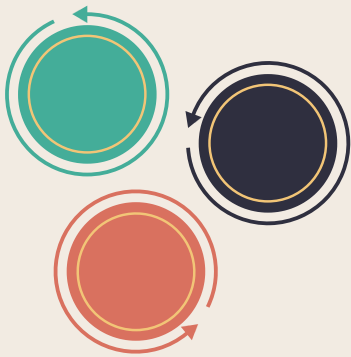




**2022-2024 REPORT**

**Reproductive Care Program  
of Nova Scotia**



# Table of Contents

|                                     |   |
|-------------------------------------|---|
| About the Reproductive Care Program | 2 |
|-------------------------------------|---|

|                      |   |
|----------------------|---|
| Highlights 2022-2024 | 3 |
|----------------------|---|

|                 |   |
|-----------------|---|
| Key Initiatives | 4 |
|-----------------|---|

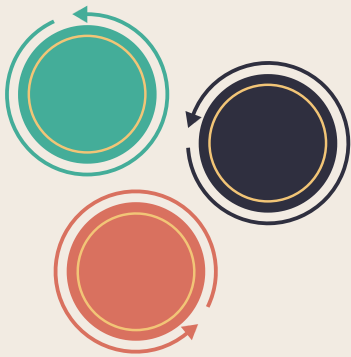
|                            |   |
|----------------------------|---|
| Perinatal Clinical Reviews | 5 |
|----------------------------|---|

|                                      |   |
|--------------------------------------|---|
| Nova Scotia Atlee Perinatal Database | 6 |
|--------------------------------------|---|

|                             |   |
|-----------------------------|---|
| Clinical Practice Resources | 7 |
|-----------------------------|---|

|           |   |
|-----------|---|
| Education | 8 |
|-----------|---|

|                        |   |
|------------------------|---|
| Provincial Initiatives | 9 |
|------------------------|---|

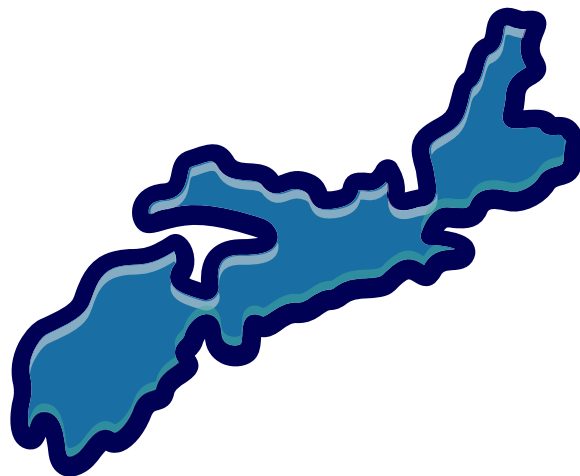


# Table of Contents

|                                     |           |
|-------------------------------------|-----------|
| Strategic Planning                  | <b>12</b> |
| Website and Branding                | <b>14</b> |
| Additional Initiatives              | <b>15</b> |
| 50th & 60th Anniversary Celebration | <b>17</b> |
| The RCP Team                        | <b>18</b> |
| The Rh Program                      | <b>20</b> |
| The Rh Team                         | <b>21</b> |
| Planning for the Future             | <b>23</b> |

# About the Reproductive Care Program of Nova Scotia

RCP is a province wide program that works collaboratively with healthcare providers, leaders, and researchers to monitor and promote optimal perinatal and newborn health in Nova Scotia.



## Mandate:

- Support provincial health system planning for the perinatal and newborn population.
- Identify emerging perinatal health issues and develop provincial strategies for resolution.
- Advise on education priorities for perinatal care providers.
- Provide advice and direction on key policy and strategic directions to support the perinatal health system.

## Core Activities:

- Provide continuing education for perinatal and newborn healthcare providers.
- Facilitate quality programs, including perinatal clinical reviews and the development of provincial KPIs.
- Develop and disseminate clinical standards and guidelines and documentation tools.
- Analyze and distribute perinatal health information.
- Create educational materials, such as eLearning orientation modules, webinars, and workshops.
- Manage the Nova Scotia Atlee Perinatal Database (NSAPD).
- Identify and support perinatal research initiatives.
- Recommend strategies for data quality and usage.



# Highlights 2022-2024



- Celebrated the 50th and 60th anniversaries of the RCP and Rh Program.
- Developed new Vision and Mission statements.
- Engaged Blaze Studios to update the RCP Website and Brand.
- Developed a Perinatal and Newborn Manager committee to promote provincial collaboration and communication.
- Presented the Nova Scotia Prenatal Record development and implementation process at the Canadian Association of Perinatal and Women's Health Nurses (CAPWHN) in Winnipeg.
- Developed Fetal Health Surveillance Case Study Bank for FHS instructors and presented the process at CAPWHN in Montreal.
- Led Perinatal clinical reviews in all regional hospitals throughout Nova Scotia, engaging with 150+ perinatal health care providers each year.
- Participated in the SmartParent pilot implementation.
- Provided workshops on Fetal Health Surveillance (Fundamentals and Instructor Training),
- Launched ACoRN 2nd edition in Nova Scotia and PEI.
- Facilitated multiple ACoRN and NRP provider and instructor workshops.
- Provided interprofessional education workshops at community facilities on 'Care of the Pregnant Person in the ED'
  - 16 workshops for 80+ community healthcare providers in Nova Scotia.
- Provided education workshops in regional facilities on 'Skilled Labour Support' and 'Care of the unwell newborn'
  - 8 workshops for 60+ healthcare providers in Nova Scotia.
- Hosted multiple RCP Webinars
- Succession and recruitment, hired:
  - Programmer Analyst/web developer, Database administrator, Program Admin Coordinator, 4 Perinatal Nurse Consultants, Data analyst. 3 Health records technicians, Rh Coordinator, and Midwife.
- Recruitment for a Family Medicine Physician in progress.
- Assumed the responsibility for coding NSH facility data for the NSAPD to improve data quality and timeliness.
- Published report of perinatal health indicators 2011-2020.
- Developed SCANS report and dashboard
- Completed an aggregate data report and infographic for midwifery in NS.
- Developed Key performance/perinatal health indicator dashboard

# Key Initiatives



## Perinatal Clinical Reviews :

- Audit tool
- Process Review
- IWK



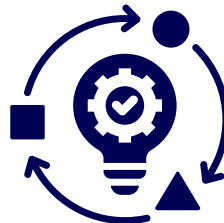
## Reports: NSAPD:

- SCANS Dashboard
- Midwifery Report
- KPIs



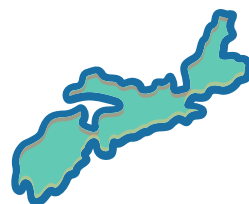
## Clinical Practice Resources:

- Guidelines
- Prenatal Record
- Antenatal Screening & Testing Guidelines



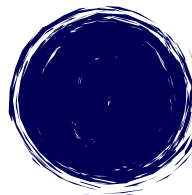
## Educational Programs:

- Webinars
- eLearning series
- Workshops



## Provincial Initiatives:

- Health Services Planning
- Pregnancy & Postpartum Mortality Review



## Strategic Planning:

- Vision/Mission
- Team Goals
- Branding and Website

# Strategic Goals

- Improve Data quality - timely, complete, accurate
- Improve access to data and information - dashboard of KPIs, website, mobile app
- Develop an easier and efficient data Integration/collection processes
- Update Annual report process - data, infographics, integration with OPOR
- Update PCR process - audit tool, travel, process and evaluation
- Develop knowledge translation strategy - data and clinical resources
- Define evaluation strategies and improve current processes

# Perinatal Clinical Reviews

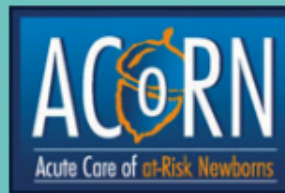
## INTENT & PURPOSE

**Overall:** Opportunity for Health Professionals to reflect upon and discuss ways to provide optimal care for the child-bearing population and their newborns.

1. Identify education needs/supports
2. System Changes
3. Documentation/ Data Quality
4. Communication
5. Interprofessional Collaborations



## EXAMPLES OF INITIATIVES STEMMING FROM PCRS



### Acute Care of at-Risk

**Newborns:** During a PCR, there was an identified need for education for regional facilities on caring for at-risk newborns. RCP led the roll out of the ACORN course across the province to address this need.

### Skin-to-Skin After a

**Cesarean Birth:** During PCRs, it was identified that skin-to-skin rates immediately after a C-birth were low. RCP collaborated with regional facilities to discuss barriers and co-created an instructional video with IWK Health to support regional facilities in increasing skin-to-skin following a cesarean birth.



### PCR process Poster (nshealth.ca)

**Practice Toolkit:** During PCRs, it was identified that regional facilities were interested in expanding their capacity and knowledge in caring for pregnant persons diagnosed with opioid use disorder and their infants diagnosed with Neonatal Opioid Withdrawal Syndrome. RCP is leading the development of this toolkit inclusive of a comprehensive summary & knowledge translation tools.



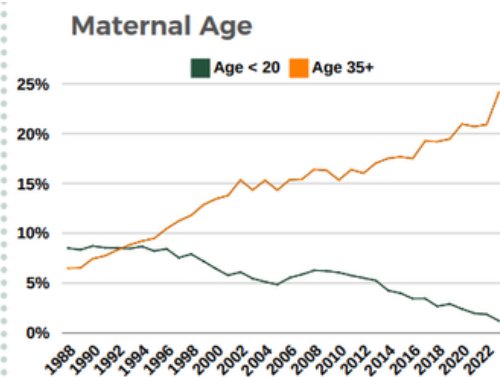
The RCP leads PCRs at all regional facilities in Nova Scotia on an annual basis.

- 7-8 clinical reviews/year and ad hoc/RCA quality reviews as needed, averaging to 1-2/year.
- **Plan to lead 1st IWK PCR in January 2025.**

# Nova Scotia Atlee Perinatal Database

## DATA MANAGEMENT TEAM

“Without data you’re just another person with an opinion.”  
William Edwards Deming



### Data

- Prenatal Records
- Partograms
- Birth Records
- Vital Stats
- CIHI
- Cardiology
- Fetal Assessment
- Admin / Discharge

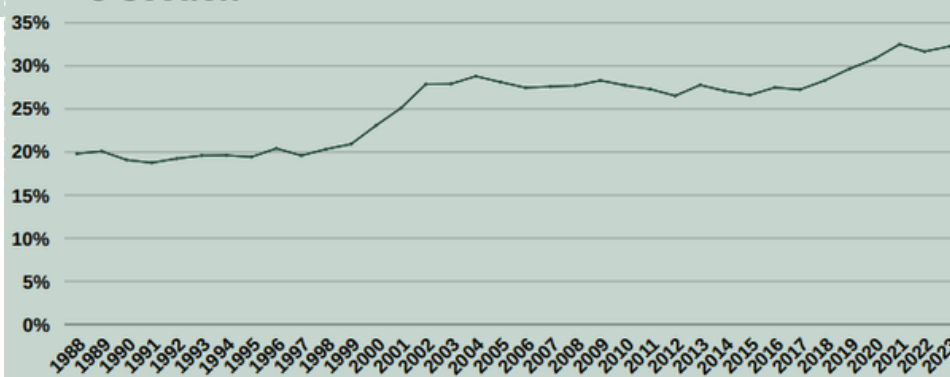


### Information

- Clinical Information Management
- Postpartum / Postnatal guidelines
- Quality Assessment Reviews
- Maternal & Newborn Indicator Development
- Guidelines
- Accreditation
- Health Systems Planning

[Poster - Data Team \(nshealth.ca\)](https://nshealth.ca)

## C-Section




- Mi'kmaq Client Linkage Registry
- Health Services Planning
- Coding Quality Review
- NSAPD report - 2011-2020
- Data linkage with IWK pharmacy
- Support critical database infrastructure with:
  - Rh Program
  - FATC
  - Pediatric Cardiology
  - Perinatal Follow-up Program
- Performed major upgrade of NSAPD and updated version of Oracle database software

- Surveillance of Congenital Anomalies
  - Canadian and provincial advisory committee
  - Dashboard
- Data Access Requests supporting:
  - BFI
  - Public Health (SDoH)
  - out of hospital births
  - perinatal glycemic control
  - newborn hypoglycemia
- Data access requests for research (PERU)
- Data reports for PCR visits



# Clinical Practice Resources


- 
- A blue icon inside a rounded square. It features a large plus sign at the top, and below it, two checkboxes, each with a checkmark, followed by three horizontal lines for text entry.



**RWK Health**

CESTATIONAL DIABETES MELLITUS (GDM) © 2019 RWK Health

### GUIDELINES FOR ANTENATAL SCREENING & TESTING REPRODUCTIVE CARE PROGRAM OF NOVA SCOTIA



**RWK Health**

**PREGNANCIAL RISK FACTORS**

| Major Risk                               | Minor Risk                              |
|--|---|
| • Age > 35 years                         | • Previous abnormal obstetrical history |
| • Chronic hypertension                   | • Multiple gestation                    |
| • Prior pre-eclampsia                    | • Prior gestational diabetes            |
| • Prior 1st degree relatives with DM     | • BMI > 30 kg/m <sup>2</sup>            |
| • Assisted reproductive technology (ART) |   |

**Consult OBG**

Pre-eclampsia or strong clinical markers of risk of hypertension.

• Gestation dx, blood test, and lab visit (e.g. creatinine, liver function, urinary protein creatinine ratio).

• Insulin low-dose/insulin (13-16 mg/day) between 34-4 weeks and continue until term for those with major risk factor for pre-eclampsia or more than 1 moderate risk factor.

• Consider calcium supplements (1g/day) for those with low calcium intake.

**PATIENT HISTORY - RISK FACTORS**

|                                     |                                 |
|-------------------------------------|---------------------------------|
| • Previous preterm birth            | • BMI > 35 kg/m <sup>2</sup>    |
| • Cardiac surgery                   | • Chronic insufficiency         |
| • Kidney insufficiency              | • Blood or indigenous           |
| • Surgery                           | • Myeloid thyroid               |
| • ART                               | • Blood or indigenous           |
| • Poor nutrition                    | • Education                     |
| • Suboptimal socioeconomic status   | • Poor prenatal care            |
| • Abuse (PH)                        | • Infections                    |
| • Age 17 or < 18                    | • Fetal anomaly                 |
| • Physical disability               | • Viral bleeding                |
| • Multiple gestation                | • Multiple gestation            |
| • Intrauterine interval < 18 months | • Short cervical length < 25 mm |
| • Polyhydramnios                    | • Perinatal distress            |

**Consult OBG**

• vaginal pre-eclampsia history (VPT) for those with a short cervical length in current pregnancy (1.25 mm by transvaginal US) between 16-24 weeks or with a previous PTB. Daily dose: 200 mg for single pregnancy / 400 mg for multiple pregnancy, initiated between 16-24 weeks gestation (whenever risk is identified).

• VPT can be continued up to 34-36 weeks gestation (considering individual risk factors).

**INDICATIONS FOR INCREASED PERINATAL SURVEILLANCE**

| Major Risk Factors                              | Minor Risk Factors                              |
|---|---|
| • Pre-existing diabetes: poor glycaemic control | • Twin, DGA                                     |
| • SUT   | • Pre-existing diabetes: good glycaemic control |
| • SUT   | • Abnormal MNT                                  |
| • SUT   | • Antepartum diabetes stable                    |
| • SUT   | • ART   |
| • SUT   | • Course of care > 40 wks                       |
| • SUT   | • AOM treated with insulin                      |
| • SUT   | • Single umbilical artery                       |
| • SUT   | • Vaginal/medical intervention                  |
| • SUT   | • Single umbilical artery                       |
| • SUT   | • Abnormal use (3 or more weeks)                |

**Consult OBG**

• Gestational hypertension

• Chronic abortion

• Intrauterine growth restriction

• Polyhydramnios

• Cholestasis

• VUS

**INDICATIONS FOR PERINATAL PRESENT**

Anemic, known haemoglobinopathy or iron malabsorption

Non-anemic with high risk of iron deficiency anemia: Previous iron deficiency, previous pregnancy, interpregnancy interval < 1 year, poor dietary habits, vegetarian/vegan diet, age > 20 years; recent history of clinically significant bleeding.

• Iron deficiency anemia: If necessary, high risk of bleeding during pregnancy or at birth; those declining blood products; those with prolonged compatible blood is challenging.

**INDICATIONS FOR THYROID-STIMULATING HORMONE (TSH) SCREEN**

|   |                                       |
|---|---------------------------------------|
| • Thyroid peroxidase antibody           | • Use of amiodarone /                 |
| • History of thyroid dysfunction        | • Use of oral thyroid agent           |
| • History of history of thyroid disease | • Type 1 diabetes                     |
| • History of thyroid dysfunction        | • Autoimmune disorder                 |
| • Recurrent miscarriages                | • Autoimmune disease                  |
| • Infertility                           | • Moderate / severe iodine deficiency |
| • Solute                                |                                       |

**DISCUSSION TOPICS**

• Nutrition / Topic diet / Iron

• Nutrition / Food safety

• Physical activity

• IP precautions (e.g. pets)

• Hot tubs / saunas

• Course of care > 40 wks

• Preterm resources

• Early pregnancy loss

• Bleeding, signs and symptoms, what to do

• Bleeding / preterm labour

• Preterm / PPH/dx

• Infection / chorioamnionitis

• Sexual activity

• Infection / chorioamnionitis

• Work / parental leave

• Birth plan / movement

• Low pregnancy symptoms

• Birth plan management

• Low pregnancy symptoms

• Family adjustment

• Signs & symptoms of labour / admission timing

• Potential interventions / blood products

• Post-natal management

• Infection / chorioamnionitis

• Breastfeeding

• DTC plan (e.g. vit K)

• DTC plan and follow up

• Post-natal management

Significant effort has been made to ensure the accuracy of information and to reflect best practice, evidence and clinical care standards. The information within does not constitute an exclusive source.

**HARTOGAM** Page \_\_\_\_ of \_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

**HARTOGAM** Page \_\_\_\_ of \_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

## Guidelines for Labour Assessment, Imminent Delivery, and Transfer

| PARAGRAM Page _____ of _____ |  |  |  |  |  |  |  |  |  | Total Length        |  |
|------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|
|                              |  |  |  |  |  |  |  |  |  | Time                |  |
|                              |  |  |  |  |  |  |  |  |  | Name                |  |
|                              |  |  |  |  |  |  |  |  |  | Date                |  |
|                              |  |  |  |  |  |  |  |  |  | Age                 |  |
|                              |  |  |  |  |  |  |  |  |  | Sex                 |  |
|                              |  |  |  |  |  |  |  |  |  | Height              |  |
|                              |  |  |  |  |  |  |  |  |  | Weight              |  |
|                              |  |  |  |  |  |  |  |  |  | Blood pressure      |  |
|                              |  |  |  |  |  |  |  |  |  | Temperature         |  |
|                              |  |  |  |  |  |  |  |  |  | Pulse               |  |
|                              |  |  |  |  |  |  |  |  |  | Respiration         |  |
|                              |  |  |  |  |  |  |  |  |  | Stomach             |  |
|                              |  |  |  |  |  |  |  |  |  | Intestines          |  |
|                              |  |  |  |  |  |  |  |  |  | Urinary             |  |
|                              |  |  |  |  |  |  |  |  |  | Genital             |  |
|                              |  |  |  |  |  |  |  |  |  | Neurological        |  |
|                              |  |  |  |  |  |  |  |  |  | Psychiatric         |  |
|                              |  |  |  |  |  |  |  |  |  | Social              |  |
|                              |  |  |  |  |  |  |  |  |  | Family              |  |
|                              |  |  |  |  |  |  |  |  |  | Education           |  |
|                              |  |  |  |  |  |  |  |  |  | Occupation          |  |
|                              |  |  |  |  |  |  |  |  |  | Hobbies             |  |
|                              |  |  |  |  |  |  |  |  |  | Religion            |  |
|                              |  |  |  |  |  |  |  |  |  | Ethnicity           |  |
|                              |  |  |  |  |  |  |  |  |  | Marital status      |  |
|                              |  |  |  |  |  |  |  |  |  | Children            |  |
|                              |  |  |  |  |  |  |  |  |  | Pets                |  |
|                              |  |  |  |  |  |  |  |  |  | Travel              |  |
|                              |  |  |  |  |  |  |  |  |  | Medical history     |  |
|                              |  |  |  |  |  |  |  |  |  | Surgical history    |  |
|                              |  |  |  |  |  |  |  |  |  | Allergies           |  |
|                              |  |  |  |  |  |  |  |  |  | Medications         |  |
|                              |  |  |  |  |  |  |  |  |  | Vaccinations        |  |
|                              |  |  |  |  |  |  |  |  |  | Laboratory tests    |  |
|                              |  |  |  |  |  |  |  |  |  | Imaging             |  |
|                              |  |  |  |  |  |  |  |  |  | Pathology           |  |
|                              |  |  |  |  |  |  |  |  |  | Genetics            |  |
|                              |  |  |  |  |  |  |  |  |  | Infectious diseases |  |
|                              |  |  |  |  |  |  |  |  |  | Autoimmune          |  |
|                              |  |  |  |  |  |  |  |  |  | Endocrine           |  |
|                              |  |  |  |  |  |  |  |  |  | Cardiovascular      |  |
|                              |  |  |  |  |  |  |  |  |  | Respiratory         |  |
|                              |  |  |  |  |  |  |  |  |  | Gastrointestinal    |  |
|                              |  |  |  |  |  |  |  |  |  | Musculoskeletal     |  |
|                              |  |  |  |  |  |  |  |  |  | Dermatological      |  |
|                              |  |  |  |  |  |  |  |  |  | Ophthalmological    |  |
|                              |  |  |  |  |  |  |  |  |  | Otolaryngological   |  |
|                              |  |  |  |  |  |  |  |  |  | Neurological        |  |
|                              |  |  |  |  |  |  |  |  |  | Psychiatric         |  |
|                              |  |  |  |  |  |  |  |  |  | Social              |  |
|                              |  |  |  |  |  |  |  |  |  | Family              |  |
|                              |  |  |  |  |  |  |  |  |  | Education           |  |
|                              |  |  |  |  |  |  |  |  |  | Occupation          |  |
|                              |  |  |  |  |  |  |  |  |  | Hobbies             |  |
|                              |  |  |  |  |  |  |  |  |  | Religion            |  |
|                              |  |  |  |  |  |  |  |  |  | Ethnicity           |  |
|                              |  |  |  |  |  |  |  |  |  | Marital status      |  |
|                              |  |  |  |  |  |  |  |  |  | Children            |  |
|                              |  |  |  |  |  |  |  |  |  | Pets                |  |
|                              |  |  |  |  |  |  |  |  |  | Travel              |  |
|                              |  |  |  |  |  |  |  |  |  | Medical history     |  |
|                              |  |  |  |  |  |  |  |  |  | Surgical history    |  |
|                              |  |  |  |  |  |  |  |  |  | Allergies           |  |
|                              |  |  |  |  |  |  |  |  |  | Medications         |  |
|                              |  |  |  |  |  |  |  |  |  | Vaccinations        |  |
|                              |  |  |  |  |  |  |  |  |  | Laboratory tests    |  |
|                              |  |  |  |  |  |  |  |  |  | Imaging             |  |
|                              |  |  |  |  |  |  |  |  |  | Pathology           |  |
|                              |  |  |  |  |  |  |  |  |  | Genetics            |  |
|                              |  |  |  |  |  |  |  |  |  | Infectious diseases |  |
|                              |  |  |  |  |  |  |  |  |  | Autoimmune          |  |
|                              |  |  |  |  |  |  |  |  |  | Endocrine           |  |
|                              |  |  |  |  |  |  |  |  |  | Cardiovascular      |  |
|                              |  |  |  |  |  |  |  |  |  | Respiratory         |  |
|                              |  |  |  |  |  |  |  |  |  | Gastrointestinal    |  |
|                              |  |  |  |  |  |  |  |  |  | Musculoskeletal     |  |
|                              |  |  |  |  |  |  |  |  |  | Dermatological      |  |
|                              |  |  |  |  |  |  |  |  |  | Ophthalmological    |  |
|                              |  |  |  |  |  |  |  |  |  | Otolaryngological   |  |
|                              |  |  |  |  |  |  |  |  |  | Neurological        |  |
|                              |  |  |  |  |  |  |  |  |  | Psychiatric         |  |
|                              |  |  |  |  |  |  |  |  |  | Social              |  |
|                              |  |  |  |  |  |  |  |  |  | Family              |  |
|                              |  |  |  |  |  |  |  |  |  | Education           |  |
|                              |  |  |  |  |  |  |  |  |  | Occupation          |  |
|                              |  |  |  |  |  |  |  |  |  | Hobbies             |  |
|                              |  |  |  |  |  |  |  |  |  | Religion            |  |
|                              |  |  |  |  |  |  |  |  |  | Ethnicity           |  |
|                              |  |  |  |  |  |  |  |  |  | Marital status      |  |
|                              |  |  |  |  |  |  |  |  |  | Children            |  |
|                              |  |  |  |  |  |  |  |  |  | Pets                |  |
|                              |  |  |  |  |  |  |  |  |  | Travel              |  |
|                              |  |  |  |  |  |  |  |  |  | Medical history     |  |
|                              |  |  |  |  |  |  |  |  |  | Surgical history    |  |
|                              |  |  |  |  |  |  |  |  |  | Allergies           |  |
|                              |  |  |  |  |  |  |  |  |  | Medications         |  |
|                              |  |  |  |  |  |  |  |  |  | Vaccinations        |  |
|                              |  |  |  |  |  |  |  |  |  | Laboratory tests    |  |
|                              |  |  |  |  |  |  |  |  |  | Imaging             |  |
|                              |  |  |  |  |  |  |  |  |  | Pathology           |  |
|                              |  |  |  |  |  |  |  |  |  | Genetics            |  |
|                              |  |  |  |  |  |  |  |  |  | Infectious diseases |  |
|                              |  |  |  |  |  |  |  |  |  | Autoimmune          |  |
|                              |  |  |  |  |  |  |  |  |  | Endocrine           |  |
|                              |  |  |  |  |  |  |  |  |  | Cardiovascular      |  |
|                              |  |  |  |  |  |  |  |  |  | Respiratory         |  |
|                              |  |  |  |  |  |  |  |  |  | Gastrointestinal    |  |
|                              |  |  |  |  |  |  |  |  |  | Musculoskeletal     |  |
|                              |  |  |  |  |  |  |  |  |  | Dermatological      |  |
|                              |  |  |  |  |  |  |  |  |  | Ophthalmological    |  |
|                              |  |  |  |  |  |  |  |  |  | Otolaryngological   |  |
|                              |  |  |  |  |  |  |  |  |  | Neurological        |  |
|                              |  |  |  |  |  |  |  |  |  | Psychiatric         |  |
|                              |  |  |  |  |  |  |  |  |  | Social              |  |
|                              |  |  |  |  |  |  |  |  |  | Family              |  |
|                              |  |  |  |  |  |  |  |  |  | Education           |  |
|                              |  |  |  |  |  |  |  |  |  | Occupation          |  |
|                              |  |  |  |  |  |  |  |  |  | Hobbies             |  |
|                              |  |  |  |  |  |  |  |  |  | Religion            |  |
|                              |  |  |  |  |  |  |  |  |  | Ethnicity           |  |
|                              |  |  |  |  |  |  |  |  |  | Marital status      |  |
|                              |  |  |  |  |  |  |  |  |  | Children            |  |
|                              |  |  |  |  |  |  |  |  |  | Pets                |  |
|                              |  |  |  |  |  |  |  |  |  | Travel              |  |
|                              |  |  |  |  |  |  |  |  |  | Medical history     |  |
|                              |  |  |  |  |  |  |  |  |  | Surgical history    |  |
|                              |  |  |  |  |  |  |  |  |  | Allergies           |  |
|                              |  |  |  |  |  |  |  |  |  | Medications         |  |
|                              |  |  |  |  |  |  |  |  |  | Vaccinations        |  |
|                              |  |  |  |  |  |  |  |  |  | Laboratory tests    |  |
|                              |  |  |  |  |  |  |  |  |  | Imaging             |  |
|                              |  |  |  |  |  |  |  |  |  | Pathology           |  |
|                              |  |  |  |  |  |  |  |  |  | Genetics            |  |
|                              |  |  |  |  |  |  |  |  |  | Infectious diseases |  |
|                              |  |  |  |  |  |  |  |  |  | Autoimmune          |  |
|                              |  |  |  |  |  |  |  |  |  | Endocrine           |  |
|                              |  |  |  |  |  |  |  |  |  | Cardiovascular      |  |
|                              |  |  |  |  |  |  |  |  |  | Respiratory         |  |
|                              |  |  |  |  |  |  |  |  |  | Gastrointestinal    |  |
|                              |  |  |  |  |  |  |  |  |  | Musculoskeletal     |  |
|                              |  |  |  |  |  |  |  |  |  | Dermatological      |  |
|                              |  |  |  |  |  |  |  |  |  | Ophthalmological    |  |
|                              |  |  |  |  |  |  |  |  |  | Otolaryngological   |  |
|                              |  |  |  |  |  |  |  |  |  | Neurological        |  |
|                              |  |  |  |  |  |  |  |  |  | Psychiatric         |  |
|                              |  |  |  |  |  |  |  |  |  | Social              |  |
|                              |  |  |  |  |  |  |  |  |  | Family              |  |
|                              |  |  |  |  |  |  |  |  |  |                     |  |

# Education

## Online Webinar Series

- Birth Depression & Therapeutic Cooling
- Support of the Neonate Awaiting Transport
- The 'New' RCP NS Prenatal Record
- The Primary Care Perinatal Mental Health Toolkit
- Managing Preterm Newborns with Iron Deficiency
- RCP Anniversary Celebration Webinar Series
- Maritime Newborn Screening



## RCP Perinatal Orientation

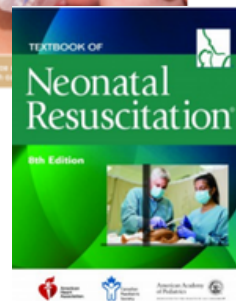
eLearning Series \*update in progress



- Antenatal Assessment and Care
- Labour and Birth
- Fetal Health Surveillance\*
- Supportive Care in Labour\*
- Infant feeding\*
- Postpartum Care\*
- Care of the Late Preterm Infant\*

## Interprofessional education / workshops

- Perinatal Orientation eLearning
- Fundamentals of Fetal Health Surveillance (FHS)
- Fetal Health Surveillance Instructor
- Acute Care of at-Risk Newborns (ACoRN)
- Neonatal resuscitation program (NRP) - instructor training
- Supportive Care in Labour Support
- Care of the Late preterm Infant
- Care of the Obstetrical Patient and the Newly Born in the Emergency Department
- Neonatal Abstinence Syndrome (NAS)



# Provincial Initiatives

## Health Services Planning



### **Pregnancy & Newborn Care Council: A Collaborative Partnership across Health Sectors**

#### **Supporting IWK's and Provincial 'Action for Health' initiatives**

- System Leadership, Partnership and Advocacy
- Accelerate Newborn, Women's and Gender-Diverse Health Agenda

#### **Goals:**

- Inform strategy development and priority setting to improve care and outcomes
- Monitor perinatal system performance and emerging trends
- Provide a system integration lens to inform NSH, IWK Health, Tajikeimik, and DHW of the provincial perinatal and newborn systems of care

#### **Current Priorities:**

- Perinatal and key performance indicators dashboard
- Provincial perinatal and newborn capacity assessment to revise Tiers of Service
- Business Case submission focusing on equitable access to perinatal and newborn services across NS



# Midwifery in Nova Scotia Report



## OF ALL CERTIFIED MIDWIFE-ATTENDED BIRTHS



Hospital births



Home births

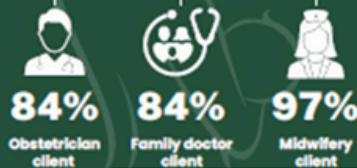
## C-SECTION RATE

**28%**



## BREASTFEEDING RATE

**84%**



**16**

Number of funded midwives in NS

**15**

Years since midwifery became a regulated profession in NS



of municipalities account for over 90% of midwifery-led births in NS

The RCP Midwifery report presents data from the Nova Scotia Atlee Perinatal Database (NSAPD). The report provides a comprehensive analysis of midwifery practices in Nova Scotia, with a focus on key areas such as the number of births, place of birth, number of active midwives, hospital versus home births, and urban vs rural location of births.

Click [here](#) for full report.



# Pregnancy & Postpartum Mortality Review System



## Pregnancy & Postpartum Mortality Review Committee

RCP is leading the development of a Pregnancy and Postpartum Mortality Review Committee (PPMRC) to ensure processes are in place to:

- Complete ascertainment of deaths
- Complete a full review of the death including whether it was preventable
- Ensure results are appropriately shared back to care providers, administrators, and the community
- Share data, what has been learned from the reviews, how it might be applied to prevent both severe maternal morbidity and mortality,
- Contribute to reliable, and informative national data

Work is currently underway to implement the committee, within RCP (IWK).

## Data Collection

Plan to create a Nova Scotia Pregnancy & Postpartum Mortality Review Database and explore transitioning to a prospective case identification system.



# Strategic Planning



The RCP and Rh Program began the strategic planning process in September 2022. The team participated in multiple engagement sessions to define the Vision and Mission, and identify goals for the program.

The consensus for the vision emphasized a commitment to perinatal care, inclusive language, with a focus on outcomes for the perinatal and newborn population.

The predominant themes that emerged to shape the mission were leadership and advocacy.



# Strategic Plan



## Vision

**Optimal outcomes for pregnant people, their newborns, and families by equipping health care providers to deliver the highest quality care**

## Mission

Provide leadership and advocacy in perinatal and newborn care in Nova Scotia through:

- Evidence-informed practice guidelines and resources, knowledge translation, and interprofessional education
- High quality data collection and analysis, quality improvement, research, and health system planning

# RCP Website & Branding

## Purpose of website update and rebranding

- Website update required as current platform outdated,
  - mobile compatible for easier access
- Establish a provincial brand & identity
- Establish the program as the primary source for perinatal and newborn clinical guidelines, resources, standards, and data for health care providers in Nova Scotia



New name and Logo

**Perinatal and  
Newborn Health  
Nova Scotia**

## Our Purpose:

To improve pregnancy and newborn outcomes in Nova Scotia.

## Our Promise:

A commitment to optimize health and wellness of Nova Scotia's pregnant persons and their infants.

## Our Position:

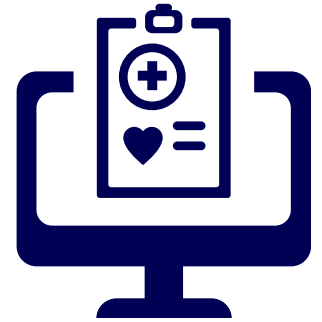
**We are Nova Scotia's experts in perinatal health.**

# Additional Initiatives

## NS Prenatal Record- EMR

The RCP Prenatal Record (PNR) has been integrated into both EMRs used by community care providers in Nova Scotia. While it is already functional in one EMR, efforts are being made to implement it in the second EMR soon. Moreover, care providers in specific clinical settings still rely on the PNR in paper form.

An agreement has been made with Newfoundland to customize the NS RCP PNR for the care context in NL, a first step towards exploring an Atlantic Antenatal Record.



## KPI Development

- KPIs have been identified for the perinatal/newborn population
- A dashboard is in development to demonstrate trends over the last 10 years



## Smart Parent



The SmartParent program supports parents in making informed decisions for a healthy pregnancy, childbirth, and early parenthood to improve the health of both parent and infant. It focuses on individuals with uncomplicated pregnancies and healthy infants by providing supplementary information to healthcare providers.



# Comprehensive Summary and Clinical Toolkit: Supporting Healthcare Providers in Caring for Perinatal Populations impacted by opioid use disorder.

## CONTINUUM OF CARE PREGNANT PERINATAL DIAGNOSED WITH OPIOID DISORDER COMPREHENSIVE SUMMARY & CLINICAL TOOLKIT

### Creation of the Toolkit

- 40+ inter-professional experts and patients with lived experience
- Literature reviews, expert experience, and lived experienced combined with intentional considerations of advancing equity for equity-deserving perinatal populations created this 256 page summary and 24+ knowledge translation tools (including an implementation guidance)

### Pilot Site: South Shore Regional Hospital

- We took a systematic approach to explore implementation related barriers and facilitators
  - x 2 multidisciplinary focus groups
- Literature integrated with focus group findings supported the creation of an implementation blue print (highlighted to the left)
- Strategies were prioritized and operationalized
  - Strategies one through three have begun

- Staff report greater feelings of capacity and confidence since implementation of the toolkit and summary

#### Implementation Blueprint

##### Brief Overview:

**Implementing:** Comprehensive Summary & Tool Kit to Guide the Care for Pregnant Persons Diagnosed with Opioid Use Disorder and their Newborns Diagnosed with Neonatal Opioid Withdrawal Syndrome

**Frequency of Implementation Connect:**

**Partners to be involved in Implementation Planning:**



#### Strategy One: Identify and Prepare Champions

##### Tasks

- ☐ Clear Expectations (Role description)
- ☐ Scheduled frequency of meetings
- ☐ Build a foundation of knowledge through engagement in national (BC Resources) and local (RCP Resource) materials.

##### Tasks

- ☐ Identify topics and format (Multimodal)
- ☐ Create Materials & Develop a Core Education Package
- ☐ Determine Roll out Plan (i.e. in-services, via email, on the floor lunch and learn)

#### Strategy Two: Develop Educational Materials



##### Tasks

- ☐ Identify key individuals to collaborate with
- ☐ Develop a frequency for a connection to reflect, and problem-solve
- ☐ Outline Purpose and Expectations for the Connects



#### Strategy Three: Have Local Consensus Discussions

##### Tasks

- ☐ Identify key care collaborators (decision makers in practice change)
- ☐ Determine what is considered the core care team (describe the strategy, what it will look like in practice, involve patient's in discussions)



#### Strategy Four: Core Care Team Development

##### Evaluation

- Focus Groups
- Surveys (Acceptability, Appropriateness and Feasibility)

#### Sustainable Implementation & Increased Capacity



### Next Steps

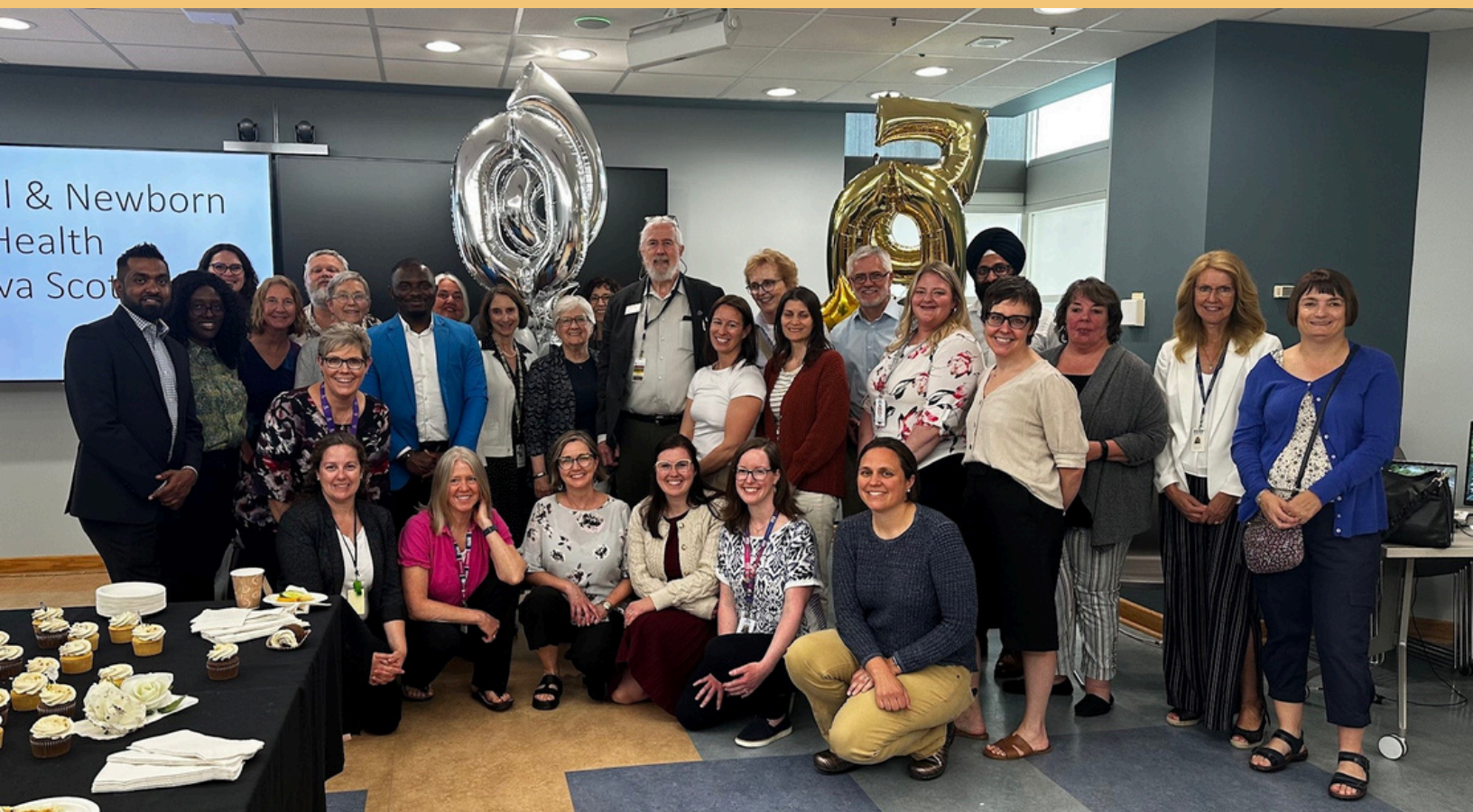
- Finalizing Internal Review
- External Review (January 2025)
- Intentional, Responsive and Systematic Dissemination and implementation Spring 2025
- Formal Evaluation of the Implementation at SSRH





# 50th and 60th Anniversary Celebrations

## RCP & Rh Programs Anniversary Celebration Doodle Video



## RCP and Rh Programs Anniversary Celebration

- RCP & Rh Anniversary Webinar Celebration 2023
- Rh Program Presentation (November 27, 2023)
- NS Atlee Perinatal Database Presentation (November 28, 2023)
- Supporting Perinatal Practice Presentation (November 29, 2023)
- Perinatal Clinical Reviews Presentation (November 30, 2023)
- Working towards optimal perinatal outcomes... (December 1, 2023)

# The RCP Team

## Manager

Barbie Leggett

## Program Administration Coordinator

Abigail Murano

## RCP Medical/Clinical Team

- Dr. Melissa Brooks: OBS Medical Advisor
- Dr. Balpreet Singh: Neo Medical Advisor
- Shannon Kaupp: Midwife Advisor
- Leanne MacKeen: Perinatal Nurse Consultant
- Heather Ezurike: Perinatal Nurse Consultant
- Sarah Maguire: Perinatal Nurse Consultant
- Maddie Gallant: Perinatal Nurse Consultant
- Becky Attenborough: Consultant

## Data Team Access

- Irene Gagnon: Health Information Coordinator
- Lynn Kabatay: Health Records Technician
- Kome Eboreime: Health Records Technician
- Dianne Duncan: Health Records Technician
- Kristina Whiffen: Programmer /Application Developer
- Thilina Senevirathne: Database Administrator
- Joseph Orji: Programmer Analyst / Web Developer
- John Fahey: Research Analyst
- Estevam Teixeira: Data Analyst
- Cora Cole: Project Manager SCA NS

# Timeline of the RCP

## The Reproductive Care Program of Nova Scotia Celebrating 50 years of Improving Perinatal and Newborn Health



1973

1980-1984

1990-1994

2000-2004

2010-2014

2020-2023

### The inception of the Reproductive Care Program of Nova Scotia

- Provincial Perinatal Database Established
- Perinatal Survey Developed
- Fetal Monitoring Statement developed and approved
- Maternal Transport Manual Produced
- Microcomputers purchased to manage new databases
- First RCP clinical workshop held across the province
- Hosted national conference on 'Regionalized Care & Prevention of Handicap'

- Established Perinatal Health Goals
- Completed First Annual Provincial Perinatal Database Report
- Introduced NALS jointly with the Heart and Stroke Foundation
- Nova Scotia Cesarean section Implementation conference
- RCP celebrated 20 years
- The Perinatal Education Partnership Project (PEPP)

- Perinatal Epidemiology Research Unit (PERU) initiated
- RCP moves the Rh Database from SIR to the Oracle Platform
- First Postpartum / Postnatal guidelines distributed
- Cesarean Section quality reviews initiated in the province

- Developed Maternal Newborn Orientation Learning Modules
- Began Newborn Transition QA Reviews
- Funded by PHAC, RCP led the SCA-NS Project (Surveillance of Congenital Anomalies in NS)
- Developed Perinatal Indicators
- Collaborated on expansion of Newborn Screening
- IWK Cardiology database established

- Revised Prenatal Record and Antenatal Screening and testing Guidelines
- Revised provincial Labour Partogram
- Developed and updated guidelines for:
  - Care of the Late Preterm Infant
  - Healthy Babies, Healthy Families
  - Assessment of the "Best Estimate" of GA
  - Unanticipated Birth: Guidelines for Labour Assessment, Imminent Delivery, and Transfer
  - Resources for COVID - 19 and Pregnancy
- Threat Risk Assessment of NSAPD
- Provincial Launch of ACoRN 2nd Edition
- Provincial launch of FHS education
- Knowledge to Action Report Mi'kmaw First Nations



1974-1979

- Designed and implemented provincial Prenatal Record
- Regional Facilities visited by the RCP
- Nursery & Neonatal Procedure & Transport Manual Produced
- Perinatal Mortality Surveys in Windsor/Truro
- Distributed 10,000 copies of the booklet "Having a Happy Birthday"
- Produced and distributed an Obstetrical Manual for care providers

1985-1989

- The Rh and RCP Programs amalgamate
- St. Matha's Hospital became Database Pilot Site
- Standardized Chart forms package introduced
- Provincial C-Section Study Conducted
- Provincial Chart Forms Committee Struck
- First Full year of provincial data collected

1995-1999

- First Regional Morbidity and Mortality Review conducted
- "Care of Healthy Women During Labor & Birth - A Nova Scotia Consensus Document" developed
- Participated in the interdisciplinary working group for midwifery regulation in NS
- Produced the database report "Perinatal Care in Nova Scotia 1988-1995"
- Data Linkage completed between RCP + Western Region
- Advanced Life Support in Obstetrics course offered

2005-2009

- Celebrated 35th Anniversary with a conference "The Perfect Storm"
- ACoRN program initiated and course offered.
- Midwifery regulated in NS
- Coordinated a province-wide and national initiative for fetal fibronectin.
- Worked with Health Promotion and Protection to create messages for H1N1 and the perinatal population

2015-2019

- Led Health Services planning for Perinatal / Newborn Population
- Updated - ALPHA (Atlee Perinatal Health) Report
- Collaborated with DCPNS on the Clinical Guidelines: Diabetes in Pregnancy
- Offered Advances in Labour and Risk Management (ALARM®)
- Newborn Transition from Hospital to Home - Provincial report of QA reviews
- Developed Guideline Ophthalmia Neonatorum Prevention in NS
- Clinical resource: Working with Pain in Labour: Systemic Medications

2024+

- Updating Atlee Perinatal Health Report
- Implementing a toolkit for care of pregnant persons diagnosed with opioid use disorder
- Updating the Perinatal e-learning orientation modules
- Rebranding / website update
- Leading the development of Responsive and Trauma Informed Perinatal Care
- Tiers of Perinatal and Newborn Service
- Revising of Provincial Perinatal Indicators



# The Rh Program

The Rh Program of Nova Scotia was established in 1964 and transitioned under the umbrella of the RCP in 1988. The Rh Program's focus is on the prevention and management of problems caused by Rh and other blood group antibodies. Similarly to the RCP, the Rh Program provides education and consultation service for healthcare providers across the province, as well as NB and PEI on request.

## Guidelines and Forms



### Guideline for Rh prophylaxis before 8 weeks (56 days) gestation for Early Pregnancy Complications and Medical Abortions

Following careful consideration of the best available evidence, the Rh Program of Nova Scotia has developed a guideline for the management of Rh prophylaxis before 8 weeks (56 days) gestation for early pregnancy complications and medical abortions. The benefits of administering Rh immune globulin before 8 weeks gestation have not been demonstrated. In contrast, there are significant benefits to individuals and health care providers when barriers such as blood testing and Rh prophylaxis can be avoided. These guidelines will also be available on our website. Please contact the Rh Program of Nova Scotia for further information.

<http://rcp.nshealth.ca/rh>

#### Component Transfusion - Rho(D) Immune Globulin (WinRho® SDF)

Patient: \_\_\_\_\_ Alert record review ☐ No known allergies

Allergies - Adverse Reactions - Cautions: \_\_\_\_\_

Age \_\_\_\_\_ Weight \_\_\_\_\_ kg Date of weight (YYYY/MON/DD): \_\_\_\_\_ BSA \_\_\_\_\_ m<sup>2</sup>

Items preceded by a **bullet** (•) are active orders. Items preceded by a **checkbox** (☐) are only to be carried out if checked.

• Consent obtained: ☐ Yes ☐ No

**Rho(D) Immune Globulin Indication**

**Pregnancy Related**

☐ Routine 28 weeks

☐ Antenatal bleeding

☐ Pregnancy loss

☐ Postpartum

☐ Other pregnancy related risk of fetomaternal hemorrhage (specify): \_\_\_\_\_

**Other Indications (Rh negative)**

☐ Platelet transfusion - if platelet donors are Rh(D) positive give 120 micrograms (covers up to 6 full buffy coat or apheresed platelet units transfused)

☐ Rh(D) positive red blood cells (RBC) to Rh(D) negative recipient - give 24 micrograms/mL RBC transfused

**Dosage**

**Pregnancy event BEFORE 12 weeks gestation**

☐ Rh(D) immune globulin 120 micrograms (IMV x 1 dose (if not available give 300 micrograms))

**Pregnancy event AFTER 12 weeks gestation**

☐ Rh(D) immune globulin 300 micrograms (IMV x 1 dose protects Kleihauer result 0% to 0.5% (0 to 0.005))

**Postpartum (infant Rh positive, Rh indeterminate, or Rh unknown)**

☐ Rh(D) immune globulin 120 micrograms (IMV x 1 dose protects Kleihauer result 0% to 0.2% (0 to 0.002) (if not available give 300 micrograms))

**Other / Additional Dosage**

☐ Rh(D) immune globulin \_\_\_\_\_ micrograms IMV x \_\_\_\_\_ dose(s). Repeat x \_\_\_\_\_

**Testing and Forms Required**

- Completed order set and signed consent
- Antibody screen before injection
- Kleihauer test may be indicated for events after 12 weeks and postpartum. If Kleihauer result **greater than 0.5% (0.005)** - (see guideline for dosing\*\*)
- Rh(D) Immune Globulin (WinRho® SDF) should be administered within 72 hours of event
- Repeat doses may not always be required (see guideline for dosing\*\*)

\*\*Guideline for Perinatal Antibody Screening and Rho(D) Immune Globulin (WinRho® SDF) Administration (<http://rcp.nshealth.ca/rh>)

Date (YYYY/MON/DD): \_\_\_\_\_ Time (24hrs:min) \_\_\_\_\_ Prescriber Signature \_\_\_\_\_ Printed Surname / Registration # \_\_\_\_\_

(RW Only) Date (YYYY/MON/DD): \_\_\_\_\_ Time (24hrs:min) \_\_\_\_\_ Verified By (Signature) \_\_\_\_\_ Printed Surname \_\_\_\_\_

#### Paternal/Donor blood typing in pregnancy

To ensure the appropriate management of a pregnancy, maternal blood group and antibody screen testing is recommended after the first prenatal visit and again at 24-28 weeks gestation. A fetus inherits antigens from both biological parents. Blood group incompatibilities with the fetus may stimulate a maternal immune response creating antibodies directed towards the corresponding antigen on fetal red blood cells. This can result in hemolytic disease of the fetus and newborn (HDFN).

There are two situations when paternal/donor blood type testing is recommended:

1. **Rh(D) Negative pregnant person:** The prevention of HDFN due to Rh(D) incompatibility requires the prophylactic administration of Rh immune globulin (WinRho®SDF) during pregnancy to Rh(D) negative individuals; however, if paternal/donor blood is tested and documented to be both Rh(D) and Weak D negative, WinRho®SDF can be safely omitted. **Weak D testing is not done routinely on Rh negative individuals and as a result, laboratories need to know when a paternal/donor blood type is being requested** to ensure that complete testing is performed. It is only when paternal/donor typing is determined to also be weak D negative that this person can safely be considered Rh negative.
2. **Positive Maternal Antibody Screen for Antibodies Associated with HDFN:** Paternal/donor testing for the associated antigen (Examples: Kell, D, C, c, E, e, etc.) can help determine the chance that a fetus/newborn will be affected by the maternal antibodies. See below with hints for completing a requisition for paternal/donor testing.

| 1. Rh(D) negative pregnant person  | 2. Antibodies associated with hemolytic disease of fetus/newborn (HDFN)   |
|--|---|
| <p>Paternal/donor testing to determine the need for WinRho®SDF:</p> <p>Check off ABO &amp; Rh type (or blood type).</p> <p>Add comment: Paternal testing. Partner Rh negative.</p> | <p>Paternal/donor testing for associated antigen:</p> <p>Check off ABO &amp; Rh type (or blood type).</p> <p>Add comment: Paternal testing.</p> <p>Name of partner: _____ DOB: _____</p> <p>has _____ antibodies.</p> |

**NOTE!** For paternal/donor testing **DO NOT** check off "antibody screen". This is not required and creates unnecessary lab time and cost.

If you have any further questions, please contact the Rh Program of Nova Scotia at 902-470-6458.

# The Rh Team

Manager  
Barbie Leggett

Program Administration Coordinator  
Abigail Murano

## Rh Program Team

- Dr Michiel Van den Hof: Medical Advisor
- Marg Parsons: Rh Coordinator
- Erin Dowe: Rh Coordinator



Mike Van den Hof, MD, FRCS (c)

Clinical Advisor



Marg Parsons, RN, BN

Rh Program Nurse  
Coordinator



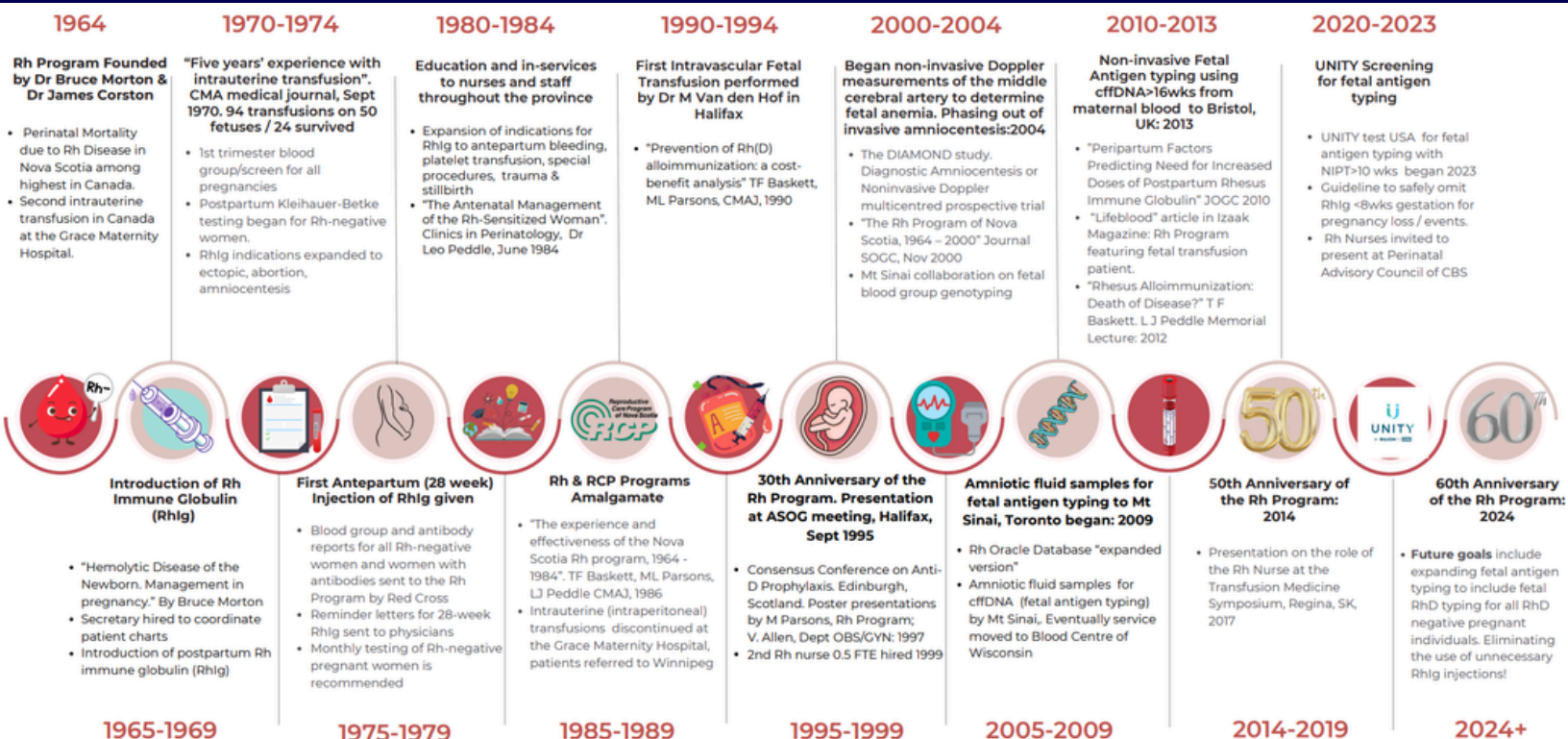
Erin Dowe, RN, BScN, PNC (c)

Rh Program Nurse  
Coordinator

# The Rh Timeline

## The Program of Nova Scotia

*Celebrating 60 years of excellence in Rh Related Disease Management*



# Planning for the Future ...

- Website update and branding
- OPOR
- OAT resource and toolkit implementation province wide
- Perinatal Orientation eLearning Series update
- Late Preterm Infant Guidelines update and Implementation
- ACoRN - Provincial coordination and implementation
- Virtual Care for consultation and newborn transports
- Simulation sessions - interdisciplinary education
- Integration of Province wide Root Cause Analysis/Serious Incident Reporting
- Trauma-Responsive Perinatal Care - Develop and Implement Guideline and toolkit
- Dashboards for KPI's and Health Indicators
- Diabetes Care - Coordination of Provincial Antenatal Care and Education
- Revision of Prenatal/Antenatal Record and Antenatal Screening and Testing Guidelines
- Stabilization and Expansion of Midwifery - partnering with Tajikeimik
- Family Medicine Advisor to join the PNHNS team





# Acknowledgements

## Welcome:

**Barbie Leggett**  
Manager

**Abigail Murano**  
Program Admin Coordinator

**Estevam Teixeira**  
Data Analys

**Joseph Orji**  
Programmer Analyst/Web  
Developer

**Maddie Gallant / Danielle Hillman /  
Paula Kaluluma / Sarah Maguire**  
Perinatal Nurse Consultants

**Lynn Kabatay / Kome Eboreime /  
Dianne Duncan**  
Health Records Technicians

**Thilina Senevirathne**  
Database Administrator

**Shannon Kaupp**  
Midwife advisor

## Farewell:

**Joanne Ings** (casual)  
Program Admin Coordinator

**Leeanne Lauzon**  
Perinatal Nurse Consultant  
(Manager Health Services Planning)

**Israel Osaighale**  
Database Administrator (casual)

**Barry Campbell**  
Programmer Analyst / Web  
Developer (retired/casual)

**Danielle Hillman/Paula Kaluluma**  
Perinatal Nurse Consultants

**RCP would like to thank all of our provincial colleagues and partners for their collaboration, support, and passion as we work together to achieve optimal outcomes for the perinatal and newborn population in Nova Scotia.**



# **Perinatal and Newborn Health Nova Scotia**



902-470-6798



[rnp@iwnk.nshealth.ca](mailto:rnp@iwnk.nshealth.ca)



<https://rnp.nshealth.ca/>