Chapter Two ~ Maternity Care for Healthy Women with Normal Pregnancies

This book is about *normal* childbirth in *healthy* women and the kind of maternity care that has been provided to this healthy population over the last hundred or so years. The purpose of maternity care is to preserve the health of *already healthy* women. Mastery in this field means bringing about a good outcome without introducing any unnecessary harm or unproductive expense. In the US, ninety percent of women who become pregnant every year are healthy and at least seventy percent are still healthy and enjoying a normal pregnancy nine months later.

At the same time, this story is thoroughly supportive of the appropriate use of obstetrical intervention to treat the 20-30% of women who develop complications. The true purpose and glory of obstetrical care as a surgical specialty is the compassionate correction of dysfunctional states and the treatment of pathological ones. Modern obstetrical medicine is clearly indispensable to modern life. As a childbearing woman, I have personally benefited from these surgical skills; as a maternity care provider, I have a deep respect for the life-saving skills of the obstetrical profession.

I have chosen the metaphor of 'normal childbirth trapped on the wrong side of history' to describe historical systems whose purpose was to make childbirth safer and more satisfactory for mothers and unborn/newborn babies, but *the system* (as distinguished from the individuals) consistently failed to meet either one or both of these goals.

A maternity care system fails when it is unable or unwilling to meet the practical needs of a healthy childbearing woman as she herself defines them, when it is unable to protect her or her baby from the known complications of normal childbirth or it introduces unnecessary, painful, dangerous, humiliating, outmoded or ineffective procedures (iatrogenesis) that somehow serve the system, but do so to the detriment of the mother or baby. Whatever the reason, the idea of normal birth being trapped on the wrong side of history also means that it is beyond the ability of any one individual -- mother, midwife, physician or politician -- to make the system work for them personally or correct these systemic problems as they affect others.

How and why does this happen? The reasons are different for healthy women than they are for those with complications, but both normal and abnormal childbirth have been trapped on the wrong side of history at different times, in different ways and for different reasons. To make the story even more complex, those reasons are different now than they were a century ago. Over the many eons of human history, far too many childbearing women have lived in historical time periods that predated the development of basic biological knowledge and effective medical diagnosis and treatment. In contemporary times, far too many women live in places with political systems that didn't support universal access to mother-friendly forms of maternity care that are safe, effective, and affordable.

For Americans in the 21st century, none of the above explanations apply. Unlike the poverty and deprivations of third world countries, we suffer from the excesses of our affluence. Americans are accustomed to medical miracles and generally believe that we have the best system of healthcare for everything, most especially our high-tech obstetrical system. For the last hundred years, the US has used interventionist obstetrics as the primary source of maternity care for everyone, including the healthy population of childbearing women who do not generally benefit from routine

intervention and who often suffer harm as a result of interventionist policies and practices.

Currently this system medicalizes normal childbirth in 3 million healthy women every year. At the core of this obstetrical system is normal birth performed as a sterile surgical procedure. Birth conducted as a surgical procedure started out as a uniquely American phenomenon, developed in the early 20th century in an effort to prevent hospital epidemics of childbirth-related infections in a pre-antibiotics era. In its time and place, it was a noble effort in the face of overwhelming circumstances beyond the control of those in the medical profession.

Historically, the 'lying-in' hospitals in Europe were plagued by childbed fever since the very first epidemic swept the oldest charity hospital in Paris in 1646. As a strategy to prevent infection in their maternity patients, influential American obstetricians applied the ideas of Sir Joseph Lister to normal birth in the early 1900s. Lister was the famous 19th century British surgeon to Queen Victoria. He is known as the father of surgical sterility (Listerine was named in his honor).

By 1910, obstetricians in the US had redefined obstetrics as a surgical specialty and laboring women as *surgical* patients. They believed that normal childbirth would be made safer by applying the same principles used to make surgery safer to the entire second or pushing stage of labor. Under this principle, the minutes before, during and immediately after the baby was born came to be known as the new surgical procedure of 'vaginal delivery'. As a sterile surgical procedure, the delivery usually included the use of anesthesia and was conducted as by physician-surgeons in a special restricted environment. Birth as a surgical procedure was seen as the highest expression of newly emerging 20th century practice of medicine as an elevated and purely scientific endeavor. This ultimately gave rise to what is now thought of as the 'American way of birth'.

Under these policies, childbirth was divided up between two professions. Normal labor became a life-threatening medical condition to be managed by the nursing profession and the new procedure of 'delivery' belonged exclusively to the medical profession. This bifurcated system subsumed the physical, psychological and social needs of childbearing families to the great need to prevent childbed fever in a hospitalized population of maternity patients. Before the discovery and development of antibacterial drugs, tens of thousands of new mothers died each year from the direct or indirect consequences of childbed septicemia. Preventing childbed fever was an all-consuming goal for obstetrical professors and hospital administrators, as the hospitalization of maternity patients was a central ingredient in the education of medical students and necessary to the development obstetrics as a separate surgical discipline.

This produced a medicalized system of routine intervention that was dramatically different from the classic principles of maternity care, which have always defined labor and birth as a continuum, that is, a single integrated event occurring over time. Prior to this, midwives and physicians relied on the non-medical principles of physiological management, which describe a 'subtle' system that is quite the opposite from the philosophy of allopathic medicine. Subtle systems are a background or secondary process (like the life guard at the pool) whose identified role is to support naturally effective biological processes, reserving direct action for the rare situations when things don't precede normally. This includes the careful on-going observation of natural phenomenon. The caregiver must be physically present, taking his or her clues from the moment-by-moment flow of events. This kind of focused attention and careful continuous watching is

similar to steering a car, deep-frying fish or determining when a baby needs to be nursed. Relative to normal childbirth, it includes the continuous supportive care by her primary birth attendant provided throughout active labor and spontaneous vaginal birth.

As a culture, we replaced these subtle supportive systems during the first decade of the 20th century and replaced them with medicalized methods of childbirth. At the time, this was referred to as the 'new' obstetrics and it has continued to dominated our maternity care policies the rest of the century. The US even exported this interventionist system to developing countries that were eager to copy the American way of birth. Unfortunately, these are the wrong ideas for the 21st century. Conventional obstetrics for healthy women is associated with a high level of medical interventions, obstetrical complications, anesthetic use, instrumental deliveries, Cesarean section and the post-operative complications of these surgical interventions.

As currently configured, this medicalized system of maternity care cannot meet the practical needs of healthy childbearing women and yet it is frighteningly expensive. It often forces unwanted and unnecessary obstetrical interference on healthy women who neither require nor desire such interventions. Worse yet, a significant number of otherwise healthy mothers and babies pay a high price in iatrogenic (medical provider) and nosocomial (hospital-acquired or system-related) complications.

The 20th Century Industrializing of Childbirth ~ historically, a perfect storm

Twentieth century obstetrics for healthy women is the story of a perfect storm. In 1910, these historical events converged and triggered the most extreme and far-reaching change in childbirth practices in the history of the human species – the total medicalization of normal birth in a healthy population. These changes were not based on a scientific body of evidence -- no research or controlled studies have ever identified routine obstetrical intervention as safer or better for healthy women than the spontaneous biology of normal birth under the watchful care of trained and experienced birth attendants. had comparative studies been done in 1910, physiologically-based care for healthy women would have been determined, then as now and as was obvious in the segregated southern hospitals of the 1960s, to be the science-based model of maternity care.

These extreme changes didn't happen because early obstetricians were somehow insensitive, mean-spirited or apathetic. The obstetrical profession in 1910 (as now) was filled with good people with humanitarian motives doing their best within the constraints of the era. Nonetheless, professional services provide for normal birth and the experience of childbearing families was changed beyond recognition by factors unique to this period of history, factors which no longer apply.

The Economics of Interventionist Obstetrics for Healthy Women

The most frequent, most expensive and most *misunderstood* healthcare issue in the US is the unnecessary medicalization of normal childbirth for millions of healthy women every year. Interventionist obstetrics remains the primary, and in most places, the only source of maternity care

for this healthy population. Since one-quarter of our annual healthcare budget is spent on maternity care, no effort to reform our national healthcare system can afford to ignore our expensive habit of medicalizing normal childbirth.

In the first decade the 20th century, the ratio of ill health and pregnancy complications in the United States was awful by any measure, with the second worst maternal-infant mortality rate of any industrialized countries. The average married woman in the US had 16 pregnancies and 12 live births, only nine of whom lived past infancy. Due to inadequate nutritious and frequent, close-spaced childbearing, most women lost a tooth for every pregnancy. With such dismal statistics, few would have questioned the frequent use of obstetrical interventions and operative deliveries in 1910.

However, the health of childbearing women in the first decade of the 21st century is superb. Most women in the US don't have their first baby until they are 25 or older and have, at most, only two or three pregnancies. However, the number and frequency of obstetrical interventions has skyrocketed all out of proportion when compared to the first half of the last century or other developed countries. As American women have become progressively healthier, the operative delivery rate in the US has inexplicably risen with every decade. Out of the approximately 4 million babies born each year, nearly three-quarters of all obstetrical care goes to pregnant women who are healthy and having normal pregnancies.

In 2005, the medical intervention rate for this healthy population was 99%, with an average of *seven* medical procedures performed during labor on millions of healthy childbearing women. More than 70% of these new mothers had one or more surgical procedures during birth – episiotomy, forceps, vacuum or Cesarean section. [*Listening to Mothers'* survey, 2002 and 2005 at www.childbirthconnections.org] Over 2½ million operative deliveries are performed each year in the US on this population of healthy women. Cesarean section is the *most commonly performed* hospital procedure in the US -- 32% of all births in 2007 or 1.3 million Cesarean surgeries, equal to the total number of college students that graduate each year. The annual price tag just for Cesarean sections is over $15 billion.

One reason for the ever-increasing Cesarean rate is three decades of ever increasing obstetrical intervention in so-called "normal" *vaginal* births, a situation heavily influenced by the malpractice litigation issue. Since 1970, at least one additional intervention has been subsumed in the standard of care every couple of years. One by one, old and new medical procedures and restrictive obstetrical protocols have been added to the labor woman's experience. You can't put a laboring woman in bed and hook her up to seven (or more) IV lines, electrical leads, tubes, automatic blood pressure cuff, pulse oximetry, catheters, and other equipment without *profoundly* disturbing the spontaneous biology of normal labor. Each new intervention or drug introduces an independent risk, which is then multiplied by the aggregate of unpredictable interactions with one another. Every single invasive procedure increases the likelihood that a new mother or baby will experience an unexpected side-effect or an become infected with a drug-resistant bacteria such as MRSA (the Methicillin-Resistant Staphylococcus Aureus). Ninety-thousand nosocomial (hospital-acquired) infections are already acquired every year in the US.

Cesareans & the Obstetrical Equivalent of Collateral Damage

There are quite literally dozens of major and minor problems associated with Cesarean section. One source identifies 33 'route-of-delivery' complications for Cesarean surgery, compared to only 4 when the route-of-delivery is a spontaneous vaginal birth. ["What Every Pregnant Woman Needs to Know about Cesarean Section", a systemic review of the scientific literature at www.childbirthconnections.org] For the mother, Cesarean surgery exposes her to anesthetic accidents, surgical injury, hemorrhage, emergency hysterectomy, drug reactions, infection, blood clots in the lungs, inability to breastfeed, ICU admission, need to be on life support, permanent brain damage and maternal death. For babies, Cesarean route-of-delivery risks include accidental premature delivery, surgical injury during the C-section, respiratory distress and increased rates of admission to NICU. New mothers and babies are both more likely to die from the intra-operative, post-operative or delayed complications of Cesarean surgery than from normal vaginal birth. [need citations here]

Unfortunately these dangers don't go away simply because the mother survived the surgical delivery unscathed. Life-threatening complications extend into the postpartum period (as long a year later) and include secondary infertility, miscarriage, and tubal pregnancy. Delayed or downstream complications for mothers in post-cesarean pregnancies and post-cesarean labors include placental abruption, placenta previa, placenta percreta, uterine rupture, emergency hysterectomy and maternal death or permanent neurologically impairment. Risks to babies in subsequent pregnancies include placenta abruption/stillbirth, death or permanent neurological disability subsequent to uterine rupture, lung disease and increased rates of both childhood and adult asthma. [citations from Ob.Gyn.News]

Despite meticulous professional attention, ever increasing rate of intervention, and the huge amount of money spent on the American way of birth, we are still unable to match the better outcomes enjoyed by industrialized countries that use low-intervention maternity care systems. They achieve this laudable accomplishment by training family-practice physicians and professional midwives to manage childbirth *physiologically*, while reserving obstetrical interventions for women with complications and those who request medical interventions. Cost-effective maternity care systems spend only a half to a third of what we do, while they enjoy a vastly superior outcome. At last count, the US was an embarrassing 32nd in perinatal mortality and ignoble 30th in maternal mortality. [check & cite stats for most recent year available]

During the 20th century there has been a steady improvement in maternal-infant outcomes around the world. Many assume this was the result of medicalizing normal childbirth in the richest countries, particularly the US. However, it turns out to be the result of an improved standard of living, general access to medical care and *preventive use of people-intensive, low-tech maternity care*. This describes the prophylactic use of the eyes, ears, hands and knowledge base of maternity care professionals who are able to screen for risk and refer for medical evaluation as needed. This is the best medicine for normalizing childbirth in a healthy population.

The Obstetrical Standard of Care – historically illogical, fundamentally-flawed

As currently configured in the US, the medicalized model makes it virtually impossible for obstetrically-trained birth attendants to use physiologically-based methods. Physiological

management is not the 'customary' practice of those trained in the surgical specialty of obstetrics and it is not taught to interns or obstetrical residents. Ironically, the entire tradition of physiological care has been defined by the medical profession as a *substandard* or negligent form of care for the nearly a hundred years. This puts obstetricians in a straightjacket and childbearing women in jeopardy. Many complicated historical and economic issues contribute to the an institutionalized inability to provide physiologic care, but at its most basic level the problem is perpetuated by the way the standard of care for obstetrics is defined. Legally the 'quality' of care that any one obstetrician is held to is not primarily determined or defined by what is physiologically indicated or what can be proven via evidence-based science to be the safer or better choice. Instead standard of care is determined by whatever the customary practices of other obstetricians are, irrespective of whether or not such customs are good or bad, safe or risky, evidence-based or merely reflect the 'preferences' of obstetricians in their local area.

Examples of this are too numerous to list, but include: the routine use of ultrasounds during prenatal care, induction of labor at 41 weeks, ordering IVs and continuous EFM on admission to the hospital, using IV Pitocin to accelerate labor at a certain predetermined rate of cervical dilatation and scheduling elective Cesareans whenever ultrasound estimates of the baby's weight are over 4000 grams or if the mother had a previous Cesarean section. Obstetricians who don't follow the crowd are penalized. They risk losing referrals from other physicians and don't get offered a seat on the department's many committees. If they still don't get the hint, they may lose their hospital admitting privileges or their malpractice coverage.

After the fact, the aggregate of individual physician preferences simply becomes, without any further oversight or accountability, the *de facto* standard of care – good, bad or indifferent, if other obstetricians are doing it, you have to do it, if other's don't, you get a dispensation as well. Once something becomes official policy, the influence and effect it has on every obstetrician in that community is similar to the federal government's stated foreign policies on members of the US military. Every good soldier is expected to follow the proscribed guidelines to the letter and is subject to disciplinary actions if s/he should fail to do so. Not even the generals have the individual right to change or suspend the official rules as determined by the Powers That Be.

This form of external control also applies to obstetricians thru the position statements of the American College of Obstetricians and Gynecologists, ACOG technical bulletins and formal policies, in combination with customary practices as defined by experts from within the obstetrical profession and the 'community standard' – local custom. The lay public views the obstetrical profession from a great distance and mistakenly thinks things look pretty wonderful. Seen from the moon, many envy physicians for what seems to be an absolute degree of autonomy and power greater than any other group of individuals they know. Sadly, the view from Planet Earth -- up close and personal – reveals an astonishing lack of both autonomy and control. In fact, this extreme incongruity is why many leave the medical profession after a decade or so, overwhelmed by the pressure to conform, bitterly disappointed by the astonishing lack of personal control they experience in their professional life and unable to reconcile their daily reality with what they thought the practice of medicine would be like.

All of this combines to make childbearing in the 21st century something of a trick with mirrors – it looks like it is the most advanced its ever been and like doctors and nurses and labor patients (and expectant fathers) are happier than they have ever been – a nirvana in pink and blue.

But just slightly below the surface, its very different. The labor and delivery suites of contemporary hospitals seem dramatically improved over the restrictive architecture and policies of earlier decades, but it is equally and sometimes even more difficult for childbearing women to have a physiologically-managed labor and spontaneous birth today than even five years ago. In particular, women with obstetrically unpopular situations – VBAC, breech, twins, big baby, a small-for-dates baby, prolonged rupture of membranes, women with other rare or unusual circumstances -- still find that only way to avoid unwanted interference is to labor unattended at home until the very last minute. Then they leave for the hospital and hope to give birth before the obstetrical machine can get geared up to intervene in ways they don't want or to 'deliver' them via Cesarean section.

If the US is to successfully compete in the global economy of the 21st century, we must re-consider the illogical idea of standards as the collective preferences of the obstetrical profession. This irrational system prevents the US from developing a cost-effective maternity care system that utilizes physiological care for healthy women. Most of the world is already using cost-effective methods of maternity care -- being left behind is not an option.

The Principles of Physiological Care:

The *physiological management of normal birth* has always identified by a consensus of the scientific literature as the safest and most economical form of maternity care for healthy women. It is the one used by those countries with the best maternal-infant outcomes. Stedman's Medical Dictionary defines physiological as**: "..in accord with or characteristic of the normal functioning of a living organism" .** When providing services to a healthy childbearing population, physiological care should be the universal standard used by all birth attendants and in all birth settings. It is always articulated with the medical system and includes the appropriate use of obstetrical interventions for complications or at the mother's request.

The classic principles that define physiological care include a basic confidence in normal biology and support for the spontaneous process of labor and birth. This tradition sees the use of medical and surgical intervention as restricted to *abnormal situations*. Physiologic care is neither passive or neglectful or nor is it just a matter of abstaining from the unnecessary use of medical interventions. It's a pro-active process for preserving maternal-fetal wellbeing that relies on a formal body of knowledge and a specific skill set for addressing the physical, biological and emotional needs that women and their fetuses face during labor. This includes continuity of care throughout active labor by individuals known to the mother. Other important principles are patience with nature, an absence of arbitrary time limits and the right use of gravity. Physiologic care also acknowledges the laboring woman's need for physical and psychological privacy. This includes the right of a healthy mother with a normal pregnancy to control her environment and to direct her own activities, positions & postures during labor and birth.

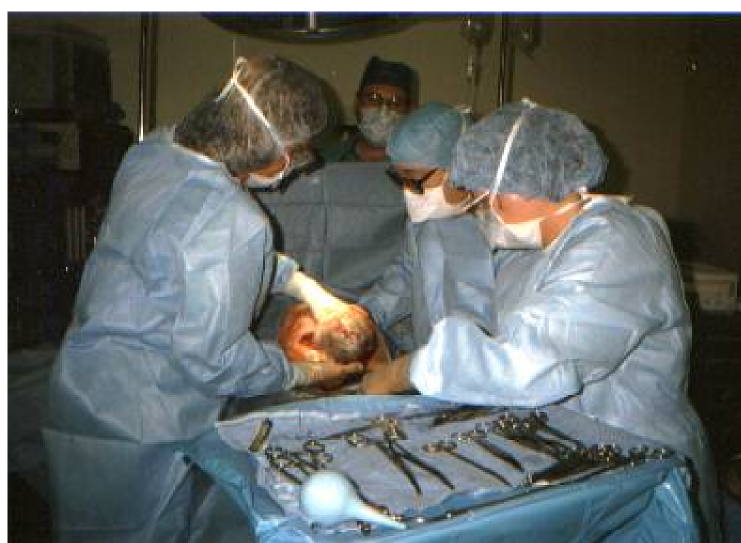
The non-interventive approach to normal childbirth is careful not to disturb the healthy

spontaneous process. This requires changing institutional policies whenever they interfere with the requirements of normal physiology. To achieve these goals, evidence-based maternity care employs a system of one-on-one social and emotional support and non-drug methods of pain relief (such as movement, touch and warm water), in conjunction with the judicious use of pain medications or anesthesia when requested or medically necessary. It encourages the mother to be upright and mobile during both labor and birth by walking around at will, changing positions and activities frequently, getting in and out of the shower or using a deep-water tub. Being upright and able to move about during contractions also diminishes the mother's perception of pain, perhaps by stimulating endorphins and takes into account the **positive influence of gravity** on the stimulation of labor. Right use of gravity helps dilate the cervix and assists the baby to descend down through the bony pelvis, greatly reducing the need for obstetrical interventions.

Physiological management of normal labor and birth is associated with the *lowest* rate of maternal and perinatal mortality. It is *protective* of the mother's pelvic floor and has the *fewest* number of medical interventions, the *lowest* rate of anesthetic use, obstetrical complications, episiotomy, and operative deliveries. For women who choose physiologically managed care (i.e. normal, non-medical vs. medicalized), the C-section rate ranges from 4 to 10 percent, which is three to seven times *less* than medicalized childbirth [citation]. Millions of health care dollars can be saved every year on the direct cost of maternity care and a reduction in post-operative, delayed and downstream complications associated with Cesarean surgery. [Top 5 Hospital Procedures & Cost, Reuter, 2005]. This is a hugely important savings to employers who pay for employee health insurance, for taxpayers who underwrite government-financed programs for the indigent and for the uninsured who must pay out of pocket.

For a variety of reasons, the obstetrical profession in the US turned its back on physiological childbirth nearly a hundred years ago. The absence of physiologic care, combined with the routine use of interventionist obstetrics, means that every year millions of pregnant women spend the many hours of their labor lying in bed while an extensive array of counterproductive and medically-unnecessary procedures are done to them. This results in an artificially high rate of complications and operative deliveries. Unfortunately the obstetrical response to the increased morbidity that accompanies excessive intervention in vaginal birth is to propose the *ultimate* iatrogenic intervention – medically unnecessary Cesarean surgery. There is a move within the obstetrical profession to promote electively scheduled Cesarean for healthy women as the *preferred standard* of care for the 21st century.

Cesarean As the Norm:



Replacing normal, low-risk biology with scheduled abdominal surgery is being promoted as better, safer and more economical, a 'two-for-one special' that buys us better babies while saving the mother's pelvic organs from the stress of giving birth. This is also being described as a gender rights issue and

part of a woman's "right to choose". Renamed as the 'maternal-choice' Cesarean, medically unnecessary C-section is identified as the *ultimate expression of control by women over their own reproductive biology*. But once a woman has consented to a Cesarean, neither she or her partner have any control over the surgical process itself (who can be present, one layer suturing vs. two layer closure, etc) or the events surrounding the surgery and recovery of herself or her baby.

The claims of improved safety or lowered cost also do not square with the facts. The scientific literature identifies many of the problems associated with Cesarean to be the same kind of complications that C-section was suppose to save us from. One recent study from France identified a *3½ times greater maternal mortality rate* in electively scheduled Cesareans in healthy women with *no* history of health problems or complications during pregnancy. Other studies documented an increased mortality and morbidity for newborns associated with the elective or non-medical use of Cesarean surgery. [citations a, b, & c]

The Medical Leadership Council (an association of more than 2,000 US hospitals), in its 1996 report on cesarean deliveries, concluded that **the US cesarean rate** was:

> "medicine's equivalent of the federal budget deficit; long recognized as [an] abstract national problem, yet **beyond any individual's power, purview or interest to correct**."

That's pretty grim -- *a disjointed, economically-strapped and liability-burdened obstetrical system unable to help itself*. Cosmetic surgery and care for normal childbirth share an important characteristic in that they both start out with a totally healthy individual and that the medical profession's ethical charge for both categories of patients is: "first, do no harm". Both types of patients should be just a healthy when their doctors finished as when they began. Birth by major surgery as the standard of care is incompatible with that goal.