Do similar percentages of abnormal smears with and without the Cytobrush™ mean that the Cytobrush™ is no better than a wooden spatula? Not necessarily. In reading this study, we must ask whether the outcome chosen — the proportion of abnormal smears — is the decisive one. Certainly ease of reading smears (implied by the cytotechnologists' impressions that more cells were available) is an important positive outcome, as might be confidence that the smears are valid, satisfaction of the physician, acceptance by patients (in minimizing second visits because of an inadequate smear the first time), and others.

The selection of outcomes is not value-free. The factors that we (and patients) choose for study are selected because we value them, but our values differ. Mainstream medical research has placed most of its emphasis on biologic outcomes measured in carefully controlled settings. Our curiosity should not end with publication of a "definitive" randomized controlled trial focusing on biologic outcomes.

The Cytobrush™ study takes us a step forward in providing a biologic outcome measured in a more realistic setting. Yet ahead in this and other areas of clinical research should be an even broader range of outcomes examined in actual practice.

Alfred O. Berg, M.D., M.P.H.
Seattle, WA

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Family Physicians Performing Obstetrics: Is Malpractice Liability The Only Obstacle?

The medical malpractice liability problem is one of the most complicated issues facing health policy makers in the 1990s. Its solution is inextricably linked with improvements in health care access and the cost of medical care. The problem is not difficult to describe. Between 1982 and 1985 obstetrician-gynecologists saw their malpractice insurance premiums more than double compared with an 81 percent increase for all physicians. Premiums in 1986 were increased by 46.5 percent from their levels in 1984. In 1987 premiums rose another 21 percent![1]

Family physicians represent two-thirds of all obstetric providers in rural areas.[1] Premium increases have been far greater for family physicians than for obstetrician-gynecologists. Family physicians performing obstetrics are paying premiums two to three times higher than their colleagues who do not perform obstetrics. While professional liability insurance premiums for family physicians are much lower per physician than for obstetrician-gynecologists, the latter experience considerably lower malpractice costs per delivery, because the average obstetrician-gynecologist performs four to five times more deliveries each year than the average family physician who provides obstetrical care.[1] In rural areas, where fees for services tend to be lower and care is largely provided by family physicians, this premium discrepancy becomes even more important. Rural areas have a higher proportion of uninsured deliveries. In a 1987 survey the Oregon Medical Association found that 34 percent of family physician-attended deliveries were covered by only partial or no payment because of patients' inability to pay.

Malpractice and Obstetric Care in Rural America: Defining the Problem

Loss of Obstetric Providers in Rural Areas

It has been estimated that currently only 29 percent of family physicians practice obstetrics, a 25 percent decline in rural family practice participation in obstetric care since 1980.[2] Twenty percent of rural providers discontinued obstetric care in the last 5 years alone![3] A 1990 survey

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From the Department of Family Medicine, Oregon Health Sciences University, Portland. Address requests for reprints to Eric M. Wall, M.D., M.P.H., Department of Family Medicine, Oregon Health Sciences University, 3181 SW Sam Jackson Park Road, Portland, OR 97201.

of 524 physicians in Western Frontier areas[3] (Region VIII, US Public Health Service) indicated that 63 percent were family physicians, 70 percent of whom were providing obstetric care. More than one-third of the family physician obstetric care providers stated that they planned to stop delivering babies within the next year. Ninety-two percent cited malpractice liability as a major factor in the decision to stop.

As noted above, two-thirds of obstetric providers in rural areas are family and general practitioners.[1] In counties with populations of fewer than 10,000, less than 1 percent of physicians are obstetricians.[4] Only 15 percent of rural family physicians care for high-risk obstetric patients, and only about 12 percent perform Cesarean sections.[3] Many obstetrician-gynecologists, however, have also stopped providing obstetric care or have limited their practice to low-risk patients.[5] The net effect has been a decrease in the absolute numbers of obstetric providers; a disproportionately greater decline in the numbers of family physicians performing obstetrics, which has especially affected rural areas of the United States; and a severely limited referral network for those rural family physicians providing obstetric care.

Impact of Provider Losses on Access to Obstetric Care in Rural Areas

The lack of access to obstetric care in rural areas is partly a result of a steady decline in health care providers of all types locating in rural areas. The physician-to-population ratios in rural areas is less than one-third the national average.[6] In 1987 the American Medical Association found that 126 counties in 25 states were without any practicing physicians.[1] In 66 percent of Oregon counties, less than one-half of the prenatal services provided were within the client's county of residence.[6] Women in rural areas of Oregon seeking prenatal care must travel considerable distances to get that care. In nine of 33 counties in Oregon, there are no practicing obstetrician-gyecologists. In another five, there is only 1 obstetrician-gynecologist. A recent study has demonstrated that increased travel time to an obstetric provider is a predictor of inadequate prenatal care.[7] Nesbitt, et al.[8] reported that patients residing in communities with poor access to local obstetric care had more premature and complicated births and higher hospital charges.

Relation between Malpractice Issues and Physician Participation in Obstetric Care

All available data suggest a relation among rising malpractice costs, declining provider participation, and reduced access to obstetric care. Gordon, et al.[9] noted that 26 percent of all obstetric providers in rural Arizona had discontinued providing obstetric services, citing liability issues as the reason. In a recent survey, 42 percent of family physicians said they had been sued, and 75 percent said the malpractice situation had affected the way they practice medicine.[10] In this issue of *JABFP*, Greer, et al.[11] have reported that excessive malpractice insurance premiums and fear of malpractice suits are the most reported reasons for quitting obstetric practice in a 1989 survey of Washington State family physicians and obstetricians. The impact of recruiting experienced physicians back into obstetric practice is not addressed, but one supposes that the effect would be considerable.

Declining provider participation in obstetric care is only partly attributable to malpractice-related issues. Others issues, noted by Greer, et al., are the availability of obstetric backup and referral for high-risk patients, professional isolation, and lifestyle issues largely connected to the physicians' inability to share work and call coverage with other colleagues. These other factors could help to explain the findings of Nesbitt, et al.,[12] also reported in this issue of the *Journal*. When family physicians who discontinued their obstetric practice because of high premium costs were resurveyed a year later (when premiums were reduced by 25 percent), none indicated plans to restart such practice. Obstetric practice in rural areas is difficult work undertaken by a committed few. One suspects that once physicians who had quit their obstetric practice found an economically survivable and less stressful lifestyle, no financial incentive alone could induce them to resume such practice.

The influence of lifestyle factors is often overlooked as a potent determinant in specialty selection as well as in the decision to discontinue obstetric practice. Schwartz, et al.[13,14] coined the

term *controllable lifestyle specialties* to describe those specialties permitting time for family activities and recreational pursuits. In two surveys of graduates of the University of Kentucky College of Medicine, these authors found that primary care disciplines (family practice, internal medicine, pediatrics, obstetrics-gynecology) were identified as noncontrollable lifestyle specialties. They suggested that reduced numbers of residency applicants in these disciplines can in part be explained by this perception. Two important papers by Kruse, et al.[15,16] also emphasized the importance of lifestyle issues in the decision to discontinue obstetric practice. If these issues have an impact on practice behaviors in any way, we can no longer hold malpractice issues alone to be responsible for the obstetric care crisis.

Solutions to the Obstetric Care Crisis: What Has Been Attempted?

Changing Reimbursement for Medicaid-Eligible Obstetric Patients

A number of states have increased their Medicaid fees to attempt to approximate more reasonably the community charge. Inadequate reimbursement, however, continues to be a major issue for physician nonparticipation in providing services to low-income populations. There has also been a trend toward changing fee structures. Global billing (reimbursing providers a flat fee for total obstetric care) has been discontinued in two states (Louisiana and South Carolina) in favor of fee-for-service billing. Fee-for-service billing has appeal for physicians, especially if the patient is referred to another physician for high-risk obstetric care late in pregnancy. Differential fee schedules are a third way states have attempted to increase reimbursement. Some pay higher rates for the first visit, reflecting the higher cost involved at the time of the initial prenatal visit. Others have adopted differential rates based on the risk status of the patient.

Tort and Other State-Initiated Reforms to Limit the Effect of Malpractice Costs

Two major reasons for physicians discontinuing the practice of obstetrics are liability premium rates and fear of lawsuits.[17] Lowered premium rates can conceivably be achieved through lowering the insurer's expenditures on claims, which, in turn, could result from tort legislation limiting dollar amounts in suits, allowing payments of awards over time, and decreasing exposure periods. Such legislation has been enacted in a variety of states. In Washington State, tort reform might have helped to slow the rate at which providers were quitting obstetrics.[18] It did not have a significant effect on rising liability premiums.[19] The influence of tort reform on physicians' decisions to continue their obstetric practices in other states has not been studied.

In 1987 Missouri set up a legal expense fund to protect physicians contracted by public agencies to provide obstetric or pediatric care to low-income and Medicaid patients.[20] Two states, Virginia and Florida, have adopted no-fault liability coverage for newborn birth-related neurological injuries.[21] The Virginia statute requires participating physicians to agree to participate in a program providing obstetric care to Medicaid-eligible and indigent patients.

Hawaii and North Carolina have established funds to subsidize the liability premiums of rural obstetricians who work in underserved areas.[21,22] Several states have utilized pretrial panels to encourage claims settlements and identify frivolous suits.[21] Eleven states have enabled litigants to enter into binding arbitration as an alternative to a jury trial. In 1988 Virginia's legislature considered but did not pass a bill allowing health professionals a $5000 income tax deduction for providing prenatal care to indigent patients.[23]

Risk Management Strategies

There is considerable evidence to document that the number of successful malpractice claims is related to the quality of care practiced. In a frequently cited study of 220 closed obstetric claims cases, identified obstetric risk factors, 66 percent of which occurred during labor and delivery, were judged to be correctly managed only 32 percent of the time by an expert panel of obstetric providers.[24]

Two innovative approaches to obstetric risk management have been recently reported. In the Intermountain Health Care (IHC) Rural Obstetrical Services Program,[25] prenatal patients become registered outpatients of their rural hospital. The hospital contracts with local physicians to provide obstetric care. Contracted physicians are indemnified for risks associated

with providing obstetric care services and receive a prenegotiated fee for services provided. High-risk patients are transferred to a tertiary care center within the IHC system. In turn, participating physicians are expected to follow a stringent set of clinical guidelines or protocols under which consultation or patient transfer is mandated. These guidelines also dictate specific management strategies for routine and complicated prenatal patients. In 2.5 years of operation, no potentially compensable events have been reported.

A second risk management program involves more than 100 California family physicians performing obstetric care who are enrolled with a single statewide professional liability carrier. Participating physicians have their liability premiums reduced by approximately 13 percent for participating in a program designed to improve quality of obstetric care. Physicians agree to limit their obstetric practice to low- and medium-risk patients and to refer or consult with designated perinatologists for specifically designated patient problems. They are expected to attend an annual half-day educational conference on obstetric risk management and standards of perinatal care. In addition, participating physicians submit every fourth completed standardized obstetric record for peer review.[26]

Program Initiatives to Increase the Numbers of Obstetric Providers in Rural Areas

Many states have attempted to increase the number of obstetric providers in rural areas by using alternative providers, especially certified midwives (CNMs) and nurse practitioners in maternity care programs. Active physician recruitment programs have begun in most states with large rural populations. Oregon offers a tax credit to physicians practicing in rural areas.

Family Physicians and Obstetric Care: Overcoming the Obstacles

The steady decline in the number of rural obstetric providers, primarily family physicians, has resulted in a critical reduction in access to obstetric care. This decrease in providers has disproportionately affected rural areas because of longstanding health manpower shortage problems that previously existed in these areas. The rising cost of liability insurance and the fear of lawsuits by those providing low- and especially high-risk obstetric care could well be the precipitating cause. Inadequate reimbursement, lack of professional support, and lifestyle issues are also contributing factors that, as Nesbitt, et al. have shown, can no longer be ignored.

Family physicians are the most numerous health care providers in many areas of the country and must be encouraged to continue or resume their practice of obstetrics if access to maternity care is to be preserved and improved. The reports by Greer, et al. and Nesbitt, et al. have suggested that no single or simple strategy is likely to be successful. Reducing liability premiums, providing call-sharing arrangements that allow physicians to have time for themselves and their families, providing regionalized perinatal care systems as backup for high-risk obstetric care — all must be employed to preserve the role of the family physician as maternity care provider. In addition, credible role models for training family-centered obstetric care to medical students and family practice residents are sorely needed. Finally, reducing the professional isolation of rural family physicians must occur perhaps by linking them with innovative quality-improvement programs that are professionally rewarding and that reinforce the critical role these physicians have in maintaining the health of their communities.

Eric M. Wall, M.D., M.P.H.
Portland, OR

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