

Scarborough, Maine. Debra Sepulveda is with the Maine Medical Center, Portland.

Requests for reprints should be sent to James E. Haddow, MD, Foundation for Blood Research, Scarborough, ME 04070-0190.

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Kendrick and Colleagues Respond

Dr Haddow and colleagues provide interesting additional data regarding their smoking cessation intervention program for pregnant women in Maine.¹ Although the reported differences are not statistically significant, it is encouraging to see that improvements in infant birthweight were achieved by using their intervention among economically disadvantaged women.

Unfortunately, issues of how resources are allocated may have profound effects on the availability of smoking cessation programs for low-income pregnant women. From the perspective of a state health department, multiple components of a prenatal smoking cessation program are affected by resource issues. An example is the way in which public prenatal care is delivered, such as who provides clinical care (physician, physician assistant, nurse midwife, or nurse practitioner) or who provides counseling services (physician or other provider). Additional features of the planned intervention, such as the cost of materials (e.g., brochures) and the cost of additional laboratory tests, are relevant as well.

In the process of planning the Smoking Cessation in Pregnancy program for use in public prenatal clinics, resource issues were paramount.² The program was expected to result in very little additional expense to health departments or other public agencies wishing to implement it. The counseling protocols were developed for use by existing clinic personnel, who are usually nurses. The estimated cost per patient for the program materials was less than \$5 in each state.

In contrast to the Smoking Cessation in Pregnancy program, the Maine program requires two counseling sessions with a physician. In many states, public

patients are usually counseled during pregnancy by nurses rather than physicians, because physician time is too expensive. In one Smoking Cessation in Pregnancy program state (Missouri), initial attempts to include some physician counseling in the intervention were not successful because of frequent staff turnover and lack of physician commitment to the program. One may speculate that the presence of physicians adds an additional boost to the Maine intervention that may not be available to many public programs.

In addition, the Maine program requires two measurements of serum cotinine. Although commercial laboratory prices for a cotinine measurement can be as high as \$80, a facility that has its own laboratory can perform cotinine testing at a substantially lower cost. A program that successfully prevents low birthweight might be cost-effective in the long run, but the initial costs may be prohibitive for many public agencies. More widespread use of the technique whereby the pregnant smoker receives feedback concerning her cotinine measurement may be beneficial but will probably be contingent on development of less expensive laboratory tests.

Broader approaches to smoking prevention and cessation that include all women of reproductive age are needed. We challenge the public health community to identify strategies that work for low-income, less-educated women in particular. □

Juliette S. Kendrick, MD
for the Smoking Cessation in
Pregnancy Program Working Group

Requests for reprints should be sent to Juliette S. Kendrick, MD, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mailstop K-23, 4770 Buford Hwy NE, Atlanta, GA 30341-3724.

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1. Haddow JE, Knight GJ, Kloza EM, Palomaki GE, Wald NJ. Cotinine-assisted intervention in pregnancy to reduce smoking and low birthweight delivery. *Br J Obstet Gynaecol.* 1991;98:859-865.
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Back Pain and Risk of Suicide among Finnish Farmers

An unexpected association between back pain and suicidal tendency was

found in a follow-up study of Finnish farmers. The study concerned the relationship between back pain and fatal myocardial infarction¹ and was not designed to test the association between back pain and suicide. The study population consisted of 4199 Finnish male farmers who participated in a postal survey from November 1979 to January 1980. The questionnaire included questions about working conditions and other details of the farm, various symptoms and chronic diseases of the subject, smoking habits, and other life-style indicators. Important details of the variables used in this survey were as follows: back pain and sciatica during the year preceding the interview were inquired about; sciatic pain was asked about only if the subject had self-reported back pain; smoking was handled as a dichotomous variable (yes/no); social status was defined as a three-class variable on the basis of farm size.

Mortality between February 1, 1980, and January 31, 1993, was determined from the register of the Social Insurance Institution of Finland, and cause of death was obtained from death certificates from Statistics Finland. Suicide as a cause of death included code numbers E-950 to E-959 of the *International Classification of Diseases* (1975 revision). Preliminary analyses were conducted by using cross-tabulations. Chi-square tests or Fisher's exact tests in different age groups were used to test for important differences. When only age was controlled for, the Mantel-Haenszel procedure was used to calculate adjusted risk ratios (RR). When age, smoking, and social status were controlled, multiple logistic regression was used (GLIM statistical package).

Twenty-one male subjects committed suicide during the first 10 years of follow-up. Only one of them had not reported back pain in the beginning of follow-up. Cross-tabulations (Table 1) revealed that subjects reporting back pain during the year before baseline had a significantly increased risk of committing suicide during the first 10 years of follow-up when compared with subjects with no symptoms. When adjusted for age (Mantel-Haenszel), the finding remained statistically significant (RR = 9.2; 95% confidence level [CI] = 1.5, 56). Finally, when adjusted for smoking and social status using multiple logistic regression, the relative risk was 9.1 (95% CI = 1.2, 66). During the last 3 years of follow-up, two male farmers committed suicide. Neither of them had reported back pain in the year before baseline.

TABLE 1—Number of Suicides among Male Finnish Farmers (n = 4199), by Age Group, during 10 Years of Follow-Up

Age Group, y	Back Pain		No Back Pain		P ^a
	No. Suicides	No. Subjects	No. Suicides	No. Subjects	
22–30	1	144	0	143	0.32
30–49	12	1340	1	616	0.07
50–66	7	1365	0	570	0.09

^aχ² test or Fisher's exact test.

Although depression is associated with back pain,³ it is possible that a common etiologic factor causes both back pain and depression. As reported previously, back pain also preceded fatal myocardial infarction.¹ According to one hypothesis, infarction and suicide might be competing causes of death.⁴ Because I did not design this study to investigate the association between back pain and suicide, these results need to be considered with caution. More research is needed to determine the validity of the results reported here and to define the clinical character of back trouble, depression, and suicidal tendency. □

Jyrki Penttinen, MD

Requests for reprints should be sent to Jyrki Penttinen, MD, Kuopio Regional Institute of Occupational Health, PO Box 93, FIN-70701 Kuopio, Finland.

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Prevalence, Promotion, and Person: The 3 Ps of Firearm Use

Since last year's election, support has been building in Congress for repeal of the automatic weapons ban enacted in 1994. This is in the face of 37 502 firearm-related deaths in 1992. This should be a clarion call to health professionals to

make their voices heard to prevent this retreat into barbarism from occurring.

Of course the paramount reason for such a stand on our part should be our accepted mission to maintain good health and alleviate suffering of all members of society. The second reason for working to prevent the repeal of the automatic weapons ban is that we are acquainted with certain rules of science that enhance our credibility on such questions. For example, we are generally familiar with the laws of probability and are, therefore, aware that the prevalence of possession of a firearm is a major determinant in the frequency of their use.

I suggest we consider "Prevalence, Promotion, and Person" as the "3 Ps" that explain the problems we face with firearms in our country. "Prevalence" is, of course, the number of weapons owned by the public; "promotion" is the ubiquitous modeling of firearm use in television and movies; and "person" refers to the various social and environmental factors that affect a person's inclination to use such weapons against people.

Thirty five years ago, I heard the eminent late Scottish epidemiologist Donald Reid use the phrase, "Don't let the best be the enemy of the good" as one of the more important underlying principles of public health. The "best" in this instance would be that all individuals who own such weapons would be so responsible as to never harm another human being. The "good" is to consider that moral disengagement is rather prevalent and that the common good is served by the single rational act of limiting availability of these and other weapons.

Is this proposed repeal an example of American individualism run riot in which individual rights supersede the common good? Are we carrying out the public's trust as healers if we remain passive?

I urge us all to let our elected officials know of our views and to advocate the

same action by our professional organizations. □

John W. Farquhar, MD

The author is with the Stanford Center for Research in Disease Prevention and the School of Medicine, Stanford University, Palo Alto, Calif.

Requests for reprints should be sent to John W. Farquhar, MD, Stanford Center for Research in Disease Prevention, 1000 Welch Rd, Palo Alto, CA 94304-1885.

The Origins of Health Standards for Quartz Exposure

The piece by Markowitz and Rosner¹ gives an incorrect view of the origin and use of the health standards for exposure to quartz. The threshold limit value and permissible exposure limits were not, as they suggest, a creation of industrial entities.

The primary basis for the threshold limit value was the Public Health Service's studies of the dusty trades in the 1920s and 1930s.^{2,3} The Bureau of Mines and Department of Labor also contributed. Industrial states with the actual responsibility for worker health protection and active industrial hygiene programs in the 1920s (e.g., Massachusetts, New York, Pennsylvania, and Ohio) were users. The Metropolitan Insurance Co called attention to silica exposures in foundries.⁴ Dust counts in sandblast rooms were found to average about 1000 million particles per cubic foot, and a 6 cubic foot per minute positive pressure hood was found to reduce counts to less than 5 million particles per cubic foot.⁵ The 6 cubic foot per minute value was then used in the Bureau of Mines and National Institute for Occupational Safety and Health approval schedule for this type of respirator. Mining and manufacturing industries contributed individually by sponsoring studies of workers and their dust exposure and then by instituting engineering controls. Through the Air Hygiene Foundation and other organizations, they helped publicize silicosis and the methods of preventing it. Although industry's part in selecting threshold limit values was minor, only employers could implement necessary controls.

Mineral dusts in the United States were measured by microscopic counts of samples collected in the impinger, developed in 1922,⁶ and downsized to the midget version in 1937. The time-weighted average dust count believed to be safe for