



**Dora**  
Department of Regulatory Agencies

**Office of Policy, Research and Regulatory Reform**

# **2010 Sunset Review: Regulation of Direct-Entry Midwives**

October 15, 2010





**Executive Director's Office**

Barbara J. Kelley  
Executive Director

Bill Ritter, Jr.  
Governor

October 15, 2010

Members of the Colorado General Assembly  
c/o the Office of Legislative Legal Services  
State Capitol Building  
Denver, Colorado 80203

Dear Members of the General Assembly:

The mission of the Department of Regulatory Agencies (DORA) is consumer protection. As a part of the Executive Director's Office within DORA, the Office of Policy, Research and Regulatory Reform seeks to fulfill its statutorily mandated responsibility to conduct sunset reviews with a focus on protecting the health, safety and welfare of all Coloradans.

DORA has completed the evaluation of the regulation of direct-entry midwives. I am pleased to submit this written report, which will be the basis for my office's oral testimony before the 2011 legislative committee of reference. The report is submitted pursuant to section 24-34-104(8)(a), of the Colorado Revised Statutes (C.R.S.), which states in part:

The department of regulatory agencies shall conduct an analysis of the performance of each division, board or agency or each function scheduled for termination under this section...

The department of regulatory agencies shall submit a report and supporting materials to the office of legislative legal services no later than October 15 of the year preceding the date established for termination....

The report discusses the question of whether there is a need for the regulation provided under Article 37 of Title 12, C.R.S. The report also discusses the effectiveness of the Director of the Division of Registrations and staff in carrying out the intent of the statutes and makes recommendations for statutory and administrative changes in the event this regulatory program is continued by the General Assembly.

Sincerely,

Barbara J. Kelley  
Executive Director





Bill Ritter, Jr.  
Governor

Barbara J. Kelley  
Executive Director

## **2010 Sunset Review: Regulation of Direct-Entry Midwives**

### **Summary**

#### ***What Is Regulated?***

Direct-entry midwives are healthcare practitioners who care for pregnant women and their babies, including prenatal care, assistance in labor and delivery, and newborn care.

#### ***Why Is It Regulated?***

The laws that govern direct-entry midwives protect consumers by ensuring that only qualified direct-entry midwives practice in Colorado. Complications that may arise from an unqualified person practicing midwifery include injury, cerebral palsy, and death.

#### ***Who Is Regulated?***

Colorado has 54 registered direct-entry midwives.

#### ***How Is It Regulated?***

Direct-entry midwives must register with the Director of the Division of Registrations (Director) of the Department of Regulatory Agencies. Applicants must graduate from a midwifery program accredited by the Midwifery Education Accreditation Council.

#### ***What Does It Cost?***

The fiscal year 08-09 expenditure to oversee this program was \$37,000, and there were 0.2 full-time equivalent employees associated with this program.

#### ***What Disciplinary Activity Is There?***

For the period fiscal year 04-05 through fiscal year 08-09, the Director issued 14 disciplinary actions, including probation, practice limitation, letters of admonition, injunctions, and cease and desist orders.

#### ***Where Do I Get the Full Report?***

The full sunset review can be found on the internet at: [www.dora.state.co.us/opr/oprpublications.htm](http://www.dora.state.co.us/opr/oprpublications.htm).

## Key Recommendations

### **Continue the regulation of direct-entry midwives for five years, until 2016.**

The laws that govern direct-entry midwives ensure competent and qualified practitioners. Complications that may arise during pregnancy, delivery, and childbirth are numerous, and include lifelong injury and death. Therefore, it is in the interest of the public to regulate direct-entry midwives.

### **Allow direct-entry midwives to obtain and administer vitamin K and specific medications.**

The following vitamin and medications are life-saving, prophylactic treatments for women and babies:

- Vitamin K;
- Rho(D) immune globulin; and
- Antihemorrhagic drugs.

Direct-entry midwives are trained and tested on the use of vitamin K, Rho(D) immune globulin, and antihemorrhagic drugs. Allowing direct-entry midwives to administer them is consistent with the public interest.

### **Repeal the prohibition against being simultaneously licensed as a nurse and registered as a direct-entry midwife, except for certified nurse-midwives.**

A licensed nurse, who obtains the necessary skills and qualifications to be registered as a direct-entry midwife and maintains his or her license in good standing, should be allowed to work as a direct-entry midwife without giving up his or her nursing license in order to do so.

## Major Contacts Made During This Review

American Academy of Pediatrics  
American College of Nurse-Midwives, Colorado Chapter  
American Congress of Obstetricians and Gynecologists  
Arizona Department of Health Services  
California Medical Board  
Colorado Department of Public Health and Environment  
Colorado Gynecological and Obstetrical Society  
Colorado Midwives Association  
Colorado Attorney General's Office  
Colorado Pharmacists Society  
Colorado Rural Health Center  
Drug Enforcement Administration  
Midwives Alliance of North America  
New Mexico Department of Health  
North American Registry of Midwives  
Nurse-Physician Advisory Task Force for Colorado Healthcare  
Utah Division of Occupational and Professional Licensing  
Washington State Department of Health

## What is a Sunset Review?

A sunset review is a periodic assessment of state boards, programs, and functions to determine whether or not they should be continued by the legislature. Sunset reviews focus on creating the least restrictive form of regulation consistent with protecting the public. In formulating recommendations, sunset reviews consider the public's right to consistent, high quality professional or occupational services and the ability of businesses to exist and thrive in a competitive market, free from unnecessary regulation.

Sunset Reviews are Prepared by:  
Colorado Department of Regulatory Agencies  
Office of Policy, Research and Regulatory Reform  
1560 Broadway, Suite 1550, Denver, CO 80202  
[www.dora.state.co.us/opr](http://www.dora.state.co.us/opr)

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## Background

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### *Introduction*

Enacted in 1976, Colorado's sunset law was the first of its kind in the United States. A sunset provision repeals all or part of a law after a specific date, unless the legislature affirmatively acts to extend it. During the sunset review process, the Department of Regulatory Agencies (DORA) conducts a thorough evaluation of such programs based upon specific statutory criteria<sup>1</sup> and solicits diverse input from a broad spectrum of stakeholders including consumers, government agencies, public advocacy groups, and professional associations.

Sunset reviews are based on the following statutory criteria:

- Whether regulation by the agency is necessary to protect the public health, safety and welfare; whether the conditions which led to the initial regulation have changed; and whether other conditions have arisen which would warrant more, less or the same degree of regulation;
- If regulation is necessary, whether the existing statutes and regulations establish the least restrictive form of regulation consistent with the public interest, considering other available regulatory mechanisms and whether agency rules enhance the public interest and are within the scope of legislative intent;
- Whether the agency operates in the public interest and whether its operation is impeded or enhanced by existing statutes, rules, procedures and practices and any other circumstances, including budgetary, resource and personnel matters;
- Whether an analysis of agency operations indicates that the agency performs its statutory duties efficiently and effectively;
- Whether the composition of the agency's board or commission adequately represents the public interest and whether the agency encourages public participation in its decisions rather than participation only by the people it regulates;
- The economic impact of regulation and, if national economic information is not available, whether the agency stimulates or restricts competition;
- Whether complaint, investigation and disciplinary procedures adequately protect the public and whether final dispositions of complaints are in the public interest or self-serving to the profession;
- Whether the scope of practice of the regulated occupation contributes to the optimum utilization of personnel and whether entry requirements encourage affirmative action;
- Whether administrative and statutory changes are necessary to improve agency operations to enhance the public interest.

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<sup>1</sup> Criteria may be found at § 24-34-104, C.R.S.

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## *Types of Regulation*

Consistent, flexible, and fair regulatory oversight assures consumers, professionals and businesses an equitable playing field. All Coloradans share a long-term, common interest in a fair marketplace where consumers are protected. Regulation, if done appropriately, should protect consumers. If consumers are not better protected and competition is hindered, then regulation may not be the answer.

As regulatory programs relate to individual professionals, such programs typically entail the establishment of minimum standards for initial entry and continued participation in a given profession or occupation. This serves to protect the public from incompetent practitioners. Similarly, such programs provide a vehicle for limiting or removing from practice those practitioners deemed to have harmed the public.

From a practitioner perspective, regulation can lead to increased prestige and higher income. Accordingly, regulatory programs are often championed by those who will be the subject of regulation.

On the other hand, by erecting barriers to entry into a given profession or occupation, even when justified, regulation can serve to restrict the supply of practitioners. This not only limits consumer choice, but can also lead to an increase in the cost of services.

There are also several levels of regulation.

### Licensure

Licensure is the most restrictive form of regulation, yet it provides the greatest level of public protection. Licensing programs typically involve the completion of a prescribed educational program (usually college level or higher) and the passage of an examination that is designed to measure a minimal level of competency. These types of programs usually entail title protection – only those individuals who are properly licensed may use a particular title(s) – and practice exclusivity – only those individuals who are properly licensed may engage in the particular practice. While these requirements can be viewed as barriers to entry, they also afford the highest level of consumer protection in that they ensure that only those who are deemed competent may practice and the public is alerted to those who may practice by the title(s) used.

### Certification

Certification programs offer a level of consumer protection similar to licensing programs, but the barriers to entry are generally lower. The required educational program may be more vocational in nature, but the required examination should still measure a minimal level of competency. Additionally, certification programs typically involve a non-governmental entity that establishes the training requirements and owns and administers the examination. State certification is made conditional upon the individual practitioner obtaining and maintaining the relevant private credential. These types of programs also usually entail title protection and practice exclusivity.



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While the aforementioned requirements can still be viewed as barriers to entry, they afford a level of consumer protection that is lower than a licensing program. They ensure that only those who are deemed competent may practice and the public is alerted to those who may practice by the title(s) used.

### Registration

Registration programs can serve to protect the public with minimal barriers to entry. A typical registration program involves an individual satisfying certain prescribed requirements – typically non-practice related items, such as insurance or the use of a disclosure form – and the state, in turn, placing that individual on the pertinent registry. These types of programs can entail title protection and practice exclusivity. Since the barriers to entry in registration programs are relatively low, registration programs are generally best suited to those professions and occupations where the risk of public harm is relatively low, but nevertheless present. In short, registration programs serve to notify the state of which individuals are engaging in the relevant practice and to notify the public of those who may practice by the title(s) used.

### Title Protection

Finally, title protection programs represent one of the lowest levels of regulation. Only those who satisfy certain prescribed requirements may use the relevant prescribed title(s). Practitioners need not register or otherwise notify the state that they are engaging in the relevant practice, and practice exclusivity does not attach. In other words, anyone may engage in the particular practice, but only those who satisfy the prescribed requirements may use the enumerated title(s). This serves to indirectly ensure a minimal level of competency – depending upon the prescribed preconditions for use of the protected title(s) – and the public is alerted to the qualifications of those who may use the particular title(s).

Licensing, certification and registration programs also typically involve some kind of mechanism for removing individuals from practice when such individuals engage in enumerated proscribed activities. This is generally not the case with title protection programs.

### Regulation of Businesses

Regulatory programs involving businesses are typically in place to enhance public safety, as with a salon or pharmacy. These programs also help to ensure financial solvency and reliability of continued service for consumers, such as with a public utility, a bank or an insurance company.

Activities can involve auditing of certain capital, bookkeeping and other recordkeeping requirements, such as filing quarterly financial statements with the regulator. Other programs may require onsite examinations of financial records, safety features or service records.

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Although these programs are intended to enhance public protection and reliability of service for consumers, costs of compliance are a factor. These administrative costs, if too burdensome, may be passed on to consumers.

### ***Sunset Process***

Regulatory programs scheduled for sunset review receive a comprehensive analysis. The review includes a thorough dialogue with agency officials, representatives of the regulated profession and other stakeholders. Anyone can submit input on any upcoming sunrise or sunset review via DORA's website at: [www.dora.state.co.us/pls/real/OPR\\_Review\\_Comments.Main](http://www.dora.state.co.us/pls/real/OPR_Review_Comments.Main).

The regulatory functions of the Director (Director) of the Division of Registrations (Division) relating to Article 37 of Title 12, Colorado Revised Statutes (C.R.S.), shall terminate on July 1, 2011, unless continued by the General Assembly. During the year prior to this date, it is the duty of DORA to conduct an analysis and evaluation of the Division pursuant to section 24-34-104, C.R.S.

The purpose of this review is to determine whether the currently prescribed regulation of direct-entry midwives should be continued for the protection of the public and to evaluate the performance of the Director and staff of the Division. During this review, the Director and the Division must demonstrate that the regulation serves to protect the public health, safety or welfare, and that the regulation is the least restrictive regulation consistent with protecting the public. DORA's findings and recommendations are submitted via this report to the legislative committee of reference of the Colorado General Assembly.

### ***Methodology***

As part of this review, DORA staff interviewed Division staff, reviewed Division records including complaint and disciplinary actions, interviewed officials with state and national professional associations, interviewed healthcare providers, reviewed Colorado statutes and Director rules, and reviewed the laws of other states.

### ***Profile of the Profession***

Midwifery is the practice of assisting with childbirth; independently caring for normal, healthy women and infants before, during and after childbirth; and collaborating with medical personnel when abnormalities develop.<sup>2</sup> A person who practices midwifery, whether male or female, is referred to as a midwife.

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<sup>2</sup> "Midwifery." *The American Heritage® Stedman's Medical Dictionary*. Houghton Mifflin Company. Retrieved on September 23, 2010, from <http://dictionary.reference.com/browse/midwifery>

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Midwives practice in hospital settings, in birthing centers,<sup>3</sup> and in the homes of women giving birth.

The types of midwives recognized in the United States are certified nurse-midwives, lay midwives, and direct-entry midwives. Other practitioners who care for women during childbirth include family practice physicians and obstetricians.

A certified nurse-midwife is an advanced practice nurse who provides primary care to women, including gynecological examinations, family planning advice, prenatal care, assistance in labor and delivery, and newborn care. Advanced practice nurses may also prescribe medication under certain circumstances.

A lay midwife is a midwife who has received no formal training or education. They learn the practice by apprenticeship.

This sunset review only concerns the regulation of direct-entry midwives.

Regulation of direct-entry midwives varies widely from state to state. Direct-entry midwives are regulated in 26 states (shown in Appendix A) and prohibited from practicing in 10.<sup>4</sup> In Colorado, direct-entry midwives are regulated by the Director.

A direct-entry midwife is a healthcare provider who cares for pregnant women and their babies, including prenatal care, assistance in labor and delivery, and newborn care. Unlike a certified nurse-midwife, a direct-entry midwife does not necessarily have training in nursing or have a nursing license. In 19 states, direct-entry midwives may obtain and administer certain medications such as vitamin K, Rho(D) immune globulin, and antihemorrhagic drugs.

The Midwifery Education Accreditation Council (MEAC) accredits 11 direct-entry midwifery schools in the United States. For entry, most programs require a high school diploma, or its equivalent, and successful completion of a college-level anatomy and physiology course (of at least three semester credit hours), and a doula<sup>5</sup> course or workshop.

Students in these programs cover over 800 different required topics in which they must demonstrate knowledge and skills, including administering an intramuscular shot, the use of vitamin K for newborns, the use of medications to treat women who have a negative blood type, assessing postpartum hemorrhage, and the use of medication to treat postpartum hemorrhage.

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<sup>3</sup> Birthing center: A medical facility designed for low-risk pregnancies that simulates the homebirth experience and may be staffed by direct-entry midwives, certified nurse-midwives, and obstetricians.

<sup>4</sup> Midwives Alliance of North America. *Direct-Entry Midwifery State-by-State Legal Status*. Retrieved on September 23, 2010, from <http://mana.org/stchartbtm.html>

<sup>5</sup> Doula: A woman experienced in childbirth who provides advice, information, and physical comfort to a mother before, during and just after childbirth. Source: Merriam-Webster. *Doula*. Retrieved on October 13, 2010, from <http://www.merriam-webster.com/dictionary/doula?show=0&t=1287007986>

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In order to graduate, midwifery students must attend 20 births and provide care for 20 additional births as the primary midwife. Additionally, midwifery students are required to function as the primary midwife at 75 prenatal examinations, 20 newborn examinations, and 40 postpartum examinations.

States that regulate direct-entry midwives rely on the North American Registry of Midwives (NARM) examination or the Certified Professional Midwife (CPM) certification as a qualification for state licensure, certification, or registration. In order to be certified as a CPM, a candidate must:

- Graduate from a midwifery school accredited by MEAC and complete the NARM examination;
- Be certified by the American College of Nurse-Midwives Certification Council as a Certified Nurse-Midwife (CNM) or a Certified Midwife (CM);
- Be licensed in a state or country, such as the United Kingdom, that has been evaluated as having equivalent educational standards; or
- Complete a competency-based evaluation—such a candidate may have graduated from a non-accredited midwifery program, be an experienced midwife, or be a midwife educated abroad.

Affordable liability insurance is only available to direct-entry midwives licensed in Washington and Florida through insurance programs that are underwritten by state funds for multiple professions. Florida is the only state that requires liability insurance for licensure. Washington requires it for Medicaid reimbursement, but not for licensure.

Only a very small number of women in the United States give birth with a direct-entry midwife in attendance.

In 2007, less than one percent of all births in the United States were out-of-hospital births. Of these, 64.7 percent were home births and 28 percent were in birthing centers. Midwives attended 60.9 percent of home births and physicians attended 7.6 percent.<sup>6</sup> In Colorado, direct-entry midwives only attend home births.

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<sup>6</sup> National Vital Statistics Reports, Volume 58, Number 24, August 2010.

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Table 1 shows the total number of deliveries by direct-entry midwives in Colorado over the last five years.

**Table 1**  
**Colorado Deliveries by Direct-Entry Midwives**

| <b>Calendar Year</b> | <b>Deliveries</b> |
|----------------------|-------------------|
| 2005                 | 516               |
| 2006                 | 564               |
| 2007                 | 628               |
| 2008                 | 711               |
| 2009                 | 637               |

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## Legal Framework

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### *History of Regulation*

As medical science advanced in the 19<sup>th</sup> century, the emphasis on licensed physician and nurse involvement in childbirth expanded in this country. When obstetrics became a recognized medical specialty in the early 20<sup>th</sup> century, some states began to regulate, or prohibit, the practice of midwifery.

In 1917, the Colorado General Assembly created the first formal program in the state to regulate midwives. The Colorado Board of Medical Examiners (now known as the Colorado Medical Board) was required to develop a program to license midwives. Licensed midwives were allowed to attend births without the supervision of a physician. However, they were not permitted to use any instruments, such as forceps, or drugs to assist with labor, delivery, or postpartum care.

In 1941, the General Assembly amended the Medical Practice Act to prohibit the issuance of new licenses to midwives. This was intended to allow existing licensees to continue practicing, but to gradually eliminate the profession.

Nationally, a resurgence of the concept of natural and home births began in the 1970s. As a result, a variety of organizations started promoting the concept of births attended by trained midwives.

In 1993, the General Assembly created a registry for direct-entry midwives.

In 1996, legislation following a sunset review of the program resulted in numerous changes to the laws regulating direct-entry midwives which, among other things:

- Allowed licensed acupuncturists to also register as direct-entry midwives;
- Provided for the administration of oxygen by direct-entry midwives; and
- Authorized the confidentiality of investigation files until a final agency action is taken.

As a result of the 2001 sunset review, the laws regulating direct-entry midwives were amended to prohibit only licensed nurses and physicians from being simultaneously registered as direct-entry midwives. Previously, all other licensed healthcare providers, except acupuncturists, were prohibited from registering as direct-entry midwives. The exemption for licensed acupuncturists was, therefore, redundant and repealed.

Additionally, as of July 1, 2003, new registrants were required to have graduated from an accredited direct-entry midwifery school.

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## *Summary of Current Laws*

The laws that govern direct-entry midwives may be found in Article 37 of Title 12, Colorado Revised Statutes (C.R.S.) (Act). The Act does not pertain to other healthcare practitioners who are otherwise licensed to provide such care in Colorado, such as nurses and physicians.<sup>7</sup> Certified nurse-midwives are governed by the Nurse Practice Act.

Direct-entry midwifery is defined as advising, attending, and assisting a woman during pregnancy, labor, childbirth, and the six weeks after birth.<sup>8</sup>

In Colorado, direct-entry midwives must register with the Division of Registrations (Division) in the Department of Regulatory Agencies (DORA). The Director of the Division (Director) regulates the practice.

To register, a candidate must have graduated from an accredited direct-entry midwifery school or have substantially equivalent education and pass an examination approved by the Director.<sup>9</sup> The Director is required to establish a schedule for renewal of registrations.<sup>10</sup>

If the registration of a direct-entry midwife has been expired for more than two years or less than five, he or she must complete an application for reinstatement, pay the application fee and demonstrate competency to practice by:<sup>11</sup>

- Providing proof of registration in good standing in another state and proof of active practice for two years;
- Completing 20 hours of continuing education; or
- Passing the North American Registry of Midwives (NARM) written examination.

If the registration of a direct-entry midwife has been expired for five years or more, he or she must complete an application for reinstatement, pay the application fee and demonstrate competency to practice by:<sup>12</sup>

- Providing proof of registration in good standing in another state and proof of active practice for two of the past five years;
- Practicing under supervision for a minimum of six months; or
- Passing the NARM written examination.

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<sup>7</sup> § 12-37-101(1), C.R.S.

<sup>8</sup> §§ 12-37-102(2) and (5), C.R.S.

<sup>9</sup> §§ 12-37-103(5) and (6), C.R.S.

<sup>10</sup> § 12-37-103(3), C.R.S.

<sup>11</sup> 4 CCR 739-1 Midwives Registration, Rule 13.

<sup>12</sup> 4 CCR 739-1 Midwives Registration, Rule 13.

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The Director has the following powers and duties:<sup>13</sup>

- Promulgate rules;
- Establish fees;
- Adopt education standards;
- Adopt an examination;
- Register approved applicants; and
- Collect registration fees.

The Director may take any of the following disciplinary actions against a direct-entry midwife who has violated the Act:<sup>14</sup>

- Deny registration;
- Revoke registration;
- Suspend registration;
- Issue a letter of admonition;
- Place a registrant on probation;
- Seek a permanent or temporary injunction; and
- Assess a fine as an alternative to, or in addition to, suspension or revocation, not to exceed \$5,000.

The Director may also seek an injunction against anyone committing any act prohibited by the Act.<sup>15</sup>

Additionally, the Director may issue a confidential letter of concern if he or she determines that formal discipline is not appropriate and a complaint should be dismissed, but the complaint has uncovered conduct that could lead to serious consequences if not corrected.<sup>16</sup>

The following acts, among others, are grounds for discipline:<sup>17</sup>

- Committing any act or omission that does not meet generally accepted standards of safe care for women and infants;
- Being habitually intemperant with regard to or excessively using a habit-forming drug, a controlled substance, or an alcoholic beverage;
- Having a revoked or suspended license or registration to practice direct-entry midwifery or any other healthcare occupation in any jurisdiction;
- Violating any law or regulation governing the practice of direct-entry midwifery in another state or jurisdiction;
- Falsifying or failing to make essential or correct entries in client records;
- Being convicted of a felony or a plea of guilty or *nolo contendere* to a felony;

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<sup>13</sup> § 12-37-106, C.R.S.

<sup>14</sup> §§ 12-37-107(1) and (2), C.R.S.

<sup>15</sup> § 12-37-106, C.R.S.

<sup>16</sup> § 12-37-107(7.5), C.R.S.

<sup>17</sup> § 12-37-107(3), C.R.S.



- 
- Violating of any provision of the Act or knowingly aiding or permitting any person to violate any provision of the Act; and
  - Advertising through newspapers, magazines, circulars, direct mail, directories, radio, television, or otherwise that the registrant will perform any act prohibited by the Act.

The Director has investigative subpoena powers.<sup>18</sup> Additionally, the Director may issue a cease and desist order if, based upon credible evidence, he or she determines that a registrant is an imminent threat to the health and safety of the public, or a person is practicing without the required registration.<sup>19</sup> Complaint files are confidential until they are dismissed or charges are served upon the registrant.<sup>20</sup>

Direct-entry midwives are only required to obtain liability insurance if the Director finds it to be affordable.<sup>21</sup>

The Act does not require insurers, third-party payers, or government healthcare programs to pay for midwifery services.<sup>22</sup>

A direct-entry midwife is required to disclose to clients certain information, including:<sup>23</sup>

- His or her name, address, and phone number;
- His or her credentials;
- A statement of liability coverage (whether or not coverage is maintained);
- Any healthcare license, certification, or registration revoked by any jurisdiction or organization;
- A statement regarding the regulation of direct-entry midwifery by DORA, including contact information for complaint and investigations; and
- A copy of an emergency plan.

By rule, the time required for transportation to the nearest facility capable of providing appropriate treatment must not exceed 30 minutes, unless the plan is consented to by both the client and the direct-entry midwife.<sup>24</sup>

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<sup>18</sup> § 12-37-107(6)(a), C.R.S.

<sup>19</sup> § 12-37-107(9), C.R.S.

<sup>20</sup> § 12-37-109.7, C.R.S.

<sup>21</sup> § 12-37-109(3), C.R.S.

<sup>22</sup> § 12-37-109(2), C.R.S.

<sup>23</sup> § 12-37-104(1), C.R.S.

<sup>24</sup> 4 CCR 739-1 Midwives Registration, Rule 10.

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Prior to accepting a client, a direct-entry midwife must obtain informed consent, evidenced by a written statement signed by both the direct-entry midwife and the client that includes:<sup>25</sup>

- The direct-entry midwife's education and training;
- The nature and scope of the care to be given;
- The available alternatives to direct-entry midwifery care;
- A description of the risks of birth;
- A statement indicating whether the direct-entry midwife is covered under a policy of liability insurance; and
- A statement informing the client that, in the event subsequent care is required resulting from the acts or omissions of the direct-entry midwife, any physician, nurse, emergency personnel, and healthcare institution rendering such care will be found liable only if their conduct is found to be grossly negligent or willful or wanton.

Direct-entry midwives are required to:<sup>26</sup>

- File a birth certificate for every delivery;
- Maintain client records;
- Obtain informed consent from clients;
- Screen newborns for certain conditions;<sup>27</sup>
- Administer prophylactic eye ointment to newborns;<sup>28</sup>
- Use aseptic and universal precautions with every client;<sup>29</sup>
- Ensure appropriate laboratory tests are administered;<sup>30</sup>
- Assess risk; and
- Refer appropriate clients to other healthcare providers.<sup>31</sup>

They must also submit data to the Division, including:<sup>32</sup>

- The number of women to whom care was provided;
- The number of deliveries;
- APGAR<sup>33</sup> scores for all infants;
- The number of women transferred to medical care during the prenatal period;
- The number of women transferred to medical care during labor, delivery, or immediately following birth;
- Any perinatal<sup>34</sup> deaths; and
- Other morbidity statistics required by the Director.

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<sup>25</sup> § 12-37-105(5)(a)(III), C.R.S.

<sup>26</sup> § 12-37-105(5), C.R.S.

<sup>27</sup> § 12-37-105(7), C.R.S.

<sup>28</sup> § 12-37-105(9), C.R.S.

<sup>29</sup> § 12-37-105(10), C.R.S.

<sup>30</sup> § 12-37-105(8), C.R.S.

<sup>31</sup> § 12-37-105(11), C.R.S.

<sup>32</sup> § 12-37-105(12), C.R.S.

<sup>33</sup> APGAR: A score assigned to a newborn to determine if he or she needs medical attention.

<sup>34</sup> Perinatal: Referring to the infant from 20 weeks of gestation until 28 days after delivery.

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Direct-entry midwives are authorized to administer oxygen to patients.<sup>35</sup>

A direct-entry midwife is prohibited from:<sup>36</sup>

- Dispensing or administering drugs or medication, except for the required prophylactic eye ointment;
- Performing surgery;
- Providing care for a high risk pregnancy;
- Practicing beyond the scope of his or her education or training; and
- Practicing with a mental or physical impairment with which he or she is unable to practice with reasonable skill or safety.

By rule, a direct-entry midwife may not provide care to any client whose medical history includes:<sup>37</sup>

- Diabetes;
- Hypertensive heart disease;
- Lung disease or heart disease which interferes with the activities of daily living;
- A history of swelling of a vein caused by a blood clot or blood clots in the lung;
- A blood disorder, for example sickle cell anemia;
- Seizures controlled by medication if the client has seized within the last year;
- Hepatitis B, HIV,<sup>38</sup> or AIDS;<sup>39</sup>
- Current use of psychotropic medications;
- Current substance abuse of drugs or alcohol;
- Rh sensitization;<sup>40</sup>
- A weak cervix that begins to open before the baby is ready to be born;
- Previous uncontrollable postpartum hemorrhage;
- A cesarean section, unless compliant with rules regarding vaginal birth after cesarean section (VBAC); or
- Infants who were premature, stillborn, or neonatal deaths associated with maternal health or genetic anomaly.

### **Prenatal Care**

A direct-entry midwife is required to see a client monthly through the first 28 weeks of pregnancy, every two weeks until 35 weeks, and then weekly until delivery.<sup>41</sup>

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<sup>35</sup> § 12-37-105(13), C.R.S.

<sup>36</sup> §§ 12-37-105(1), (2), (3) and (14), C.R.S.

<sup>37</sup> 4 CCR 739-1 Midwives Registration, Rule 4.

<sup>38</sup> HIV: Infection by the human immunodeficiency virus, a virus that kills or damages cells of the immune system.

<sup>39</sup> AIDS: Acquired immune deficiency syndrome, the most advanced stage of a disease of the immune system caused by the human immunodeficiency virus.

<sup>40</sup> Rh sensitization: When a woman with a negative blood type develops antibodies that attack her baby's blood cells.

<sup>41</sup> 4 CCR 739-1 Midwives Registration, Rule 5A.

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Additionally, a direct-entry midwife must refer a pregnant woman with the following conditions to be evaluated by a qualified licensed healthcare provider and may only continue to care for the woman if that provider has determined, based upon generally accepted medical standards, that she is not exhibiting signs or symptoms of increased risk of medical or obstetrical or neonatal complications or problems during the completion of her pregnancy, labor, delivery or the postpartum period:<sup>42</sup>

- Gestational diabetes;
- Severe morning sickness beyond the 24th week of gestation;
- High blood pressure;
- Preeclampsia;<sup>43</sup>
- Seizures;
- Vaginal bleeding after 20 weeks;
- Urinary infections or sexually transmitted disease;
- Oral temperature in excess of 101° Fahrenheit for more than 24 hours accompanied by other signs or symptoms of clinically significant infection, or, which does not resolve within 72 hours;
- Laboratory results indicating a need for medical treatment;
- Anemia not responding to over-the-counter iron therapy;
- Too much or too little amniotic fluid;
- Decreased fetal movements;
- Lack of fetal movement or fetal heart tones;
- Gestation longer than 42 weeks;
- Rupture of the sac of amniotic fluid (water breaking) for longer than 12 hours without labor;
- Premature labor;
- Active herpes;
- Inadequate growth of the fetus; or
- Suspected abnormality of the pelvis.

A direct-entry midwife is also required, by rule, to measure the dimension and capacity of the pelvis by the 36th week of pregnancy.<sup>44</sup>

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<sup>42</sup> 4 CCR 739-1 Midwives Registration, Rule 5G.

<sup>43</sup> Preeclampsia: A condition, also known as toxemia or pregnancy-induced hypertension, marked by high blood pressure and excess protein in the urine, which can be fatal.

<sup>44</sup> 4 CCR 739-1 Midwives Registration, Rule 5H.

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## **Labor and Delivery**

By rule, a direct-entry midwife is required to arrange for immediate consultation and transport to the nearest medical facility capable of providing appropriate treatment if any of the following conditions exist:<sup>45</sup>

- Bleeding other than bloody show prior to delivery;
- Signs of placental abruption including continuous lower abdominal pain and tenderness;
- Prolapse of the cord;
- Any meconium<sup>46</sup> staining without reassuring fetal heart tones, or moderate or greater meconium staining regardless of status of fetal heart tones;
- Significant change in maternal vital signs;
- Failure to progress in labor;
- Fetal heart rate below 120 or above 160 beats per minute between contractions;
- Protein or glucose in the urine;
- Seizures;
- Failure of the uterus to contract;
- Retained placental fragments;
- Vaginal or cervical tears requiring repair; or
- The client requests transport.

## **Postpartum Care**

By rule, following delivery, the direct-entry midwife must arrange for consultation and transport when:<sup>47</sup>

- There is excessive blood loss;
- The mother has a fever of greater than 101° Fahrenheit;
- The mother cannot urinate within six hours;
- The vaginal discharge is excessive, foul smelling, or otherwise abnormal; or
- There are signs of clinically significant depression.

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<sup>45</sup> 4 CCR 739-1 Midwives Registration, Rule 6E.

<sup>46</sup> Meconium: Newborn stools made up of material ingested during gestation.

<sup>47</sup> 4 CCR 739-1 Midwives Registration, Rule 7E.

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## Newborn Care

By rule, a direct-entry midwife must arrange for immediate transport for a newborn who exhibits any of the following signs:<sup>48</sup>

- APGAR score of “7” or less at 10 minutes;
- Respiratory distress;
- Inability to maintain body temperature;
- Medically significant anomaly;
- Seizures;
- Full and bulging fontanel;<sup>49</sup>
- Suspected birth injuries;
- Cardiac irregularities;
- Pale, bluish, or gray skin color; or
- Lethargy or poor muscle tone.

By rule, a direct-entry midwife must arrange for consultation and transport for an infant who exhibits any of the following:<sup>50</sup>

- Signs of hypoglycemia, including jitteriness;
- Abnormal cry;
- Passes no urine within 12 hours or meconium within 24 hours of birth;
- Projectile vomiting;
- Inability to suck;
- Pulse greater than 180 or less than 80 beats per minute at rest;
- Jaundice within 24 hours of birth; or
- Positive Coombs’ test.<sup>51</sup>

## Vaginal Birth after Cesarean Section

By rule, a direct-entry midwife is prohibited from retaining a client who has had a previous cesarean section<sup>52</sup> if the previous cesarean records are not provided. Previous cesarean records must be analyzed by the direct-entry midwife and maintained in the client files with a written assessment.<sup>53</sup>

A direct-entry midwife must not retain a client if records show a vertical scar or any surgery that required incision into the top portion of the uterus, or the due date of a client’s current pregnancy is less than 18 months since her previous cesarean section. Additionally, a client who has had two or more cesarean sections must also have had a successful prior vaginal delivery, or the midwife must not retain the client.

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<sup>48</sup> 4 CCR 739-1 Midwives Registration, Rule 8D.

<sup>49</sup> Fontanel: A soft spot on a newborn’s head.

<sup>50</sup> 4 CCR 739-1 Midwives Registration, Rule 8E.

<sup>51</sup> Coombs’ test: A test to determine if a person has antibodies that attack his or her red blood cells.

<sup>52</sup> Cesarean section: When a baby is delivered surgically through the mother’s abdomen.

<sup>53</sup> 4 CCR 739-1 Midwives Registration, Rule 12.

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A direct-entry midwife is also required to obtain from any client who has had a previous cesarean section, informed consent, which must include:

- Educational information, including history, about VBAC;
- Client's own personal information;
- Risks and benefits of VBAC at home;
- A workable hospital transport plan; and
- Any other information required by the Director.

The hospital transport plan must identify a place of birth within 30 minutes to the nearest hospital or emergency medical center capable of performing an emergency cesarean section, provide emergency telephone numbers for the nearest hospital or emergency medical center, and provide a telephone number to notify the hospital or emergency medical center that the client is on her way.

Midwives who are attending to a client with a previous cesarean section are prohibited from inducing or augmenting labor by any means, and a direct-entry midwife must be present from the onset of active labor through the immediate postpartum period.

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## Program Description and Administration

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The Director (Director) of the Division of Registrations (Division) in the Department of Regulatory Agencies (DORA) regulates direct-entry midwives.

The Director is vested with the authority to approve registrants, review complaints, take disciplinary action, and promulgate rules. Through policy, the Director delegates specific statutory powers, duties and functions to the director of the health services section within the Division, and to the director of the Office of Midwifery Registration. The following table illustrates the program's expenditures and staffing over the last five fiscal years.

**Table 2**  
**Agency Fiscal Information**

| <b>Fiscal Year</b> | <b>Total Program Expenditure</b> | <b>FTE</b> |
|--------------------|----------------------------------|------------|
| 04-05              | \$56,715                         | 0.25       |
| 05-06              | \$37,486                         | 0.25       |
| 06-07              | \$42,088                         | 0.25       |
| 07-08              | \$50,120                         | 0.2        |
| 08-09              | \$37,000                         | 0.2        |

The full-time equivalent (FTE) employees listed in Table 1 do not include staffing in the centralized offices of the Division. Centralized offices include the Director's Office, Office of Investigations, Office of Expedited Settlement, Office of Examination Services, Office of Licensing, and Office of Support Services. However, the cost of those FTE is reflected in the Total Program Expenditures. The program pays for those FTE through indirect costs and a cost allocation methodology developed by the Division and DORA's Executive Director's Office.

The Division staff for fiscal year 09-10 (0.25 FTE) includes the health services section director (0.05 FTE General Professional VI), the program director (0.10 FTE General Professional V), and an Administrative Assistant III (0.10 FTE).

The section director oversees the health services section of the Division. The program director supervises staff, handles the budget, reviews licenses not approved administratively, handles complaints, determines appropriate discipline, and performs case management duties associated with disciplinary items.

The expenditures in this program vary from year to year primarily based on the legal services provided by the Office of the Attorney General.



The program is cash funded by the fees it collects for registration. Direct-entry midwives renew their registrations annually by November 30. Table 3 shows the registration fees for fiscal year 08-09.

**Table 3  
Direct-Entry Midwives Registration Fees  
Fiscal Year 08-09**

| Fee Type              | Amount |
|-----------------------|--------|
| Original Registration | \$200  |
| Renewal               | \$899  |
| Reinstatement         | \$914  |

Direct-entry midwives' registration fees increased considerably beginning in fiscal year 07-08 due to legal fees.

All professions and occupations regulated by the Division pay a small fee into a legal defense fund as part of their licensing. This is intended to offset the costs of regulating professions with a small number of practitioners, like direct-entry midwives. Otherwise, registration fees would be considerably higher.

### *Registration*

In Colorado, it is illegal to practice direct-entry midwifery without being registered.

The number of registered direct-entry midwives in Colorado has fluctuated slightly over the last five years as shown in Table 4.

**Table 4  
Registrations**

| Calendar Year | Examination | Endorsement | Renewal | Reinstatement | Total |
|---------------|-------------|-------------|---------|---------------|-------|
| 04-05         | 3           | 1           | 44      | 4             | 52    |
| 05-06         | 4           | 1           | 45      | 3             | 53    |
| 06-07         | 7           | 1           | 46      | 1             | 55    |
| 07-08         | 7           | 1           | 48      | 3             | 59    |
| 08-09         | 4           | 3           | 46      | 1             | 54    |

The number of registered direct-entry midwives in Colorado increased incrementally over the last five years until fiscal year 08-09.

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To register, applicants must submit a completed application with the fee and the required documentation to the Office of Licensing in the Division. A specialist reviews and confirms the completed application and documentation, and if the application is without issues, registration may be issued administratively. Applications that are incomplete are kept on file for one year. After a year, an applicant must submit a new application, the required documentation, and pay the fee again.

To register, an applicant must have graduated from a direct-entry midwifery program accredited by the Midwifery Education Accreditation Council (MEAC), or have substantially equivalent education, and complete the North American Registry of Midwives (NARM) written examination.

Curricula in MEAC-accredited schools cover both didactic education and clinical training and must incorporate the Midwives Model of Care (see Appendix B) and Core Competencies established by the Midwives Alliance of North America (see Appendix C).<sup>54</sup>

For example, midwifery students in these programs are required to demonstrate knowledge and appropriate administration of:<sup>55</sup>

- Oxygen;
- Vitamin K;
- Antihemorrhagic drugs; and
- Newborn eye ointment.

Midwifery students are also required to learn, among other things, to:<sup>56</sup>

- Evaluate laboratory and medical records (including blood type and Rh factors and Rh antibodies);
- Assess blood loss after a delivery;
- Respond to postpartum hemorrhage, including administering medication;
- Administer oxygen;
- Treat shock; and
- Activate an emergency backup plan.

For a complete list of topics taught in MEAC-accredited schools, see Appendix D.

The clinical portion of the midwifery program must be at least one year in length, in which a student must serve as an assistant in 20 births and serve as primary midwife at an additional 20 births, 75 prenatal examinations, 20 newborn examinations, and 40 postpartum examinations.<sup>57</sup>

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<sup>54</sup> *Candidate Information Bulletin*, North American Registry of Midwives, Revised July 2010, p. 6.

<sup>55</sup> *Candidate Information Bulletin*, North American Registry of Midwives, Revised July 2010, p. 37.

<sup>56</sup> *Candidate Information Bulletin*, North American Registry of Midwives, Revised July 2010, p. 36-48.

<sup>57</sup> *Candidate Information Bulletin*, North American Registry of Midwives, Revised July 2010, p. 7.

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Some of the specific skills that are taught in MEAC-accredited schools include:<sup>58</sup>

- Demonstrating aseptic technique;
- Demonstrating use of instruments and equipment, such as a Doppler for monitoring the fetus;
- Administering an injection; and
- Drawing blood for laboratory work.

For a complete list of the required skills, see Appendix E.

Applicants who have not graduated from a MEAC-accredited school may be registered if they complete the Portfolio Evaluation Process (PEP).

PEP applicants must verify a supervised apprenticeship with one or more qualified preceptors. The clinical portion of the apprenticeship must last at least one year, but the average length is three years. During this apprenticeship, the preceptor must teach and verify knowledge and skills in over 800 specific topics (the same knowledge and skills taught in MEAC-accredited schools). PEP applicants must assist in 20 births. They are also required to serve as a primary midwife at an additional 20 births, 75 prenatal examinations, 20 newborn examinations, and 40 postpartum examinations.

## ***Examinations***

To be registered in Colorado, an applicant must pass a national examination developed by NARM.

The NARM examination is a two-part, written examination with four hours allotted for each part.<sup>59</sup> The examination consists of 350 multiple-choice questions.<sup>60</sup> The examination costs \$700.

Examination questions are derived from knowledge and skills that are considered the standard for direct-entry midwifery care. For a complete list of the test specifications, see Appendix D.

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<sup>58</sup> *Candidate Information Bulletin*, North American Registry of Midwives, Revised July 2010, p. 51-53.

<sup>59</sup> *Candidate Information Bulletin*, North American Registry of Midwives, Revised July 2010, p. 21.

<sup>60</sup> *Candidate Information Bulletin*, North American Registry of Midwives, Revised July 2010, p. 5.

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The subjects covered in the test are:<sup>61</sup>

- Midwifery counseling, education, and communication (5 percent, 17 items);
- General healthcare skills (5 percent, 17 items);
- Maternal health assessment (10 percent, 35 items);
- Prenatal care (25 percent, 88 items);
- Labor, birth, and care immediately after delivery (35 percent, 123 items);
- Maternal care after delivery (15 percent, 54 items); and
- Newborn care (5 percent, 16 items).

The NARM examination is given on the third Wednesday of February and August at 14 regional testing sites across the country, and it is administered in the fall at the annual Midwives Alliance of North America conference. In Colorado, the examination is administered in Denver.<sup>62</sup>

Table 5 shows the examination data for Colorado applicants over the last five years.

**Table 5**  
**NARM Written Examinations**

| Calendar Year | Number of Examinations | Pass Rate |
|---------------|------------------------|-----------|
| 2005          | 3                      | 87.5%     |
| 2006          | 7                      | 87.5%     |
| 2007          | 6                      | 81.0%     |
| 2008          | 5                      | 87.5%     |
| 2009          | 7                      | 83.0%     |

Candidates who have not graduated from a school accredited by MEAC must go through PEP, in which their training, experience, knowledge and skills are evaluated. In addition to passing the written NARM examination, they are also required to pass a practical examination, which costs \$700.

Candidates who graduate from one of the MEAC-accredited schools only take the written NARM examination; they are not required to take the practical examination because their skills have already been assessed by the school.

### ***Complaints/Disciplinary Actions***

The Director receives complaints from clients of direct-entry midwives, their families, other healthcare providers, and government and public safety agencies, among others. The Director may also initiate a complaint. If the Director determines that a registrant has violated any of the provisions of Article 37 of Title 12, Colorado Revised Statutes (C.R.S.) (Act) or the Director's rules, the Director may take the appropriate disciplinary action.

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<sup>61</sup> *Candidate Information Bulletin*, North American Registry of Midwives, Revised July 2010, p. 35.

<sup>62</sup> *Candidate Information Bulletin*, North American Registry of Midwives, Revised July 2010, p. 24.

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Table 6 demonstrates the complaints filed with the Director over the last five fiscal years.

**Table 6  
Complaints**

| <b>Nature of Complaints</b>       | <b>FY 04-05</b> | <b>FY 05-06</b> | <b>FY 06-07</b> | <b>FY 07-08</b> | <b>FY 08-09</b> |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Practicing without a Registration | 1               | 4               | 1               | 1               | 0               |
| Standard of Practice              | 5               | 13              | 1               | 6               | 5               |
| Substance Abuse                   | 0               | 0               | 0               | 0               | 1               |
| Failure to Provide Information    | 1               | 0               | 0               | 0               | 0               |
| <b>Total</b>                      | <b>7</b>        | <b>17</b>       | <b>2</b>        | <b>7</b>        | <b>6</b>        |

Complaints citing standard of practice violations are by far the most common type of complaint against direct-entry midwives, followed by practicing without a registration.

If the Director determines that the complaint is within his or her jurisdiction and credible, the Director will initiate an investigation and send a letter requesting that the direct-entry midwife respond to the complaint. The Director may also request copies of client records, direct the Division staff to interview witnesses, or send the case to be reviewed by an expert.

The Director has the authority to take any of the following disciplinary actions:

- Revoke a registration;
- Suspend a registration;
- Place a registration on probation;
- Issue a letter of admonition; and
- Issue a fine.

Additionally, the Director may seek a permanent or temporary injunction or issue a cease and desist order.

The Director has invoked the disciplinary actions shown in Table 7 against direct-entry midwives over the last five fiscal years.

**Table 7  
Final Agency Actions**

| Type of Action                    | FY 04-05 | FY 05-06  | FY 06-07 | FY 07-08 | FY 08-09 |
|-----------------------------------|----------|-----------|----------|----------|----------|
| Revocation                        | 0        | 0         | 0        | 0        | 0        |
| Suspension                        | 0        | 0         | 0        | 0        | 0        |
| Probation/Practice Limitation     | 1        | 0         | 1        | 0        | 3        |
| Letter of Admonition              | 2        | 0         | 2        | 1        | 0        |
| Injunction                        | 1        | 0         | 1        | 1        | 0        |
| Cease and Desist Order            | 0        | 0         | 0        | 0        | 1        |
| Fine                              | 0        | 0         | 0        | 0        | 0        |
| <b>Total Disciplinary Actions</b> | <b>4</b> | <b>0</b>  | <b>4</b> | <b>2</b> | <b>4</b> |
| Dismissals                        | 3        | 11        | 3        | 1        | 2        |
| Letter of Concern                 | 0        | 0         | 0        | 0        | 1        |
| <b>Total Dismissals</b>           | <b>3</b> | <b>11</b> | <b>3</b> | <b>1</b> | <b>3</b> |

Over the past five fiscal years, the Director has not suspended or revoked any registrations or assessed any fines. However, the Director placed five direct-entry midwives on probation or limited their practice and issued five letters of admonition. The injunctions and the order to cease and desist primarily relate to persons who were not registered direct-entry midwives.

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**Direct-Entry Midwifery Client Data**

Direct-entry midwives are required by statute to submit certain client data to the Division. Table 8 shows the client data submitted over the last five calendar years.

**Table 8**  
**Direct-Entry Midwifery Client Data**

| Type   | 2004 | 2005 | 2006 | 2007 | 2008  |
|--|------|------|------|------|-------|
| Total Clients                                    | 732  | 736  | 818  | 912  | 1,027 |
| Clients Receiving Only Midwifery Care            | 495  | 534  | 624  | 696  | 767   |
| Number of Home Deliveries                        | 509  | 516  | 564  | 628  | 711   |
| Prenatal Transfers                               | 57   | 56   | 114  | 64   | 64    |
| Transfers During Labor and Delivery              | 69   | 66   | 78   | 68   | 95    |
| Mothers Transferred within 24 Hours of Delivery  | 17   | 10   | 14   | 12   | 11    |
| Newborns Transferred within 24 Hours of Delivery | 15   | 12   | 17   | 12   | 10    |
| Perinatal Deaths                                 | 3    | 1    | 5    | 5    | 7     |
| Maternal Deaths                                  | 0    | 0    | 0    | 0    | 0     |
| Total VBAC <sup>63</sup> clients*                | -    | -    | 55   | 44   | 64    |
| VBAC Deliveries at Home*                         | -    | -    | 36   | 30   | 46    |
| VBAC Transfers During Labor and Delivery*        | -    | -    | 10   | 8    | 11    |

\* VBAC data were not gathered before 2006.

A perinatal death relates to the death of a fetus or a newborn. Several definitions exist. Some define perinatal death as death of the fetus starting at 20 weeks of pregnancy while others start at 28 weeks.

In 2010, the Director determined that the definition of perinatal death, for reporting requirements, would start at 20 weeks of pregnancy and end 28 days after delivery. The validity of perinatal deaths reported in Table 8, therefore, is problematic because previously the definition was not clear.

None of the perinatal deaths reported in 2008 resulted in disciplinary action because they did not result from the improper management of the pregnancy, labor or delivery by the direct-entry midwife.

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<sup>63</sup> VBAC: Vaginal birth after cesarean section.

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## Analysis and Recommendations

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### *Recommendation 1 – Continue the regulation of direct-entry midwives for five years, until 2016.*

A direct-entry midwife provides prenatal care for healthy, pregnant women, attends to women during a normal labor and delivery, and provides care for the healthy mother and her newborn during the six weeks after the birth. Direct-entry midwives are required to refer a woman and her baby to an appropriate healthcare provider if a condition such as gestational diabetes or preeclampsia develops. In Colorado, direct-entry midwives only attend home births.

Some critics of direct-entry midwifery believe that women should only give birth in a hospital setting because of the possibility of an unforeseen complication which may require immediate medical attention. Others believe that direct-entry midwives should not be regulated because doing so offers legitimacy to an occupation that they believe should be illegal.

In 10 states, in fact, lay and direct-entry midwives are prohibited from practicing. On the other hand, in 14 states, the practice of direct-entry midwifery is legal without any regulation.

The complications that may arise during pregnancy, delivery and after childbirth are numerous and include lifelong injury and death. Regulating direct-entry midwives protects the public because it ensures skilled and competent providers.

The Director of the Division of Registrations (Director) in the Department of Regulatory Agencies (DORA) ensures that only competent direct-entry midwives are practicing through statutorily mandated qualifications. As of July 1, 2003, applicants are required to graduate from a midwifery school accredited by the Midwifery Education Accreditation Council (MEAC). They are also required to pass the North American Registry of Midwives (NARM) written examination. Additionally, the Director protects the public with enforcement and disciplinary activities which ensure registered direct-entry midwives maintain a generally accepted standard of care.

Further, assessing the health of a pregnant woman and her baby and transferring them to other healthcare providers when necessary are among the most important duties required of direct-entry midwives by Article 37 of Title 12, Colorado Revised Statutes (C.R.S.) (Act). Without some authority to discipline those who violate these requirements, direct-entry midwives may not refer women appropriately or at the levels they do today. This could result in serious harm to pregnant women and their babies.

Numerous changes to the scope of practice are recommended in this report including the administration of certain medications. Therefore, the General Assembly should continue the regulation of midwives for five years, until 2016.



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***Recommendation 2 – Grant direct-entry midwives limited prescriptive authority to obtain and administer vitamin K to newborns.***

Vitamin K is a fat soluble vitamin that is especially important because it helps blood to clot. It is found in cabbage, soybeans, dark leafy greens and other vegetables. It is also produced by bacteria in the gastrointestinal tract.<sup>64</sup>

It is estimated that up to half of newborns have some degree of vitamin K deficiency because they have very little stored up at birth,<sup>65</sup> and it takes time for the vitamin to develop in the gastrointestinal tract.<sup>66</sup>

Some newborns have vitamin K deficiency bleeding. The bleeding disorder develops soon after the baby is born, usually within 24 hours, but may develop as late as two months. Common areas of bleeding are the circumcised penis, belly button, gastrointestinal tract, or the lining of the nose and mouth. Babies may also appear to be bruised, have blood in their urine, or a lump on the skull—suggesting bleeding in the brain. Complications of vitamin K deficiency bleeding include severe bleeding, brain damage, and even death.<sup>67</sup>

While infants who die of this are rare, the incidence of vitamin K deficiency bleeding causing death is haphazard. For this reason, the American Academy of Pediatrics recommends that a single intramuscular shot of vitamin K be administered to all newborns.<sup>68</sup>

The vitamin K shot that is given to a newborn is safe. It comes in a single, pre-dosed syringe, which is administered into a muscle.<sup>69</sup>

Administering a shot into a muscle is not difficult to learn. Although intramuscular shots are usually administered by a physician or nurse, sometimes a physician will teach patients to administer shots themselves.<sup>70</sup> Complications resulting from an intramuscular shot are usually a result of the drug and not the procedure.<sup>71</sup>

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<sup>64</sup> Medline Plus, National Institutes of Health. *Vitamin K*. Retrieved July 12, 2010, from <http://www.nlm.nih.gov/medlineplus/druginfo/natural/patient-vitamink.html>

<sup>65</sup> Medline Plus, National Institutes of Health. *Hemorrhagic disease of the newborn*. Retrieved July 12, 2010, from <http://www.nlm.nih.gov/medlineplus/ency/article/007320.htm>

<sup>66</sup> Medline Plus, National Institutes of Health. *Vitamin K*. Retrieved July 12, 2010, from <http://www.nlm.nih.gov/medlineplus/druginfo/natural/patient-vitamink.html>

<sup>67</sup> Medline Plus, National Institutes of Health. *Hemorrhagic disease of the newborn*. Retrieved July 12, 2010, from <http://www.nlm.nih.gov/medlineplus/ency/article/007320.htm>

<sup>68</sup> Medline Plus, National Institutes of Health. *Hemorrhagic disease of the newborn*. Retrieved July 12, 2010, from <http://www.nlm.nih.gov/medlineplus/ency/article/007320.htm>

<sup>69</sup> National Institutes of Health. Daily Med. VITAMIN K1 (phytonadione) injection, solution [General Injectables & Vaccines, Inc.]. Retrieved October 13, 2010, from <http://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?id=23280>

<sup>70</sup> Aurora Health Care. Intramuscular Injection (Self-injection). Retrieved September 17, 2010, from [http://www.aurorahealthcare.org/yourhealth/healthgate/getcontent.asp?URLhealthgate="33266.html"&wwparam=1284755716](http://www.aurorahealthcare.org/yourhealth/healthgate/getcontent.asp?URLhealthgate=)

<sup>71</sup> Encyclopedia of Nursing & Allied Health. Intramuscular Injection. Retrieved September 17, 2010, from <http://www.enotes.com/nursing-encyclopedia/intramuscular-injection>

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There is very little risk of harm from vitamin K.<sup>72</sup>

The curriculum in midwifery school includes courses in which the use of vitamin K is addressed, clinical skills courses, and a two-credit hour pharmacology course. Additionally, students are tested for knowledge and competency on the use of vitamin K, which must be verified by their preceptors during the clinical training period.

They are trained and tested on the use of injectable vitamin K; however, by law, direct-entry midwives in Colorado are not allowed to obtain or administer injectable vitamin K.

Direct-entry midwives, in Colorado, can obtain oral vitamin K without a prescription; however, oral vitamin K is not adequate protection for a newborn. Neither is recommending that pregnant women eat more vitamin K-rich food. The standard of care, according to the American Academy of Pediatrics, is an intramuscular shot.<sup>73</sup>

A mother cannot take her newborn to another provider to get a shot of vitamin K because it must be administered as soon as possible after birth. While some women may be able to find a physician who will come to their home to administer the shot, this cannot be relied upon in all parts of the state. Moreover, it is inefficient to require a consumer to pay for another provider when direct-entry midwives are trained in an accredited midwifery program to administer vitamin K.

However, if direct-entry midwives cannot obtain the vitamin K, they cannot administer it.

One solution would be to allow direct-entry midwives to administer the vitamin K but require them to obtain the prescription from a physician. In Colorado, this solution is not workable. Unfortunately, liability issues make it difficult for physicians to consult with direct-entry midwives. While some direct-entry midwives may not have any problem obtaining vitamin K from physicians, many would find it impossible.

Ideally, direct-entry midwives would be granted the authority to obtain vitamin K directly from a pharmacy. The second sunset criterion asks whether the existing statutes and regulations establish the least restrictive form of regulation consistent with the public interest. Allowing direct-entry midwives to obtain and administer vitamin K is the least restrictive form of regulation because it allows direct-entry midwives to perform the job that they are trained to do, and it is consistent with the public interest because it decreases the risk of serious complications.

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<sup>72</sup> Vitamins & Health Supplements Guide. Vitamin K. Retrieved October 13, 2010, from <http://www.vitamins-supplements.org/vitamin-K.php>

<sup>73</sup> *American Academy of Pediatrics*. Policy Statement: Controversy Concerning Vitamin K and the Newborn. Retrieved August 16, 2010, from <http://aappolicy.aappublications.org/cgi/reprint/pediatrics;112/1/191.pdf>

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Most other states that regulate direct-entry midwives allow them to obtain and administer a vitamin K shot to a newborn (as shown in Appendix A). In fact, Vermont requires direct-entry midwives to administer a vitamin K shot unless the parents refuse it. DORA staff spoke directly to program administrators in Arizona, California, New Mexico, Utah, and Washington, and these states reported no problems associated with allowing direct-entry midwives to administer vitamin K.

Injectable vitamin K is not defined as a controlled substance in the federal Controlled Substances Act (i.e., prone to abuse or addictive), so the Drug Enforcement Administration (DEA) does not require registration. To obtain it, however, would require a prescription. The legal authority to grant prescriptive authority lies with the states.

It should be noted that despite the strong evidence supporting the use of vitamin K, some parents still refuse it. Parents who refuse vitamin K for their newborn should be required to sign an informed consent form in order to ensure that they received the information vital to making an informed decision about vitamin K.

The evidence supporting administering vitamin K shots to all newborns is strong.<sup>74</sup> Considering the cost, all trained and competent birth attendants should be allowed to obtain and administer vitamin K to newborns.

Therefore, the General Assembly should grant direct-entry midwives limited prescriptive authority to obtain and administer a vitamin K shot to newborns, and require direct-entry midwives to obtain informed consent if the parents refuse it.

Additionally, the General Assembly should authorize the Director to promulgate rules regarding educational requirements, including additional training if necessary, for the administration of vitamin K. Direct-entry midwives who have been practicing for many years may require continuing education, and those who were registered prior to 2003 may require additional education. In order to allow enough time for the Director to promulgate such rules, the effective date for this provision should be extended to March 31, 2012.

***Recommendation 3 – Grant direct-entry midwives limited prescriptive authority to obtain and administer Rho(D) immune globulin.***

Women who are Rh negative have a negative blood type, which means they lack a particular protein on the surface of their blood cells. Approximately 15 percent of Caucasians have Rh negative blood, 8 percent of African Americans and Latinos, and 1 percent of Asians or Native Americans. Being Rh negative can be serious if a woman has a baby who is Rh positive.<sup>75</sup>

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<sup>74</sup> American Academy of Pediatrics. Policy Statement: Controversy Concerning Vitamin K and the Newborn. Retrieved August 16, 2010, from <http://aappolicy.aappublications.org/cgi/reprint/pediatrics;112/1/191.pdf>

<sup>75</sup> Ortho Clinical Diagnostics. RhoGAM®. What Does It Mean to Be Rh-Negative? Retrieved September 24, 2010, from <http://www.rhogam.com/Patient/WhatRhNegativeMeans/Pages/WhatdoseitmeantoRhNegative.aspx>

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When a woman with a negative blood type has a baby with a positive blood type, her immune system can react by producing antibodies that are specifically designed (sensitized) to attack the baby's red blood cells. The first pregnancy with a baby with a positive blood type may be uneventful. However, in the next pregnancy, the antibodies that are sensitized will begin destroying the red blood cells of the second baby with a positive blood type, and any other baby with a positive blood type that may come after.<sup>76</sup> This condition, known as hemolytic disease of the newborn, can lead to jaundice, anemia, mental retardation, heart failure, and even death.<sup>77</sup>

Hemolytic disease of the newborn has been practically wiped out in the developed world because of Rho(D) immune globulin. Before its introduction in 1968, approximately 10,000 babies in the United States died of hemolytic disease of the newborn every year.<sup>78</sup>

Rho(D) immune globulin, like vitamin K, is a prophylactic measure. Unless the father also has a negative blood type, a client who has a negative blood type must get the treatment at 28 weeks of pregnancy. Then the client must get a second shot within 72 hours after the baby is born if the baby's blood tests positive. If the treatment is not provided in enough time, an Rh negative mother may become sensitized to any future pregnancies.<sup>79</sup>

The Rho(D) immune globulin shot is safe. It comes in a single, pre-dosed syringe, which is administered into the thigh muscle.

Administering a shot into a muscle is not difficult to learn. Although intramuscular shots are usually administered by a physician or nurse, sometimes a physician will teach patients to administer shots themselves.<sup>80</sup> Complications resulting from an intramuscular shot are usually a result of the drug and not the procedure.<sup>81</sup>

There is very little risk of harm from Rho(D) immune globulin.<sup>82</sup>

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<sup>76</sup> Medline Plus. The National Institutes of Health. *Rh incompatibility*. Retrieved on June 25, 2010, from <http://www.nlm.nih.gov/medlineplus/ency/article/001600.htm>

<sup>77</sup> Ortho Clinical Diagnostics. RhoGAM®. *What Does It Mean to Be Rh-Negative?* Retrieved September 24, 2010, from <http://www.rhogam.com/Patient/WhatRhNegativeMeans/Pages/WhatdosomeantmeanstoRhNegative.aspx>

<sup>78</sup> Ortho Clinical Diagnostics. RhoGAM®. *The Science Behind the Miracle*. Retrieved July 27, 2010, from <http://www.rhogam.com/Patient/AboutRhogam/Pages/ScienceMiracle.aspx>

<sup>79</sup> Ortho Clinical Diagnostics. RhoGAM®. *How RhoGAM® Protects Against HDN*. Retrieved July 27, 2010, <http://www.rhogam.com/Patient/WhatRhNegativeMeans/Pages/rhoGAMagainstHDN.aspx>

<sup>80</sup> Aurora Health Care. Intramuscular Injection (Self-injection). Retrieved September 17, 2010, from [http://www.aurorahealthcare.org/yourhealth/healthgate/getcontent.asp?URLhealthgate="33266.html"&wwparam=1284755716](http://www.aurorahealthcare.org/yourhealth/healthgate/getcontent.asp?URLhealthgate=)

<sup>81</sup> Encyclopedia of Nursing & Allied Health. Intramuscular Injection. Retrieved September 17, 2010, from <http://www.enotes.com/nursing-encyclopedia/intramuscular-injection>

<sup>82</sup> Ortho Clinical Diagnostics, Inc. Rho(D) Immune Globulin (Human) RhoGAM® and MICRhoGAM® Ultra-Filtered PLUS IFU No. 631-20-300-3- V 3.0.

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The curriculum in midwifery school includes courses that cover the use of Rho(D) immune globulin, clinical skills courses and a two-credit hour pharmacology course. Additionally, midwifery students are tested for knowledge and competency on the use of Rho(D) immune globulin, which must be verified by their preceptor during the clinical training period. They are also tested on Rho(D) immune globulin on the written examination required for registration in Colorado. Currently, the written examination includes four questions on the treatment and advice given to Rh negative mothers.

They are trained and tested on the use of Rho(D) immune globulin; however, Colorado direct-entry midwives are not allowed to obtain or administer it.

At this time, a direct-entry midwife assesses the need for treatment, but in order to get the shot, a client must go to another healthcare provider. When a direct-entry midwife is already capable of administering the shot, it is costly and inefficient to require a woman to go to another healthcare provider.

Further, a woman with a negative blood type who delivers a baby with a positive blood type must get a shot of Rho(D) immune globulin within 72 hours after delivery. If for some reason, she is unable to get the shot from another willing provider, any future pregnancy is at risk of serious complications. Allowing direct-entry midwives to administer the shot in the home of the mother lessens the likelihood of a missed treatment.

One solution is to allow direct-entry midwives to administer the shot and obtain it through prescription from a physician. This would require a physician to consult with midwives, and because of liability issues, in Colorado, this is extremely difficult. While many direct-entry midwives, especially those who work in a metropolitan area, may have no problem finding a willing physician, for others this may prove to be extremely difficult.

The best solution is to grant direct-entry midwives limited prescriptive authority, to obtain and administer Rho(D) immune globulin. The second sunset criterion asks whether the existing statutes and regulations establish the least restrictive form of regulation consistent with the public interest. Allowing midwives to obtain and administer Rho(D) immune globulin is the least restrictive form of regulation because it allows direct-entry midwives to perform the job that they are trained to do. It is consistent with the public interest because it decreases the risk of serious complications in future pregnancies and potentially saves babies' lives.

As shown in Appendix A, most other states that regulate direct-entry midwives allow them to obtain and administer Rho(D) immune globulin. DORA staff spoke directly to program administrators in Arizona, California, New Mexico, Utah, and Washington, and these states reported no problems associated with allowing direct-entry midwives to administer Rho(D) immune globulin.

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Rho(D) immune globulin is not defined as a controlled substance in the federal Controlled Substances Act (i.e., prone to abuse or addictive), so the DEA would not require registration. To obtain it, however, would require a prescription. The legal authority to grant prescriptive authority lies with the states. If direct-entry midwives are granted a limited prescriptive authority to obtain and administer Rho(D) immune globulin, then they would be able to obtain it directly from a pharmacy.

Allowing midwives to obtain and administer Rho(D) immune globulin to women could prevent them from having a lifetime of miscarriages, babies born stillborn, brain damaged, or very sick.

Some women, for various reasons, may decide that they do not want to take Rho(D) immune globulin. Because the level of harm is high for not taking Rho(D) immune globulin when indicated, a woman who refuses it should be required to sign informed consent, which should include all the potential dangers to her current baby if she refuses Rho(D) immune globulin at 28 weeks, and to any future babies if she refuses Rho(D) immune globulin after delivery.

For these reasons, the General Assembly should grant direct-entry midwives limited prescriptive authority to obtain and administer Rho(D) immune globulin for Rh negative women, and require direct-entry midwives to obtain a detailed informed consent from any who refuse it.

Additionally, the General Assembly should authorize the Director to promulgate rules regarding educational requirements, including additional training if necessary, for the administration of Rho(D) immune globulin. Direct-entry midwives who have been practicing for many years may require continuing education, and those who were registered prior to 2003 may require additional education. In order to allow enough time for the Director to promulgate such rules, the effective date for this provision should be extended to March 31, 2012.

***Recommendation 4 – Grant direct-entry midwives limited prescriptive authority to obtain and administer antihemorrhagic drugs, for postpartum use only.***

About 20 percent of women in the United States bleed excessively or uncontrollably after delivery. This complication is known as postpartum hemorrhage. “Excessive bleeding” after a vaginal delivery consists of losing more than two pints of blood. Almost all cases (more than 99 percent) of postpartum hemorrhage occur within 24 hours after delivery.<sup>83</sup>

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<sup>83</sup> eMedicine. *Pregnancy, Postpartum Hemorrhage*. Retrieved on July 27, 2010, from <http://emedicine.medscape.com/article/796785-print>

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About 80 percent of postpartum hemorrhage is due to the diminished ability of the uterus to contract, a condition known as uterine atony, which occurs in the first four hours after delivery.<sup>84</sup>

In a home birth, a direct-entry midwife would check the size of the uterus and monitor blood loss. If a woman's uterus does not contract, a direct-entry midwife will massage the mother's belly and, in states where it is legal, provide her with antihemorrhagic drugs. One shot of an antihemorrhagic drug, like oxytocin,<sup>85</sup> into a thigh muscle will, in most cases, cause the uterus to contract within three or four minutes and stop the excessive bleeding. Delaying such an intervention may have catastrophic consequences.

In hospitals, it is the standard practice to give a steady drip of oxytocin to women during labor, which increases the strength of the contractions and speeds up the delivery of the baby, and also has the beneficial effect of reducing the chance of excessive bleeding after delivery.

A woman who has been given an antihemorrhagic drug to control uterine bleeding must be monitored closely in case the bleeding does not slow or the excessive bleeding resumes. In some cases, the woman requires further medical attention, and a direct-entry midwife must transfer her to a hospital.<sup>86</sup>

Although paramedics in Colorado are authorized to use antihemorrhagic drugs in case of a postpartum hemorrhage according to the Colorado Department of Public Health and Environment, other emergency medical technicians (EMTs) are not. Approximately 25 to 30 percent of the ambulance services in the state are not staffed with paramedics at all times. In those circumstances, the EMTs would initiate fluid resuscitation with isotonic intravenous fluids, massage the uterus, and then transport the woman to the nearest hospital, where, if the woman were still hemorrhaging, she would then receive an antihemorrhagic drug.

In such cases, having a trained direct-entry midwife administer the antihemorrhagic drug before emergency transport to the nearest medical facility, and, in some areas, another transport to a large hospital with high-level obstetric care, would help with the transition and may save the life of the mother.

However, direct-entry midwives in Colorado may not legally obtain or administer antihemorrhagic drugs.

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<sup>84</sup> eMedicine. *Pregnancy, Postpartum Hemorrhage*. Retrieved on July 27, 2010, from <http://emedicine.medscape.com/article/796785-print>

<sup>85</sup> Oxytocin: Is a hormone naturally produced in the body that causes the uterus to contract during a normal labor; a synthetic version is administered in hospitals.

<sup>86</sup> eMedicine. *Pregnancy, Postpartum Hemorrhage*. Retrieved on July 27, 2010, from <http://emedicine.medscape.com/article/796785-print>

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The incidence of maternal death due to excessive bleeding after delivery is eight percent in developed countries, but it is the second leading cause of death globally. Most efforts to address this issue focus on making antihemorrhagic drugs more available to all skilled birth attendants.<sup>87</sup>

Additionally, excessive or uncontrolled bleeding after delivery may cause other serious conditions including:<sup>88</sup>

- Kidney failure;
- Heart attack; and
- Stroke.

In fact, the American College of Obstetricians and Gynecologists, the American Academy of Family Physicians, and the World Health Organization recommend the use of oxytocin as a prophylactic measure to prevent postpartum hemorrhage.<sup>89</sup>

Oxytocin, the most often used antihemorrhagic drug, is given by a shot into a muscle. Oxytocin comes in pre-dosed syringes or pre-dosed vials. One shot of oxytocin is usually sufficient to stop postpartum hemorrhage.

Administering a shot into a muscle is not difficult to learn. Although intramuscular shots are usually administered by a physician or nurse, sometimes a physician will teach patients to administer shots themselves.<sup>90</sup> Complications resulting from an intramuscular shot are usually a result of the drug and not the procedure.<sup>91</sup>

There is very little risk from administering a single shot of oxytocin to a mother after the delivery of a baby.<sup>92</sup>

Direct-entry midwives study pharmacology in midwifery school. They learn how to assess a woman who is bleeding excessively. They learn the indications for the use of antihemorrhagic drugs. They are trained to administer a shot into a thigh muscle after delivery, and they are also trained to monitor women after the shot is given and to assess the need to transfer a woman for medical or surgical intervention.

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<sup>87</sup> eMedicine. *Pregnancy, Postpartum Hemorrhage*. Retrieved on July 27, 2010, from <http://emedicine.medscape.com/article/796785-print>

<sup>88</sup> eMedicine. *Pregnancy, Postpartum Hemorrhage*. Retrieved on July 27, 2010, from <http://emedicine.medscape.com/article/796785-print>

<sup>89</sup> S. Kahn, A Meyer, J. Beste, D. Flake (December 2008), "Prophylactic oxytocin: Before or after placental delivery?" *Journal of Family Practice* 57 (12), pp. 817-818.

<sup>90</sup> Aurora Health Care. Intramuscular Injection (Self-injection). Retrieved September 17, 2010, from [http://www.aurorahealthcare.org/yourhealth/healthgate/getcontent.asp?URLhealthgate="33266.html"&wwparam=1284755716](http://www.aurorahealthcare.org/yourhealth/healthgate/getcontent.asp?URLhealthgate=)

<sup>91</sup> Encyclopedia of Nursing & Allied Health. Intramuscular Injection. Retrieved September 17, 2010, from <http://www.enotes.com/nursing-encyclopedia/intramuscular-injection>

<sup>92</sup> National Institutes of Health. Daily Med. Pitocin – oxytocin injection [King Pharmaceuticals]. Retrieved October 14, 2010, from <http://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?id=4975>



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In addition to training, midwifery students are tested for knowledge and competency, which must be verified by their preceptor during the clinical training period, on the assessment of postpartum bleeding and the need for and use of antihemorrhagic drugs, such as oxytocin. Currently, the written examination required for registration, includes nine questions on postpartum bleeding and antihemorrhagic drugs.

Direct-entry midwives are trained and tested on administering antihemorrhagic drugs; however, Colorado prohibits direct-entry midwives from obtaining or administering them.

One solution is to allow midwives to administer the drugs but obtain them through prescription from a physician. In Colorado, this is extremely difficult because of liability issues. While many direct-entry midwives, especially those who work in a metropolitan area, may have no problem finding a willing physician, for others this may prove to be impossible.

Ideally, direct-entry midwives would be provided limited prescriptive authority to obtain and administer antihemorrhagic drugs to women who are excessively bleeding after delivery. The second sunset criterion asks whether the existing statutes and regulations establish the least restrictive form of regulation consistent with the public interest. Allowing midwives to obtain and administer antihemorrhagic drugs is the least restrictive form of regulation because it allows direct-entry midwives to perform the job that they are trained to do, and it is consistent with the public interest because it decreases the chance of serious, potentially life-threatening, complications.

In the case of a uterus that will not contract following childbirth, administering an antihemorrhagic drug is medically indicated. Side effects from antihemorrhagic drugs, such as oxytocin, include nausea, vomiting, diarrhea, high blood pressure, shivering, and temperatures over 100.4° Fahrenheit.<sup>93</sup>

Critics of midwifery and home births are concerned that if direct-entry midwives are allowed to obtain oxytocin they will use it to augment or induce labor. Direct-entry midwives do not use oxytocin to induce or to augment labor for many reasons, the foremost being that it is not appropriate in a home birth setting because the augmented contractions greatly increase the stress on the baby, and the baby must be monitored internally in case a surgical intervention is necessary.

Furthermore, this recommendation would not allow direct-entry midwives to administer oxytocin with an intravenous drip to induce or augment labor. Any direct-entry midwife who did so would be subject to discipline.

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<sup>93</sup> Agency for Healthcare Research and Quality. World Health Organization (WHO). *WHO recommendations for the prevention of postpartum haemorrhage*. Geneva, Switzerland: World Health Organization (WHO); 2007. Retrieved August 24, 2010, from <http://www.guideline.gov/content.aspx?id=13554>

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Most other states that regulate direct-entry midwives allow them to obtain and administer antihemorrhagic drugs (see Appendix A). DORA staff spoke directly to program administrators in Arizona, California, New Mexico, Utah, and Washington, and these states reported no problems associated with allowing direct-entry midwives to administer antihemorrhagic drugs.

Antihemorrhagic drugs are not defined as controlled substances in the federal Controlled Substances Act (i.e., prone to abuse or addictive), so the DEA would not require registration. To obtain them would, however, require a prescription. The legal authority to grant prescriptive authority lies with the states. If direct-entry midwives are granted a limited prescriptive authority to obtain and administer antihemorrhagic drugs, then they would be able to obtain them directly from a pharmacy.

Excessive bleeding after vaginal delivery is a serious, life-threatening complication. Antihemorrhagic drugs save lives. Women who deliver at home should not be denied basic, life-saving drugs like oxytocin.

Some women, for various reasons, may decide that they do not want to take antihemorrhagic drugs after the delivery of a baby. A woman who is bleeding excessively and refuses medication is putting her life at risk. If she refuses antihemorrhagic drugs, the direct-entry midwife should be required to immediately call emergency medical services and transfer the mother's care to a hospital.

The General Assembly should grant direct-entry midwives limited prescriptive authority to obtain and administer antihemorrhagic drugs, to be administered only after delivery by an intramuscular shot, and grant the Director the authority to promulgate rules.

Additionally, the General Assembly should authorize the Director to promulgate rules regarding educational requirements, including additional training if necessary, for the administration of antihemorrhagic drugs. Direct-entry midwives who have been practicing for many years may require continuing education, and those who were registered prior to 2003 may require additional education. In order to allow enough time for the Director to promulgate such rules, the effective date for this provision should be extended to March 31, 2012.

Finally, in the case of a woman who is experiencing uncontrollable postpartum hemorrhage refusing treatment, the General Assembly should require the direct-entry midwife to immediately call emergency medical services to transport the mother to a hospital.

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***Recommendation 5 – Grant direct-entry midwives limited prescriptive authority to obtain eye prophylactic treatment.***

In Colorado, direct-entry midwives, and all other birth attendants, are required by law to administer an antibiotic eye ointment to a newborn as soon as possible and always within one hour of birth.<sup>94</sup> This treatment is also recommended by the Centers for Disease Control and Prevention to prevent blindness caused by an eye infection.<sup>95</sup>

Although Colorado-registered direct-entry midwives have a duty, which if not performed is punishable by a fine or imprisonment,<sup>96</sup> to administer this ointment, they lack the statutory authority to obtain it directly from a pharmacy. This appears to be an oversight since direct-entry midwives work independently from physicians and do not otherwise have the ability to obtain it.

As administering the eye ointment is required by law, granting direct-entry midwives the authority to obtain it directly from a pharmacy is not an expansion of the scope of practice but rather amending the legal language to clarify this provision.

The General Assembly should grant direct-entry midwives limited prescriptive authority to obtain newborn eye prophylactic treatment approved by the Colorado Department of Public Health and Environment according to section 25-4-303, C.R.S.

***Recommendation 6 – Repeal the prohibition against being simultaneously licensed as a nurse and registered as a direct-entry midwife, except for certified nurse-midwives.***

Currently, Colorado law prohibits a nurse or a physician from being simultaneously licensed as a direct-entry midwife.

Physicians already have an unlimited license to practice medicine and certified nurse-midwives are exempted from the Medical Practice Act, so there is no need to allow them to be simultaneously licensed. However, nurses other than certified nurse-midwives, such as registered nurses and licensed practical nurses, are also prohibited from registering as direct-entry midwives.

This is problematic because it prevents a nurse, who may be otherwise qualified to practice midwifery, from a source of income and from working in his or her chosen field. There is no valid public policy reason to prohibit a licensed nurse who goes to midwifery school, obtains the necessary skills and qualifications, passes the required examination, and maintains his or her nursing license from registering as a direct-entry midwife.

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<sup>94</sup> §§ 12-37-105(1) and (9) and 25-4-303, C.R.S.

<sup>95</sup> Centers for Disease Control and Prevention. *Conjunctivitis (Pink Eye)*. Retrieved on October 12, 2010, from <http://www.cdc.gov/conjunctivitis/newborns.html>

<sup>96</sup> § 25-4-305, C.R.S.

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Colorado residents benefit from having qualified, skilled healthcare providers, and requiring a nurse to give up his or her license merely depletes this important resource.

Some would argue that allowing nurses to be simultaneously registered as direct-entry midwives would allow them to evade discipline by the Board of Nursing; however, this is not accurate.

Because the laws that regulate direct-entry midwives require them to obtain informed consent prior to accepting a client, it would be clear when a direct-entry midwife was acting under his or her registration or license. The Board of Nursing would still be able to discipline a licensed nurse regardless of being registered as a direct-entry midwife, and the Director would also be able to discipline a direct-entry midwife regardless of being licensed as a nurse.

In fact, being simultaneously registered and licensed would raise the level of scrutiny of a healthcare provider. For example, if he or she were to be disciplined by the Board of Nursing for drug use, the Director would be notified and would also consider appropriate discipline. In this way, both the nursing license and the midwifery registration are in jeopardy.

The Director has the authority to deny, revoke, or suspend the registration, issue a letter of admonition, or place on probation a direct-entry midwife who has had his or her license or registration as a direct-entry midwife or any other healthcare occupation suspended or revoked in any jurisdiction.<sup>97</sup>

Likewise, the Board of Nursing may also discipline any nurse who has been convicted of a crime that would be a violation of the Nurse Practice Act,<sup>98</sup> or has had a license to practice nursing or any other healthcare occupation suspended or revoked in any other jurisdiction.<sup>99</sup>

Clients are already required to sign an informed consent form when they agree to accept services of a direct-entry midwife. Except for certified nurse-midwives, nurses are not allowed to provide midwifery services independently. Therefore, there would be no question of which role a licensee was performing.

Moreover, the second sunset criterion directs DORA to establish the least restrictive form of regulation consistent with the public interest. No other state prohibits nurses from being simultaneously licensed as direct-entry midwives. Colorado is the most restrictive state in this respect.

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<sup>97</sup> § 12-37-107(3)(f), C.R.S.

<sup>98</sup> § 12-38-117(1)(b)(l), C.R.S.

<sup>99</sup> § 12-38-117(1)(d), C.R.S.

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In fact, in Colorado, many other healthcare providers may be simultaneously licensed as a nurse, including chiropractors, mental health providers, and physical therapists. These Boards do not seem to have difficulty with regulating these professions, and there is no evidence to justify that direct-entry midwives should be treated differently.

If this recommendation is approved, the Act, however, should clarify that in no way should direct-entry midwives represent themselves as certified nurse-midwives, and that a nursing license does not expand the scope of practice of a direct-entry midwife, nor does a direct-entry midwife registration expand the scope of practice of a nurse.

The General Assembly should remove the prohibition against a licensed nurse being simultaneously registered as a direct-entry midwife, with the exception of certified nurse-midwives.

***Recommendation 7 – Amend the language that includes “habitual intemperance” as unprofessional conduct.***

In section 12-37-107(3)(d), C.R.S., the Act defines unprofessional conduct to include: “habitual intemperance with regard to or excessive use of a habit-forming drug, a controlled substance as defined in section 12-22-303 (7), or an alcoholic beverage.”

This language should be clarified by removing the obscure reference to habitual intemperance.

The General Assembly should amend this language to prohibit the “habitual or excessive use or abuse of alcohol, a habit-forming drug, or controlled substance.”

***Recommendation 8 – Amend the Director’s fining authority to eliminate the requirement that fines be an alternative to, or in addition to, suspension or revocation.***

In section 12-37-107(2), C.R.S., the Director is authorized to assess a fine as an alternative to, or in addition to, a suspension or revocation of registration, not to exceed \$5,000. The fining authority provided for the regulation of direct-entry midwives is problematic for a number of reasons.

The standard to revoke or suspend a registration is high because doing so prevents the practitioner from his or her occupation and source of income. For the Director to do so, he or she would have to determine that the direct-entry midwife acted in such an egregious manner that he or she is no longer safe to practice.

This statute, however, allows the Director to instead assess a fine for such conduct.

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The primary purpose of regulation is public protection. Allowing direct-entry midwives to pay a fine rather than remove them from practice when they are found to be unsafe, does not serve to protect the public.

Over the past five years, no fines have been assessed. However, if a fine were assessed as an alternative to revocation, it would appear that a regulator allowed a direct-entry midwife to buy his or her way out of a revocation when the public protection was in jeopardy.

For regulatory purposes, fining is better used for administrative violations, rather than more serious practice-related violations. For example, the Director may decide to fine a direct-entry midwife who has allowed his or her license to lapse beyond the provided for grace period. This would be a more appropriate use than fining someone who has acted in a way that resulted in the death of a newborn baby.

In order to ensure public protection, the requirement that a fine be used as an alternative to, or in addition to, a suspension or a revocation should be repealed. The fining authority, however, should be maintained to allow the Director to fine for violations of the Act, or Director rules, that are administrative in nature.

Therefore, the General Assembly should amend the Director's fining authority to eliminate the requirement that fines be an alternative to, or in addition to, suspension or revocation.

***Recommendation 9 – Include in the definition of unprofessional conduct failure to respond in an honest, materially responsive, and timely manner to a complaint.***

The Act is silent on whether the Director has the authority to formally discipline a direct-entry midwife for failing to respond to a complaint.

When a complaint is filed against a direct-entry midwife, the Director sends a letter outlining the nature of the complaint and requires the direct-entry midwife to respond within 30 days. Although a response is required, no formal authority is delineated in the Act enabling the Director to formally discipline a direct-entry midwife for failing to respond to a complaint within 30 days.

A response to the letter is important because it could provide valuable information to the Director so that he or she may determine whether a violation occurred. For example, the Director could receive a complaint alleging that a direct-entry midwife did not provide the generally accepted standard of care by failing to submit blood to a laboratory to be tested. However, the direct-entry midwife may be able to produce copies of the test results from the client's file.

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Without a response, the Director may decide to initiate a costly and unnecessary investigation only to find that the complaint has no merit. The same would be true of a response that is dishonest or that merely denies the complaint without any relevant or significant explanation.

Other healthcare providers, such as physicians, have similar provisions in their practice acts allowing discipline for failure to respond fully and honestly to a complaint.

Therefore, the General Assembly should include in the definition of unprofessional conduct failure to respond in an honest, materially responsive, and timely manner to a complaint.

***Recommendation 10 – Add language to the Act authorizing the Director to suspend a license for not complying with an order of the Director.***

At this time, the Director must initiate a new complaint against a direct-entry midwife who does not comply with an order of the Director, for example, failing to submit to an examination of his or her mental condition, or failing to take courses deemed necessary to correct deficiencies. Initiating a new complaint proves to be a time consuming and costly practice. Allowing the Director to suspend the registration of a direct-entry midwife who does not comply with a Director order would be a more efficient use of legal resources.

For this reason, the General Assembly should authorize the Director to suspend a registration if the direct-entry midwife fails to comply with any conditions imposed by the Director until such time as the direct-entry midwife complies with such conditions.

***Recommendation 11 – Make technical amendments to the Act.***

During the course of this sunset review, the Director, Division staff, and researchers found several places in statutes administered by the Division that need to be updated and clarified to reflect current practices, conventions, and technology. While recommendations of this nature generally do not rise to the level of protecting the health, safety, and welfare of the public, unambiguous laws make for more efficient implementation. Unfortunately, all of the statutes pertaining to direct-entry midwives are commonly only examined by the General Assembly during a sunset review.

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The following list of such technical changes is provided as a means of illustrating examples only. It is not exhaustive of the types of technical changes that should be made:

- Repeal the reference to “complaints and investigations” and replace it with the “office of midwifery registration” in section 12-37-104(1)(e), C.R.S.
- Repeal any reference to “reregistration” and replace it with “a new registration” or “renewal of registration,” as appropriate.
- Move section 12-37-104(3), C.R.S., that prohibits reciprocity with other states to section 12-37-103, C.R.S., which outlines the qualifications required for registration.
- Require direct-entry midwives to disclose to clients any health care licenses previously suspended in any other jurisdiction in addition to the currently required disclosure of revoked licenses.

Therefore, the General Assembly should make technical changes to the Act.

***Administrative Recommendation 1 – Require certification in Neonatal Resuscitation Program.***

The Neonatal Resuscitation Program (NRP) trains birth attendants to resolve respiratory distress of a newborn during the first few moments of life outside the uterus.

NRP was developed by the American Academy of Pediatrics and the American Heart Association.<sup>100</sup> It is taught all over the world and has an excellent reputation in improving newborn outcomes.

The first few moments of life are critical to a newborn, and NRP provides the necessary training to help establish normal lung function and breathing. All direct-entry midwives should be required to maintain this certification, in addition to adult cardiopulmonary resuscitation (CPR) and infant CPR certifications they are already required to have.

NRP is not expensive or difficult to obtain or maintain.

Therefore, as a condition of registration, the Director should require direct-entry midwives to maintain NRP certification.

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<sup>100</sup> American Academy of Pediatrics. *About NRP: The Early History and Basic Concepts of Neonatal Resuscitation Program (NRP)*. Retrieved October 12, 2010, from [http://www.aap.org/nrp/about/about\\_historyconcepts.html](http://www.aap.org/nrp/about/about_historyconcepts.html)



## Appendix A – Other States

The following table shows which states that regulate direct-entry midwives authorize them to obtain and administer certain medications.

|                        | Vitamin K | Rho(D)<br>immune<br>globulin | Antihemorrhagic |
|------------------------|-----------|------------------------------|-----------------|
| Alaska                 | X         | X                            | X               |
| Arizona                | X         | X                            | X               |
| Arkansas               | X         | X                            |                 |
| California             | X         | X                            | X               |
| Colorado               |           |                              |                 |
| Delaware               | X         | X                            | X               |
| Florida                | X         | X                            | X               |
| Georgia <sup>101</sup> |           |                              |                 |
| Idaho                  | X         | X                            | X               |
| Louisiana              | X         |                              | X               |
| Minnesota              | X         |                              | X               |
| Montana                | X         |                              | X               |
| New Hampshire          | X         | X                            | X               |
| New Jersey             |           |                              | X               |
| New Mexico             | X         | X                            | X               |
| New York               | X         | X                            | X               |
| Oregon <sup>102</sup>  | X         | X                            | X               |
| Rhode Island           |           |                              |                 |
| South Carolina         |           | X                            | X               |
| Tennessee              | X         | X                            | X               |
| Texas                  |           |                              |                 |
| Utah <sup>103</sup>    | X         | X                            | X               |
| Vermont                | X         | X                            | X               |
| Virginia               |           |                              |                 |
| Washington             | X         | X                            | X               |
| Wisconsin              | X         | X                            | X               |
| Wyoming <sup>104</sup> |           |                              |                 |

<sup>101</sup> Georgia does not currently have any oversight over direct-entry midwives although it does have a pilot program that has been postponed for budgetary reasons.

<sup>102</sup> Oregon has a voluntary license.

<sup>103</sup> Utah has a voluntary license.

<sup>104</sup> Wyoming's regulatory program was enacted in 2010, and the Board rules have not yet been promulgated. It is unclear whether or not midwives will be permitted to administer these medications.

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## Appendix B – Midwives Model of Care

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The Midwives Model of Care is based on the fact that pregnancy and birth are normal life events. The Midwives Model of Care includes:

- Monitoring the physical, psychological and social well-being of the mother throughout the childbearing cycle;
- Providing the mother with individualized education, counseling and prenatal care;
- Continuous hands-on assistance during labor and delivery and postpartum support;
- Minimizing technological interventions; and
- Identifying and referring women who require obstetrical attention.

The application of this model, according to the Midwives Alliance of North America, has been proven to reduce the incidence of birth injury, trauma and cesarean section.

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## Appendix C – MANA Core Competencies

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### Guiding Principles of Practice

- I. The midwife provides care according to the following principles:
  - A. Midwives work in partnership with women and their chosen support community throughout the caregiving relationship.
  - B. Midwives respect the dignity, rights and the ability of the women they serve to act responsibly throughout the caregiving relationship.
  - C. Midwives work as autonomous practitioners, collaborating with other health and social service providers when necessary.
  - D. Midwives understand that physical, emotional, psychosocial and spiritual factors synergistically comprise the health of individuals and affect the childbearing process.
  - E. Midwives understand that female physiology and childbearing are normal processes, and work to optimize the wellbeing of mothers and their developing babies as the foundation of caregiving.
  - F. Midwives understand that the childbearing experience is primarily a personal, social and community event.
  - G. Midwives recognize that a woman is the only direct care provider for herself and her unborn baby; thus the most important determinant of a healthy pregnancy is the mother herself.
  - H. Midwives recognize the empowerment inherent in the childbearing experience and strive to support women to make informed decisions and take responsibility for their own well being.
  - I. Midwives strive to ensure vaginal birth and provide guidance and support when appropriate to facilitate the spontaneous processes of pregnancy, labor and birth, utilizing medical intervention only as necessary.
  - J. Midwives synthesize clinical observations, theoretical knowledge, intuitive assessment and spiritual awareness as components of a competent decision making process.
  - K. Midwives value continuity of care throughout the childbearing cycle and strive to maintain continuous care within realistic limits.
  - L. Midwives understand that the parameters of “normal” vary widely and recognize that each pregnancy and birth is unique.

### General Knowledge and Skills

- II. The midwife provides care incorporating certain concepts, skills and knowledge from a variety of health and social sciences, including but not limited to:
  - A. Communication, counseling and teaching skills.
  - B. Human anatomy and physiology relevant to childbearing.
  - C. Community standards of care for women and their developing infants during the childbearing cycle, including midwifery and bio-technical medical standards and the rationale for and limitation of such standards.
  - D. Health and social resources in her community.
  - E. Significance of and methods for documentation of care through the childbearing cycle.
  - F. Informed decision making.
  - G. The principles and appropriate application of clean and aseptic technique and universal precautions.
  - H. Human sexuality, including indication of common problems and indications for counseling.
  - I. Ethical considerations relevant to reproductive health.
  - J. The grieving process of cultural variations.
  - L. Knowledge of common medical terms.
  - M. The ability to develop, implement and evaluate an individualized plan for midwifery care.
  - N. Woman-centered care, including the relationship between the mother, infant and their larger support community.
  - O. Knowledge of various health care modalities as they apply to the childbearing cycle.

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### **Care During Pregnancy**

- III. The midwife provides health care, support and information to women throughout pregnancy. She determines the need for consultation or referral as appropriate. The midwife uses a foundation of knowledge and/or skill which includes the following:
- A. Identification, evaluation and support of maternal and fetal well-being throughout the process of pregnancy.
  - B. Education and counseling for the childbearing cycle.
  - C. Pre-existing conditions in a woman's health history, which are likely to influence her well being when she becomes pregnant.
  - D. Nutritional requirements of pregnant women and methods of nutritional assessment and counseling.
  - E. Changes in emotional, psychosocial and sexual variations that may occur during pregnancy.
  - F. Environmental and occupational hazards for pregnant women.
  - G. Methods of diagnosing pregnancy.
  - H. Basic understanding of genetic factors, which may indicate the need for counseling, testing or referral.
  - I. Basic understanding of the growth and development of the unborn baby.
  - J. Indications for, risks and benefits of bio-technical screening methods and diagnostic tests used during pregnancy.
  - K. Anatomy, physiology and evaluation of the soft and bony structures of the pelvis.
  - L. Palpation skills for evaluation of the fetus and uterus.
  - M. The causes, assessment and treatment of the common discomforts of pregnancy.
  - N. Identification of, implications of and appropriate treatment for various infections, disease conditions and other problems which may affect pregnancy.
  - O. Special needs of the Rh- women.

### **Care During Labor, Birth and Immediately Thereafter**

- IV. The midwife provides health care, support and information to women throughout labor, birth and the hours immediately thereafter. She determines the need for consultation or referral as appropriate. The midwife uses a foundation of knowledge and/or skill which includes the following:
- A. The normal processes of labor and birth.
  - B. Parameters and methods for evaluating maternal and fetal well-being during labor, birth and immediately thereafter, including relevant historical data.
  - C. Assessment of the birthing environment, assuring that it is clean, safe and supportive, and that appropriate equipment and supplies are on hand.
  - D. Emotional responses and their impact during labor, birth and immediately thereafter.
  - E. Comfort and support measures during labor, birth and immediately thereafter.
  - F. Fetal and maternal anatomy and their interactions as relevant to assessing fetal position and the progress of labor.
  - G. Techniques to assist and support the spontaneous vaginal birth of the baby and placenta.
  - H. Fluid and nutritional requirements during labor, birth and immediately thereafter.
  - I. Assessment of and support for maternal rest and sleep as appropriate during the process of labor, birth and immediately thereafter.
  - J. Causes of, evaluation of and appropriate treatment for variations which occur during the course of labor, birth and immediately thereafter.
  - K. Emergency measures and transport procedures for critical problems arising during labor, birth or immediately thereafter.
  - L. Understanding of and appropriate support for the newborn's transition during the first minutes and hours following birth.
  - M. Familiarity with current bio-technical interventions and technologies which may be commonly used in a medical setting.
  - N. Evaluation and care of the perineum and surrounding tissues.

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### **Postpartum Care**

- V. The midwife provides health care, support and information to women throughout the postpartum period. She determines the need for consultation or referral as appropriate. The midwife uses a foundation of knowledge and/or skill which includes but is not limited to the following:
- A. Anatomy and physiology of the mother during the postpartum period.
  - B. Lactation support and appropriate breast care including evaluation of, identification of and treatments for problems with nursing.
  - C. Parameters and methods for evaluating and promoting maternal well-being during the postpartum period.
  - D. Causes of, evaluation of and treatment for maternal discomforts during the postpartum period.
  - E. Emotional, psychosocial and sexual variations during the postpartum period.
  - F. Maternal nutritional requirements during the postpartum period including methods of nutritional evaluation and counseling.
  - G. Causes of, evaluation of and treatments for problems arising during the postpartum period.
  - H. Support, information and referral for family planning methods as the individual woman desires.

### **Newborn Care**

- VI. The entry-level midwife provides health care to the newborn during the postpartum period and support and information to parents regarding newborn care. She determines the need for consultation or referral as appropriate. The midwife uses a foundation of knowledge and/or skill which includes the following:
- A. Anatomy, physiology and support of the newborn's adjustment during the first days and weeks of life.
  - B. Parameters and methods for evaluating newborn wellness including relevant historical data and gestational age.
  - C. Nutritional needs of the newborn.
  - D. Community standards and state laws regarding indications for, administration of and the risks and benefits of prophylactic bio-technical treatments and screening tests commonly used during the neonatal period.
  - E. Causes of, assessment of, appropriate treatment and emergency measures for newborn problems and abnormalities.

### **Professional, Legal and Other Aspects**

- VII. The entry-level midwife assumes responsibility for practicing in accord with the principles outlined in this document. The midwife uses a foundation of knowledge and/or skill which includes the following:
- A. MANA's documents concerning the art and practice of Midwifery.
  - B. The purpose and goal of MANA and local (state or provincial) midwifery associations.
  - C. The principles of data collection as relevant to midwifery practice.
  - D. Laws governing the practice of midwifery in her local jurisdiction.
  - E. Various sites, styles and modes of practice within the larger midwifery community.
  - F. A basic understanding of maternal/child health care delivery systems in her local jurisdiction.
  - G. Awareness of the need for midwives to share their knowledge and experience.

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**Well-Woman Care and Family Planning**

VIII. Depending upon education and training, the entry-level midwife may provide family planning and well-woman care. The practicing midwife may also choose to meet the following core competencies with additional training. In either case, the midwife provides care, support and information to women regarding their overall reproductive health, using a foundation of knowledge and/or skill which includes the following:

- A. Understanding of the normal life cycle of women.
- B. Evaluation of the woman's well-being including relevant historical data.
- C. Causes of, evaluation of and treatments for problems associated with the female reproductive system and breasts.
- D. Information on, provision of or referral for various methods of contraception.
- E. Issues involved in decision-making regarding unwanted pregnancies and resources for counseling and referral.

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## Appendix D – Test Specifications

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The Test Specifications were developed from a recent Job Analysis which was based on the Midwives' Alliance of North America (MANA) Core Competencies. NARM strongly urges all candidates to thoroughly review both the Written and Skills Assessment test specifications and their associated reference lists to prepare for successful completion of the CPM Certification Examination process.

### I. Midwifery Counseling, Education and Communication: (5 percent, 17 Items)

- A. Provides interactive support and counseling and/or referral for the possibility of less-than-optimal pregnancy outcomes
- B. Provides education and counseling based on maternal and paternal health/reproductive family history and on-going risk assessment
- C. Facilitates the mother's decision of where to give birth by exploring and explaining:
  1. The advantages and the risks of different birth sites
  2. The requirements of the birth site
  3. How to prepare, equip and supply the birth site
- D. Educates the mother and her family/support unit to share responsibility for optimal pregnancy outcome
- E. Educates the mother concerning the natural physical and emotional processes of pregnancy, labor, birth and postpartum
- F. Applies the principles of informed consent
- G. Communicates practice parameters and limits of practice
- H. Applies the principles of client confidentiality
- I. Provides individualized care
- J. Advocates for the mother during pregnancy, birth and postpartum
- K. Provides culturally appropriate education, counseling and/or referral to other health care professionals, services, agencies for:
  1. Genetic counseling for at-risk mothers
  2. Abuse issues: including, emotional, physical and sexual
  3. Prenatal testing and lab work
  4. Diet, nutrition and supplements
  5. Effects of smoking, drugs and alcohol use

6. Social risk factors
7. Situations requiring an immediate call to the midwife
8. Sexually transmitted diseases/ infections and safer sex practices
9. Blood borne pathogens: HIV, Hepatitis B, Hepatitis C
10. Complications of pregnancy
11. Environmental risk factors
12. Newborn care including normal/ abnormal newborn activity, responses, vital signs, appearance, behavior, etc.
13. Postpartum care concerning complications and self-care
14. Contraception
15. Female reproductive anatomy and physiology
16. Monthly breast self examination techniques
17. Implications for the nursing mother
18. The practice of Kegel exercises
19. Risks to fetal health, including:
  - a) TORCH viruses (toxoplasmosis, rubella, cytomegalovirus, herpes, other)
  - b) Environmental hazards
  - c) Teratogenic substances

### II. General Healthcare Skills: (5 percent, 17 Items)

- A. Demonstrates the application of Universal Precautions as they relate to midwifery:
  1. Handwashing
  2. Gloving and ungloving
  3. Sterile technique
- B. Demonstrates optimal documentation and charting skills
- C. Offers alternative healthcare practices (non-allopathic treatments) and modalities, and educates on the benefits and contraindications:
  1. Herbs
  2. Hydrotherapy (baths, compresses, showers, etc.)

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- D. Refers to alternative healthcare practitioners for non-allopathic treatments
  - E. Manages shock by:
    1. Recognition of shock, or impending shock
    2. Assessment of the cause of shock
    3. Treatment of shock:
      - a) Provide fluids orally
      - b) Position mother flat, legs elevated 12 inches
      - c) Administer oxygen
      - d) Keep mother warm, avoid overheating
      - e) Administer/use non-allopathic remedies
      - f) Encourage deep, calm, centered breathing
      - g) Administer or refer for IV fluids
      - h) Activate emergency medical services
      - i) Prepare to transport
  - F. Understands the benefits and risks and recommends the appropriate use of vitamin and mineral supplements including: (Prenatal Multi-Vitamin, Vitamin C, Vitamin E, Folic Acid, B-Complex, B-6, B-12, Iron, Calcium, Magnesium)
  - G. Demonstrates knowledge of the benefits and risks and appropriate administration of the following pharmacological (prescriptive) agents:
    1. Lidocaine/xylocaine for suturing
    2. Medical oxygen
    3. Methergine
    4. Prescriptive ophthalmic ointment
    5. Pitocin® for postpartum hemorrhage
    6. RhoGAM
    7. Vitamin K:
      - a) Oral
      - b) IM
    8. Antibiotics for Group B Strep
    9. IV fluids
  - H. Demonstrates knowledge of benefits/risks of ultrasounds:
    1. Provides counseling regarding ultrasound
    2. Makes appropriate referrals for ultrasound
  - I. Demonstrates knowledge of benefits/risks of biophysical profile
    1. Provides counseling
    2. Makes appropriate referrals
  - J. Demonstrates knowledge of how and when to use instruments and equipment including:
    1. Amni-hook® / Amnicot®
    2. Bag and mask resuscitator
    3. Bulb syringe
    4. Delee® (tube/mouth suction device)
    5. Hemostats
    6. Lancets
    7. Nitrazine paper
    8. Scissors (all kinds)
    9. Suturing equipment
    10. Urinary catheter
    11. Vacutainer/blood collection tube
    12. Gestational wheel or calendar
    13. Newborn and adult scale
    14. Thermometer
    15. Urinalysis strips
    16. Cord clamp
    17. Doppler
    18. Fetoscope
    19. Stethoscope
    20. Vaginal speculum
    21. Blood pressure cuff
    22. Oxygen tank, flow meter, cannula, and face mask
  - K. Proper use of injection equipment:
    1. Syringe
    2. Single dose vial
    3. Multi dose ampule
    4. Sharps container
  - L. Draws blood for lab work
  - M. Obtains or refers for urine culture
  - N. Obtains or refers for blood screening tests
  - O. Evaluates laboratory and medical records:
    1. Hematocrit/hemoglobin
    2. Blood sugar (glucose)
    3. HIV
    4. Hepatitis B and C
    5. Rubella
    6. Syphilis (VDRL or RPR)
    7. Group B Strep
    8. Gonorrhea Culture
    9. Complete Blood Count
    10. Blood type and Rh factors
    11. Rh antibodies
    12. Chlamydia
    13. PAP test
- III. Maternal Health Assessment: (10% of Exam - 35 Examination Items)**
- A. Obtain and maintain records of health, reproductive and family medical history and possible implications to current pregnancy, including:
-



1. Personal information/demographics
  2. Personal history, including religion, occupation, education, marital status, economic status, changes in health or behavior and woman's evaluation of her health and nutrition
  3. Potential exposure to environmental toxins
  4. Medical conditions
  5. Surgical history
  6. Reproductive history including:
    - a) Menstrual history
    - b) Gynecologic history
    - c) Sexual history
    - d) Childbearing history
    - e) Contraceptive practice
    - f) History of sexually transmitted infections
    - g) History of behavior posing risk for sexually transmitted infection exposure
    - h) History of risk of exposure to bloodborne pathogens
    - i) Rh type and plan of care if negative
  7. Family medical history
  8. Psychosocial history
  9. History of abuse
  10. Mental health
  11. Mother's medical history:
    - a) Genetics
    - b) Alcohol use
    - c) Drug use
    - d) Tobacco use
    - e) Allergies
    - f) Father's medical history
    - g) Genetics
    - h) Alcohol use
    - i) Drug use
    - j) Tobacco use
- B. Perform a physical examination, including assessment of:
1. General appearance/skin condition
  2. Baseline weight and height
  3. Vital signs
  4. HEENT (Head, Eyes, Ears, Nose and Throat) including:
    - a) Hair and scalp
    - b) Eyes: pupils, whites, conjunctiva
    - c) Thyroid by palpation
    - d) Mouth, teeth, mucus membrane, and tongue
  5. Lymph glands of neck, chest and under arms
  6. Breasts:
    - a) evaluates mother's knowledge of self-breast examination techniques, instructs if needed
    - b) performs breast examination
  7. torso, extremities for bruising, abrasions, moles, unusual growths
  8. baseline reflexes
  9. heart and lungs
  10. abdomen by palpation and observation for scars
  11. kidney pain (CVAT)
  12. deep tendon reflexes of the knee
  13. pelvic landmarks
  14. cervix (by speculum exam)
  15. size of the uterus and ovaries (by bimanual exam)
  16. condition of the vulva, vagina, cervix, perineum and anus
  17. musculo-skeletal system, including spine straightness and symmetry, posture
  18. vascular system (edema, varicosities, thrombophlebitis)
- IV. Prenatal: (25% of Exam - 88 Examination Items)**
- A. Assess results of routine prenatal physical exams including ongoing assessment of:
1. maternal psycho-social, emotional health and well-being
  2. signs and symptoms of infection
  3. maternal health by tracking variations and change in:
    - a) blood pressure
    - b) weight
    - c) color of mucus membranes
    - d) general reflexes
    - e) elimination/urination patterns
    - f) sleep patterns
    - g) energy levels
  4. nutritional patterns
  5. hemoglobin/hematocrit
  6. glucose levels
  7. breast condition/implications for breastfeeding
  8. signs of abuse
  9. urine for:
    - a) appearance: color, density, odor, clarity
    - b) protein
    - c) glucose
    - d) ketones
    - e) PH
    - f) Leukocytes
    - g) Nitrites
    - h) blood

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- 10. Fetal heart rate/tones auscultated with fetascope or Doppler
  - 11. Vaginal discharge or odor
  - 12. Estimated due date based upon:
    - a) Last menstrual period
    - b) Last normal menstrual period
    - c) Length of cycles
    - d) Changes in mucus condition or ovulation history
    - e) Date of positive pregnancy test
    - f) Date of implantation bleeding
    - g) Quickening
    - h) Fundal height
    - i) Calendar date of conception/unprotected intercourse
  - 13. Assessment of fetal growth and wellbeing:
    - a) Auscultation of fetal heart
    - b) Correlation of weeks gestation to fundal height
    - c) Fetal activity and responsiveness to stimulation
    - d) Fetal palpation for:
      - (1) Fetal weight
      - (2) Fetal size
      - (3) Fetal lie
      - (4) Degree of fetal head flexion
  - 14. Clonus
  - 15. Vital signs
  - 16. Respiratory assessment
  - 17. Edema
- B. Records results of the examination in the prenatal records
- C. Provides prenatal education, counseling, and recommendations for:
- 1. Nutritional, and non-allopathic dietary supplement support
  - 2. Normal body changes in pregnancy
  - 3. Weight gain in pregnancy
  - 4. Common complaints of pregnancy:
    - a) Sleep difficulties
    - b) Nausea/vomiting
    - c) Fatigue
    - d) Inflammation of the sciatic nerve
    - e) Breast tenderness
    - f) Skin itchiness
    - g) Vaginal yeast infections
    - h) Bacterial vaginosis
    - i) Symptoms of anemia
    - j) Indigestion/heartburn
    - k) Constipation
    - l) Hemorrhoids
    - m) Carpal tunnel syndrome
    - n) Round ligament pain
    - o) Headache
    - p) Leg cramp
    - q) Backache
  - r) Varicose veins
  - s) Sexual changes
  - t) Emotional changes
  - u) Fluid retention/swelling/edema
5. Physical preparation:
- a) Preparation of the perineum
  - b) Physical activities for labor preparation (e.g., movement and exercise)
- D. Recognizes and responds to potential prenatal complications/variations by identifying/assessing:
- 1. Antepartum bleeding
    - a) First trimester
    - b) Second trimester
    - c) Third trimester
  - 2. Identifying pregnancy-induced hypertension
  - 3. Assessing, educating and counseling for pregnancy-induced hypertension with
    - a) Nutritional/hydration assessment
    - b) Administration of calcium/magnesium supplement
    - c) Stress assessment and management
    - d) Non-allopathic remedies
    - e) Monitoring for signs and symptoms of increased severity
    - f) Increased frequency of maternal assessment
    - g) Hydrotherapy
  - 4. Identifying and consulting, collaborating or referring for:
    - a) Pre-eclampsia
    - b) Gestational diabetes
    - c) Urinary tract infection
    - d) Fetus small for gestational age
    - e) Intrauterine growth retardation
    - f) Thrombophlebitis
    - g) Oligohydramnios
    - h) Polyhydramnios
  - 5. Breech presentations:
    - a) Identifying breech presentation
    - b) Turning breech presentation with:
      - (1) Alternative positions (tilt board, exercises, etc.)
      - (2) Referral for external version
      - (3) Non-allopathic methods (moxibustion, homeopathic)
    - c) Management strategies for unexpected breech delivery
  - 6. Multiple gestation:
    - a) Identifying multiple gestation
    - b) Management strategies for unexpected multiple births
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7. Occiput posterior position:
    - a) Identification
    - b) Prevention
    - c) Techniques to encourage rotation
  8. Vaginal birth after cesarean (VBAC):
    - a) Identifying VBACs by history and physical
    - b) Indications/contraindications for out-of-hospital births
    - c) Management strategies for VBAC
    - d) Recognizes signs, symptoms of uterine rupture and knows emergency treatment
  9. Identifying and dealing with pre-term labor with:
    - a) Referral
    - b) Consults for preterm labor
    - c) Treats for preterm labor:
      - (1) Increase of fluids
      - (2) Non-allopathic remedies
      - (3) Discussion of the mother's fears/emotional support
      - (4) Consumption of an alcoholic beverage
      - (5) Evaluation of urinary tract infection
      - (6) Evaluation of other maternal infection
      - (7) Bed rest
      - (8) Pelvic rest (including no sexual intercourse)
      - (9) No breast stimulation (including nursing)
  10. Assessing and evaluating a post-date pregnancy by monitoring/assessing:
    - a) Fetal movement, growth, and heart tone variability
    - b) Estimated due date calculation
    - c) Previous birth patterns
    - d) Amniotic fluid volume
    - e) Maternal tracking of fetal movement
    - f) Consultation or referral for:
      - (1) Ultrasound
      - (2) Non-stress test
      - (3) Biophysical profile
  11. Treating a post-date pregnancy by stimulating the onset of labor
    - a) Sexual/nipple stimulation
    - b) Assessment of emotional blockage and/or fears
    - c) Stripping membranes
    - d) Cervical massage
    - e) Castor oil induction
    - f) Non-allopathic therapies
    - g) Physical activity
    - h) Repositioning a posterior baby
    - i) Refer for chiropractic adjustment
    - j) Refer for acupuncture
  12. Identifying and referring for:
    - a) Tubal pregnancy
    - b) Molar pregnancy
    - c) Ectopic pregnancy
    - d) Placental abruption
    - e) Placenta previa
  13. Identifying premature rupture of membranes
  14. Managing premature rupture of membranes in a FULL-TERM pregnancy:
    - a) Monitor fetal heart tones and movement
    - b) Minimize internal vaginal examinations
    - c) Reinforce appropriate hygiene techniques
    - d) Monitor vital signs for signs of infection
    - e) Encourage increased fluid intake
    - f) Support nutritional/non-allopathic treatment
    - g) Stimulate labor
    - h) Consult for prolonged rupture of membranes
    - i) Review Group B Strep status and inform of options
  15. Consult and refer for premature rupture of membranes in pre-term pregnancy
  16. Establishes and follows emergency contingency plans for mother/baby
- V. Labor, Birth and Immediate Postpartum (35% of Exam - 123 Examination items)**
- A. Facilitates maternal relaxation and provides comfort measure throughout labor by administering/encouraging:
    1. Massage
    2. Hydrotherapy (compresses, baths, showers)
    3. Warmth for physical and emotional comfort (e.g., compresses, moist warm towels, heating pads, hot water bottles, friction heat)
    4. Communication in a calming tone of voice, using kind and encouraging words
    5. The use of music or sound
    6. Silence
    7. Continued mobility throughout labor
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- 8. Pain management:
    - a) Differentiation between normal and abnormal pain
    - b) Validation of the woman's experience/fears
    - c) Counter-pressure on back
    - d) Relaxation/breathing techniques
    - e) Non-allopathic treatments
    - f) Position changes
  - B. Evaluates/responds to during first stage:
    - 1. Assess maternal/infant status based upon :
      - a) Vital signs
      - b) Food and fluid intake/output
      - c) Status of membranes
      - d) Uterine contractions for frequency, duration and intensity with a basic intrapartum examination
      - e) Fetal heart tones
      - f) Fetal lie, presentation, position and descent with:
        - (1) Visual observation
        - (2) Abdominal palpation
        - (3) Vaginal examination
      - g) Effacement, dilation of cervix and station of the presenting part
      - h) Maternal dehydration and/or vomiting by administering:
        - (1) Fluids by mouth
        - (2) Ice chips
        - (3) Oral herbal/homeopathic remedies
        - (4) IV fluids (administer or refer for)
    - 2. Anterior/swollen lip by administering/ supporting:
      - a) Position change
      - b) Light pressure or massage to cervical lip
      - c) Warm bath
      - d) Pushing the lip over the baby's head while the mother pushes
      - e) Deep breathing and relaxation between contractions
      - f) Non-allopathic treatments
    - 3. posterior, asynclitic position by encouraging and/or supporting:
      - a) The mother's choice of position
      - b) Physical activities (pelvic rocking, stair climbing, walking, etc.)
      - c) Non-allopathic treatments
      - d) Rest or relaxation
      - e) Manual internal rotation ("dialing the phone")
  - 4. Pendulous belly inhibiting descent by:
    - a) Assisting the positioning of the uterus over the pelvis
    - b) Positioning semi-reclining on back
    - c) Lithotomy position
  - 5. Labor progress by providing:
    - a) Psychological support
    - b) Position change
    - c) Nutritional support
    - d) Rest
    - e) Physical activity
    - f) Non-allopathic treatments
    - g) Nipple stimulation
  - C. Demonstrates the ability to evaluate/ support during second stage:
    - 1. Wait for the natural urge to push
    - 2. Encourage aggressive pushing in emergency situations
    - 3. Allow the mother to choose the birthing position
    - 4. Recommend position change as needed
    - 5. Perineal support
    - 6. Encourage the mother to touch the newborn during crowning
    - 7. Provide an appropriate atmosphere for the moment of emergence
  - D. Accurate and complete recordkeeping and documentation of labor and birth
  - E. Demonstrates the ability to recognize and respond to labor and birth complications such as:
    - 1. Abnormal fetal heart tones and patterns by:
      - a) Administer oxygen to mother
      - b) Change maternal position
      - c) Facilitate quick delivery if birth is imminent
      - d) Encourage deep breathing
      - e) Evaluate for consultation and referral
      - f) Evaluate for transport
    - 2. Cord prolapse by:
      - a) Change maternal position to kneechest
      - b) Activate emergency medical services/medical backup plan
      - c) Monitor FHT and cord for pulsation
      - d) Keep the presenting cord warm, moist and protected
      - e) Administer oxygen to mother
      - f) Place cord back into vagina
      - g) Facilitate immediate delivery, if birth is imminent
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- h) Prepare to resuscitate the newborn
  - 3. Variations in presentation:
    - a) Breech:
      - (1) Understands mechanism of descent and rotation for complete, frank, or footling breech presentation
      - (2) Hand maneuvers for assisting delivery
      - (3) Techniques for release of nuchal arm with breech
    - b) Nuchal hand/arm:
      - (1) Apply counter pressure to hand/or arm and the perineum
      - (2) Sweep arm out
    - c) Nuchal cord:
      - (1) Loop finger under the cord, and sliding it over head
      - (2) Loop finger under the cord, and sliding it over the shoulder
      - (3) Clamp cord in two places, cutting the cord between the two clamps
      - (4) Press baby's head into perineum and somersault the baby out
      - (5) Prepare to resuscitate the baby
    - d) Face and brow:
      - (1) Prepare for imminent birth
      - (2) Determine position of chin
      - (3) Prepare resuscitation equipment
      - (4) Prepare treatment for newborn bruising/swelling
      - (5) Administer arnica
      - (6) Position the mother in a squat
      - (7) Prepare for potential eye injury
    - e) Multiple birth and delivery:
      - (1) Identifies multiple gestation
      - (2) Consults or transports according to plan
      - (3) Prepares for attention to more than one
    - f) Shoulder dystocia:
      - (1) Apply gentle traction while encouraging pushing
      - (2) Reposition the mother to:
        - (a) Hands and knees (Gaskin maneuver)
        - (b) Exaggerated lithotomy (McRobert's position)
  - (c) End of bed
  - (d) Squat
  - (3) Reposition shoulders to oblique diameter
  - (4) Extract the posterior arm
  - (5) Flex shoulders of newborn, then corkscrew
  - (6) Apply supra-pubic pressure
  - (7) Sweep arm across newborn's face
  - (8) Fracture baby's clavicle
  - 4. Vaginal birth after cesarean (vbac)
  - 5. Management of meconium stained fluids:
    - a) Assess degree of meconium
    - b) Prepare to resuscitate the baby
    - c) Instruct the mother to stop pushing after delivery of head
    - d) Clear the airway with suction of mouth and nose
  - 6. Management of maternal exhaustion by:
    - a) Adequate hydration
    - b) Nutritional support
    - c) Increase rest
    - d) Non-allopathic treatments
    - e) Evaluate the mother's psychological condition
    - f) Monitor vital signs
    - g) Monitor fetal well-being
    - h) Evaluate urine for ketones
    - i) Evaluate effect of support team or visitors
    - j) evaluate for consultation and/or referral
  - F. Recognize/consult/transport for signs of:
    - 1. Uterine rupture
    - 2. Uterine inversion
    - 3. Amniotic fluid embolism
    - 4. Stillbirth
  - G. Assesses the condition of, and provides care for the newborn:
    - 1. Keep baby warm
    - 2. Make initial newborn assessment
    - 3. determine APGAR score at:
      - a) 1 minute
      - b) 5 minutes
      - c) 10 minutes (as appropriate)
    - 4. Keep baby and mother together
    - 5. monitor respiratory and cardiac function by assessing:
      - a) Symmetry of the chest
      - b) Sound and rate of heart tones and respirations
      - c) Nasal flaring
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- d) Grunting
  - e) Chest retractions
  - f) Circumoral cyanosis
  - g) Central cyanosis
  - 6. Stimulate newborn respiration:
    - a) Rub up the baby's spine
    - b) Encourage parental touch, and call newborn's name
    - c) Flick or rub the soles of the baby's feet
    - d) Keep baby warm
    - e) Rub skin with blanket
    - f) Apply percussion massage for wet lungs
  - 7. Responding to the need for newborn resuscitation:
    - a) Administer mouth-to-mouth breaths
    - b) Positive pressure ventilation for 15- 30 seconds
    - c) Administer oxygen
    - d) Leave cord unclamped until placenta delivers
    - e) Consult and transport if needed
  - 8. Recognize and consult or transport for apparent birth defects
  - 9. Recognizes signs and symptoms of Meconium Aspiration Syndrome and consults or refers as needed
  - 10. Support family bonding
  - 11. Immediate cord care:
    - a) Clamping the cord after pulsing stops
    - b) Cutting the cord after clamping
    - c) Evaluating the cord stump
    - d) Collecting a cord blood sample, if needed
  - 12. Administer eye prophylaxis
  - 13. Assess gestational age
  - 14. Asses for central nervous system disorder
  - H. Assist in placental delivery and responds to blood loss:
    - 1. Remind mother of the onset of third stage of labor
    - 2. Determine signs of placental separation such as:
      - a) Separation gush
      - b) Contractions
      - c) Lengthening of cord
      - d) Urge to push
      - e) Rise in fundus
    - 3. Facilitate the delivery of the placenta by:
      - a) Breast feeding/nipple stimulation
      - b) Change the mother's position
      - c) Perform guarded cord traction
  - d) Emptying the bladder
  - e) Administer non-allopathic treatment
  - f) Encourage release verbally
  - g) Manual removal of placenta
  - h) Transport for removal of placenta
  - 4. After delivery, assess the condition of the placenta
  - 5. Estimate blood loss
  - 6. Respond to a trickle bleed by:
    - a) Assess origin
    - b) Assess fundal height and uterine size
    - c) Fundal massage
    - d) Assess vital signs
    - e) Empty bladder
    - f) Breastfeeding or nipple stimulation
    - g) Express clots
    - h) Non-allopathic treatments
  - 7. Respond to a vaginal tear and bleeding with:
    - a) Assessment of blood color and volume
    - b) Direct pressure on tear
    - c) Suturing
    - d) Clamp with forceps
  - 8. Respond to postpartum hemorrhage with:
    - a) Fundal massage
    - b) External bimanual compression
    - c) Internal bimanual compression
    - d) Manual removal of clots
    - e) Administer medication
    - f) Non-allopathic treatments
    - g) Maternal focus on stopping the bleeding/ tightening the uterus
    - h) Administer oxygen
    - i) Treat for shock
    - j) Consult and/or transfer
    - k) Activate medical emergency backup plan
    - l) Prepare to increase postpartum care
    - m) Administer or refer for IV fluids
  - I. Assess general condition of mother:
    - 1. Assess for bladder distension
      - a) Encourage urination for bladder distension
      - b) Perform catheterization for bladder distension
    - 2. Assess lochia
    - 3. Assess the condition of vagina, cervix and perineum for:
      - a) Cystocele
      - b) Rectocele
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- c) Hematoma
  - d) Tears, lacerations
  - e) Hemorrhoids
  - f) Bruising
  - g) Prolapsed cervix
  - 4. Repair the perineum:
    - a) Administer a local anesthetic
    - b) Perform basic suturing of:
      - (1) 1st degree tears
      - (2) 2nd degree tears
      - (3) Labial tears
    - c) Provide alternate repair methods (non-suturing)
  - 5. Provide instruction for care and treatment of the perineum
  - 6. Facilitate breastfeeding by assisting and teaching about:
    - a) Colostrum
    - b) Positions for mother and baby
    - c) Skin-to-skin contact
    - d) Latching on
    - e) Maternal hydration
    - f) Maternal nutrition
    - g) Maternal rest
    - h) Feeding patterns
    - i) Maternal comfort measures for engorgement
    - j) Letdown reflex
    - k) Milk expression
    - l) Normal newborn urine and stool output
  - J. Perform a Newborn Exam by assessing:
    - 1. The head for:
      - a) Size/circumference
      - b) Molding
      - c) Hematoma
      - d) Caput
      - e) Sutures
      - f) Fontanel
    - 2. The eyes for:
      - a) Jaundice
      - b) Pupil condition
      - c) Tracking
      - d) Spacing
      - e) Clarity
      - f) Hemorrhage
      - g) Discharge
    - 3. The ears for:
      - a) Positioning
      - b) Response to sound
      - c) Patency
      - d) Cartilage
    - 4. The mouth for:
      - a) Appearance and feel of palate
      - b) Lip and mouth color
      - c) Tongue
    - d) Lip cleft
    - e) Signs of dehydration
    - 5. The nose for:
      - a) Patency
      - b) Flaring nostrils
    - 6. The neck for:
      - a) Enlarged glands; thyroid and lymph
      - b) Trachea placement
      - c) Soft tissue swelling
      - d) Unusual range of motion
    - 7. The clavicle for:
      - a) Integrity
      - b) Symmetry
    - 8. The chest for:
      - a) Symmetry
      - b) Nipples
      - c) Breast enlargement including discharge
      - d) Measurement (chest circumference)
      - e) Count heart rate
      - f) Monitor heartbeat for irregularities
      - g) Auscultate the lungs, front and back for:
        - (1) Breath sounds
        - (2) Equal bilateral expansion
    - 9. The abdomen for:
      - a) Enlarged organs
      - b) Masses
      - c) Hernias
      - d) Bowel sounds
      - e) Rigidity
    - 10. The groin for:
      - a) Femoral pulses
      - b) Swollen glands
    - 11. The genitalia for:
      - a) Appearance
      - b) Position of urethral opening
      - c) Testicles for:
        - (1) Descent
        - (2) Rugae
        - (3) Herniation
      - d) Labia for:
        - (1) Patency
        - (2) Maturity of clitoris and labia
    - 12. The rectum for:
      - a) Patency
      - b) Meconium
    - 13. Abduct hips for dislocation
    - 14. The legs for:
      - a) Symmetry of creases in the back of the legs
      - b) Equal length
      - c) Foot/ankle abnormality
    - 15. The feet for:
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- a) Digits, number, webbing
- b) Creases
- c) Abnormalities
- 16. The arms for symmetry in:
  - a) Structure
  - b) Movement
- 17. The hands for:
  - a) Number of digits, webbing
  - b) Finger taper
  - c) Palm crease
  - d) Length of nails
- 18. The backside of baby for:
  - a) Symmetry of hips, range of motion
  - b) Condition of the spine:
    - (1) Dimpling
    - (2) Holes
    - (3) Straightness
- 19. Temperature
- 20. Flexion of extremities and muscle tone
- 21. Reflexes:
  - a) Sucking
  - b) Moro
  - c) Babinski
  - d) Plantar/palmar
  - e) Stepping
  - f) Grasping
  - g) Rooting
  - h) Blinking
- 22. Skin condition for:
  - a) Color
  - b) Lesions
  - c) Birthmarks
  - d) Milia
  - e) Vernix
  - f) Lanugo
  - g) Peeling
  - h) Rashes
  - i) Bruising
  - j) Mongolian spots
- 23. Length of baby
- 24. Weight of baby
- 2. Lochia vs abnormal bleeding
- 3. Return of menses
- 4. Vital signs, digestion, elimination patterns
- 5. Breastfeeding, condition of breasts and nipples
- 6. Muscle prolapse of vagina and rectum (cystocele, rectocele)
- 7. Strength of pelvic floor
- 8. Condition of the uterus (size and involution), ovaries and cervix
- 9. Condition of the vulva, vagina, perineum and anus
- D. Educates regarding adverse factors affecting breastfeeding:
  - 1. Environmental
  - 2. Biological
  - 3. Occupational
  - 4. Pharmacological
- E. Provides contraceptive/family planning education and counseling
- F. Facilitate psycho-social adjustment
- G. Provides opportunity for client feedback:
  - 1. Verbal
  - 2. Written
- H. Knows signs and symptoms, differential diagnosis, and appropriate midwifery management or referral for:
  - 1. Uterine infection
  - 2. Urinary tract infection
  - 3. Infection of vaginal tear or incision
  - 4. Postpartum depression
  - 5. Postpartum psychosis
  - 6. Late postpartum bleeding/hemorrhage
  - 7. Thrombophlebitis
  - 8. Separation of abdominal muscles
  - 9. Separation of symphysis pubis
- I. Assesses for, and treats jaundice by:
  - 1. Encourage mother to breastfeed every two hours
  - 2. Expose the front and back of newborn to sunlight through window glass
  - 3. Assess newborn lethargy and hydration
  - 4. Consult or refer
- J. Provide direction for care of circumcised penis
- K. Provide direction for care of uncircumcised penis
- L. Treat thrush on nipples:
  - 1. Dry nipples after nursing
  - 2. Non-allopathic remedies
  - 3. Allopathic treatments
- M. Treat sore nipples with:
  - 1. Expose to air

**VI. The Postpartum Period: (15% of Exam - 54 Items)**

- A. Completes the birth certificate
- B. Performs postpartum reevaluation of mother and baby at:
  - 1. Day-one to day-two
  - 2. Day-three to day-four
  - 3. One to two weeks
  - 4. Three to four weeks
  - 5. Six to eight weeks
- C. Assess and provides counseling and education as needed, for:
  - 1. Postpartum-subjective history



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2. Suggest alternate nursing positions
  3. Evaluate baby's sucking method
  4. Apply topical agents
  5. Apply expressed milk
- N. Treat mastitis by:
1. Provide immune system support including:
    - a) Nutrition/hydration
    - b) Non-allopathic remedies
  2. Encourage multiple nursing positions
  3. Apply herbal/non-allopathic compresses
  4. Apply warmth, soaking in tub or by shower
  5. Encourage adequate rest/relaxation
  6. Assess for signs and symptoms of infections
  7. Teach mother to empty breasts at each feeding
  8. Provide/teach gentle massage of sore spots
  9. Consult/refer to:
    - a) La Leche League
    - b) Lactation counselor
    - c) Other healthcare providers
- VII. Well-Baby Care: (5% of Exam - 16 Items)**
- A. Provide well-baby care up to six weeks
- B. Instruct on newborn care including normal/abnormal newborn activity, responses, vital signs, appearance, behavior, etc.
- C. Assess the current health and appearance of baby including:
1. Temperature
  2. Heart rate, rhythm and regularity
  3. Respirations
  4. Appropriate weight gain
  5. Length
  6. Measurement of circumference of head
  7. Neuro-muscular response
  8. Level of alertness
  9. Wake/sleep cycles
  10. Feeding patterns
  11. Urination and stool for frequency, quantity and color
  12. Appearance of skin
  13. Jaundice
  14. Condition of cord
- D. Instructs mother in care of:
1. Diaper rash
  2. Cradle cap
  3. Heat rash
- E. Advises and facilitates treatment of thrush
- F. Advises and facilitates treatment for colic
- G. Recognizes signs/symptoms and differential diagnosis of:
1. Infections
  2. Cardio-respiratory abnormalities
  3. Glucose disorders
  4. Hyperbilirubinemia
  5. Birth defects
  6. Failure to thrive
  7. Newborn hemorrhagic disease (early and late onset)
  8. Polycythemia
- H. Provide information for referral for continued well-baby care
- I. Support integration of baby into family
- J. Perform or refer for newborn metabolic screening
- K. Perform or refer for hearing screening

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## Appendix E – Skills Assessment

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### I. General Healthcare Skills

- A. Demonstrates aseptic technique
  - 1. Handwashing
  - 2. Gloving and ungloving
  - 3. Sterile technique
- B. Demonstrates the use of instruments and equipment including:
  - 1. Blood pressure cuff
  - 2. Doppler or fetoscope
  - 3. Gestation calculation wheel/calendar
  - 4. Newborn and adult scale
  - 5. Stethoscope
  - 6. Tape measure
  - 7. Thermometer
  - 8. Urinalysis Strips
- C. Injection Skills
  - 1. Proper use of equipment
    - a) Syringe
    - b) Single dose vial
    - c) Multi dose vial
    - d) Sharps container
  - 2. Demonstration of skill
    - a) Checking appearance, name, and expiration date
    - b) Observation of sterile technique
    - c) Drawing up fluids in the syringe
    - d) Injection of fluids
    - e) Disposal of needles
- D. Oxygen
  - 1. Proper set up of oxygen equipment
  - 2. Use of cannula and face mask
  - 3. Regulation of flow meter

### II. Maternal Health Assessment

- A. Performs a general physical examination, including assessment of:
  - 1. Baseline weight and height
  - 2. Vital signs: blood pressure, pulse, and temperature
  - 3. Baseline reflexes
  - 4. Abdomen, spine, and skin
  - 5. Heart and lungs (auscultate)
  - 6. Breast Examination
  - 7. Kidney pain; Costovertebral Angle Tenderness (CVAT)
  - 8. Deep tendon reflexes of the knee
  - 9. Extremities for edema

### III. Prenatal

- A. Performs prenatal physical exam including assessment of:
  - 1. Determination of due date by wheel or calendar

- 2. Vital signs: blood pressure, pulse, temperature
- 3. Respiratory assessment
- 4. Weight
- 5. Urine for:
  - a) Appearance: color, density, odor, clarity
  - b) Protein
  - c) Glucose
  - d) Ketones
  - e) PH
  - f) Leukocytes
  - g) Nitrites
  - h) Blood
- 6. Costrovertebral angle tenderness (CVAT)
- 7. Deep tendon reflexes (DTR) of the knee
- 8. Clonus
- 9. Fundal height
- 10. Fetal heart rate/tones auscultated with fetoscope or doppler
- 11. Fetal position, presentation, lie
- 12. Assessment of edema

### IV. Labor, Birth and Immediate Postpartum

- A. Performing a newborn examination by assessing:
  - 1. The head for:
    - a) Size/circumference
    - b) Molding
    - c) Hematoma
    - d) Caput
    - e) Sutures
    - f) Fontanel
    - g) Measurement
  - 2. The eyes for:
    - a) Jaundice
    - b) Pupil condition
    - c) Tracking
    - d) Spacing
  - 3. The ears for:
    - a) Positioning
    - b) Response to sound
    - c) Patency
    - d) Cartilage
  - 4. The mouth for:
    - a) Appearance and feel of palate
    - b) Lip and mouth color
    - c) Tongue
    - d) Lip
    - e) Cleft
    - f) Signs of dehydration

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5. The nose for:
    - a) Patency
    - b) Flaring nostrils
  6. The neck for:
    - a) Enlarged glands; thyroid and lymph
    - b) Trachea placement
    - c) Soft tissue swelling
    - d) Unusual range of motion
  7. The clavicle for:
    - a) Integrity
    - b) Symmetry
  8. The chest for:
    - a) Symmetry
    - b) Nipples
    - c) Breast enlargement including discharge
    - d) Measurement (chest circumference)
    - e) Count heart rate
    - f) Monitor heartbeat for irregularities
    - g) Auscultate the lungs, front and back for:
      - (1) Breath sounds
      - (2) Equal bilateral expansion
  9. The abdomen for:
    - a) Enlarged organs
    - b) Masses
    - c) Hernias
    - d) Bowel sounds
  10. The groin for
    - a) Femoral pulses
    - b) Swollen glands
  11. The genitalia for:
    - a) Descent
    - b) Rugae
    - c) Herniation
  12. Labia for:
    - a) Patency
    - b) Maturity of clitoris and labia
  13. The rectum for:
    - a) Patency
    - b) Meconium
  14. Abduct hips for dislocation
  15. The legs for:
    - a) Symmetry of creases in the back of the legs
    - b) Equal length
    - c) Foot/ankle abnormality
  16. The feet for:
    - a) Digits, number, webbing
    - b) Creases
    - c) Abnormalities
  17. The arms for symmetry in:
    - a) Structure
    - b) Movement
  18. The hands for:
    - a) Number of digits, webbing
    - b) Finger taper
    - c) Palm crease
    - d) Length of nails
  19. The backside of baby for:
    - a) Symmetry of hips, range of motion
    - b) Condition of the spine:
    - c) Dimpling
    - d) Holes
    - e) Straightness
  20. Temperature: axillary, rectal
  21. Reflexes:
    - a) Flexion of extremities and muscle tone
    - b) Sucking
    - c) Moro
    - d) Babinski
    - e) Plantar/palmar
    - f) Stepping
    - g) Grasp
    - h) Rooting
  22. Skin condition for:
    - a) Color
    - b) Lesions
    - c) Birthmarks
    - d) Milia
    - e) Vernix
    - f) Lanugo
    - g) Peeling
    - h) Rashes
    - i) Bruising
  23. Length of baby
  24. Weight of baby
- V. Well-Baby Care**
- A. Assesses the general health and appearance of baby including:
    1. Temperature
    2. Heart rate, rhythm and regularity
    3. Respirations
    4. Weight
    5. Length
    6. Measurement of circumference of head
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