The Medicalization of Normal Childbirth as an Economic Issue

Commentary & Addendum ~ New York Times Editorial on the High Cost of Health Care

Faith Gibson. LM ~ December 31, 2007

The New York Times' op-ed piece on "The high Cost of Healthcare" (11-26-07) was excellent. However, you failed to mention the most frequent, most expensive and most *misunderstood* healthcare issue in the US – the unnecessary medicalization of normal childbirth for 3 million healthy women every year. For the last hundred years, the US has had a policy of using interventionist obstetrics as the primary source of maternity care for healthy women. The core of this obstetrical system – normal birth as a surgical procedure -- was developed in 1910 to prevent hospital epidemics of childbirth-related infections in a pre-antibiotics era. Since one-fifth of our annual healthcare budget is spent on maternity care, no effort to reform our national healthcare system can afford to ignore our expensive habit of medicalizing normal childbirth.

This issue has nothing to do with the appropriate use of obstetrical intervention to treat the 30% of women who develop complications. It's obvious that modern obstetrical medicine is indispensable to modern life. As a mother, I have personally benefited from these medical miracles; as a maternity care provider, I greatly respect the life-saving skills of the obstetrical profession. The question is the wisdom, safety, and economic impact of routinely using invasive obstetrical interventions on a healthy population.

Ninety percent of women who become pregnant every year in the US are healthy; seventy to eighty percent are still enjoying a normal pregnancy nine months later. While the ratio of ill health and pregnancy complications in 2007 is many times less than it was in the early 1900s, the number and frequency of obstetrical interventions has sky-rocketed all out of proportion over the last century. As American women have become progressively healthier, the operative delivery rate in the US has inexplicably risen with every decade. We seem to have lost sight of the basic purpose of maternity care, which is to *preserve the health of already healthy women*. Mastery in this field means bringing about a good outcome without introducing any unnecessary harm or unproductive expense.

Out of the approximately four million babies born each year, nearly three-quarters of all obstetrical care goes to pregnant women who are healthy and have normal pregnancies. The medical intervention rate for this healthy population is 99%, with an average of *seven* significant medical procedures performed during labor on millions of healthy childbearing women every year. More than 70% of these new mothers will have one or more surgical procedures during birth – episiotomy, forceps, vacuum or Cesarean section. Over 2 million operative deliveries are performed each year in the US on this *healthy* population of women [a]. For the last two decade, Cesarean section has been the most *commonly performed hospital procedure* in the US [b]. In 2006, it was 31% of all births or 1.3 million Cesarean surgeries, equal to the total number of college students that graduate each year, with a price tag of approximately15 **b**illion dollars.

One reason for the ever-increasing Cesarean rate is three decades of ever increasing obstetrical intervention in so-called "normal" vaginal births, a situation heavily influenced by the malpractice litigation issue. Since 1970, at least one major intervention has been added to the standard of care every couple of years. One by one, old and new medical procedures and restrictive

protocols have been added to the labor woman's experience. You can't put a laboring woman in bed and hook her up to seven (or more) IV lines, electrical leads, tubes, automatic blood pressure cuff, pulse oximetry, catheters, and other equipment without *profoundly* disturbing the normally spontaneous biology of labor. Each new intervention or drug introduces an independent risk, which is then multiplied by the aggregate of unpredictable interactions with one another. Every single invasive procedure increases the likelihood that a new mother or baby will become infected with a drug-resistant bacteria such as MRSA (the Methicillin-Resistant Staphylococcus Aureus), a problem that already results in 90,000 nosocomial (hospital-acquired) infections every year.

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

During the 20th century there has been a steady improvement in maternal-infant outcomes around the world. Many assume this was the result of medicalizing normal childbirth in the richest countries, particularly the US. However, it turns out to be the result of an improved standard of living, general access to medical care and *preventive use of people-intensive, low-tech maternity care*. This describes the prophylactic use of the eyes and ears and knowledge base of maternity care professionals who are able to screen for risk and refer for medical service as needed. This is the best 'medicine' for normalizing childbirth in a healthy population. As the medicalized model is currently configured in the US, it's virtually impossible for any obstetrician or nurse midwife to provide physiologically-based care or for any mother have a truly physiological birth. If we are to successfully compete in the global economy of the 21st century, we must develop a cost-effective maternity care system that relies on physiological practices for healthy women.

Unfortunately obstetrics in the US has turned its back on physiological childbirth for a hundred years. When combined with the unwarranted use of interventionist obstetrics, this disturbs the biological functions that make a normal childbirth possible. Millions of pregnant women are spending the many hours of their labor lying in bed while an extensive array of counterproductive and medically-unnecessary procedures are done to them. The word for this is iatrogenesis. The obstetrical response to the increased morbidity that accompanies excessive intervention in vaginal birth is to propose the *ultimate iatrogenic intervention* – electively performed Cesarean surgery. There is a move within the obstetrical profession to promote electively scheduled Cesarean for healthy women as the *preferred standard of care for the 21st century.*

Replacing normal, low-risk biology with scheduled abdominal surgery is being promoted as better, safer and more economical, a two-for-one special that is suppose to be buying us better babies while saving the mother's pelvic organs from the horrors of normal birth. It's also being described as a gender rights issue and part of a woman's "right to choose". Renamed as the 'maternal-choice' Cesarean, medically unnecessary C-section is identified as the ultimate expression of control by women over their reproductive biology. Unfortunately, claims of improved safety or lowered cost do not square with the facts. What we are *not* being told is that the scientific literature identifies many of the complications of Cesarean to be the *same* complications that Cesarean surgery was suppose to save us from. One recent study from France identified a *3½ times greater maternal mortality rate* in electively scheduled Cesareans in healthy women with *no* history of health problems or

complications during pregnancy. Other studies on the elective or non-medical use of Cesarean surgery documented an increased mortality and morbidity for newborns.

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

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

That's pretty grim -- *a disjointed, economically-strapped and liability-burdened obstetrical system unable to help itself*. I guess it's up to consumers and (one hopes) investigative journalists to take on the problem. In the global economy of the 21st century, we will have to develop a maternity care system that is suitably "green", that is, has a much smaller carbon footprint than our current system. Obviously, we can't eliminate the excessive use of Cesareans without providing an effective alternative -- a plan that safely reduces the inappropriate reliance on technology, medical intervention and surgical delivery while meeting the physical, emotional and psycho-social needs of childbearing women. To bring about the necessary changes, we must initiate a robust public dialogue and reassess the unproductive methods that have captivated everyone's imagination for the last hundred years.

Science-based Maternity Care for 21st Century

A consensus of the scientific literature identifies the *physiological management of normal birth* as the safest and most economical type of maternity care for healthy women. It's the one used by countries with the best maternal-infant outcomes. Stedman's Medical Dictionary defines physiological as: "…in accord with or characteristic of the normal functioning of a living organism". When providing care to a healthy childbearing population, physiological care should be the foremost standard used by all birth attendants and in all birth settings.

Physiological care is a not passive or neglectful, it's not just abstaining from the unnecessary use of medical interventions. It's an active process for preserving maternal-fetal wellbeing that requires a technical body of knowledge and specific skills for addressing the physical, biological, and emotional needs that women face during labor. This model is always articulated with the healthcare system and includes the **appropriate use** of obstetrical interventions for complications or at the *mother's* request.

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

A non-interventive approach to normal childbirth is careful not to disturb the natural process and to provide for appropriate physical and psychological privacy for the laboring woman. Its principles include patience with nature and continuity of care as provided by the primary caregiver

throughout active labor. It acknowledges the mother's right to control her environment and to direct her own activities, positions & postures during labor and birth. This may require changing institutional policies that interfere with the physiological process. To help achieve these goals, evidence-based maternity care employs one-on-one social and emotional support and an absence of arbitrary time limits. Women are encouraged to move around during labor, to walk, change positions, be in the shower, etc. Being upright and mobile during contractions also diminishes the mother's perception of pain, perhaps by stimulating endorphins. It takes into account the **positive influence of gravity** on the stimulation of labor. Right use of gravity helps dilate the cervix and assists the baby to descend down through the bony pelvis.

Physiologically-based maternity care for normal childbirth serves the needs of healthy families far better than our expensive and inflexible high-tech model, which is two to ten times more expensive than it should be. For example, a medically managed but otherwise totally *normal* vaginal birth in the San Francisco Bay area is about $32,000. In addition to the large initial cost, many common obstetrical interventions result in costly downstream complications, such as damage to the mother's pelvic floor following episiotomy or instrumental delivery. Having had a Cesarean means a future risk of placental abnormalities, stillbirth, and emergency hysterectomy in a subsequent pregnancy.

Physiological management is misunderstood by the American medical profession, who tend to think of it as incompetent, negligent or substandard care and a horrible waste of their extensive and expensive medical education. We have a dysfunctional system because the default setting for childbirth in the US for the last hundred years has been obstetrical intervention. As a result, obstetricians see a disproportion number of complications and readily assume that the biology of birth is itself defective. The assumption that childbirth is pathological creates a negative feed back loop that appears to justify an ever-increase level of medicalization. The obstetrical profession rarely acknowledges any causal relation between increasing rates of intervention and a rising levels of problems. Unfortunately, the 20th century legal standard for obstetrical care locks every obstetrical care provider into the same system and forces them to use the same invasive protocols, even when they personally know that physiological management is more appropriate to the situation.

Our 1910 system of medicalized maternity care has never been reexamined by modern scientific standards, or asked to account for its economic impact. To date, the most important *untold* story of the 20th century is how and why normal childbirth in a healthy population became the property of a surgical specialty and what the current costs and consequences of that are.

Judging a System by its Results

Ultimately, a maternity care system is judged by its results -- the number of mothers and babies who graduate from its ministration as healthy, or healthier, than when they started. Medicalizing healthy women makes normal childbirth unnecessarily and artificially dangerous and is unproductively expensive. But unlike many of the problems facing us today that have so far defied our best efforts– cancer, terrorism, affordable healthcare for aging baby-boomers, etc— we know how to make a maternity care system for healthy women be safe and cost-effective. As a national maternity care policy, physiological principles should be integrated with the *best advances in obstetrical medicine* to create a single, evidence-based standard for all healthy women.

The question is simply this: *How much longer will we be content to use an expensive, pathologically-based 19th century system for our healthy 21st century population?*

Addendum

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Internet links provide history, current practices and scientific literature on each topic:

Can continuous Electronic Fetal Monitoring and Cesarean eliminate Cerebral Palsy? -- the obstetrical *profession's own research* says "**No**"

Since 1975 there has been a 6-fold increase in the routine use of electronic fetal monitoring (EFM) on low-risk mothers. The obstetrical profession hoped to eliminate cerebral palsy and other neurological complications through the expanded use of EFM, combined with the liberal use cesarean section whenever fetal monitoring data indicated a possible problem. EFM is the most frequently used medical procedure in the US – 93% of all childbearing women are continuously hooked up to this equipment during labor. Many health insurance carriers reimburse hospitals $400 an hour for continuous electronic monitoring in labor.

However, the consensus of the scientific literature has never supported the routine use EFM. One recent study noted that the ability of continuous EFM to detected potential cases of cerebral palsy during labor is only 00.2%, not because the electronics of the equipment are flawed but because the premise is incorrect. In spite of these faulty assumptions, the universal use of EFM on low-risk women continues unabated and has resulted in a sky-rocketing Cesareans section rate that was *not* associated with better outcomes. In 2003, 1.2 million Cesarean surgeries were performed in the US (27.5% cesarean rate) at a cost of $14.6 billion. Our current Cesarean rate is over 31% and climbing. Most disturbing of all is that the public and the press never seem to question the unlikely idea that normal childbirth is somehow made safer and better by turning it into an expensive and risky operation.

Yet the obstetrical policy of 'pre-emptive strike' so liberally used for the last 30 years has failed to make any difference – not the tiniest bit -- in the incidence of CP and similar neurological conditions. This verifiable fact is now gratefully *used in court to defend obstetricians* facing litigation.

In July of 2003, a report by the *American College of Obstetrician and Gynecologists (ACOG) Task Force on Neonatal Encephalopathy & Cerebral Palsy* stated*:*

> "Since the advent of fetal heart rate monitoring, there has been no change in the incidence of cerebral palsy. ... The majority of newborn brain injury does not occur during labor and delivery. …. most instances of neonatal encephalopathy and cerebral palsy are attributed to events that occur prior to the onset of labor."

This report is widely regarded as the "most extensive peer-reviewed document on the subject published to date" and has the endorsement of six major federal agencies and professional organizations, including the CDC, the March of Dimes and the obstetrical profession in Australia, New Zealand and Canada.

The September 15, 2003 edition of *Ob.Gyn.News* stated that:

> "The increasing cesarean delivery rate that occurred in conjunction with fetal monitoring has *not* been shown to be associated with *any reduction* in the CP [cerebral palsy] rate... ... Only 0.19% of all those in the study [these diagnosed with CP] had a non-reassuring fetal heart rate pattern..... If used for identifying CP risk, a non-reassuring heart rate pattern would have had a **99.8% false positive rate** (N.Engl. J. Med 334[10:613-19, 1996). The idea that infection might play an important role in [CP] development evolved over the years as it became apparent that in most cases **the condition cannot be linked with the birth process**. " [emphasis added]

An August 15, 2002 report in *Ob.Gyn.News* stated that:

> "Performing cesarean section for abnormal fetal heart rate pattern in an effort to prevent cerebral palsy is likely to *cause as least as many bad outcomes as it prevents*. ... A physician would have to **perform 500 C-sections** for multiple late decelerations or reduced beat-to-beat variability **to prevent a single** case of cerebral palsy." [emphasis added]

Unfortunately, the delayed and downstream complications for mothers and babies associated with this liberal use of Cesarean surgery makes this policy counterproductive in the extreme. We must keep in mind that the true purpose of maternity care is to preserve the health of already healthy mothers and babies and that mastery in this field means bringing about a good outcome *without introducing any unnecessary harm*.

The other blue elephant in the room that no one is talking about – according to the scientific literature, elective Cesarean surgery isn't a reliable method to prevent the pelvic floor problems sometimes associated with childbearing; "purple pushing" during 2nd stage labor identified as damaging to the soft tissue of the birth canal; study confirming that traditional upright positions provide the most room for baby to be born normally

Cesareans not safe or effective for preventing pelvic problems: Having debunked the 'prophylactic' use of Cesarean to prevent cerebral palsy in babies, elective C-section is now being promoted as a prophylactic procedure to eliminate pelvic floor problems later in the woman's life. However, reputable research also does not support the use of elective Cesarean surgery as either a safe or a reliable method to achieve this goal.

In an article entitled "*Elective Cesarean Section: An Acceptable Alternative to Vaginal Delivery?*", Dr Peter Bernstein, MD, MPH, Associate Professor of Clinical Obstetrics & Gynecology and Women's Health at the Albert Einstein College of Medicine, reported on the failure of the obstetrical profession to practice evidence-based medicine as it applies to this topic. Addressing the popular notion that pelvic floor damage and incontinence were the inevitable result of normal birth (to which cesarean surgery was the proposed remedy), Dr Bernstein observed:

> "...these adverse side effects may be more the result of *how* current obstetrics manages the second [pushing] stage of labor. Use of episiotomy and forceps has been demonstrated to be associated with incontinence in numerous studies. Perhaps also vaginal delivery in the dorsal lithotomy position [lying flat on the back] with encouragement from birth attendants to shorten the second stage with the Valsalva maneuver [prolonged breath-holding], as is commonly practiced in developed countries, *contributes significantly* to the problem."

A guest editorial published in *Ob.Gyn.News*; August 1, 2002 by Dr. Elaine Waetjen debunked the idea that elective cesareans can reliably prevent the need for pelvic surgery later in life. She stated that a: "[physicians] would have to do 23 C-sections to prevent one such surgery."

Non-physiological pushing styles and positions are risky for mother and baby both: Another report in published in *Ob.Gyn.News*, March 15 2003, councils against "purple pushing", which is when the mother holds her breath and pushes so long that she uses up all her oxygen and gets purple in the face. Prolonged pushing of this type can cause tiny blood vessels [capillaries] in the face to break and sometimes blood vessels in the mother's eyes will rupture, leaving a tell-tale bright red spot in the corner, similar to the damage that accompanies a black eye. The technique that causes this is the Valsalva maneuver, a combination of prolonged breath-holding and "closed-glottis" pushing.

The author, Lisa Miller, CNM, JD is a former labor and delivery nurse, a nurse-midwife and also an attorney. Her report identifies the general idea of 'directed' pushing as an undesirable practice that interferes with normal physiology. Directed pushing usually means the mother is being coached by the doctor or labor room nurse to hold her breath to a count of ten and push as long and hard as possible. This is the familiar scene in which the mother lies in bed on her back, while her husband helps to hold her legs up in the air and with every uterine contraction, the hospital staff exhorts her to push "harder, harder, harder, hold it, hold it, now come on, give it all you've got, one more push, come on, just a little longer, we can see a little bit of the baby's head, don't waste your contraction, etc", until the mother is out of breath and purple in the face. This style of "shout it out pushing" is biologically unnecessary and counterproductive for several reasons.

The hospital's coaching policy assumes the mother's natural biological urge to push is inadequate or that she wouldn't know how to push, therefore labor attendants must instruct the mother to hold her breath to a count of ten for three times for each pushing contraction. Purple pushing is uncomfortable, undignified, and, when contrasted with the 'right use of gravity', usually counterproductive. It is not recommended by evidence-based studies because it disturbs the oxygen-carbon dioxide balance and causes a dangerous rise in the mother's blood pressure. Most regrettably, is an unspoken criticism that somehow the mother isn't doing it quite "right" or that she isn't trying quite *hard* enough. Even more disturbing is the anxiety it introduces into the labor room, which gives everybody in the room the idea that either childbirth is a race with a big prize for the fastest birth *or* the baby is in serious trouble and the staff is tying to get it out before it dies or they have do a crash C-section. Neither is true for 99.99% of healthy women.

The author states that:

> "Long Valsalva's maneuvers -- or "purple pushing"--- and standard supine [i.e. lying on one's back] positioning should be reconsidered. …. Long Valsalva pushing can adversely affect maternal hemodynamics, which in turn *adversely* affects fetal oxygenation
>
> Purple pushing--or closed-glottis pushing--during which the patient holds her breath for 10 seconds while pushing is safe in the approximately 80% of low-risk pregnancies. But that **doesn't mean it works best … in high-risk cases,** the baby **can't tolerate that kind of pushing**.
>
> ....near-infrared spectroscopy used to evaluate fetal effects revealed that closed glottis and coached pushing efforts led to *decreased* mean cerebral 02 saturation and increased mean

> cerebral blood volume. All Apgar scores were below 7 at one minute and below nine at five minutes. [i.e. both are sub-optimal Apgar scores indicating a transient stress on newborn]
>
> Open-glottis pushing, on the other hand, allows the patient to exhale while bearing down and leads to minimal increase in maternal blood pressure and intrathoracic pressure, maintained blood flow, and decreased fetal hypoxia."

Right and wrong use of gravity: At a meeting of the Radiological Society of North America two radiologists from the University Hospital, Zurich, Switzerland described a pelvimetry study using magnetic resonance imaging (MR) to determine which maternal positions provided the most room for the baby to be born.

The study contrasted the conventional supine position (mother lying flat on her back) to positions in which the mother was squatting or an all-fours 'hands and knees' position. A report on their presentation, aptly entitled "**Upright Positions Offer Most Room for Delivery",** was published in Ob.Gyn.News [2002;Volume 37 • No 3]. They measured the space available for the baby to pass through at the three critical landmarks of the childbearing pelvis –intertuberous diameter, interspinous diameters, and the sagittal outlet. They discovered that upright positions provided an average of slightly more than a centimeter at each of these junctions.

> "Upright birthing positions *provide significantly more room for delivery* in terms of pelvic dimensions, compared with lying supine, Dr. Thomas Keller said. He and his colleagues …who performed MR pelvimetry on 35 non-pregnant women to compare pelvic bony dimensions in the supine, hand-to-knee, and squatting positions.
>
> These differences are statistically **significant and confirm the advantages of birthing positions long practiced in other cultures**, the study's coauthor Dr. Rahel Kubik-Huch noted during an interview. [emphasis added]
>
> … the theoretical ideal would thus be to adopt the hand-to-knee position to help the presenting part through the interspinous diameter, and to squat rather than remain supine as the [head] traverses the sagittal outlet, said Dr. Kubik-Huch."

This silly little centimeter of extra space between lying down and standing up can easily be the difference between a spontaneous vaginal birth with a healthy baby and a difficult one that required unusually long and hard pushing, the use of forceps or vacuum to extract the baby or even a Cesarean section that may leave both mother and baby in need of prolonged or specialized care after the birth. It turns out that the 'right use of gravity' during the 1st and 2nd stage of labor is the best way facilitate a normal birth. By avoiding the use of obstetrical forceps or vacuum, the soft-tissue of the mother's pelvis and the unborn baby's brain are protected from the damage associated with either prolonged pushing or instrumental deliveries.

Unrealistic Expectations & Lawsuits ~ a vicious cycle for everyone

The poet Ralph Waldo Emerson once wrote: "There is no wall like an idea". That is also an issue for birth attendants, as people have the idea that high-tech obstetric care can control or eliminate all possible problems, and like a thick brick wall, and no amount of information to the contrary is able to dissuade them. Since 1910, the obstetrical profession has eagerly promoted the idea that normal birth is a surgical procedure but legally, this is a double-edged sword. It creates the idea of childbirth as an

event under total control of the physician-surgeon. The resulting unrealistic expectations make doctors and hospitals much more vulnerable to litigation when ever there is any problem. First off, it's not true. As an L& D nurse and midwife, I know the difference between an operation and normal childbirth. I have seen hundreds of babies come out before the obstetrician arrived, but have never once seen anyone's tonsils or gallbladder take themselves out before the surgeon arrived.

The combination of unrealistic expectations and dashed hopes inevitably results in malpractice litigation. When these statistically predictable complications occurred despite the obstetrician's best efforts, the heartbroken parents believe they have been wronged by their doctor. Most of the time, this is not the fault of individual obstetricians, but rather a system predicated on erroneous assumptions that marches forward in locked step, promising something that no human can do – control the biology of anther person so as to guarantee zero risk and a hundred percent perfection. This ultimately fuels a vicious cycle of escalating interventions, matched by run-away lawsuits, outrageous malpractice premiums, inflated maternity care costs, dissatisfied customers and thanks to the elective use of unnecessary Cesarean surgery, preventable maternal-infant deaths.

19th century childbirth-as-pathology locks the obstetrical profession out of 21st Century science: Over the last couple of decades, the medical profession as a whole has broadened its base by acknowledging and working with the mind-body continuum. However, the obstetrical profession has never revisited their historical relationship with birth as a pathological aspect of female reproduction. As a result obstetrics focuses more and more tightly on the laboring uterus as a pathological organ, relating to childbirth as if the uterus were a carburetor that needed to be tinkered with, the baby was a spark plug that needed to be removed and the mother's social and emotional needs were an inconvenient distraction to the real work of the obstetrician.

Despite a daunting list of surgical complications, the Cesarean section rate continues on an unrestrained upward spiral. While the high rate of surgical delivery (31% for 2006) is usually blamed on the large number of older mothers, multiple births and fertility treatments, it turns out that the largest rate of increased in primary Cesarean surgery is for healthy women giving birth to a single baby at the term. [Lisa Miller, CNM, JD; Advanced Fetal Monitoring, Nov 8-9, 2007] The higher the income of the mother, the greater likelihood that her baby will be delivered by Cesarean surgery, so obviously it is not medical factors that are fueling the aggressive use of these obstetrical interventions.

The Cesareans surgery rate in 2005 was 29%, approximately the same number as students in the US who graduate from college annually. The last year we have economic data for is 2003, during which 1.2 million Cesarean surgeries were performed at a cost of $14.6 **billion**. As a measure of just how much money $14.6 billion is, it should be noted the economic damage from by the Loma Prieta earthquake in the San Francisco area in1989 was estimated to be only $6 billion and more recently, the US contributed 10 billion dollars to Pakistan since 2001 in an effort to fortify the Pakistani government's anti-terrorism efforts.

In spite of hemorrhaging money on a system that does not improve outcome, public health officials are predicting a 50% Cesarean rate by the end of the decade. Some hospitals are actually replacing labor rooms with additional operating rooms in anticipation of the dramatic rise in C-sections.

Most inexplicably, there is a move within the obstetrical profession to promote electively scheduled Cesarean for healthy women as the *preferred standard of care for the 21st century*. Unnecessary Cesarean surgery is the ultimate iatrogenic intervention in normal birth. One recent study from France identified a 3½ times greater maternal mortality rate in electively scheduled Cesareans in healthy women with no history of problems or complications during pregnancy. Another study on the

elective or non-medical use of Cesarean surgery documented an increased mortality and morbidity for newborns.

Were Cesareans to become the 21st century standard, it would triple the current rate to 4 million surgical deliveries every year. This would make C-sections six times more frequent that the second most common hospital procedure -- the 700,000 upper GI endoscopies done every year to diagnose ulcers and stomach cancer. Cesarean as the new obstetrical standard would put childbirth surgery smack in the middle of our healthcare system, making American medicine more about elective Cesarean surgery than treating people who genuinely need medical services. It would provide yet another opportunity for women and babies to be exposed to hospital-acquired, drug-resistant infections. Already a quarter of all hospitalizations are related to pregnancy and childbirth. An additional 2 1/2 million Cesareans every year would bump this number up quite a bit, as a result of re-admissions for various post-operative complications of mothers and babies.

Pink for girls, Blue for boys and Green for planet-friendly maternity care

Obstetrics for healthy women already has an outsized carbon footprint, especially as it relates to routinely scheduled induction of labor and elective Cesareans surgery. It is a resource-intensive system that requires more than its share of the environmental pie. In particular, million more Cesareans mean more medical schools to train a ballooning numbers of obstetrical surgeons and anesthesiologists. It means more operating rooms, more highly-specialized hospital staff, more nurses, more vehicular traffic, more electricity, more water, longer hospital stays.

Additional surgeries and prolonged hospitalizations mean an increased number of drugs-resistant infections to be added to the thousands of hospital-acquired infection each year and more insoluble antibiotics in human urine which cannot be filtered out and wind up back in our drinking water. It also generates huge quantities of bio-hazardous garbage piling up in land fills. This process of intensive medicalization feeds back on itself, as hospital-based care becomes both cause and effect of nosocomial complications. This translates into the need to build more hospitals, more roads, more traffic and all the other infrastructures that generate more carbon-laden emissions.

Medicalizing normal birth is also responsible for an outsized economic burden -- the *unproductive cost* of unnecessary intervention. This severely hampers our ability to compete in a global economy against other countries that, wisely for them, have not saddled themselves with this albatross. Maternity care policies for healthy women in the vast majority of other countries, both developed and developing, do not routinely medicalize healthy women with normal pregnancies. Many EU countries, Japan and other highly developed countries depend on time-tested methods of physiological management provided by professional midwives and general practice physicians. Obstetrical care is used appropriately whenever there are complications. This small carbon footprint equates to “green maternity care”.

Doing it “Smarter”

Worldwide, the economic drain associated the use of obstetrical interventions on healthy women, particularly the high Cesarean rates, is causing some countries to rethink their national maternity care policy. For example, the C-section rate Britain had crept up to 25% and was still increasing. The UK has historically had a midwife-based system but in the last 20 years, English midwives have been used as labor room nurses. As such, they were carrying out the medicalized procedures of the obstetrical staff, instead of independent professionals providing physiological management. In

February 2007, the Ministry of Health in the UK announced the reconfiguring of the National Health Services to reduce the medical costs associated with normal childbirth. During debate in the British House of Commons on July 11th, Prime Minister Gordon Brown noted that by 2009, every healthy childbearing woman in the UK would be able to choose among three options:

1. Physiological care by a community midwife in the mother's home
2. Physiological care in a local midwife-led unit based in a hospital or community clinic
3. Medicalized care in a hospital, supervised by a consultant obstetrician, for mothers who may need specialist care to deliver safely or may want epidural pain relief [The Guardian, Feb 6, 2007]

This will bring Britain back into alignment with their historical maternity care practices, other EU countries and the entire developing world. The majority of the world is using the cost-effective model of physiological management as their standard of care for healthy women, which is approximately 80% of the childbearing population in most countries.

How Normal Childbirth got trapped on the wrong side of history -- the perfect storm that turned healthy women into the patients of a surgical specialty and normal childbirth into a surgical procedure [See stand along file]

Safe, Simple & Satisfactory alternatives to Birth as a Surgical Procedure

Aseptic technique is the standard of care used around the world by professional birth attendants who provide physiologically-based maternity care. This protects mothers and babies from infection through a body of knowledge and a variety of effective methods, including hand-washings and universal precautions. In practical application, it means nothing ever touches the mother that has come into contact with *any source of contamination* – body fluids of others people or sources of ordinary dirt. All materials and supplies that could conceivably come in contact with the mother's birth canal or the newborn baby are guaranteed to be clean, dry and free of pathogens. 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.

Labor and birth as an *aseptic* rather than *surgical* event allows continuity of care, permitting laboring women to be cared for by the same caregiver -- physician or professional midwife-- through out the process of both labor and birth. It also does not result in the social isolation of the childbearing mother from her family. Under aseptic conditions, the spontaneous vaginal birth of the baby is *not* considered to be a surgical procedure. No special environment or equipment is required such as a specially-designed bed with obstetrical stirrups. The doctor or midwife does not have to be "gowned and masked" nor does the mother have to lie still on her back or be admonished not to touch anything. The common sense conditions for aseptic technique allow the mother to move about and use physiological positions and the 'right use of gravity'. Aseptic care does not overshadow the mother's psychological and social needs. Her family, including other children, can be present when the baby is being born.

The necessary sterile supplies for normal birth are simple -- a pair of sterile gloves, a sterile scissor to cut the cord, a sterile umbilical clamp and a sterile towel to make a suitable surface upon which to set these instruments. Accompanying this short list of sterile supplies is the liberal use of clean linens, paper towels, disposable under pads and diapers, sanitary napkins and appropriate trash receptacle.

Aseptic practices do not restrict attendance of normal birth to 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 a doctor for the birth. It does not disturb the normal process of labor or birth. It prevents nosocomial infection without requiring a surgeon, a surgical environment or billing as a surgical procedure under a surgical code.

The Importance of a Non-Surgical or "Physiological" Billing Code

No effort to reform our national healthcare system can afford to ignore the medicalizing of normal childbirth. No effort to reform this inappropriately medicalized system can afford to ignore the issue of the surgical billing code for normal birth. Presently, there is only one billing code for the entire spectrum of birth-related care and that is a surgical code. Because obstetrics is a surgical specialty, normal childbirth has unfortunately been classified as a surgical procedure for most of the 20th century. A surgical diagnostic category automatically generates a surgical billing code, which produces an entirely different (and expensive) kind of care and a different form of reimbursement.

This surgical designation means the care provided during labor, birth and immediately after the birth, is divided up into billable units and parceled out between multiple service providers. *This is the most expensive way possible to pay for maternity care*. It eliminates continuity of care and makes the use of physiologically-based practices impractical. Under our current system, non-medical forms of care are so poorly reimbursed that hospitals would quickly find themselves out of business if they did not purposefully increase the number of billable procedures done on each maternity patient.

However, a simple solution is at hand and that is a specific billing code for normal childbirth. To provide continuity of care and to fairly compensate birth attendants, maternity care for a healthy population must allow the physician or midwife to use **a non-surgical billing code** for physiologically-based childbirth services. A physiological billing code would permit primary birth attendants to be appropriately paid for their full-time presence during active *labor* as well as the birth *and* the time and professional responsibility taken for the immediate postpartum and newborn period of care.

The Tipping Point

We can no longer afford to let the happenstance of 19th century obstetrics get in the way of the plain facts -- countries that look to physiological care as the standard for normal births have statistically improved outcomes and a greatly reduced economic burden. The idea of normal birth as a surgical procedure has long outlived its usefulness, if, indeed, it ever was an effective intervention. Restraints imposed by the 21st century global economy make reform of our maternity care system all the more urgent. As a national maternity care policy, physiological principles should be integrated with the *best advances in obstetrical medicine* to create a single, evidence-based standard for all healthy women. Rehabilitation of maternity care practices and reform of reimbursements categories are both necessary for a balanced, planet-friendly healthcare system.

[a- Listening to Mothers Survey, MCA, 2002 & 2006 –www.childbirthconnection.org] [b-Reuters news report date], {c- Rates of ob intervention in low-risk labors - National Institute of Health's Agency for Healthcare Research and Quality (AHRQ). [d- British Medical Journal -June 2005; *Outcomes of planned home births with certified professional midwives: large prospective study in North America;* Kenneth C Johnson, epidemiologist & Betty-Anne Daviss, project manager