

Responsible Midwifery for the 21st Century ~ part 1 (of 2)

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Part 1: Public health goals of maternity care; distinctions between the obstetrical model and physiologically-based maternity care

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Defining Maternity Care: The basic purpose of maternity care is to protect and preserve the health of already healthy women. Mastery in normal childbirth services means bringing about a good outcome without introducing any unnecessary harm or unproductive expense. Ultimately, all maternity care is judged by its results -- the number of mothers and babies who graduate from its ministrations as healthy, or healthier, than when they started.

Because we enjoy a high standard of living in the US and have timely access to maternity care and comprehensive obstetrical services, healthy childbearing women can generally expect a good outcome for themselves and their babies. In the US, over 70% of women have healthy pregnancies and give birth to healthy babies. Safe outcomes for healthy mothers and babies are consistently associated with three healthcare-related circumstances:

- (a) receiving prenatal care and risk-screening for medical complications with referral as indicated
- (b) the full-time presence of a skilled and experienced attendant during labor, birth and postpartum
- (c) access to and appropriate use of comprehensive obstetrical services in the event of a childbirth complication or if medical care is requested by the mother

Maternity care is quite different from other health services in several ways. First and foremost pregnancy and spontaneous childbirth are normal biological functions of the female reproductive cycle. Nonetheless, childbirth is a major physiological and psychological event in the life of each mother-to-be. The quality of maternity care a woman receives affects how she experiences these important life events. To quote Judith Rook, CNM: "*Pregnancy makes a mother as well as a baby*".

Developed countries that use physiologically-based care for healthy women with normal pregnancies achieve better maternal-infant outcomes while spending far less money. According to the Stedman's

Medical Dictionary (1995), physiological management is defined as: “..in accord with, or characteristic of, the normal functioning of a living organism”. Under this system, the individual management of pregnancy or childbirth is determined by the *health status of the childbearing woman and her unborn baby*, in conjunction with the mother’s stated preferences, *rather than by the occupational status of the care provider* (physician, obstetrician, or midwife).

Research shows that women who receive physiologically-based care and give birth in a quiet, unhurried and respectful atmosphere have significantly less need for obstetrical intervention and report a higher level of satisfaction. How a woman feels about her baby, herself as a mother, her family and other relationships is deeply affected by her experience during pregnancy and birth. In addition to safety, **women consistently report that they want:**

*** To see same practitioner throughout their prenatal care and that it is very important to have the their prenatal caregiver with them in during labor and birth

*** A supportive, respectful and unhurried setting during labor and birth that doesn’t artificially restrict their ability to move around, walk, and change positions, and provides access to showers or deep water tubs

**** Unlimited choice in regard to having family and friends present and, at the same time, shield them from the intrusion of strangers or other unwelcome persons.

*** Expect normal labor and birth to be physiological managed (i.e., not medicalized) and assume that no medical and surgical interventions will be used unless the woman herself requests them or there is a significant medical problem

**** Expect any intervention recommended in *non-emergent* circumstances will be preceded by informed consent and their right to decline unwanted interventions will be honored (ex. routine use of EFM, IVs, scheduled exams to check cervical dilatation, oxytocin augmentation of labor, etc)

For an essentially healthy population, the most efficacious form of maternity care is always the method that provides “**maximal results with minimal interventions**”. This process is defined as a *beneficial ratio of interventions to outcomes* for each individual woman. The idea is to find the *point of balance* where the skillful use of physiological management and adroit use of necessary medical interventions provides the best outcomes for mothers and babies, with the fewest number of medical/surgical procedures and least expense to the health care system.

Physiological management of labor and birth can be *used in both hospital and OOH setting*. This supportive form of care is associated with the lowest rate of maternal and perinatal mortality and is protective of the mother's pelvic floor. It has excellent psychological outcomes with the lowest rates of postpartum depression and the highest rate of breastfed babies. The use of physiological principles results in the fewest number of medical interventions, lowest rates of anesthetic use, obstetrical complications, episiotomy, instrumental deliveries, Cesarean surgery, post-operative complications,

delayed and downstream complications of operative, instrumental deliveries in future pregnancies and reproductive and long-term gyn issues for childbearing women.

Physiologically-based Maternity Care ~ the Exception in the US

Even though the vast majority of childbearing women in the US are healthy, **only 1%** of all obstetrically-managed births occur *without* intervention. According to research done in 2002 and 2006 by the Maternity Center Association, 99% of women giving birth in American hospitals have an average of 7 medical or surgical interventions, with at least 70% of women having one or more surgical procedures (aggregated rates for episiotomy (35%), vacuum extraction-forceps (12%) and/or cesarean (31%). The high rate of intervention in a healthy cohort contradicts World Health Organization standards for normal maternity care. The choice of a strict obstetrical model for a healthy population introduces unproductive expense and it unnecessarily exposes mothers and babies to the significant risks of medical error and hospital-acquired infection. Countries economically burdened by the disproportionate expense of a highly medicalized maternity care system are at a competitive disadvantage in a global economy, compared to those that use primary practitioners and physiological management for their healthy populations.

But unlike the cure for cancer or eradication of terrorism, we know how to make maternity care for healthy women both safe *and* cost-effective. The problem is that normal childbirth has been defined as a surgical procedure in the US for the last hundred years. In 1910 the American obstetrical profession believed that unpredictable nature of childbirth equated to a patho-physiology affecting sexual reproduction in the human female. Based on this definition, the traditional use of physiological management was discarded as dangerously inadequate and *a strict obstetrical model* was deemed to be the only acceptable standard for normal maternity care. This describes a medicalized process in which labor is managed as a potentially medical emergency by the nursing staff of the hospital and the birth is conducted as a surgical procedure by a surgically-trained obstetrical specialist. **This decision represents the single most profound change in childbirth practices in the history of the human species.**

Historical Background: The “new obstetrics”, as it was called at the time, was based on the precautionary use medical and surgical interventions as a way to modernize childbirth. Considering the dangers of childbirth in a **pre-antibiotic world with no safe blood transfusions and no drugs to control hemorrhage or treat toxemia (and no ultrasound)**, obstetricians believed this ‘pre-emptive’ posture was the *safest and most responsible* plan of action. In 1910, puerperal sepsis (childbed fever) was the most frequent cause of maternal death (40%), a rate significantly higher for hospitals than midwife-attended OOH birth. The obstetrical profession has acknowledged a marked increase in the rate of mortality from sepsis in hospitalized maternity patients since the days of Semmelweis (1840s). A paper published in 1881 by the Edinburgh Obstetrical Society about the use of aseptic technique in childbirth noted that: “... *the mere aggregation of lying-in women [in hospitals] is itself a cause of danger*”.

Other scientific papers recognized the biohazard aspect of institutional care and debated the proper role of home versus hospital as the preferred location for normal childbirth [Duncan, M'Clintock, LeFort]. In an attempt to explain the increased puerperal sepsis in hospitals, one obstetrical professor said: "...the majority of the [hospital] cases are single women who have been seduced, and who, apart from their mental condition, have, previous to admission, been in straitened circumstances and badly nourished, and are ... specially liable to be quickly and gravely affected by any septic influence under which they may be brought." [1- Edinburgh Obstetrical Society, 1881]. Nonetheless, hospital-based obstetrics was seen as essential to medical progress: "maternity hospitals must exist for the clinical instruction which the medical student can receive there and there only" [1].

Making hospital-based services relatively safe for maternity patients had the potential to dramatically expand the obstetrical profession's ability to treat the serious complications of childbirth. However use of these medical and surgical interventions also required an expanded pool of obstetrically-trained physicians. The surgical specialty of obstetrics required clinical training and that meant access to a large and steady stream of clinical material. Using hospitalized maternity patients as teaching cases was seen as an appropriate feedback loop between the potential needs of maternity patients and the educational needs of a growing number of medical students.

The obstetrical profession hoped that the methods of strict surgical sterility that Sir Joseph Lister discovered in 1865 to prevent post-operative infection in surgical incisions would also protect laboring women from puerperal infections. The implantation site of the placenta created the equivalent of a 'wound' after placental separation, so considering the laboring woman to be a surgical patient seem logical. The first strategy to prevent puerperal sepsis in a pre-antibiotics era was to conduct normal childbirth as a sterile surgical procedure. To maintain this level of strict surgical asepsis during the delivery, it was necessary for the mother to lie perfectly still and not cough, talk or touch anything. While maintaining a sterile field is an essential element of any surgery, it is extraordinarily difficult for a fully conscious labor patient in the active stage of pushing to dependably achieve this level of immobilization. This problem was overcome by the routine use of general anesthesia, as noted by Dr J. Whitridge Williams in 1912: "*In Johns Hopkins Hospital, no patient is conscious when she is delivered of a child. She is oblivious, under the influence of chloroform or ether.*" In order to reduce the mother and baby's exposure to the depressive effects of chloroform and ether, episiotomy, forceps and manual removal of the placenta were used to shorten the 2nd and 3rd stage of labor.

However, birth as a surgical procedure had a number of unintended consequences. When normal childbirth was defined as a surgical procedure performed by the obstetrician, the focus was no longer on a biological event in which a childbearing woman is supported and assisted so she may give birth spontaneously under her own power. As a surgical event, it is the legal role of the surgical birth attendant to 'perform' the procedure charted as 'NSVD' – normal spontaneous vaginal delivery. As a surgical procedure performed by a surgically-trained specialist, it introduces an artificial and unnecessary liability that does not append to childbirth when it is a spontaneous function of biology.

As with any form of elective surgery, there is an *implied contract between the physician and the patient involving a prior promise of benefit to the patient (and freedom from harm) in exchange for the agreed upon professional fee.*

Unfortunately, the outcome of reproductive biology is naturally unpredictable in a small percentage of circumstances. Approximately 5% of childbearing women will experience some birth-related difficulty requiring major obstetrical intervention. One baby out of about 500 will succumb before, during or after birth or suffer some degree of permanent neurological disability, such as cerebral palsy. Prenatal testing for birth defects and genetic anomalies, *if combined with termination of affected pregnancies*, reduces the rate of adverse events in live births by approximately 1 per 1,000. But even the most conscious and skillful obstetrician cannot eliminate these natural variations or predictably provide the ‘perfect baby’ every time.

When the inevitable adverse event or bad outcome occurs (approximately one out of 500 births), the only protection against malpractice claims by the family or disciplinary actions by the hospital or medical board *lies in the obstetrician’s strict adherence to the policies and protocols associated with a standardized system of medical-surgical care as legally constituted by ACOG.* For any physician accused of substandard (thus negligent) care, the fine distinctions of this obstetrical standard are established extemporaneously by the testimony of his contemporaries (“the community of California physicians”). It is the hope of every defendant that his fellows will attest to the competency of his care, verify that all ‘usual and customary’ policies and practices were properly observed and, having dotted every ‘i’ and crossed every ‘t’, that the obstetrician is to be held blameless.

Childbirth as a physiological event under the principles of aseptic technique

In contrast to this surgically-based obstetrical tradition, normal birth as a biological function in the physiological model is not defined or conducted as a surgical procedure. This is a distinction in two major areas – the patient-caregiver contract and the standards that define professional management of the normal biological events of labor and birth. For physiologic care the patient-caregiver contract is founded on a basic decision by the childbearing woman that she doesn’t want obstetrical or ‘medically-managed’ care for her pregnancy or birth. In most parts of the world, such a choice would not automatically exclude hospital or physician-based services, but physiologically-based care in the hospital by an MD is not an option in US at this time. This reflects the legal definition of hospital maternity care as an *obstetrical* event and the legal requirements associated with an obstetrical standard as *currently defined by ACOG.* However, it should be noted that ACOG could choose to *acknowledge the non-surgical discipline of physiological management as an evidence-based model of childbirth services for healthy women.* ACOG could expand the mandate of its organization to encompass all categories of professional birth attendants, including *non-physician primary practitioners* who provide physiologically-based birth services, thus creating a complimentary and cooperative relationship between the groups that provide birth-related care.

In light of the restrictions that currently apply, a request by a pregnant woman in 2009 for

physiologically-based care legally establishes two things. Under the principle of informed consent she is *declining prophylactic hospitalization* and all that entails: continuous care by the L&D nursing staff, routine or prophylactic use of IVs and EFM, oxytocin to speed up labor, narcotics for pain relief, epidural anesthesia for delivery *and all that an acute care institution may have to contribute in an obstetrical emergency* -- immediate access to surgery, blood products, neonatology services, etc. Relative to mortality statistics, this is *slightly* advantageous to the mother and either neutral or slightly disadvantageous to the baby, depending on whether or not prenatal testing is done to pick up treatable birth defects (redirecting those women to planned hospital birth) and the pool of *lethal* congenital anomalies is eliminated via termination of affected pregnancies at a pre-viable stage.

By choosing a non-medical careprovider and a model that expressly does not offer or include conventional obstetrical services, she is also giving up a legal right to expect the possible benefits that obstetrical policies, protocols, and procedures might have bestowed on her or her baby in times of trouble. Not to put to fine a point on it, but a woman cannot sue her *non-obstetrician* birth attendant for failing to electively induce her 41 week pregnancy or, during intrapartum care, failing to routinely use continuous EFM or perform a ‘timely’ cesarean section. This does not mean she would have no claim against her birth attendant if he or she failed to recommend or arrange medically necessary interventions by timely referral or transfer to obstetrical services, but the woman *cannot legally expect obstetrically-based services from a non-obstetrician birth attendant*.

Another major difference between these two models is the practical role of the caregiver and the nature and scope of the care provided. A restrictive surgical definition narrowly focuses the surgeon-as-birth-attendant’s time and attention on the delivery. By contrast, the broadly-applied principles of physiological management expand the scope of birth attendant’s role to include responsibility for the labor as well as the birth. Physiologically-based care requires the full-time presence of the birth attendant throughout active labor (5 cm with an active contraction pattern and continued progressive dilatation) as well as during the baby’s birth. Birth attendants who provide physiologic care are also responsible for the neonate at birth and for both mother and baby during the immediate postpartum period and initiation of breastfeeding.

In the physiologic model of care, “active management” refers to on-going physical and emotional support and use of non-drug pain relief techniques, such as mobility, one-on-one support and access to warm showers or immersion in a deep-water tub. Effective labor support always addresses the mother’s pain and anxiety, as well as her fears and privacy needs, so that labor can progress spontaneously without the need for medical interventions and pain medication. Women are repeatedly encouraged to move about and make ‘right use of gravity’. Positive use of gravity stimulates long, strong and close together contractions, which helps dilate the cervix and promotes the descent of the baby through the bony pelvis. Upright maternal postures, combined with mobility, generally diminish the mother’s perception of pain, perhaps by stimulating endorphins.

Even though physiologic birth is not conducted as a sterile surgical procedure, birth attendants are responsible for using aseptic principles to prevent iatrogenic and nosocomial infection during labor

and birth. Childbirth under the principles of aseptic techniques includes strict cleanliness (medical asepsis), the use of sterile gloves and sterile technique when examining the mother during labor, the use of sterile instruments and cord clamp placed on a sterile surface (sterile towel on a firm and stable surface) and strict surgical sterility whenever any lacerated tissue are touched or need to be sutured (surgical asepsis). The principles of aseptic technique are low tech, inexpensive, easy to use, family and child-friendly and do not require the special services of an acute care hospital or extensive training as a surgeon.

In addition to the issues of immediate labor and birth care, community-based birth attendants directly care for both mother and baby for the first 6 weeks. This includes at least two house calls in the first few days after the birth, office visits at 2 and 6 weeks and physically accompanying the mother and baby to the country health department to register the birth.

Physiologically-based Billing Code for Normal Birth

Physiologically-based care currently lacks an appropriate billing code, which means that all birth attendants are forced to use a surgical billing code, even when the care provided was for physiologically-managed spontaneous childbirth. Physiological management of normal birth needs its own CPT code, which refers to *Current Procedural Terminology*. This is a standardized nomenclature for medical procedures developed by the AMA in 1963. Because this coding system was designed by the AMA, it only covers medical and surgical procedures specifically as performed by physicians. Since obstetrics is a surgical specialty, a surgical CPT code was assigned to the ‘procedure’ of childbirth as performed by a surgically-trained physician.

CPT codes have become the industry standard for all official documents and billing for healthcare services. In 1983, the AMA and HCFA (Health Care Financing Administration) signed an agreement requiring CPT codes to be used for the reporting of physicians' services in all federal programs, as part of the ‘common procedural coding system’ (HCPCS). In 1986 HCFA began requiring state medical agencies to use the Medicaid Management Information System, which meant they also had to use CPT codes. Any healthcare activity defined as a medical or surgical procedure refers to a discrete action by a licensed professional with a start and stop time and a defined series of steps in between. This information and the complexity of the surgical activity (excising a cyst versus a doing hysterectomy) becomes the billing ‘unit’ which determines the professional charge for that specific service. Such a system does not acknowledge that physiologically-based care during normal childbirth or acknowledge that such care is a continuum that includes the full spectrum of labor as well as the birth, immediate care of the neonate and on-going responsibility for postpartum-postnatal care. A physiological code would rectify that oversight.

Continuity of care by the primary birth attendant during active labor, the birth and the first hour or two of the new baby’s life is a *biological imperative for physiologically safe and emotionally satisfactory childbirth in healthy women with normal pregnancies*. Fair compensation for non-

obstetrician birth attendants, via a physiologic billing code, would recognize the prolonged expenditure of the professional's time. It would also acknowledge the preventive value of the professional's presence in reducing the need for medical and surgical treatments and in detecting abnormalities while these problems are still in a relative benign stage and amenable to early treatment. In a high percentage of cases, this averts a serious complication and the need for invasive or expensive measures, such as vacuum extraction or emergency cesarean surgery and associated intra-operative, postoperative, delayed and downstream complications. Reducing the incidence of surgical delivery reduces the likelihood of post-Cesarean complications, such as secondary infertility, placental abnormalities, stillbirth in future pregnancies and the need for repeat Cesarean.

The aggregate reduction in overall cost of care (including future reproduction) makes the longer expenditure and higher cost for the professional's time a cost-effective strategy. This is economically advantageous to patients and 3rd party payors alike. For all these reasons, a physiologic CPT-billing code is *an economic imperative* and the lynch pin to making the system work for everyone.

Care for Normal Birth is Not a Contest Between Midwifery and Medicine

In practical and political terms, the controversy over childbirth practices should not pit midwives against obstetricians, nor is the real issue 'home-versus-hospital' birth. No woman should ever have to choose between a physician and a midwife or between a planned hospital and planned home birth in order to receive physiologically-based care for a normal labor and spontaneous birth. As a matter of national policy, physiological principles for normal maternity care should be integrated with the *best advances in obstetrical medicine* to create *a single, evidence-based standard for all healthy women with normal pregnancies*; this integrated standard should apply to all birth settings and be universally used by all categories of birth attendants when providing care to healthy women.

In those countries with the best maternal-infant outcomes and the most cost-effective healthcare systems, prevention is valued equally with intervention as the proper role of the professional maternity care provider. In these jurisdictions, physiological management is a standard part of the medical school curriculum and an *acknowledge part of a physician's scope of practice*. Under evidence-based parameters of physiologic care, the duty of the birth attendant is *to support the biological events and psychological process as it unfolds*. Policies and practices associated with physiological management are legally distinct from medical-surgical management typically utilized by the obstetrical profession. Under a physiologic standard, medical and surgical interventions are reserved for complications or when requested by the mother.

When a childbearing woman consents to physiologic birth services, the standard of care that applies to her caregiver does not place him or her under ACOG's policies of obstetrical management. However, the maternity patient can always 'opt out' of physiological management if she changes her mind or her plans and for any reason prefers obstetrical care, wants to have epidural anesthesia or the

perceived benefits associated with the preemptive use of medical and surgical procedures. The problem is that we don't currently have a model of maternity care that acknowledges physiological management as an evidence-based standard for healthy women with normal pregnancies. Any individual obstetrician who ignores the legal standard established by ACOG and decides on his own to use the physiological management instead, would technically be guilty of 'substandard' care, no matter how normal the labor or good the outcome. In the event of a lawsuit or investigation by the Medical Board, such actions would be deemed 'indefensible'.

Regrettably, this dichotomous situation is not likely to change in the near future. Many long and expensive years of obstetrical education and residency are required before an obstetrician can practice. The healthy desire of most experienced surgeons is to use their professional expertise on a daily basis. Even if ACOG acknowledges physiologically-based care as an evidence-based form of care, the vast majority of obstetricians will choose to continue practicing obstetrics. The choice to embrace one's ob-gyn surgical specialty leaves obstetricians free to focus their energies on the care of women who want an obstetrically-managed labor and birth, women with pre-existing disease or high-risk pregnancies and all those who develop complications during pregnancy or labor, including women who are transferred from the care of midwives and family practice physicians. Currently that accounts for about half of the childbearing population.

It's likely that the published comment by an obstetrician in a top obstetrical journal identifies the future direction of the obstetrical profession and indirectly, that of midwifery: "*It is no longer feasible for individual physicians who have invested 12 years in training at a cost of hundreds of thousands of dollars to dedicate extended periods to observing one normal woman in labor.*" [Macer JA et al; Am J Obstet Gynecol 1992;166:1690-7].

To be thoroughly honest about it, obstetricians have not dedicated extended periods to observing one normal woman in labor for the last hundred years. Fortunately, these same circumstances do not apply to midwives.

Midwives regularly "dedicate extended periods of time to observing one normal woman in labor", as well as serving as her birth attendant, providing on-going care to the mother and baby after the birth, performing a newborn exam, helping the mother to initiate breastfeeding and personally following both mother and baby closely for the next 96 hours or until the mother's milk is in and the baby is nursing satisfactorily, hydrated and obviously doing well. The fact that midwives do not have to "*invest .. 12 years in training at a cost of hundreds of thousands of dollars*" is to the advantage of women and society. It is appropriate because midwifery is not a surgical specialty, nor do midwives want in any other way to practice obstetrics.

As they say in France, *via la difference!*

Part 2 ~ Responsible Midwifery for the 21st Century

a. Comparative Study of Care: four different models of maternity care as chosen by the childbearing women (includes both attended and unattended childbirth but excludes *unintended, unattended precipitous* birth for all groups)

1. A religious group that rejects all forms of preventative and therapeutic health care and had purposefully chose unattended births (UA)
2. Lay midwives attended PHB, included prenatal care and appropriate referral
3. Professionally-trained midwives attended PHB (CNMs and LMs) included prenatal care and appropriate referral
4. Hospital-based obstetrics for healthy women

b. The Challenge of Midwifery Education in a bifurcated and hostile environment