers or spontaneous quitters at the first pregnancy visit were asked again about smoking status by 20 weeks' gestation.

The data reflects the positive attitude of care providers to the assessment of women and to assisting with smoking cessation strategies in pregnancy.

## RECOMMENDATIONS FOR IMPROVEMENT/FUTURE ACTION

1. Remind staff regarding the use of the "Smoking in Pregnancy Assessment" Tool.
2. Involve GPs in the education program to ensure women are reassessed before 20 weeks' gestation.
3. Incorporate the assessment tool in the antenatal medical record to ensure routine assessment according to the *Three Centres Consensus Guidelines on Antenatal Care*.
4. Investigate the information technology support for inclusion of the smoking indicator data in the redesign of the BOS database. This may enable data to be collected electronically.

## MAT-8 THE PROVISION OF APPROPRIATE BREASTFEEDING SUPPORT AND ADVICE

---

### PURPOSE AND RATIONALE

The indicator supports care practices for women who wish to breastfeed their baby to ensure:

- Breastfeeding initiation is enhanced.
- Breastfeeding advice and support is in line with the WHO *Ten Steps to Successful Breastfeeding*.
- Babies separated from their mother (due to illness/prematurity) receive breast milk.

This indicator provides a means of monitoring ongoing compliance with WHO *Ten Steps* for Baby Friendly accredited hospitals. Alternatively it can be used as an opportunity to assess readiness for accreditation.

The implementation of this indicator does not require hospitals to become accredited as Baby Friendly Hospitals, nor does it equate with accreditation.

### WHO: THE TEN STEPS TO SUCCESSFUL BREASTFEEDING

Every facility providing maternity services and care for newborn infants should:

- Step 1 Have a written breastfeeding policy that is routinely communicated to all health care staff.
- Step 2 Train all health care staff in skills necessary to implement this policy.
- Step 3 Inform all pregnant women about the benefits and management of breastfeeding.
- Step 4 Help mother initiate breastfeeding within a half-hour of birth.
- Step 5 Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
- Step 6 Give newborn infants no food or drink other than breastmilk unless medically indicated.
- Step 7 Practice rooming-in, allow mothers and infants to remain together 24 hours a day.
- Step 8 Encourage breastfeeding on demand.
- Step 9 Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
- Step 10 Foster the establishment of breastfeeding groups and refer mothers to them on discharge from the hospital or clinic.

---

### HOSPITAL

- Title Hospital "X"
  - Level 1                       Level 2                       Level 3
  - Regional                       Metropolitan
  - BFHI Accredited     No                       Yes                      Date of Accreditation\_\_\_\_\_
  - Clinician and/or Executive verification and approval for data to be released  
Name: *Ms Who*                      Title: *Director of Nursing*
- 

### METHODOLOGY

(A description of processes used by the hospital to complete the following activities)

- **Data recording**

Documents required by the assessment include policies, staff attendance at lectures and patient surveys.

Infant feeding data required for this indicator is routinely recorded in the medical record.

Other data on breastfeeding services is routinely recorded, for example, use of post-discharge breastfeeding support service and attendance at classes about preparation for breastfeeding.

- **Data retrieval**

The lactation consultant ensured data was retrieved as required. Other midwives helped with observation of practice and surveys of mothers.

Where appropriate, health information staff provided access to relevant medical records. Additional manual audits were conducted to obtain relevant data.

- **Data review and validation by clinician(s)**

The lactation consultant and unit manager for maternity in-patient care initially reviewed the data.

Results were then reviewed by the Baby Friendly Staff Committee, including key midwives and other lactation consultants. This committee meets monthly.

- **Dates/timeframe of sample**

1.1.02 to 31.1.02

## RESULTS

Number of WHO Ten Steps approved at time of assessment	8
(WHO) 10 Steps	10

## COMMENT ON RESULTS

Hospital “X” currently meets eight of the WHO *Ten Steps to Successful Breastfeeding*. Steps 2 and 6 require improvement before achieving a perfect score.

- Although no formal breastfeeding education program is offered for staff, many inservice education sessions are conducted.
- All women attending the booking antenatal interview at the hospital are given written information on breastfeeding.
- During the data collection phase, 69 infants not requiring admission to SCN were discharged. Of these infants, 52 were exclusively breastfed, 10 were artificially fed and seven received complementary feeding during their hospital stay.

## RECOMMENDATIONS FOR IMPROVEMENT/FUTURE ACTION

Sites may consider recommendations for improvement/future action along the following lines:

1. Review/document relevant **protocol(s)**.
2. Ensure it is possible to **record information** required by the Maternity Performance Indicator.
3. Facilitate the **opportunity** for information to be recorded.
4. **Educate/inform** relevant staff/clinicians.
5. Conduct a **concurrent audit** to elicit gaps/inaccuracies.
6. Obtain relevant support information/**evidence** for each of the indicators (see Section 3: The Final Set of Maternity Performance Indicator Statements for Victoria).

**MAT-9 THE PROPORTION OF WOMEN WHO RECEIVE TIMELY HOSPITAL ANTENATAL CLINICAL SERVICES**

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**PURPOSE AND RATIONALE**

This indicator measures organisational efficiency and a key component of patient satisfaction.

Administrative and clinical managers and consumers are the users of the indicator results.

---

**HOSPITAL**

- Title Hospital “X”
  - Level 1  Level 2  Level 3
  - Regional  Metropolitan
  - Clinician and/or Executive verification and approval for data to be released  
Name: *Dr Who* Title: *Medical Director*
- 

**METHODOLOGY**

(A description of processes used by the hospital to complete the following activities)

• **Data recording**

Antenatal clinics are run on Mondays and Tuesdays at the hospital.

The existing appointment slip that accompanies the woman’s medical record into the consulting room has been modified to include the time of appointment and time consultation commenced.

The clerk in the antenatal clinic records the time on the slip upon arrival. The clinician (medical/midwife) records the time at the commencement of consultation of slip.

• **Data retrieval**

Completed appointment slips are returned to the clerk following the appointment at the time of making the next appointment. The midwife collects the appointment slips for manual collation.

The following includes data for each of the clinics during the one-month period.

	Monday clinic	Tuesday clinic
Waited less than 30 minutes	76	57
Waited more than 30 minutes	25	21
Seen before appointment time	12	9
Arrived after appointment time	3	2
Waiting time not recorded	58	45
<b>Total seen</b>	<b>174</b>	<b>134</b>

• **Data review and validation by clinician(s)**

Appointment slips are processed according to the day of the week of the appointment, the time spent waiting to be seen, and the clinician assigned to see the woman.

Findings were reviewed by clinicians involved in antenatal care at the hospital in consultation with the manager of maternity services before presentation at the monthly Quality Committee meeting.

• **Dates/timeframe of sample**

Women who attended the hospital antenatal clinic between 1.2.02 and 28.2.02

## RESULTS

For the period of one month, the number of women waiting more than 30 minutes from hospital antenatal appointment time to the time clinician consultation begins.

46

For the period of one month, the number of women presenting for hospital antenatal appointment.

308 = 15%

For the period of one month, the number of women who arrive after their appointment time

= 5

## COMMENT ON RESULTS

Of the 308 women who attended the antenatal clinic:

46 women waited more than 30 minutes from their appointment time.

103 did not have the commencement time of consultation recorded. (When adjusted for the 103 not recorded, the indicator result becomes 22.4%).

133 of the women waited less than 30 minutes from their appointment time.

21 women were seen before their appointment time.

Five women arrived after their appointment time.

Further investigation is required to establish the reason for poor compliance with recording information.

## RECOMMENDATIONS FOR IMPROVEMENT/FUTURE ACTION

Sites may consider recommendations for improvement/future action along the following lines:

1. Review/document relevant **protocol(s)**.
2. Ensure it is possible to **record information** required by the Maternity Performance Indicator.
3. Facilitate the **opportunity** for information to be recorded.
4. **Educate**/inform relevant staff/clinicians.
5. Conduct a **concurrent audit** to elicit gaps/inaccuracies.
6. Obtain relevant support information/**evidence** for each of the indicators (see Section 3: The Final Set of Maternity Performance Indicator Statements for Victoria).

**MAT-10 THE PROPORTION OF WOMEN FROM A NON-ENGLISH SPEAKING BACKGROUND (NESB) WITHOUT PROFICIENCY IN ENGLISH WHO RECEIVE APPROPRIATE INTERPRETER SERVICES**

---

**PURPOSE AND RATIONALE**

The purpose of this indicator is to identify the percentage of women accessing maternity services who require interpreter services and who are able to access them.

The indicator supports an assessment of informed decision-making and equity in access to services. NESB women require adequate information to ensure informed decision-making from a medical, legal and ethical perspective. The literature recommends that women be offered the use of accredited interpreters rather than relying on family or other staff.

Administrative and clinical managers and consumers are the users of the indicator results.

---

**HOSPITAL**

- Title Hospital “X”
  - Level 1  Level 2  Level 3 ✓
  - Regional  Metropolitan ✓
  - Clinician and/or Executive verification and approval for data to be released  
Name: *Dr Who* Title: *Director of Community Services*
- 

**METHODOLOGY**

(A description of processes used by the hospital to complete the following activities)

- **Data recording**

Data is recorded on the Homer patient registration database, which has mandatory fields for recording assessment outcomes including Language Required and Interpreter Required.

Language Services Department Access database is updated by the Language Services Department to record Occasions of Services and prebooked appointments for both staff and external (agency) interpreters.
- **Data retrieval**

Data retrieval includes linking information from the following sources:

  1. Record of all antenatal clinic patient appointments for February (n = 778). Failure to attend and cancellations were screened out.
  2. Homer recording of outcomes of the Assessment of Interpreter Requirements for women booked for antenatal clinic appointments during February. The assessment was recorded for 707 women, and of these, 103 stated a need for accredited interpreter services.
  3. Language Services Department Access Database records of the use of accredited interpreter services. Of the 103 requiring interpreters, 51 were recorded as having an interpreter at consultation.
- **Data review and validation by clinician(s)**

The team leader and booking clerk for the Language Services Department reviewed findings. Findings were discussed with the manager of woman’s social support services before presentation at the hospital Quality Committee meeting.

- **Dates/timeframe of sample**

Women who attended the hospital antenatal clinics between 1.2.02 and 28.2.02

## RESULTS

### Assess interpreter requirements

For the period of one month, the number of women presenting for hospital antenatal appointment, who have had interpreter requirements assessed.	707		
For the period of one month, the total number of women presenting for hospital antenatal appointment.	778	=	91%

### Provision of accredited interpreter services

For the period of one month, the number of women presenting for hospital antenatal appointment identified as requiring an interpreter and who receive accredited interpreter services	51		
For the period of one month, the number of women presenting for hospital antenatal appointment identified as requiring accredited interpreter services.	103	=	50%

## COMMENT ON RESULTS

The preparation involved in data retrieval and analysis was labour intensive and time consuming.

The results surprised hospital interpreter staff and did not fit with their understanding of the level of service provided. It was thought that the low rate of provision of interpreters to those women requiring interpreter services might be due to inaccurate data entry or missing data. Accordingly, staff involved in the registration of antenatal clinic women attended information sessions regarding the “Process for Assessing Interpreter Requirements”. Ongoing information sessions are now held for clinical staff (midwives and medical) to attend.

Although most women attending the hospital antenatal clinic have an assessment of their interpreter requirements recorded on the patient registration database, there is need for improvement.

Reassessment of interpreter requirements is essential at the completion of the antenatal booking visit and each subsequent pregnancy.

Provision of accredited interpreter services to just 50% of women with an identified need for an interpreter service requires significant investigation and improvement. Again, inaccuracy of data entry may contribute to this perceived low rate.

## RECOMMENDATIONS FOR IMPROVEMENT/FUTURE ACTION

1. Investigate the possibility of future IT linkage between databases to facilitate data retrieval and analysis.
2. Provide regular clerical training to ensure ongoing accurate patient registration information and regular updates of language services requirements.
3. Investigate why interpreters might not be booked for a consultation.
4. Investigate why interpreters might not be paged for a consultation.
5. Conduct an audit to determine what influences accurate assessment of whether a NESB woman requires an interpreter.
6. Educate clinicians on the medico-legal requirements for interpreters when assessing NESB women.
7. Review the hospital policy on the “Use and Booking of Interpreters”.

## NOTES

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7	32	18	10	4	8	71
30.4%	32.0%	36.7%	25.0%	28.8%	38.8%	31.4%
0.59	1.55	4.02	4.28	10.20	1.88	1.78
						(1.37-2.28)

5	29	8	18	2	3	34
21.7%	29.0%	12.2%	48.0%	14.28	33.3%	35.5%
0.42	1.40	1.24	7.71	5.20	1.88	1.88
						(0.74-4.00)

10	36	24	12	5	10	30
43.8%	38.0%	40.0%	36.2%	42.8%	40.0%	38.0%
0.84	1.74	6.20	3.74	9.20	1.88	1.88
						(1.34-2.80)

1	5	1	5	2	4	7
4.3%	5.0%	2.2%	9.2%	16.2%	27%	12%
0.08	0.50	0.20	0.94	1.70	4.50	1.18
						(0.00-2.20)