

# Cesarean Birth in BC

Trends, Perspectives and Future Strategies:  
Introducing the BCPHP Task Force Report

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# Cesarean Section Task Force of the BCPHP (BC Perinatal Health Program)

- Struck in 2006
- Mandated by the Ministry of Health to address the question of rising c-section rates in BC
- Task Force group met throughout 2006-7
- Report of the Task Force released in Dec 2007, in final draft form
- Conference in Jan 2008 to address issues arising.

# Conference Questions

- Do we have an optimal cesarean birth rate in British Columbia?
- What are the roles of caregivers in optimizing cesarean birth in British Columbia?
- What support is required from government, health authorities, hospitals and the BCPHP to optimize the cesarean birth rate across British Columbia?
- What is an appropriate public education strategy regarding childbirth?

# Conference Objectives

- To present and disseminate the report of the B.C. Perinatal Health Program (formerly BCRCPP) *Cesarean Birth Task Force*.
- To present and discuss evidence regarding the trends, risks and benefits of cesarean birth.
- To present and discuss evidence of how cesarean birth rates can be reduced.

# Conference Objectives

- To discuss collaboration at the local, regional, and provincial levels, to deliver optimal maternity care for all women of British Columbia.
- To discuss a public information strategy to assure that B.C. women and their families have the best possible information regarding reproductive and maternity care.
- To reach a consensus on moving toward the optimal use of cesarean birth in B.C.

# CBTF Report

- Introduction
- Birth trends
- Maternal and infant outcomes
- Factors contributing to the rate
- Strategies to reduce the Cesarean Rate
- Conclusions and recommendations

# CBTF Report: Specific objectives

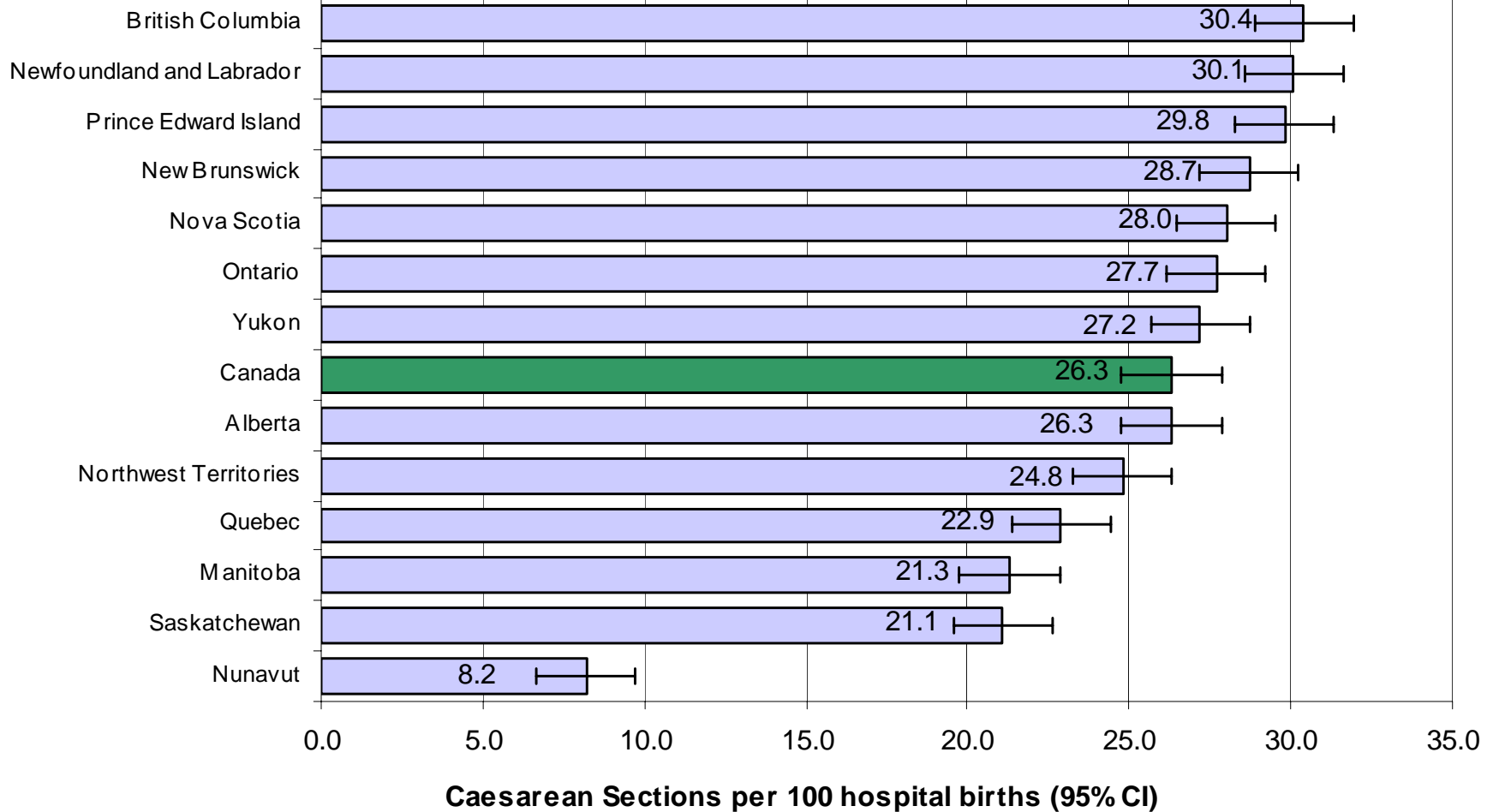
- Review trends
- Review evidence on outcomes
- Describe maternal, pregnancy and obstetric factors that contribute to rate and variation
- Determine if present rate is medically justifiable
- Recommend practice strategies to optimize the use of c-section in BC
- Suggest a comprehensive CQI structure to support initiative
- Propose an action plan

# Birth Trends

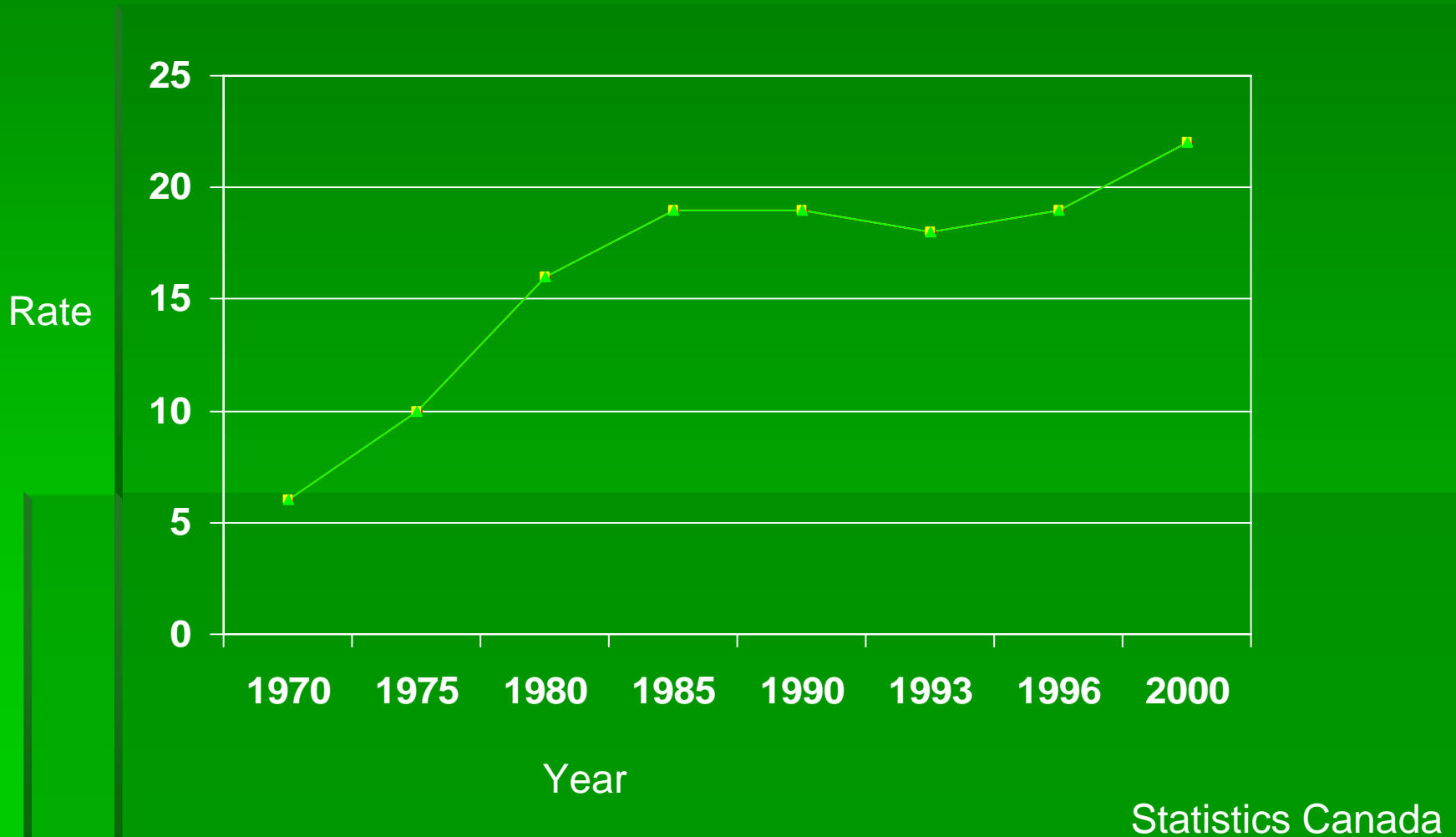
- How BC has changed over time
- How it compares to other jurisdictions

# CESAREAN SECTION RATES BY PROVINCE/TERRITORY, CANADA,

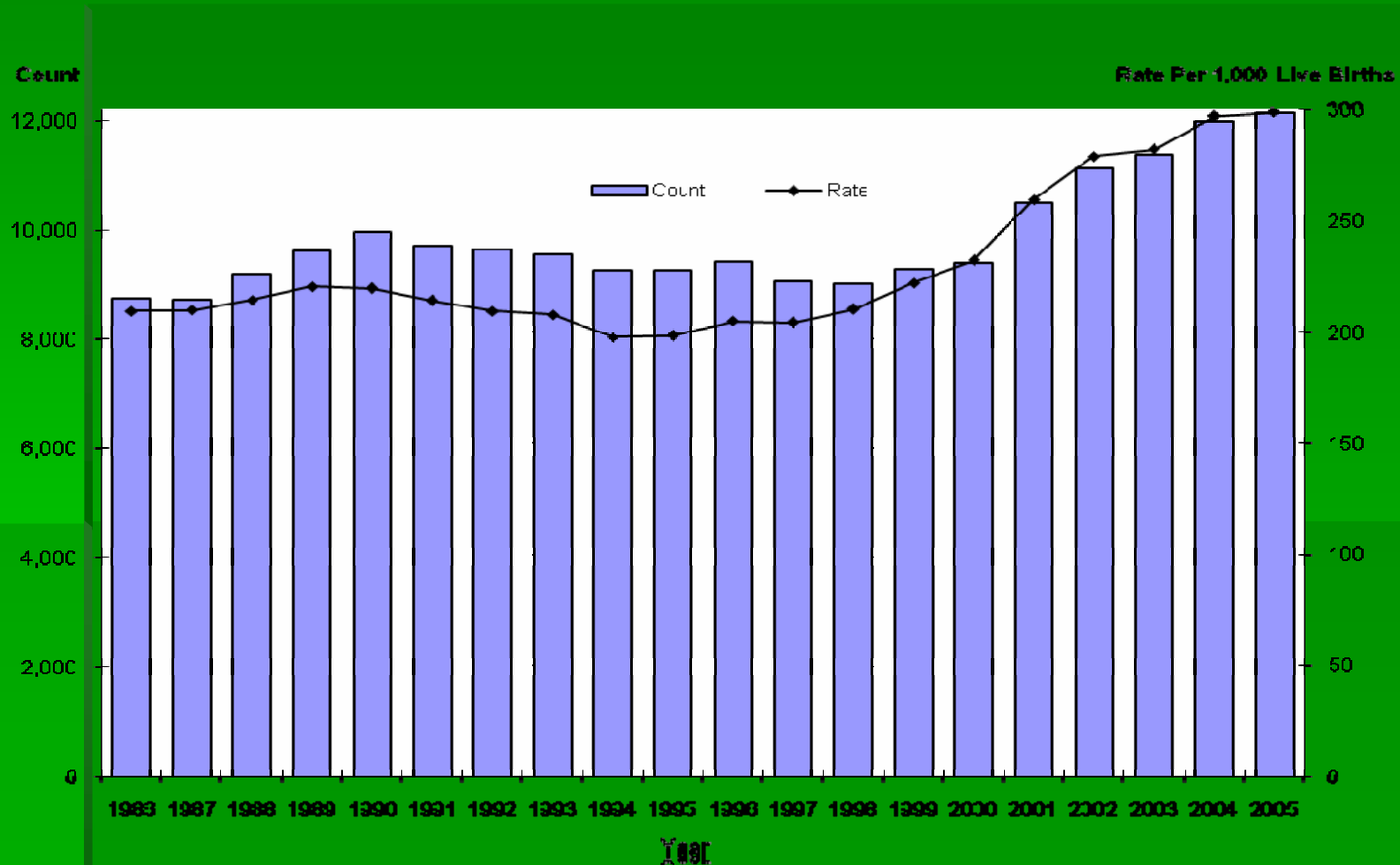
## 2005/2006



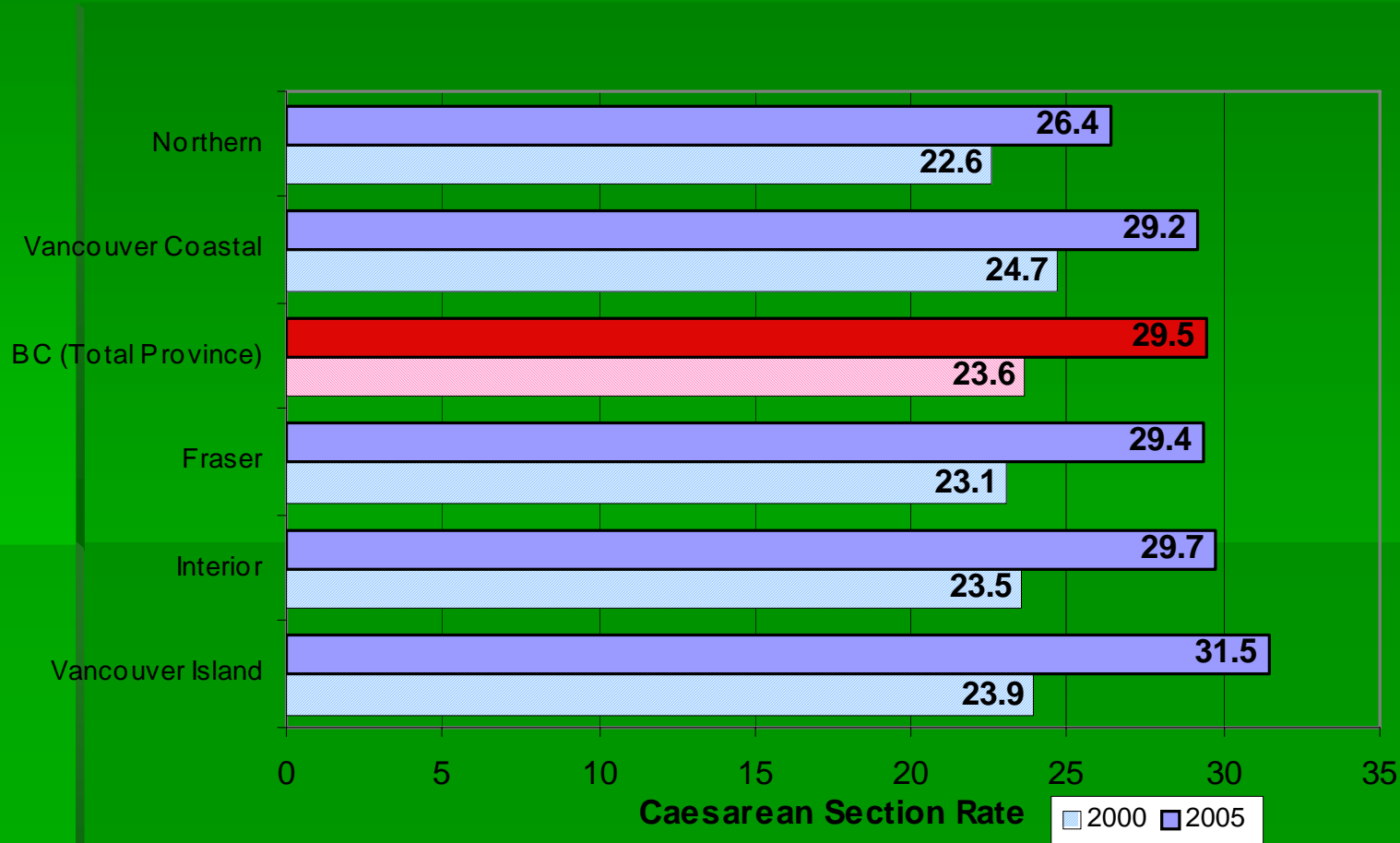
# Cesarean Section, Canada. Temporal Trends



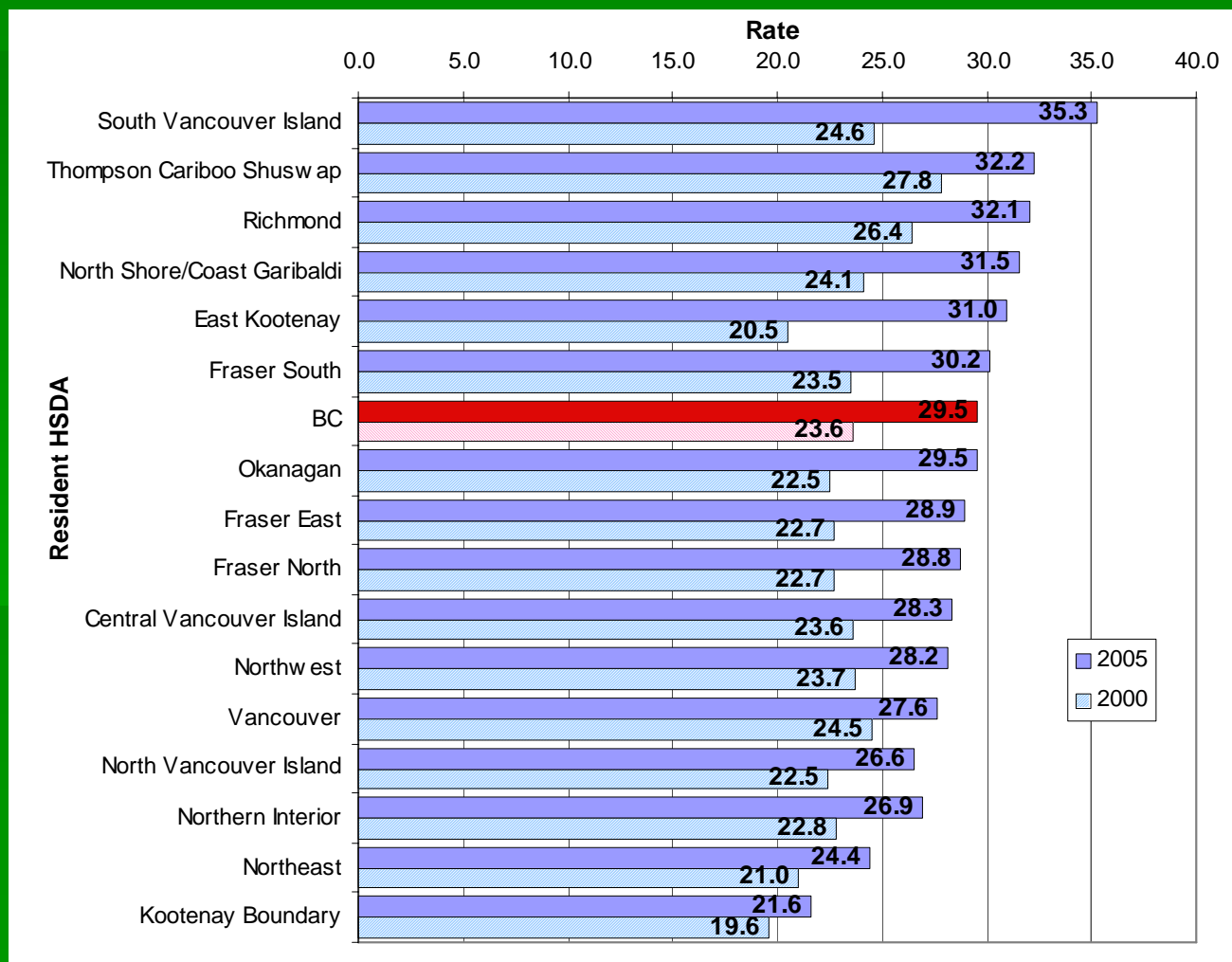
# CESAREAN SECTIONS IN BRITISH COLUMBIA, 1986 TO 2005



# Cesarean Section Rates by BC Health Authority, 2000 And 2005



# CESAREAN SECTION RATES BY BC HEALTH SERVICE DELIVERY AREA, 2000 AND 2005



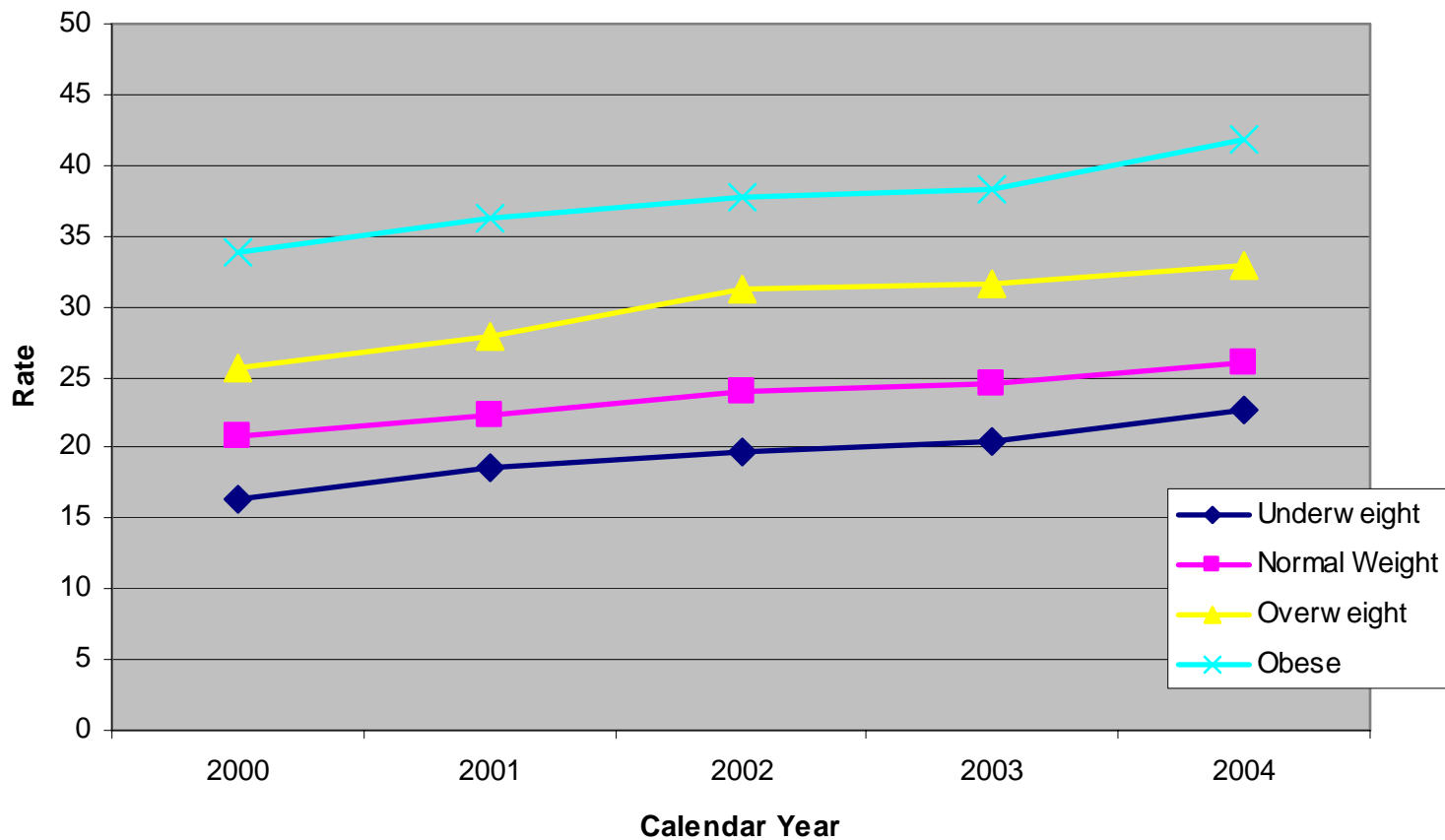
# Summary

- British Columbia currently has the highest Cesarean section rates in Canada
- Significant regional variation
- Dystocia was the most common primary indication
- First Cesarean section is more likely to be emergent, subsequent are more likely to be elective
- Both primary (first) and repeat Cesarean sections are on the rise
- Fewer women are attempting VBAC

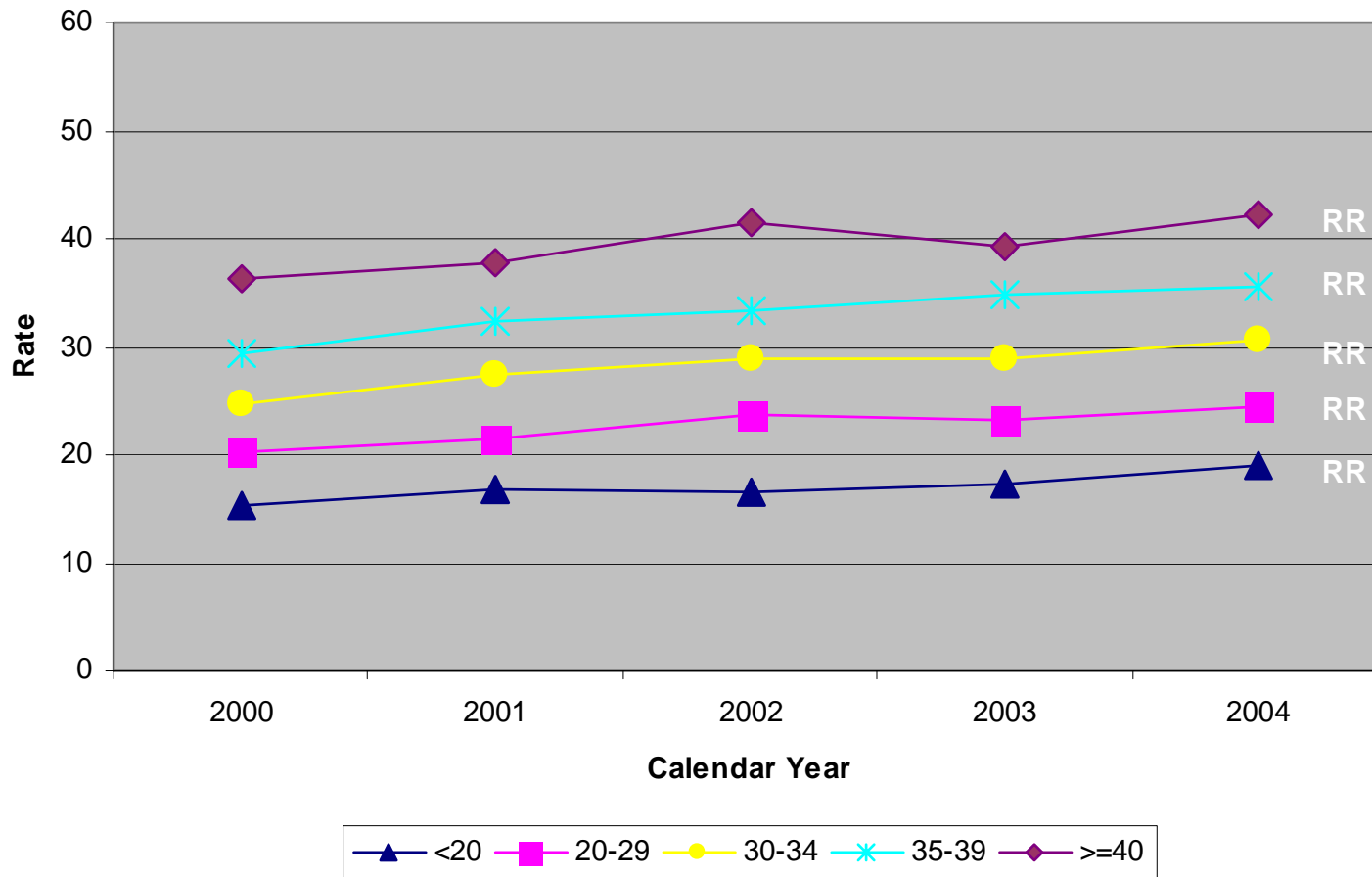
# Factors driving Cesarean Birth Rate

- Age
- BMI
- Obstetric factors
- Labour management factors
- Providers
- Rural factors
- Maternal request
- Multiples/breech management

CS Rate by Body Mass Index Group in BC, 2000 to 2004



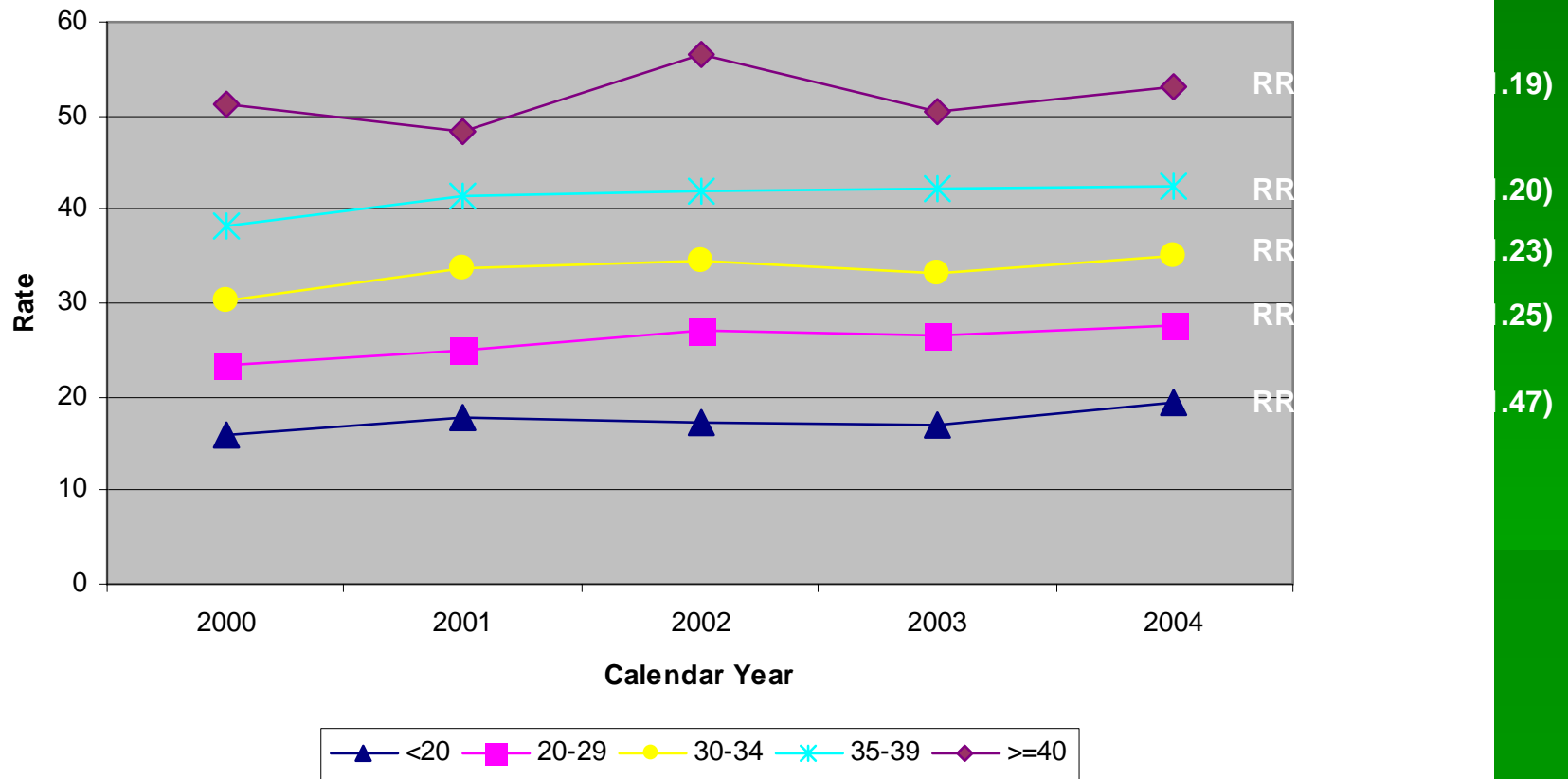
**Cesarean Rate by Maternal Age Group, BC, 2000 to 2004**



RR = relative risk 2000 vs. 2004

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### Cesarean Rate in Nulliparas in BC by Maternal Age Group, 2000 to 2004



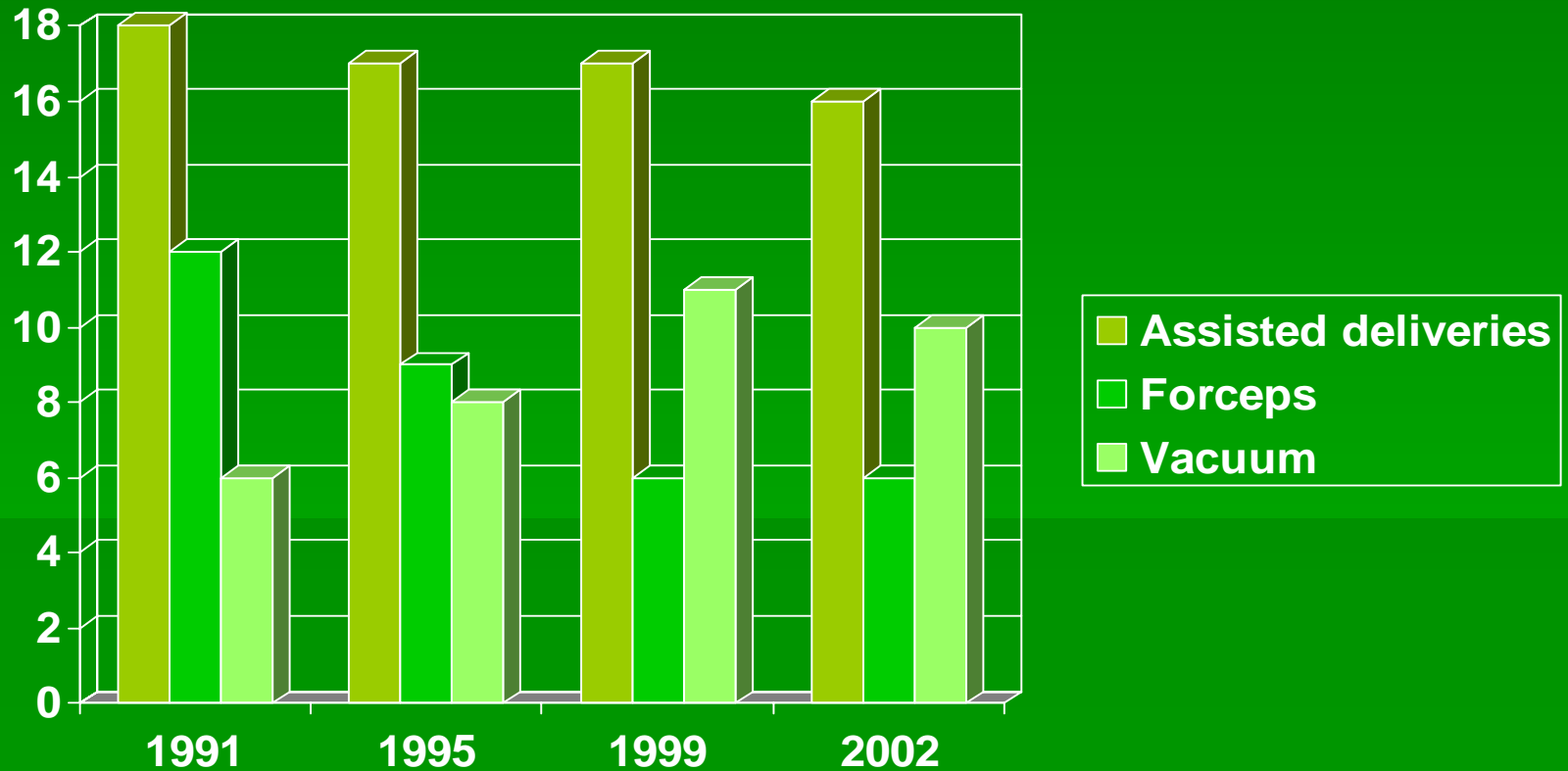
RR = relative risk 2000 vs. 2004

**Trends in Rates of Cesarean Delivery, Primary Cesarean Delivery and Vaginal Birth after Cesarean (VBAC), Canada - excluding Quebec and Manitoba, 1994/95 to 2000/01**

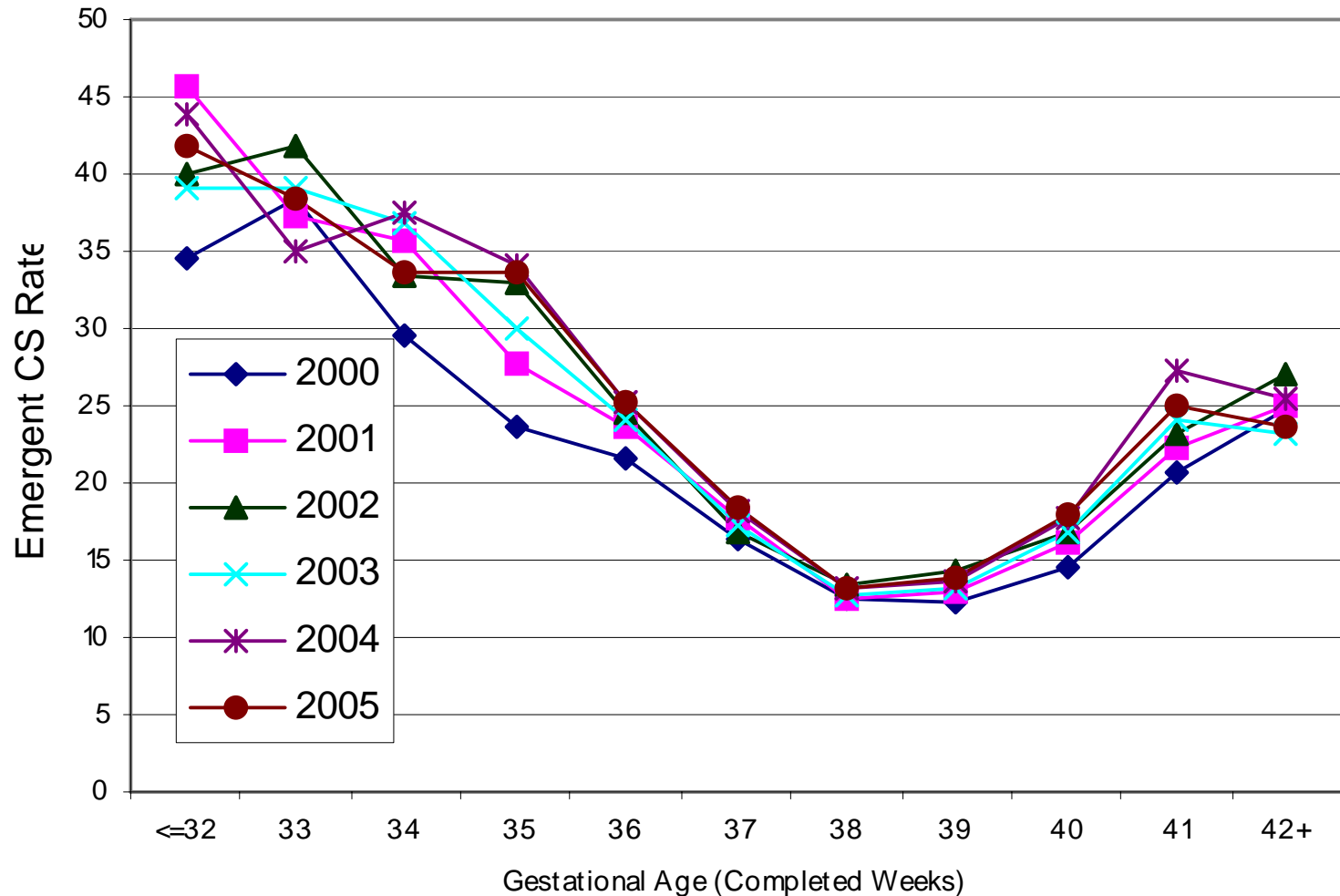
<b>Year</b>	<b>All deliveries</b>	<b>Total cesareans per 100 deliveries</b>	<b>Primary cesareans, per 100 deliveries *</b>	<b>VBAC, per 100 previous cesareans</b>
1994-95	277599	18.0	12.7	33.3
1995-96	273376	18.2	13.0	34.4
1996-97	261683	18.8	13.5	34.1
1997-98	254392	19.1	13.9	34.0
1998-99	250742	19.6	14.2	33.7
1999-00	248953	20.4	15.0	32.1
2000-01	240643	22.1	16.3	28.5

\* Number of primary cesarean deliveries per 100 deliveries among women who have not had a previous cesarean delivery.

# Rates of Intervention per 100 hospital live births



# EMERGENT CESAREAN SECTION RATE BY GESTATIONAL WEEKS IN BC, 2000 TO 2005



# Maternal and Fetal outcomes

- What we know generally: Literature review
- What we know locally: BC Database
- What we don't know: Additional information needed

# Reduction Strategies

- What has been tried
- What has worked
- What constitutes success

# Recommendations: Ministry of Health

- 1. The Ministry of Health develops a health human resources plan that aims to:
  - a. Train, recruit and retain more care providers in maternity care, including perinatal nurses, midwives, primary care physicians and obstetric specialists.
  - b. Support the continuing development of collaborative multidisciplinary models of maternity care with a “right mix” of maternity providers appropriate to the needs of the community or jurisdiction.
  - c. Design a system to support obstetric specialists in their consultant role.

# Recommendations:

## Ministry of health

- 2. The Ministry of Health works with its partners to facilitate development of collaborative models of practice among maternity care providers including midwives, nurses, family physicians and obstetricians
- 3. The Ministry of Health partners with provincial agencies (Michael Smith Foundation for Health Research, BC Medical Services Association) to fund requests for research proposals to develop and disseminate knowledge of practice change to reduce rates of Caesarean section.
- 4. The Ministry of Health develops a process for ongoing evaluation of progress towards implementing the recommendations of this report, including semi annual review.

# Recommendations: BC Perinatal Health Programme

- 1. BCPHP performs ongoing data monitoring with respect to cesarean section rates and factors associated with cesarean section and disseminate this information on an annual basis to health authorities and obstetric facilities
- 2. BCPHP assists health authorities to define local evidence-based benchmarks for cesarean section rates.

# Recommendations: BCPHP

- 3. BCPHP partners with health authorities to develop quality improvement strategies aimed at reduction of cesarean rates while maintaining optimal birth outcomes. These strategies include:
  - a. Creation of multi-disciplinary teams mandated to implement quality improvement programs within designated hospitals
  - b. Analysis of local determinants of variation in caesarean birth rates
  - c. Selection of strategies and interventions to reach targets based on published evidence and local determinants of variation
  - d. Implementation of strategies with rapid cycles of evaluation and modification, and associated knowledge translation

# Recommendations: BCPHP

- 4. BCPHP supports the dissemination of knowledge gained from these quality improvement initiatives through publication in peer-reviewed literature.
- 5. BCPHP incorporates findings of published evaluations into BCPHP guidelines.
- 6. BCPHP modifies the structure of the perinatal database to promote ongoing surveillance of relevant variables arising from quality improvement strategies.

# Recommendations: BCPHP

- 7. BCPHP disseminates evidence-based information appropriate for childbearing women, their families and the general public about pregnancy and childbirth, including:
  - a. Risks and benefits associated with cesarean vs. vaginal birth
  - b. Modifiable factors associated with risk of cesarean birth such as obesity, smoking and advancing maternal age
- 8. BCPHP use lay media outlets to disseminate this information including public service announcements, web-based resources, and print material.

# Recommendations: Regional Health Authorities

- 1. Regional Health Authorities designate internal responsibility for dissemination of Cesarean birth surveillance products developed by BCPHP within health authorities.
- 2. Regional Health Authorities partner with BCPHP to develop quality improvement strategies aimed at reduction of Cesarean rates while maintaining optimal birth outcomes
- 3. Regional Health Authorities commit to encouragement and resourcing of practice change initiatives arising through quality improvement activities.

# Recommendations: Maternity Care Providers

- 1. Providers access dissemination materials made available through Health Authorities and BCPHP.
- 2. Providers invest time in adopting designated practice changes within hospitals for the purpose of evaluation of associated outcomes.
- 3. Providers consider participation in quality improvement teams, as well as practice guideline development and evaluation within hospitals.
- 4. Providers assist in the dissemination of consumer-oriented educational materials distributed through the BCPHP.

# Summary

- What can we achieve?
- Can we meet these goals?
- Can we use our expertise to assure...
- That cesarean section and other interventions are used in a way that optimizes the health of women and their families in BC

Thank you for being here!!!

