Arizona Midwives Response to House Bill 2247
To: Department of Special Licensing, Department of Health Services
Submitted June, 2012

Included in this report:

In early February, 2012, midwives and student midwives from across the state of Arizona began a collective effort to address the rules rewrite mandated by HB2247. A total of eight meetings were conducted in a public meeting room at the Phoenix Public Library every two weeks, widely advertised in the midwifery community, and open to all licensed midwives and students pursuing licensure. Input was also considered when submitted via email or by proctor for those unable to physically attend the meetings.

It became apparent, early in the public meetings to address HB2247, that the Arizona midwifery community's objective was to focus on sections R9-16-106 through R9-16-111, as these are the sections that govern the day to day practice and care that midwives provide to their clients. Realizing that HB2247 also requires rewrite consideration for the process of licensure, the group respectively and collectively agreed that the Certified Professional Midwife (CPM) credential or equivalent is acceptable, entrusting the Arizona Department of Health Services, Department of Special Licensing to develop a fair and efficient licensing and testing procedure. Focusing on the scope of practice portion of R9-16 Chapter One, each item that affects the midwives' abilities to provide quality, up to date, evidenced-based care to midwifery clients in the state of Arizona was analyzed, line by line. At the conclusion of the public meetings, three documents were developed for the State's consideration.

The first document, titled "**AZ Midwifery Rules and Regulations**" represents our ideal regulatory guidelines. The scope of practice will be removed from rule and replaced by a general guideline similar to that which governs other health care providers, simply emphasizing the need for the midwife to follow current international standard of care, considering both the midwife's education and experience and the client's situation. This approach acknowledges the midwife as a professional, independent health care practitioner, assumes that holding a CPM or equivalent license ensures proper initial education and ongoing continuing education, and allows the midwife to develop practice guidelines that reflect her level of training, experience, and expertise. It allows for flexibility for each individual midwife, but also allows midwives as whole, in Arizona, to adapt their practice to the current midwifery model of care.

The second document, titled "**AZ Midwifery Scope of Practice**" is meant to be a living document, separate from rule or statute. Scope of practice written into regulation restricts the midwife's ability to update her care according to new evidence. Considering that the last significant update to this scope of practice via regulation occurred years ago, this risk is significant. This document brings Arizona's rules up to the current standard of practice within the US midwifery model, and our intention is that it be reviewed by the Advisory Committee and kept up to date by the proposed Advisory Council. The version submitted here is footnoted to reflect the ways in which current rule would effectively change, to provide ease of information retrieval for the Advisory Committee.

The third document, titled "**AZ Midwifery Expansion of Practice,**" fulfills the portion of HB2247 requiring the presentation of evidence to support any requests for the expansion of practice. All references noted in the requests for the expansion of practice are cited for the Advisory Committee's consideration, and will be printed upon request.

There are some central themes to these documents that Arizona Department of Health Services is asked to consider foundational to the rules rewrite process. The midwives of Arizona request the following:

1. **Addition of Midwifery Advisory Council**. An ongoing volunteer **Midwifery Advisory Council** is adopted to create a more informed regulatory Department. The current process of simple rules enforcement focuses on whether the midwife can follow the written rules, as opposed to recognizing that the midwife can make sound, up to date, evidenced based care decisions specific to each midwifery client she encounters. The Midwifery Advisory Council would be composed of Arizona licensed midwives and midwifery consumers. From an educated, peer review perspective, and inclusive of consumers as important stakeholders, responsibilities would include: reviewing current evidence, evaluating complaints, advising the Department on all future rules and statute changes, processing disciplinary actions, interpreting the rules, and assisting the Department in staying current on research and statistics. Five midwives would sit on the council, duly representing all Arizona midwives and ensuring an objective and intimate working group. Random rotation is important so that objectivity is maintained, and, therefore, all LMs have the opportunity and responsibility to sit on the council.

2. Change in the Licensure Process. Adopt a **national licensure process, a provisional student license, a temporary license for out of state midwives operating in Arizona, and the ability to assume inactive status.** The Certified Professional Midwife (CPM) credential is a nationally accredited credential in which the education, monitoring, and decision making processes are driven by Evidenced-Based Practice and Informed Consent and which specializes in out of hospital birth. A national licensing standard in Arizona will assist coalescing US midwifery as a whole, will provide the midwife the opportunity to obtain and maintain licensure through a more objective process, and will significantly reduce regulatory and financial burden on the State. Provisional student licenses serve to protect the preceptor, the student, the department of health, and the client. Temporary licensure for out of state midwives greatly increases midwifery care access to women on the borders of Arizona. An inactive status with the ability to renew without repeating the initial licensure process reflects the licensing process of other health care providers.

3. Removal from rule all restrictions to pharmaceuticals, equipment and procedures necessary for providing quality care. The rapidly changing and evolving research in women's health care makes the restricting of the innovations and tools a midwife may use unrealistic and often dangerous. For example, Arizona law currently disallows midwives to utilize one of the field drugs of choice, Misoprostol, for postpartum hemorrhage. In addition, the practical exam offered by the state requires the student to demonstrate many manipulative maneuvers for addressing shoulder dystocia; yet Arizona midwives are only permitted by law to "rotate the shoulders to the oblique." The midwives ask that the state allow all pharmaceuticals, equipment and procedures ***relevant*** to midwifery care to be utilized by midwives without specifics set in rule. A formulary can be kept up to date by the Advisory Council.

4. **Respect for Informed Consent**. The midwives request the removal of the current legal requirement to discontinue providing services to women who exhibit certain conditions during the course of her care with the midwife. Our belief is that women, once given the opportunity to discuss the risks and benefits of home birth, in her particular situation, and with true informed consent, have the capability of deciding how and where they would like to birth, and with which care provider. Having a midwife present at birth, regardless of risk factors, is a much safer option than choosing an unassisted birth due to legal restrictions. This change respects a woman's choice.

Please consider the attached, "**AZ Midwifery Rules and Regulations,**" "**AZ Midwifery Scope of Practice,**" and "**AZ Midwifery Expansion of Practice**" and accompanying references as HB2247 is implemented. The midwifery community appreciates the opportunity for this long-overdue update, and looks forward to working with the advisory committee in the coming months as the new rules governing midwifery care in Arizona are shaped.

Midwifery Licensing

Full License to practice midwifery in the State of Arizona will be granted to all persons that have:

1. Successfully completed their educational process to become a Certified Professional Midwife (CPM credential) or equivalent.
2. Passed the State of Arizona written exam covering the current rules and regulations outlined for the practice of Midwifery in the State of Arizona.
3. Pays the initial license fee of $25.

Provisional License shall be provided to all students of midwifery who meet the following criteria:

1. Is 18 years of age or older
2. Holds a High School Diploma or High School Equivalency Diploma
3. Is currently trained in adult and neonatal resuscitation
4. Holds a signed Letter of Commitment from a Preceptor

Temporary License shall be provided to out of state midwives working with a woman in the state of Arizona. This temporary license will include all of the privileges of a standard license, but will be limited in the duration of the licensing period.

Lapse of License for Inactivity will be permitted and be reinstated upon fulfillment of:

1. Current CPM or equivalent - which includes CEUs and current training in adult and neonate resuscitation
2. Payment of the additional fee of twenty dollars ($20) for reinstatement of license.

Rights of the Licensed Midwife

The license to practice midwifery authorizes the holder of the license to attend women in childbirth, provide prenatal, intrapartum, and postpartum care, family-planning, well woman care, as well as care of the newborn and infant. The midwife also has an important task in health counseling and education, not only for the woman, but also within the family and the community. This work can involve antenatal education and preparation for parenthood and may extend to woman's health, sexual or reproductive health, and child care.

Responsibilities of a Licensed Midwife:

1. Pay an initial license fee of $25 for the license period of 2 years
2. Pay a biannual renewal fee of $25.00
3. Keep current CPM or equivalent
4. Keep current training in adult and neonatal resuscitation
5. Complete and maintain a record for every client
6. Report client outcomes to the statistics project outlined by the Arizona Department of Health.

7. File Birth Certificate, Death Certificates, or Stillbirth Certificate with the State of Arizona Vital Records according to their outlined rules
8. Provide to all clients, in writing, an Informed Choice and Disclosure statement
9. Compose and maintain Practice Guidelines reflecting current evidenced-based care and experience
10. Provide care for women and newborns as outlined in her individual Practice Guidelines and in the AZ Midwifery Scope of Practice written and maintained by the Advisory Council including but not limited:
    a. Prenatal care and counseling, intrapartum care and support, postpartum care and counseling, well-woman care and newborn care;
    b. Performing minor interventions and emergency measures as necessary;
    c. Buying, possessing and administering all medications and supplies pertaining to midwifery and necessary to maintain mother, fetus, newborn and infant in a healthy state and to deter risk factors;
    d. Make available to all clients any testing necessary to assess the health of mother and fetus;
    e. Referral of the woman or the baby to a higher level of care if complications arise which require interventions that are beyond the midwife's competency; and
    f. Provides collaborative care to women not considered to be low risk, within the guidelines of a physician.

AZ Midwifery Scope of Practice

The AZ Midwifery Scope of Practice will provide general guidelines for the practice of midwifery in the state of Arizona. This document is meant to be separate from rule in order to be easy to maintain, keep current and evidenced-based.

Advisory Council

1. The Advisory Council shall consist of five (5) licensed midwives and two (2) consumers who have experience in out of hospital birth. Advisory Council members serve for a maximum period of two (2) year terms on a staggered rotation.

2. The five licensed midwives serving on the Advisory Council will be drawn by random selection. Midwives may decline sitting on the advisory council.

3. The Advisory Council will be convened and available to the Department for the following:
    a. maintain and update AZ Midwifery Scope of Practice document
    b. questions, discussion, review and recommendation to the Department on the validity of any complaint and any further course of action regarding the complaint; and
    c. recommendation for peer review

d. any policy change or rule updates in regards to all things concerning midwifery and out of hospital births.

Complaint Procedures

1. A person, government, or private entity may submit a written complaint to the Department charging a licensee or license applicant with a violation of statute or rules, and specifying the grounds for the complaint.

2. Complaints must be in writing, and shall be filed on the proper complaint form prescribed by the Department. The Department form shall contain a release of medical records statement, to be signed by the complainant or the client if the complainant is not the client.

3. Upon receipt of the written complaint form, the Department shall

a. Log the complaint and assign it a complaint number.

b. Send a copy of the complaint to the licensee complained about for a written response within 20 calendar days.

c. Upon receipt of the licensee's written response, both complaint and response shall be considered by the Advisory council of the Department for appropriate action including dismissal of complaint, investigation or a finding of reasonable cause of violation of a statute or rule.

d. The Department shall notify both complainant and licensee of the determination made by the advisory council.

4. If a reasonable cause violation determination is made by the advisory council, the disciplinary process shall follow ARS 36-756.

5. The advisory council shall review anonymous complaints to determine whether appropriate investigative or disciplinary action may be pursued or whether the matter may be dismissed for lack of sufficient information.

Responsibilities of the Licensed Midwife

A. A midwife provides care to any client desiring midwifery services, respecting the woman's right to self-determination.

B. A midwife utilizes universal measures to protect against blood born pathogens.

C. A midwife both initially and periodically thereafter assesses a client's condition.

D. A midwife informs clients, both orally and in writing, of the midwife's scope of practice including the risks and benefits of out of hospital birth. A written informed consent is obtained from the client upon beginning midwifery care.

E. Initial care & care during the prenatal period is provided as follows unless a written refusal by the client is obtained.

1. The following tests shall be scheduled or ordered during the first visit:
    a. OB/prenatal panel;
    b. Urinalysis;
    c. Hematocrit, hemoglobin, or complete blood count;
    d. Sexually transmitted infection (STI) testing;
    e. Glucose screening test for diabetes; and
    f. Other cultures or blood work as appropriate.
2. Prenatal visits are conducted as appropriate and may include,;
    a. The taking of weight, blood pressure, and assessment of edema;
    b. Assessment of fetal growth, heart tones, movement and position;
    c. Referral of a client as for ultrasound or other studies; and
    d. Administration or recommendation of Rh immunoglobulin drug.

F. Care during the intrapartum period shall be provided as follows unless a written refusal by the client is obtained:

1. The midwife initially assesses,:
    a. Contraction pattern;
    b. The status of membranes, and;
    c. Evaluating the presence of bloody show;
    d. Fetal movement.
2. During labor, the condition of the mother and fetus is assessed. Care includes the following:
    a. Initial and periodic assessment of maternal well being;
    b. Initial and periodic assessment of fetal heart tones as appropriate for stage of labor or more often if indicated, and;

c. Ongoing assessment of labor progress, and;

d. Performing amniotomy, episiotomy, or maneuvers of the fetus to expedite delivery as needed;.

3. After delivery of the newborn, care includes the following:

a. Apgar score assessment;

b. Physical assessment of the newborn for any abnormalities requiring immediate care;

c. Delivery of the placenta, assessment for signs of separation, frank or occult bleeding and examination of the placenta;

d. Manual exploration of the uterus and manual removal of the placenta as needed.

4. Abnormal or emergency situations are evaluated, and if not resolved, consultation or intervention sought.

G. A midwife provides the following care during the postpartum period, unless a written refusal is obtained from the client:

1. During the immediate postpartum period, care of the mother includes:

a. Ongoing assessment of maternal well being;

b. Assisting the mother to urinate;

c. Evaluating the perineum for tears, and repair as needed;

d. Assisting with maternal and infant bonding;

e. Assisting with initial breast feeding;

f. Providing postpartum instructions for mother and baby; and

g. Recommending and/or administering Rh immunoglobulin as necessary.

2. During the immediate postpartum period, care of the newborn includes:

a. Newborn physical exam;

b. Recommend and/or administer eye prophylaxis and vitamin K.

3. Abnormal or emergency situations are evaluated, and if not resolved, consultation or intervention sought.

4. The condition of the mother and newborn shall be re-evaluated between 24 and 72 hours of delivery and includes the following:

a. Assessment of maternal well being;

b. Assessment of newborn well being, and;

c. Recommend and/or perform newborn screening.

H. The midwife shall file a birth certificate.

I. A midwife may purchase, possess and administer the following:

1. Rh immunoglobulin;
2. Vitamin K;
3. Ophthalmic preparations for Newborn Eye Care;
4. Uterotonic and Anti-hemorrhagic Medications;
5. Medical Oxygen;
6. IV fluids;
7. Suturing and Repair Materials and Equipment;
8. Local Anesthetic;
9. Antibiotics;
10 Family Planning Medications and Devices;
11. Resuscitation Medications and Devices;
12. Immunizations;
13. Nitrous Oxide;
14. Epinephrine;
15. Nutritional Supplementation;
16. Any other medication prescribed by a medical professional for obstetrical care; and
17. Any supplies or equipment necessary to administer any of the above.

Record-keeping and Report Requirements

A. A midwife establishes, maintains and validates a record of the care provided for each client.

B. A midwife shall make records available to other health care providers engaged in the care and treatment of the client upon receipt of a written records release.

C. A midwife collects statistic pertaining to the midwife's practice and provides the state with periodic summaries of these statistics.

Prohibited Practice; Transfer of Care; Consultation

A. The midwife shall obtain consultation to obtain a recommendation for treatment, referral, or transfer of care at the time any client is determined to have any of the following circumstances or conditions during the current course of care:

1.A persistent,chronic or uncontrolled disease process that may have a negative impact on the well-being of the mother or fetus;

2. Testing positive for HIV;

3. Insulin-dependent diabetes
4. Chronic hypertension
5. Cardiac disease
6. Rh isoimmunization
7. Renal failure
8. Active tuberculosis
9. Deep vein thrombophlebitis
10. Primary genital herpes simplex infection in the first trimester or active genital herpes lesions at the onset of labor;
11. Active hepatitis
12. Active gonorrhea
13. Active syphilis;
14. Pulmonary embolism;
15. PIH, preeclampsia, eclampsia;
16.. Failure to auscultate fetal heart tones by 22 weeks gestational age;
17. Abnormally decreased fetal movement;
18. Premature birth prior to 36 weeks gestation;
19. A gestation beyond 42 weeks;
20. An abnormal progression of labor;
21. Persistent, abnormal fetal heart rates;
22. A postpartum hemorrhage which does not respond to treatment methods available to the midwife;
23. Lacerations of the vulva or birth canal that require repair above the midwife's abilities, or;
24. Expressed wishes of the client or family.

B. A midwife shall obtain consultation to obtain a recommendation for treatment, referral, or transfer of care at the time any newborn demonstrates any of the following conditions:

1. Birth weight less than 2000 grams;
2. Congenital anomalies;
3. An irregular heartbeat;
4. Persistent poor muscle tone;
5. Lethargy, irritability, or poor feeding;
6. Failure to urinate or pass meconium in the first 24 hours of life;
7. A hip examination which results in a clicking or incorrect angle;

8. Skin rashes not commonly seen in the newborn;
9. Temperature persistently above 99.6° or below 97.6° F.
10. Pale, blue, or gray color after 10 minutes;
11. Excessive edema;
12. Respiratory distress.

Responsibilities of the Licensed Midwife

A. A midwife provides care to any client desiring midwifery services, respecting the woman's right to self-determination.[1]

B. A midwife utilizes universal precautions to protect against blood born pathogens.[2]

C. A midwife both initially and periodically thereafter assesses a client's condition.[3]

D. A midwife informs clients, both orally and in writing, of the midwife's scope of practice, including the risks and benefits of out of hospital birth. A written informed consent is obtained from the client upon beginning midwifery care.[4]

E. Initial care and care during the prenatal period is provided as follows, unless a written refusal by the client is obtained:[5]

1. The following tests shall be scheduled or ordered during the first visit:
    a. OB/prenatal panel[6];
    b. Urinalysis;
    c. Sexually transmitted infection (STI) testing[7];

---

[1] Previously read "A midwife shall provide care only to clients determined to be low risk." Our belief is that women, once given the opportunity to discuss the risk and benefits of home birth in her particular situation and with true informed consent, has the capability of deciding how and where she would like to birth, and with which care provider. Having a midwife present at birth, regardless of risk factors, is a much better option than choosing an unassisted birth due to legal restrictions. This change respects women's choice. See McAra-Couper, Jones and Smythe (2012); Pamela Laufer-Ukeles (2011); Childbirth Connection (n.d.).

[2] Previously read, "A midwife shall maintain all instruments used for delivery in an aseptic manner and other birthing equipment and supplies in clean and good condition." A knowledge of universal measures to prevent the spread of blood-born pathogens is, a standard in health care industry, is common knowledge and practice among licensed midwives and is a skill required for application for the CPM credential.. See NARM (2011).

[3] Removed, "... in order to establish the client's continuing eligibility to receive midwifery services." Midwives can and do make recommendations to transfer to a physician or hospital for medical management when the client's situation warrants, and oftentimes the client will heed that advice.. However, as stated before, a care provider is better than no care provider and a midwife should not be forced by rule to abandon care if a woman chooses not to transfer care. See McAra-Couper, Jones and Smythe (2012); Pamela Laufer-Ukeles (2011); Childbirth Connection (n.d.).

[4] Removed, "the required tests and potential risks to a newborn if refused, and the need for written documentation of client's refusal; the use of a physician or medical facility for the provision of emergency consultation or services; midwife facilitation of the transfer of care to the physician or medical facility; and the midwife's termination of care should certain medical conditions arise or the client refuses intervention." Medical procedures must be offered on an informed consent, therefore, requiring tests, consultations or termination of care does not respect the informed consent process or the woman's right to choice. See McAra-Couper, Jones and Smythe (2012); Pamela Laufer-Ukeles (2011) about informed consent.

[5] Added, "...unless a written refusal by the client is obtained." Informed consent has become the norm in health care. Only the client has the right to choose or refuse care, procedures or testing. The midwife's part in this choice is to offer and educate. See McAra-Couper, Jones and Smythe (2012); Pamela Laufer-Ukeles (2011)

[6] Previously read, "Blood type, including ABO and Rh, with antibody screen." These items are included in a standard OB/Prenatal blood panel in addition to RPR, HbAsg, Rubella and CBC. See Sonora Quest (2012); LabCorp (2012); QuestDiagnostics (2012).Repeat HNH or CBC should be offered as clinically indicated. See USPSTF (2006).

[7] Previously read, "Syphilis, gonorrhea, and chlamydia testing, unless a written refusal for gonorrhea or chlamydia testing is obtained from the client." Routine STI testing extends beyond these specific tests, is constantly evolving, and is offered to all midwifery clients on a STI risk assessment basis. Written refusal is permitted via 106 E. See National Institute for Health and Clinical Excellence (2007) One on one interventions to reduce transmission of sexually transmitted infection (STI's) including HIV, and to reduce the rate of under 18 conceptions, especially among vulnerable and at risk groups. London: National Institute for Health and Clinical Excellence. and Williams J. Blood tests for maternal wellbeing: Testing for sexually tranmistted infections in

d. Glucose screening test for diabetes[1]; and

e. Other cultures or blood work as appropriate.

2. Prenatal visits are conducted as appropriate and may include:

a. The taking of weight, blood pressure, and assessment of edema[2];

b. Assessment of fetal growth, heart tones, movement and position[3];

c. Referral of a client as for ultrasound or other studies[4]; and

d. Administration or recommendation of Rh immunoglobulin drug[5].

F. Care during the intrapartum period shall be provided as follows, unless a written refusal by the client is obtained[6]:

1. The midwife initially assesses[7,8]:

a. Contraction pattern[9];

b. The status of membranes[10];

c. Evaluating the presence of bloody show; and

d. Fetal movement[11].

2. During labor, the condition of the mother and fetus is assessed. Care includes the following[12]:

---

pregnancy. *Pract Midwife*, 2011: Feb;14(2):36-41

[1] There are many valid methods of screening for gestational diabetes, and these tests are constantly evolving. Currently, the 1 hour PGS, 3 hour PGS, and A1C are used according to risk assessment for the particular client. GDM screening is not appropriate for all clients. See USPSTF (2008).

[2] Removed " urinalysis for protein, nitrites, glucose and ketones" - See Alto (2005); Berger (2005); Gribble et al (1995); Mayburry and Waugh (2004); Murray et al (2012); Siddique et al (2012); Waugh (2004) on UA dipsticks accuracy and usefulness in prenatal care. Wording "assessment of the lower extremities for swelling" was changed to "assessment of edema" to reflect medical language.

[3] Previously read, "Measurement of the fundal height and listening for fetal heart tones and, later in the pregnancy, feeling the abdomen to determine the position of the fetus."

[4] Removed, "...recommended based upon examination or history" as this is obviously what recommendations will be based on.

[5] Previously read, "Recommendation of administration of the drug RhoGam to unsensitized Rh negative mothers after 28 weeks, or any time bleeding or invasive uterine procedures are done, or midwife administration of RhoGam under physician's written orders." RhoGam is a name brand drug and there are multiple Rh immunoglobulins available. Specification of when to administer should follow standard of care and clinicial judgement. Written orders are no longer a common practice. See USPTF (2004)..

[6] Added, "...unless a written refusal by the client is obtained." Informed consent has become the norm in health care. Only the client has the right to choose or refuse care, procedures or testing. The midwife's part in this choice is to offer and educate.

[7] Previously read, "The midwife shall initially determine if the client is in labor and the appropriate course of action to be taken by."

[8] Removed, "d. Reviewing with the client the need for an adequate fluid intake, relaxation, activity, and emergency management; and e. Deciding whether to go to client's home, remain in telephone contact, or arrange for transfer of care or consultation." This is normal intrapartum counseling and care decisions.

[9] Previously read, "Assessing the interval, duration, intensity, location, and pattern of the contractions"

[10] Previously read, "Determining the condition of the membranes, whether intact, ruptured, and the amount and color of fluid."

[11] This section was added as a common standard of care as part of a midwifery intrapartum care assessment.

a. Initial and periodic assessment of maternal well being[1];

b. Initial and periodic assessment of fetal heart tones as appropriate for stage of labor or more often if indicated[2];

c. Ongoing assessment of labor progress[3];

d. The performance of amniotomy, episiotomy, or maneuvers of the fetus to expedite delivery as needed[4].

3. After delivery of the newborn, care includes the following[5]:

a. Apgar score assessment[6];

b. Physical assessment of the newborn for any abnormalities requiring immediate care[7];

c. Delivery of the placenta, assessment for signs of separation, frank or occult bleeding and examination of the placenta[8];

d. Manual exploration of the uterus and manual removal of the placenta as needed[9].

---

[12] Previously read, "During labor, the condition of the mother and fetus shall be assessed upon initial contact, every half hour in active labor until completely dilated, and every 15 to 20 minutes during pushing, after the bag of water has ruptured or until the newborn is delivered. Care shall include the following" Removed time frames for assessment.

[1] Replaces, "a. Checking of vital signs every 2 to 4 hours and an initial physical assessment of the mother;", "f. Maintenance of proper fluid balance for the mother throughout labor as determined by urinary output and monitoring urine for presence of ketones, at least every 2 hours; and" and "g. Assisting in support and comfort measures to the mother and family."

[2] Reworded from, "Assessment of fetal heart tones every 30 minutes in active first stage labor, and every 15 minutes during second stage, following rupture of the amniotic bag or with any significant change in labor patterns." Removed time frames, intermittent auscultation time frames vary greatly depending on clinicial situation, there exisit no evidence as to the ideal frequencies of IA . See ACNM (2010); Devane et al (2012).

[3] Replaces "c. Periodic assessment of contractions, fetal presentation, dilation, effacement, and position by vaginal examination; d.Determination of the progress of active labor for primiparas by determining if dilation occurs at an average of 1 cm/hr until completely dilated, and a second stage not to exceed 2 hours; e.Determination of a normal progress of active labor for multigravidas by determining if dilation occurs at an average of 1.5 to 2 cm/hr until completely dilated, and a second stage not to exceed 1 hour;" Friedman's Curve has long been a subject of dispute. Recent research suggests that normal labor progress may be much longer than thought for the past 50 years. See Neal et al (2010); Zhang (2010).

[4] Interventions required at certain clinical situations. Moved from emergency measures. See Gruenberg, B. (2008),

[5] Removed "c.Inspection of the mother's perineum for lacerations." Within the midwifery model of care, except in the case of unexplained bleeding (covered under section F4), immediate inspection of the perineum affords no long term improvement in outcome and is more appropriately done after the immediate postpartum period. See Pregazzi 2002.

[6] Previously read, "a.Assessment of the newborn at 1 minute and 5 minutes to determine the Apgar scores." Apgars are poor predictors of long term morbidity and are at times additionally done at 10, or 20 minutes when needed. See ACOG (2006)

[7] Added "...requiring immediate care."

[8] Replaces "d. Delivery of the placenta within 40 minutes during which time the midwife shall assess for signs of separation, frank or occult bleeding, examine for intactness, and determine the number of umbilical cord vessels." Normal physiologic third stage is currently defined as 60 minutes. See NICE (2007) . Gross examination of the placenta includes 'intactness' and 'number of umbilical cords.'and is a skills expectation for obtaining the CPM credential. See NARM CIB (2011).

[9] Emergency Procedures needed in the case of retained placenta or placental fragments and/or postpartum hemorrhage. See Gruenberg (2008).

4. Abnormal or emergency situations are evaluated, and if not resolved, consultation or intervention sought[10].

G. A midwife provides the following care during the postpartum period, unless a written refusal is obtained from the client[11]:

1. During the immediate postpartum period, care of the mother includes:

a. Ongoing assessment of maternal well being[2];

b. Assisting the mother to urinate[3];

c. Evaluating the perineum for tears, and repair as needed[4];

d. Assisting with maternal and infant bonding;

e. Assisting with initial breast feeding[5];

f. Providing postpartum instructions for mother and baby[6]; and

g. Recommending and/or administering Rh immunoglobulin as necessary[7].

2. During the immediate postpartum period, care of the newborn includes:

a. Newborn physical exam;

b. Recommendation and/or administration of eye prophylaxis and/or vitamin K.

3. Abnormal or emergency situations are evaluated, and if not resolved, consultation or intervention sought.

---

[10] Previously read, "4.The responsibility of the midwife shall include recognition of and response to any situation requiring immediate intervention." Certain abnormal or emergency situations may be safely handled at home by a qualified health care provider. Others require transfer to a medical care facility. The licensed midwife is trained in making this assessment and responding appropriately. See Gruenberg, B. (2008),

[11] Added, "...unless a written refusal by the client is obtained." Informed consent has become the norm in health care. Only the client has the right to choose or refuse care, procedures or testing. The midwife's part in this choice is to offer and educate. See Judith McAra-Couper, Marion Jones and Liz Smythe. (2012). Pamela Laufer-Ukeles. (2011).

[2] replaced: "a. Taking of vital signs of the mother with external massage of the uterus and evaluation of bleeding every 15 to 20 minutes for the first hour and every half hour for the second hour;" Maternal well-being assessment is central to midwifery training, is comprehensive and not limited to simple clinical rounds. The licensed midwife performs rounds as needed as well as incorporates other indicators of maternal well being. See NARM CIB (2011).

[3] replaced "b.Assisting the mother to urinate within 2 hours following the birth"; Postpartum urinary retention is not considered abnormal until 6 hours postpartum. See Groutz (2008); Rizvi (2006);

[4] replaced "c.Evaluating the perineum for tears, bleeding, or blood clots;" The addition of the legal ability to repair is necessary. The language stating assessment of the perineum for 'bleeding' and 'blood clots' does not reflect clinical maternity practice..

[5] removed "...instructing the mother in the care of the breast, and reviewing potential danger signs, if appropriate;" as this is obvious and integrated when needed.

[6] replaced, "Providing instruction and support to the family to ensure adequate fluid and nutritional intake, rest, and type of exercise allowed, normal and abnormal bleeding, bladder and bowel function, appropriate baby care, and any danger signals with appropriate emergency phone numbers;" The midwife develops and communicates comprehensive postpartum instructions which includes these instructions..

[7] replaced "g. Recommending the drug RhoGam or administering it, under written physician's orders, to an unsensitized Rh-negative mother who delivers an Rh-positive newborn. Administration shall occur not later than 72 hours after birth." Written physician's orders is not possible nor needed if midwives are able to obtain and administer rh immunoglobulin. RhoGam is a brand name and there are many Rh immunoglobulins available. Protocol on when and whom to administer to does not need be in regulation as it is part of midwifery training. See NARM CIB (2011); USPSTF (2004).

4. The condition of the mother and newborn shall be re-evaluated between 24 and 72 hours of delivery and includes the following:

a. Assessment of maternal well being;

b. Assessment of newborn well being, and;

c. Recommendation and/or performance of newborn screen.

H. The midwife shall file a birth certificate.

I. A midwife may purchase, possess and administer the following[1]:

1. Rh immunoglobulin[2];
2. Vitamin K[3];
3. Ophthalmic preparations for Newborn Eye Care[4];
4. Uterotonic and Anti-hemorrhagic Medications[5];
5. Medical Oxygen[6];
6. IV fluids[7];
7. Suturing and Repair Materials and Equipment[8];
8. Local Anesthetic[9];
9. Antibiotics[10];
10. Family Planning Medications and Devices[11];

---

[1] Creating a pharmacology list within rule will allow midwives to obtain needed medications without the requirement of having a prescription or standing orders, both of which are difficult to obtain. Current medical practice and liability prevents physicians from willingly writing prescriptions for individuals who are not their clients and standing orders is no longer a common practice. The medications and medication types listed are standard of care in obstetrics and midwifery practices. See NM (2008); MHRA (2012). WAC (2012).

[2] Rh immunoglobulin administration for Rh negative mothers to prevent RH isoimmunization. See Moise, 2012.

[3] Vitamin K injection for newborns to prevent vitamin K deficiency bleeding. See Adame and Carpenter, 2009.

[4] Antibiotic eye prophylaxis for newborns to prevent complications resulting from infections of gonorrhea or chlamydia. See Darling and McDonald, 2010.

[5] Uterotonic Medications are utilized in 3rd and 4th stages of labor to prevent and/or treat postpartum hemorrhage. See WHO (2009); Alfirevic et al (2007); Chelmow (2011); Jerbi et al (2006)

[6] Medical oxygen is utilized for the treatment of maternal shock, non-reassuring fetal heart tones, and in some cases of neonatal resuscitation. See AAP/AHA (2011); Gruenberg 2008; American National Red Cross (2006).

[7] IV fluids can be invaluable aids in dehydration, as well as fluid volume replacement in the case of postpartum hemorrhage. See Gruenberg 2008

[8] Suturing is a common need for birthing women. Currently, midwives trained in suturing may have to transfer for routine repair because of the lack of a legal access to repair equipment.See Gruenberg 2008; Frye (2010)

[9] Local anethetic is necessary for repair. See Gruenberg 2008; Frye (2010)

[10] Antibiotics are common tx for infection during the maternity period such as UTIs in pregnancy and for intrapartum prophylaxis of Group B Beta hemolytic Streptococcus (GBS) per current CDC guidelines. See Smaill 2009; CDC (2010)

[11] International standards for midwifery. See ICM (2010).

11. Resuscitation Medications and Devices[1];

12. Immunizations[2];

13. Nitrous Oxide[3];

14. Epinephrine[4];

15. Nutritional Supplementation;

16. Any other medication prescribed by a medical professional for obstetrical care; and

17. Any supplies or equipment necessary to administer any of the above.

Recordkeeping and Report Requirements

A. A midwife establishes, maintains and validates a record of the care provided for each client[5].

B. A midwife shall make records available to other health care providers engaged in the care and treatment of the client upon receipt of a written records release. [6]

C. A midwife collects statistics pertaining to the midwife's practice and provides the state with periodic summaries of these statistics.[7]

Prohibited Practice; Transfer of Care; Consultation [8]

A. The midwife shall secure consultation to obtain a recommendation for treatment, referral, or transfer of care at the time any client is determined to have any of the following circumstances or conditions during the current course of care:

1. A persistent, chronic or uncontrolled disease process that may have a negative impact on the well-being of the mother or fetus[9];

---

[1] Necessary for NNR and CPR. See AAP/AHA (2011); Gruenberg 2008; American National Red Cross (2006).

[2] International standards for midwifery, other states. See ICM (2010)

[3] "Gas and Air," a combination of nitrous oxide and oxygen is a common and relatively safe method of pain control utilized commonly by British midwives. See ACNM (2010)

[4] Epinephrine is a necessary pharmacological agent to treat anaphylaxis while awaiting emergency transport. Especially important if midwives are going to offer antibiotic therapy. See Gruenberg, B. (2008).

[5] Previously, rule specified what was to be kept in records. There exists a standard of obstetric charting that midwives adhere to, making the regulation of chart contents in AZ rule unnecessary. Additionally, Electronic Health Records are being adopted by more and more midwives and other health care providers.

[6] "upon request by the Department for periodic quality review" has been removed. With the establishment of an advisory board and peer review, the necessity for the Department to audit random records will be removed.

[7] The requirement for quarterlies has been removed, leaving the reporting process more open to adaptation. MANAstats and yearly (monthly, quarterly) summaries were methods considered for reporting. Having the sole method of reporting and the form required written into rule is bureaucratically cumbersome and does not allow for adaptation as standards of practice shift and change.

[8] Combining 108 and 109 to "to obtain a recommendation for treatment, referral, or transfer of care" covers conditions that may at times require simply a consultation and at other times a transfer of care. For example, the previous version of section 108 had "active gonorrhea until treated and recovered, following which midwife care may resume;" this situations is actually a consultation to obtain antibiotic therapy and there is no need for transfer.

2. A positive HIV test[1];

3. Insulin-dependent diabetes;

4. Chronic hypertension;[2]

5. Cardiac disease;[3]

6. Rh isoimmunization;[4]

7. Renal failure;[5]

8. Active tuberculosis;[6]

9. Deep vein thrombophlebitis;[7]

10. Primary genital herpes simplex infection in the first trimester or active genital herpes lesion at the onset of labor;[8]

11. Active hepatitis;[9]

12. Active gonorrhea;

13. Active syphilis;[10]

14. Pulmonary embolism;[11]

15. Pregnancy induced hypertension (PIH) preeclampsia, eclampsia;[12]

16.. Failure to auscultate fetal heart tones by 22 weeks gestational age;[13]

---

[9] The addition of this statement covers disease processes which may not be specifically mentioned here but yet still may risk a woman out of an out of hospital birth. This allows the midwife greater flexibility in risk assessment.

[1] Moved from R9-16-109. Required Consultation A. 1.

[2] "Chronic" has been added to hypertension to avoid transfer of care for situational hypertension that may be on record.

[3] "Heart disease" has been replaced with "Cardiac disease" to reflect medical terminology.

[4] "Rh disease with positive titers" has been replaced with Rh isoimmunization to reflect medical terminology.

[5] "Kidney disease" has been replaced here with "renal failure." Kidney disease may be manageable within midwifery care depending on the situation. The midwife may decide to risk out or collaborate with another health care provider.

[6] A portion of R9-16-108.Prohibited Practice; Transfer of Care A. 4. - diseases in this list have been separated for clarity.

[7] A portion of R9-16-108.Prohibited Practice; Transfer of Care A. 3. - diseases in this list have been separated for clarity.

[8] Previously R9-16-108.Prohibited Practice; Transfer of Care A. 9.

[9] A portion of R9-16-108.Prohibited Practice; Transfer of Care A. 5. - diseases in this list have been separated for clarity. The phrase, "until treated and recovered, following which midwife care may resume" has been removed because this treatment would be the purpose of the consultation to begin with and therefore is redundant.

[10] A portion of R9-16-108.Prohibited Practice; Transfer of Care A. 4. - diseases in this list have been separated for clarity.

[11] A portion of R9-16-108.Prohibited Practice; Transfer of Care A. 3. - diseases in this list have been separated for clarity.

[12] This replaces R9-16-108.Prohibited Practice; Transfer of Care A. 7 and R9-16-109. Required consultation A 8. Training for midwifery licensure includes recognizing the S/S of these diseases. See NARM CIB (2010).

[13] Previously R9-16-109.Required Consultation. A. 5.

17. Abnormally decreased fetal movement;[1]

18. Premature birth prior to 36 weeks gestation;[2]

19. A gestation beyond 42 weeks;[3]

20. An abnormal progression of labor;[4]

21. Persistent, abnormal fetal heart rates;[5]

22. A postpartum hemorrhage which does not respond to treatment methods available to the midwife;[6]

23. Lacerations of the vulva or birth canal that require repair above the midwife's abilities, or;[7]

24. Expressed wishes of the client or family.[8]

B. A midwife shall secure consultation to obtain a recommendation for treatment, referral, or transfer of care upon presentation of the newborn with any of the following conditions:[9]

1. Birth weight less than 2000 grams;[10]

2. Congenital anomalies;[11]

3. Irregular heartbeat;[12]

4. Persistent poor muscle tone;[13]

---

[1] Previously R9-16-109.Required Consultation. A. 11. "Symptoms of decreased fetal movement" Fetal movement varies so it must be specified that this is an abnormal decrease in fetal movement to warrant a consultation. See Winje et al (2011).

[2] This replaces R9-16-108.Prohibited Practice; Transfer of Care A. 13, "Prematurity or labor beginning before 36 weeks gestation." Premature labor does not necessarily result in premature birth and may be managed and birth successfully postponed while the client remains under the care of the midwife. Reliable testing measures, such as fFn exist to reassure the clinician and the client that premature labor has been successfully halted. See Chao et al . (2011); CHANDIRAMANI (2011); McPheeter et al (2005)

[3] Previously R9-16-108.Prohibited Practice; Transfer of Care A. 16.

[4] Previously R9-16-109.Required Consultation. A. 16.

[5] Previously R9-16-108.Prohibited Practice; Transfer of Care A. 18. The text, "Abnormal fetal heart rate of below 120 beats per minute or above 160 beats per minute" has been replaced with "persistent, abnormal fetal heart rate." This statement more accurately encompasses situations where the heart rate may fall within 120-160 bpm yet still be abnormal such as declining baselines or sinusoidal rhythms. See ACNM (2010).

[6] Replaces R9-16-108.Prohibited Practice; Transfer of Care A. 20., "A postpartum hemorrhage of greater than 500cc in the current pregnancy." The midwife has management skills available to her that may make transport for PPH unneeded.

[7] Replaces R9-16-109.Required Consultation. A. 15."Second degree or greater lacerations of the birth canal." Midwives possess differing levels of suturing abilities and provide repair that is within their level of training.

[8] Previously R9-16-108.Prohibited Practice; Transfer of Care A. 22.

[9] Combining 108 and 109 to "to obtain a recommendation for treatment, referral, or transfer of care" covers conditions that may at times require simply a consultation and at other times a transfer of care.

[10] Previously R9-16-108.Prohibited Practice; Transfer of Care E. 1..

[11] Combination of R9-16-108.Prohibited Practice; Transfer of Care E.4. and R9-16-109.Required Consultation B.2.

[12] Previously R9-16-109.Required Consultation B.5.

[13] Previously R9-16-109.Required Consultation B.6.

5. Lethargy, irritability, or poor feeding;[14]
6. Failure to urinate or pass meconium in the first 24 hours of life;[2]
7. Hip examination which results in a clicking or incorrect angle;[3]
8. Skin rashes not commonly seen in the newborn;[4]
9. Temperature persistently above 99.6° or below 97.6° F.[5]
10. Pale, blue, or gray color after 10 minutes;[6]
11. Excessive edema;[7]
12. Respiratory distress.[8]

[14] Previously R9-16-109.Required Consultation B.11.

[2] Previously R9-16-109.Required Consultation B.13.

[3] Previously R9-16-109.Required Consultation B.14.

[4] Previously R9-16-109.Required Consultation B.15.

[5] Previously R9-16-109.Required Consultation B.16.

[6] Previously R9-16-108.Prohibited Practice; Transfer of Care E. 2.

[7] Previously R9-16-108.Prohibited Practice; Transfer of Care E. 3.

[8] Previously R9-16-108.Prohibited Practice; Transfer of Care E. 5.

This document address these expansions of practice as requested by HB2247 by defining the problem, presenting evidence-based research that supports midwifery care in these situations, and discussing potential negative impact resulting from the changes. These requested changes should not prohibit entry into midwifery practice for individuals who have achieved the national licensure CPM credential. There are situations in which the newly licensed midwife will, according to practice ethics and professional guidelines, seek collaboration with more experienced care providers for assistance with more complex cases.

There are many changes requested in the document titled, "AZ Midwives Scope of Practice 9with footnotes)" that are not addressed here, due to the fact that those changes do not pertain to the expansion of practice. These changes are reflected in the footnotes of the document.

There are certain women who are risked out of home birth in Arizona, either because of a history of certain medical conditions or the development thereof during pregnancy. In addition to the general topics addressed below such as language updates, the right for the woman to have agency in her health care decisions, and the need for collaboration between midwives and the medical community – there are specific areas of R9-16-108 and R9-16-109 that the midwifery community wishes to address. The topics below are highlighted in this document.

LANGUAGE SHIFTS
INFORMED CHOICE FOR MIDWIFERY CARE
COMBINING TRANSFER OF CARE, PROHIBTED, and CONSULTATION
BLOOD DISEASE and ANEMIA
PELVIS
NO PRIOR CARE and TIMING OF CARE
HISTORY of POSTPARTUM HEMMORHAGE OR CURRENT PPH
VBAC AND OTHER UTERINE SURGERIES
MULTIPLES
BREECH
PREMATURE LABOR
UNDERSERVED POPULATIONS – MINORS, SMI, 'UNSAFE' LOCATION, ADDICTS
LABOR MANAGEMENT
PREMATURE RUPTURE OF MEMBRANES (PROM)
PLACENTA
PROCEDURES

MEDICATIONS

LANGUAGE SHIFTS

The majority of the suggested changes that you see in the AZ Midwives Scope of Practice (with footnotes) are not expansions of practice and are not further discussed here. These changes are discussed in footnotes. The midwifery community feels that these changes in language are necessary in order to respect the trained and licensed AZ midwife as an independent and qualified health care provider. Midwifery licensing at the state and national level requires years of study and skill development. These language shifts serve to:

1. bring AZ Rule to current standard of care within the midwifery model;
2. change the language of the rule to reflect medical terminology;
3. remove redundant statements;
4. remove language that assumes no training prior to midwifery licensure.

INFORMED CHOICE FOR MIDWIFERY CARE

Reflected throughout the AZ Midwives Scope of Practice document, there is an expectation for informed choice for midwifery care including a true informed consent process, the right for women to choose midwifery care and home birth, and a right for the client to refuse any procedures, tests, or transfer of care. The rationale for this change is that the midwifery model holds great respect for the woman's right to self-determination as well as her agency and ability to make their own care decisions. This self-determination can be as simple as declining a blood test to choosing to birth with a midwife at home even with risk factors. The position of the North American Registry of Midwives (NARM), which provides the Certified Professional Midwife (CPM) credential, is that of shared decision making and informed consent. Further, midwifery care is a human right. The informed consent process ensures collaborative care between the midwife and the client. The client is thereby fully informed of the midwife's education, training, experience and skill set and all risks and benefits of choosing a certain plan of care.

Current literature is beginning to reflect the phenomenon of 'unassisted births' or 'free births' where women choose to birth out of hospital without a care provider present. Although, some women may genuinely wish to have no care provider at birth, many are choosing this route due to legal limits placed upon care providers in their area. It is possible to obtain numbers of these 'unassisted births' utilizing vital statistics by sampling the number of out of hospital births registered by the parents rather than a health care provider or other entity. With current Arizona rules, there are many situations that legally risk women out of having a midwife present at their birth: multiples, breech presentation (effectively), and VBAC are the 'hot' topics brought forward by consumers at the onset of HB2247. These regulated 'risks' prevent many women from choosing a homebirth, which is likely the intent of the regulation. However, these regulated 'risks' also force many women to choose to birth unassisted.

There is always the potential, that by giving women with risk factors the right to choose out of hospital birth with a midwife, that women may unwisely choose this option and therefore put themselves or their child at risk. However, at this time, it remains the right of the woman to choose her level of involvement in health care including prenatal, intrapartum, and postpartum care. Women experiencing any of the situations restricted by Arizona rule may legally choose to birth at home, unattended. It is the midwives who are restricted from provided these women with any level of care. Releasing restrictions on midwives to attend these women will ensure that there will be a health care provider present, rather than an 'unassisted birth' due to legal limitations.

Childbirth Connection. (no date). The Rights of Childbearing Women. New York. Available online at http://www.childbirthconnection.org/pdfs/rights_childbearing_women.pdf

Hickman, A. (2010). Born (not so) free: Legal limits on the practice of unassisted childbirth or free-birthing in the united states. *Minnesota Law Review, 94*(5), 1651.

Laufer-Ukeles, P. (2011). Reproductive Choices and Informed Consent: Fetal Interests, Women's Identity, and Relational Autonomy. *American Journal of Law & Medicine*, 37 (2011): 567-623

McAra-Couper, J., Jones, J. and Smythe, L. (2012). Caesarean-section, my body, my choice: The construction of informed choice' in relation to intervention in childbirth. *Feminism Psychology* February 2012 vol. 22 no. 1 81-97

Miller, A. C. (2009). Midwife to myself": Birth narratives among women choosing unassisted homebirth. *Sociological Inquiry*, 79(1), 51-74. 00272.x

NARM. (2012a). Informed Consent. Position Statement on Shared Decision Making and Informed Consent. Available online at http://narm.org/accountability/informed-consent/.

Thompson, JB. (2004). A Human Rights Framework for Midwifery Care. *J Midwifery Womens Health* 2004;49:175–181

Vowel, L. (2011). "Do it yourself" births prompt alarm. *CMAJ : Canadian Medical Association Journal = Journal De l'Association Medicale Canadienne, 183*(6), 648-650. doi:10.1503/cmaj.109-3820

Vedam, S., Goff, M. and Nolan, V. (2007). Closing the Theory–Practice Gap: Intrapartum Midwifery Management of Planned Homebirths. *J Midwifery Womens Health* 2007;52:291–300

Vedam, S. (2012). In Search of a Common Agenda for Planned Home Birth in America. *The Journal of Perinatal Education,* Volume 21, Number 2, 2012, pp. 67-71(5)

COMBINING TRANSFER OF CARE, PROHIBTED, and CONSULTATION

Currently, R9-16-108 Prohibited Practice; Transfer of Care and R9-16-109 Required Consultation outline various restrictions on eligibility for beginning or continuing midwifery care. The first section is comprised of conditions

that require immediate transfer of care for women or neonates. This requirement of immediate transfer of care sets up two potentially inappropriate and dangerous situations. The first is that conditions currently listed under R9-16-108 may or may not require immediate medical intervention, depending on the individual circumstance. Secondly, the current language of rule requires the midwife to not "knowingly continue to provide care" and "immediately transfer care" to any clients who develops any of these conditions. This regulation is potentially dangerous in situations where the midwife must continue to provide care while awaiting transport to a higher level care facility, such as in the case of postpartum hemorrhage or newborn respiratory distress.

The second section contains items requiring consultation in order to continue providing care. Some of these considerations, such as in the case of signs and symptoms of preeclampsia are better address by transferring care. Combining these sections into one where "the midwife shall obtain consultation to obtain a recommendation for treatment, referral, or transfer of care at the time any client is determined to have any of the following circumstances or conditions during the current course of care" allows the midwife, other care providers and the client to work together to develop a care plan based on shared decision making and allows the midwife to continue to provide care in emergency situations while awaiting higher level of care.

Evidence to support this change includes the importance of collaboration between the medical community and the midwifery community for best outcomes and the absolute value of risk assessment in pregnancy. The World Health Organization attests that normal pregnancies can develop complications and that complicated pregnancies can result in a normal intrapartum and postpartum period.

Downe, S, Kenny Finlayson, K. and Fleming, A. (2010) Creating a Collaborative Culture in Maternity Care. *Journal of Midwifery & Women's Health*. 250 Volume 55, No. 3, May/June 2010

Schmied, V., Mills, A., Kruske, S., Kemp, L., Fowler, C. and Homer, C. (2010), The nature and impact of collaboration and integrated service delivery for pregnant women, children and families. *Journal of Clinical Nursing*, 19: 3516–3526. doi: 10.1111/j.1365-2702.2010.03321.x

Skinner, JP. and Foureur, M. (2010) Consultation, Referral, and Collaboration Between Midwives and Obstetricians: Lessons From New Zealand, Journal of Midwifery & Women's Health, Volume 55, Issue 1, January–February 2010, Pages 28-37.

WHO. (1996). Care in normal birth; a practical guide. The World Health Organization. Department of Reproductive Health and Research

History of 'blood disease" is prohibited practice under R9-16-108. Blood disease is a broad term that includes dozens of subsets. Some of these would certainly risk out a woman from home birth, such as uncontrolled hemophilia. However, others may be successfully treated and/or managed within midwifery care such as iron-deficiency anemia.

Anemia is addressed in R9-16-108 as "A persistent hemoglobin level blow 10g or a hematocrit below 30 during the third trimester." The intent of this rule is likely to prevent some of the complications historically associated with anemia in pregnancy. However, current evidenced-based research suggests mild or moderate acquired anemia is not reliable as a causal factor of poor pregnancy outcomes. It is rather as a correlation possibly associated with socioeconomic, nutritional and ethnic variations. Current recommendations for acquired anemia, even at moderate levels, are simply to provide supplementation (and medication in the rare case of parasitic infection). Even this therapeutic treatment is controversial as it may, dependent on the type of supplementation, cause more harm than benefit. Severe anemia is associated with poor maternal outcomes, mainly heart failure, and fetal outcomes at the level of 6g/dl or less and should be immediately addressed with transfusion.

American College of Obstetricians and Gynecologists. (2008). ACOG practice bulletin no. 95: Anemia in pregnancy. *Obstetrics and Gynecology, 112*(1), 201-207.

Lee, A. and Okam, M. (2011). Anemia in Pregnancy. *Hematology/Oncology Clinics of North America* - Volume 25, Issue 2

Reveiz L, Gyte GML, Cuervo LG, Casasbuenas A. (2011). Treatments for iron-deficiency anemia in pregnancy. *Cochrane Database of Systematic Reviews* 2011, Issue 10. Art. No.: CD003094.

PELVIS

R9-16-108 lists "a pelvis that will not safety allow a baby to pass through during labor" as a transfer of care or prohibited practice. The midwifery community agrees that out of hospital birth, indeed vaginal birth, should not be attempted if the pelvis will not allow the baby to pass though. Unfortunately, there are no medically reliable, evidenced-based methods of assessing pelvis adequacy prior to labor. Pelvimetry is no longer considered a good predictor of cephalopelvic disproportion (CPD); there is a poor correlation between any type of pelvimetry (XRAY, MRI, CT, clinical) and labor outcomes. Similarly, a history of CPD does not indicate that there will be CPD in the current intrapartum period. Performing pelvimetry and knowledge of previous diagnosis of CPD is actually shown to negatively impact vaginal delivery rates.

Catling-Paull, C., Johnston, R., Ryan, C., Foureur, M. J. and Homer, C. S. E. (2011), Clinical interventions that increase the uptake and success of vaginal birth after caesarean section: a systematic review. *Journal of Advanced Nursing*, 67: 1646–1661.

Maharaj, D. (2010). Assessing cephalopelvic disproportion: Back to the basics. *Obstetrical & Gynecological Survey, 65*(6), 387-395.

Pattinson RC, Farrell EME. (1997) Pelvimetry for fetal cephalic presentations at or near term. C*ochrane Database of Systematic Reviews* 1997, Issue 2. Art. No.: CD000161.

NO PRIOR CARE and TIMING OF CARE

R9-16-108 currently prohibits midwives from providing care for women with a, "gestational age greater than 34 weeks with no prior prenatal care." This rule prevents women seeking late prenatal care from accessing midwifery care, possibly alienating the 3-5% of pregnant women in Arizona who seek care late in their pregnancy. Further, recent evidence has suggested that our long held notion that early and often prenatal care improved outcomes was flawed. Rather, women who were already lower risk due to socioeconomic conditions were more likely to seek early and quality prenatal care.

R9-16-106 currently reads "Prenatal visits shall be conducted at least every 4 weeks until 28 weeks gestation, every 2 weeks from 28 weeks until 36 weeks gestation, and weekly thereafter, ..." Research is now suggesting that a reduced and modified prenatal visit schedule is appropriate for most women, focusing on quality of visits and contact at key times in pregnancy. Currently, the recommended prenatal visit schedule is between 7 and 9 total visits. This recommendation is evolving with research, so removing the frequency and timing of visits from rule allows for adaptation to current evidence and care practices.

ADHS. (2012). Arizona Health Status and Vital Statistics 2010. 1B. Natality: Maternal Characteristics and Newborn's Health. Available online at http://www.azdhs.gov/plan/report/ahs/ahs2010/pdf/text1b.pdf

Moos, M.-K. (2006), Prenatal Care: Limitations and Opportunities. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 35: 278–285. doi: 10.1111/j.1552-6909.2006.00039.x

Phelan ST. (2008). Components and timing of prenatal care. Obstet Gynecol Clin North Am- 01-SEP-2008; 35(3): 339-53, vii

---

HISTORY of POSTPARTUM HEMMORHAGE OR CURRENT PPH

"A history of severe postpartum bleeding, of unknown cause, which required transfusion;" is currently listed as a prohibition of midwifery care AZ under R9-16-108. Similarly, "A postpartum hemorrhage of greater than 500cc

in the current pregnancy" is cause for transfer of care. Cases of PPH generally have a known cause, mainly uterine atony which is effectively treated in most cases by the use of uterotonic medications. New research is pointing to placental pathology as the root of the relatively high incidence of PPH in humans as compared to other mammals. Further, PPH is not a diagnosis, but rather an event noted on the client's medical history and the current standard of 500ml as a postpartum hemorrhage is being called into question. Measured blood loss at vaginal births often exceeds this number and some authors note that more than half of all deliveries would be classified as having a PPH using 500ml measured blood loss. A history of PPH of any cause is noted, in current medical literature, as a risk factor for future PPH. Midwives generally have the tools and training to treat PPH, while awaiting transport as needed. Training on emergency measures such as the management of PPH are required for licensure under the CPM credential.

Abrams, E. T., & Rutherford, J. N. (2011). Framing postpartum hemorrhage as a consequence of human placental biology: An evolutionary and comparative perspective. *American Anthropologist, 113*(3), 417-430.

Callaghan, W. M., Kuklina, E. V., & Berg, C. J. (2010). Trends in postpartum hemorrhage: United states, 1994-2006. *American Journal of Obstetrics and Gynecology, 202*(4), 353.e1-353.e6.

NARM (2011) North American Registry of Midwives. Certified Professional Midwife: Candidate Information Booklet. Available online at http://narm.org/wp-content/uploads/2011/02/cib.pdf.

Oyelese, Y., & Ananth, C. V. (2010). Postpartum hemorrhage: Epidemiology, risk factors, and causes. *Clinical Obstetrics and Gynecology, 53*(1), 147-156.

Su, C. W. (2012). Postpartum hemorrhage. *Primary Care: Clinics in Office Practice, 39*(1), 167-187.

Vedam, S., Goff, M. and Nolan, V. (2007). Closing the Theory–Practice Gap: Intrapartum Midwifery Management of Planned Homebirths. J Midwifery Womens Health 2007;52:291–300

VBAC AND OTHER UTERINE SURGERIES

R9-16-108 currently mandates that, "A previous Cesarean section or other known uterine surgery;" is prohibited practice for AZ midwives. This rule is not in alignment with current evidence. The most recent research available places the risks of morbidity and mortality for VBAC labors at or below that of primiparous women or Elective Repeat Cesarean. Primiparous women have the same level of risk for morbidity to mother and baby as VBAC women. VBAC decreases risk of intrapartum complications, especially when compared to women with multiple repeat cesareans. The potential risks that do exist for women attempting a vaginal birth after multiple cesareans, after non-favorable surgery technique, or after a previous cesarean that was performed prior to 36 weeks must be acknowledged. These risks can be mitigated by careful screening of operative records and the informed consent process.

Cahill, AG et al. (2006) Is vaginal birth after cesarean (VBAC) or elective repeat cesarean safer in women with a prior vaginal delivery? *American Journal of Obstetrics and Gynecology* (2006) 195, 1143–7

Erez et al. (2012). Remote prognosis after primary cesarean delivery: the association of VBACs and recurrent cesarean deliveries with maternal morbidity. *International Journal of Women's Health* 2012:4 93–107

Rozen, G., Ugoni, AM., Sheehan, PM. (2011) A new perspective on VBAC: A retrospective cohort study. *Women and Birth* (2011) 24, 3—9

MULTIPLES

"Multiple gestation in the current pregnancy;" are currently prohibited practice/transfer of care under Arizona rule. There is no argument among the midwifery or obstetric populations that multiple pregnancies and births carry higher risks than that of singletons. At 40 weeks, neonatal mortality rates are 6 times higher for multiples than for singletons. Malpresentation of the second twin as well as death due to hypoxia and asphyxiation are real risks in twin births. What is still in question is the difference in outcomes between twin births at home and those in the hospital. Unfortunately, only one study has directly compared these groups and it was too small scale (1000 women for each group) to get information about the rare complications that can occur regardless of birthplace. Twin births account for only 1-2% of all deliveries so without statistical extrapolation we need tens of thousands of births to observe these complications in clinical settings, and therefore their outcomes. The techniques required for twin births such as assessing fetal presentation, immediate cord clamping, frequent fetal monitoring, and breech extraction are techniques in which midwives are trained. The increased risk to twin birth at home is likely mainly related to proximity to a medical facility if external version or cesarean delivery of the second twin is required. These issues can be part of the informed consent process where the midwife ensures that the client knows the increased risks associated with being out of hospital.

Carroll, M. (2006). Vaginal Delivery of Twins. *CLINICAL OBSTETRICS AND GYNECOLOGY*. Volume 49, Number 1, 154–166.

Kahn, B. (2003). Prospective Risk of Fetal Death in Singleton, Twin, and Triplet Gestations: Implications for Practice. *Obstet Gynecol* 2003;102:685–92.

Leonard, L. (2002). Prenatal Behavior of Multiples: Implications for Families and Nurses. *JOGNN*, 31, 248–255; 2002.

Smith et al. (2007). Birth Order of Twins and Risk of Perinatal Death Related to Delivery in England, Northern Ireland, and Wales, 1994-2003: Retrospective Cohort Study. *BMJ: British Medical Journal,* Vol. 334, No. 7593 (Mar. 17, 2007), pp. 576-578

Smulian, JC. et al. (2004). Twin Deliveries in the United States Over Three Decades: An Age-Period-Cohort Analysis. *Obstet Gynecol* 2004;104:278–85.

BREECH

Current rule requires a consultation for any non-vertex presentation. Consumers in Arizona have expressed a desire to be able to have a skilled attendant present for home delivery of a baby in breech presentation. With the accumulation of evidence now showing that long term risks for healthy neonates are similar between vaginal delivery and cesarean section, requiring a consultation puts undue burden on the client who must attempt to gain approval from a medical community that believes breech deliveries to be abnormal.

For the past decade or more, the medical model for breech presentation was to schedule a cesarean prior to labor onset. The recommendation for cesarean as the preferred method of delivery for breech presentation was largely based on the Term Breech Trial, conducted in 2000. This trial has since been heavily criticized for methodology, and for the resulting rising maternal mortality rate among women having cesareans for breech presentation as per the recommendation.

The PREMODA study, among others completed since the 2000 Term Breech Trial, shows similar risks of maternal and neonatal morbidity and mortality between vaginal vertex deliveries and vaginal breech deliveries in certain situations, with the exception of Apgar scores which have no association with long term outcomes. Even with studies that suggest a higher neonatal morbidity and mortality rate for vaginal breech delivery, the same studies show a higher rate of maternal morbidity and mortality among planned cesareans. Some women are good candidates for a vaginal breech deliveries, most notably having a term, average sized baby in complete or frank breech position. Midwives have preserved the knowledge of practice of attending breech birth and obstetric societies internationally have stated that the woman has the right to choose her birthplace and birth provider even when faced with a breech delivery.

Goffinet, F et al. (2006) .Is planned vaginal delivery for breech presentation at term still an option? Results of an observational prospective survey in France and Belgium .American Journal of Obstetrics and Gynecology (2006) 194, 1002–11

Hofmeyr GJ, Hannah M, Lawrie TA. Planned caesarean section for term breech delivery. *Cochrane Database of Systematic Reviews* 2003, Issue 2. Art. No.: CD000166.

Kotaska et al (2009). SOGC Clinical Practice Guidline. Vaginal delivery of breech presentation. No. 226, June 2009. *International Journal of Gynecology and Obstetrics* 107 (2009) 169–176

Lawson, G. W. (2012). The term breech trial ten years on: Primum non nocere? *Birth, 39*(1), 3-9.

Pradhan, P., Mohajer, M, Deshpande, S. (2005). Outcome of term breech births: 10-year experience at a district general hospital. BJOG: an International Journal of Obstetrics and Gynaecology. February 2005, Vol. 112, pp. 218–222.

Uotila, J., et al .(2005). Good perinatal outcome in selective vaginal breech delivery at term. Acta Obstet Gynecol Scand 2005: 84: 578–583

PREMATURE LABOR

"Prematurity or labor beginning before 36 weeks gestation." Premature labor does not necessarily result in premature birth and may be managed and birth successfully postponed while the client remains under the care of the midwife. In fact, in recent literature, most cases of perceived premature labor result in discharge from the hospital due to failure to diagnose active labor. Current research of active labor suggests that progression prior to 6cm can be much slower than previously believed, suggesting that the latent phase of labor is quite long. This gives reassurance that contractions plus cervical change, especially in a multiparous woman, does not necessarily mean that birth is imminent. Reliable testing measures, such as fFn exist to reassure the clinician and the client that premature labor has been successfully halted. Training in the use of fFn would be beneficial to new midwives and is widely available. Potential harm to the public includes the risk of premature birth in an out of hospital setting, with the resulting incidence of respiratory distress syndrome.

Chandiramani, M., Di Renzo, G. C., Gottschalk, E., Helmer, H., Henrich, W., Hoesli, I., & ... Shennan, A. (2011). Fetal fibronectin as a predictor of spontaneous preterm birth: a European perspective. *Journal Of Maternal-Fetal & Neonatal Medicine*, *24*(2), 330-336.

Chao et al . (2011). The Diagnosis and Natural History of False Preterm Labor. VOL. 118, NO. 6, DECEMBER 2011 Natural History of False Preterm Labor 1307

McPheeter et al (2005) The epidemiology of threatened preterm labor: A prospective cohort study. *American Journal of Obstetrics and Gynecology* (2005) 192, 1325–30

Zhang (2010). Contemporary patterns of spontaneous labor with normal neonatal outcomes. *Obstetrics and Gynecology*. 116(6): 1281

UNDERSERVED POPULATIONS – MINORS, SMI, 'UNSAFE' LOCATION, ADDICTS

Midwives are a safety net for many poor and vulnerable women. Excluding these women from midwifery care assumes that the medical model of intensive testing and screening for women at risk will improve outcomes. In reality, midwives achieve better outcomes with at risk women due to the midwifery model of care which includes personalized care, social services resources, and referral.

MINORS

In Arizona, there exists no explicit statute that restricts a minor's ability to obtain prenatal care. Restricting access to midwifery care by requiring parental consent carries rule too far. Minors, even young teens, are believed to have better outcomes in midwifery care as compared to traditional obstetric care.

SMI

R9-16-108 restricts midwifery care for those with “severe psychiatric illness evident during assessment of client's preparation for birth, or a history of severe psychiatric illness in the six-month period prior to pregnancy.” According to the National Alliance on Mental Illness (NAMI), severe mental illness includes “major depression, schizophrenia, bipolar disorder, obsessive compulsive disorder (OCD), panic disorder, post traumatic stress disorder (PTSD) and borderline personality disorder.” One out of every six women will experience unstable mental health during their childbearing years, with depression being most common. Women with depression have been noted to enter midwifery care at disproportionate rates and midwifery organizations encourage midwives to integrate care of women with depression into their practices. Midwifery care has been shown to improve postnatal outcomes for women with chronic clinical depression.

'UNSAFE'

“Women without safe location for delivery” is also addressed in R9-16-108 Prohibited Practice; Transfer of Care. Women living in disparate housing situations have also been shown to benefit from midwifery care. Midwifery training includes assessing and setting up the birthing room(s), and the home visits that midwives provide allow an opportunity prenatally to offer counseling to ready the birthing environment. Midwifery care benefits women living in lower socioeconomic conditions more than traditional obstetric care does.

ADDICTS

“Addiction to alcohol, narcotics, or other drugs;” Babies born to addicted mothers have risks of preterm birth, low birth weight, neonatal abstinence syndrome (withdrawal), and developmental delays. Research has shown that in many cases correction the associative factors of addiction such as housing status, nutrition, smoking, stress, etc can greatly improve maternal and fetal outcomes. Women with addictions are unlikely to seek traditional obstetric

care as they often view it as inaccessible or dangerous. Midwives can be a valuable part of a comprehensive team that offers care for the woman with an addiction, establish a relationship of respect and trust that may influence behavior, and further, can offer a 'case management' style of care complete with resources and referrals. Midwives, especially those who have obtained additional training in addiction, improve outcomes for women and babies as compared to traditional obstetrical outcomes.

Bick, D. (2003). Strategies to Reduce Postnatal Psychological Morbidity The Role of Midwifery Services. Review Article. *Dis Manage Health Outcomes* 2003; 11 (1): 11-20

Cox, K. (2008). Midwifery and Health Disparities: Theories and Intersections. *Journal of Midwifery & Women's Health.* Volume 54, Issue 1, January–February 2009, Pages 57–64.

Economidoy, E. (2012). Caring for substance abuse pregnant women: The role of the midwife. *Health Science Journal*, 2012 Jan-Mar; 6 (1): 161-9

Gutteridge, K. (2007), Making a Difference. *RCM Midwives.* Volume 10 No.4 April 2007

Guttmacher Institute. (2012). State Policies in Brief: Minors' Access to Prenatal Care. Available online at http://www.guttmacher.org/statecenter/spibs/spib_MAPC.pdf .

Hepburn Mary, Substance abuse in pregnancy, *Current Obstetrics & Gynaecology* 2004;14: 419-425

Miles, J. (2007). Methadone-exposed newborn infants: outcome after alterations to a service for mothers and infants. *CHILD CARE HEALTH DEV*, 2007 Mar; 33(2): 206

Raisler, J. (2005). Midwifery Care of Poor and Vulnerable Women, 1925–2003. *J Midwifery Womens Health* 2005;50:113–121

Sanders, L. B. (2006). Assessing and managing women with depression: A midwifery perspective. *Journal of Midwifery and Women's Health*, 51(3), 185-192.

Wooster, E. (2007). Supporting mental health. *RCM Midwives.* Volume 10 No.4 April 2007

LABOR MANAGEMENT

Labor management is outlined in R9-16-106, F, 2. This section of midwifery rule concerns frequency of maternal and fetal assessment including fetal heart tones, maternal vital signs and internal examinations. Fetal heart tones are assessed by intermittent auscultation, typically using a hand-held Doppler. intermittent auscultation time frames vary greatly depending on clinical situation; there exists no evidence as to the ideal frequencies of intermittent auscultation. Removing time frames allows the midwife to adjust dependent on clinical situation. Similarly, maternal vital signs may be necessary more or less often than every 2-4 hours. Labor progress assessed by internal exams, is based upon Freidman's curve. Friedman's Curve has long been a subject of dispute. Recent research suggests that normal labor progress may be much longer than thought for the past 50 years, and may

follow uneven patterns that include plateaus, cervical reversals, and uneven dilation. These labor patterns are not associated with negative maternal or fetal outcomes.

Included in labor management is the assessment of amniotic fluid quality including the "Presence of thick meconium, blood-stained amniotic fluid, " currently a transfer of care under R9-106-108. Blood-stained amniotic fluid is of clinical significance with amniocentesis, but is difficult to diagnose during the intrapartum period due to bleeding from cervical change ("bloody show"). Management of labor when meconium staining of the fluid is present is a subject of debate. Some current research shows that meconium staining is a poor indicator of fetal outcome, although it is a good indicator of higher levels of intervention and lower apgar scores. Neonatal resuscitation recommendations now include minimal interventions for the management of the baby born with meconium stained fluid, with no mention of differing management than the newborn without meconium staining.

ACNM. (2010). Intermittent Auscultation for Intrapartum Fetal Heart Rate Surveillance. *Journal of Midwifery & Women's Health.* Volume 55, No. 4.

Alfirevic Z, Devane D, Gyte GML. Continuous cardiotocography (CTG) as a form of electronic fetal monitoring (EFM) for fetal assessment during labour. *Cochrane Database of Systematic Reviews* 2006, Issue 3. Art. No.: CD006066.

Duhan, N., Anshu Paul, Urmila Duhan, & Anjali. (2010). Meconium staining of amniotic fluid-A poor indicator of fetal compromise.. *JK Science, 12*(4), 184-186.

Jaynes et al (2012). Intrapartum Care the Midwifery Way: A Review. *Prim Care Clin Office Pract* 39 (2012) 189–206

Kattwinkel, J., Neonatal Resuscitation Textbook, 6th Edition. American Academy of Pediatrics - American Academy of Pediatrics (2011) - Paperback -328 pages - ISBN 1581104987

Laughon SK, Branch DW, Beaver J, et al. (2012). Changes in labor patterns over 50 years. *Am J Obstet Gynecol* 2012;206:419.e1-9.

Neal et al (2010). What is the Slowest-Yet-Normal Cervical Dilation Rate Among Nulliparous Women With Spontaneous Labor Onset?. *JOGNN*, 39, 361-369; 2010.

Vedam, S., Goff, M. and Nolan, V. (2007). Closing the Theory–Practice Gap: Intrapartum Midwifery Management of Planned Homebirths. *J Midwifery Womens Health* 2007;52:291–300

Zhang (2010). Contemporary Patterns of Spontaneous Labor With Normal Neonatal Outcomes. *Obstet Gynecol* 2010;116:1281–7.

Current AZ rule requires transfer of care for the "Presence of ruptured membranes without onset of labor within 24 hours." Although, most (60-80%) women will spontaneously enter labor within 24 hours, may will not. There is good evidence that the medical management of labor (hospitalization and repeat vaginal exams) may be the cause of infection, rather than the prolonged rupture of membranes. Expectant management for 72 to 96 hours is considered reasonable and not statistically associated with higher levels or infection. Additionally, prenatal infection is believed to be a major cause of PROM, suggesting that infection may exist prior to rupture of membranes. Expectant midwifery management with limited internal exams yields good outcomes.

Dare, MR., P. Middleton, C.A. Crowther, V.J. Flenady, B. Varatharaju. Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more), Cochrane Database Syst Rev (2006) Jan 25;(1):CD005302

Marrowitz, A and Joden, R. (2007). Midwifery Management of Prelabor Rupture of Membranes at TermJ Midwifery Womens Health 2007;52:199–206

PLACENTA

"A nonbleeding placenta retained more than 40 minutes;" is currently listed as a transfer of care under R9-16-108. This transfer of care would be for the purposes of manual removal of a retained placenta. Normal physiologic third stage is currently defined as 60 minutes and policies for the timing for manual removal of placenta vary greatly, as reflected in one large scale study of 14 European nations. There is currently insufficient research as to the optimal timing for manual removal. Although we know that retained placenta and postpartum hemorrhage co-occur, research does not show whether this is correlation or causation. In the absence of postpartum hemorrhage, expectant management of third stage and therapies alternative to manual removal should be considered, as manual removal carries certain risks. Risk to the client is the extended retention of the placenta resulting in complications.

Deneux-Tharaux C, Macfarlane A, Winter C, Zhang W, Alexander S, Bouvier-Colle M, the EUPHRATES Group. Policies for manual removal of placenta at vaginal delivery: variations in timing within Europe. BJOG 2009;116:119–124.

NICE (2007). Chapter 9 Normal labour: third stage. Intrapartum Care: Care of Healthy Women and Their Babies During Childbirth. NICE Clinical Guidelines, No. 55. National Collaborating Centre for Women's and Children's Health (UK). London: RCOG Press; 2007 Sep.

PROCEDURES

Certain procedures, routine and emergent are necessary for providing quality up to date care for midwifery clients. These include ability to perform shoulder dystocia maneuvers, amniotomy, episiotomy, manual exploration of the uterus, manual removal of the placenta, and suturing. Current rule restricts some of these procedures to emergency management and excludes others all together. This section will review the midwifery management of these procedures. All of these procedures are required knowledge for the CPM credential.

Shoulder dystocia maneuvers include a variety of internal and external manipulations that are performed in a systematic way to encourage birth of stuck shoulders. These steps are reflected in the AZ practical exam as well as the NARM candidate information booklet as essential knowledge for the licensed midwife. However, current AZ rule only allows moving the shoulders into the oblique diameter to correct a shoulder dystocia. This excludes essential and potentially life saving maneuvers including supra-pubic pressure, Woods maneuver, removal of posterior arm, fracturing of the clavicle, etc.

Amniotomy is not currently allowed within AZ rule. The ability to perform an amniotomy is an essential and recognized tool for the progression of active labor, and can be useful for assessing amniotic fluid when there exists a suspicion of meconium or blood stained fluids. Amniotomy is used sparingly in the midwifery model, as it does carry some risk including malpresentation cord compression or prolapse, rapid decent, and infection.

Episiotomy is currently allowed in AZ rule under emergency measures, however the rule specifies a midline episiotomy. Midline episiotomy is associated with severe perineal lacerations, and a mediolateral episiotomy is favored in situations requiring episiotomy.

Manual exploration and manual removal of the placenta are occasionally necessary steps to controlling postpartum hemorrhage. Manual exploration is currently permitted under AZ rule, but manual removal of the placenta is not explicitly allowed.

Suturing, under current rule, is explicitly limited to “Suturing of episiotomy or tearing of the perineum, to stop active bleeding, following administration of local anesthetic, contingent upon physician consultation or standing orders of physician” and requires consultation for “Second degree or greater lacerations of the birth canal.” Standing orders has already been discussed as an unobtainable option. There are cases in which active bleeding is not present, yet suturing is still required for health and well-being of the mother. Some midwives have the training and experience to be qualified to suture many varieties of lacerations; being forced to transfer for repairs not related to active bleeding or that are greater than a second degree laceration of the perineum puts undue burden on

the client. Midwives who are not qualified may elect to transfer to a medical care facility or call in a qualified care provider.

Aytan et al. (2005). Severe perineal lacerations in nulliparous women and episiotomy type. European Journal of Obstetrics & Gynecology and Reproductive Biology 121 (2005) 46–50

Hartmann et al. (2005). Outcomes of routine episiotomy. A systematic review. JAMA. 2005;293 (17) :2141-2148.

Kudish et al (2008). Trends in major modifiable risk factors for severe perineal trauma, 1996–2006. International Journal of Gynecology and Obstetrics (2008) 102, 165–170

NARM (2011) North American Registry of Midwives. Certified Professional Midwife: Candidate Information Booklet. Available online at http://narm.org/wp-content/uploads/2011/02/cib.pdf.

Sinclair, C. (2004). A Midwife's Handbook. Saunders: St. Louis, Mo.

Su, C. (2012). Postpartum Hemorrhage. *Primary Care: Clinics in Office Practice* - Volume 39, Issue 1

Varney, H. (2004). Varney's Midwifery. Jones and Barlett: Sudberry, MA.

MEDICATIONS

Creating a pharmacology list within rule will allow midwives to obtain required medications without the necessitating a prescription or standing orders, both of which are difficult to obtain. Current medical practice and liability prevents physicians from willingly writing prescriptions for individuals who are not their clients and standing orders is no longer a common practice. The medications and medication types listed are standard of care in obstetrics and midwifery practices.

AAP/AHA (2011). Textbook of Neonatal Resuscitation. 6th Edition. American Academy of Pediatrics and the American Heart Association.

ACNM (2010). Nitrous Oxide for Labor Anelgesia. Policy Statement.2Journal of Midwifery & Women's Health. Volume 55, No. 3, May/June 2010

Adame N, Carpenter SL. (2009). Closing the loophole: midwives and the administration of vitamin K in neonates. *J Pediatr*. May;154(5):769-71. Retrieved May 5, 2012 from PubMed database.

Alfirevic Z, Blum J, Walraven G, Weeks A, & Winikoff B. Prevention of postpartum hemorrhage with misoprostol. *International Journal of Gynecology and Obstetrics* (2007) 99, S198–S201

American National Red Cross. (2006). CPR/AED for the professional rescuer. -- 3rd ed.

CDC (2010). Centers for Disease Control and Prevention. Prevention of Perinatal Group B Streptococcal Disease. . MMWR 2010;59 RR-10. Available online at http://www.cdc.gov/mmwr/pdf/rr/rr5910.pdf

Chelmow D., Postpartum haemorrhage: prevention. Clin Evid (2011) Apr 4;2011

Darling EK, McDonald H. A meta-analysis of the efficacy of ocular prophylactic agents used for the prevention of gonococcal and chlamydial opthalmia neonatorum, J Midwifery Womens Health 2010 Jul-Aug;55(4):319-2

Frye, Ann (2010). HEALING PASSAGE. A Midwife's Guide to the Care and Repair of the Tissues Involved in Birth, 6th edition, 2010,
ISBN: 978-1-891145-58-2

Gruenberg, B. (2008), Birth Emergency Skills Training; Manual for Out of Hospital Midwives. Birth Muse Press; Duncannon, PA.

Harrod, KS., Hanson, L., VandeVusse, L. and Heywood, P. (2003). Rh Negative Status and Isoimmunization Update. A Case-Based Approach to Care. J Perinatal Neonatal Nursing. Vol. 17.No. 3. pp. 166-178.

ICM (2010). INTERNATIONAL CONFEDERATION OF MIDWIVES. Essential Competencies for Basic Midwifery Practice 2010

Jerbi M, Hidar S, Elmoueddeb S, Chaieb A, & Khairi H. Oxytocin in the third stage of labor. Gynecologic and Obstetric Department, F. Hached Hospital, Sousse, Tunisia 15 November 2006.

McDonald, S. (2007). Management of the Third Stage of Labor. J Midwifery Womens Health 2007;52:254 –261.

MHRA (2012). Medicines and Healthcare Products Regulatory Agency. Midwives: Exemptions. Available online at
http://www.mhra.gov.uk/Howweregulate/Medicines/Availabilityprescribingsellingandsupplyingofmedicines/ExemptionsfromMedicinesActrestrictions/Midwives/index.htm

Moise, K. (2012). Management of Rhesus (RH) alloimmunization in pregnancy. *Up to Date* retrieved May 5, 2012 at http://www.uptodate.com/contents/management-of-rhesus-rh-alloimmunizationinpregnancy?source=search_result&search=rh+isoimmunization&selectedTitle=1~125

NM (2008) Practice Guidelines for NM Midwives – June 2008 Available online at http://www.health.state.nm.us/PHD/midwife/NMMA%202008%20practice%20guidelines.pdf

POPPHI. Fact sheets: Uterotonic drugs for the prevention and treatment of postpartum hemorrhage. Seattle: PATH; 2008.

Rooks, JP. (2011). Safety and Risks of Nitrous Oxide Labor Analgesia:A Review. Journal of Midwifery & Women's Health. Volume 56, No. 6, November/December 2011.

Smaill, Fiona M (2010). *Intrapartum antibiotics for Group B streptococcal colonisation*. In Smaill, Fiona M. "Cochrane Database of Systematic Reviews".*Cochrane database of systematic reviews* (2): CD000115.doi:10.1002/14651858.CD000115.pub2.PMID 10796138

WAC (2012). WAC 246-834-250. Legend drugs and devices. http://apps.leg.wa.gov/wac/default.aspx?cite=246-834-250

WHO (2009). WHO guidelines for the management of postpartum haemorrhage and retained placenta. Available online at http://whqlibdoc.who.int/publications/2009/9789241598514_eng.pdf

AAP/AHA (2011). Textbook of Neonatal Resuscitation. 6th Edition. American Academy of Pediatrics and the American Heart Association.

Abrams, E. T., & Rutherford, J. N. (2011). Framing postpartum hemorrhage as a consequence of human placental biology: An evolutionary and comparative perspective. *American Anthropologist, 113*(3), 417-430.

Adame N, Carpenter SL. (2009). Closing the loophole: midwives and the administration of vitamin K in neonates. *J Pediatr*. May;154(5):769-71. Retrieved May 5, 2012 from PubMed database.

Arizona Department of Health Services. (2012). Arizona Health Status and Vital Statistics 2010. 1B. Natality: Maternal Characteristics and Newborn's Health. Available online at http://www.azdhs.gov/plan/report/ahs/ahs2010/pdf/text1b.pdf

Alfirevic Z, Blum J, Walraven G, Weeks A, & Winikoff B. (2007). Prevention of postpartum hemorrhage with misoprostol. *International Journal of Gynecology and Obstetrics* (2007) 99, S198–S201

Alfirevic Z, Devane D, Gyte GML. (2006). Continuous cardiotocography (CTG) as a form of electronic fetal monitoring (EFM) for fetal assessment during labour. *Cochrane Database of Systematic Reviews* 2006, Issue 3. Art. No.: CD006066.

Alto, W. A. (2005). No need for routine glycosuria/proteinuria screen in pregnant women. *Journal Of Family Practice*, *54*(11), 978-983.

American College of Nurse-Midwives. (2010). Intermittent Auscultation for Intrapartum Fetal Heart Rate Surveillance (replaces ACNM Clinical Bulletin #9, March 2007), Journal of Midwifery & Women's Health, Volume 55, Issue 4, July–August 2010, Pages 397-403, ISSN 1526-9523

American College of Nurse-Midwives. (2010). Nitrous Oxide for Labor Anelgesia. Policy Statement.2Journal of Midwifery & Women's Health. Volume 55, No. 3, May/June 2010

American College of Obstetricians and Gynecologists. (2006). The Apgar score. ACOG Committee Opinion No. 333. American Academy of Pediatrics; American College of Obstetricians and Gynecologists. Obstet Gynecol 2006;107:1209–12.

American College of Obstetricians and Gynecologists. (2008). ACOG practice bulletin no. 95: Anemia in pregnancy. *Obstetrics and Gynecology, 112*(1), 201-207.

American National Red Cross. (2006). CPR/AED for the professional rescuer. -- 3rd ed.

Aytan et al. (2005). Severe perineal lacerations in nulliparous women and episiotomy type. European Journal of Obstetrics & Gynecology and Reproductive Biology 121 (2005) 46–50

Berger, R.E. (2005). The Urine Dipstick Test Useful to Rule Out Infections. A Meta-Analysis of the Accuracy. *The Journal of Urology*. Volume 174, Issue 3, September 2005, Pages 941–942

Bick, D. (2003). Strategies to Reduce Postnatal Psychological Morbidity The Role of Midwifery Services. Review Article. *Dis Manage Health Outcomes* 2003; 11 (1): 11-20

Cahill, AG et al. (2006) Is vaginal birth after cesarean (VBAC) or elective repeat cesarean safer in women with a prior vaginal delivery? *American Journal of Obstetrics and Gynecology* (2006) 195, 1143–7

Callaghan, W. M., Kuklina, E. V., & Berg, C. J. (2010). Trends in postpartum hemorrhage: United states, 1994-2006. *American Journal of Obstetrics and Gynecology, 202*(4), 353.e1-353.e6.

Carroll, M. (2006). Vaginal Delivery of Twins. *CLINICAL OBSTETRICS AND GYNECOLOGY*. Volume 49, Number 1, 154–166.

Catling-Paull, C., Johnston, R., Ryan, C., Foureur, M. J. and Homer, C. S. E. (2011), Clinical interventions that increase the uptake and success of vaginal birth after caesarean section: a systematic review. *Journal of Advanced Nursing*, 67: 1646–1661.

CDC (2010). Centers for Disease Control and Prevention. Prevention of Perinatal Group B Streptococcal Disease. . MMWR 2010;59 RR-10. Available online at http://www.cdc.gov/mmwr/pdf/rr/rr5910.pdf

Chao et al . (2011). The Diagnosis and Natural History of False Preterm Labor. VOL. 118, NO. 6, DECEMBER 2011 Natural History of False Preterm Labor 1307

Chandiramani, M., Di Renzo, G. C., Gottschalk, E., Helmer, H., Henrich, W., Hoesli, I., & ... Shennan, A. (2011). Fetal fibronectin as a predictor of spontaneous preterm birth: a European perspective. *Journal Of Maternal-Fetal & Neonatal Medicine*, *24*(2), 330-336.

Chelmow D., Postpartum haemorrhage: prevention. Clin Evid (2011) Apr 4;2011

Childbirth Connection. (no date). The Rights of Childbearing Women. New York. Available online at http://www.childbirthconnection.org/pdfs/rights_childbearing_women.pdf

Citizens for Midwifery. (1996). Midwives Model of Care.

Coalition for Improving Maternity Services. (1996). Mother Friendly Childbirth Initiative.

Cox, K. (2008). Midwifery and Health Disparities: Theories and Intersections. *Journal of Midwifery & Women's Health.* Volume 54, Issue 1, January–February 2009, Pages 57–64.

Dare, MR., P. Middleton, C.A. Crowther, V.J. Flenady, B. Varatharaju. Planned early birth versus expectant management (waiting) for prelabour rupture of membranes at term (37 weeks or more), Cochrane Database Syst Rev (2006) Jan 25;(1):CD005302

Darling EK, McDonald H. A meta-analysis of the efficacy of ocular prophylactic agents used for the prevention of gonococcal and chlamydial opthalmia neonatorum, J Midwifery Womens Health 2010 Jul-Aug;55(4):319-2

Deneux-Tharaux C, Macfarlane A, Winter C, Zhang W, Alexander S, Bouvier-Colle M, the EUPHRATES Group. Policies for manual removal of placenta at vaginal delivery: variations in timing within Europe. BJOG 2009;116:119–124.

Devane D, Lalor JG, Daly S, McGuire W, Smith V. (2012). Cardiotocography versus intermittent auscultation of fetal heart on admission to labour ward for assessment of fetal wellbeing. Cochrane Database of Systematic Reviews 2012, Issue 2

Downe, S, Kenny Finlayson, K. and Fleming, A. (2010) Creating a Collaborative Culture in Maternity Care. *Journal of Midwifery & Women's Health*. 250 Volume 55, No. 3, May/June 2010

Dowswell T, Carroli G, Duley L, Gates S, Gülmezoglu AM, Khan-Neelofur D, Piaggio GGP. Alternative versus standard packages of antenatal care for low-risk pregnancy. Cochrane Database of Systematic Reviews 2010, Issue 10

Duhan, N., Anshu Paul, Urmila Duhan, & Anjali. (2010). Meconium staining of amniotic fluid-A poor indicator of fetal compromise.. *JK Science, 12*(4), 184-186.

Economidoy, E. (2012). Caring for substance abuse pregnant women: The role of the midwife. *Health Science Journal*, 2012 Jan-Mar; 6 (1): 161-9

Erez et al. (2012). Remote prognosis after primary cesarean delivery: the association of VBACs and recurrent cesarean deliveries with maternal morbidity. International Journal of Women's Health 2012:4 93–107

Frye, Ann (2010). HEALING PASSAGE. A Midwife's Guide to the Care and Repair of the Tissues Involved in Birth, 6th edition, 2010, ISBN: 978-1-891145-58-2

Goffinet, F et al. (2006) .Is planned vaginal delivery for breech presentation at term still an option? Results of an observational prospective survey in France and Belgium .American Journal of Obstetrics and Gynecology (2006) 194, 1002–11

Gribble R., Fee SC., Berg, RL. (1995). The value of routine urine dipstick screening for protein at each prenatal visit. *American Journal of Obstetrics and Gynecology* - Volume 173, Issue 1 (July 1995)

Gruenberg, B. (2008), Birth Emergency Skills Training; Manual for Out of Hospital Midwives. Birth Muse Press; Duncannon, PA.

Gutteridge, K. (2007), Making a Difference. *RCM Midwives.* Volume 10 No.4 April 2007

Guttmacher Institute. (2012). State Policies in Brief: Minors' Access to Prenatal Care. Available online at http://www.guttmacher.org/statecenter/spibs/spib_MAPC.pdf .

Harrod, KS., Hanson, L., VandeVusse, L. and Heywood, P. (2003). Rh Negative Status and Isoimmunization Update. A Case-Based Approach to Care. J Perinatal Neonatal Nursing. Vol. 17.No. 3. pp. 166-178.

Hartmann et al. (2005). Outcomes of routine episiotomy. A systematic review. JAMA. 2005;293 (17) :2141-2148.

Hepburn M. (2004). Substance abuse in pregnancy, *Current Obstetrics & Gynaecology* 2004;14: 419-425

Hickman, A. (2010). Born (not so) free: Legal limits on the practice of unassisted childbirth or free-birthing in the united states. *Minnesota Law Review, 94*(5), 1651.

Hofmeyr GJ, Hannah M, Lawrie TA. Planned caesarean section for term breech delivery. *Cochrane Database of Systematic Reviews* 2003, Issue 2. Art. No.: CD000166.

ICM (2003). INTERNATIONAL CODE OF ETHICS FOR MIDWIVES

ICM (2010). Essential Competencies for Basic Midwifery Practice 2010

ICM. (2011). Global Standards for Midwifery Regulation (2011)

Jaynes et al (2012). Intrapartum Care the Midwifery Way: A Review. *Prim Care Clin Office Pract* 39 (2012) 189–206

Jerbi M, Hidar S, Elmoueddeb S, Chaieb A, & Khairi H. Oxytocin in the third stage of labor. Gynecologic and Obstetric Department, F. Hached Hospital, Sousse, Tunisia 15 November 2006.

Kahn, B. (2003). Prospective Risk of Fetal Death in Singleton, Twin, and Triplet Gestations: Implications for Practice. *Obstet Gynecol* 2003;102:685–92.

Kattwinkel, J., Neonatal Resuscitation Textbook, 6th Edition. American Academy of Pediatrics - American Academy of Pediatrics (2011) - Paperback -328 pages - ISBN 1581104987

Kotaska et al (2009). SOGC Clinical Practice Guidline. Vaginal delivery of breech presentation. No. 226, June 2009. *International Journal of Gynecology and Obstetrics* 107 (2009) 169–176

Kudish et al (2008). Trends in major modifiable risk factors for severe perineal trauma, 1996–2006. International Journal of Gynecology and Obstetrics (2008) 102, 165–170

Lawson, G. W. (2012). The term breech trial ten years on: Primum non nocere? *Birth, 39*(1), 3-9.

LabCorp. (2012). Prenatal Profile I With Hepatitis B Surface Antigen. Test Information. Available online at https://www.labcorp.com/

Leonard, L. (2002). Prenatal Behavior of Multiples: Implications for Families and Nurses. *JOGNN*, 31, 248–255; 2002.

Laughon SK, Branch DW, Beaver J, et al. (2012). Changes in labor patterns over 50 years. *Am J Obstet Gynecol* 2012;206:419.e1-9.

Laufer-Ukeles, P. (2011). Reproductive Choices and Informed Consent: Fetal Interests, Women's Identity, and Relational Autonomy. *American Journal of Law & Medicine*, 37 (2011): 567-623

Lawson, G. W. (2012). The term breech trial ten years on: Primum non nocere? *Birth, 39*(1), 3-9.

Lee, A. and Okam, M. (2011). Anemia in Pregnancy. *Hematology/Oncology Clinics of North America* - Volume 25, Issue 2

MANA. (2005). Standards and Qualifications for the Art and Practice of Midwifery

MANA. (2010). Statement of Values and Ethics

MANA. (2011). Core Competencies for Basic Midwifery Practice

Mangesi L, Hofmeyr GJ. Fetal movement counting for assessment of fetal wellbeing. *Cochrane Database of Systematic Reviews.* 2007, Issue 1. Art. No.: CD004909.

Maharaj, D. (2010). Assessing cephalopelvic disproportion: Back to the basics. *Obstetrical & Gynecological Survey, 65*(6), 387-395.

Marrowitz, A and Joden, R. (2007). Midwifery Management of Prelabor Rupture of Membranes at TermJ Midwifery Womens Health 2007;52:199–206

Maybury, H. and Waugh, J. (2004). Proteinuria in pregnancy – Just what is the significance? *Fetal and Maternal Medicine Review* 2004; 16:1 71–95

McAra-Couper, J., Jones, J. and Smythe, L. (2012). Caesarean-section, my body, my choice: The construction of informed choice' in relation to intervention in childbirth. *Feminism Psychology* February 2012 vol. 22 no. 1 81-97

McDonald, S. (2007). Management of the Third Stage of Labor. J Midwifery Womens Health 2007;52:254 –261.

McPheeter et al (2005) The epidemiology of threatened preterm labor: A prospective cohort study. *American Journal of Obstetrics and Gynecology* (2005) 192, 1325–30

MHRA (2012). Medicines and Healthcare Products Regulatory Agency. Midwives: Exemptions. Available online at http://www.mhra.gov.uk/Howweregulate/Medicines/Availabilityprescribingsellingandsupplyingofmedicines/ExemptionsfromMedicinesActrestrictions/Midwives/index.htm

Miles, J. (2007). Methadone-exposed newborn infants: outcome after alterations to a service for mothers and infants. *CHILD CARE HEALTH DEV*, 2007 Mar; 33(2): 206

Miller, A. C. (2009). Midwife to myself": Birth narratives among women choosing unassisted homebirth. *Sociological Inquiry*, 79(1), 51-74. 00272.x

Moise, K. (2012). Management of Rhesus (RH) alloimmunization in pregnancy. *Up to Date* retrieved May 5, 2012 at http://www.uptodate.com/contents/management-of-rhesus-rh-alloimmunizationinpregnancy?source=search_result&search=rh+isoimmunization&selectedTitle=1~125

Moos, M.-K. (2006), Prenatal Care: Limitations and Opportunities. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 35: 278–285. doi: 10.1111/j.1552-6909.2006.00039.x

Murray, N. et al. (2002). The clinical utility of routine urinalysis in pregnancy: A prospective study, *Medical Journal of Australia,* 2002, 177:9, pp.477-480.

NACPM. (2004). Essential Documents of the National Association of Certified Professional Midwives

NARM (2012) North American Registry of Midwives. Certified Professional Midwife: Candidate Information Booklet. Available online at http://narm.org/wp-content/uploads/2011/02/cib.pdf.

NARM. (2012a). Informed Consent. Position Statement on Shared Decision Making and Informed Consent. Available online at http://narm.org/accountability/informed-consent/.

Neal, J., Lowe, N., Patrick, T., Cabbage, L., & Corwin, E. (2010). What is the slowest-yet-normal cervical dilation rate among nulliparous women with spontaneous labor onset?. *JOGNN: Journal Of Obstetric, Gynecologic & Neonatal Nursing*, *39*(4), 361-369.

NICE (2007). Chapter 9 Normal labour: third stage. Intrapartum Care: Care of Healthy Women and Their Babies During Childbirth. NICE Clinical Guidelines, No. 55. National Collaborating Centre for Women's and Children's Health (UK). London: RCOG Press; 2007 Sep.

NM (2008) Practice Guidelines for NM Midwives – June 2008 Available online at http://www.health.state.nm.us/PHD/midwife/NMMA%202008%20practice%20guidelines.pdf

Oyelese, Y., & Ananth, C. V. (2010). Postpartum hemorrhage: Epidemiology, risk factors, and causes. *Clinical Obstetrics and Gynecology, 53*(1), 147-156.

Pattinson RC, Farrell EME. (1997) Pelvimetry for fetal cephalic presentations at or near term. C*ochrane Database of Systematic Reviews* 1997, Issue 2. Art. No.: CD000161.

Phelan ST. (2008). Components and timing of prenatal care. Obstet Gynecol Clin North Am- 01-SEP-2008; 35(3): 339-53, vii

POPPHI. (2008). Fact sheets: Uterotonic drugs for the prevention and treatment of postpartum hemorrhage. Seattle: PATH; 2008. Retrieved on May 6, 2012 http://www.pphprevention.org/files/Uterotonicdrugfactsheets_003.pdf

Pradhan, P., Mohajer, M, Deshpande, S. (2005). Outcome of term breech births: 10-year experience at a district general hospital. BJOG: an International Journal of Obstetrics and Gynaecology. February 2005, Vol. 112, pp. 218–222.

Quest Diagnostics. (2012). OB Panel Basic. Test Information. Available online at http://www.questdiagnostics.com/testcenter/OrderInfo.action?fn=800989.html&labCode=QSO

Reveiz L, Gyte GML, Cuervo LG, Casasbuenas A. (2011). Treatments for iron-deficiency anemia in pregnancy. *Cochrane Database of Systematic Reviews* 2011, Issue 10. Art. No.: CD003094.

Raisler, J. (2005). Midwifery Care of Poor and Vulnerable Women, 1925–2003. *J Midwifery Womens Health* 2005;50:113–121

Rozen, G., Ugoni, AM., Sheehan, PM. (2011) A new perspective on VBAC: A retrospective cohort study. *Women and Birth* (2011) 24, 3—9

Sanders, L. B. (2006). Assessing and managing women with depression: A midwifery perspective. *Journal of Midwifery and Women's Health*, 51(3), 185-192.

Schmied, V., Mills, A., Kruske, S., Kemp, L., Fowler, C. and Homer, C. (2010), The nature and impact of collaboration and integrated service delivery for pregnant women, children and families. *Journal of Clinical Nursing*, 19: 3516–3526. doi: 10.1111/j.1365-2702.2010.03321.x

Skinner, JP. and Foureur, M. (2010) Consultation, Referral, and Collaboration Between Midwives and Obstetricians: Lessons From New Zealand, *Journal of Midwifery & Women's Health*, Volume 55, Issue 1, January–February 2010, Pages 28-37.

Siddique, J., Lantos, JD., VanderWeele, TJ., Lauderdale, DS. (2012). Screening Tests during Prenatal Care: Does Practice Followthe Evidence? Matern Child Health J (2012) 16:51–59

Sinclair, C. (2004). A Midwife's Handbook. Saunders: St. Louis, Mo.

Smith et al. (2007). Birth Order of Twins and Risk of Perinatal Death Related to Delivery in England, Northern Ireland, and Wales, 1994-2003: Retrospective Cohort Study. *BMJ: British Medical Journal,* Vol. 334, No. 7593 (Mar. 17, 2007), pp. 576-578

Smulian, JC. et al. (2004). Twin Deliveries in the United States Over Three Decades: An Age-Period-Cohort Analysis. *Obstet Gynecol* 2004;104:278–85.

Sonora Quest. (2012). Obstetric Panel w/Reflex. Test Information. Available online at http://www.sonoraquest.com/test-information/test-menu-profile/?id=1914

Su, C. W. (2012). Postpartum hemorrhage. *Primary Care: Clinics in Office Practice, 39*(1), 167-187.

Thompson, JB. (2004). A Human Rights Framework for Midwifery Care. *J Midwifery Womens Health* 2004;49:175–181

U.S. Preventive Services Task Force. USPSTF (2004). *Screening for Rh D Incompatability.* Publication No. AHRQ 05-0566-A, November 2004.

USPSTF (2006). U.S. Preventive Services Task Force. *Screening for Iron Deficiency Anemia—Including Iron Supplementation for Children and Pregnant Women: Recommendation Statement*. Publication No. AHRQ 06-0589, May 2006. http://www.uspreventiveservicestaskforce.org/uspstf06/ironsc/ironrs.htm

USPSTF (2008). U.S. Preventive Services Task Force. *Screening for Gestational Diabetes Mellitus: U.S. Preventive Services Task Force Recommendation Statement*. AHRQ Publication No. 08-05115-EF-2., May 2008. http://www.uspreventiveservicestaskforce.org/uspstf08/gestdiab/gdrs.htm

Uotila, J., et al .(2005). Good perinatal outcome in selective vaginal breech delivery at term. Acta Obstet Gynecol Scand 2005: 84: 578–583

Varney, H. (2004). Varney's Midwifery. Jones and Barlett: Sudberry, MA.

Vowel, L. (2011). "Do it yourself" births prompt alarm. *CMAJ : Canadian Medical Association Journal = Journal De l'Association Medicale Canadienne, 183*(6), 648-650. doi:10.1503/cmaj.109-3820

Vedam, S., Goff, M. and Nolan, V. (2007). Closing the Theory–Practice Gap: Intrapartum Midwifery Management of Planned Homebirths. *J Midwifery Womens Health* 2007;52:291–300

Vedam, S. (2012). In Search of a Common Agenda for Planned Home Birth in America. *The Journal of Perinatal Education,* Volume 21, Number 2, 2012, pp. 67-71(5)

WAC (2012). WAC 246-834-250. Legend drugs and devices. http://apps.leg.wa.gov/wac/default.aspx?cite=246-834-250

WHO. (1996). Care in normal birth; a practical guide. The World Health Organization. Department of Reproductive Health and Research

WHO (2009). WHO guidelines for the management of postpartum haemorrhage and retained placenta. Available online at http://whqlibdoc.who.int/publications/2009/9789241598514_eng.pdf

Winje B, Saastad E, Gunnes N, Tveit J, Stray-Pedersen B, Flenady V, Frøen J. (2011). Analysis of 'count-to-ten' fetal movement charts: a prospective cohort study. *BJOG* 2011;118:1229–1238.

Wooster, E. (2007). Supporting mental health. *RCM Midwives.* Volume 10 No.4 April 2007

Zhang (2010). Contemporary patterns of spontaneous labor with normal neonatal outcomes. *Obstetrics and Gynecology*. 116(6): 1281