Common Sense

~ Science-based Maternity Care for the 21st Century

by Faith Gibson, LM, CPM

1991 ~ Email Communication From "Doc"

> "The novel, *The Cry and the Covenant* [1840s story of Dr. Semmelweis], shows this same belief system in operation in a far simpler context, and with far more obvious (at least to us today) cause and effect relationships. We know today that **inferential statistics** are one of a computers strongest applications.
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> Do think carefully about this. Here we find ourselves today in the midst of a whirlwind revolution in communication and data processing, information management and telemetry and automation and imaging.
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> How short a time has passed since the period depicted in this book, when it was a radical idea to just wash your hands! Would it have made any difference if all this hardware and technology were available then? What about the equivalent diseases today? … **Is there an equivalent to "washing your hands" possible**?
>
> Would the reception of that equivalent be the same? Would our present level of technology make a difference, or is there something deeper here? Do **computers change people and attitudes**?"

The reply is 'yes' to the question of whether there is a modern obstetrical equivalent of "washing your hands" [doctors who refuse to believe that something they are doing is harmful]. The reply is 'no' to whether "computers change people [organized medicine] and attitudes".

The modern equivalent of 'washing your hands' is the **last and most important untold story** of the 20th century. It is the shadow side of Semmelweis' (and many others) discovery of the universal etiology for childbirth septicemia. In the US, an early 20th century misunderstanding and/or a self-serving misapplication of these truths, has wrecked havoc on normal birth for the entire 20th century. This was the result of the obstetrical profession mistakenly ascribing *absolute value* to things of *relative worth*, that is, confusing cause and effect and then making inappropriate generalizations from a specific situation.

This has little to do with the appropriate use of obstetrical medicine to treat the 30% of pregnant women who develop complications. The controversy is the use of these same forms of medical interventions routinely or "prophylactically" on the 70% of healthy women with normal pregnancies. Bad as that is, these iatrogenic theories have now been adopted by other industrialized

countries and imported to the developing world to be admired and emulated because it is "what they do in America" i.e., the 'gold standard' for maternity care.

Recently a more virulent form of [not] "washing your hands" has arisen in American obstetrics. Medically-unnecessary "elective" Cesarean Section is now being promoted as the new and improved 'standard of care' for the 21st century. This iatrogenic monster threatens to contaminate the entire 21st century just as perniciously as earlier forms of obstetrical *excess* did in the 20th century. Humanity now seems engaged in a race to see who can be first to make normal birth an extinct form of biology. All this is predicated, in a heart-sickening way, on the misapplication and mangling the discoveries of Semmelweis, *et al*.

A preponderance of scientific literature identifies elective cesarean delivery as more than doubling the rate of maternal deaths compared to vaginal birth. In addition are immediate post-operative complications, including pain, hemorrhage, blood transfusions, infection, pulmonary embolism, and a hysterectomy rate 13 times greater than vaginal delivery. Delayed and downstream sequelae following cesarean surgery includes secondary infertility rate of 6%. The rate of ectopic pregnancies and miscarriages are also increased.

Complications of Cesarean in subsequent pregnancies include placenta abruption, placenta previa, accrete and percreta. The rate of placental anomalies rises with each subsequent pregnancy, making it the 'gift' that keeps on giving. The rate of maternal mortality associated with post-cesarean placenta percreta is 7 to 10 %, even in the very best most prepared hospitals. Additional risks to fetuses and infants in post-cesarean pregnancies include placental abruptions (increased fetal demise & stillbirth rate) and uterine rupture. For the baby, being born by cesarean increases the rate of respiratory distress and admission to NICU. A Cesarean birth also increases the rate of asthma during childhood and as an adult by 33 percent.

"*Primum non nocere*"

"First, do no harm..."

Bringing the Hippocratic Oath into the 21st Century

Physiological management is the evidenced-based model of maternity care used world wide. Physiological is: …"..in accord with, or characteristic of, the normal functioning of a living organism" (Stedman's 1995 Medical Dictionary definition of "physiological"). The principles of physiology can be used by all birth attendants and in all birth settings.

Physiological management of labor and birth is associated with the *lowest* rate of maternal and perinatal mortality and is *protective* of the mother's pelvic floor. It has the *best* psychological outcomes and the *highest* rate of breastfed babies. Dependence on 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 and delayed or downstream complications in future pregnancies. Physiological management is both *safe and cost-effective*.

Conventional obstetrics as applied to healthy women is the opposite of evidence-based, physiological management. Its associated with a high level of medical interventions, obstetrical complications, anesthetic use, instrumental deliveries, Cesarean surgery and post-operative complications including emergency hysterectomy, delayed complications such as stress incontinence and pelvic organ prolapse, downstream complications in future pregnancies, long-term psychological problems such as postpartum depression, lower rates of breastfeeding and increased asthma in babies born by cesarean section. Conventional obstetrics for healthy women is neither safe nor cost-effective. [see "What Every Pregnant Woman Needs to Know about Cesarean Section", a systemic review of the scientific literature by the Maternity Care Association of NYC at www.maternityWise.org]

A long over-due and much needed reform of our national health care policy would integrate physiological principles with the *best advances in obstetrical medicine* to create a single, evidence-based standard for all healthy women. Physiological management should be the foremost standard for all healthy women with normal pregnancies, used by all practitioners (physicians and midwives) and for all birth settings (home, hospital, birth center). This "social model" of normal childbirth includes the appropriate use of obstetrical intervention for complications or at the mother's request.

Background about me & why I am writing this

I was an L&D nurse until 1976 but finally left when, after 16 years, I was unable to make any improvement in the 1920's version of obstetrics that was still in use in the South in the 1960s and early 1970s – routine use of narcotics, scopolamine, general anesthesia, episiotomy, forceps and manual removal of the placenta. However, in my student days our hospital was still racially segregated and a dramatically different form of care was provided to black patients. This resulted in a naturally-occurring, one-of-a-kind scientific comparison, contrasting two very different styles of maternity care – a profoundly interventionist model characterized as "*knock'em out, drag'em out*" obstetrics (in the all-white part of the hospital), versus a lazier-fair system for our black mothers. Black labor patients received a classic form of physiologically-management, the same type that is now routinely provided by midwives like myself. But in 1961, it all depended on whether the mother was black or white.

In our segregated hospital, Caucasian mothers were sent to the all-white labor ward on Five-North. On admission they were isolated from their family. A public shave was done and they were given a large enema. After the admission rituals were concluded, they were put to bed and medicated with a double dose of sleeping pills. As labor progressed they were injected every 2-3 hours with a narcotic mixture known as "twilight sleep" – large and frequently repeated doses of narcotics and tranquilizer drugs and scopolamine. Scopolamine is a potent hallucinogenic drug that causes short-term memory loss and permanent amnesia of events occurring under its influence. Under these powerful drugs some women became temporarily psychotic and physically fought with the staff and even bit the nurses.

Left unattended, they fell out of bed and chipped teeth or broke their arm. To keep drugged women from getting hurt, the hospital required a nurse to stay right at the bedside through out the entire labor. When the nurses were busy, our white mothers were put in four-point leather restraints, the same kind used in the locked psychiatric wards of the hospital. This forced women to labor flat on

their back, a position that interferes with and reduces blood flow to the uterus and placenta, making labor extremely painful and often causing fetal distress.

When the time came to give birth, these mothers were moved by stretcher to an OR-style delivery room, given general anesthesia, put in lithotomy stirrups, a “generous” episiotomy was performed, and the baby was extracted via ‘low’ forceps. Out of every 25 babies or so, one or more would fail to establish respirations. A significant number of babies died as a result of the drugs, general anesthesia and/ or the use of obstetrical instruments. The third leading cause of maternal deaths in the 1950 and early 1960s was from obstetrical anesthesia.

In contrast, our black labor patients were admitted to their postpartum beds in an old-fashioned four bed ward in the basement of the hospital, where they were left to fend for themselves (no labor room nurse, drugs, or anesthesia). Because they were undrugged, black women in labor were permitted to walk around unencumbered and socialize with the many other experienced women on the ward. This was very comforting to them and provided a useful source of encouragement and tips on how to cope with labor pains. In particular, our black mothers avoided lying down in bed, preferring to stand and sway or squat during contractions, while holding on to the foot of the bed. Unrecognized by the medical profession, this permitted the labor of these mothers to be undisturbed and for the physiological process to unfold as Nature intended.

When the nurses could hear a labor patient making the tell-tale sounds of pushing, we grabbed a stretcher and threw her on it. Then we raced to the elevator in an attempt to make it to the 5th floor delivery room. Of course, many (if not most) of those babies were born in the elevator, half way between the two floors. These normal births were “physiologically” managed by the nurses. The babies slipped out normally, without any gapping episiotomy wound, no gushing blood or mangling the baby with forceps. And since the mothers had no narcotics or anesthetics, their babies breathed spontaneously and did not need to be resuscitated.

Had anyone been paying attention to this impromptu study, contrasting the two styles side by side, the winner would clearly been the black mothers on One South, who enjoyed the safer, physiologically managed labors and normal spontaneous births. They were not subjected to the labor-retarding effects of social isolation, to being immobilization on their backs with four-point psychiatric restraints, to the maternal effects of being profoundly narcotized or to the slowly healing episiotomy that made it hard to sit and difficult to care for a new baby. Their babies were not exposed to intrauterine narcotics and resulting fetal distress and did not need to be resuscitated, thus contributing to increased IQ points and reduced incidence of drug addiction as young adults.

It was clear to me that Mother Nature, when respected and supported, did a darn fine job. As in Semmelweis’ day, it was also obvious that the outcomes were better when doctors and medical interventions were not involved.

What was happening on One-South was a vast improvement over what went on upstairs on Five-North (the whites-only L&D unit). So when I was pregnant with my first baby I told my doctor that I wanted my labor to be un-intervened with, like the black mothers on One-South. He was kind, but a man of his time. He suggested that I have my baby before I came to the hospital, noting that the purpose of hospital birth was to provide the mother with “drugs and anesthesia”. Being an obedient and faithful nurse, I followed his suggestion to the letter. At the tender age of 20 I gave birth to my

eldest daughter unattended and un-intervened with in the back seat of a Renault as my husband turned our car into the emergency drive way of that same hospital.

Over the next decade I continued to work as an L&D nurse in the same warped system at various area hospitals but got fired a lot for being 'lippy'. I finally gave up, retired from nursing and joined the Peace Corps. Eventually I moved to California where I cross trained in community-based midwifery. I practiced as a Mennonite midwife under our state's the religious exemptions clause (we are originally Canadian Mennonites from Kitchner-Waterloo area of Ontario).

After providing midwifery care for the better part of a decade and without any 'bad outcome' or other precipitating incident, I was suddenly arrested by agents from our state board of medicine. The Medical Board had been convinced by the obstetrical profession that the religious exemptions clause shouldn't apply to midwives. They arrested me to use my situation as a test case. To their way of thinking any non-doctor – i.e., a midwife –who provided care to a healthy woman in labor and 'caught' the baby was guilty of *illegally practicing of medicine*. I was handcuffed and escorted to jail and held on $50,000 bond (that year Mike Tyson's bail for rape was only 30K). After spending 15 hours in solitary confinement, my community finally bailed me out.

I did the legal research to prove that non-medical midwifery practice was lawful in our state. After 20 months of pre-trial hearing, the DA finally acknowledged the accuracy of these conclusions and dropped the charges. This turned out to be a bombshell for organized medicine and caused them to change their century-long effort to prevent the lawful practice of traditional midwifery. For decades they had stiff-armed all the attempts by direct-entry midwives to get a licensing law passed. After traditional (non-medical) midwifery was declared to be 'lawful', they suddenly sponsored a midwifery licensing law that contained a "poison pill"—a mandated provision that midwives would never be able to met. I and about 150 other licensed midwives provide home-based midwifery in the state of California. But in spite of having a midwifery license, we are all technically out of compliance with the law – a constant problem for mothers and midwives that is going on its 13th year.

Being arrested is traumatic. To prevent a reoccurrence, I applied the idea: "hold you friends close and your enemies closer" to my situation. After the criminal case against me was dropped, I started attending each and every Medical Board meeting. After13 years of this devotion, I have become their 'pet' midwife and finally am able to have some small measure of influence on the Medical Board and its control over midwives.

Last year I compiled an evidence-based standard of care for licensed midwives (the only evidence-based standard for any health care profession that I know of!) and miracle of miracles, the Medical Board accepted it and **incorporated it into regulation**.

The next (and last) thing on my list is to address the 21st century equivalent of "washing your hands", via an informed and informing public discourse. This is where the scientific community and **inferential statistics** comes in. The historic *inability* of the obstetrical system, as currently configured, to provide appropriate maternity care to healthy women needs to be established unassailably thru the use of inferential statistics, so that a fair evaluation can be made and reforms instituted.

Science-based care would mean reforming our national maternity care policies so as to rehabilitate obstetrical practices, in particular, the way they provide care to healthy women. This reform is not about midwives or promoting planned home birth. It's about healthy women being able to get the same high quality, science-based principles of physiological management in every setting and by every category of birth attendant. Nor is it about any slacking off in the use of aseptic principles, including appropriate use of sterile supplies and sterile technique in their proper place.

Based on sound scientific principles, the physiological management of normal labor in healthy women with normal pregnancies should be the foremost standard of care for all practitioners regardless of status of birth attendant (midwives, GP, FP and obstetricians!). It should be the same in all locations – home, hospital, independent birth centers. Women should not be forced into a midwife attended home birth because they cannot find anyone else who will provide physiological care and that no other birth settings is able to provide the elements for success for physiologic process. One of the reasons that obstetricians and hospitals are unprepared to provide physiologic care for a normal labor and birth this is that medical schools no longer teach the art and science of physiologically management.

One small step to towards a more functional system would be to stop using the word 'obstetrical' when referring to the care of healthy women. For hundreds of years, the normal, non-surgical care for pregnancy and normal birth has been called 'maternity' care. The obvious origin of this word is 'maternal' and it describes care organized around the needs of the mother. This simple correction would help us realize that childbirth is primarily about the mother and baby and *not* about obstetricians.

Semmelweis' dilemma, twice removed

The medical profession has always had an extremely contentious relationship with any scientific discover or theory that threatened established doctrines or practices. While we are an entire continent and more than a century away from Austria and the era of Dr. Semmelweis, some things never change. There seems to be a universal propensity within the obstetrical profession to stiff-arm any evidence that reveals their customary practices to be ineffective or harmful. Time and again the historical record shows doctors resisting and rejecting scientific knowledge when it refuted their favorite theories or required a change of practice.

The most disturbing and well-documented display of this regrettable trait comes from the 19th century story of Dr. Philip Semmelweis, who was a professor of obstetrics at a prestigious teaching hospital in Vienna during the 1840s. The historical novel *The Cry and The Covenant* accurately chronicled the life and times of Dr Semmelweis. During the 17th, 18th and 19th centuries, hospital-based epidemics of 'childbed fever' swept across Europe and resulted in wholesale death of hospitalized maternity patients. At the University of Vienna hospital, where Dr Semmelweis trained and taught, 700 new mothers (and their babies) died each year, an average of two a day. Between 1841 and 1846, **2,000 women died** in the medical division.

In an effort to stop this carnage, Dr. Semmelweis searched for the reason why women who gave birth in his hospital died in great number, while women who gave birth at home did not. Eventually Dr Semmelweis amassed incontrovertible proof that purulent organic material (pus and human

cells) carried under the fingernails of doctors and med students was directly responsible for the fatal childbirth septicemia. In his own words Dr. Semmelweis concluded that: “puerperal fever is caused by the examining physician himself, by the manual introduction of cadaveric particles into bruised genitalia”.

In an era before the invention of sterile exam gloves, the specific practice in question was med students doing sequential vaginal exams on healthy laboring women without having washed and disinfected their hands between the *autopsy room* and the *labor ward* or *between* each labor patient. As a result of this dangerous practice, undelivered mothers became contaminated with the hemolytic streptococcal bacteria and developed a virulent septicemia that caused death within 72 hours. During the worst of these epidemics, 50% of maternity patients (mother *and* baby) died from hemolytic septicemia in the famous teaching hospitals of Europe. According to historical records, the all-time worst epidemic of contagion occurred at the University of Jena – over a four year period of time, *not a single mother left the hospital alive*.

Dr. Phillip Semmelweis reformed these iatrogenic practices by introducing prophylactic hand washing in chlorine of lime solution. Like a miracle, the maternal deaths in his institution fell from 18% (one out of five) to 0.2% (one out of 200) in the eight months between April and December of 1847. From that day forward, he devoted his entire career to preventing unnecessary maternal deaths by teaching and preaching the use of asepsis principles.

Unfortunately his ‘radical’ but life-saving ideas were ridiculed and dismissed as absurd by his physician colleagues. They thought it inconceivable that the healing hands a doctor (or his instruments) could ever, under any circumstances, be a vector for a contagious fatal illness. Obstetricians in Dr. Semmelweis’ day, like Bull Conner (the infamous 1960s sheriff of Birmingham, Alabama), also said “**never**”, only this time it was to the idea that childbed fever could possibly be caused by poor obstetrical practices.

It is important to note that many other knowledgeable people of that era were equally critical of these obviously harmful obstetrical practices. They too were unwilling to settle for superstitious explanations that blamed fatal epidemics of childbed fever on everyone and everything else other than the real culprit – poor obstetrical practices. None of this mattered.

No good deed goes unpunished, especially in the world of medicine. Dr Semmelweis’ simple but effective solution was ignored and ridiculed by his contemporaries, who could not wrap their minds around something so unglamorous and straightforward as washing their hands. They could not permit themselves to acknowledge something that would have required them to take responsibility for harmful practices and institute corrective measures. For his trouble Dr Semmelweis soon lost his prestigious post in Vienna’s most famous hospital. Then he lost his reputation and eventually his profession. He died prematurely of hemolytic septicemia in yet another attempt to demonstrate the direct connection between this pathogen and fatal infection. He left behind a young widow and several children.

The Modern Obstetrical Equivalent of "Washing your Hands"

Over the course of the last century, the refusal of the obstetrical profession in the US to acknowledge or correct harmful policies has resulted is a systemized form of obstetrical iatrogenesis. This irrational system was brought into being by applying – without any scientific proof —two illogical and untested theories. The first was to simply declare that normal childbirth was a pathological process. Second was to define all previous methods of 'normal' management as old-fashioned and substandard and to set about to systematically eliminate them. In place of non-interventive and physiologically appropriate care, they routinely imposed interventionist obstetrics on healthy women. Of course, this required a large infrastructure of obstetrical surgeons and maternity wards in acute care institutions. But once built, they did come. In our time, these misguided and potentially harmful forms of childbirth care for healthy women are being promoted by the American College of Obstetrician and Gynecologists (ACOG), a professional organization representing the interests of obstetricians.

However, the scientific literature – research published in medical journals, textbooks, measures of maternal infant well-being such as birth registration and vital statistics data – all identify increased risk and unnecessary expense when drugs and surgery are compared to normal or 'spontaneous' birth in a healthy population. These scientific sources all make it clear that routine obstetrical interventions in normal labor, and normal birth when conducted as a surgical procedure, are always more dangerous for healthy women with normal pregnancies than the use of physiological principles. Scientifically speaking, the connection between higher rates of medical intervention and higher rates of complication are *not* a controversial finding. Reliable scientific evidence is neither lacking nor incomplete, nor is this data the subject of great methodological disputes.

I believe this problem can only be corrected if the "how" we got to this point and "why" it has become a self-perpetuating aspect of American life can be understood by scientific researchers and eventually made part of the public discourse.

I have 9 and 13 y/o grandsons who will marry someday. Their normal healthy wives will need to receive science-based maternity care appropriate to healthy women with normal pregnancies. However, as of 2004, the **CS rate** was **30%**. Cesarean surgery was far and away the most commonly performed hospital 'procedure' --**1.3 million** --at an annual cost of **14.6 Billion dollars** (for 2003). ACOG is predicting it to *double* within a generation. God help us if a pandemic of avian flu, bio-terrorist attack or a dirty bomb ever happens. Hospital resources for genuinely ill and injured will instead be filled with healthy women having scheduled Cesareans. There will be no one left in the medical field who knows how to manage a normal birth.

Many justify this type of industrial-strength intervention as "buying us better babies". But the science is unequivocal – the liberal or elective use of C-section does NOT improve perinatal outcomes. In addition, it increases the economic cost of childbirth by two or three-fold. But irrespective of the science, the obstetrical profession is quietly, but successfully, promoting the idea that normal vaginal birth is 'last century'. According to ACOG spokespersons, it's harmful to mothers and babies, and ripe to be replaced with high-tech interventions like Cesarean on demand.

Acting on the idea of the Cesarean as the 21st century standard, a popular Michigan hospital is remodeling its maternity wing by replacing 50% of its LDR rooms with surgery rooms, in anticipation of a 50% CS rate by the time the new unit opens in 2011 (more of the "build it and they will come" approach). The March 2006 report by the National Institute of Health (NIH) on "Maternal Request Cesareans" purports to have found little scientific evidence to determine the relative safety of normal vaginal birth vs. elective Cesarean, leaving it up to the 'consumer' – the "*have it your way*" solution made famous by Burger King.

Politically speaking, the obstetricians involved in the NIH panel had a vested interest in not looking too closely at the problem. This was confirmed by a past president of the American College of Nurse Midwives, (Judith Rooks) who attended this conference. Ms Rooks is an academic herself and a very credible witness with impeccable credentials. She concluded the following about the methodology used and the vested interests of the lead researchers commissioned to produce the 375 page NIH report:

> "….this huge report was based on a ridiculous methodology … [and] written before the conference started. The "draft" report was changed almost imperceptibly as a result of the actual conference, which I concluded was a hoax to make it seem like the final report resulted from an honest, intellectual, open and transparent process.
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> Dr. Viswanathan works for RTI, a research company in Research Triangle Park, North Carolina. Dr. Visco is associate professor of uro-gynecology at the University of North Carolina and moonlights at RTI International. The NIH contracted with RTI to conduct the review. The review methodology, set out prior to the review itself, insured that NIH would get the product they wanted.
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> Anyone familiar with the literature would have known that … a view limited to evidence from RCTs would have predicted the outcome" [email communication June 2006]

Obviously, it is unethical to randomly assign women to a "maternal choice" cesarean and methodologically impossible to 'blind' care providers to the study arm. When the NIH restricted their literature search to only RCTs, it assured that the obstetrical profession could claim (abet a disingenuous one!) that no 'scientific' studies were able to identify Cesarean as riskier.

But decades of routine obstetrical intervention in so-called "normal" vaginal births has also seriously **skewed** the statistics toward an unnaturally high level of complication. Women are routinely immobilized in bed with continuous EFM, IVs, Pitocin, narcotics, epidural, anti-gravitational positions for pushing, episiotomy, vacuum, forceps, etc. This make so much morbidity in vaginal birth that C-section starts to look pretty good – that is, it looks like it is not *that much* more dangerous. Why not "have it your way", especially since Cesarean surgery is so much more convenient for obstetricians and profitable for hospitals?

The failure of the NIH to recommend against medically unnecessary CS was welcomed by ACOG, as it supported their efforts to get a unique procedure code for 'maternal request cesarean'. This will assure that health insurance carriers and federal Medicaid program compensate OBs for performing medically unnecessary Cesareans. A recent article in *Ob.Gyn.News* reported on the NIH maternal request cesarean conference with a banner head line that read "HONOR HER CHOICE".

It interpreted the NIH report as paving the way for a widening use of Cesarean surgery for *little or no* medical reason.

In the face of overwhelming evidence to the contrary ACOG, wants the public to accept the medically unnecessary C-Section as the new and 'better' standard of care. ACOG's blind spot (of self-reference) seems to be equal to their entire field of vision. Dr. Semmelweis would recognize the same chevalier attitude, stonewalling and denial of evidence to the contrary.

Organized medicine repeatedly jacks ups the ante and yet no one in the press or media or public ever says a word about this irrational snowballing monster. Each time America is silent, ACOG's minions take another big step towards their dream machine of bankers' hours obstetrics, while dramatically reducing their liability. After a hundred years of accepting without question the notion that "birth is a surgical procedure", the American public readily believes that it has no business "meddling" (or even asking spot-on questions) about what they see as the unassailable expertise of obstetrical medicine. People are generally convinced that anything doctors do (or recommend) must be scientifically-based and gives obstetrical medicine an unjustified 'free pass'.

How the Heck Did This Happen? Bedrock of the Story...

In 1881, Pasteur drew a picture on a chalk board at a prestigious medical meeting of what streptococcus bacteria looked like under a microscope. Pointing to rectangular microbes that resembled a string of box cars on a train track, he made his now famous pronouncement "This, gentlemen, is the cause of Childbed Fever". This permanently ended the old notion of 'spontaneous regeneration' -- a 2000 year old wrong explanation of infection – while simultaneously giving rise to the modern era of medicine.

Before Pasteur's germ theory was widely known, doctors couldn't exactly pinpoint what was causing maternity patients to become septic, but they *did realize it was associated with hospitalization* – aggregating childbearing women together in an institution. It was common acknowledge that the mortality rate was several time higher in hospitals than for women who were delivered at home. This was even true for women who precipitated on the doorstep of hospital before any "care" could be given (vaginal exams, exposure to dirty linens, etc).

For example, Dr DeLee, one of the two most important obstetricians in the early history of American obstetrics, had this to say about the synergistic relationship between physicians and hospitals as the source of virulent infection in normal childbirth:

> "Without doubt, the physician carries the greatest danger of infection to the confinement room. The germs in the air, in the bed clothes, in the patient's garments, even those of the vulva, may be the same in name as those he brings with him, but the former are *not virulent*, as they usually have been living a saprophytic existence. The physician comes in daily contact with infections disease, pus, and erysipelas cases, and his person, clothes and especially his hands, may carry highly virulent organisms." [P. 291]

> "The air in the ordinary home does not contain any virulent bacteria, but this cannot be said of general hospitals admitting pus cases, pneumonia cases, and tonsillitis patients into the same wards with maternity patients. That under these circumstances puerperal infection may originate has been amply demonstrated to the author. The maternity case should be in a part of the general hospital absolutely isolated from the rest of the wards, best in a detached pavilion of its own as the older obstetricians have always taught." [p. 294]

Some even suggested moving normal childbirth back out of the hospital as the safest strategy. Of course, this would have required that obstetrical professors and medical students travel back and forth to each mother's house to individually manage each labor and birth. However, doctors were keenly aware of the educational value of clinical training, which was exceeding difficult when patients were widely dispersed in their own homes.

Hospitals were an irreplaceable source of patients as teaching cases, more commonly referred to as "clinical material" and a model of efficiency for medical students. The obstetrical profession was (and is) staunchly committed to preserving hospital-based services for childbirth. In order to protect obstetrical education it was necessary to preserve hospital birth. In order to preserve hospital birth, it was necessary to protect its reputation. To protect its reputation, it was vital that they eliminate the fatal epidemics of iatrogenic septicemia. To achieve these goals in the post-Pasteur era, the obstetrical profession threw itself, with gusto, into the development of new aseptic practices for maternity care.

Among themselves, doctors also admitted that it wasn't just hospitalization that was associated with increased rates of childbirth septicemia. The more manipulations done during labor (vaginal exams, rubber bogies gradually filled with water to pry open the cervix, etc), the more infections. The same observations applied to surgical procedures – episiotomy, forceps, Cesarean section, etc – they all greatly increased the rate of morbidity and mortality. Here is how the problem was describes by Dr. DeLee [p. 292-293]:

> "Let the [mother's] natural immunities be broken down , as by severe hemorrhage, shock, eclampsia, etc or let a new virulent bacterium be introduced; let the accoucheur in his manipulation carry too many of the vaginal bacteria up into the uterus (a procedure not entirely avoidable), or let him, by his operations, bruise and mutilate the parts too much, or let him break up the protective granulation referred to, and the germs will rapidly invade the system, producing a disease know as puerperal infection, termed by the older writers as child-bed fever.
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> The asepsis of the patient therefore consists mainly in the preservation of her immunities by sustaining her strength, procuring a normal course of labor, avoiding the necessity for operative interferences, and conducting these with the least possible amount of damage."

How frustrating for doctors to realize they could step in and bring the labor to a 'timely' conclusion, but then the mother (and baby) might well die from infection. So the discovery of pathogenic bacteria as the source of infectious disease was very exciting. Finally, there was something that could be seen under the microscope and which could be killed by strong chemicals and exposure to heat. An understanding of the germ theory and the principles of antiseptic and aseptic practices provided a sure fire way to prevent wholesale epidemics, thus making the hospital once more a

place of healing instead of death. This preserved the place of obstetrics in the medical school scheme of clinical training. It also propagated the idea, in the minds of the public, of hospitals as a place for desired professional services.

However, the obstetrical profession, at least in the US, interpreted these ideas in a strangely *distorted* way. They believed that aseptic principles would simply eliminate infection period – a magic bullet. They saw it as a 'free-pass' to the unbridled use of interventionist obstetrics, but without the shadow side of higher maternal mortality. No longer did they have to suffer thru an unduly long labor or put up with a mother that refused to push as they directed. Instead they could just wash their hands in a chemical liquid, instruct the nurse to drape the patient with clean linens and use sterilized stainless steel forceps to pull that baby right out, lick-a-tee-split. If the placenta took more than five minutes, they could put on rubber gloves (also dipped in antiseptic chemicals) and reach up and drag the placenta off the wall of the uterus.

It was a *Eureka* moment – perfect control of childbirth -- Mother Nature *zip*, doctors batting a thousand.

So with Yankee ingenuity the obstetrical profession threw itself into approximately 30 years (1880-1910) of antiseptic and aseptic-based remodeling. Hospitals were striped of all 'fu-fu' – no rugs, curtains, upholstered furniture, strict house keeping standards, virtually painting the wall and floors with the early version of Lysol. Visitors to the maternity wards were dramatically restricted and children under 16 totally barred from visiting their mothers or new siblings. Delivery rooms were tiled floor to ceiling; all equipment was stainless steel or chrome for easy disinfecting.

Doctors ordered laboring women to be isolated from their families behind doors marked "No Admittance – Hospital Personal Only". On admission to the labor ward each laboring woman was forced to bathe, then her public hair was shaved off, an enema was administrated and repeated every 12 hours thereafter. These rituals were all based on preventing 'auto-infection' or the erroneous idea of that the most dangerous and virulent pathogens actually came from *the woman herself*.

Thankfully these huge (and publicly embarrassing) epidemics did finally come to an end. To this day, no one can say if it was *because of* or *in spite of* these extreme measures. And even with these elaborate rituals of asepsis, the goal of zero deaths from septicemia eluded obstetricians. The death rate in operative cases was five times higher compared to 'normal' births. The inability of aseptic principles to entirely eliminate infection was not the only problem.

First, childbearing itself in healthy women is not fundamentally dangerous and does not routinely benefit from surgical skills. Second, infection was not the only mortal danger that childbearing women faced. The most consistent threat was from poverty, malnutrition, disease, overwork and forced childbearing which mothers and babies faced in huge numbers in the early hours of the 20th century. Third, medicalized birth actions failed to account for the serious harm -- including permanent disability or death for both mother and baby -- that could and did result from the routine use of medical interference. But most unfortunate of all, these harmful medical interventions did nothing to address the underlying social problems of poverty and overwork. They did not contribute to the greater goals of public health in a profound and long lasting manner.

It was primarily these unfortunate socio-economic factors -- *not* the nature of normal childbirth in healthy women -- that resulted in an alarming rate of death and disability at the beginning of the 20th century. From 1910 to 1930, as midwives and bio-safe, physiologically-managed midwifery was replaced by interventionist obstetrics, an already difficult situation worse was made. The maternal mortality rate rose by 15% a year and the birth injury rate for babies increased by 44% during the decade from 1910 to 1920.

In a sick, self-interested way, the high mortality and morbidity were an advantage for the obstetrical profession, as it validated their claim that childbirth was fundamentally dangerous. If a woman was in a world class hospital, cared for by a famous doctor and a large skilled professional staff, her birth conducted as a major operation, and she still died, then *childbirth* must really be extraordinarily dangerous. Propaganda originated by obstetrical profession brazenly promoted the idea that the biology of childbirth was fundamental defective – Mother Nature run amok, using women as 'disposable' baby-hatchers, expendable like salmon after spawning. The public was told repeatedly that only doctors and hospitals could save women from the cruelty of a defective and uncaring biology.

The great improvement in maternal-child health that has occurred over the course of the 20th century is primarily the result of an increased standard of living – personal hygiene, public sanitation, education, an improved understanding of nutrition, a better diet, adequate housing, better working conditions, and appropriate access to medical care when needed. Also important was the safety net of social programs, combined with the availability of effective contraception. Only a tiny portion of the gains made in women's health in the 20th century can be attributed solely to obstetrical intervention. This observation is not meant to diminish the life and limb saving capacity of obstetrics but only to keep it in its proper perspective. In many instances, the underlying cause of problems said to be "cured" by obstetrical procedures were actually *caused by poverty and exploitation.* They would have been more properly *prevented*, rather than medically 'treated'.

None the less, this medicalized system ensconced the obstetrical profession in a role reminiscent of being elected president or appointed king of the realm. It was professionally powerful, interesting, lucrative, and prestigious. Nobody was going to cede an inch of ground or waste a minute time questioning whether this system actually served childbearing women best. It must be noted here that the fundamental purpose of maternity care is to *preserve the health of already healthy women*. Plastic surgery and normal childbirth have something in common, in that they both start out with a totally healthy individual and the medical profession's ethical charge is to "first, do no harm". Both types of patients should be just a healthy when their doctors finished as when they began.

However, abstract ideals were not what was motivating organized medicine. Instead they saw the observations of Dr Semmelweis and Pasteur as if this specialized knowledge ceded *intellectual property rights* to obstetrics, thus identifying them as keeper of the keys -- i.e., the Holy Grail of birth under conditions of surgical sterility. Never did they make the connection between the obstetrical profession's propensity for the ever increasing use of dangerous invasive procedures which gave rise to the need for birth to be connected as a surgical 'procedure'. They also confused the routine use of aseptic principles (appropriate), with the routine use of surgical sterility and surgical procedures (not appropriate).

Had American obstetricians not constantly upped the ante with more and more interventions, Semmelweis' original theory would have continued to be appropriate. Under those circumstances, caregivers would utilize the principles of asepsis relative to their professional conduct—their actions and any supplies or instruments used -- while preserving the physiological nature of normal birth. This would have assured society that those "helping hands" did not disturb the normal process of biology, were clean and did not introduce any other occasions for iatrogenesis, either thru poor judgment or contaminated material or medically unnecessary interventions.

Instead what happened is best left for the obstetricians of the era to tell in their own words:

> **1911**-D, p. 214 "For the sake of the lay members who may not be familiar with modern obstetric procedures, it may be informing to say that care furnished during **childbirth is now considered, in intelligent communities, a surgical procedure**."
>
> **1911-B;Dr. Williams, MD** " ..... the ideal obstetrician is not a man-midwife, but a broad scientific man, with a surgical training, who is prepared to cope with most serious clinical responsibilities, and at the same time is interested in extending our field of knowledge.
>
> No longer would we hear physicians say that they cannot understand how an intelligent man can take up obstetrics, which **they regard as about as serious an occupation as a terrier dog sitting before a <u>rat hole</u> waiting for the rat to escape**."
>
> **Feb. 23, 1911**; p., 261 **Boston Medical and Surgical Journal**: "We believe it to be the duty and privilege of the obstetricians of our country to safeguard the mother and child in the dangers of childbirth. The obstetricians are the **final authority to set the standard and lead the way to safety. They alone can properly educate the medical profession, the legislators and the public**." [emphasis added]
>
> **1915-C; p. 114: Dr. DeLee, MD** ~ "The midwife has been a **drag** on the progress of the science and art of obstetrics. Her existence stunts the one and <u>degrades</u> the other. For many centuries <u>she perverted obstetrics from obtaining any standing</u> at all among the science of medicine."
>
> "Obstetrics is held in disdain by the profession and the public. The public reason correctly. If an uneducated women of the lowest class may practice obstetrics, is instructed by doctors and licensed by the State, it [childbirth attendance] certainly must require very little knowledge and skill ---surely it *cannot belong the science and art of medicine*."
>
> **1915-A; p. 104: Edgar, MD** "Of the 3 professions---namely, the physician, the nurse and the midwife, there should be no attempt to perpetuate the last named [i.e. midwife], as a separate profession."
>
> **1915-C; p.117: DeLee, MD** "If the profession would realize that parturition, viewed with modern eyes, is no longer a normal function, but that it has imposing <u>pathologic dignity</u>, the midwife would be impossible of mention."

> **1915-C; p.** 116; **Dr. DeLee MD**. ~ "Dr. Engelman says: 'The parturient suffers under the old prejudice that labor is a physiologic act,' and the profession entertains the same prejudice, while as a matter of fact, obstetrics has great pathologic dignity ---it is a major science, of the same rank as surgery".
>
> **1924** textbook**;** p. 341, **Dr DeLee**, MD; ~ "The conduct of labor is not a simple matter, safely in trusted to everyone. Let the people know that having a child is an important affair, deserving of the deepest solicitation on the part of the friends, needs the watchful attention of a qualified practitioner and that the care of even a normal confinement is worthy the dignity of the greatest surgeon."

The idea of 'surgical' sterility was purposefully morphed in the notion that normal birth was *actually surgery* – like an appendectomy --requiring an obstetrically-trained surgeon. By 1910, major hospitals in NYC had a 20% operative rate. Pregnancy was talked about by obstetricians of the day as a "nine-month disease that requires a surgical solution", labor was redefined as a serious medical condition that had to be managed by professional nurses in a special labor ward and birth a surgical procedure that could only be 'performed' by a licensed physician-surgeon.

Many modern political strategists will tell you straight away that which ever side of a political situation "names" the issue – determines which words are used to describe and define it – they will eventually prevail in the public discourse. In this case, Dr Joseph DeLee decreed at an important annual conference (the Association for the Study and Prevention of Infant Mortality) that normal childbirth was intrinsically "pathological". He was infamous for defining the biology of birth as a patho-physiology -- no more 'normal' for the mother's perineum than "falling on a pitchfork". Even worse, the poor baby's head was being used as a "battering ram on the mother's iron perineum". His solution was the routine use of episiotomy (incidentally giving rise to an entire century of unnecessary episiotomies!) and forceps to save the mother and baby from what he named and defined as the pathological effects of normal birth.

In addition to the benefits ascribed to the mother and baby from the medicalization of normal birth, Dr DeLee wrote described the advantage to the physician in his1924 textbook (p. 289 & p. 341):

> "Another benefit which is not so generally recognized is the effect on the physician. The maternity [hospital] relieves him of a great deal of actual labor, it saves him many hours of tedious waiting, it lightens the burden of responsibility…. The drudgery inherent in obstetric practice is thus largely eliminated, and the field becomes more inviting to the best men of the profession. … the care of even a normal confinement is worthy of the dignity of the greatest surgeon."

As described by various obstetricians, the purpose in these extreme measures was to promote a more flattering "scientific" image that would establish obstetrics as a specialty branch of surgery, while increasing the status and income of individual physicians and reducing their work load. Unfortunately, these recommendations did not have any scientific basis. In fact, studies and outcome statistics argued mightily against such a plan.

Eliminating the safer and non-interventionist principles of physiological management was tragic in terms of human life. Dr. Louis Dublin, president of the American Public Health Association and

statistician of the Metropolitan Life Insurance Company, after analyzing the work of the Frontier Nurses' midwifery service in rural Kentucky, made the following statement on May 9, 1932:

> "We have had a small but convincing demonstration, by the Frontier Nurse [Midwife] Service of Kentucky, of what the well-trained midwife can do in America. .... The midwives travel from case to case on horseback, through the isolated mountainous regions of the state. There is a hospital at a central point, with a well-trained obstetrician in charge, and the very complicated cases are transferred to it for delivery.
>
> In their first report they stated that they have delivered over 1,000 women with only two deaths -- one from heart disease, the other from kidney disease. During 1931 there were 400 deliveries with no deaths. The study shows conclusively that the type of service rendered by the Frontier Nurses safeguards the life of the mother and babe.
>
> If such service were available to the women of the country generally, there would be a savings of **10,000 mothers**' lives a year in the US, there would be **30,000 less stillbirths** and **30,000 more children** alive at the end of the first month of life."

For the mathematically-challenged, that is a total of 70,000 mothers, unborn and newborn babies each year, for decades in a row, who died because the lacked access to the type of appropriate maternity care provided by professional midwives. Dr. Alan Guttmacher (associate professor in obstetrics, John Hopkins and founder of the Guttmacher Institute in NYC), acknowledged this basic fact in1937. Like other voices of descent, his was ignored but still he was brave enough to publicly acknowledge that increasing the ratio of physician-attended births, with its absence of physiologically-based care and the excesses of intervention and operative delivery, increased the mortality and morbidity of maternity patients and their babies. Speaking of the reason why professional midwifery care was safer, Dr Guttmacher wrote:

> 1937 - What are the advantages of such a system? Midwives have small practices and time to wait; they are expected to wait; this is what they are paid for and there they are in no hurry to terminate labor by *ill-advised operative haste*."

But the obstetrical profession did not want to be confused with facts when their mind was already made up. Instead of being the scientists they publicly portrayed themselves to be, doctors, who should have known better, who were being paid to know better, ignored all sources that documented a direct link between higher rates of medicalization and a rate of higher maternal mortality and morbidity. They moved on inexorably with their plan to make obstetrics into a high-paying, important surgical specialty.

By 1910 it was obvious that antiseptic and aseptic techniques alone were not cutting it – women still inexplicitly sickened and died. No less a person than Dr DeLee himself noted in his 1924 textbook:

> "Semmelweis, in 1847, called the attention of the world to *the physician as a carrier of infection*, and the latter's importance in this role has be recognized ever since – in fact it is

> exaggerated, for the public has held him responsible in cases of sepsis when he was not to blame. Cases of infection will occur under ideal condition, and we must look for the cause elsewhere than in the accoucheur – probably *in the woman herself, or even in the husband*."

The actual reasons were far more likely to be the high level of intervention rather than "the woman herself or her husband". None the less, the remedy sought was to tighten the screws and carry aseptic technique to its ultimate conclusion. The next iteration in the war against complications in hospitalized childbirth was to conduct it under *conditions of surgical sterility* – no different than having brain surgery or an abdominal operation.

Dr. DeLee again comments in his text book:

> **Asepsis and Antisepsis** – They have reference to, first the physician; second the patient; and third, the environment, and the same minute attention to detail is required as for an *abdominal section*."
>
> "If obstetrics is ever to attain the dignity of surgery, -- and it should, -- if the parturient women is ever to enjoy the same benefits as the surgical patient, -- and she deserves them – the accoucheur must be given sufficient help and the make-shift policies of obstetric practice must be abolished. [p. 290 – emphasis added]
>
> Without doubt the physician carries the greatest danger the greatest danger of infection to the confinement room. The germs in the air, in the bed clothes, in the patient's garments, even those of the vulva, may be the same in mane as those he brings with him, but the former are not virulent, as they usually have been living a saprophytic existence. The physician comes in daily contact with infections disease, pus, and erysipelas cases, and his person, clothes and especially his hands may carry highly virulent organisms." P. 291

For indigent women giving birth in the charity hospitals of Europe in the 17th century, this form of sterile technique would indeed have been life-saving. However, the time and place had changed, while the responses had not. Ultimately, it is just a *fluke of history* that the epidemic nature of *puerperal sepsis in hospital settings of the 18th and 19th centuries* so influenced and defined the development of maternity care for healthy women in the US for the next two centuries. Customary care for healthy women in the US was inappropriately founded on a 19th century **reductionist** view of childbirth. In a reductionist view, birth was just a mechanical problem – like getting a toy ship out of a bottle, whatever it takes, including breaking the glass. Success in reductionist terms meant that neither the mother or baby became *septic or died*. The rich tapestry of childbearing, with its physiological and psychological imperatives, its emotional nuances and long-term social consequences for the family and society, was irrelevant.

The effect of 'normal birth as a surgical procedure' was to functionally eliminate the natural or biological language of birth. For most of the 20th century, it has been impossible for mothers and midwives to speak or conduct themselves in the physiological language of normal biology.

The 5,000 year old tradition of midwifery (that is, the non-surgical maternity care for healthy women as provided by midwives and physicians) got minimized, then marginalized and is now assigned a status usually reserved for enemies of the state. Another early 20th century example of misguided social engineering is seen in way the Bureau of Indian Affairs (BIA) forced American

Indian children to be sent to far off boarding schools and forbidden to speak their native language. The big difference is that the BIA and its methods finally came under public scrutiny. Outlawing the tradition life of America's original inhabitants was "revisited" and exposed for what it was – a mistaken bureaucratic idea based on prejudice rather than sound social science. Then it was corrected.

Like wise, we need to 'revisit' the unscientific conclusions of the organized medicine when it comes to providing appropriate care for healthy women with normal pregnancies. It's time for the obstetrical profession to teach, learn and utilize physiological management as the foremost standard of care for a healthy population.

The A to Z of Childbirth Under Conditions of Surgical Sterility

Birth as a surgical procedure actually describes an organizing principle related to the guarantee of an absolutely germ-free or 'sterile' state. Since sterility was a recognized precursor for surgery, the medical profession typically refers to this degree of asepsis (which extends to control of the total environment), as 'surgical sterility' and any 'procedure' that requires sterility as a 'surgical procedure'. However, birth under conditions of surgical sterility does not necessarily mean that a surgical *'operation',* such as episiotomy, forceps or manual removal of the placenta, is being performed. Technically-speaking, one can conduct normal birth under totally sterile conditions without cutting or penetrating human tissue or inserting the surgeon's hands into a sterile body cavity, such as the uterus.

Whether or not any real 'surgery' is done, birth as a surgical procedure calls into being an elaborate and expensive institutional system, which is necessary to provide the proper environment and a supportive professional staff. Not only must the mother be in a hospital, but in a very special, restricted access part of the building with a special germ-free environment and rooms with special equipment – scrub sinks, changing rooms, lockers, stretchers, OR tables and lights, instrument trays, anesthesia machines, oxygen, suction, etc --, giving rise to a whole genre of the medical-industrial complex. Of course, the hospital staff needs special training and special clothing -- scrub suits, caps, masks, shoe covers, etc. The birth attendant must do a proper surgical scrub of hands, don scrub hat, shoe covers and surgical mask, then be helped into a sterile gown by the nurse and finally put on sterile gloves. All instruments and other materials will have been sterilized and laid out on a sterile instrument table.

And of course, the hospital gets to bill by the minute for these special use facilities and special nursing staff and the physician gets to charge a fee for his services as a surgeon.

These special circumstances logically extend to the mother herself, who likewise must be "scrubbed", draped with sterilized sheets and above all, must lie perfectly still and touch nothing. It is *very difficult* (read this as nearly impossible!) to assure that a childbearing woman in the throes of a natural, unmedicated labor, pushing hard with every contraction, lying on her back while working to get her baby uphill and around that infamous corner (the Curve of Carus), will be able to stay still and not accidentally touch any of the surgically sterile drapes.

Dr Delee's description of this problem [p. 338] is particularly colorful:

> "*Antiseptic* surgery has very properly given way to *aseptic* surgery. An example will illustrate the need for this:
>
> A parturient is ideally prepared for delivery, with sterile night-gown, sterile leggings, sterile sheets and towels, all safely pinned together , with a sterile towel under the buttocks, leaving only the vulvae orifice exposed; the accoucheur is dressed as for a major laporotomy.
>
> What happens? The woman, in her throes of pain, tosses about, disarranging all the sterile covers; she grasps the hand of the attendant, or puts her hand over the sterile towels to the vulva; she coughs or expires forcibly and the droplets of saliva are blown on to the sterile cloths; the second stage drags on, one, two, or three hours, dust settles on the extensive area of sheets, leggings, towels, gloves, gowns, basins, etc., which are supposed to be sterile.
>
> How many of these things are really sterile when the actual time of delivery arrives and may safely be touched?" [emphasis added]

Since the mother doesn't wear sterile surgical gloves herself, her touch would technically "contaminate" any sterile material she touched. If the physician's sterile gloves were then to comes in contact with anything she touched, it would contaminate him and officially constitute a 'break' in sterile technique, which is of course a real 'no-no' in the absolute system of surgical sterility. More recently, epidural anesthesia has taken over the role of making a childbearing woman into a suitable surgical patient who can stay still and not touch.

The Laws of Unintended Consequences

The point of all this detail is to make it easier to see why the tail wags the dog in regard to the surgical procedure of birth. These technical requirements for sterility, which are perfectly correct for the performance of actual surgery, are absolute (no such thing as 'sort of' sterile!). By their very nature, they must *dominate the entire process*. The biological, psychological and social needs of childbearing parents, the extreme expense, etc – all else must be subsumed under the rules of surgical sterility and surgical technique. Unfortunately this virtually erased both the mother and the father and the social nature of childbirth from the picture for the first seventy-five years of the 20th century.

Until recently, nurses routinely restrained the mother's hands in heavy leather wrist restraints, same type as used in psychiatric wards to keep women from touching anything sterile. Then the mother was put to sleep with general anesthesia, all as a part of the process of protecting the sterile field. In light of Dr DeLee's bitter complaint about how "the second stage drags on, one, two, or three hours, dust settles on the extensive area of sheets, leggings, towels, gloves, gowns, basins, etc.," you can see that this no doubt influenced his enthusiasm for the routine use of episiotomy and forceps. Perhaps he genuinely believed that instrumental delivery "saved" the mother and baby from damage, but also, one must recall his commentary on the beneficial "effect on the physician" in regard to:

> "relieve[s] him of a great deal of actual labor, it saves him many hours of tedious waiting, it lightens the burden of responsibility…. The drudgery inherent in obstetric practice is thus largely eliminated, and the field becomes more inviting to the best men of the profession."

In the minds and hearts of obstetrical profession, birth as a surgical procedure was both final frontier and final solution. If a maternity patient were to become septic after all these elaborate rituals, they could say they had "done everything possible", since they provided aseptic care equal to major surgery. This, it turns out, is a precursor the use of the same expression by OBs today when performing a Cesarean section, to assure the family that 'everything possible' had been done, thus shielding the physician from the shadow of culpability for any kind of bad outcome.

But protecting the physician from liability was not as high on the list as other serendipitous advantages, starting with its ability to relieve doctors from having to provide care during the long, slow tedious hours of labor. Labor was now referred to as the "the waiting period *before* the doctor arrives" and attended by staff nurses. Doctor only had to be there for the exciting photo finish and collect his fee for the highly compensated 'surgical' procedure of 'delivery'.

Also by renaming birth as a surgical procedure, nurses and midwives were both *disallowed from attending births*, since 'performing' any surgical procedure by a nurse or midwife would be an illegal practice of medicine. This restricted childbirth services to 'doctors only', and put doctors into the center of the childbirth equation, making the doctor's role more important and more central than the mother's. This monopoly drove up the professional fees the public was expected to pay.

Here are a series of quotes from the period commenting on this issue. Midwives have been eliminated entirely from any independent role and nurses have been substituted for the physician's care during the "waiting period" (i.e. labor). The midwife's duties have now been down-graded to the role of "*assistant*-attendant" and the object of her activities is clearly identified as assisting the *doctor* instead of the *mother*. The quotes are from Dr. Ziegler, M.D.; 1922-A; p.412, 413:

> "The doctor must be **enabled to get his money from small fees received from a much larger number of patients cared for under time-saving and strength-conserving conditions**; he must do his work at the *minimum expense to himself*, and he must not be asked to do any work for which he is not paid the stipulated fee. This means ... the doctors must be relieved of all work that can be done by others -... nurses, social workers, and midwives.
>
> The **nurses** should be trained to do all the antepartum and postpartum work, from **both the doctors' and nurses' standpoint,** with the doctors always available as consultants when things go wrong;
>
> …. the **midwives** acting as ... assistant- attendants upon women in labor---*conducting the labor during the waiting period or until the doctor arrives*, and assisting him* during the delivery …
>
> In this plan **the work of the doctors would be limited to the delivery of patients**…

> Under this arrangements the doctors would have to work together in a cooperative association with an equitable distribution of the work and earnings."

One of the ways that organized medicine influenced the idea of "a cooperative association with an equitable distribution of the work and earnings" was to introduce the idea of a pre-paid saving plan for each family to cover the financial cost of hospitalization. This "pre-paid" plan is what we now recognize as health insurance, with the advance contribution often coming from employers. In the 1930 and 1940s these plans typically did not cover maternity care. As a result the fee for obstetricians was very modest by today standards.

However, by the 1950s, some health insurance carriers started routinely covering maternity care. That was a watershed in another way. For the first time vaginal birth had a billing code as a *surgical procedure*, in a list that included other sure-enough 'surgeries' -- hysterectomy, D&C, tubal ligation, Cesarean, etc. The surgical fee was billed separately from the hospital charges.

Once coded by the insurance carriers as a 'surgical procedure', only a physician could be compensated for the 'procedure' – that is, if the mother delivered precipitously in the elevator or if she delivered so quickly that the labor room nurse was the only available attendant – the physician could not bill the insurance company for attending the birth (can't do surgery if your not in the room!). The hospital also couldn't bill the insurance company for the birth, since the nurse is not licensed to practice medicine and therefore not 'authorized' to 'perform' the surgical procedure of vaginal delivery.

This billing situation makes doctors crazy, as one of the biggest stresses in obstetrics is to use the 'waiting period' (labor) to see patients in the office or make hospital rounds, but still get there in time for the delivery. It makes nurses crazy because the nurse's most important job is to correctly judge when the physician should be called, so that he or she will not miss the birth and lose their insurance reimbursement (and she her job if it happens too often!).

The official billing code that identifies normal birth as a surgical procedure further exaggerated the conventional split between labor as something the nurse does and the 'delivery' as something the doctor (and *only* the doctor!) does. The medical profession doesn't generally think of either *labor or birth* as something the ***mother*** does. More to the point, the nurse gets the long, slow tedious and low pay end of the equation. The physician gets the quick, showy and high pay end of the stick. The mother frequently got the shaft in this ludicrous system.

The current obstetrical system took on the characteristics that we are all so familiar with in the first decade of the 20th century. Except for cosmetic changes, it has remained functionally identical every since, which is to say we have a late 19th century system that still defines the form of care provided here in the early hours of the 21st century. It was the misuse of two historical situations that permitted doctors to turn normal birth into an obstetrical property. The first involved the system of obstetrical education, which elevated the needs of obstetrical education above the practical needs of those same childbearing women. One of the biggest issues was the need of medical schools to have access to a large and steady stream of childbearing women who were willing to be used as "clinical material" (or due to their poverty were unable to refuse). For the most part, upper class women would never permit themselves to be used as teaching cases. That made access to the lower-class clientele of midwives even more crucial to medical education.

An example of this class warfare can be seen in Dr. DeLee's objection to improved training for midwives. He blocked attempts to set up schools of midwifery because he believed it would 'waste' cases of normal birth from a limited pool of clinical material. To his way of thinking, every poor or immigrant women delivered by a midwife directly deprived medical students of a vital educational opportunity. Dr DeLee argued that improving obstetrical education could happen ever so much faster and better if the pool of 'clinical material' was reserved for doctors only. The ultimate plan was to completely replace all forms of midwifery with obstetrics as quickly as possible. This clinical material issue of obstetrical education pitted the interests of the lower class women cared for by midwives against upper class, private (paying) patients of doctors.

> **1915-**C, p.115; Dr DeLee: "I...take second place to no man in my regard for the poor, the ignorant, the foreign-born childbearing mother. But I have just as high regard for the well-to-do, the educated and the American woman … I must raise my voice against a measure which, I am convinced … will tend to jeopardize her health and life.
> By educating midwives, we may improve the conditions of the 40% [midwife-attended], but we will delay progress in ameliorating the evil conditions under which the 60% [physician-attended] now exist. For every life saved in the 40% we will lose many more in the 60%. ….
> It is therefore, worth while to **sacrifice everything, including <u>human life</u>**, to accomplish the ideal."

The second part of this 'hostile takeover' was using the newly minted methods to prevent <u>iatrogenic infection</u> as the launching pad to turn normal birth into a surgical specialty that restricted services to childbearing women to "doctors only". This eliminated the principles of physiological management from the conventional health care system for the last century. The obstetrical profession's relationship to the knowledge of normal childbirth – knowledge originally gleaned from the reports of midwives and midwifery textbooks --was one of the earliest examples of the idea of intellectual property. Once the obstetrical profession integrated this classical body of knowledge with the new 'science' of asepsis, obstetricians assumed they had created intellectual property that was their exclusive domain.

The position they took in 1910 – and have faithfully maintained ever since-- is that everything about obstetrical care is the equivalent of patented process that would never need to be opened to any form of investigation or fresh evaluation. So decade after decade the same untested hypothesis was taught to one generation of medical students after another, who regurgitated it unexamined to the next class of med student, until the medicalized model took on the status of the Law of Gravity. This included a vitriolic denigration of physiological process and anyone who would dare to use it. For over a century this obstetrically 'patented' process has displaced all other forms of care.

The following statements from two obstetricians were uttered more than 80 years apart but their remarks both have the same vitriolic tone and use of the word "wrong". I would bet money that the contemporary OB has never himself actually read the first quote, but the denigration of midwives is so deeply ingrained in obstetrical education that it has become ubiquitous.

> **1915**-C; Dr. De Lee M.D. p. 114: "The midwife is a relic of barbarism. In civilized countries <u>the midwife is wrong</u>, has always been *wrong*. The greatest bar to human progress has been

compromise, and the midwife demands a compromise between right and *wrong*. All admit that the midwife is *wrong*". (emphasis added)

1997 – Dr Douglas Krell, M.D. FACO: "In my opinion issuing a license to a [direct-entry] midwife is giving away a license to kill. ... I think licensing this activity in the name of competition is wrong. In the name of quality of care it's *wrong*. In fact, it's just plain *wrong*" [email; douglas.krell@nsionline.com 1/17/97 ob-gyn-l@obgyn.net (emphasis added)

During classical period of American obstetrics (1900-1930), the dominate mood and actions of obstetrical profession seemed to be motivated by getting even with Dr Semmelweis. They were angry about the situation that he triggered, which exposed the entire profession to the ridicule of the world over an issue as embarrassing as "hand washing". In this mind-set, they tortured Dr Semmelweis's theories into something quite unrecognizable and misused his ideas for their own purposes.

But most disturbing of all, this parochial way of seeing childbirth has continued on. It now permits the obstetrical profession to massively intervene in the first decade of the 21st century at a level that approaches the *morbidity* of Semmelweis's day, and to do so with no more of a scientific foundation or personal accountability than was true in Dr. Semmelweis' time. Recent studies (2002 and 2004) have identified an average of seven (or more) significant medical or surgical interventions being routinely used on healthy women with normal pregnancies in every normal birth conducted under obstetrical management.

The obstetrical profession's response to the high level of morbidity that naturally accompanies this extreme level of intervention is to propose the *ultimate iatrogenic solution* – scheduled elective, but none the less, *medically-unnecessary* major abdominal surgery as the norm. The public is told that such a plan will 'save' the mother's pelvic organs from the horrors of normal birth, but the public is not told that the scientific literature identifies obstetrical intervention – non-physiological pushing (wrong use of gravity), shout-it-out till your purple-in-the-face pushing, epidural anesthesia, forceps and vacuum extraction – as directly associated with those very complications.

This irrational and oxymoronic situation is the predictable outcome of an obstetrical system that was configured in 1910 and never again seriously examined. The earliest decade of the 20th century was an era in which women with untreatable and potentially fatal diseases -- typhoid fever, diphtheria, TB, syphilis, high blood pressure, diabetes, heart disease, kidney infections, etc – were a huge proportion of the childbearing population. It comes as no surprise that a large number of pregnant women suffered complications in childbirth.

But that situation was not permanent. By the last half of the 20th century, the health of childbearing women was dramatically improved compared to the conditions of 1910. Now, in the early years of the 21st century, the health of childbearing women is orders of magnitude better. And yet, normal birth is characterized by the obstetrical profession as more dangerous than ever before. Our system of care continues to be dominated by the same defective notion -- that childbirth can only be considered normal or uncomplicated in retrospect, thus "prophylactic" interventions or the 'pre-emptive strike' is the hallmark of good obstetrics.
In 1910 the Cesarean rate was under 1% and the total operative rate, which included a large number of high risk pregnancies, was way under 20%. Ninety-six years later the operative rate for the

healthy portion of our childbearing population is more than 75% (2002-04 *Listening to Mothers Survey,* Maternity Center Association). ACOG attributes this to an older childbearing population and bigger babies – both of which are a small but legitimate source of difficulties, but statistically unable to account for these wildly inflated numbers. In our time, more than 90% of today's women are healthy when they conceive and 70% are healthy and have a normal pregnancy at term. With science-based maternity care and appropriate physiological management of labor, they would have every good reason to expect to have a normal and spontaneous vaginal birth.

It offends common sense and a consensus of the scientific literature to impose an expectation of induced labors and operative deliveries as the norm for this healthy population. And yet, no matter how outrageous the situation becomes, **American remains resolutely silent**.

The Better Way – Physiological Management & Aseptic Technique

In the earliest decade of the 20th century the obstetrical profession declared, without any scientifically proof, that pregnancy itself is a pathological state, and thus all pregnancies must be managed by experts to achieve good results. To achieve that goal, doctors purposely deconstructed all aspects of normal maternity care and physiological management and replaced it with interventionist obstetrics. The most dominate feature of this system, the bedrock of obstetrics, is the central place given to birth as a surgical procedure and 'conducted' by an obstetrical surgeon.

At this point in history, this system is accepted without question. When we think of birth, the picture in our minds is the gowned and gloved doctor standing by, with only his eyes visible beneath the surgical mask, waiting to 'deliver' the baby. The idea of anything less than this makes people anxious, afraid that the nightmare epidemics of childbed fever and whole-scale death of babies is the only other 'alternative'.

Society automatically ascribes the 'safety' of modern-day childbirth to this stylized form of obstetrical care and its many complex rituals. In doing so, it is forgetting or ignoring the actual source of our improved maternal-infant outcomes -- the vast improvement in social status of women and general standard of living, in combination with the *preventive and diagnostic* aspects of modern medicine. Seventy percent of childbearing women carry normal pregnancies to term and are still healthy when they give birth.

The scientific method most appropriate for a healthy population is based on the principle of physiological management – care that is "..in accord with, or characteristic of, the normal functioning of a living organism". This is the most efficacious form of maternity care, with the best safety record for both mothers and babies.

The organizing principle of physiologic management is not to disturb the normal process but instead work with the biological process. Historically, this was called 'midwifery' in the original meaning of the word – non-surgical maternity care for healthy women. It is the normal form of maternity care provided around the world by midwives and general practice physicians. This includes the management of normal birth as an "*aseptic*" event – but *not* a surgical procedure requiring a surgical environment, surgical practitioner or a surgical billing code.

In fact, aseptic technique is the statistical standard used around the world by midwives and physicians in both home and hospital births. The conditions for aseptic technique do not overshadow the mother's psychological and social needs and it is less expensive than surgical sterility. Aseptic technique entails the use of materials and supplies that are guaranteed clean, dry and free of pathogens. That means that nothing ever touches the mother that has ever come into contact with *any source of contamination* – the body fluids of others or sources of ordinary dirt, such as the floor.

Under aseptic conditions, sterile supplies are used anytime an instrument or gloved hand must enter into a sterile body cavity or touch tissues that have been cut or lacerated. However, the doctor or midwife does not have to be "gowned and masked", the mother does not have to be in a 'surgical' environment, nor does she have to lie still or be unable to touch any thing; the family including other children can be present. When it comes to bio-hazards, the safest place (most likely to be free of virulent pathogens) is the family's own home.

But whether normal birth care is being provided in homes, hospitals, or birth centers, the necessary sterile supplies are simple --a pair of sterile gloves, a sterile scissor to cut the cord and a sterile clamp to tie it off and a sterile towel to make a suitable surface upon which to set these instruments. Accompanying this short list is the use of lots of clean linens, plastic-backed disposable under pads, paper towels, disposable diapers, sanitary napkins and appropriate trash receptacle.

Far and away the biggest gift of birth as an aseptic rather then surgical event is that it does not require the massively expensive and specialized resources of an acute care hospital, nor lead to a cascade of ever more risky interventions. It does not result in the social isolation of the childbearing mother from her family. It does not restrict birth attendance to medical doctors trained in the surgical specialty of obstetrics and gynecology. It does not require two separate professions providing sequential care – a nurse for labor and the doctor for the birth. It does not disturb the normal process of labor or birth.

Instead it allows continuity of care during the labor and birth permitting laboring women to be cared for by the same caregiver -- physician or professional midwife-- through out the process of childbirth. It addresses the natural desire of the parents to relate to their newborn baby without the distraction of surgical procedures and the restrictions of a surgical environment or being treated as if the baby is in need of protection from its parents.

Because birth as an aseptic event eliminates the artificial split between the 'labor/nurse's role and 'delivery/doctor's role, it also permits the *mother* to take on her rightful place at the *center* of the action. Under these circumstances, it is the mother herself who 'gives birth' (rather than being "delivered"). This means the mother can take well-deserved credit for the remarkable miracle of childbirth.

This is how Dr Semmelweis would have wanted it to be.

Out of the Hundred Acer Woods & into the Sunshine

This is an enormously complex and highly technical subject, spanning two continents and hundreds of years of time and dealing with something so emotional as the life and death of mothers and babies.

However, I'm going to try to leave the reader with some simple, easy to understand ideas that put the issue in perspective. So here is my best attempt to make 'visual' and contemporary the issue of medicalization of normal birth versus physiological management.

Consider for a moment a group of automobile designers being assigned to design the interior of a modern automobile for maximum functionality and to maintain their competitive 'edge' in the market place. In the real world of commerce and competition, we would expect to see a direct link between the normal size, shape, function and ability of the human body and the size, shape, placement and function of the driver's seat, steering wheel and gas and brake peddles, the rear view mirror and all the knobs on the dash board, etc. Bottom line is that everything in the passenger compartment would be configured to function in a way that reiterated the hearing, visual abilities and normal flexibility of the driver, always reflecting the physical size and motion capacity of human body, i.e., the function-related 'physiology' of the human species. Failure to make a passenger compartment that was convenient and served the practical needs of the driver would quickly put our auto maker out of business.

Now change channels and imagine that these 'designers' are obstetricians and the year is 1910. Instead of the market place of competition as the yardstick, these obstetrical designers have designated themselves as the **"**final authority to set the standard and lead the way to safety". They believe that "they alone can properly educate the medical profession, the legislators and the public." They have a professional and economic 'agenda'. That obstetrical agenda will drive the design characteristics and 'set the standard'.

A passenger compartment designed by obstetricians would have the driver lying down in the back seat with his feet in the air trying to steer the car with the rear view mirror. Of course this wouldn't work, as this configuration wouldn't actually allow its occupants to be 'mobile'. This would naturally give rise to a whole industry of tow-trucks owned and operated by the obstetrical society. These tow-trucks would pull individual passenger compartments (with the 'driver' lying down asleep in the back seat!), along the highways to various destinations. Of course, doctors would charge a lot of money for this service. Only the day shift supervisor for the obstetrical society would be allowed to decide where and when you took a trip, what route was used and how long you could stay. Well, that is the system that obstetrics has designed for mothers and normal birth.

I recently took my grand kids to see the new movie "Cars" (really excellent!) so pardon the 'car' theme. The final image that springs to mind is the difference between the configuration and function of the pit crew in an Indy 500 race and that of an automotive repair shop. In the first example, the pit crew's function is to service the race car and its driver as it pulls in for gas and new tires. The crew always serves at the 'pleasure' of the driver, as an adjunct to help the *driver* achieve his or her goals.

In the second example, the auto repair shop and mechanic would assume that same Indy 500 race car was 'broken' and in need of being fixed. In this situation the car and driver immediately become the passive recipient of decisions made by others. The mechanic would then removed the 'driver', since s/he couldn't possible know anything about the specialized field of automotive repair and might get in the way of the experts. To be in complete control of the situation, the mechanic would also take the key out of the ignition and put the wheels put up on block so the car could no longer move. Everything about the physical environment, the course of events and all decisions would be determined by the mechanic, whose job would be to work on the inert automobile. The car's only role would be to sit there, jacked up on block and passively permitting auto shop employees to take turns looking under the hood and tinkering with its carburetor.

Both race car pit crews and auto mechanics are necessary in life and both provide valuable service to society. Both occupations have their challenges and rewards, both earn a respectable income. But it would be a crying shame to take a wonderfully functional Indy 500 automobile and treat it like a wreck. As for our original topic of normal birth and *appropriate* maternity, we reject the notion that normal birth is a biological 'wreck' that needs to be towed into a hospital room and put up on blocks so that doctors can 'tinker' with its innards. Such a conclusion is not validated by good science, it's not nice, it's not cost-effective and it's not right.

In Closing ~

We started with this observation and subsequent inquiry:

> How short a time has passed since the period depicted in this book [The Cry and the Covenant], **when it was a radical idea to just wash your hands!** Would it have made any difference if all this hardware and technology were available then?"
>
> - What about the equivalent diseases today? …
> - **Is there an equivalent to "washing your hands" possible**?
> - Would the reception of that equivalent be the same?
> - Would our present level of technology make a difference,
> - Or is there something deeper here?
> - Do computers change people and attitudes?

In the literal sense, washing your hands is now considered 'common sense'. However in the metaphoric sense, the obstetrical profession still harbors and holds tightly to an irrational mindset that rejects 'washing its hands'. They refuse to revisit theories and methods that have been in use for generations to see if they still square with the facts as known today. They have institutionalized ascribing *absolute value* to things of *relative worth*. The benefit of drugs and surgeries is relative, not absolute. In the face of life and limb threatening complications, they are valuable. However, the use of life-saving techniques in the absence of life-threatening circumstances is, of itself, life-threatening.

Unfortunately, the answer is 'yes' to the question of whether "there is something deeper here". Neither *computers nor common sense* has been instrumental in changing the "people and attitudes" of organized medicine. Obstetrics will not "wash its hands" of its addiction to interventionist

obstetrical practice. The obstetrical profession has developed an "expert" system that **fails *most*** in the *very area* that it is **suppose to have the *most mastery and expertise*** -- preserving the health of already healthy mothers and babies. When provided with corrective information they consistently refuse to take corrective action, no less so now than in Dr. Semmelweis's day.

For healthy childbearing women in the 21st century, the universal etiology for unnecessary and unnatural difficulties in normal birth is routine use of medically unnecessary and inappropriate obstetrical intervention, in combination with the obstetrical profession's failure to understand, respect or utilize appropriate physiological management – simple methods such as walking, one-on-one labor support, right use of gravity, non-drug pain relief, etc. The jewel in this ignoble crown of medical excess, the lynch pin of it all, is the century-long custom of thinking about normal birth as a pathological process that needs to be 'cured' with a surgical procedure, which of course must be performed in an acute care institution by a specialist in obstetrical surgery.

In the last 25 years many of the most esoteric rituals surrounding the surgical procedure of childbirth have been dramatically relaxed. Labor and vaginal birth now take place in family-friendly 'birth' rooms and family members are permitted to be present. Control of the environment is relaxed and the most extreme of surgical garb, such as face masks, are not routinely used. But it is still billed and tightly controlled as a surgical procedure. Worse yet, the level of intervention is even higher than it was in 1910. The mother is typically harpooned to the bed with electronic leads, tubes and wires. The pernicious effect of this is called the 'cascade of obstetrical intervention'. The situation gets increasingly complex, things start to work against each other and eventually the mother will need even more complex forms of obstetrical intervention. Thirty percent of the time, this ends by moving the mother to a real operating room and performing Cesarean surgery.

Given the nature of the beast and the economic incentives to maintain the status quo, this situation will never 'fix' itself. None the less, any plan to make Cesarean into the standard for the 21 century fails the test of *common sense*, as well as that of *science*. It cannot be left to stand unopposed. The facts leave the obstetrical profession with no where to hide-- the **C-Section** rate two years ago was already **30%**.

In 2004, Cesarean surgery was the most commonly performed, most invasive, most risky of the top five procedures performed in American hospitals – a staggering **1.3 million** at an annual cost of **14.6 Billion dollars.** As the most frequently performed procedure, Cesarean is the *only one* that is a major operation. The second runner up was a relatively minor, non-surgical diagnostic procedure (endoscopy) preformed a mere 712,000 times a year. The other procedures are also minor or diagnostic -- cardiac catheterization, mechanical ventilation and angioplasty. Cesarean sticks out like a sore thumb – reproductive surgery performed on a healthy population of women.

When the statistics for Cesarean surgery are combined with episiotomy (35%) and instrumental delivery (forceps and vacuum extraction about 12%), an astonishing 75% of women are being exposed to the many hazards of surgical intervention. An operative rate of this magnitue confirms that the **introduction of harm has been institutionalized** and thus the obstetrical profession has fallen down in its most basic responsibility --- "**first, do no harm**".

Obstetrics is a profession that has lost its way. It cannot claim to be acting in society's best interest or to be a respectable scientific voice on these issues. Any population of free people that lets this

condition go unnoticed or unchallenged deserves what it gets. Any form of journalism that goes alone with the gag is uninformed and un-informing and mere acting as a court jester for special interests.

However, many thoughtful, intelligent and patriotic American men and women *have noticed*. We are challenging the misguided use of science in the name of propriety goals. It offends both common sense and moral decency. We are calling for the reform of our national maternity care policy and the rehabilitation of our maternity care system, especially as provided to a healthy population. We insist that the institutionalized, systemized and state-sanctioned discrimination against midwives be ended and apologies made. We cannot exaggerate how important it is that the obstetrical profession go the 'extra mile' when providing care to the many women who have already been exposed to the hazards of Cesarean surgery. Unless the mother herself requests a repeat Cesarean in a subsequent pregnancy, her desire to have a physiologically managed labor and birth (VBAC), must be accommodated, even if it is more burdensome for the physician and the obstetrical system. Anything less is to add insult to injury.

We cannot and will not be satisfied with anything less than a science-based maternity care system, which integrates the best of obstetrical medicine with physiological management as the foremost standard of care. Common sense tells us that the public discourse must be changed. The time to do that is now. This requires an informative debate, designed to bring about an appropriate 21st century science-based maternity care system that is faithful to the standard set by Hippocrates himself. "First, do no harm". Like washing your hands, it's just common sense.

The Original "Common Sense"

Common Sense was a pamphlet written by Thomas Payne during the American Revolutionary War and first published on January 10, 1776. It was key in the growth of popular support for independence from British rule. Thomas Jefferson took ideas from both this publication and from John Locke when writing the Declaration of Independence. It sold 600,000 copies to a population of 3 million, 20% of whom were slaves and 50 % were indentured servants.

Physiologically-sound practices & science-based principles of care include:

Continuity of care,
Patience with nature,
Social and emotional support,
Mother-controlled environment (place)
Provision for appropriate psychological privacy,
Full-time presence of the primary caregiver during active labor
Mother-directed activities, positions & postures for labor & birth

Recognition of the non-erotic but none the less sexual nature of spontaneous labor
Upright and mobile mother during active labor
Non-pharmaceutical pain management such as showers & deep water tubs
Judicious use of drugs and anesthesia when needed (hospitalized mothers)
Absence of arbitrary time limits as long some progress, mother & baby OK
Vertical postures, pelvic mobility and the right use of gravity for pushing
Birth position by maternal choice unless medical circumstances factors require otherwise
Mother-Directed Pushing -- NO prolonged breath-holding (known as the Valsalva maneuver)
Physiological clamping/cutting of umbilical cord-- after circulation has stopped (3-5 mins)
Immediate possession and control of newborn by mother and father
On-going & unified care and support of the mother-baby for postpartum

The Principles of Physiological Management can be used by physicians and midwives in all birth setting.

www.collegeofmidwives.org

www.sciencebasedbirth.com