

preventing heterosexual acquisition of HIV in Nairobi prostitutes. *JAMA*. 1992;268:477-482.

3. Zekeng L, Feldblum PJ, Oliver RM, Kaptue L. Barrier contraceptive use and HIV infection among high-risk women in Cameroon. *AIDS*. 1993;7:725-731.
4. *SAS/STAT Software: The PHREG Procedure, Version 6*. Cary, NC: SAS Institute Inc; 1991. SAS Technical Report P-217.
5. Roddy RE, Cordero M, Cordero C, Fortney JA. A dosing study of nonoxynol-9 and genital irritation. *Int J Sex Transm Dis AIDS*. 1993;4:165-170.
6. Weir SS, Feldblum PJ, Zekeng L, Roddy RE. The use of nonoxynol-9 for protection against cervical gonorrhoea. *Am J Public Health*. 1994;84:910-914.

## Smoking and Drug Interactions

Virginia Ernster, in her excellent editorial in the September issue, summarized the increased risk of various health endpoints—such as cancer, heart attack, stroke, and emphysema—faced by smokers.<sup>1</sup> Another endpoint often neglected is that of altered drug response. Tobacco smoke is a potent inducer of hepatic enzymes.<sup>2,3</sup> As a result, the metabolism of several medications is enhanced, which often leads to decreased efficacy. For example, smokers may require from one third to twice the dose of theophylline needed by nonsmokers.<sup>3-5</sup> The response to certain pain medication, such as propoxyphene, is diminished in smokers.<sup>6</sup> And the interaction between smoking and oral contraceptives is a complex and deadly one; women more than 35 years old who smoke more than 15 cigarettes a day are clearly at increased risk of myocardial infarction.<sup>7</sup>

The alteration of drug response in smokers must be added to the overwhelming weight of evidence against smoking. □

Jeff Schein

Mr Schein is a doctoral candidate in Public Health at UMDNJ-Robert Wood Johnson Medical School, Piscataway, NJ.

Request for reprints should be sent to Jeff Schein, 330 Harper Pl, Highland Park, NJ 08904.

## References

1. Ernster VL. Women and smoking. *Am J Public Health*. 1993;83:1202-1204. Editorial.
2. Dawson GW, Vestal RE. Smoking and drug metabolism. *Pharmacol Ther*. 1982;15:207-221.
3. Miller LG. Recent developments in the study of the effects of cigarette smoking on clinical pharmacokinetics and clinical pharmacodynamics. *Clin Pharmacokin*. 1989;17:90-108.
4. Jenne J, Nagasawa H, McHugh R, et al.

Decreased theophylline half-life in cigarette smokers. *Life Sci*. 1975;17:195.

5. Jusko WJ, Schentag JJ, Clark JH, et al. Enhanced biotransformation of theophylline in marijuana and tobacco smokers. *Clin Pharmacol Ther*. 1978;24:406.
6. Boston Collaborative Drug Surveillance Program. Clinical depression of the central nervous system due to diazepam and chlorthalidazine in relation to cigarette smoking and age. *N Engl J Med*. 1973;288:277.
7. Rubenstein E, Federman DD. Cardiovascular medicine. In: *Scientific American Medicine*. New York, NY: Scientific American Inc; 1990: chap 1, p 14.

## Access to Comprehensive Health Services Is Fundamental

I am writing to commend the editors and contributors for an exceptional March 1993 issue of the Journal and to comment on the dearth of primary care physicians graduating from medical training in the United States and the problems of the British Health Service.

Susser<sup>1</sup> points out that, according to health outcome measures in Britain, the lower socioeconomic strata have failed to close the health gap between themselves and higher socioeconomic groups despite full access to care. He attributes this failure to a decline in the power and effectiveness of the public health authorities. I surmise that Susser's point is to warn public health practitioners that upcoming US reforms are likely to fail if they do not also strengthen the role and authority of the public health sector (i.e., health promotion, health education, populationwide disease prevention, system evaluation, and health standards enforcement).

I do subscribe to this view. However, as Susser's first general requirement of health care as a right is access, health care problems in the United States today are more fundamentally the result of a discriminatory health care system. This, coupled with the failure to strengthen the training in and fair distribution of primary care disciplines, suggest that—in the face of uncontrolled cost—more than simple structural change will be needed.

Rosenblatt et al.<sup>2</sup> and Geiger<sup>3</sup> point out that the National Institutes of Health research funding for medical schools totally overwhelms the small amount of funds available for primary care program development. This resource allocation problem has distorted the policy programs of our schools of public health, as well as of our medical schools, because

policy and program development have been driven more by funding than by public need.

Most readers will agree that health outcome measures may not equilibrate without major public health authority and financing. But the problems of the health care system in the United States cannot be fixed by public health advocacy separately since equal access to health services is a more fundamental prerequisite. Providing sufficient primary care practitioners (who ought to be well trained in prevention and public health) to meet this need is required. □

Marc Sapir, MD, MPH

The author is with the Center for Elders' Independence, Oakland, Calif.

Requests for reprints should be sent to Marc Sapir, MD, MPH, 1326 Spruce St, Berkeley, CA 94709.

Note. The views expressed here are solely the author's.

## References

1. Susser M. Health as a human right: an epidemiologist's perspective on the public health. *Am J Public Health*. 1993;83:418-426.
2. Rosenblatt RA, Whitcomb ME, Cullen TJ, Lishner DM, Hart LG. The effects of federal grants on medical schools' production of primary care physicians. *Am J Public Health*. 1993;83:322-328.
3. Geiger HJ. Why don't medical students choose primary care? *Am J Public Health*. 1993;83:315. Editorial.

## Vitamin Supplement Use and Mortality

### 1. Study That Found No Relationship Is Challenged

In concluding that vitamin supplements have no relationship to mortality, Kim et al.<sup>1</sup> overlooked my findings based on the same First National Health and Nutrition Examination Survey (NHANES I) Epidemiologic Follow-up Study (NHEFS) database. My analysis shows that there is a weak relationship in the cohort as a whole and a stronger one in a portion of the cohort. To demonstrate this relationship, I present here results based on a follow-up of the NHEFS cohort through 1987,<sup>3</sup> the same follow-up period used by Kim et al. Of the 11 348 persons in the NHEFS cohort, 474 persons were lost to follow-up after enrollment and a total of 4333 men and 6541 women were followed.

First, note that the corrected Table 1 of Kim et al. (shown here as Table 2 in Kim's response) shows lower age-specific