Editorials

Preventing Infant Mortality And Maternal Morbidity

JABFP has published two articles this year that represent main areas of focus for family practice research in maternity care: interspecialty differences in maternity care, and access to maternity care in rural areas. Deutchman, Stills, and Conner[1] demonstrate an association between family physician-managed pregnancies and a decrease in assisted and operative deliveries compared with those pregnancies managed by obstetricians. Larimore and Davis[2] are able to quantitate the effects on infant mortality of the lack of providers of maternity care in rural Florida. Although neither of these studies represents new or unique areas of research, they both contribute substantially to the literature in each of these areas. The common message is that family physicians have a major role to play in improving maternal and infant outcomes.

The study by Deutchman and colleagues suggests that the morbidity associated with Cesarean section and assisted delivery can be reduced through the labor management style of family physicians. This study improves on previous research, as it is one of the first in which family physicians provided total patient care, including Cesarean section, for a majority of the patients, making the comparison between obstetrician and family physician management styles more valid. Likewise, the conclusions of this study go beyond previous work, such as that of Mengel and Phillips[3] and Franks and Eisinger,[4] in that they indicate that family-physician-provided maternity care does not increase the risk for adverse outcomes; in fact, it could be a benefit.

The Deutchman, et al. study clearly has its limitations. Most notably, this study, as well as all nonrandomized studies on interspecialty differences comparing family physicians and obstetricians, can be criticized because of the potential for higher risk patients to select obstetricians for their maternity care. Risk-scoring instruments, such as the one used in this study, are imperfect and can fail to correct completely for this potential bias. Nevertheless, it is important to note that recent work by Dobie, et al.[5] has shown that patients who select family physicians are not necessarily at lower risk.

Despite these limitations, the findings of Deutchman, et al. appear to indicate that family physicians provide high-quality obstetric care while decreasing the morbidity associated with interventions into the delivery process. Accordingly, Deutchman, et al. conclude that training and privileging should be aimed toward more autonomy for family physicians, including performing their own Cesarean sections. The reality, however, is that only 5.1 percent of family physicians in the United States has full privileges for Cesarean sections and that most of those physicians practice in rural areas.[6] Few residency programs are capable of adequately training family physicians to provide their own Cesarean sections. Furthermore, with only 24 obstetric fellowships available to family physicians in the United States, the majority of family physicians both now and in the foreseeable future will be dependent on obstetricians to perform Cesarean sections when they are needed. Despite this reality, family physicians can still have a tremendous impact on the percentage of their patients who give birth by Cesarean section. A growing body of randomized controlled trials is providing information that can guide the family physician's labor management to minimize the percentage of Cesarean births.

The most common reason for primary Cesarean section in the United States is dystocia.[7] Many repeat Cesarean sections are done on women who had a primary Cesarean section for dystocia[7]; therefore, the greatest impact can be made by family physicians assuring that labor proceeds normally.

The following three guidelines of labor management have an impact on assuring that unnecessary interventions do not occur:

Submitted 3 August 1995.

From the Department of Family Practice, University of California, Davis. Address reprint requests to Thomas S. Nesbitt, MD, MPH, the Department of Family Practice, University of California, Davis, 2221 Stockton Boulevard, Sacramento, CA 95817.

1. The family physician must accurately diagnose labor in the primigravida and, in particular, avoid interventions during the latent phase. Gifford[8] reported that in one study 78 percent of Cesarean sections done during the latent phase were performed on patients who failed to meet criteria for prolonged latent phase.
2. It is increasingly important to avoid epidural anesthesia and to allow freedom of movement for laboring patients. Randomized controlled trials have well documented that epidural anesthesia increases the need for assisted and Cesarean births.[9] Position change clearly has an impact on improving the quality of labor and comfort during labor.[10]
3. A growing body of data suggests that labor support could be one of the most critical elements in preventing Cesarean sections and prolonged labor.[11] Studies of labor in which support is given by companions who have an intimate understanding of the process and pains of labor show a marked reduction in the need for analgesia, a shortening of labor, and fewer Cesarean sections. The father can still have an accompanying role; however, in the progression of labor the father of the baby is less important than a woman with previous experience in this area. Accordingly, family physicians need to incorporate appropriate counseling regarding labor support into their prenatal education process.

Most family physicians practice in settings where obstetricians provide backup for labor complications, particularly those requiring a Cesarean section. It is therefore unrealistic to expect an autonomous practice for most family physicians in the near future. Clear guidelines and protocols with obstetric consultants should, in fact, be established in advance. These protocols and guidelines make it clear to the physicians, as well as to the nursing staff and the quality-improvement committees, when the obstetrician needs to be involved in the care and, more importantly, when the obstetrician need not be involved. The key, however, is to base these protocols and guidelines on scientific evidence rather than on tradition. The Cochrane Pregnancy and Childbirth Database[12] is an ideal resource for the development of such protocols.

The importance of family physicians providing maternity care goes beyond the issue of preventing morbidity; it also has implications for lowering infant mortality, as addressed by Larimore and Davis.[2] Although a number of assumptions were made to arrive at their conclusions, their approach is consistent with other work that indicates an adverse impact on outcomes when providers of maternity care are not locally available to rural woman.[13,14] In particular, their study supports the work of Allen and Kamradt[14] in that it attempts to quantitate the infant mortality attributable to the loss of maternity care providers, allowing for a more concrete answer to the question often asked by residents: "How important is it for me to do obstetrics?"

As evidence mounts that local access to maternity care is necessary in rural communities, it is critical that family medicine assures adequate training and encouragement for graduating residents to locate in these communities, and it is incumbent upon researchers to define further the necessary elements of care to optimize outcomes in these communities. The study by Larimore and Davis suggests that local access to providers of maternity care is important in reducing infant mortality. It is not clear, however, which elements of maternity care are most important. Is local access to prenatal care enough, or do women need local access to labor and delivery services as well? Also unclear are the level of and scope of services for prenatal and intrapartum care that are needed locally, compared with those that can be provided through a coordinated, regionalized system of care. Finally, the further penetration of managed care into rural communities results in a breakdown of traditional referral patterns, potentially jeopardizing the existing regionalization of perinatal services. Family physician researchers must help find new models of regionalization that take into account the realities of the changing health care system.

The maternity care studies by Deutchman, et al. and Larimore and Davis show that family physicians are playing a major role in research on access and quality of maternity care. As the percentage of family physicians providing maternity care continues to rise (after hitting a low in 1992[6]), it is critical that family physicians define maternity care for themselves based on the evidence derived from high-quality research. As

family physicians undertake this research, they must also be willing to evaluate critically the practices of certified nurse midwives, who might have an even lower rate of intervention in maternity care while they maintain equally high quality.[15] Finally, because today's medical environment, despite its shortcomings, has a greater emphasis on cost-effective care, family physicians might have their greatest opportunity to promote the low-intervention style of maternity care they have so long advocated. Arming themselves with this kind of research will be essential in this effort.

Thomas S. Nesbitt, MD, MPH
University of California, Davis
Sacramento, CA

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Recruitment And Retention Of Rural Physicians: How Much Progress Have We Made?

With 25 percent of the US population residing in rural areas, but only 12 percent of physicians practicing there,[1] rural areas could be considered the largest medically underserved population in the country. Even with the dramatic overproduction of physicians nationally during the past two decades, relatively few have "trickled down" into rural areas. In fact, the population-to-physician ratio is five times greater in the most rural counties in the United States than in the most urban counties. One in 17 rural counties does not have any practicing physician, and those family physicians and general practitioners who are currently in rural areas are older than those practicing in metropolitan areas. Although all rural areas are by no means underserved, most of the primary care Health Manpower Shortage Areas are in nonmetropolitan areas; and rural areas when compared with urban areas have a higher percentage of poverty, a larger percentage of the elderly, a greater number of patients with chronic medical conditions, a higher infant mortality rate, and a greater proportion of the population covered by Medicare and Medicaid and without health insurance.

This shortage of physicians in rural areas is by no means a new phenomenon; rural areas have

Submitted 31 July 1995.

From the Department of Family Medicine, Jefferson Medical College, Philadelphia. Address reprint requests to Howard Rabinowitz, MD, Department of Family Medicine, Jefferson Medical College, 1015 Walnut Street, Suite 401, Philadelphia, PA 19107.