





Proceedings from the: General Practice Anaesthesia in British Columbia Symposium: The Interface Between Policy, Practice and Research

> Sutton Place Hotel, Vancouver BC September 23rd and 24th, 2010











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Hosted by the Centre for Rural Health Research, the Rural Coordination Centre of BC, and Perinatal Services BC.



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For additional copies of this publication, please contact: The Centre for Rural Health Research 530-1501 West Broadway Vancouver, BC V6J 4Z6 t: (604) 742-1796 f: (604) 742-1798

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Introduction

On September 23rd and 24th, 2010 the Centre for Rural Health Research (CRHR), the Rural Coordination Centre of BC (RCCbc), and Perinatal Services BC (PSBC) hosted a collaborative working meeting to address the issue of GP anaesthesia as a key component of health services to residents of rural BC. This invitational meeting, General Practice Anaesthesia in British Columbia: The Interface Between Policy, Practice and Research, was held in Vancouver, BC and was seen as a first step in addressing a number of complex integrated health human resource and services issues (surgical, obstetrical, nursing, midwifery) in rural BC.

The goals of the symposium, facilitated through small group discussion, were to:

- 1. Recognize and support the role of GPA's in sustaining safe birth in rural communities;
- 2. Document current experiences of GPA's in rural communities specifically with regards to maternity care and emergency services;
- 3. Create a structure for integrated knowledge translation by involving policy and decision makers; and
- 4. Formulate a plan of integrated action involving research, practice, education, and policy initiatives to address issues of accreditation, credentialing and a regulatory/quality improvement framework for guiding practice and facilitating the development of working groups in these areas.

The symposium began with an evening reception highlighting key individuals involved in the GPA agenda in BC in a panel discussion. The purpose of the panel was to stimulate dialogue and thought for the work on Friday. The speakers included:

Louis Prinsloo, General Practice Anaesthetist, Northern Health Authority Peggy Yakimov, Kootenay Boundary Medical Director, Interior Health Authority Granger Avery, Executive Director, Rural Coordination Centre of BC Nevin Kilpatrick, Anaesthesiologist, BC Women's Hospital & Health Centre with GPA background Kim Williams, Provincial Executive Director, Perinatal Services BC

Resonant with all of the speakers was the recognition of the need for GPA services in BC, especially in relation to health service provision in rural and remote communities. It was also noted that another health service, GP surgery, is closely linked to GP anaesthesia. Although the focus of the symposium was GP anaesthesia, the interrelationship with other services was kept in the foreground during the discussions.

The day long symposium was designed so that the multi-stakeholder group could establish a framework for action in the area of GP anaesthesia in BC. To accomplish this, the symposium was separated into four thematic sessions. The purpose of the first three sessions was to give participants an understanding of the current situation of GP anaesthesia services in BC, and the fourth session was designed to establish mechanisms to find solutions to address some of the issues that currently face GP anaesthetists. This involved establishing a "lead investigator" for each area who was responsible for following up on the discussions started at the symposium.

The sessions where as follows:

- 1. The Context of GPA Services in BC;
- 2. The "Virtual Birthing Suite";
- 3. The General Practice Anaesthetist Panel; and
- 4. Working Groups on Education, Policy, Practice and Research.

Introduction continued...

We extended our deepest gratitude to the 35 individuals who participated in the day, including 12 policymakers, 8 GPA's (one recently retired) and 4 Anaesthesiologists. Their involvement and enthusiasm led to the day's success and look forward to progress in the support of our provinces GPA's.

The following proceedings reflect the thematic structure of the symposium including group discussions and slides from the PowerPoint presentations.

Deepest regards,

Syc groukenilan

Stefan Grzybowski and Jude Kornelsen (Centre for Rural Health Research)

Context of GPA Services in BC

Speaker: Dr. Stefan Grzybowski

At the beginning of his presentation Dr. Stefan Grzybowski identified 3 key questions regarding GP anaesthesia services that he wanted the participants to think about during his presentation and the rest of the day.

1. How many GPA's are there in BC?

A. How do we count them? Full time versus part time?

- CAS, 1996: 523 (>8hrs/wk anaesthesia or less than 200 anaesthetics/yr)
- SRPC, 1995-1996: 498 (avg # cases 323/yr vs. 797/yr for anaesthesiologists)
- CFPC: 751 of whom 604 were in rural or small town Canada

According to CMA there were 2,287 anaesthesiologists in 2000 and there are 2,843 in 2010 in Canada.

- 2. What does a GPA do?
 - A. What is their scope of practice?
 - A perioperative physician who provides medical care to patients before, during, and after surgical procedures;
 - Responsible for delivering (or ensuring the delivery of) anesthesia safely to patients in virtually all health care settings; Analgesia during labour, anaesthesia during c/s
 - Responsible for undertaking a preoperative medical evaluation of each patient before surgery, consultants with the surgical team and creates a plan for the anaesthesia tailored to each individual patient;
 - Undertaking airway management, intraoperative life support and provision of pain control, intraoperative diagnostic stabilization, and proper post-operative management of patients; Resuscitation services for newborn, maternal, trauma, cardiac patients Critical care, airway stabilization and
 - Preparing patients for emergency surgery. Emergency shifts, covering, running general practice
 - B. How can we define their activities?
 - Northern Health Authority Data
 - Categories of GPA's: Active (29), Provisional (8), Consulting (7), Locum (35)
 - Categories of Anaesthesiologists: Active (8), Provisional (9), Consulting (1), Locum (31)
- 3. What are the important problem facing GPA's in 2010?
 - A. Not enough GPA's
 - Not enough applicants to the GPA programs
 - Failure of mentorship (2/3 Canadian trained, 1/3 international medical graduates (IMGs))
 - B. Average lifespan of a GPA in Canada is 5 years, although it is currently longer in BC (data not available).

During his presentation Dr. Grzybowski also looked at how maternity services are supported by GPA services by looking at two previous studies.

Level of Maternity Service and Population Birth Outcomes for Rural British Columbia

The objective of this study was to compare population based provincial maternal and newborn outcomes by distance to access services and level of local services catchments for 2000-2004.

Retrospective cohort study using data from the British Columbia Perinatal Health Program [BCPHP] from Jan.1,

Context of GPA Services in BC continued...

2000 to Dec. 31, 2004. Outcomes were linked by postal code to one hour rural hospital geographic catchment areas for each rural facility in B.C. providing intrapartum maternity care. Hospital service level was defined using BCPHP data, and data was stratified by service hospital level.

Main outcome measures were intervention rates, including caesarean section and induction, and maternal morbidity.

Data was available for 49,400 women stratified over eight population catchment types, ranging from no local services to services provided by obstetricians and gynecologists. Caesarean section rates were highest in communities served by general surgeons (30.2%) and lowest in communities where women had to travel more than four hours to access maternity services (19%) or had local maternity services without local access to caesarean section (22.7%). The rate of induction of labour was highest for women 2 - 4 hours travel time from nearest maternity services (26%). Rates of postpartum transfer from delivery institution were highest in communities without caesarean section capability (7.4%) and communities served by general surgeons (8.8%). Regression analysis was undertaken to establish maternal and ecological predictors of key outcomes using services provided by OB/GYNs as the comparison community.

A look at B.C.:

- In rural British Columbia rates of caesarean section are highest in communities served by general surgeons
- Rate of induction was highest when women have to travel 2 4 hours to access services
- Post partum transfer of mother and infant occurred most frequently from the delivery institution in communities served by general surgeons.
- Some NICU admissions are thought to be due to lack of access to neonatal care in the local community as opposed to the child needing intensive care.

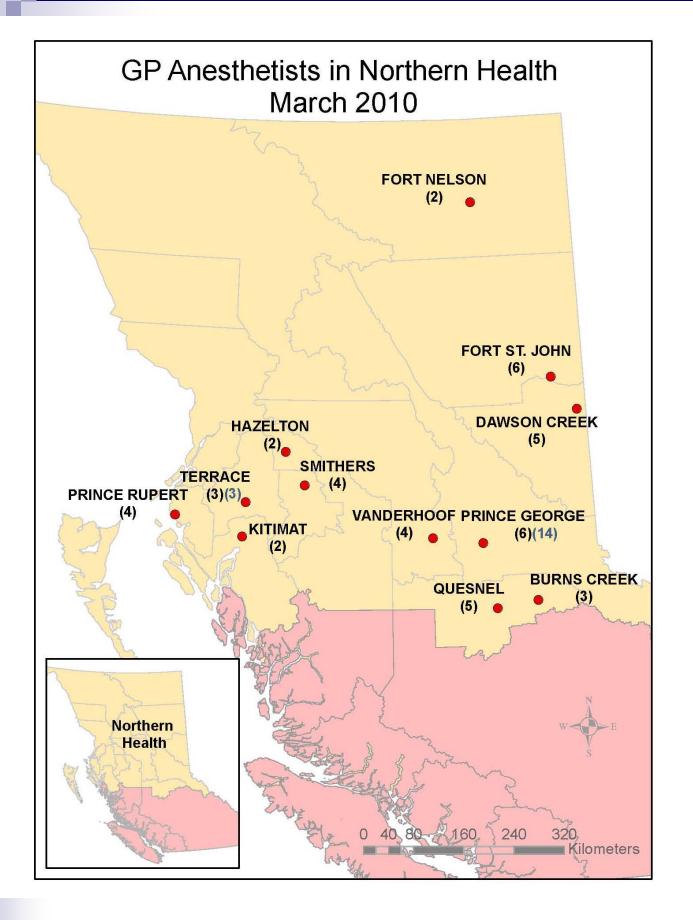
Rural Birth Index

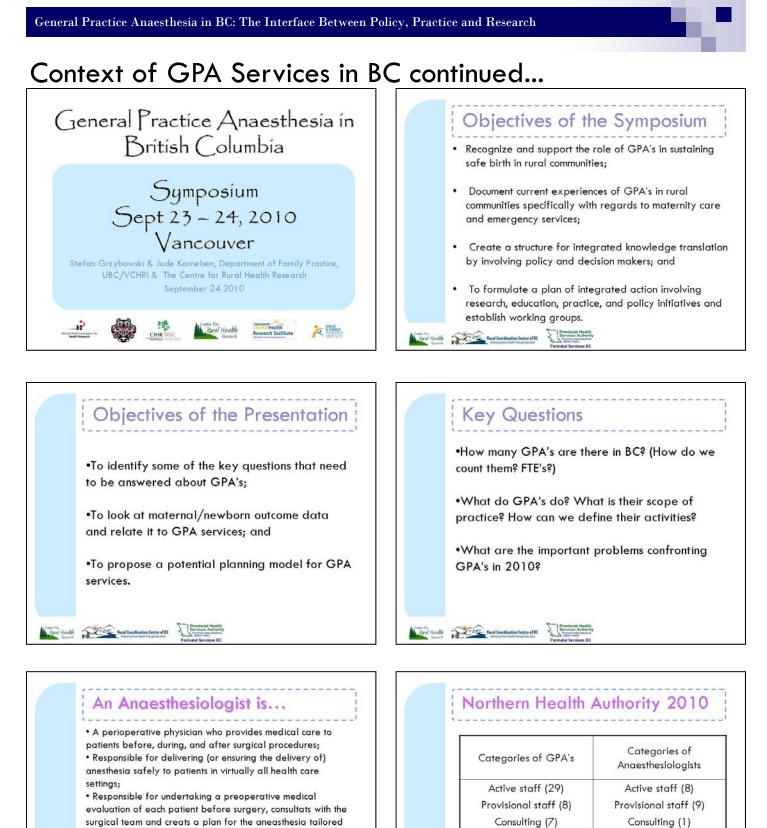
The objective of this study was to develop and apply a population isolation model to define the appropriate level of maternity service for rural communities in British Columbia, Canada.

An iterative, mathematical model development supported by multi-methods research in 23 rural and isolated communities in British Columbia, Canada was used. The communities were selected for representative variance in population demographics and isolation. The main outcome measure was the Rural Birth Index (RBI) score for 42 communities in rural British Columbia.

In rural communities with 1 hour catchment populations of under 25,000 the RBI score matched the existing level of service in 33 of 42 (79%) communities. Measuring inappropriate service levels for the rural population was done through qualitative data from 6 of the 9 communities.

The RBI has become a pragmatic tool in British Columbia to help policy makers define the appropriate level of maternity service for a given rural population. The conceptual structure of the model has broad applicability to health service planning problems in other jurisdictions.





Locum (35)

Carled for Area Heading Continues Contraction Contract of BC

to each individual patient; • Undertaking airway management, intraoperative life support and provision of pain control, intraoperative diagnostic stabilization, and proper post-operative management of patients; and

• Preparing patients for emergency surgery.

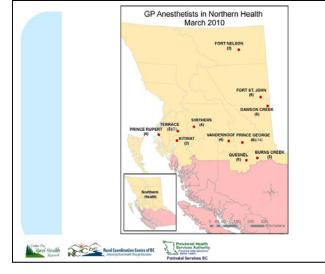
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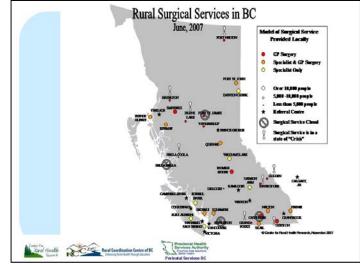
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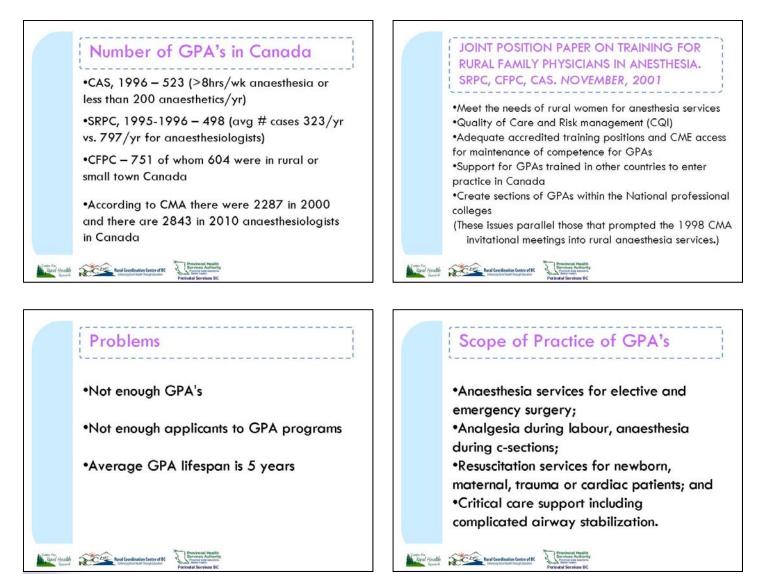
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Context of GPA Services in BC continued...

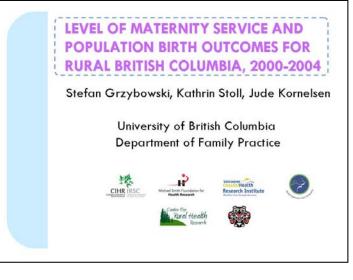






General Practice Anaesthesia in BC: The Interface Between Policy, Practice and Research

Context of GPA Services in BC continued...



Objective

Raral Coordination Centre of BC

To compare population based provincial maternal and newborn outcomes by distance to access services and level of local services catchments for 2000-2004

Background

Rural parturient women are increasingly being evacuated from their home communities to access services in referral centres [14-18].
 This is part of a general trend towards the centralization of care [19].
 Recent qualitative research has suggested that rural parturient women from communities without local maternity services experience high degrees of stress and anxiety due to the actual or potential evacuation from their community for labour and delivery [14,20-24].

Black D, Fyfe I. (1984) The safety of obstetric services in small communities in northern Ontario. CMAJ 130: 571-576	 Northern Ontario populations served by small hospitals with limited facilities Hospitals had perinatal mortality rates similar to populations served by larger secondary or tertiary facilities despite lower rates of interventions.
Rosenblatt RA, Reinken J, Shoemack P. (1985) Is obstetrics safe in small hospitals? Evidence from New Zealand's regionalized perinatal system. Lancet 2: 429-432	 New Zealand, nation-wide For infants greater than 1500 g, the lowest levels of birthweight specific perinatal mortality were in Level 1 fadilities.
Nesbitt TS, Connell FA, Hart LG, Rosenblatt RA. (1990) Access to obstetric care in rural areas: Effect on birth outcomer. Am J Public Health 80 (7): 814- 818	 Rural Washington State Communities which were high outflow had a greater proportion o complicated deliveries, higher rates of prematurity, and higher costs of neonatal care than low outflow communities.
Vilsairen K, Gissler M, Hemminki E. (1994) Birth outcomes by level of obstetric care in Finland: a catchment area based analysis. J Epidemiol Community Health 48 (4):400-405.	Finland, large, population-based survey Compared birth outcomes for catchment areas of different levels of care provided in hospitals Found no statistically significant difference in any outcomes between the different levels of care.
Moster D, Terje Lie R, Markestad T. (2001) Neonatal mortality rates in communities with small maternity units compared with those having larger maternity units. Br J ObG yn 108:904- 909.	 Norway Examined neonatal mortality in geographic areas served by different sized maternity units Found statistically significant small increases in risk of neonatal death for smaller maternity units.

Methods

Terral Coordination Centre of BC

Define unique catchment area for each rural hospital using postal codes
Define obstetrical care service levels
British Columbia Perinatal Health Database cohort analysis
Link perinatal outcomes by residence of mother

Rural Pregnancy Stress Scale (RPSS)

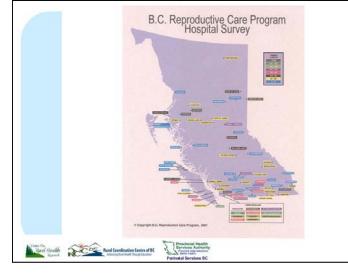
- •The RPSS is a reliable and valid measure of the stress rural parturient women experience during their pregnancy.
- •Women without local access to obstetric services were **7 times** more likely to experience moderate/high stress.

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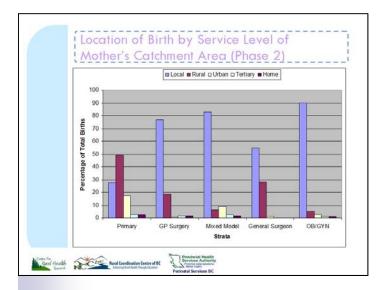
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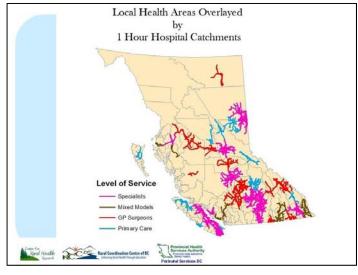
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Context of GPA Services in BC continued...



N			
Service Level	Definition of Service Level	# of Catchment Areas	# o Birth
240+	Greater than 240 minutes (4 Hours) from matemity services	15	506
121-240	121-240 minutes (2-4 Hours) from maternity services	19	747
61-120	61-120 minutes (1-2 Hours) from maternity services	23	1,35
Primary	No local C-section availability (Mat Care Via Family Physician)	16	2,88
GP Surgery	C-section provided by GP surgeons only	20	5,14
Mixed Model	C-section provided by GP surgeon or Specialist	15	5,94
General Surgeon	C-section provided by General Surgeon	2	2,14
OB/GYN	C-section provided by Obstetrician	17	30,66
Total		127	49,40

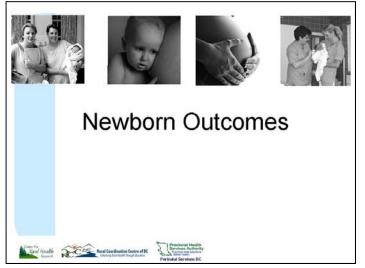




Data Analysis

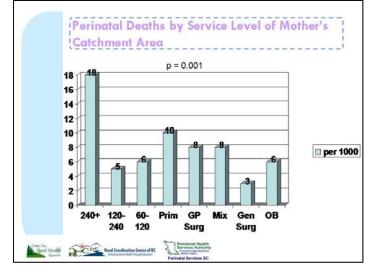
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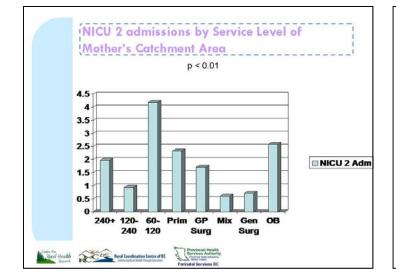
- Exclude mothers who gave birth to twins and multiples and babies with fetal anomalies
- Bi-variate analysis to test sig. associations between outcomes and obstetric service levels
- Regression modelling to test predictors of neonatal and maternal outcomes.

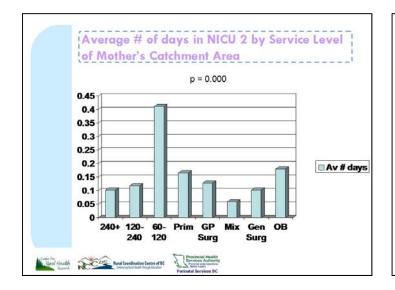


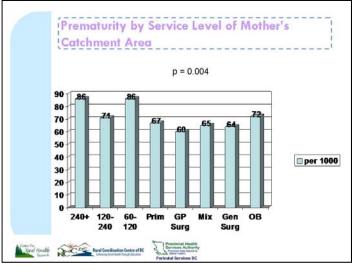
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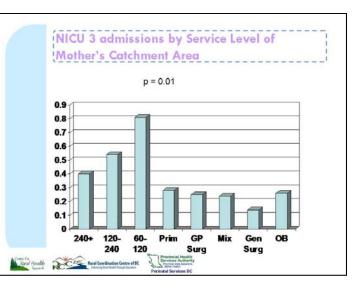
Context of GPA Services in BC continued...

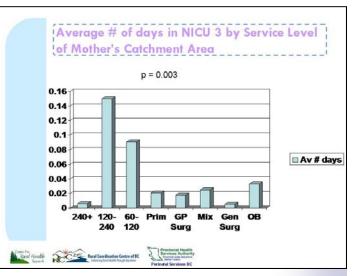








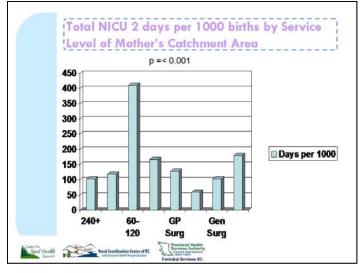




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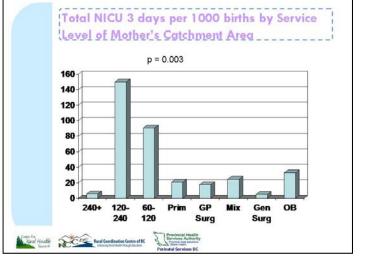
Context of GPA Services in BC continued...





- Average public cost of a NICU 2 Day : –\$1300
 - –Private Cost \$4300
- Average public cost of a NICU 3 Day:
 - -\$250
 - -Private cost \$4300

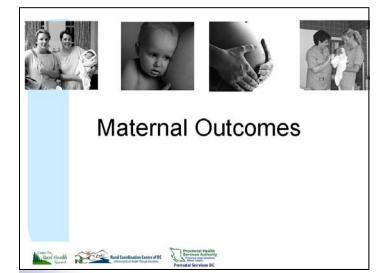
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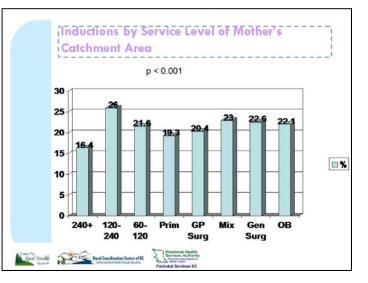


Conclusions

- In British Columbia lack of local access to intrapartum services is associated with increased rates of neonatal admission to NICU 2 beds and longer stays in both NICU 2 and NICU 3 beds
- Greater than 4 hour travel time to access services is associated with 3 times higher perinatal mortality

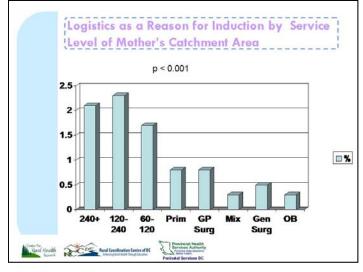
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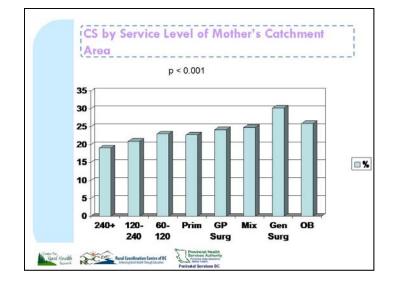




General Practice Anaesthesia in BC: The Interface Between Policy, Practice and Research

Context of GPA Services in BC continued...

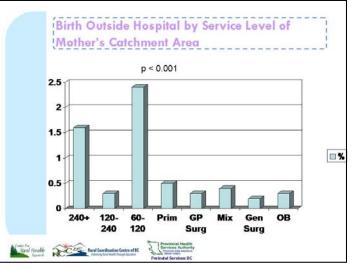


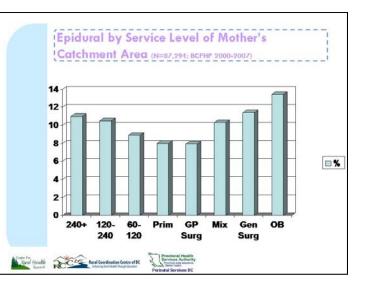


Conclusions

- In British Columbia women who have to travel 2 to 4 hours to access maternity services are 1.3x more likely to receive an induction.
- In British Columbia women who live in a community in which Cesarean services are provided by General Surgeons are 1.2x more likely to have a section.



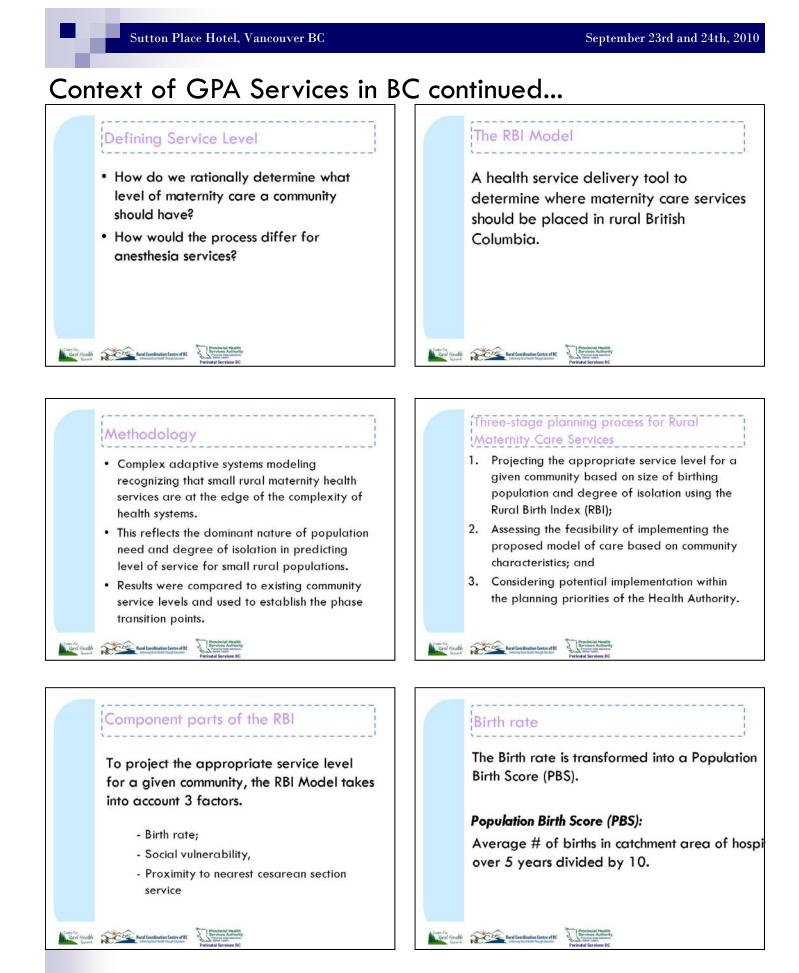




Summary Conclusions

Carla for Headth Read Continuing Burk Continuing States

 Lack of local access to maternity services in British Columbia is associated with significant perinatal consequences for rural women and families.



General Practice Anaesthesia in BC: The Interface Between Policy, Practice and Research

Context of GPA Services in BC continued...

Adjustment for Population Vulnerability (APV)

Social vulnerability is represented by a score derived from a BC stats composite score (range -1 to +1) of several social indicators* and is weighted in the RBI between:

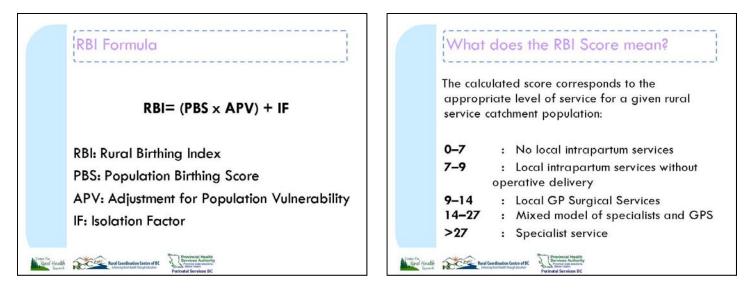
0.8 (advantaged) to 1.4 (disadvantaged)

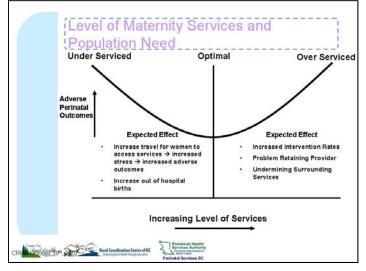
Rural Coordination Centre of BC

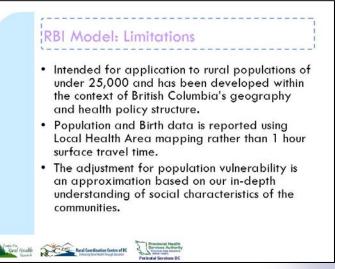
* Overall regional socio-economic index including levels of: human economic hardship, crime, health problems, education concerns, children and youth at risk. www.bcstats.gov.bc.ca/data/sep/i lha/lha_main.asp RBI Model: Proximity to nearest cesarean section service

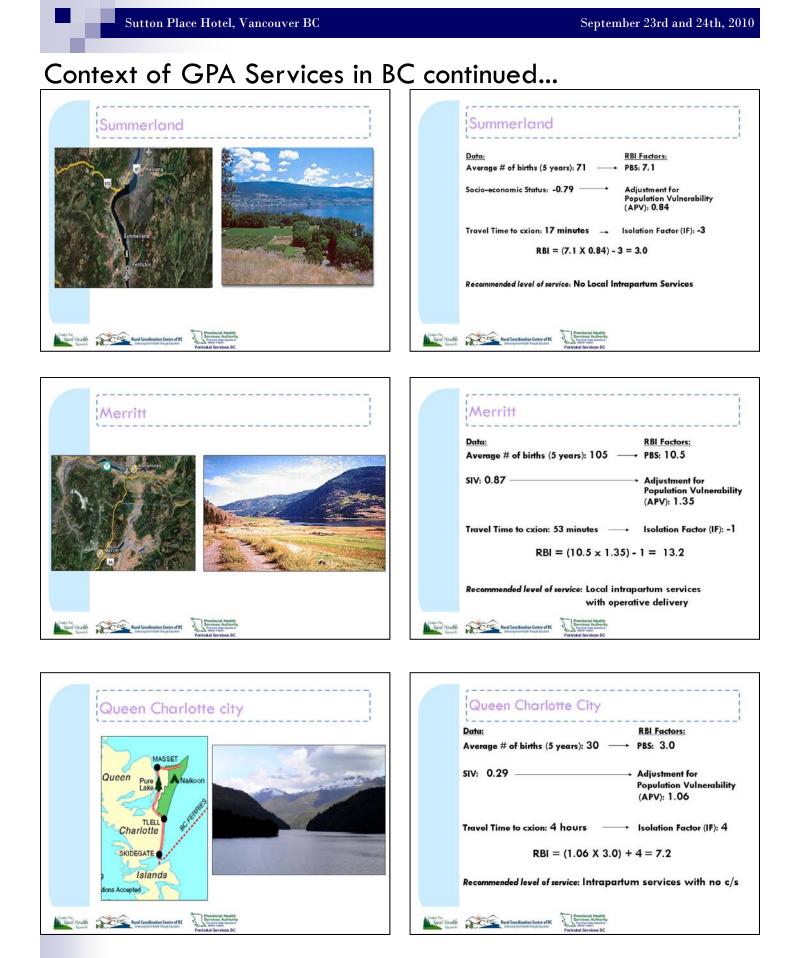
Measured by an Isolation Factor (IF):

Surface travel time is w	eig	nted as follows:
< 30 minutes	=	-3
31-45 minutes	=	-2
46-60 minutes	=	-1
61-90 minutes	=	1
91-120 minutes	=	2
2-4 hours	=	3
> than 4 hours	=	4
* If Cesarean Section provided i	local	y then distance to next service is









The "Virtual Birthing Suite" in the context of GPA Services

Speaker: Dr. Nevin Kilpatrick

Dr. Nevin Kilpatrick, an Anaesthesiologist with BC Women's Hospital and Health Centre (BCWH) opened his presentation on the Virtual Birthing Suite (VBS) by giving an overview of the current situation of maternity care in BC.

To put things in perspective there are roughly 41,000 deliveries in BC a year, 7,500 of which are at BCWH. Of those, 80% are low risk deliveries that could be delivering elsewhere. Because of the large volume of women delivering at BCWH, and because 20% of those women are high risk, the number of maternity related procedures and interventions is dramatically higher than those seen in small centres. If you were to put rates to procedures, at BCWH you would see:

- 1 baby every hour
- 1 epidural every 2 hours
- 1 c-section every 3 hours
- 1 STAT c-section is done every 3-4 days
- 1 epidural blood patch is done every 10 days
- 1 massive transfusion every few weeks

On the other side of thing, communities with GPA-only anaesthesia support deliver more than 6000 babies yearly, most of which have been identifies as low risk, spread over about 25 rural birthing centers. This means that the rate at which they do specific procedures drops dramatically, and instead of per unit, over the entire year at all sites combined you would see:

- 1500 c-sections a year
- 1 STAT c-section a week
- 1200 regionals and 300 GA's a year
- 120 'failed' regionals; 5-6 'failed' intubations a year
- 2500 epidurals a year
- 30 epidural blood patches a year
- 300 post-partum hemorrhages a year

In the case of a STAT c-section, where every minute delay is a threat to a babies IQ, or a post-partum hemorrhage, if a GPA only sees this once a year, what are they to do if policies and procedures that are not in place? This is where the VBS comes into play.

By aggregating the 6,000 plus deliveries by GPA's a year into a VBS it will allow a comparison of resource levels between all of these communities and hospitals with a similar volume of deliveries.

	Larger Hospital	Rural Hospital - GPA-only
Lead in Safety	Anaesthesiologist	Needs to be the GPA's
Administration	Administrative staff and Department Head	Who does this?
Practitioner gets sick/injured	No effect	Services could close

Table 1. Things to consider when comparing large urban with rural hospitals:

To encourage GPA's to continue serving our rural communities we need to:

- 1. Make their job as fun as a BCWH anaesthesiologist
- 2. Make their lives as easy as a BCWH anaesthesiologist
- 3. Make their birthing centers as safe and reliable as a BCWH anaesthesiologist

The "VBS" in the context of GPA Services continued...

FPA'S & RURAL MATERNITY CARE

Nevin Kilpatrick September 2010

Connecting the dots.....

- Swellendam, South Africa 1991
- Leader, SK 1997
- Summerland, BC 2000
- BCWH 2006

BCWH

- 1 baby is born every hour
- 1 epidural is done every 2 hours
- I c/section every 3 hours
- 1 STAT c/section is done every 3-4 days
- 1 epidural blood patch is done every 10 days
- 1 massive transfusion every few weeks

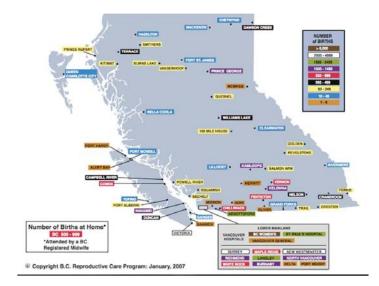
Connecting the dots.....

- FPA's: 100 working in
- 25 Rural Birthing Centers
- Delivering 6000 babies a year
- Within BC where 41 000 babies are born each year

BCWH

6000 deliveries a year

- 1 'stat' section a week
- 1500 cesarean sections
- 1200 regionals / 300 GA's
- 120 'failed' regionals; 5-6 'failed' intubations a year
- ▣ 2500 epidurals a year
- 30 epidural blood patches a year
- 300 post-partum hemorrhages a year



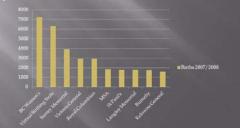
The "VBS" in the context of GPA Services continued...





The Virtual Birthing Suite mmunities with GPA-only anesthesiology support represent 6000+ deliveries per year.

- Aggregating these into a *Virtual Birthing Suite* allows us to compare resource levels between these communities and hospitals with a similar volume of deliveries.



FPA's

- Labor analgesia

- Teaching, Education, Research, QA safety

Department of FP Anesthesia

- Quality and Safety
- Educational rounds / Knowledge transfer

Provide reliable, safe and sustainable service

What can we do?

- Make their lives as easy as mine.
- Make their birthing centers as safe and reliable as

For the benefit of BC women having babies as close to home as possible.

The "VBS" in the context of GPA Services continued...

Speaker: Dr. Louis Prinsloo

Dr. Louis Prinsloo, a GP Anaesthetist with Northern Health, focused on the state of GPA Services in BC.

He started his presentation by reminding us that although we are often critical of intervention in maternity care, the fact that we've come so far in making birth safe is due to interventions when they are needed. So although he is not pro intervention he cautions the group to be wary of low or no intervention models.

Consequently when considering the VBS, it is important to consider what portion of it is low risk. This population should be compared to the low risk population at BCWH as opposed to the whole of the BCWH population as roughly 20% of the whole population is high risk. We tend to get focused on the actual birth, but the consult, support and screening of women in prenatal care to ensure they are delivering in the right place is hugely important and should involve the GPA's as well.

The VBS is important because every woman in BC should have a right to expect excellent maternity service close to home if she's low risk and it's feasible to maintain services in that community as calculated by the RBI score. So the questions that need to be ask are:

1. How do we allow this GPA service to be as good as possible?

2. How do we support GPA in their own communities to do an excellent job?

The answer is the VBS, using a team that is the sum of its parts. For a safe and successful delivery you need access to a:

- 1. GP Anaesthetist
- 2. GP Surgeon so that you have the ability to progress towards a c-section
- 3. GP-OBGYN or OBGYN or Midwife to deliver the baby
- 4. Nurse for support

The power of the VBS is to draw attention from individual focuses to address global challenges.

During his presentation Dr. Prinsloo identified some issues, as well as positive aspects, of being a GPA. The four issues he identified that are facing GPA's today are:

- 1. Staffing
 - Nursing shortages
 - · Policies or guidelines that are not reflective with staffing numbers, needs, or capabilities
- 2. Training and support
 - Training and support for GPA's needs to be similar to that received by the Anaesthesiologists at BCWH
- 3. Numbers
 - Who is out there? Credentialing and privileging lists are not reflective of who is actually on the ground.
- 4. Quality Assurance
 - There are no standards and therefore no performance evaluations or surveillance, so GPA's are not aware if they are doing a good or bad job if the outcomes are good.

The positive aspects of being a GPA that Dr. Prinsloo focused on were specifically related to his involvement in maternity services. Because of the nature of the job, GPA's involvement in a woman's pregnancy, as opposed to an Anaesthetists, is often throughout the pregnancy beginning with prenatal care, through to the obstetric component and delivery. Dr. Prinsloo identified this as giving him great pride in his job.

General Practice Anaesthetist Panel

As the focus of the symposium was General Practice Anaesthesia in BC, a large portion of the morning was dedicated to the panel and hearing the lived experiences of the GPA's that were able to attend the symposium. The GP Anaesthetist Panel gave the group much to think about and identified priorities that the group would address in the afternoon during the four working groups for Education, Policy, Practice and Research. In attendance there were seven practicing GPA's and one retired GPA:

- Dr. Charlie Eckfeldt, Hazelton
- Dr. Brad Gullason, Fort St. John
- Dr. Rahul Khosla, Nelson
- Dr. Faye MacKay, Creston
- Dr. Ray Mcllwain, Bella Coola (Retired GPA)
- Dr. Paul Michal, Fernie
- Dr. Louis Prinsloo, Vanderhoof/Prince George
- Dr. Donald Young, Campbell River

All but one (Vanderhoof) of the GPA's was Canadian trained in Edmonton (3), Montreal (1) and Vancouver (3). The international medical graduate (IMG) trained in South Africa and received a Diploma in Anaesthesiology from the College of Medicine of South Africa, as well as working for six years full time in anaesthesia before coming to Canada.

The level of services that the GPA's are able to provide, and the diversity of procedures that they do, are closely tied to the size of their communities and the surrounding communities that they serve, better known as the catchment area. In this case the catchment areas ranged from 2000 (Bella Coola) to over 65,000 (Campbell River) with no two GPA's serving catchments of similar sizes. As to be expected, those communities with larger catchment areas had more specialists and offered more services (i.e. Campbell River and Fort St John) than those with smaller catchment areas (i.e. Creston and Hazelton). What was not expected was that occasionally smaller communities had specialists that one would usually only see in larger centres because of the desirability of the community as related to lifestyle. An example of this would be Fernie (18,000) where they have a gastro enterologist.

All of the GPA's were involved in maternity services, but the level of involvement varied by community. Table 2 illustrates some specific numbers and rates of maternity-related services.

Procedure	Dr. Eckfeldt (Hazelton)	Dr. Gullason (Fort St. John)	Dr. Khosla (Nelson)	Dr. MacKay (Creston)	Dr. Mcllwain (Bella Coola)	Dr. Michal (Fernie)	Dr. Prinsloo (Vanderhoof)	Dr. Young (Campbell R.)
Deliveries		600/yr	300/yr	100/yr	30-60/yr (decreased in later yrs)	100-120/yr + 20% leave		300-350/yr
C-section		25%						35%
Epidural	10%	25%		10%		20%	20%	
Blood patch	3 in career	9 in 20 years	1 in 2 years	0		1 in 10 years		3 in 3 years
VBAC	Advised not to b/c no Paediatrician or Anaesthesiol ogist	Yes when RC OBs in town, otherwise elective c- section	Yes, VBAC and operative.	Only if there is surgical backup		Send to Cranbrook	lf OR is open. No paediatrician	

General Practice Anaesthetist Panel continued...

Table 2. Maternity related services.

Major concerns raised by the GPA's included:

- 1. Continuing medical education (CME)
 - Loss of confidence in skills
 - Low scope/diversity of practice
 - Low volume of procedures
 - Having to leave the community
 - Community without care
 - Leaving family
 - Colleagues upset with you for leaving
 - Costs associated with CME
 - Frequency and availability of academic courses
- 2. High BMI's without consultation before delivery
- 3. Lack of protocols for major trauma
- 4. Loss of services
 - Regionalization
 - Performance based funding
- 5. Human resources
 - Staffing is an issue
 - Not only with practitioners or nurses
 - Vulnerable to illness and injury

Things that BC is currently doing well for CME of GPA's includes:

- 1. Video rounds through the UBC Rural CME program
- 2. Academic courses through UBC excellent teachers
- 3. REAP funding

In order to maintain skills many of the GPA's do locums to increase their diversity of practice and management of more difficult cases.

In all but one case the GPA's were in highest level of care, and in Campbell River although Dr. Young was not the highest level of care in the ICU, he would be the 'go to' person for lines or intubation.

When discussing major trauma two issues, blood supply and limited intensive care capabilities (Table 3), were discussed. In the case of one community, Nelson, Dr. Kholsa expressed his frustration at not being able to keep patients for any length of time in the OR (using it as a mini ICU), especially with overdoses and alcohol related admissions where the protocol would be to observe them for two to six hours. Instead the have to send them to Kelowna, which in the end can be much more risky, especially dependant on the weather conditions.

	Dr. Eckfeldt (Hazelton)	Dr. Gullason (Fort St. John)	Dr. Khosla (Nelson)	Dr. MacKay (Creston)	Dr. McIlwain (Bella Coola)	Dr. Michal (Fernie)	Dr. Prinsloo (Vanderhoof)	Dr. Young (Campbell R.)
Blood bank	2 units No platelets	6 units Fresh frozen plasma No platelets	O negative Antispan No globulin, No platelets	Surfactant for winter babies and storms		2 units No platelets	2 units No platelets	Platelets Factor 7
ICU	No	Yes	No	No, stabilize and transfer		No, intubate and transfer	No, but 3 bed observ. unit	Yes

Working Groups

A priority for the day was establishing working groups to carry on the initiatives discussed by the group and contribute to the growth of the profession. The focus of the groups included Education, Policy, Practice and Research and each thematic area was led by an individual responsible for continued discussion.

Working Group - Education

The Working Group for Education consisted of Peter Newbery (facilitator), Rahul Khosla, Ron Ree, Brenda Wagner, Peggy Yakimov and Leslie Carty (minutes).

There were three main priorities that the group focused on.

1. Training pathways for new GPA's including certification

Currently there is space in the UBC GPA program for a maximum of three physicians and the class is generally made up of a mix of new graduates and community practitioners. There are multiple other options in Canada to train as a GPA, one of which is Alberta that takes roughly five practitioners a year, generally from communities. The current problems facing recruitment and retention of practitioners include:

- A. Residents do not see the GPA program as a **credible** option because there is currently no accreditation process.
- B. The **funding** for practitioners to leave their communities to be trained as a GPA falls short and will not support them to take the year off.

As such, the group had the following recommendations:

- A. Develop a **certification exam** within BC for the 12 month program that will lead to accreditation. Although the group is wary of not wanting to obstruct GPA's already practicing, they felt as though a certification exam will go a long way to establishing credibility in GP Anaesthesia. Issues that will have to be overcome include who will administer the exam and how would IMGs be included?
- B. Provide **more funding** for GPA training to relieve the economic burden of people coming back to obtain the skills necessary to practice anaesthesia in small centres.

2. Evaluation and integration of international medical graduates (IMGs)

Currently there are no standards or certification exam for IMGs to practice anaesthesia. Within BC a 12 month program is required to become a GPA, although this does not lead to accreditation, but will allow a GP to practice anaesthesia in smaller centres. There is an assessment of skills before IMGs can practice medicine in BC, but there is no specific assessment of anaesthesia skills and as a result some IMGs who have 6 months of training and 6 months of experience are currently practicing within BC when this does not meet the 12 month requirement. Recommendations from the group are as follows:

- A. Have a standard 12 month program (for both IMGs and local GP's) with criteria for credits related to previous training and experience.
- B. During the assessment of skills to enter BC, include a section on anaesthesia.

3. Continuing medical education (CME) (maintenance and skill competency)

An issue that came up time and again during the GPA Panel in the morning was CME and the GPA's confidence, or lack thereof, in their skills due to both the low diversity and low volume of procedures. Although Vancouver has a CME program for GPA's, as does Alberta, they are not offered regularly and difficulties lay in leaving the community, family and finding someone that can fill in for you during your absence. To this end the group recommended to :

Working Group: Education

- A. Develop videos and web-based learning for continued professional development.
- B. Develop a travelling "GPA Road Show" that could address CME without placing the burden on the GPA to leave their community and find a locum. To do this it would require a group of GPA's and Anaesthesiologists getting together to develop a package of skills to take around to the communities where there is low diversity and volume of procedures.

When the entire group reformed various leads for the specific tasks were identified as outlined Table 4.

Issue	Task	Lead
Training pathways	Develop certification exam for 12 month program	TBD
Training pathways	Funding for GPs to return for GPA training Make GPA more evident in medical school (1 rotation spot?)	Peter Newbery and Bob Woollard (RCCbc)
Evaluation and integration of IMGs	Standard 12 month training program with credit for previous training and experience	Peter Newbery and Bob Woollard
Evaluation and integration of IMGs	Have original assessment of skills include a section on anaesthesia	TBD
CME	Videos, web-based learning, simulation	Brad Gullason (online)
СМЕ	Travelling "GPA Road Show"	GPA's to develop course material with RCCbc

Table 4. Task and lead identification for the Education Working Group.

Working Group - Policy

The Working Group for Policy consisted of Erin O'Sullivan (facilitator), Faye MacKay, Paul Michal, Patricia Osterberg, Rose Perrin, Alex Scheiber, Kim Williams and Mike Kehl (minutes).

There were five main priorities that the group focused on.

1. Equipment at Rural Sites

An issue that GPA's brought forth during the panel was the quality and standards for equipment at rural sites. There needs to be a standardization of equipment in order to have improved standards, consistent protocols and to support recruitment and retention. The following recommendations were made:

- A. Inventory of the required high quality equipment to support the standards of practice and which in turn needs to be combined with adequate training.
- B. Identification of tech toys that will attract other specialists.

2. Locum and Locum Provisions

As the current issues facing locums are mostly based on provisions for coverage for a GPA to leave the community, the recommendations focus on increased financial support for the incoming practitioner. The following recommendations were made:

- A. Approach the rural GP locum and rural specialist program to revise placement criteria specific to GPA's.
- B. Improve coverage parameters so GPA's can leave the community in a supported manner for: (a) competency experiences; (b) time off; and (c) continuity of care for the community members.

3. Provision of a System of Quality Assurance

Because there is currently no certification exam, the group looked at this issue from the perspective of Health Authority and Provincial governance in order to increase quality, support and communication with GPA's. The following recommendations were made:

- A. Develop a set of provincial protocols that consider the reality of rural GPA practice
- B. Develop a Anaesthesia Working Group, much like is present in Interior Health, through recruitment via the BC Anaesthesiology Society and the current Health Authority knowledge of practicing GPA's.

4. Recruitment and Retention

Often practitioners will migrate to the smaller centres because of family, friends or they like the area. This results in more services being pushed into that area. An example would be Fernie. As a lifestyle community people want to live their, so as a result they have a gastro enterologist which you would usually only see in a larger centre. Regardless, the volume of practice is always an issue as well as other human resources including nurses. Although a specialist may enjoy an area, if they are only doing one or two procedures a week, that is a big deterrent. The following recommendation was made:

A. Develop partnerships and strategies to target specialists through service placements in smaller centres (i.e. dental)

5. Policy Effectiveness

In order to ensure that the above recommendations are recognized on all levels within BC the following recommendation was made:

A. The committee structure for each of the above applicable recommendations should include community, regional and provincial representation and the communication mechanism of decisions should be purposeful and two-way.

Working Group - Policy

When the entire group reformed various leads for the specific tasks were identified as outlined in Table 5.

Issue	Task	Lead
Equipment	Inventory of required high-quality equipment to support standards of practice	HA lead from respective anaesthesia working groups
Equipment	Identify 'tech toys' that will attract other specialists	Sub-activity of Inventory mentioned above
Locums	Approach rural GP locum and rural specialist program to revise placement criteria specific to GPA's	Granger Avery and John English
Locums	Allowing leave for competency experiences, time off, continuity of care for community members	Granger Avery and John English
Quality Assurance	Working groups in each HA with membership recruited via BCAS and HA anaesthesiology working groups	TBD)
Quality Assurance	Develop set of provincial protocols that consider rural/GPA practice reality	Teaching Centres (TBD)
Recruitment and Retention	Develop partnerships and strategy to target specialists re recruitment, retention, service placements in smaller centres (e.g. dental)	HA medical leadership (TBD) Surgical council (Andy Hamilton)
Policy Effectiveness	Consideration of committee structures including community, regional, provincial representation, and a communication mechanism that is purposeful and two-way	TBD

Table 5. Task and lead identification for the Policy Working Group.

Working Group - Practice

The Working Group for Policy consisted of Louis Prinsloo (facilitator), Ron Collins, Charlie Eckfeldt, Ruth Johnson, Nevin Kilpatrick, Veerle Willaeys and Shelagh Levangie (minutes).

There were two main priorities that the group focused on as outlined below.

1. GPA buy-in and creating a community

In order to create a community, which would require GPA buy-in, the group recommended the following:

- A. Consider creating a department for rural GPA practice that includes GP Anaesthetists and Anaesthesiologists, GP Surgeons and Royal College Surgeons, Primary Maternity Providers, Midwifes and Nurses.
 - To fit within the Society of Rural Practitioners of Canada (national) or with the RCCbc (provincial)?
- B. Create a GPA driven network within BC so that practitioners know who is around, who needs locum coverage, and upcoming training opportunities.

2. Relationships between generalists and specialists

Currently the relationship between generalists and specialists is friendly at best and a contentious at worst. In order to facilitate the two groups working together the following recommendations were made:

- A. Secure locum privileges at regional hospitals in IHA (locum/clinical fellows).
- B. Advocate for Anaesthesiology Working Group in the Health Authorities (Interior Health is currently the only Authority that has a functioning group).

When the entire group reformed various leads for the specific tasks were identified as outlined in Table 6.

Issue	Task	Lead
GPA buy-in and community	Consider creating dept/division for rural/GPA practice	Bob Woollard and Bob
GPA buy-in and community	Create a network for BC GPA's	Louis Prinsloo
Relationships	Secure locum privileges at regional hospitals in IHA (locum/ clinical fellows)	Andy Hamilton
Relationships	Advocate for Anaesthesiology Working Group	NH - Louis Prinsloo VIHA - TBD

Table 6. Task and lead identification for the Practice Working Group.

Working Group - Research

The Working Group for Research consisted of Stefan Grzybowski (facilitator), Ray McIlwain, Marty Willms, Donald Young and Caitlin Blewett (minutes).

There were four main research themes that the group focused on. The GPA Panel in the morning provided an overview and answered some of the questions partially, but more in-depth interviews are needed to really nail down the answers.

1. What is the experience of GPA's in BC qualitatively? Specific questions include:

- A. What is a GPA?
 - Lived experience
 - Anaesthesia support
 - Training issues
 - Regulatory framework
 - What do they do
 - Range of communities
 - Relationship with specialist colleagues
 - Supporting critical care and emergency room
- B. Why do GPA's have a short lifespan?

2. What are the practice outcomes of GPA's in BC?

A study to look at the outcomes through database analysis as compared to published outcomes with a focus on GPA vs. small centre Anaesthesiologists. Specific questions include:

- A. Where are the GPA's and how many are there?
- B. What is the scope of your practice and the number of hours you spend on each procedure?
- C. What is the need for a GPA within a given community and rural health system?

3. What are the community characteristics to define the need for GPA services?

In order to assess the need for GPA services it is necessary to look at specific communities. Specific questions include:

- A. What are we doing well from the eight GPA's present?
- B. What are the characteristics of communities that preclude GPA services?
 - What is the size of the catchment and volume of procedures?
 - What's the minimum volume to maintain skills?

4. What are the support networks for GPA's?

In order to be able to offer better support for GPA's it is necessary to look at what is already in place through a systems study both within and outside of the province. Specific questions include:

- A. What are the existing networks of GPA's in BC?
- B. What are the informal networks? (if we could understand this we could better understand what formal options there are)

With the exception of the first theme of research which Stefan Grzybowski volunteered to take the lead on, the remaining research questions were identified, but not claimed when the entire group reformed.

Conclusions

The GPA symposium led to inspiring discussion that re-affirmed the commitment of key stakeholders to work to strengthen the profession. It also led to an appreciation of the contribution that GP Anaesthetists have made to rural health services in British Columbia, a contribution that has gone largely unnoticed. The challenge we now face is to maintain momentum and focus on the issue to bring about political and professional change in support of GP Anaesthetists roles in rural health services.

One direction is to integrate what we know about the experience and practice of GP Anaesthetists into the larger framework on interdisciplinary contributions to rural care, acknowledging the crucial role of all players. It is our intention to bring key stakeholders from all disciplines together for thoughtful discussion and to identify priorities in strengthening to fabric of rural care.

Please contact the Centre for Rural Health Research (info@ruralmatresearch.net) for updates.

Deepest Regards,

Stefan Grzybowski and Jude Kornelsen, Centre for Rural Health Research Granger Avery and Bob Woollard, Rural Coordination Centre of BC Kim Williams and Marty Willms, Perinatal Services BC

Acknowledgements and Appreciation

This symposium would not have been possible without the support of a number of organizations and individuals. We would like to express our thanks to all who helped with the symposium for their contribution to planning this successful event.

> For ongoing support of rural health research: Canadian Institutes of Health Research Michael Smith Foundation of Health Research

For welcoming us onto traditional Lheidli T'enneh First Nations land: Elder Jewel Thomas, Musqueam Indian Band

For travel support for the General Practice Anaesthetists to attend this event: Rural Education Action Plan (REAP)

> For supporting the symposium: Centre for Rural Health Research Rural Coordination Centre of BC Perinatal Services BC

The Symposium Planning Committee

Photo credits: Katrina Bepple

Symposium Planning Committee

Bob Woollard, Chair - Associate Director, Rural Coordination Centre of BC
Granger Avery - Executive Director, Rural Coordination Centre of BC
Katrina Bepple - Project Manager/Financial Administrator, Centre for Rural Health Research
Leslie Carty - Project Manager, Centre for Rural Health Research
Elisa Chan - Project Manager, Rural Coordination Centre of BC
Stefan Grzybowski - Co-Director, Centre for Rural Health Research
Nevin Kilpatrick - Anaesthesiologist, BC's Women's Hospital and Health Centre
Jude Kornelsen - Co-Director, Centre for Rural Health Research
Peter Newbery - Director, Enhanced Skills Program, Department of Family Practice, UBC
Louis Prinsloo - General Practice Anaesthetist, Northern Health Authority
Kim Williams - Provincial Executive Director, Perinatal Services BC
Marty Willms - Provincial Leader, Perinatal Networks, Perinatal Services BC

Agenda

Objectives: The goals of this symposium are to:

- 1. Recognize and support the role of GPA's in sustaining safe birth in rural communities;
- 2. Document current experiences of GPA's in rural communities specifically with regards to maternity care and emergency services;
- 3. Create a structure for integrated knowledge translation by involving policy and decision makers; and
- 4. Formulate a plan of integrated action involving research, practice, education, and policy initiatives to address issues of accreditation, credentialing and a regulatory/quality framework for guiding practice and facilitate the development of working groups in these areas.

Thursday September 23rd, 2010

6:30pm - 9:30pm	Evening Reception including Key Speakers, Initial Dialogue and Poster Discussion 7:00pm: Welcome and Prayers - Elder Jewel Thomas, Musqueam Indian Band Louis Prinsloo, General Practice Anaesthetist, Northern Health Authority Peggy Yakimov, Kootenay Boundary Medical Director, Interior Health Authority Granger Avery, Executive Director, Rural Coordination Centre of BC Nevin Kilpatrick, Anaesthesiologist, BC Women's Hospital & Health Centre with GPA background Kim Williams, Provincial Executive Director, Perinatal Services BC
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Friday September 24th, 2010

7:30am - 8:00am	Breakfast
8:00am - 8:15am	Introduction Granger Avery, Executive Director, Rural Coordination Centre of BC Kim Williams, Provincial Executive Director, Perinatal Services BC Stefan Grzybowski, Centre for Rural Health Research
8:15am - 9:00am	Context of GPA services in BC Stefan Grzybowski, Centre for Rural Health Research
9:00am - 9:30am	The use of the "Virtual Birthing Suite" in the context of GPA services Louis Prinsloo, General Practice Anaesthetist, Northern Health Authority Nevin Kilpatrick, Anaesthesiologist, BC Women's Hospital & Health Centre with GPA background
9:30am - 11:00am	GPA's Role in Rural Maternity Services Dialogue Facilitated by Stefan Grzybowski , Centre for Rural Health Research
11:00am - 11:15am	Morning Break
11:15am - 12:45pm	GPA's Role in Rural Emergency Services Dialogue Facilitated by Stefan Grzybowski , Centre for Rural Health Research
12:45pm - 1:00pm	Identification of Themes for Afternoon Working Groups Facilitated by Bob Woollard , Rural Coordination Centre of BC
1:00pm - 2:00pm	Lunch
2:00pm - 3:30pm	Initial Working Group Meeting (small groups) 1 hour and Reporting 0.5 hour Facilitated by Bob Woollard , Rural Coordination Centre of BC
3:30pm - 3:45pm	Afternoon Break
3:45pm - 4:15pm	Wrap Up and Next Steps Facilitated by Bob Woollard , Rural Coordination Centre of BC

Participants List

Campbell River	Campbell River & District Regional Hospital	General Practice Anaesthetist	djyoungmd@shaw.ca	l Young	Donald
Castlegar	Interior Health Authority	Senior Medical Director, Acute East		Yakimov	Peggy
Vancouver	Rural Coordination Centre of BC; Dept. of Fam. Practice, UBC	Associate Director; Professor	woollard@familymed.ubc.ca	Woollard	Bob
Vancouver	College of Physicians and Surgeons of BC	Deputy Registrar	galt@netbistro.com	Wilson	Galt
Vancouver	Perinatal Services BC	Provincial Leader, Perinatal Networks	marty.willms@phsa.ca	Willms	Marty
Vancouver	Perinatal Services BC	Provincial Executive Director		Williams	Kim
Vancouver	First Nations and Inuit Health BC Region	Director Health Promotion and Prevention		Willaeys	Veerle
Vancouver	Fraser Health; VCH/PHSA	Program Medical Director; Regional Physician Planning Leader	brenda.wagner@fraserhealth.ca	t Wagner	Brenda
Victoria	Provincial Health Services Authority	Director, Performance Accountability	Alex.1.Scheiber@gov.bc.ca	Scheiber	Alex
Vancouver	ite Coordinator Providence Health Care	Program Director Family Practice Anaesthesia; Resident Site Coordinate	ronree@shaw.ca	Ree	Ron
Prince George	Northern Health Authority	General Practice Anaesthetist	lprinsloo@mac.com	Prinsloo	Louis
Prince George	Northern Health Authority	Regional Coordinator Perinatal, Child and Youth Planning	Rose.Perrin@northernhealth.ca	Perrin	Rose
Victoria	Vancouver Island Health Authority	Perinatal Lead	Erin.osullivan@viha.ca	O'Sullivan	Erin
Vancouver	First Nations Health Council	Health Policy Analyst		a Osterberg	Patricia
Hazelton	Department of Family Practice, UBC	Clinical Professor Emeritus, and Director, Ennanced Skills Program	newbery@familymed.ubc.ca	Newbery	Peter
Fernie	Elk Valley Hospital		paul_michal@telus.net	Michal	Paul
Bella Coola	University of British Columbia; Bella Coola Hospital	Clinical Associate Professor; Staff Member	raymcilwain@hotmail.com	McIlwain	Ray
Creston	Creston Valley Hospital	General Practice Anaesthetist	drfmac6@telus.net	MacKay	Faye
Vancouver	Centre for Rural Health Research	Research and Network Coordinator		Shelagh Levangie	Shelag
Vancouver	Centre for Rural Health Research; Dept. of Fam. Practice, UBC	a Co-Director; Assistant Professor	jude.kornelsen@familymed.ubc.ca	Kornelsen	Jude
Vancouver	BC Women's Hospital and Health Centre	Anaesthesiologist	nevinkilpatrick@yahoo.ca	Kilpatrick	Nevin
Nelson	Kootenay Lake Hospital	General Practice Anaesthetist	rkhosla@telus.net	Khosla	Rahul
Vancouver	Rural Coordination Centre of BC	Administrative Coordinator	pkendal.rccbc@familymed.ubc.ca	Kendal	Paul
Vancouver	Centre for Rural Health Research	Bachelor of Sociology, Work Study Student		i Kehl	Michael
Kelowna	Interior Health Authority	Network Director, Perinatal/Child Health Services	ruth.johnson@interiorhealth.ca	Johnson	Ruth
Kelowna	Interior Health Authority	Dr.Andy.Hamilton@interiorhealth.caProgram Medical Director, Surgical Services	Dr.Andy.Hamilton@interiorhealth.c	Hamilton	Andy
Fort St John	Fort St John Hospital & Health Centre	General Practice Anaesthetist		Gullason	Brad
Vancouver	Centre for Rural Health Research; Dept. of Fam. Practice, UBC Vancouver	Co-Director; Professor	Grzybowski sgrzybow@interchange.ubc.ca	Grzybowski	Stefan
Hazelton	Wrinch Memorial Hospital	a General Practice Anaesthetist	Charlie.Eckfeldt@northernhealth.ca General Practice Anaesthetist	Eckfeldt	Charlie
Kelowna	Interior Health Authority	Chair, Anaesthesia Working Group	rd.collins@shaw.ca	Collins	Ron
Vancouver	Rural Coordination Centre of BC	Project Manager	echan.rccbc@familymed.ubc.ca	Chan	Elisa
Vancouver	Centre for Rural Health Research	Project Coordinator	leslie@ruralmatresearch.net	Carty	Leslie
Vancouver	Centre for Rural Health Research	Master of Public Health, Work Study Student		Blewett	Caitlin
Vancouver	Centre for Rural Health Research	Project Coordinator/Financial Administrator	bepplek@bcrrhrn.ca	Bepple	Katrina
Port McNeill	Rural Coordination Centre of BC	Executive Director	gavery.rccbc@familymed.ubc.ca	Granger Avery	Grange
Location	Affiliation	Title	Email		Name