

The Courage to Love: Implications for Care, Research and Public Policy to Reduce Infant Mortality

The National Commission on Infant Mortality
The Health Policy Institute of the Joint Center for Political
and Economic Studies

“When I speak of love I am not speaking of some sentimental and weak response. I am speaking of that force which all of the great religions have seen as the supreme unifying principle of life.”

~Martin Luther King, Jr.

“Justice is the social form of love.”

~Bishop Sergio Carranza¹

EXECUTIVE SUMMARY

In 2004, the most recent year for which complete vital statistics are available, 27,936 infants died in America before reaching their first birthday. The magnitude of this tragedy is only modestly muted when that raw figure is recalculated as number of deaths per 1,000 live births—the infant mortality rate. Yet the recalculation is important and revealing: whatever the risk factors are for premature deaths overall, that risk is compounded for children of color. Specifically, children of the African Diaspora are more than twice as likely as European- and Hispanic-Americans to die within a year of birth (13.6 compared to 5.50 and 5.65 per 1,000 respectively). Equally unflattering if not disturbing is the fact that America’s infant mortality rate ranks last among 26 industrialized nations with populations $\geq 2,500,000$ including Cuba.²

Aware of this tragedy and its particularly burdensome impact on black children, the Health Policy Institute of the Joint Centers for Political and Economic Studies convened a National Commission on Infant Mortality. The purpose of the Commission was to review the history of infant mortality rate analysis and interpretation, examine basic assumptions, redefine the problem, and imagine new possibilities for action through public policy.

The causes of infant mortality are manifold and include congenital malformations (a leading cause of death for white infants but not black infants), prematurity and low-birth-weight, Sudden Infant Death Syndrome (SIDS), and unintentional injuries. The Commission focused especially on premature and low-birth-weight infants as these

¹ Bishop Sergio Carranza. Homily rendered at the 110th Annual Meeting of the Episcopal Church in the Diocese of Los Angeles. December 3, 2005.

² Hamilton BE, Miniño AM, Martin JA et al. Annual Summary of Vital Statistics: 2005. *Pediatrics* 2007; 119(2):345-360.

children contribute most significantly to infant mortality rates and because prematurity lends itself to consideration of the relationship between the psychobiology and sociology of pregnancy.

In its comprehensive review of the history of infant mortality rate analysis the Commission discerned three subtle yet sturdy and interwoven ideological strands. The strand that most explicitly continues to inform public policy is the notion that pregnancy is a pathological condition or potentially so and, therefore, requires professional medical supervision. As recently as January of 2007 the prestigious and influential *New England Journal of Medicine* published an essay on science's current understanding of the physiology of labor onset and progress in pregnancy. That essay begins with the heading "mechanisms of disease," and ends with a section titled "inflammation and the onset of labor."³ In this way parturition is framed literally as a pathologic event. The author acknowledges that our understanding of the physiology of parturition is incomplete. Moreover, he writes, "A better understanding of the pathway to normal birth should provide the basis for identifying points along the pathway at which a pathological process may precipitate preterm birth."

The Commission finds that the presumption that pregnancy is a pathological condition, and prenatal care as essential to reducing infant mortality rates, must be reexamined. For example, it is a curious fact that since 1990 the rate of preterm births has been steadily rising for all racial groups even though the percentage of women receiving early and appropriate care has also increased significantly (24% for black women and 7% for white women). In their review of the subject of preventing preterm births Goldenberg and Rouse draw the following conclusion:

Most interventions designed to prevent preterm birth do not work, and the few that do, including treatment of urinary tract infection, cerclage, and treatment of bacterial vaginosis in high-risk women, are not universally effective and are applicable to only a small percentage of women at risk for preterm birth. A more rational approach to intervention will require a better understanding of the mechanisms leading to preterm birth. In the meantime, substantial reductions in preterm delivery are unlikely to be achieved.⁴

A second ideological strand lifted up for examination and challenge by the Commission is distinctly misogynist. This ideological strand silently portrays women as ignorant, immoral, and/or incompetent to the task of childbearing and rearing. Lest this summary statement be judged as too harsh, one need only examine the record. For example, in the last decade of the twentieth century prominent American physicians asserted that infants were dying because "their mothers couldn't—or wouldn't—get proper prenatal care."⁵ They have declared that the "hard thing about cutting infant mortality is educating

³ Smith R. Mechanisms of Disease: Parturition. *New England Journal of Medicine* 2007; 356(3): 271-283.

⁴ Goldenberg RL and Rouse DJ, "Prevention of Premature Birth." *New England Journal of Medicine* 1998;339(5): 313-320.

⁵ Editor, *Philadelphia Inquirer*, August 20, 1990, page A-12.

mothers.”⁶ Or they have opined that “sexually promiscuous mothers or those who abuse drugs or have psychological pathology” were responsible for “unflattering” infant mortality statistics.⁷ These statements have appeared in such notable newspapers as the *New York Times*, the *Philadelphia Inquirer*, and the *Wall Street Journal*.

The Commission identified but did not plumb the depths of the toxic dynamics of racism as it relates to preterm birth and infant mortality. Yet ascribing immorality, ignorance, and incompetence to women generally imposes a much heavier burden on black women especially. The evidence for this assertion is nowhere more powerful and authoritative than in Dorothy Roberts’ account titled *Killing the Black Body*. Roberts seeks to broaden the terms of the debate on “reproductive rights” in the context of the historical and continuing assault on the liberty and wellbeing of black women. In so doing Roberts reveals the racist ideology affecting Black mothers as “biological and social reproducers.” She writes;

“Black mothers are seen to corrupt the reproduction process at every stage. Black mothers, it is believed, transmit inferior physical traits to the product of conception through their genes. They damage their babies in the womb through their bad habits during pregnancy. Then they impart a deviant lifestyle to their children through their example. This damaging behavior on the part of Black mothers—not arrangements of power—explains the persistence of Black poverty and marginality. Thus it warrants strict measures to control Black women’s childbearing rather than wasting resources on useless social programs.”⁸

The third ideological strand examined by the Commission was the most subtle yet consistent and consistently ignored. That is, throughout the history of infant mortality rate analysis there is evident an awareness, however dim, that toxic social relationships and/or conditions adversely affect maternal and child health. In the earliest stages of response to the tragedy of infant deaths public health professionals were distinctly concerned about sanitary reform. In particular, cities were considered “infant abattoirs.” Life in urban centers was especially hazardous at the turn of the twentieth century. The evidence seemed compelling—population density was increasing as were environmental pollutants while available housing and sanitary infrastructure could not keep pace. Sanitarians (as reformers were known) believed that government had a responsibility to sanitize the environment and had the means to do so.⁹

Despite the awareness that toxic social relationships and conditions affect maternal and child health adversely, the focus of public health policy has been on improving the quality of and access to prenatal care. At best, it is as if social circumstances and structures were immutable and women must learn to adapt. Worse, locating the problem of infant mortality in the psyches and somas of Black women draws our attention away

⁶ Robert Pear, *New York Times*, August 12, 1990, page E-5.

⁷ Kenneth Prager, *Wall Street Journal*, February 1, 1995, page A-13.

⁸ Roberts D. *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty* (New York: Pantheon, 1997), page 9.

⁹ Meckel RA, *Save the Babies: American Public Health Reform and the Prevention of Infant Mortality, 1850-1929*, (Baltimore: Johns Hopkins University Press, 1990), pages 11-39.

from the prevailing social order because that order is desired by advantaged groups no matter the “collateral damage” suffered by the marginalized and politically disaffected.

Having reviewed the limited if not sordid history of infant mortality rate analysis and interpretation, the Commission turned its attention to redefining the nature of this seemingly intractable tragedy and sought to craft a creative, compassionate public policy response. At the heart of the Commission’s deliberations is a call for the courage to love, to not only redress the sickening experiences of misogyny and racism but to promote the political, economic, social, and physical wellbeing of women and children, especially those of the African Diaspora.

The Commission readily acknowledges that to begin with a call for the courage to love in response to such a grave concern as the death of infants is to risk being dismissed, derided, or trivialized. Yet we contend that failure to address “lovelessness” as perhaps the most significant risk factor in poor pregnancy outcomes is to collude in the silencing of the voices of women who experience the death of infants most immediately and intimately. As well, dodging the subject of love would effectively endorse the “restrictive emotionality” that endangers the lives and well-being of men as autonomous persons, as partners, as parents, and as policymakers.

In order to grasp the meaning and potential policy implications of love as a response to infant mortality the Commission elaborated the emerging concept of “relationality.” Contrary to conventional wisdom in a culture that valorizes the independent individual, relationality posits that as human beings we are relational creatures by nature. We are preternaturally drawn into relationships by the “gravitational force” of love. We are necessarily interdependent and never truly independent—we live and move and have our being in, through, and for the sake of relationships.

Metaphorically, relationality is to relations as personality is to persons. When we encounter the individual person as object we can make certain claims or take certain measurements regarding, for examples, racial or ethnic identity, physical dimensions, age, and gender. Yet such an assessment of the person gives us no real clue to her lived experience, her affective or cognitive *milieu interior*. The person as object before us is far more complex and laden with hopes and fears, loves and hates, motivations, thoughts, and feelings. To “know” that experience in at least some limited but meaningful way, we would have to enter dialogue with the other to begin to appreciate her personality. So it is with relationality. From a distance we can make some assessment of the behavior of two or more persons in relationship. However, we would have to enter the interstices of that relationship to experience its qualitative dimensions and dynamics. It is in the interstices that we discover the nature, texture, and essence of affiliation.

The Commission posits that some relational experiences are toxic. Such is the case with sexism and racism. These are experiences of isolation and alienation that are anathema to being human. They are typically unacknowledged and unspoken conflicts that are ultimately pantomimed in the body—individual and corporate. More important than its reflection on toxic relationality, the Commission gives detailed attention to relationality

in its healthiest manifestation. The Commission's most salient model of relationality is the breastfeeding experience for the mother-infant dyad.

While elaborating the concept of relationality as it is manifest in the mother-infant dyad, the Commission clearly wished to avoid narrowly defining a gendered role for women as mothers. Rather, the experience of breastfeeding in this context is seen as a model of relationality—the infant's primer, the mother's reminder, and the community's gift of being in and witnessing mutually supportive and challenging relationships.

The breastfeeding experience, then, emerges as a defining force in shaping public policy. It is well known that breastfeeding provides nutritional benefits for the infant. Perhaps equally well known is the salutary effect of breastfeeding in reducing the risk of childhood diseases including allergies, and respiratory and middle ear infections. As well, breast feeding women have a reduced risk of breast cancer. Less well known is the emotional dialogue that takes place between mother and infant also known as "affect synchrony" or "affective attunement." This emotional dialogue is essential to cognitive development and, later, creativity, compassion, and ethical thinking and behavior. As well, affect synchrony is critical for the very physical development of the human brain.

Equally important to the dyadic relationship between mother and child is a "maternal matrix," i.e., a nexus of supportive relationships within and from which women learn and practice the art of mothering. When healthy, both sets of relationships, mother-infant dyads and maternal matrices, are characterized by intimacy, participation, mutual indwelling, reciprocity, and asymmetry. Intimacy connotes presence—a capacity and desire to be in relationship with the other. Participation implies that each party to the relationship is co-creative. Mutual indwelling requires that each eagerly listens with the ear of the heart to the expressions of the other thereby "taking into" oneself that which the other reveals about his or her interior landscape. Reciprocity connotes openness to "self-giving" and "other receiving." And asymmetry acknowledges and honors that the other is different and, in many ways, unknowable. The other is a mystery to be treasured.

The Joint Center commissioned a series of studies to supplement the Commission's deliberation. Those studies included a pilot ethnographic study of African American women participants in an urban birthing center, the relationship between income inequality and infant mortality elsewhere in the global village, an in-depth analysis of the salutary effects of breastfeeding, and a thoroughgoing review of maternal nutrition as it relates to infant health immediately and long term.

Katz and Fox were commissioned to conduct a pilot participatory ethnography with women of color in an urban birthing center.¹⁰ Two themes emerged in their ethnography. First, the women spoke of the chronicity and diversity of stressors in their lives. Second, in a variety of ways the women voiced the significance of "women walking with women" in solidarity as a means of coping with and transcending those stressors. Consistent with

¹⁰ Katz AM & Fox K. Community Matters: Authentic Voices in Infant Mortality. A report to the Joint Center for Political and Economic Studies. February 2007.

these themes and data gleaned from other studies the Commission advances a relationality-centered hypothesis regarding stress. Specifically, we hypothesize that women are put at risk for poor pregnancy outcomes by a spectrum of ubiquitous stressors ranging from traumatic experiences, such as the death of a loved one or the abuse of domestic violence, to less blunt but no less significant assaults and insults such as those attending racism and sexism and economic privation. Women with historical or contemporary relationships primarily characterized by affect asynchrony or dysregulation experience those stressors as “distress” that overwhelms their adaptive capacity and blunts their developmental potential. We hypothesize that such women are more likely to suffer complications of pregnancy, labor, and delivery. As a corollary, women enmeshed in relationships characterized by affect attunement experience the same stressors as “eustress” which catalyzes adaptation and transformation. This dynamic is in keeping with mother-wit that asserts “that which does not kill you will make you strong.” Such women are seen as resilient.

In another study commissioned by the Joint Center David examined the relationship between income inequality (as one proxy for social inequality) and infant mortality in other nations.¹¹ David concludes there is a substantial body of evidence revealing the direction of that relationship—the greater the gap between the most and least privileged citizens of a community or nation the higher will be the infant mortality rate. The nature of that relationship is less clear and consistent—whether it is associational or causal. Still, the relationship between income and mortality is sufficiently robust as to warrant if not demand changes in economic policies and measures of economic progress particularly as such policies and measures impact the lives of women of color.

Philipp and Jean-Marie’s paper, also commissioned by the Joint Center, reviews the compelling body of evidence documenting the numerous salutary affects of breastfeeding on maternal and child health.¹² The authors also examine best practices and policies that support initiating and sustaining breastfeeding. Philipp and Jean-Marie acknowledge the need for more in-depth studies on the historical and continuing attitudes, beliefs, and behaviors that serve as disincentives to breastfeeding. The need for such studies is especially pressing for African American women who have the lowest rates for initiating and sustaining breastfeeding in the United States.

On behalf of the Joint Center Lu and Lu carried out a comprehensive review and analysis of maternal nutrition as it affects maternal and child health immediately and long term. In their paper Lu and Lu observe that there is a theoretically plausible link between nutritional deficits and/or excesses, and length of gestation and/or infant’s weight at birth. Yet, with few exceptions, studies in which micro- and macro-nutrients are provided to participants fail to yield improvements in birth outcomes. In light of this curious finding Lu and Lu argue persuasively that nutrition must be reexamined in a larger, relational context. For example, they posit that sound nutrition is imperative throughout the lives of

¹¹ David, R. *Infant Mortality in the Global Village: Inequality Matters*. A working paper commissioned by the Health Policy Institute, Joint Center for Political and Economic Studies. November 2006.

¹² Philipp BL and Jean-Marie S. *African American Women and Breastfeeding*. A working paper commissioned by the Health Policy Institute, Joint Center for Political and Economic Studies.

women long before, between, and after pregnancies. An area of study not included in the review by Lu and Lu is the potential affect of psycho-emotional states on the digestion and metabolism of nutrients. Such studies would further our understanding of the link between the psychobiology and sociology of pregnancy.

Each of the foregoing studies affirms the Commission’s deepest conviction—relationships are primary. All else is derivative. More to the point, they affirm in ever increasing complexity the validity of Commissioner Byllye Avery’s assertion that “infants are dying because their mothers are dying. Their mothers are in dead relationships.”

This much is clear: It will simply not do to continue to lay blame for poor pregnancy outcomes on women generally or women of color especially. If it ever has been it is not now possible to rescue children from premature birth and death without having more compassionate regard for and relationships with their mothers. It will not serve women to simply shuttle them into prenatal care services though such services have some merit.

In her book *Killing the Black Body* Roberts asserts that “Reproductive liberty must encompass more than the protection of an individual woman’s choice to end her pregnancy. It must encompass a full range of procreative activities, including the ability to bear a child, and it must acknowledge that we make reproductive decisions within a social context, including inequalities of wealth and power. *Reproductive freedom is a matter of social justice*, not individual choice.”¹³ (Italics are in original text.) What Roberts asserts about reproductive liberty the Commission echoes with regard to reproductive health. That, too, is a matter of social justice.

It is in the context of the Commission’s foregoing challenges to conventional wisdom, and its reflections on the implications of relationality for maternal and child health, that we offer the following policy guidelines and recommendations.

Relationality: Implications for Care, Research, and Public Policy

If there were a single, simplistic phrase to capture the core value guiding care, research and public policy to reduce infant mortality it would be this: There is a difference between *sending bread to* a sister and *breaking bread with* a sister. Similarly, there is a difference between crafting policy for women and co-creating policy with women. The enactment of social justice and the invitation to participatory democracy is at the heart of healing from the wounds of misogyny, racism and other pathologies of power in relationship that are, very probably, causally related to infant mortality.

PUBLIC POLICY

- All public policy should include a “relational impact statement” similar in form to the economic and environmental impact statements now employed in policy analysis. Relational impact statements would include answers to questions such as the following: How will politically/economically disfranchised citizens be

¹³ Roberts, *Killing the Black Body*, page 6.

- advantaged or disadvantaged by a policy? Have all stakeholders, especially the traditionally disfranchised, been afforded an opportunity for public hearing on the policy prospectively or retrospectively? Does the policy draw citizens of the community into collaborative relationships or does it set them apart by creating irresolvable competing claims? Does the policy contain a “self-destruct” clause ending its life when it proves to be consistently harmful to a one group of citizens while privileging another group? Who are the authors of the policy and how are they related to the persons most advantaged or disadvantaged by the policy?
- At federal, state, and local levels of government measures of economic progress must routinely include the Gini Coefficient or its equivalent to assess the degree of income inequality; the Human Development Index or its equivalent to measure progress in health, education, and purchasing power; and a Gender Development Index or its equivalent to measure the disparity in economic and political development between men and women.
 - Every effort should be made to reduce social and income inequalities. For example, federal, state and local governments should develop services to assess vocational interests, aspirations, and assets, and provide counseling to women of color especially. Women who are primary care providers for children or other dependent family members should receive adequate remuneration from the state for such care. Eliminate or rewrite tax and welfare policies that serve as disincentives for fathers to participate in the lives of their children; assure that child support payments are made to children and not municipal treasuries. Work with private employers and the education community to provide education and job training opportunities to unemployed, under-employed, and low-skilled fathers.¹⁴ Expand eligibility for and funding of Medicaid enrollment for fathers as well as women and children. Establish a living wage policy and practice for all families. Ratify the United Nations Convention on the Rights of Children. Adopt and adapt the United Nation’s Millennium Goals to apply to economically impoverished communities in America.

STANDARDS OF CARE

- Women should be provided options for receiving maternity care. Among those options should be birthing centers wherein women design and determine the content of care and health care providers serve as consultants to childbearing women. Foster and fund a culture of routine home visiting in pre-, peri-, and post-natal care—by lay and professional care providers. Define content and initiate strategies for inter-conceptual care, especially for women who have experienced premature births and/or suffered the death of an infant. Develop a critical mass of persons to participate in “maternal matrices” by identifying, training, and employing women who have proven resilient in response to their own life trials and tribulations. Enhance efforts to promote and support breast feeding including efforts to resurrect and implement the Department of Health

¹⁴ This policy recommendation is excerpted in whole from the National Governors Association HHS-15 Fatherhood Policy paper.
 <<http://www.nga.org/portal/site/nga/menuitem.8358ec82f5b198d18a278110501010a0/?vgnnextoid=248a9e2f1b091010VgnVCM1000001a01010aRCRD>>

and Human Services Blueprint for Action on Breastfeeding.¹⁵ Request that the Joint Commission for the Accreditation of Health Care Organizations consider adding Baby Friendly Hospital status as a quality indicator for hospitals with obstetric and pediatric care services. Establish workplace policies to provide space and time and otherwise encourage breastfeeding. Create and provide incentives for men to actively participate in supporting their mates in childbearing, rearing, and breastfeeding.

RESEARCH

- All research done in politically disaffected and economically disadvantaged communities should include participatory ethnographic methods. The federal government should give priority to such studies in determining grant awards.
- Institute periodic quality assurance oversight of research efforts to assure compliance with requirements for including the voices of “study subjects.”
- In-depth research must be done to discover the factors that serve to inhibit women of color especially from breastfeeding.
- Expand funding for research on the psychobiology of relationality and assure the participation of social scientists including ethnographers. Focus especially on depression, anxiety, post-traumatic stress and other dysphoric emotions as potential determinants of suboptimal pregnancy outcomes.
- Studies of the psychobiology of relationality should include efforts to determine the effects of various emotional states on the digestion and metabolism of nutrients.
- Strengthen analyses carried out by local Fetal and Infant Mortality Review Boards by a) including the lived experience of parents, and b) funding research that examines the psychobiological/social correlates of perinatal deaths.
- Initiate and/or expand research on the emotional experiences and expressions of fathers throughout pregnancy, labor and delivery. Determine the impact of father’s presence and absence as support for their childbearing partners.

¹⁵ See <www.womenshealth.gov/Breastfeeding/bluprntbk2.pdf>.

BACKGROUND: HISTORICAL CONTEXT & EMERGENT PARADIGM

Preface: To begin with a call for the courage to love in response to such a grave concern as the death of infants is to risk being dismissed, derided, or trivialized. Yet we contend that failure to address “lovelessness” as perhaps the most significant risk factor in poor pregnancy outcomes is to collude in the silencing of the voices of women who experience the death of infants most immediately and intimately. As well, dodging the subject of love would effectively endorse the “restrictive emotionality” that endangers the lives and well-being of men as autonomous persons, as partners, as parents, and as policymakers.

Having carefully discerned that the risks of silence are greater than the risks of speaking out, the National Commission on Infant Mortality invites readers of this document to engage in critical reflection on a much maligned and misunderstood human experience, love, as it pertains to healthy pregnancy outcomes. We will make clear what we mean in reference to the experience of love. For the moment, we note only that love evokes and is, therefore, *related* to sentiment, affect, and emotion. Describing that relationship is critical to our understanding of the link between love and human survival. However, the love about which we invite reflection is *not synonymous* with sentiment, affect, or emotion. It is against this background that the Commission invites the reader’s attention to a critical concern—infant mortality.

Overview: What does it mean when large numbers of infants in a community die before reaching their first birthday? Why are there persistent and growing disparities in death rates between infants born to women who are white and middle-class and those infants born to women of color from any class?

These questions are especially urgent at this time in the world and in our American community. In the year 2002 the infant mortality rate had increased significantly for the first time in nearly fifty years and the gap between the rates for black and white infants had not narrowed. In this time public health professionals are articulating their concerns about the deaths of newborn infants around the world and launching a “child survival campaign” in response.

In an effort to respond to the urgent questions about the significance of infant deaths and the disparities between the apparently privileged and the poor, the Joint Commission for Political and Economic Studies convened a National Commission on Infant Mortality.

Objectives: The purpose of the Commission was to review the history of infant mortality rate analysis and interpretation, examine basic assumptions, redefine the problem, and imagine new possibilities for action. In particular, the commission focused on the significance of emerging concepts of relationality—the notion that relationships are constitutive of what it means to be human—in understanding and responding to infant mortality. The Commission’s intentional focus on relationality has potential implications for improved pregnancy outcomes, economic prosperity, and meaningful political participation for all women and women of color in particular. The Commission herein

elaborates those implications and, under the auspices of the Joint Center for Political and Economic Studies, publishes its findings and recommendations.

The Process: The Commission first prepared and critiqued a briefing document on (and interpretive synthesis of) the history of infant mortality rate analyses that included responses to the following questions among others:

- How has the meaning of and response to infant mortality rates changed historically?
- What have been the political and philosophical ideologies informing the historical meanings of and responses to infant mortality rates?
- What are the limitations of the current conceptualization of and approaches to reducing infant mortality rates?
- What are the most recent and promising approaches to understanding and mitigating the factors contributing to infant mortality?

The Commission’s findings from its historical review are summarized first as that history informs our turn to the concept of relationality. Readers who are familiar with or disinterested in this historical perspective may confidently look ahead to the section of this document subtitled “Relationality—An Approach to Understanding and Responding to Infant Mortality.”

Infant Mortality Rates—Calculation and Trends

The range of what we think and do is limited by what we fail to notice. And because we fail to notice that we fail to notice there is little we can do to change until we notice how failing to notice shapes our thoughts and deeds.

~R. D. Lang

Infant mortality rates are calculated by dividing the number of children who die before their first birthday by the total number children born live in one calendar year. The rate is usually expressed as the ratio of infant deaths per 1,000 live births. For example, if 27,970 out of 4,019,280 infants born in the year 2002 die before they reach their first birthday the infant mortality rate would be $(27,970 \div 4,019,280) \times 1000$, or 7.0 deaths per 1000 live births.

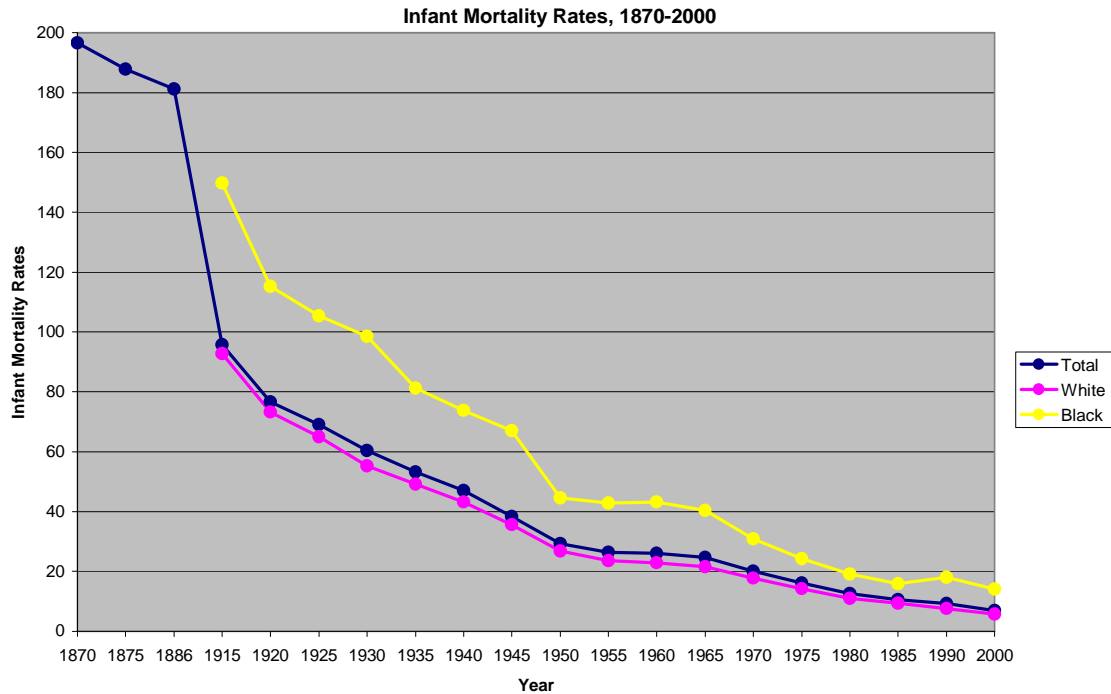
Though we can calculate infant mortality rates relatively easily, there are more nuances in the selection of data points comprising the equation than might be evident at first glance. For example, there are differences in the determination of that which constitutes a live birth from one municipality or registration area to another. An infant born weighing 1,000 grams (approximately 2.2 pounds) with a heart rate and respiratory effort for one hour might be considered live born in Pittsburgh but not Philadelphia. Similarly, such an infant might be considered live born in the United States but deemed a stillborn fetus in the United Kingdom. These differing determinations will change the value of the denominator accordingly.

In an effort to enhance our analysis of infant mortality data in the United States, the National Center for Health Statistics links data from infant birth and death certificates. The birth certificate contains information such as age, race, and marital status of the parents, birth weight and gestational age of the newborn, and mother's level of education and her use of prenatal care. The death certificate contains information such as the infant's age at death, and the primary and secondary causes of death. As will be shown, we enhance our capacity to discern patterns of mortality by linking these sources of data.

Its advantages notwithstanding, linking data from birth and death certificates impels us to choose between "period" and "cohort" data to include in the numerator of our equation. Specifically, for period data the year of death matters more than the year of birth. That is, for example, an infant that dies on or before his or her first birthday in 2002 will be counted with all infants who died in that same year whether born in 2001 or 2002. For cohort data, the year of birth matters more than the year of death. That is, all infants born in (let us say) 2002 are kept together as a group no matter if some die in 2002 and others not until 2003. Though there are methodological advantages to cohort data, period data are the official linked files routinely published by the National Center for Health Statistics since 1995. The Center must delay publication of cohort data pending the close of the data year (2003 in our example) so as to include all deaths of infants born into the cohort. Again, our choice of period or cohort data will affect the value of the numerator of the equation to calculate infant mortality.

Mindful of the foregoing comments regarding the nuances of data selection prior to calculation, we can discern trends in infant mortality by tabulating and/or plotting rates as a function of time. Figure 1 graphically illustrates the infant mortality rates in the United States in five-year intervals from 1870 to 2000. That rate has been on the decline since we began to compile national data.¹⁶ However, not evident from the data we have chosen to graph is the fact that from 1957 to 1958 there was a statistically significant increase in the overall infant mortality rate. Curiously, the United States would not experience another significant increase in infant mortality rates until 2002, the year for which preliminary data were available for analysis when the Commission began its deliberations. This increase gives us pause to reflect on the merits of linked birth and death certificates (data files) noted above.

¹⁶ The data on the accompanying graph do not represent the nation as a whole, in fact. All States were not included in the birth and registration areas until 1933. Moreover, the death registration areas were first established for ten States and the District of Columbia in 1900. Birth registration areas for those municipalities were established in 1915.



Notes: Data for years 1886-1875 pertain to IMR for "native" parents (exclusive of "foreign born" parents) residing in Suffolk County, Massachusetts. (Excerpted from *Save the Babies*, by Richard A. Meckel [Baltimore: Johns Hopkins University Press 1990], Table 1, page 38.)
 Data for years 1915-1935 are from clustered years, i.e., 1915-1919, 1920-1924, 1925-1929, 1930-1934, and 1934-1939. (Excerpted from Meckel, *Save the Babies*, page 238.)
 Data for years 1990 and 2000 are from Arias, E, MacDorman, MF, Strobino, DM, Guyer, B. Annual Summary of Vital Statistics - 2002. *Pediatrics* 2003; 112:1215-1230.

Generally, because of the information available in linked birth and death certificates, we are able to divide infant mortality into two categories—neonatal and post-neonatal. When an infant dies before twenty-eight days of age, we count that as a neonatal death. Two-thirds of infant deaths in the United States occur in the neonatal period. Post-neonatal mortality occurs between twenty-eight days of age and the child’s first birthday, and accounts for approximately one-third of infant deaths in the United States. Congenital birth defects and premature birth are the most frequent causes of death in the neonatal period. The Sudden Infant Death Syndrome (SIDS), congenital anomalies, injury (intentional and unintentional), and infections are the most common causes of death in the post-neonatal period.

Specifically, with respect to the significant increase in infant mortality for calendar year 2002, we are able to discern from the linked files that that rise is primarily in the neonatal period, and especially the early neonatal period (0-6 days of age). Moreover, 3 of the 10 principal causes of infant deaths account for the increase: congenital malformations, deformations, and chromosomal abnormalities; prematurity and low birth weight; and maternal complications of pregnancy.¹⁷

In the context of our explicit intention to rethink the nature and causes of infant mortality, we are invited to pose questions regarding the data that are and are not represented by the

¹⁷ Kochanek KD, Martin JA, “Supplemental Analysis of Recent Trends in Infant Mortality,” National Center for Health Statistics, available from <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/infantmort/infantmort.htm>; Internet; accessed 20 December 2004.

graph. We are invited to notice what we might otherwise fail to notice in order to expand the range of what we might think and do to prevent or reduce infant deaths. Among other questions we might ask the following.

- What were or might have been the infant mortality rates prevailing before 1870?
- Why have we focused on the mortality of infants to a year of age rather than children to five, ten, or fifteen years of age?
- Why have we chosen to calculate and graph infant mortality *rates* rather than count and report *actual numbers* of deaths?
- Why have we distinguished rates by race rather than by social class, or by urban rather than rural residence?
- What accounts for the accelerated rate of decline in rates between 1870 and 1945?
- What accounts for the relative deceleration in the rate of decline between 1945 and 2000?
- What factor or factors account for the persistent disparity between white infants and infants of color?
- Is the mortality rate for white infants either normative, desirable, or tolerable?

Whatever our response to these questions we are drawn ineluctably into deeper discourse on what it might mean for an individual or community to suffer the death of an infant. We turn now to a consideration of that meaning, how that meaning has changed historically, and how it reveals a political ideology heretofore hidden.

Infant Mortality Rates--A Brief History of Interpretations

The politics of prevention is the struggle over the assignment of meaning to suspected causes of disease, for the political meaning that a causal statement acquires largely determines what kinds of prevention policies a society develops.

~Sylvia Noble Tesh¹⁸

To state the case most directly and without ambiguity, infant mortality has come to mean that women are ignorant, irresponsible, immoral, and/or otherwise incompetent in bearing or rearing children. Lest this summary statement be judged as too harsh, one need only examine the record. For example, in the last decade of the twentieth century prominent American physicians asserted that infants were dying because “their mothers couldn’t—or wouldn’t—get proper prenatal care.”¹⁹ They have declared that the “hard thing about cutting infant mortality is educating mothers.”²⁰ Or they have opined that “sexually promiscuous mothers or those who abuse drugs or have psychological pathology” were responsible for “unflattering” infant mortality statistics.²¹ These statements have

¹⁸ Tesh SN, *Hidden Arguments: Political Ideology and Disease Prevention Policy*, (New Brunswick, New Jersey: Rutgers University Press, 1988), page 154.

¹⁹ Editor, *Philadelphia Inquirer*, August 20, 1990, page A-12.

²⁰ Robert Pear, *New York Times*, August 12, 1990, page E-5.

²¹ Kenneth Prager, *Wall Street Journal*, February 1, 1995, page A-13.

appeared in such notable newspapers as the *New York Times*, the *Philadelphia Inquirer*, and the *Wall Street Journal*.

In his comprehensive treatise on the history of public health reform to reduce infant mortality, Richard Meckel argues: “Blaming excessive mortality among the young on parental, and especially maternal, ignorance and improper care, was certainly not new. That mothers, left to their own devices and instincts, too often mismanaged their offspring had been the dominant theme of the eighteenth- and early nineteenth-century Anglo-American pediatric writers who sought to ‘medicalize’ infant and child care and bring it under the governance of ‘men of sense.’”²² Meckel cites as one example the work of William Buchan, a physician, who as early as 1769 noted “the following melancholy fact, that almost half the human species perish in infancy by neglect or improper management [by their mothers].”²³

While there has remained an undercurrent of concern about the capacity of women to bear and rear children, other public health perspectives have eclipsed this concern. Indeed, as Meckel shows, there have been three relatively distinct yet overlapping phases of public health reform regarding infant mortality. The third phase wherein the question of motherhood arises and still prevails began around 1910. Curiously coincidental was the emergence of obstetrics and gynecology as a profession. The now famous Flexner Report on the state of medical education in the United States disclosed the urgent need for reform in training obstetricians. Many male birth attendants perceived midwives as a threat to their own economic well being. For this and other reasons no doubt, midwives were publicly decried as dangerous, dirty, and superstitious.²⁴

To what extent has the current focus on prenatal care as a strategy to reduce infant mortality been shaped (if not compelled) by the convergence of these two perspectives—a more pronounced concern for the competence of mothers (and midwives) and the emergence of the guild of obstetrics and gynecology? We will return to this question *vide infra*.

Meckel defines the first phase of public health reform initiatives as beginning circa 1850 and ending in the early 1880’s. In this phase, public health professionals were distinctly concerned about sanitary reform. In particular, cities were considered “infant abattoirs.” Reformers were so alarmed by the “waste of urban infant life” that they virtually ignored the parallel plight of infants dying in rural communities. To this day, public health concerns about the well being of rural communities arise more as an afterthought than a primary concern. It is as if urban dwelling, and the adaptation thereto, is the expected and/or desirable state.

²² Meckel RA, *Save the Babies: American Public Health Reform and the Prevention of Infant Mortality, 1850-1929*, (Baltimore: Johns Hopkins University Press, 1990), page 24.

²³ *Ibid.*, *Save the Babies*, page 24.

²⁴ Scully D, *Men Who Control Women’s Health: The Miseducation of Obstetrician-Gynecologists*, (New York: Teachers College Press, 1994), pages 24-67.

Life in urban centers was especially hazardous at the turn of the twentieth century. The evidence seemed compelling—population density was increasing as were environmental pollutants while available housing and sanitary infrastructure could not keep pace. To be sure, there was concern that hereditary frailty of immigrants and “others” played a role in an infant’s risk of disease and death. Hence, public health officers compiling data on mortality in cities like Boston compared crude death rates for infants born to “native” and “foreign” born parents. However, sanitarians (as reformers were known) believed that government had a responsibility to sanitize the environment and had the means to do so. If housing and sanitation were adequate, personal moral and social progress might follow, albeit slowly and only after “several generations,” despite the supposed genetic limits.²⁵

Interest in infant mortality *per se* emerged in this phase for three reasons at least. First, physicians and sanitarians believed that an infant’s “vital powers” were limited for resisting “external excitements” such as pollution. In a word, infants were more “vulnerable” than were adults. Second, as a function of their greater vulnerability, the well being of infants was considered a sign or proxy for the well being of the community, not just the infant or its family. A third reason to focus on infant mortality was that “sanitary reformers came to rely on infant and child mortality rates, at least in part, because of their emotional appeal and political usefulness.”²⁶

Each of the foregoing perspectives pertain today: infants are more vulnerable to a variety of health threats; their deaths serve as sentinel events for threats faced by the community as a whole; and, the death of an infant evokes the sympathy if not compassion of strangers. The relative value of calculating infant mortality rates notwithstanding, it is conceivable that those rates engender a level of abstraction that obscures awareness of our own vulnerability and buffers us from the reality of the deaths of individual infants. In other words, calculation of a “population rate” dulls our sensitivity to the pain of an individual death.

In this first phase of public health reform, sanitarians began to compile separate data on the death of infants less than a year of age. The earliest measures of “infantile” deaths (that included children up to five years of age) were deemed too insensitive. Indeed, this distinction proved to be fortuitous if not prescient. Sanitarians did begin to see reductions in mortality rates for children and adults in association with or causally related to their reform efforts. Infant mortality, on the other hand, remained stubbornly elevated. The attendant frustration led to the introduction of stopgap measures to treat sick infants in their homes. Certain that these interventions were a poor substitute for strategies to prevent disease, public health officers ultimately turned their attention from sanitary reform to efforts to improve the quality and safety of infant nutrition, ushering in the second stage of reform efforts to reduce infant mortality.²⁷

The second stage of public health reform measures extended roughly from 1880 to 1920. Reformers focused their attention on nutrition in this era because a significant number of

²⁵ Meckel, *Save the Babies*, pages 11-39.

²⁶ *Ibid.*, Meckel, page 30.

²⁷ *Ibid.* Meckel, page 38.

infants in urban communities were dying of a condition known as *cholera infantum* or, simply, summer diarrhea.

Summer diarrhea was not a new clinical entity. It was recognized and given its name, *cholera infantum*, by none other than Dr. Benjamin Rush, prominent physician, Surgeon General to the Continental Army, and co-founder of the first anti-slavery society in America. However, it was not until the 1870's and 80's that the preeminent leader of American pediatrics, Dr. Abraham Jacobi pressed home the concern that nearly one-half of infant deaths recorded annually in New York City were due to "diseases of the digestive organs."

The second stage of reform was continuous with and overlapped both the first and third stages in at least three ways. First, reformers and physicians believed that a combination of summer heat suffered in cities, "foul and vitiated air," improper feeding, and "feeble digestive powers of the infant" contributed to infant mortality. Environmental reform remained an issue though it would be eclipsed by dietary concerns.

In continuity with the first and third stage, blaming mothers was a prominent theme in the second stage of reform efforts. In particular, toward the end of the nineteenth century conventional wisdom held that American women were increasingly sickly and, therefore, poorly suited to breastfeed their children. Meckel eloquently summarizes the thinking of the times.

Applying the pseudoscientific, evolutionary theories of the day, doctors attached to this epidemic of female invalidism a variety of diagnostic labels—from neurasthenia to hyperesthesia—but the upshot of all their diagnoses was that modern life, with its demands on the nervous and mental systems, was in conflict with the biological nature of women. As a consequence of this conflict, it was widely suggested, women's reproductive and nursing abilities were being vitiated and were evolving toward higher refinement but biological uselessness.²⁸

Lastly, continuity (or congruity) with the third stage is evident in the emergence of yet another medical subspecialty—pediatrics. Infant feeding became the nearly exclusive domain of pediatric practitioners and researchers. Their focus was on the elaboration of infant formulas that were digestible and had nutritional content and value sufficient to replace breast milk. Like their obstetric colleagues, pediatricians communicated the message that the care of children was an enormously complex task requiring the oversight of professionals.

Despite this emerging expertise, there was little evidence that the concoction of infant formulas or the supervision of pediatricians substantially affected infant mortality rates. This was perhaps evident to, among others, Wilbur C. Phillips, the first administrative officer for the New York Milk Committee (NYMC), an organization created in response to concerns about nutrition for urban infants. Phillips was responsible for assessing the work of "milk stations" that were cropping up in America and elsewhere, including

²⁸ *Ibid.* Meckel, page 52.

England and France. Impressed by the work of the French especially, Phillips was concerned that there was too much emphasis on “pure milk” as a means of reducing infant mortality. “Consequently,” Meckel concludes, “he recommended that the NYMC pioneer a new type of milk station, one that would encourage breastfeeding, provide medical exams, and dispense information on infant hygiene along with milk.”²⁹

Phillips’ recommendations are in curious accord with a contemporary American social program—the supplemental food program for women, infants and children known simply as “WIC.” In contrast to its early years of operation, the WIC program now explicitly promotes breastfeeding. The provision of medical services is a central feature of the program as is education about nutrition and the provision of “supplemental foods” including infant formula and milk.

Initially, one of the professed goals of the WIC program was reducing infant mortality rates. After years of scientific study the findings from mostly methodologically flawed studies are inconclusive regarding WIC’s impact on infant mortality. Our inability to be definitive should not be too surprising as our attention paid to weight *per se* is untoward. That is, while it seems intuitively obvious that feeding a mother food will affect directly the growth of her fetus, the pediatric clinicians concern is not with the infant’s weight but with its maturity. Premature infants are logically lighter in weight than infants born at term. The lives of premature infants are threatened because their organ systems are unable to adapt to life outside the womb. To be sure, there are infants who may be mature (full term) but small for their gestational age. However, here again the clinical concern is for the primary conditions or insults that stunt growth such as congenital infections and anomalies, and chronic diseases affecting the mother’s health. In essence, then, low birth weight is nothing but a relatively easily measured proxy for prematurity and/or prenatal injury.

In a study commissioned by the Joint Center Lu and Lu carried out an in-depth review of studies relating maternal nutrition and infant mortality. Lu and Lu observe that it is theoretically plausible that maternal nutrition might be related to preterm birth and/or fetal growth restriction. However, they acknowledge that extent studies—including those in which macro- and micro-nutrients have been provided—fail to confirm the theory. The authors do argue persuasively that maternal nutritional health as it affects the unborn child must be thoroughly reexamined not only for a particular pregnancy but in the context of lifelong, recurring ruptures in family, community, and cultural relationships.

If in its efforts to provide supplemental nutrition the WIC program is an unwitting extension of turn-of-the-nineteenth century reform measures, it has suffered the same fate. Infant mortality rates remain apparently unresponsive to these public health interventions. Enter then the third phase of reform previously described and to which we now return for elaboration.

Infant Mortality and Prenatal Care—A Contemporary Paradox (or Irony)

²⁹ *Ibid.* Meckel, page 93.

We have reviewed the historical forces that have focused our attention, almost ineluctably, on the medical management of an intransigent and tragic, social dilemma. We turn our attention to that dilemma as it is currently manifest.

The Health Policy Institute of the Joint Centers for Political and Economic Studies formed the National Commission on Infant Mortality at an especially salient moment in history. As we noted earlier, the most recently available data (2002) on infant mortality reveals that the rate has increased significantly for the first time since 1957-58. This is also an era when clinicians and researchers are scrutinizing the content and efficacy of prenatal care as a strategy to reduce infant mortality.

Preliminary review of the data by National Center for Health Statistics suggests that the increase in infant mortality rate is real. The increase in mortality is “concentrated in the neonatal period (0-27 days), particularly in the early neonatal period (0-6 days).”³⁰ Moreover, disorders related to premature birth and low birth weight are among the top three causes of death for these newborns.

In fact, the rate of preterm births has been rising steadily since 1990.³¹ This increase has occurred even as the percentage of women receiving timely prenatal care has increased, and the percentage of those initiating care during the third trimester of pregnancy has decreased.³² There are other “anomalies” that challenge our conventional wisdom regarding the hoped-for effect of prenatal care. For example, consider the “paradox of the well-off black woman” wherein infants born to married, educated, middle-class African American women who receive adequate prenatal care still die at one and one half to two times the rate of their white, class-matched cohorts.³³ A mirror image paradox exists for first generation Mexican American women who are generally more impoverished economically than African Americans and receive less medical prenatal care. These women experience infant mortality rates as low as do white women.³⁴

Prior evidence of this paradox—the disjunction between use of prenatal care and risk of preterm birth—is the subject of a review by Goldenberg and Rouse wherein the authors draw the following conclusion.

Most interventions designed to prevent preterm birth do not work, and the few that do, including treatment of urinary tract infection, cerclage, and treatment of bacterial vaginosis in high-risk women, are not universally effective and are applicable to only a small percentage of women at risk for preterm birth. A more rational approach to intervention will require a better understanding of the

³⁰ Kochanek and Martin, page 1.

³¹ *Ibid.* Kochanek, page 3.

³² Arias E, MacDorman MF, Strobino DM and Guyer B, “Annual Summary of Vital Statistics.” *Pediatrics* 2003;112:1215-1230.

³³ Schoendorf KC, Hogue CJ, Kleinman JC, and Rowley, D. (1992). Mortality among infants of black as compared with white college-educated parents. *New England Journal of Medicine*, 26(23), 1522-1526.

³⁴ Kerr GR, Verrier M, Ying, J, and Spears W. (1995) Proportional differences in births and infant mortality rates among the triethnic population in Texas from 1984 through 1986. *Texas Medicine*, 9(13), 50-57.

mechanisms leading to preterm birth. In the meantime, substantial reductions in preterm delivery are unlikely to be achieved.³⁵

Rowley raises similar concerns regarding the potential efficacy of prenatal care in reducing the disparity in infant mortality rates. She writes: “Prenatal care as currently practiced in the United States may not even have a modest effect in reducing the black-white disparity in infant mortality.”³⁶

We are confronted with a challenge similar to our predecessors. Sanitary reform, improved nutrition, and maternal education regarding “compliance” with prenatal care has been associated with only modest reductions infant mortality rates, though the existence (or degree) of a causal relationship is arguable. Yet there remains an apparently stubborn residual rate compelling us to rethink the nature of the problem and alter our efforts to intervene.

Infant Mortality—Reflecting on the Past in Order to Move Forward

Acknowledging that our prior efforts to understand and prevent the death of infants have not been altogether futile, we must try to understand why those efforts have fallen short of their goal. Toward this end we turn to the work of Sylvia Noble Tesh wherein we find advice to consider the hidden arguments that have historically informed our public policies to prevent infant mortality. Tesh writes:

These arguments are more fundamental: What is the legitimate source of knowledge? What is the nature of human beings? And what is the ideal structure of society? Firmly but often unconsciously held answers to these questions guide scientists, policy makers, and ordinary citizens alike to different constellations of facts about the causes of disease and, hence, to different preferences for prevention policy.³⁷

From our cursory review of the history of infant mortality we can infer that the legitimate source of knowledge was and continues to be science, medical science in particular. Women, persons of color, and persons who were poor were certainly not sources of knowledge except that their experience of certain events, such as death, was and is “data” contributing to the scientist’s knowledge.

The very data collected on the aforementioned linked birth and death certificates serve as partial evidence for the bold claim that science is the legitimate source of knowledge in public policy debates about infant mortality. We might consider as well the cogent observations made by Byron Good regarding the distinction between what doctors “know” and what patients “believe.” Doctors are rational and empirical. Patients are

³⁵ Goldenberg RL and Rouse DJ, “Prevention of Premature Birth.” *New England Journal of Medicine* 1998;339(5): 313-320.

³⁶ Rowley DL, “Framing the Debate: Can Prenatal Care Help to Reduce the Black0White Disparity in Infant Mortality.” *Journal of the American Medical Women’s Association*, 1995; 50(5): 187-193.

³⁷ Tesh, *Hidden Arguments*, page 3.

irrational and/or ill informed.³⁸ Imagine an encounter between an empiricist and someone like Byllye Avery, founder of the National Black Women’s Health Network; Avery has asserted that black infants were dying “because their mommies are dying. They’re in dead relationships.” The scientist has no room in his or her model in which to fit such “data” and no empirical means to test the validity of Avery’s claim.

One might also infer from a review of history, and close examination of contemporary culture, that we behave as if it is our nature to be autonomous, self-actualizing, selfish, competitive, and motivated to seek pleasure and avoid pain. In a word, we are by nature “individualists.” We are or ought to be utterly free moral agents. In turn, the ideal society serves to protect our individual rights to “life, liberty, and the pursuit of happiness” by either removing obstacles and/or facilitating opportunities for self-actualization. Implicitly at least the ideal society acts to inform, assist, persuade, and direct women in the right conduct of their lives and pregnancies.

Though subtle, the evidence for this claim about individualism is our propensity to turn again and again to strategies for educating mothers to change their behaviors in order to reduce the risk of their infants’ dying. Throughout the history of reform efforts to prevent infant mortality there has been a more or less explicit awareness that there are larger, more complex social forces adversely affecting the health of women and children. For example, Dr. Josephine Baker, the first director of the New York City Bureau of Child Hygiene, observed as early as 1908, “The infant mortality rate is the most sensitive index of municipal housekeeping of a community. It is more than that; it is an index of civic interest, cooperation, consciousness and worth.”³⁹ More recently, David and Collins examined the possibility that infant deaths suffered in black communities were not a function of the mother’s race. Rather, it might be the mother’s experience of racism—a complex and toxic social and cultural milieu.⁴⁰ Still, we turn to mother’s that they might be changed. Meckel describes the plight of progressive charity and social workers that were mindful of the paradox:

In theory [their] work was predicated on the conviction that those who suffered social ills did so not because of individual weaknesses and flaws, but because of the weaknesses and flaws inherent in American social and economic organization. . . . But in actual practice, progressive social workers often pursued a casework approach that frequently ignored the socioeconomic and structural causes of social ills and focused instead on individual and family adjustment.⁴¹

More recently a work group convened by the Centers for Disease Control Office of Minority Health experienced a similar tension and contradictory outcome following its

³⁸ Good B, *Medicine, rationality, and experience: An anthropological perspective*, (Cambridge: Cambridge University Press, 1994), pages 1-24.

³⁹ Baker JS, “Reduction of Infant Mortality in New York City,” *American Journal of Diseases of Children*, 1913: 5; 155.

⁴⁰ David RJ, and Collins JW, Bad outcomes in black babies: Race or racism? *Ethnicity and Disease*, 1991; 1: 236-244.

⁴¹ Meckel, page 123.

deliberations on the racial and ethnic disparities in infant mortality. Among its conclusions the work group wrote:

We have come to recognize the complexity and interrelated nature of factors that contribute to key causes of infant mortality. However, much of the research in this field has focused on only one set of factors at a time—demographic, behavioral, psycho-social or biological—with the assumption that other key factors are equivalent or adequately controlled in the research design. However, improved access to care through increased insurance eligibility may not result in improved outcomes unless the quality and content of the care provided is equivalent to that of groups with good access to care.⁴²

Work group members recognize the complexity of the phenomena before them, and they acknowledge the limitations of their research strategies and interventions. Yet they turn again to intervention strategies centered on the kind of prenatal care of which mothers can avail themselves. The presumption is that the prenatal model will work if adapted properly and individual women comply. If Byllye Avery is right and infants are dying because their mothers are dying themselves in dead relationships, how can prenatal care serve as an intervention? Even if prenatal care could work, would it be the most effective strategy to reduce infant mortality?

Relationality—An Alternative Approach to Understanding and Responding to Infant Mortality

Throughout the history of reflecting upon and responding to infant mortality we have had glimpses of the importance of relationships. At a relatively simplistic level, for at least one early reformer health and disease “resulted from a cumulative interaction between constitutional endowment and environmental circumstances.”⁴³ Lu and Halfon have elaborated on this hypothesis more recently, particularly as it relates to the disparities in birth outcomes between racial and ethnic identity groups in the United States.⁴⁴

However, we are beginning to appreciate that the significance of relationships is considerably more complex. We are relational creatures by nature—we live and move and have our being in and through and for the sake of relationships. Though relationships are instrumental economically, as is explicit in the research on “social capital,” they are not so primarily. Nor are relationships merely a means of regaining health as is implied in the research on “social support.” Rather, health *is* the immediate, intimate, and inchoate experience of wholeness, and the transcendence that pertains thereto, when we are being our fully relational selves.

⁴² US Department of Health and Human Services, “Racial and Ethnic Disparities in Infant Mortality,” available from raceandhealth.hhs.gov/3rdpgblue/infant/red/htm, retrieved December 20, 2004.

⁴³ Meckel, citing Rosenberg, in *Save the Babies*, page 22.

⁴⁴ Lu MC and Halfon N. Racial and Ethnic Disparities in Birth Outcomes: A Life-Course Perspective. *Maternal and Child Health Journal*. 2003; 7:13-30.

Presuming the primacy of relationships, we herein reexamine maternal and infant morbidity and mortality in the United States, especially (not peculiarly or solely) as it affects women of color who are poor. Through the lens of relationality we will first recount an instance of a healthy pregnancy outcome despite social, economic, and medical risks. We will, then, explore the experience of breastfeeding as a means of appreciating the deeper significance of relationships. In particular we will rethink the importance of breastfeeding as an experience apparently “designed” to enhance maternal and infant wellbeing and survival. We will reexamine the significance of racial/ethnic, gender, and social class group membership as “risk factors” in maternal and child health. Finally, we will consider the implications of this perspective for health care, research, and public policy.

Here, we retell the story of a clinical encounter as a means of exploring the complexity of relationships and its potential implications for re-envisioning infant mortality as an American dilemma.

Mindful of the limits of generalizing from the particulars, we invite the reader to “listen with the ear of your heart.”⁴⁵ Listen as if the subjects are legitimate sources of knowledge.

A Clinical Encounter: I met Althea when she was sixteen years old, acutely ill, and in her first trimester of pregnancy. My obstetric colleagues had asked me to see her because I was the director of the adolescent pregnancy program, in addition to being the neonatologist on consultation service. The obstetrical care team was gravely concerned that Althea would not likely carry her child to term. Indeed, they were concerned for her very survival. Althea was poor, young, and African American. Alone, these factors were and continue to be associated with a high risk of poor pregnancy outcomes, including premature birth. In addition, Althea’s wellbeing was compromised by a genetic blood disorder, Sickle Cell Anemia.

It was around noon on a brilliantly sunny and comfortably warm summer day. Althea occupied a private room in a newly constructed wing of the hospital that was just recently opened. In the brightness of the day and newness of the hospital I had forgotten the gravity of the request for consultation, until I walked through the door of Althea’s room. Darkness had overcome the light nearly completely as the room lights were off and the blinds were drawn. A plate of lunch rested uneaten on the bedside tray. I could discern the outline of a human figure curled in a fetal position under a stark white blanket. An intravenous line snaked its way under the edge of the blanket and disappeared.

Softly I called to the huddled mass, “Althea?” Slowly she pulled the blanket from over her head revealing a mop of hair that was uncombed and eyes filled with despair. “Althea, my name is Dr. David. I am a pediatrician and your obstetrician asked me to see you so that we can help you and your baby.” She remained utterly, painfully silent. “I am sorry to wake you up. I will come back later.” Her despair felt contagious and I was conscious of my need to flee. I hurried to find and review her medical record, restless

⁴⁵ Quote attributed to St. Benedict of Nursia, Catholic theologian and founder of the monastic tradition.

with curiosity about the exact nature of her illness. Why was she so sick? Why was I not able to reach her and establish any rapport?

The medical record contained a chorus of concurring voices. The social workers noted that Althea had little, if any, social support. Nurses observed that she seemed clinically depressed. Her doctors focused on the genetic disease and conjured a dire prognosis. Althea's pregnancy and life were threatened. On the one hand, the unanimity of clinical opinion was reassuring. I was neither cowardly nor incompetent in my need to flee Althea's presence. Her condition *was* hopeless, or nearly so. On the other hand, I could not wholly account for that same uniformity and certainty of clinical opinion. It was at odds with my personal and professional experience of people with Sickle Cell Anemia.

Sickle Cell Anemia is a genetic disorder of hemoglobin, a protein responsible for carrying oxygen in red blood cells. The disorder is found in persons of African and Mediterranean descent primarily. It is associated with a wide range of clinical conditions that adversely affect the quality of life and longevity of afflicted patients. For example, the red blood cells in these patients may take on a sickle-shape when deprived of oxygen. So deformed, the cells become log-jammed and cause pain in the bones and other body organs, cerebral vascular accidents, gall bladder disease and, after functionally incapacitating the spleen, increase susceptibility to certain bacterial infections.

However, Sickle Cell Anemia does not characteristically pose a threat to pregnancy in the first three months, as was the case for Althea who had been hospitalized for the third time when I met her. Rather, it is in the last trimester of pregnancy when the greatest risks prevail—a time when the growing fetus imposes the greatest burden on the mother's cardiovascular system. I had learned this from a careful review of the medical literature on the subject. Equally important, I had learned this from the experience of my first wife, Patricia, who had Sickle Cell Anemia and had borne us two beautiful children.

Ambivalent about the pronouncement of my clinical colleagues, I resolved to talk with Patricia about Althea. In deference to patient confidentiality, and in the interest of maintaining healthy boundaries between home and work, it was rare for me to discuss patients with my wife. For reasons I am still not conscious of, I went further: I asked Patricia if she would visit with Althea. She agreed eagerly and visited Althea regularly for three days.

When I next saw Althea sunlight was streaming into her room, and she was sitting up in her hospital bed eating lunch. Her hair was neatly coifed and her eyes were aglow with hope. Her physicians had discontinued her intravenous fluid therapy and had written her discharge orders for the following day. Althea was admitted to the hospital again in her ninth month of pregnancy and delivered a healthy baby girl! Mother and child were discharged after three uneventful days of postpartum care. Patricia maintained telephone contact with Althea throughout her pregnancy but did not see her until after the baby was born. Several months later Althea was the subject of obstetric grand rounds wherein the perinatologists extolled the virtues of multidisciplinary care in the management of complex genetic disorders.

From Clinical to Relational Reflection: I am unable to identify an instant in time wherein healing began for Althea. However, I am certain that this was a momentous experience of healing for her, Patricia, and me, if not for other members of the health care team. Clinically, I am convinced, Althea’s dis-ease and despair unto dying cannot be attributed to her genetic disorder, Sickle Cell Anemia. Rather, *both* her social isolation *and* her doctor’s expectations catalyzed her dis-ease and despair. In essence, she was the victim of what is known as the “nocebo effect.” We anticipated the worst for Althea. She accommodated us—as we withdrew from her, so she began to withdraw from life.

I do not know, and did not ask what Patricia had done or how she was in her relationship with Althea. I do not know if she prayed with her. I do know that she prayed for her at dinner every evening. I do not know if Patricia affectionately touched Althea physically. I know that it would have been out of character if she had not. I imagine that she shared with Althea concrete information about anticipating and preventing Sickle Cell crises. Yet there is more. In particular, I have a deep conviction that Patricia was an antidote, a counter-hex, or a placebo alternative to the dire pronouncements of objective and objectifying clinicians, including myself. Whatever Patricia may have said or done with Althea, she was a loving presence and incarnation of Althea’s greater potential—an attractive, fecund, vital African American woman with Sickle Cell Anemia. Patricia engaged Althea subject-to-subject, as “I and thou.”

In any case, it was Patricia, not the multidisciplinary team, who transmuted Althea’s room from sarcophagus to cocoon. It was Patricia who replaced a disintegrative spirit of hopelessness and loneliness with an integrative spirit of compassion and love. Figuratively if not literally, Althea was resurrected from death unto life. Who, other than a woman with whom Althea could immediately and intimately identify, might better counter the authoritative pronouncement of physicians?

Isolation and alienation are anathema to human being. This is the threat to life with which Althea contended—isolation and alienation as an African American, female adolescent, pregnant, and afflicted with an incurable genetic disorder. As a consultant to Althea’s “case,” she moved me. More to the point, she “affected” me as she had been “affected” by other care providers. Stephen Mitchell reminds us, “Affect is contagious, and, on the deepest level, affective states are often transpersonal. Intense affects like anxiety, sexual excitement, rage, depression, and euphoria tend to generate corresponding affects in others.”⁴⁶

Moving Beyond and Returning to the Case in Point

Perhaps the first thing to notice is that this story ends with a living if not healthy mother and infant. This is not an instance of infant mortality. The shift in perspective, from pathogenesis to salutogenesis, is purposeful. The medical/scientific model of pathogenesis examines adverse outcomes and searches for the risk factors that pertain.

⁴⁶ Mitchell SA, *Relationality: From Attachment to Intersubjectivity*. Hillsdale, New Jersey: The Analytic Press, 2000.

Alternatively, salutogenesis invites us to examine the resilience factors that make survival possible despite prevailing risks. Many if not most women are subjected to a potentially toxic relational milieu yet most experience healthy pregnancies.

Aaron Antonovsky coined the phrase salutogenesis in the midst of his study of people who were resilient and survived the holocaust. He postulates that resilience in response to life's inevitable stresses is a function of a "sense of coherence" wherein life is experienced as comprehensible, manageable, and meaningful.⁴⁷ Experiences that are comprehensible are "grasped" cognitively. Experiences are manageable when resources, usually material, are available for response. And experiences are meaningful when they make sense emotionally, that is, "when they are worthy of emotional investment and commitment."⁴⁸ According to Antonovsky there is a hierarchy among these components of the sense of coherence.

[T]he three components of the SOC are, though all necessary, of unequal centrality. The motivational component of meaningfulness seems most crucial. Without it, being high on comprehensibility or manageability is likely to be temporary. For the committed and caring person, the way is open to gaining understanding and resources.⁴⁹

A number of investigators have explored the role of stressful life events as triggers for preterm birth.⁵⁰ While these investigators attend to quantifiable and semi-quantifiable elements of stress and exposure to stress, they have failed to capture the meaning made of stressful experiences. What kind of meaning might Althea have experienced in her relationship with clinicians as contrasted with the meaning experienced in her relationship with Patricia?

In the case presented, in addition to the shift in perspective from pathogenesis to salutogenesis, we also notice care manifest in different ways. Inspired by her faith in a supreme being, and informed by her religion, Patricia was being compassionate and loving and caring in her relationship with Althea. Inspired by his faith in medical science, and informed by his professional guild, the consultant was providing a service labeled as care.

The two forms of care are not mutually exclusive—a physician can be and often is caring. Among those investigators critically examining the "content" of prenatal care, David Nagey arrives at this conclusion: "The obstetric health care provider's expression of caring for the woman and her pregnancy add to her existing social support and is a vital

⁴⁷ Antonovsky A, *Unraveling the Mystery of Health: How People Manage Stress and Stay Well*. San Francisco: Jossey Bass, 1987.

⁴⁸ *Ibid.* page 18.

⁴⁹ *Ibid.* page 22.

⁵⁰ For examples see Dole et al, "Maternal Stress and Preterm Birth," *American Journal of Epidemiology*, 2003; 157: 14-24. And see Lu and Chen, "Racial and ethnic disparities in preterm birth: The role of stressful life events," *American Journal of Obstetrics and Gynecology*, 2004; 191: 691-9.

aspect of prenatal care.”⁵¹ The substance of Nagey’s analysis suggests that he is writing about care as a way of being in relationship rather than care as a service.

We can begin to shape and hold an alternative view of human nature on the basis of the information provided thus far. Specifically, we can imagine that in being human it is our nature to be *both* autonomous *and* communal rather than independent. We can imagine as well that we are by nature more cooperative than competitive,⁵² more altruistic than selfish,⁵³ and more interdependent than independent⁵⁴ as significant volumes of research suggests contrary to conventional wisdom. In essence we are supposing that it is our nature as human beings to exist in and through and for the sake of relationships. For us, relationships are primary. All else is derivative.

Yet not any relationship will suffice for us to thrive let alone survive as human beings. Rather, our relationships must be of love, compassion, and caring. Ruthellen Josselson states the case succinctly and poignantly:

To be unloved is unbearable because it means that we have no real meaning or importance to anyone. As humans, we are stuck with our inescapable need for the emotional responsiveness of another—a need kindled by the sparkle in our mother’s eye, a need that serves no biological purpose and often causes us tremendous pain. But unless we know that we are somewhere part of the affective life of another, we cannot feel our own existence.⁵⁵

For Althea, the absence of love was apparently life threatening. In Patricia, Althea witnessed and affirmed new possibilities for living in the face of risks. We will now expand on the concept of relationality as exemplified in the breastfeeding experience between mother and infant.

Breastfeeding: From Objectivity to Intersubjectivity

Here we will provide an overview of studies of breastfeeding and a complementary intervention known as “kangaroo care” as strategies to reduce infant morbidity and mortality. We will examine the limits of those strategies as currently conceived. Thereafter we will re-envision breastfeeding and “kangaroo care” as exemplars par excellent of the concept of relationality. We hasten to add a critical caveat: Our focus on the mother-infant dyad is **not** intended to define a particular and limited gender role—motherhood—for women. Rather, it is to underscore the birthing and nurturing experience as a gift of remembrance, a model of the relationality that is human nature, for all.

⁵¹ Nagey DA, “The Content of prenatal Care.” *Obstetrics and Gynecology*, 1989; 74(3 Part 2): 516-528.

⁵² Kohn A, *No Contest: The case against competition*. New York: Mariner Books, 1992.

⁵³ Kohn A, *The Brighter Side of Human Nature: Altruism and Empathy in Everyday Life*. New York: Basic Books, 1992.

⁵⁴ Josselson R, *The Space Between Us: Exploring the Dimensions of Human Relationships*. San Francisco: Jossey Bass, 1992.

⁵⁵ Josselson, page 247.

Breastfeeding and Kangaroo Care—Objectively Speaking—Clinicians have long recognized the salutary effect of breastfeeding on infant survival. For example, Sir Hans Sloane an eminent sixteenth century physician observed that “infants, which by the management of parish nurses, in giving them diacodium, or other opiates, to quiet them when fretting with diseases occasioned by their bad nourishment, generally sweet’ned with sugar, and the want of the breast by wett nurses, scarce ever live to two years old.”⁵⁶ In 1912 an American physician Dr. JP Crozier Griffith asserted that “we may then assume it proved, beyond question, that the absence of breastfeeding is perhaps the chief cause of infantile mortality.”⁵⁷

Apparently definitive confirmation of Sloane and Griffith’s clinical acumen would await highly technical biochemical and paleopathological studies. Specifically, Dittman and Grupe examined the skeletal remains of children from a medieval community in southern Germany (Wenigumstadt, 500-700 AD). They determined that subsequent to weaning from breast milk, “starting at about 18 months of age, more and more symptoms of malnutrition are detectable in the skeletal remains, and the peak of both morbidity and mortality is reached at four years of age.”⁵⁸

Contemporary clinical and epidemiological studies affirm and expand on the benefits of breastfeeding and human milk. Indeed, the American Academy of Pediatrics has issued a policy statement based on those study findings. Among the numerous benefits are the following.⁵⁹

- Breast milk reduces the incidence and severity of a variety of infectious diseases including those of the central nervous system, respiratory, gastrointestinal, and urinary tracts, middle ear infections (otitis media), and a condition known as necrotizing enterocolitis that afflicts premature infants especially.
- Associated with the reduced risk of infection, mortality rates after the neonatal period are reduced by 21% in breast fed infants.
- The risk of Sudden Infant Death (SIDS) may be reduced in the first year of life.
- Children who have been breastfed may realize a significantly reduced risk of developing diabetes, obesity, hypertension, obesity, and asthma in later childhood and adulthood.
- Breastfed infants tend to perform better on tests of cognitive and neurological development compared to those who are fed formula.
- Among the benefits accruing to mothers who breastfeed are reduced incidence of breast and ovarian cancer, reduced postpartum bleeding, and earlier return to pre-pregnancy weight.

⁵⁶ Dunn PM. Sir Hans Sloane (1660-1753) and the value of breast milk. *Arch Dis Child Fetal Neonatal Ed.* 2001; 85:F73-F74.

⁵⁷ Brosco, JP. The Early History of the Infant Mortality Rate in America: A Reflection Upon the Past and a Prophecy of the Future. *Pediatrics.* 1999; 103:478-485.

⁵⁸ Dittman K and Grupe G. Biochemical and paleopathological investigations on weaning and infant mortality in the early Middle Ages. *Anthropol Anz.* 2000; 58(4):345-55.

⁵⁹ Section on Breastfeeding. Breastfeeding and the Use of Human Milk. *Pediatrics.* 2005; 115:496-506.

Given the substantial salutary effects of breastfeeding in reducing or mitigating infant mortality and morbidity there is little wonder that clinicians and other child-welfare advocates are promoting breastfeeding as a public health goal.⁶⁰ Indeed, at least one team of investigators asserts that their “analysis of infant mortality indicated that breastfeeding accounts for the race difference in infant mortality in the United States at least as well as low birth weight does.”⁶¹ If this is so, the challenge of promoting breastfeeding is especially daunting as African-American women, who carry a proportionately greater burden of risk, choose to initiate breastfeeding less often, and discontinue breastfeeding sooner, than do women of other racial and ethnic identity groups.⁶²

We will return to the foregoing concerns below in the subsection titled “Breastfeeding Black Children: What’s Love got to do with it?” For the moment we draw the reader’s attention to work commissioned by the Joint Center and co-authored by Philipp and Jean-Marie who provide a comprehensive review of the data bearing on the merits of breastfeeding.⁶³ In addition to documenting thoroughly the salutary effects previously noted, Philipp and Jean-Marie explore the historic, political, economic, and inter- and intrapersonal dynamics that intersect to inhibit or discourage the practice of breastfeeding among African American women in particular. In its deliberations the Commission has determined that this is a domain ripe for further research—i.e. to probe conflating sexual mores, shame, the legacy of slavery, and systematic/structural biases in health care delivery, for examples, as barriers to breastfeeding. The call for further research is especially salient in light of a recent study revealing that black African and Caribbean women in the United Kingdom initiate and sustain breastfeeding at a significantly higher rate than do their white sisters. This finding holds despite the fact that women of the African Diaspora share similar socioeconomic positions across the Atlantic Ocean.⁶⁴

Beyond the particular concerns for African American women, practitioners and investigators in the field of maternal and child health have studied and recommended a variety of strategies to promote breastfeeding for both full term infants and those born prematurely. Arguably, chief among the intervention strategies is “kangaroo mother care.”^{65,66}

“Kangaroo mother care” is a phrase first employed in 1978 by Dr. Edgar Rey in Bogota, Colombia. The phrase was used in reference to the skin-to-skin contact that Dr. Rey

⁶⁰ US Department of Health and Human Services. *Healthy People 2010: Conference Edition*. Vols I and II. Washington, DC: US government Printing Office; 2000:47-48.

⁶¹ Forste R, Weiss J and Lippincott E. The Decision to Breastfeed in the United States: Does Race Matter? *Pediatrics*. 2001; 108:291-296.

⁶² Li R, Darling N, Maurice E, et al. Breastfeeding Rates in the United States by Characteristics of Child, Mother, or Family: The 2002 National Immunization Survey. *Pediatrics*. 2005; 115:31-37.

⁶³ Philipp BL and Jean-Marie S. African American Women and Breastfeeding.

⁶⁴ Kelly YJ, Watt RG and Nazroo JY. Racial/Ethnic Differences in Breastfeeding Initiation and Continuation in the United Kingdom and Comparison Findings in the United States. *Pediatrics* 2006; 118: 1428-1435.

⁶⁵ Carfoot S, Williamson PR and Dickson R. A Systematic review of randomized controlled trials evaluating the effect of mother/baby skin-to-skin care on successful breast feeding. *Midwifery*. 2003; 19:148-55.

⁶⁶ Spatz DL. Ten steps for promoting and protecting breastfeeding for vulnerable infants. *J Perinat Neonatal Nurs*. 2004; 18:385-96.

encouraged between mothers and their prematurely born infants. So termed because of similarities to the way kangaroos and other marsupials care for their offspring, Dr. Rey initiated trials of skin-to-skin care empirically and in response to the scarcity of medical resources for the care of infants of low birth weight.⁶⁷ Subsequently, Tessier⁶⁸ and Charpak⁶⁹ and their respective colleagues documented the efficacy and safety of kangaroo care. Compared to infants cared for in incubators, those experiencing kangaroo care had lower mortality rates (though the difference was not statistically significant), spent less time in the hospital, and were more likely to be breastfeeding at 3 months of age. In still later studies investigators ascertained that skin-to-skin care of premature infants accelerates the development of normal sleep-wake cycles with longer periods of quiet sleep and alert wakefulness.⁷⁰

Kangaroo care is now employed and studied in both developed and underdeveloped countries—clinicians prescribe its use in neonatal intensive care units with limited resources and those with ample resources. While initially employed to stabilize preterm infants physiologically, kangaroo care evolved as a means to encourage breastfeeding in both term and premature infants.⁷¹

Clearly, kangaroo care and touch are related. Montagu writes: “When you talk about a caregiver, you really should mean ‘one who loves the other.’ Insofar as touch is concerned, as a result of my lifelong studies in these areas, I know very clearly as a scientist that love and touching are two faces of the same thing.”⁷² We understand him to mean that intimacy expressed in and through touch is both a means to and manifestation of love. Intimacy is mutual indwelling.

The difficulty is, as Dignam so succinctly and eloquently states the case, “Intimacy has been shrouded by sexuality and professional emotional distancing.”⁷³ The shroud of sexuality has been a barrier to intimacy between men and women, between men, and between women. The professional emotional distancing has impeded critical reflection on and rigorous study of love as much as it has been a barrier to humane care.

Gentled and Suckled—Toward a Language of Intersubjectivity—Close scrutiny of the medical research literature on breastfeeding and kangaroo care reveals a language of objectification. Crudely stated, women are objectified as baby bottles and/or incubators—their babies swimming in the womb or suckling at the breast.

⁶⁷ Tessier R, Cristo M, Velez S, et al. Kangaroo Mother Care and the Bonding Hypothesis. *Pediatrics*. 1998; 102:17- <<http://www.pediatrics.org/cgi/content/full/102.2.e17>>

⁶⁸ *Ibid.*

⁶⁹ Charpak N, Ruiz-Peláez, Figueroa Z and Charpak Y. A Randomized, Controlled Trial of Kangaroo Care: Results of Follow-Up at 1 Year of Corrected Age. *Pediatrics*. 2001; 108:1072-1079.

⁷⁰ Feldman R and Eidelman AI. Skin-to-skin contact (Kangaroo Care) accelerates autonomic and neurobehavioural maturation in preterm infants. *Dev Med Child Neurol*. 2003; 45:274-81.

⁷¹ Anderson GC. Touch and the Kangaroo Care Method, in Fields TM (ed), *Touch in Early Development* (Mahwah, New Jersey: Lawrence Erlbaum Associates, 1995), pages 35-51.

⁷² Montagu A. Animadversions on the Development of a Theory of Touch, in Fields, TM (ed), *Touch in Early Development*. Mahwah, New Jersey: Lawrence Erlbaum Associates, 1995, page 3.

⁷³ Understanding Intimacy as Experienced by Breastfeeding Women, page 483.

An extreme yet powerfully symbolic example of the language of objectification is represented in the title of one research paper: “The mammary gland-infant intestine immunologic dyad.”⁷⁴ More subtle but no less significant is the construction of the phrase “kangaroo mother care.” This is a construction that suggests skin-to-skin contact between mother and child is normal for marsupials, not *homo sapiens*.

There are exceptions to the foregoing generalization, of course, though the exceptions do not yet discount or supercede the rule. For example, in a cross-cultural study of touch Tronick reminds us that frequent and intimate touch between mother and infant is the rule rather than the exception.⁷⁵ In an essay on the early emotional ties between mothers and infants Klaus offers an especially moving word picture of the newborn infant’s innate ability to crawl to the breast within the first minutes of life.⁷⁶ There can be little doubt that skin-to-skin contact is the norm for the human species. That norm has been supplanted by “traditional” nursery care in twentieth century Western culture.

In a marked departure from the typical biomedical approach to breastfeeding Dignam invites us to an understanding of intimacy as it is experienced by women who breastfeed. In particular, Dignam draws our attention to the mother’s self-identity as an intimate being who then engages her infant in an intimate relationship characterized by mutuality, reciprocity, presence, trust, and touch.⁷⁷ Beyond the mother and mother-infant dyad intimacy “expands in circular ripples outward from the woman, much like ripples caused by a stone thrown into still water.”⁷⁸

In accord with Dignam’s reflections on intimacy, Stern has described the mother’s emotional needs in pregnancy and childbirth. Specifically, Stern notes the mother’s psychological shift to form a “constellation of motherhood” wherein she seeks to protect her infant, bond with and love her child, and create a “maternal matrix” or “network of one or more experienced mothers or experienced parents.”⁷⁹ Arguably, we could consider the experience of healing between Patricia and Althea—recounted above—as both an example of intimacy and the creation of a “maternal matrix.”

In yet another instructive case, though potentially dismissed as “anecdotal,” Burkhammer et al describe a mother who experienced “healing” with kangaroo care. She had previously suffered the death of a stillborn infant son and “carried grief, guilt, anxiety, and hypervigilance” into her next pregnancy. Following the delivery of her second child, who was small for gestational age, the mother experienced difficulty breastfeeding. Her clinicians introduced kangaroo care. “During her first skin-to-skin breastfeeding, the

⁷⁴ Hanson LA, Ceafalau L, Mattsby-Baltzer I, et al. The mammary gland-infant intestine immunologic dyad. *Adv Exp Med Biol*. 2000; 478:65-76.

⁷⁵ Tronick EZ. Touch in Mother Infant Interaction, in Fields, TM (ed), *Touch in Early Development* (Mahwah, New Jersey: Lawrence Erlbaum Associates, 1995), pages 53-65.

⁷⁶ Klaus M. Mother and Infant: Early Emotional Ties. *Pediatrics*. 1998; 102:1244-46.

⁷⁷ Dignam DM. Understanding Intimacy as Experienced by Breastfeeding Women. *Health Care for Women International*. 1995; 16:477-485.

⁷⁸ *Ibid.*, page 478.

⁷⁹ Stern D. Mother’s Emotional Needs. *Pediatrics*. 1998; 102:1250-1252.

mother stopped crying, shared self-disparaging emotions, and then began relaxing and ‘taking-in’ her new baby.” The mother was still breastfeeding at one year follow-up.⁸⁰

From the foregoing stories and studies we are aware that there is an astonishing degree of reciprocity and mutual participation in healthy mother-infant dyads. Kangaroo care is more than a strategy to encourage breastfeeding. Breastfeeding is more than a means to deliver essential nutrients to a growing infant. Indeed, the best evidence is that mother and child “inhabits” or “takes in” each the other in a very real sense.

- Mother and child mutually influence each other’s body temperature (thermal synchrony) during skin-to-skin contact.⁸¹
- Mother modulates her infants respiratory and heart rate and rhythm during skin-to-skin contact.⁸²
- Mother and infant are emotionally attuned to each other (affect synchrony).⁸³

The significance of “emotional attunement” or “affect synchrony” cannot be overly emphasized as it provides for us a critical link between the psychology and biology of parenting and pregnancy outcomes. We turn now to a succinct review of that link.

Relationality, Religion, and Love: A Corrective

In a review published in the scientific journal *Psychoneuroendocrinology*, Dr. Stephen Porges, a preeminent developmental psychologist, describes “love” as an “emergent property of the mammalian autonomic nervous system.”⁸⁴ Succinctly stated, Porges assumes that “love is a unique human emotion.” This same view is espoused by Lewis, Amini and Lannon, physicians and coauthors of a book written for lay audiences, *A General Theory of Love*.⁸⁵

In the following review of the psychobiology of relationality the Commission **does not** conceptualize love as an emotion. Rather, as explicitly asserted by Martin Luther King, Jr., love is “that force which all of the great religions have seen as the supreme unifying principle of life.” In accord, Paul Tillich, another highly regarded Christian theologian asserts: “Love is the drive toward the unity of the separated.”⁸⁶

In essence, as relational beings we are drawn ineluctably to communion, and reunion. Love is the gravitational force and emotions are emergent experiences and expressions of communion.

⁸⁰ Burkhammer MD, Anderson GC and Chiu SH. Grief, anxiety, stillbirth, and perinatal problems: healing with kangaroo care. *J Obstet Gynecol Neonatal Nurs*. 2004; 33:774-82.

⁸¹ Touch and the Kangaroo Care Method, page 40.

⁸² *Ibid*, pages 41-42.

⁸³ Schore AN. Attachment, Affect Regulation, and the Developing Right Brain: Linking Developmental Neuroscience to Pediatrics. *Pediatrics in Review* 2005; 26(6): 204-211.

⁸⁴ Porges SW. Love: An Emergent Property of the Mammalian Autonomic Nervous System. *Psychoneuroendocrinology* 1998; 23(8): 837-861.

⁸⁵ Lewis T, Amini F and Lannon R. *A General Theory of Love*. New York: Vintage, 2001.

⁸⁶ Tillich P. *Love, Power, and Justice*. Oxford: Oxford University Press, 1954, page 24.

This “corrective” is important to bear in mind as it informs the ethics of public policy and civic discourse. Tillich’s theology articulates that which was at least implied in the life and work of King—there is a unity of love, power, and justice in personal and group relations. It is the betrayal of love, abuse of power, and miscarriage of justice that imperils the lives of women and children in the sensitive developmental experience called pregnancy. It is in this larger context that the Commission reviews the psychobiology of relationality beginning with emotions as manifestations of love or the absence thereof.

The Psychobiology of Relationality

None other than Charles Darwin may have been the first scientist to study systematically the emotions. Darwin surmised that emotions conferred a survival advantage on organisms though he was unable to fully discern their specific biological utility.⁸⁷ It would be more than a hundred years before scientists returned to a rigorous, empirical study of a human experience that is deemed so utterly subjective, human emotions.

Allen Schore, a psychologist at UCLA, provides us with what is perhaps the most comprehensive, multidisciplinary review of the biology, physiology, neurology, neuro-anatomy, psychiatry, and developmental psychology of emotions. The picture that emerges is one that affirms Darwin’s intuition—emotions are essential to survival and are so in at least the following ways.

- Emotional attunement with the primary care provider is a critical stimulus to the biochemical functioning and anatomical structuring of the infant’s brain, especially the right hemisphere. As the developmental psychologist Stanley Greenspan asserts, “In fact, emotions, not cognitive stimulation, serve as the mind’s primary architect.”⁸⁸
- In infancy and throughout life “the right brain is dominant for the regulation of fundamental physiologic, endocrinologic, immunologic, and cardiovascular functions” essential for adapting to stress and for survival.⁸⁹
- The primary care provider’s and infant’s “homeostatic systems are linked in a superordinate organization that allows for mutual regulation of vital endocrine, autonomic, and central nervous system” function.⁹⁰ It is from this homeostatic linking that the descriptive terms “affect synchrony” and “limbic resonance” are derived.
- With positive emotions the primary care provider “up regulates” the infant’s emotional receptivity and responsivity. Conversely, negative emotions, usually associated with a real or perceived “rupture” of affective relationships, are “down regulated.” Emotional attunement and re-attunement in response to relational “rupture and repair” is the psychobiological foundation of resilience.

⁸⁷ Lewis t, Amini F and Lannon R. *A General Theory of Love*. New York: Random House, 2000, page 37.

⁸⁸ Greenspan, S. *The Growth of the Mind*. New York: Basic Books, 1998, page 7.

⁸⁹ Schore, AE. Attachment, Affect Regulation, and the Developing Right Brain: Linking Developmental Neuroscience to Pediatrics. *Pediatrics in Review* 2005; 26(5): 204-211.

⁹⁰ *Ibid.* Schore, page 207.

- In addition to resilience, healthy affect regulation serves as the foundation for cognitive development, moral thought and behavior, and creativity.
- “Affect dysregulation” is learned in the context of relational traumas of varying degrees. Such learned dysregulation shapes the brain’s architecture differently and leads to diminished resilience. Likewise, affect dysregulation increases the risk of psychopathology, post traumatic stress disorder and other psychosomatic conditions.

Schore’s conceptualization of attachment, defined as the “dyadic regulation of emotion,” is built upon the germinal work of Bowlby who invented attachment theory. Before scientists were able to study emotions and intimacy empirically Bowlby was aware of the power and effect of relationships on human well being. He observed, “Intimate attachments to other human beings are the hub around which a person’s life revolves, not only when he is an infant or a toddler or a school child but throughout his adolescence and his years of maturity as well, and on into old age.”⁹¹

It is no wonder, then, that Bowlby’s attachment theory is informed and enriched by perspectives in relationality. Attachment theory was primarily focused on the child as subject developing in the context of object relations with others, including the primary care provider—usually the mother. For Bowlby the ultimate concern was for the child’s outcome. Relationality theory expands the domain of concern and calls attention to the mutuality and reciprocity between subjects—infant and care provider—with a focus on the experiences of both.⁹²

All of the foregoing findings are in accord with the hypotheses of Lu and Halfon, briefly alluded to above. Specifically, Lu and Halfon suggest that “early programming” and “cumulative” stressors may account for the disparities in birth outcomes for white and black women. It is reasonable to presume, for example, that a “differential developmental trajectory,” characterized by the mother’s own experience of affective dysregulation in infancy, adversely affects her ability to bear and rear children. This would be particularly true if the mother was continually or primarily engaged in emotionally “un-attuned” relationships such that she lacks the resilience to negotiate the developmental challenge of becoming a mother. While Lu and Halfon may be correct in concluding that self regulation is *lost* in times of stress, Schore’s work suggests that such regulation is never properly learned. Affect dysregulation *is* the experience of stress and may persist or recur in ongoing relationships for many women who are at risk for delivering prematurely.

Still, there is reason to be optimistic as regards therapeutic intervention for women who have suffered a lifetime of “affect asynchrony.” Though their neuro-anatomy is “hardwired” or programmed for habitual dysregulation, the central nervous system can be rewired in the context of affect synchrony. Schore describes the importance of the

⁹¹ Bowlby, J. *Attachment and Loss, Vol. 3—Loss: Sadness and Depression*. New York: Basic Books, 1980, page 442.

⁹² Mitchell, SA. *Relationality: From Attachment to Intersubjectivity*. Hillsdale, New Jersey: The Analytic Press, 2000.

therapist's "ability to act as a holding container (interactive psychobiological regulator) for the patient's affective energy" to achieve salutary outcomes in therapy.⁹³ This observation is an echo of Stern's recommendation that "holding environments" be established for mothers bearing and birthing children.

A Return to Mutual Indwelling—Relationality and Love

The foregoing experiences of mutual indwelling and emotional attunement lead us to assert that breastfeeding at its best is the infant's primer and mother's reminder of the very meaning of relationality. Childbearing, birthing, and rearing is a potential gift of learning and relearning relationality in the family and in the community-as-a-whole.

Another name for the gift of relationality is love. Here we begin to move beyond the pedantic, "fuzzy," or romantic notions of love. As a consequence of their mutual indwelling and affect synchrony, each taking the other in and responding to one another, mother and infant are drawn up paradoxically out of their ego-centered selves into communion and community. Both realize a transcendent experience that is not available to either alone. This love is, in effect, an experience of wholeness and transcendence in and through relationship.

What are the attributes of healthy, generative relationships? We have already described "mutual indwelling" as one attribute. Borrowing from the reflections of one feminist theologian, mutuality may be defined further as a "relationship marked by equivalence between persons, a concomitant valuing of each other, a common regard marked by trust, respect, and affection in contrast to competition, domination, or assertions of superiority."⁹⁴

Interestingly, in recent studies investigators have shown that oxytocin, the maternal hormone best known as a stimulant for milk ejection in lactation, is "associated with the ability to maintain healthy interpersonal relationships and healthy psychological boundaries with other people."⁹⁵ Klaus concludes that increased levels of oxytocin in the mother's blood results in "euphoria, a higher pain threshold, and increased love for the infant."¹⁷ More recently, Kosfeld et al have shown that inhaled oxytocin increases "trust" in humans.⁹⁶

Studies revealing the role of oxytocin in the process of socialization are perhaps of greater intrigue and relevance to the concept of relationality advanced by the Commission. For example, Taylor et al were the first to describe oxytocin as a mediator in the unique female stress response to "tend and befriend" rather than "fight or flee" as is

⁹³ Schore, AN. *Affect Regulation and the Repair of the Self*. New York: WW Norton, 2003, page 95.

⁹⁴ Johnson EA. *She Who Is: The Mystery of God in Feminist Theological Discourse*. New York: Cross Roads, 1992, page 68.

⁹⁵ Turner RA, Altemus M, Enos T, Cooper B, McGuinness T. Preliminary research on plasma oxytocin in normal cycling women: investigating emotion and interpersonal distress. *Psychiatry*. 1999; 62(2):97-113.

⁹⁶ Kosfeld M, Heinrichs M, Zak PJ, Fischbacher U and Fehr E. Oxytocin increases trust in humans. *Nature* 2005; 435:673-676.

characteristic of males.⁹⁷ Uvnäs-Moberg et al propose a subtly different role for the “oxytocinergic” system.⁹⁸ That is, oxytocin is associated with a tendency to “calm and connect” in both females and males and operates in equipoise with adrenalin, for example.⁹⁹ Said differently, Taylor et al posit a reactive stress response, or adaptation *via negativa*, whereas Uvnäs-Moberg et al posit a proactive stress response, or adaptation *via positiva*. Whether tending and befriending or calming and connecting breastfeeding triggers the release of oxytocin and is *ipso facto* a primal experience of socialization.

Returning to our reflections on the characteristics of generative relationships, in addition to mutuality there are two other attributes of the healthy dyadic relationship—asymmetry and reciprocity.¹⁰⁰ Asymmetry does not negate equivalence. Rather, asymmetry connotes that the other is always different—something of the other is unknown and unknowable. As well, in the context of the adult-infant dyad, asymmetry connotes greater dependence and vulnerability on the part of the infant. Yet that vulnerability does not imply inferiority or incompetence and does not invite a patronizing response.

Reciprocity is not utilitarian in the economic sense; “you scratch my back and I will scratch yours.” It is, instead, an opening to “self-giving” and “other receiving.” A mother offers her breast milk freely and without demand. The infant suckles, receives the breast milk, returns the mother’s gaze, and completes a reverberating circuit of affection and mutual regard that is a manifestation of love.

We turn now to the consideration of what it might mean to reclaim that gift of love in the lived experience of women of color. Specifically, we will reexamine the data on the initiation and duration of breastfeeding among African American women through the lens of relationality. We will examine the experience of men in dyadic relationships. Then, we will reexamine the meaning of race, class, and gender as risk factors for maternal and infant mortality and morbidity. Finally, we will articulate the implications for health care and public policy.

Breastfeeding Black Children: What’s Love got to do with it?

“Within a society where black women’s bodies, our very beings, have been and are objectified in ways that deny our subjectivity, it has been incredibly difficult for black women to see the erotic as a space of power.”
~bell hooks¹⁰¹

⁹⁷ Taylor SE, Klein LC, Lewis BP et al. Biobehavioral responses to stress in females: tend-and-befriend, not fight-or-flight. *Psychological Review* 2000; 107(3):411-29.

⁹⁸ “Oxytocinergic” refers to the physiologic system for the elaboration and release of oxytocin. It is comparable and complementary to the more widely known “adrenergic” system that elaborates and releases adrenalin.

⁹⁹ Uvnäs-Moberg K, Arn I and Magnusson D. The Psychobiology of Emotion: The Role of the Oxytocinergic System. *International Journal of Behavioral Medicine* 2005; 12(2):59-65.

¹⁰⁰ The attributes of mutual indwelling and participation are drawn from theological reflections. See for example Wondra EK. Participating Persons: Reciprocity and Asymmetry. *Anglican Theological Review*. 2004; 86:57-73.

¹⁰¹ hooks b. *Sisters of the Yam*. Boston: South End Press, 1993, page 115.

As noted previously, researchers have documented that black women initiate breastfeeding significantly less often and for shorter periods than do white and Hispanic women.^{6,7} There is little doubt that African American women, especially those who are economically disadvantaged, face myriad obstacles to breastfeeding even as they acknowledge the health benefits. Chief among the obstacles are pressure to return to work and/or school, and social environments (familial or work) that actively discourage or simply do not support breastfeeding. Moreover, Forste et al found that black women in their study did not initiate breastfeeding because they “preferred to bottle feed.”⁶ (The authors acknowledge that their understanding of the choice is limited by the structure of the survey instrument.) However, if we imagine that breast feeding is an innate nurturing response, it may be useful to examine why that innate response is superceded by a presumably learned preference for bottle feeding.

Is it possible that a woman’s decision to bottle feed is a form of “resistance” to objectification? One medical anthropologist has carefully examined the medicalization and mechanization of birth “as if it were work done by the uterus.” Martin hypothesizes that if women’s bodies in childbirth are subjected to the same kinds of controls as workers in the workplace they might well resist such objectification and control. In particular, Martin asserts, “Young black women in a very real sense have more to resist: not only a greater chance of having interventions and operations used on them, but the demeaning burden or racism instantiated in the ways they are treated.”¹⁰²

If health care practitioners prescribe breastfeeding as an intervention to reduce infant mortality, might black women resist such interventions, however unconsciously?

From yet another perspective, black womanist and literary scholar bell hooks offers some insights that may be germane to the question of why African American women seem to prefer bottle feeding. Consistent with our focus on relationality hooks asks the following questions.

“How many young black girls are able to articulate to partners they just need to be caressed, touched, or held? Does sex become the only way they can experience touch because they do not know how to ask? How many grown black females are fully able to acknowledge the healing power of touch? Are we touched enough? Do we give black children the touching they need?”¹⁰³

“Touching as a way to experience reality was denied many of us as children,” hooks argues. She continues, “Taught not to reach out and touch objects in the world that invite interest and bring pleasure, many black children are socialized to think that this desire is bad and brings punishment.”¹⁰⁴

¹⁰² Martin E. *The Woman in the Body: A Cultural Analysis of Reproduction*. Boston: Beacon Press, 1992, pages 139-155.

¹⁰³ *Sisters of the Yam*, page 118.

¹⁰⁴ *Sisters of the Yam*, page 117.

To be sure, hooks' questions are not germane to African American communities or cultures alone. Ashley Montagu, arguably the first and preeminent scholar on touch, attests to his learned aversion to touch as a privileged white male reared in England.¹⁰⁵ It is perhaps more than coincidental that breastfeeding rates in the United Kingdom are among the lowest in the developed world.¹⁰⁶ To the contrary, breastfeeding rates among Hispanic women in the United States are high, even relative to that of white women. On the basis of his studies of kangaroo care, initiated in Bogotá, Colombia, Anderson speculates that there is a positive relationship between "touching cultures" and "breastfeeding cultures."¹⁰⁷

Is it conceivable, then, that African American women may experience an amplified aversion to touch in the context of a culture that objectifies and, thereby, dehumanizes them? The question is ripe for study. As importantly, the answer to the question has implications for the strategies implemented to promote breastfeeding. Albers, for example, observes, "Information can dispel myths surrounding breastfeeding, while emotional support can encourage perseverance in the task."¹⁰⁸ Concerns about intimacy are almost certainly laden with emotion. Therefore, we might hypothesize that inquiry into and "coaching" in experiences of intimate touch may be a prerequisite to success in encouraging breast feeding.

More than "coaching," women must mutually indwell with supportive others. Again, we cite hooks extensively.

"Love needs to be present in every black female's life, in all of our houses. It is the absence of love that has made it so difficult for us to stay alive or, if alive, to live fully. When we love ourselves we want to live fully. Whenever people talk about black women's lives, the emphasis is rarely on transforming society so that we can live fully, it is almost always about applauding how well we have 'survived' despite harsh circumstances or how we can survive in the future. When we love ourselves, we know that we must do more than survive. We must have the means to live fully. To live fully, black women can no longer deny our need to know love."¹⁰⁹

"Affirming ourselves is the first step in the direction of cultivating the practice of being inwardly loving. I choose to use the phrase 'inwardly loving' over self-love, because the very notion of 'self' is so inextricably bound up with how we are seen by and in relation to others. Within a racist/sexist society, the larger culture will not socialize black women to know and acknowledge that our inner lives are important. Decolonized black women must name that reality in accord with others among us who understand as well that it is vital to nurture the inner

¹⁰⁵ *Touch in Early Development*, page 1.

¹⁰⁶ Earle S. Factors affecting the initiation of breastfeeding: implications for breastfeeding promotion. *Health Promotion International*. 2002; 17(3):205-14.

¹⁰⁷ *Touch in Early Development*, page 49.

¹⁰⁸ Albers RM. Emotional support for the breastfeeding mother. *Issues in Comprehensive Pediatric Nursing*. 1981; 5:109-124.

¹⁰⁹ *Sisters of the Yam*, page 137.

life. As we examine our inner life, we get in touch with the world of emotions and feelings. Allowing ourselves to feel, we affirm our right to be inwardly loving. Once I know what I feel, I can also get in touch with those needs I can satisfy or name those needs that can only be satisfied in communion or contact with others.”¹¹⁰

This is a poignant and clarifying affirmation of Stern’s description of the “motherhood constellation” noted above. From a policy perspective, Stern makes the critical observation that “not just anyone can get emotionally close to the mother—it must be someone special. If we are going to be training people to create the emotional environment so that interventions can take hold, these people have to be highly selected.”²⁰ We will return to this recommendation as we consider more detailed policy implications for health care, research, and public policy. However, before doing so we must first consider the relevance of fatherhood more explicitly.¹¹¹

What do men have to do with it?¹¹²

The Commission narrowly focused its review and analysis of the roles men play in the lives of women and children during pregnancy, labor and delivery, and regarding decisions to breastfeed. Even with this limited focus it is evident that the lives and well-being of women and children are greatly affected by the presence and absence of men as partners, parents, and/or patriarchs.

We begin with the role men play regarding decisions to breast feed because the data bearing on this subject are most robust—a father’s attitude mightily influences a mother’s decision to initiate and continue breastfeeding.¹¹³ Given the extraordinary significance of the breastfeeding experience previously described, every effort must be made to educate and encourage fathers to advocate for breastfeeding.¹¹⁴ Indeed, at least one innovative program has been implemented in a corporate setting with the specific intent and effect of

¹¹⁰ *Ibid*, pages 142-143.

¹¹¹ Regarding fatherhood the Commission concurs with the American Academy of Pediatrics: “A father may be a biological, foster, or adoptive father; he may be a stepfather, grandfather, adolescent father, father figure, or coparent father in a gay relationship; and he may be custodial or noncustodial, resident or nonresident, near or far. For purposes of this report, father is defined broadly as the male identified as most involved in caregiving and committed to the wellbeing of the child [and mother] regardless of the living situation or biological relation.” Coleman W and Garfield C. Fathers and Pediatricians: Enhancing Men’s Roles in the Care and Development of Their Children. *Pediatrics* 2004; 113(5): 1406-1411.

¹¹² From the title of Judith Walzer Leavitt’s presidential address to the American Association of the History of Medicine. *Bulletin of the History of Medicine*, 2003; 77:235-262.

¹¹³ Bar-Yam NB, Darby L. Fathers and breastfeeding: a review of the literature. *Journal of Human Lactation* 1997; 13: 45-50. Also see Arora S, McJunkin C, Wehrer J and Kuhn P. Major Factors Influencing Breastfeeding Rates: Mother’s Perception of Father’s Attitude and Milk Supply. *Pediatrics* 2000; 106(5). URL: <http://www.pediatrics.org/cgi/content/full/106/5/e67>.

¹¹⁴ See for examples Wolfberg AJ, Michels KB, Shields W et al. Dads as breastfeeding advocates: results from a randomized controlled trial of an educational intervention. *American Journal of Obstetrics and Gynecology* 2004; 191: 708-712. And, Stremler J, Lovera D. Insight from a Breastfeeding Peer Support Program for Husbands and Fathers of Texas WIC Participants. *Journal of Human Lactation* 2004; 20: 417-422.

promoting breastfeeding through male employees.¹¹⁵ The success of this program has obvious implications for public policy in support of breastfeeding in the workplace.

Fathers have been more interested in supporting their partners in the experience of labor and delivery than is generally appreciated. Moreover, advocating with and for their partners, men helped gained entry to once forbidden territory—the labor and delivery suite.¹¹⁶ However, unlike the salutary effects of support for breastfeeding, data bearing on the effect of men’s support during birth are inconclusive at best and, worse, raise a concern that men’s presence may inhibit the progress of labor.¹¹⁷ This is somewhat surprising in view of data suggesting that women desire the support of their mates,¹¹⁸ and the presence of a supportive female companion (often referred to as doula) is associated with fewer operative deliveries, less need for analgesia, and shorter labors.¹¹⁹

Compared to research on the role and effect of men in decisions about breastfeeding and support during labor and delivery, data on men’s experience of and response to their partners’ pregnancies are sparse.¹²⁰ In recent notable exceptions investigators have focused on ‘negative’ emotions such as anxiety and depression.¹²¹ This relative paucity of data is especially noteworthy in light of the Commission’s conceptualization of the psychobiology of relationality. We posit that greater knowledge of and concern for the emotional experiences and expressions of men as partners and expectant fathers may enhance our ability to reduce infant mortality. At the heart of this speculation are the following observations and hypotheses.

- Emotional fields are co-created by relational partners, as posited by Gergen among others. In the course of their pregnancies women seek to establish “maternal matrices” for emotionally supportive “holding environments,” as described by Stern.
- Less consciously, men are co-creators of and contributors to emotional holding environments though they are typically excluded from maternal matrices.
- With and without men, the quality of the holding environment may affect the biology and physiology of pregnancy, including the length of gestation.

¹¹⁵ Cohen R, Lange L and Slusser W. A description of a male-focused breastfeeding promotion corporate lactation program. *Journal of Human Lactation* 2002; 18:61-65.

¹¹⁶ Walzer Leavitt, What Do Men Have to Do with It?

¹¹⁷ Draper J. Whose welfare in the labour room? A discussion of the increasing trend of father’s birth attendance. *Midwifery* 1997; 13: 132-138.

¹¹⁸ Somers-Smith MJ. A place for the partner? Expectations and experiences of support during childbirth. *Midwifery* 1999; 15: 101-108.

¹¹⁹ Scott KD, Klaus PH and Klaus MH. The obstetrical and postpartum benefits of continuous support during childbirth. *Journal of Women’s Health and Gender Based Medicine* 1999; 8: 1257-64.

¹²⁰ For exceptions see Conner GK and Denson V. Expectant fathers’ response to pregnancy: review of the literature and implications for research in high-risk pregnancy. *Journal of Perinatal and Neonatal Nursing* 1990; 4(2): 33-42.

¹²¹ Buist A, Morse CA and Durkin S. Men’s Adjustment to Fatherhood: Implications for Obstetric Health Care. *Journal of Obstetric, Gynecologic, & Neonatal Nursing* 2003; 32: 172-180. See also, Johnson MP and Baker SR. Implications of coping repertoire as predictors of men’s stress, anxiety and depression following pregnancy, childbirth and miscarriage: a longitudinal study. *Journal of Psychosomatic Obstetrics and Gynaecology* 2004; 25: 87-98.

In the foregoing context consider the curious but otherwise unexplained observation that the risk of infant mortality is significantly increased when a father's name is not listed on the birth certificate.¹²² Specifically, whether married or unmarried, women who did not list fathers' names on their infants' birth certificates experienced infant mortality rates approximately 2.5 times greater than women who were married and did list the names of fathers. Though the data are insufficient to determine why this increased risk pertains, Gaudino et al speculate that mothers failing to list a name may signify fathers' emotional, physical, and/or financial absence.¹²³

Zhong-Cheng et al further analyzed disparities in pregnancy outcomes as they relate to marital and cohabitation status. Specifically, these investigators carried out an analysis in the Canadian province of Quebec wherein births to women in common-law unions was increasingly common and, in 1998, outnumbered births to legally married mothers.¹²⁴ The relative increase in risk is more modest but still significant: "Pregnancy outcomes are worse among mothers in common-law unions versus traditional marriage relationships but better than among mothers living alone."¹²⁵ Again, the authors acknowledge that their data are insufficient to discern the causal mechanisms underlying the observed disparities.

The Commission surmises that the content (emotional texture) of the relationship may be more important than is the form (married or cohabitation) as a determinant of pregnancy outcomes. There are at least three convergent and highly suggestive lines of evidence in support of this tentative hypothesis. First, the family is a "brew of emotions" as noted by Larson and Richards. Contemporary families, they argue, have experienced a shift in "instrumental functions" from an historic focus on economic production, for example, to the greater of interpersonal relationships including mutual support and emotional development. In that context families coexist in the same physical space but in "separate emotional worlds, which are often out of sync."¹²⁶ This is the obverse of the "affect synchrony" previously noted and deemed essential to survival and healthy development. (See the preceding section on the psychobiology of relationality.)

A second line of evidence, though admittedly tenuous, is the data that suggests that expectant fathers do experience depression, anxiety, and difficulty defining their emergent roles as fathers.¹²⁷ Yet in emotional dialogue men tend to be less aware of their own emotions, less able to articulate the emotions about which they are aware, and less

¹²² Gaudino JA, Jenkins B and Rochat RW. No fathers' names: a risk factor for infant mortality in the State of Georgia, USA. *Social Science & Medicine* 1999; 48: 253-265. See also, Phipps MG, Sowers M and Demonner SM. The Risk for Infant Mortality among Adolescent Childbearing Groups. *Journal of Women's Health* 2002; 11(10):889-897.

¹²³ *Ibid.* Gaudino.

¹²⁴ Zhong-Cheng L, Wilkins R and Kramer MS. Disparities in Pregnancy Outcomes According to Marital and Cohabitation Status. *Obstetrics and Gynecology* 2004; 103:1300-1307.

¹²⁵ *Ibid.* Zhong-Cheng.

¹²⁶ Larson R and Richards MH. *Divergent Realities: The Emotional Lives of Mothers, Fathers, and Adolescents*. New York: Basic Books, 1994.

¹²⁷ Buist, Men's Adjustment to Fatherhood. See also Jordan PL. Laboring for relevance: expectant and new fatherhood. *Nursing Research* 1990; 39(1): 11-16.

adept at “reading” the emotions of others. This “restrictive emotionality” is well described.¹²⁸ In contrast, women are more aware of their own emotions, better able to describe their emotions, and are more susceptible to “emotional contagion,” i.e., receiving and responding to emotions expressed by others.¹²⁹

While it is evident that men affect the lives and wellbeing of women and children by their presence and absence, there is much to be learned about the mechanisms and direction of that affect. In particular, the Commission contends that we must learn more about the emotional experiences, expressions, and effect of men as partners and parents in relational dialogue.

Having considered the role of men in a limited way, we now propose a potential social-clinical construct—relational trauma with affect dysregulation—before turning to a reconsideration of the significance of race, gender, and social class.

Relational Trauma with Affect Dysregulation—Nomenclature for a Social Phenomenon

In the course of its extensive research the Commission was struck by disparate but potentially related references to posttraumatic stress disorder that seem worthy of further refinement and study. In particular, the Commission advances a new social-clinical construct and testable hypothesis: Relational trauma with affect dysregulation is a risk factor for premature labor and delivery. The evidence upon which this construct and associated hypothesis are based is as follows.

- The link between affect dysregulation and traumatic stress disorder is plausible if not definitive. In a chapter titled “dysregulation of the right brain: a fundamental mechanism of traumatic attachment and the psychopathogenesis of posttraumatic stress disorders,” Schore, to whom we have made reference above, posits that early experiences of ruptured relationships “hardwire” the brain’s orbitofrontal cortex for maladaptive responses to stress.¹³⁰
- Holditch-Davis and coauthors studied a convenience sample of thirty mothers to determine whether and to what degree the mothers experienced posttraumatic stress from the NICU experience following the birth of their premature infants. The authors reasoned that emotional distress was a common response to premature birth, and that the NICU is a stressful environment thereby potentially triggering a posttraumatic stress response. Eighteen mothers were white, 11 African American, and 1 was Asian. Twenty five were married; 17 were primigravid; 14 were delivered operatively. All mothers had at least one of three symptoms of posttraumatic stress—re-experiencing, avoidance, and/or increased

¹²⁸ Janz J. 2000, Masculine Identity and Restrictive Emotionality. In Fischer AH (Ed.), *Gender and Emotions: Social Psychological Perspectives*, Cambridge: Cambridge University Press, pages 166-186.

¹²⁹ Wild B, Erb M and Bartels M. Are Emotions Contagious? Evoked emotions while viewing emotionally expressive faces: quality, quantity, time course and gender differences. *Psychiatry Research* 2001; 102: 109-124.

¹³⁰ Schore AN. *Affect Dysregulation and Disorders of the Self*. New York: WW Norton, 2003, pages 234-265.

arousal. Twelve mothers had two symptoms; and sixteen experienced all three.¹³¹ We surmise that the findings in the study by Holditch-Davis et al may be the result of the mothers having a predisposition to posttraumatic stress that, in turn, triggered premature labor first and the affective response to the NICU experience subsequently.

- Seng and coworkers studied the diagnosis of posttraumatic stress in African American women.¹³² More specifically, the authors conducted a cross-sectional epidemiological analysis of factors contributing to the *under-diagnosis* of PTSD in poor African American women as contrasted with white women. “African American women were underrepresented in the group diagnosed with PTSD (12% versus 31% in the comparison group), despite having equal rates of hospitalization for rape and battering.” The authors considered at least two variables to account for their findings—less health care insurance coverage associated with limited access to care; and/or greater resilience in the face of trauma. Research on both access to care and resilience is warranted.
- In a now classic treatise, *Trauma and Recovery*, psychiatrist Judith Herman provides an insightful thesis on the broad spectrum of circumstances contributing to the development of posttraumatic stress disorder; and a prescription for intervention.¹³³ Herman makes many observations that are particularly germane to the work of the Commission. For example, she writes; “Traumatic events call into question basic human relationships. They breach the attachments of family, friendship, love, and community. They shatter the construction of the self that is formed and sustained in relation to others. ... The damage to relational life is not a secondary effect of trauma, as originally thought. Traumatic events have primary effects not only on the psychological structures of the self but also on the systems of attachment and meaning that link individual and community.” “A secure sense of connection with caring people is the foundation of personality development. When this connection is shattered, the traumatized person loses her basic sense of self. Developmental conflicts of childhood and adolescence, long since resolved, are suddenly reopened. Trauma forces the survivor to relive all her earlier struggles over autonomy, initiative, competence, identity, and intimacy.”¹³⁴
- Sociologist Kai Erikson departs from the conventional use of the term “trauma” to serve as both a broad social construct as well as a narrow clinical construct.¹³⁵ He writes: “Trauma is generally taken to mean a blow to the tissues of the body—or, more frequently now, to the structures of the mind—that results in injury or some

¹³¹ Holditch-Davis D, Bartlett TR, Blickman AL and Shandor Miles M. Posttraumatic Stress Symptoms in Mothers of Premature Infants. *Journal of Obstetric, Gynecologic, and Neonatal Nursing* 2003; 32: 161-171.

¹³² Seng JS, Kohn-Wood LP, and Odera LA. Exploring Racial Disparity in Posttraumatic Stress Disorder Diagnosis: Implications for Care of African American Women. *Journal of Obstetric, Gynecologic, and Neonatal Nursing* 2005; 34: 521-530.

¹³³ Herman JL, *Trauma and Recovery: The aftermath of violence—from domestic abuse to political terror*. New York: Basic Books, 1992.

¹³⁴ *Ibid*, pages 51-52.

¹³⁵ Erikson K. *A New Species of Trouble: Explorations in Disaster, Trauma & Community*. New York: WW Norton, 1994.

other disturbance. Something alien breaks in on you, smashing through whatever barriers your mind has set up as a line of defense. It invades you, possesses you, takes you over, becomes a dominating feature of your interior landscape, and in the process threatens to drain you and leave you empty. The classical symptoms of trauma range from feelings of restlessness and agitation at one end of the emotional scale to feelings of numbness and bleakness at the other.”¹³⁶

The language suggested by Erikson is a social scientist’s translation of Byllye Avery’s assertion that black infants are dying because their mothers are dying in dead relationships. Specifically, the language proposed by Erikson helps us to appreciate the link between psychobiological responsiveness and social experience. Erikson asserts explicitly that “traumatic wounds inflicted on individuals can combine to create a mood, an ethos—a group culture, almost—that is different from (and more than) the sum of the private wounds that make it up. Trauma, that is, has a social dimension.”¹³⁷

It is by synthesizing the work of Schore, Herman, and Erikson, that the Commission finds it reasonable to hypothesize the existence of adverse social experiences that may best be described as “relational trauma with affect dysregulation.” We suggest this term rather than “posttraumatic stress disorder” for the following reasons.

- The term “relational trauma” places distressing experiences in broader social contexts while signifying that not every stressful relationship is associated with affect dysregulation. It is very important to note the distinction we wish to make here between “stress” and “distress.” Stress is itself a nonspecific physiologic response to challenge. An individual may interpret that challenge as exciting or, at least, positive. This interpretation of the nonspecific physiologic response would be considered “eustress.” On the other hand an individual might interpret their experience as overwhelming or intolerable. This would be considered “distress” and is, we posit, the more likely outcome in the context of affect dysregulation.
- Insinuated in the nexus of relationships rather than (solely) in the bodies of women, relational trauma with affect dysregulation requires a social rather than medical response. Citing Herman again, “The core experiences of psychological trauma are disempowerment and disconnection from others. Recovery, therefore, is based upon the empowerment of the survivor and the creation of new connections. Recovery can take place only within the context of relationships; it cannot occur in isolation.”¹³⁸ In a real sense, the social disconnection is prior to the neurobiological response and, requires a communal intervention to initiate biological “repair.” Both Herman and Schore provide hopeful hints that the brain, though “hardwired” for affect dysregulation, retains a plasticity that is responsive to caring relations.
- Though relational trauma is a relatively circumscribed type of stress, it is broad enough to encompass distressing experiences at the micro family level (from

¹³⁶ *Ibid*, page 228.

¹³⁷ *Ibid*, page 231.

¹³⁸ *Ibid*, page 133.

emotional detachment to domestic violence), as well as the macro community level (as with political and economic disfranchisement deriving from sexism and racism, for examples).

Stating the case succinctly, the problem of infant mortality demands a social justice response. To further support this assertion we now reconsider racism, sexism, and social class ostracism as specific types of relational trauma.

Racism, Sexism, and Social Class Ostracism as Tears in the Fabric of Relationships

“To begin to understand how our social constitution affects our health, we must ask, repeatedly, what is different and what is similar across the social divides of gender, color, and class. We cannot assume that biology alone will provide the answers we need; instead, we must reframe the issues in the context of the social shaping of our human lives—as both biological creatures and historical actors. Otherwise, we will continue to mistake—as many before us have done—what is for what must be, and leave unchallenged the social forces that continue to create vast inequalities in health.”

~Krieger & Fee ¹³⁹

Krieger and Fee remind us that race, gender, and class are social constructs first justified by misconstruing Christian Scripture then reified by misapplying Western science. Having established race, gender, and class as natural and immutable we have sought to explain morbidity and mortality in human populations through the lens of those categories. In essence, we have imagined and sought to confirm the notion that the burden of disease, despair, and premature death is carried by those who are least fit for survival—persons of color, women, and those of lower social class standing.

Yet a close examination of the epidemiologic data reveals a bewildering array of outcomes that defy our simplifying social constructs. For example, we have noted the apparent paradox of healthy Hispanic women for whom birth outcomes are on par with their privileged white sisters despite relative poverty and limited access to medical prenatal care. In a mirror image paradox, well-off African American women experience pregnancy outcomes that are comparable to their less privileged, younger white sisters. Privileged white women in the United States suffer greater infant mortality rates than their counterparts in Scandinavian countries.

We find reams of similarly anomalous data outside the domain of reproductive health. For example, coronary heart disease was once the major cause of death among social elites. The risk of death from coronary artery disease is now more prevalent in the socially disaffected. Within a particular “ethnic” group, rates of coronary heart disease

¹³⁹ Krieger N and Fee E. Man-Made Medicine and Women’s Health: The Biopolitics of Sex/Gender and Race/Ethnicity, in Fee E and Krieger N (eds). *Women’s Health, Politics, and Power*. Amityville, New York: Baywood Publishing, 1994, pages 11-29.

are lowest among Japanese men in their Japan, intermediary in Hawaii, and greatest in the continental United States.¹⁴⁰

How do we make meaning of this complex and seemingly contradictory set of public health data from the perspective or relationality? Reiterating the question as it is framed by Krieger and Fee, “What is different and what is similar across the social divides of gender, color, and class?”

We begin with awareness that race, gender, and class are social constructs-turned-social contracts that dictate how we will and will not live together. They are social contracts that legitimize hierarchies of dominance, oppression, and estrangement. In his book on the politics of relationality Sturn succinctly summarized the dynamics of racism:

“Racism, variously defined, although always entailing some sort of contrast concentrated on skin pigmentation as a prescriptive index, between Self (“us”) and Other (“them”), tends to conjoin three factors: a cultural belief (we are different from them), a moral judgment (we are better than they are), and a political practice (we may, appropriately, circumscribe and delimit their rights and their power).”¹⁴¹

At the risk of oversimplification, we hypothesize that what is similar across the divides of gender, color, and class is that as tears in the fabric of relationships they are all anathema to human nature. If relationships are constitutive of what it means to be human, then the isolation and alienation that attend racism, sexism, and class ostracism/exploitation is dehumanizing, debilitating, and homicidal. This is the larger meaning of Byllye Avery’s observation that black infants are dying “because their mothers are dying. They are in dead relationships.” Again citing hooks:

“Black people are indeed wounded by forces of domination. Irrespective of our access to material privilege we are all wounded by white supremacy, racism, sexism, and a capitalist economic system that dooms us collectively to an underclass position. Such wounds do not manifest themselves only in material ways, they affect our psychological well-being. Black people are wounded in our hearts, minds, bodies, and spirits.”¹⁴²

What is different about the experience of gender, color, and class within and across groups are the number, degree, and duration of insults suffered by an individual or group. For example, a woman of color may suffer the absence of or alienation and abuse from a domestic partner, and be economically impoverished. Problematic alone, these insults are further compounded by the reality of racism, sexism, and social class ostracism.

¹⁴⁰ Marmot MG and Mustard JF, Coronary Heart Disease from a Population Perspective, in Evans RG, Barer ML and Marmor TR (eds), *Why are Some People Healthy and Others Not?* New York: Aldine de Gruyter, 1994, pages 189-214.

¹⁴¹ Sturn D. *Solidarity and Suffering: Towards a Politics of Relationality*. Albany, New York: State University of New York Press, 1998, page 64.

¹⁴² *Sisters of the Yam*, page 11.

Also different within and across groups is the availability of buffers—constitutional (including genetic), familial, communal, and spiritual—that obviate or dampen the deleterious effects of isolation and alienation. We know from research on resilience—defined by one investigator as the “ability to love well” despite relational wounding—is a function of a person’s ability to recruit and sustain relationships characterized by reciprocity, asymmetry, and mutuality.¹⁴³

The inability to love well, evident in hierarchies of dominance and oppression, adversely affects the well being of both the agents and the objects of racism, sexism, and class exploitation, as David hypothesizes in a review of infant mortality and coronary artery disease.¹⁴⁴ More succinctly, Sturn notes that, “on a personal level, racism, in its reflexive effect on the Self, distorts understanding, promotes ignorance and insecurity, delimits our imaginary powers, narrows the future, results in lack of resiliency and openness. On a more institutional level, racism, in its effects on racists, precludes the prospect of authentic democracy, is neglectful of potential human resources and energies, tends toward cultural rigidity and conformism, inhibits the prospect of diversity of insight, is provocative of intense social resentment if not eventual social explosion.”¹⁴⁵

We can readily appreciate the applicability of Sturn’s observations regarding the adverse consequences of racism to sexism and class exploitation as well. In an effort to look beyond America’s borders and race-conscious experience, David examined the tragedy of infant deaths as it occurs in the global village—across cultures and economic strata in Australia, Brazil, Cuba, Nepal, and Sweden.¹⁴⁶ In accord with the Commission’s deliberations David cites an expansive and robust body of evidence relating inequalities to health indices. When nation states strive for or approximate gender and economic equity infant mortality rates are the lowest. Inequalities matter, are neither inevitable nor immutable, and can be resolved through just and compassionate economic and social policies.

Returning to our American experience, the Joint Center commissioned a pilot ethnographic study to explore race, class, and gender conflicts as experienced by women of color who are pregnant. In commissioning this work the Joint Center hoped to have those women, for whom we presume to speak, speak for themselves. Using participatory ethnographic methods, Katz and Fox entered dialogue with patients and staff of the Birth Center in Washington, DC.¹⁴⁷

¹⁴³ See for example, O’Connell Higgins G. *Resilient Adults: Overcoming a Cruel Past*. San Francisco: Jossey-Bass, 1994.

¹⁴⁴ David R. Black Infants and White Men: Tied into a Single Garment of Destiny. In Fine, M., Weis, L., Powell-Pruitt, L. and Burns, A. (eds.) *Off White: Readings on Power, Privilege, and Resistance*. New York: Routledge, 2004.

¹⁴⁵ Sturn, *op. cit.* p 69.

¹⁴⁶ David, R. Infant Mortality in the Global Village: Inequality Matters. A working paper commissioned by the Health Policy Institute, Joint Center for Political and Economic Studies. November 2006.

¹⁴⁷ Katz AM & Fox K. Community Matters: Authentic Voices in Infant Mortality. A report to the Joint Center for Political and Economic Studies.

Two intertwined themes emerged in the ethnography—women attested to their experience of stress, and they underscored the importance of “walking with women” through their experiences of childbearing and rearing. Among the thoughts and feelings shared by these women are the following:

- “Well I’m sure that it has a great deal to do with your health. You know I practice mind-body-spirit and I think all of them are interrelated. And so that if you are dealing with a lot of stress, then ultimately it is going to have some physical effect. And so yes, keeping your stress level at a minimum during your pregnancy, yes it will have an effect, a positive effect on your child.”
- [We face] the added stress of family life of, you know, finances, where our counterpart European or White [women] may not have to worry. I’m not saying they don’t have those issues, but [it’s like] where we feel more—like where’s the money coming from for more diapers or formula? Where will we get the space, you know, if you already have two kids and you only got a one bedroom [apartment]? They have that extra added money. I mean for us, if the mother has to take off [from work], that’s three months of income lost. And [on the other hand] if we have to go back after just six weeks, that’s also added stress in the family.”
- “I’m a people person so going to a uh, regular doctor where I don’t feel connected to the person that’s treating me wouldn’t work. And I think that’s what got me, got me here [Birth Center] and what’s kept me here. You know, I feel like they really, they really care about you; they’re really concerned about you, and that they’re *connected* to your care until you’re having a good outcome.”

Katz and Fox poignantly observe: “The inconvenient truth at the heart of the vital moral praxis we find in this setting where ‘women walk with women’ is that love matters.” We would argue that in their experience of the Birth Center, women of color realized social justice and participatory democracy.

To promote participatory democracy, gender and economic equity, and the realization of our greatest national potential as well as healthy pregnancy outcomes the Joint Center for Political and Economic Studies recommends the following policies and practices.

Relationality: Implications for Health Care, Research, and Public Policy

“Justice is the social form of love.”
~Bishop Sergio Carranza¹⁴⁸

“Said the prophet Amos ‘Let justice’—not charity—‘roll down like mighty waters,’ and for good reason: whereas charity alleviates the effects of poverty, justice seeks to eliminate the causes of it. Charity is a matter of personal attribute; justice is a matter of public policy.”

¹⁴⁸ Bishop Sergio Carranza. Homily rendered at the 110th Annual Meeting of the Episcopal Church in the Diocese of Los Angeles. December 3, 2005.

If relationships are constitutive of what it means to be human; and,
If racism, sexism, social class ostracism and the like represent tears in the fabric of relationship that are associated with if not causally related to maternal and infant mortality and morbidity; and,
If the healthy and generative mother-infant dyad is a model of the essence and practice of relationality; then,
Efforts to reduce maternal and infant mortality and morbidity must focus on the repair and support of interpersonal relationships at all levels (domestic to communal to national and international) characterized by mutual participation and reciprocity. Such efforts would be furthered by the following policy guidelines and key definitions, and policies as examples:*

Policy Guidelines and Key Definitions

Care—Definition, Locus, and Content:

In the context of relationality we define care as the consenting commitment of subjects to one another.¹⁵⁰ Care connotes a subject-to-subject dynamic of reciprocating regard, support, and challenge.

The locus of care so defined is the community rather than the clinic. We might justifiably make this claim for at least two reasons. First, there is a presumption that the care provider has authority over the care recipient in clinical settings. Moreover, the primary “virtues” of clinical care are objectivity, predictability, and control. Numbers are the primary language of care in the clinic. Second, and in contrast, authority roles shift fluidly in the service of relationships and relational tasks in community settings. Intersubjectivity, creativity, and servanthood are the primary virtues of community. In community words are the primary language of care.

The content of care includes touch, literally and figuratively. For examples, subjects hold hands with or feel compassion for each other. Before (or superceding) words, the newborn and preverbal child bathes in a sensorial and emotional world from whence she receives and reflects love. “Kangaroo care,” an endearing phrase adopted to describe skin-to-skin contact between infants and their parents, favorably effects infants’ temperature control (thermal synchrony), respiratory effort, heart rate, suckling, and

¹⁴⁹ Coffin WS *The Heart is a Little to the Left: Essays on Public Morality* (Hanover, New Hampshire: University Press of New England, 1999, page 16).

* Several of the following policy and/or practice recommendations are excerpted, in whole or part, from a document titled “Plan of Action for Promoting Women’s Equal Participation in Economic Development in Indochina.” The document is dated January 24, 1996. The authors were participants in the Indochina Seminar on Promoting Women’s Participation in Economic Development.

¹⁵⁰ Paraphrasing McKnight J, *The Careless society: Community and its Counterfeits*. New York: BasicBooks, 1995, page x.

overall adaptation to life outside the womb.¹⁵¹ Breastfeeding, beyond its nutritional benefits and putative effects on survival, is an intimate experience of touch and an infant's primer in relationality.

The content of care includes, as well, listening to the voices of parents, most especially mothers. That is, women must feel authorized and have affirmed their authority to speak for themselves. In caring communities they are not "given" authority to speak by listeners. Rather, listeners surrender to listening. The role of listening in relationships is poignantly articulated by Julian Jaynes who writes:

Consider what it is to listen and understand someone speaking to us. In a certain sense we have to become the other person; or rather, we let him become part of us for a brief second. We suspend our own identities, after which we come back to ourselves and accept or reject what he has said. But that brief second of dawdling identity is the nature of understanding language; and if language is a command, the identification of understanding becomes the obedience. To hear is actually a kind of obedience.¹⁵²

Perhaps it is better to argue that the kind of care we envision should be "patient inclusive" rather than "patient centered." The latter term has two potential drawbacks. First, to be at the center invites the potential of being objectified. Second, in some circles, the term "patient centered" care has come to mean that the patient should be given a wider menu of care modalities from which to choose and for which to advocate. This is good as far as it goes. However, few programs of patient centered care enjoin patients to co-create a menu of potential choices or to define the forum for advocacy. In essence, the patient is brought to the center of the health care professional's agenda.

Research—Definition, Focus, and Content:

Research in the context of relationality may be described as critical self-reflection for the transformation of consciousness with a penultimate goal of deeper knowledge and love of the other (the subject). As a corollary, the motive force of research is to probe rather than to prove.

If the primary virtues of community are intersubjectivity, creativity, and reciprocity, as we suggest, then the research focus must be on those virtues especially. And words, not numbers, must be the language of research. This is not to argue against numbers in research. Rather it is to give stories primacy over statistics as contrasted with conventional research wherein stories are ancillary to and/or explanations of statistics.

The content, then, of research is narrative and emotion, at least. Contrary to conventional wisdom, Gergen asserts with considerable evidence, "Narratives of the self are not

¹⁵¹ Field TM, editor, *Touch in Early Development*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers, 1995.

¹⁵² Jaynes J, *The Origins of Consciousness in the Breakdown of the Bicameral Mind*. Boston: Houghton Mifflin, 1976, page 97.

personal impulses made social, but social processes realized on the site of the personal.”¹⁵³ It is imperative to ask: What are the socially constructed narratives are taken up and lived out by women generally, and women of color particularly? In other words, it is not enough to ask what women say about themselves.

Similarly, Gergen argues, “emotions can be viewed as constitutive features not of individuals but of relationships.”¹⁵⁴ This is an especially salient concern in light of research bearing on the role of perceived stress in sub-optimal pregnancy outcomes. The research gaze is Janis-faced. At once we face toward the woman’s perception of the emotional field and toward the social construction of that field.

Arguably, the story of Althea and Patricia, presented above, serves as “data” in support of Gergen’s hypotheses. That is, clinician’s developed a narrative of Althea’s life that included her identity as an African American adolescent, single mother-to-be, with a heritable blood disorder known in medical annals to be particularly problematic, even life-threatening in pregnancy. This is the narrative of defeat and impending death that the patient took up as her own and began to live and die into. Moreover, the clinicians co-created an emotional climate of despair as a constituent of their narrative. Patricia provided Althea with an alternative narrative of redemption, hope, and life.

This relationally focused research strategy has implications for the development of “communities of recovery” and “communities of resistance” as described by bell hooks. Specifically, communities of recovery support women in adopting healthful attitudes, beliefs, and behaviors to recover from illnesses. Communities of resistance support women in transforming the social order that made them sick to begin with.

Public Policy—Focus and Content:

There are two levels on which public policy can foster the redevelopment of community—the specific and the general. Specifically, for examples, public policy can be invoked to support the models of care and research described above. Proportionately greater public investment, (read, budget allocations) can be made for services located in communities rather than health care centers. Likewise, proportionately greater funding can be allocated to the qualitative study of the dynamics of relationality.

Generally, architects of policy can craft guidelines that prevent the further erosion of community. In his book, *The Careless Society*, John McKnight renders a scathing indictment against the professionalization and commodification of care that we experience in contemporary culture. Our “human service” agencies, McKnight argues, effectively disable individuals and disintegrate communities. Paraphrasing McKnight again, we can imagine policies that require existing human service agencies, if not all government agencies, to develop “relational impact statements” comparable to the

¹⁵³ Gergen KJ, *Realities and Relationships: Soundings in Social Construction*. Cambridge, Massachusetts: Harvard University Press, 1994, page 210.

¹⁵⁴ *Ibid.* page 210.

economic and environmental impact statements already in use. Among the questions to ask in the development of any policy are the following.

- Where and how have communities and individuals maintained effective control over the economics and technology for care and well-being?
- Does the public investment increase the income or economic opportunities for persons of low income, and/or persons of color?
- Does the public investment support the local community and its organizations and associations in doing the basic work that needs to be done?
- Do the policies of “human service agencies” require ongoing assessments of the extent to which policies support or subvert interdependence (not independence) of their clients?¹⁵⁵

Whatever the focus, it ought to be immediately evident that he or she who crafts policy experiences those affected as subjects for whom they care.

Care

1. Where possible and practical develop and support community birthing centers to complement hospital-based births for the majority of childbearing women. Assure that the birthing mother and her midwives make decisions regarding care primarily. Ascertain that such centers are adequately remunerated for their services and that they are afforded protection in their relationship with conventional medical care centers.
2. Foster and fund a culture of routine home visiting in pre-, peri-, and post-natal care—by lay and professional care providers. Define content of and initiate strategies for inter-conceptual care, especially for women who have experienced premature births and/or suffered the death of an infant.
3. Enhance efforts to promote breastfeeding, including strategies to educate and recruit parents, family, and friends as advocates for “Baby-Friendly Hospitals.” Establish policies and “nurturing zones” in the public domain, including the work place, to encourage and allow breastfeeding.
4. Encourage houses of worship from different faith traditions to “adopt a family” to provide material and social support, and spiritual direction, for childbearing women. Foster a culture of “sister circles” (women support groups) in the context of worshipping communities.
5. Proactively determine the needs of fathers and engage them in the support of their partners throughout pregnancy, labor & delivery, and the immediate post-partum period.
6. Promote the ongoing development of communication skills and reduce illiteracy rates for mothers and fathers.
7. Redouble efforts to educate the community about the “back-to-sleep” initiative to reduce risk of the Sudden Infant Death Syndrome.

¹⁵⁵ McKnight, pages 124-149.

8. Provide for universal access to contraceptives, including over-the-counter availability of emergency contraceptives, to reduce the incidence of unwanted pregnancies.

Research

1. Advocate for funding of community based participatory research wherein community members are engaged as respected partners in dialogue and as teachers. Give advantage to investigators and institutions with allegiance to the community beyond research initiatives.
2. Strengthen analyses carried out by local Fetal and Infant Mortality Review Boards by a) including the lived experience of parents, and b) funding research that examines the psychobiological/social correlates of perinatal deaths.
3. Expand funding for research on the psychobiology of relationality and assure the participation of social scientists including ethnographers. Focus especially on depression, anxiety, post-traumatic stress and other dysphoric emotions as potential determinants of suboptimal pregnancy outcomes.
4. Initiate and/or expand research on the emotional experiences and expressions of fathers throughout pregnancy, labor and delivery. Determine the impact of father's presence and absence as support for their childbearing partners.
5. Institute periodic quality assurance oversight of research efforts to assure compliance with requirements for including the voices of "study subjects."

Public Policy—Specific

1. Encourage the medical community (especially the American College of Obstetrics and Gynecology and the American Academy of Pediatrics) to further refine and extensively publish policy recommendations for engaging fathers in the care of their partners and children.
2. Provide tax credits for midwife or physician certified breastfeeding policies and practices in institutions, and for families initiating and sustaining breastfeeding.
3. Guard against and eliminate discriminatory practices by employers manifest as the denial of employment or dismissal because of pregnancy or breastfeeding. Establish employer mandates to accommodate breastfeeding in the work place.
4. Eliminate tax and welfare policies that serve as disincentives to fathers' participation in the lives of their children; assure that child support payments are made to children and not municipal treasuries.
5. Expand eligibility for and funding of Medicaid enrollment for fathers as well as women and children.

Public Policy—General

1. Develop skill training courses and establish skill training centers for women selected on the basis of interest, healthy and generative relational attributes, and healthy pregnancy outcomes despite risk. The training courses and centers' focus should be on *doula* support, birthing and lactation midwifery.

2. Develop skill training that encourages and actively supports opportunities for advancing in the health care field, from lay midwifery to nurse midwifery for example.
3. Conduct focus group studies to ascertain the vocational interests, aspirations, and assets of women in communities of color.
4. On the basis of focus-group findings, develop and support micro, small and medium scale economic enterprises. The support of such enterprises should include the establishment of loan pools and other innovative lending practices for women entrepreneurs, preferential tax incentives and holidays, and participation of women clients in the decision making of credit and financing institutions.
5. Increase the participation of women, including women entrepreneurs, in advisory boards and other forum to enable women from all sectors and their organizations to contribute to the formulation and review of policies and programs being developed by economic and banking institutions.
6. Provide business services, including marketing and trade information, product design and innovation, technology transfer, quality control and protection of intellectual rights to women enterprises.
7. Provide networking arrangements for women entrepreneurs, including the opportunity for mentoring inexperienced women by more experienced women.
8. Establish international and cross-cultural exchange initiatives to promote innovative practices and expand market opportunities. Such exchange initiatives might include the development of “sister city” pairings between women in underdeveloped communities of different nations.
9. Increase the minimum wage.
10. Ratify the UN Convention on the Rights of Children.
11. Address concerns regarding “environmental racism” and seek legal redress for communities disproportionately exposed to toxic wastes.
12. Fund universal, high quality pre-school education in all states; and, expand funding for Early Head Start and Head Start.

Media Policy

1. Identify and publish extensively successful initiatives such as the reduction in adolescent pregnancy rates.
2. Engage and inspire Hollywood writers and producers to write about and televise Commission initiatives
3. Initiate dialogue with talk show hosts such as Oprah, Dr. Phil, and McNeil-Lehrer.

Undoubtedly, the reader is aware that each of the foregoing policy and practice recommendations explicitly values and defines the role of women in providing care, developing relationships and economic opportunities. This is not to suggest that men are relieved of either authority or responsibility to dismantle racism, sexism, and class oppression. Rather, it is to underscore the imperative of women’s mutual participation as

manifestation and evidence of healing relationships through which we will realize healthy pregnancy outcomes and child survival.

“When a child dies, the loss is not only devastating to the parents, who will never fill the void now present in their lives, but to the larger community as well. With the death of a child, that community’s future is wounded, a dimension of its hope for tomorrow is lost forever. Parents will never again hold their daughter’s hand, their son will never gaze into their eyes and ask them the questions that all children ask. The beauty of that child’s face will now only be preserved in the parent’s and community’s memories, close to the heart, perhaps, but never as intimate as when we gaze at each other face-to-face. No wonder that the only response among the living is to weep and wail”

~David H Jensen¹⁵⁶

A social justice response to the tragedy of infant mortality moves the living beyond weeping and wailing.

¹⁵⁶ Jensen DH, *Graced Vulnerability: A Theology of Childhood* (Cleveland: The Pilgrim Press, 2005), page 23.