

Violence, Injury, Drugs, and Maternal Mortality

We applaud Mertz and colleagues' thorough and thoughtful examination of pregnancy-associated deaths in New Jersey.¹ This critical indicator of the public's health too often receives minimal attention. We were very impressed to read that the New Jersey Medical Society participated in the case reviews, because the obstetric malpractice crisis has made many physicians reluctant to examine potential areas of liability.

We take issue with only one point: the exclusion of nonmaternal deaths from the analysis. When we were responsible for maternal mortality surveillance in New York City, we found that, from 1983 through 1984, more than 2% of homicide, suicide, and drug-related deaths of women age 10 through 49 were of women who were pregnant or postpartum. These deaths attributed to assault, suicide, and drugs increased New York City's maternal mortality in 1983 through 1984 by approximately 8%.² The national Maternal Mortality Collaborative reported that at least 13% of reviewed maternal deaths from 1980 through 1984 were associated with injury.³

It is only very recently that the fields of medicine and public health have begun to recognize violence, injury, and drugs as important causes of women's and reproductive ill health. Several authors have reported augmented violence towards women by male partners during pregnancy.^{4,5} We therefore consider it timely to reevaluate this category called "nonmaternal death," so that we can refine our understanding of why pregnant women die and then hone our interventions.

We certainly support the authors' recommendation that obstetricians provide access to family planning services when significant underlying maternal disease is present, and we would expand this to include access to the medical care necessary for treatment of the underlying condition. □

Wendy Chavkin, MD, MPH
Machelle Allen, MD

Wendy Chavkin is with the School of Public Health and Department of Obstetrics/Gynecology, Columbia University, and the Department of Obstetrics/Gynecology, Beth Israel Medical Center, New York, NY. Machelle Allen is with the Department of Obstetrics/Gynecology, School of Medicine, New York University, New York.

Requests for reprints should be sent to Wendy Chavkin, MD, MPH, Center for Pop-

ulation and Family Health, Columbia University, 60 Haven Ave, B-3, New York, NY 10032.

References

1. Mertz KJ, Parker AL, Halpin GJ. Pregnancy-related mortality in New Jersey, 1975 to 1989. *Am J Public Health.* 1992;82:1085-1088.
2. Allen MH, Chavkin W, Marinoff J. Ascertainment of maternal deaths in New York City. *Am J Public Health.* 1991;81:380-382.
3. Rochat RW, Koonin LM, Atrash HK, et al. Maternal mortality in the United States: report from the Maternal Mortality Collaborative. *Obstet Gynecol.* 1988;72:91-97.
4. Helton AS, McFarlane J, Anderson ET. Battered and pregnant: a prevalence study. *Am J Public Health.* 1987;77:1337-1339.
5. Recommendations on spouse abuse. In: Proceedings from the Surgeon General's Workshop on Violence; 1986; Washington, DC; 9:19-21.

The Availability of Disaster Preparation Courses at US Schools of Public Health

At its 1991 annual meeting, the American Public Health Association adopted a policy statement (no. 9116)¹ that I had written that called for health professionals to increase their preparation for disasters. The policy urges schools of public health to train their students to plan for and respond to these emergencies. Florida's 1992 Hurricane Andrew helped us understand the need for such preparedness, as 180 000 people were homeless, water systems were inoperable for a least a week, and over 850 public health nurses were deployed for the 2 months after the storm (personal communication, Paulette Newman, MS, Florida Department of Health and Rehabilitation Services, Emergency Medical Services, February 17, 1993). The infrastructure of the health care system was destroyed when 59 hospitals were damaged, more than 12 000 patients were seen in emergency rooms, and pharmacies were no longer able to provide medications.²

To assess and publicize the availability of public health curricula in disaster preparedness and response, I requested the course catalogues of the 24 US schools of public health accredited at the time of the survey (Spring 1991) and the 19 recognized graduate programs in community health education and preventive medicine. I analyzed the course catalogues of the 23 schools and 18 graduate programs that responded (95%). Courses

were defined as "disaster-related" if the described content could be applied to planning for or responding to medical or health emergencies caused by man, nature, or technology. In catalogues where offerings were not described, course titles that described response to and epidemiology of injuries were included in the findings. Several schools offered a diverse course of study. Although some courses specifically dealt with disaster-related content, many offered information with general application to various kinds of emergencies.

A tabulation showed that divisions of environmental science (n = 11), health policy (n = 8), epidemiology (n = 5), and tropical health (n = 3) in public health schools or programs offered the greatest number of different disaster-related courses. Health education, occupational health, and nutrition and population departments each offered one course. Most courses about emergency preparedness dealt with technological incidents or topics that are naturally thought of as environmental health. Nineteen courses taught specialized and technical information in the management of the environment or hazardous materials. The most common of these were risk analysis and assessment (n = 6), waste and wastewater treatment (n = 3), and environmental health law (n = 3). Fourteen distinct courses considered aspects of the management and policy of technological disasters. Courses in natural disasters encompassed many topics: the delivery of services (i.e., injury control, emergency medical services and systems, health emergencies, trauma and community resources); epidemiology (i.e., control of infectious disease, trauma and injury); and policy (public health aspects of disaster management, quantitative policy analysis, management of health hazards). A course on public health and nuclear war was taught in three programs.

Unfortunately, 23 schools provided no instruction for those interested in disaster preparedness. If a public health professional wishes to prepare for a career in emergency response, the schools of public health that offer the most courses are those at Harvard (n = 7), the University of North Carolina-Chapel Hill (n = 7), Boston University (n = 6), the University of California-Berkeley (n = 5), and The Johns Hopkins University (n = 5). Considering the public health needs that emerged in Florida after Hurricane Andrew, we as a profession should con-