decline of cotinine concentration in saliva is similar to that in plasma and urine, and that their earlier results were incorrect.

Drs. Sepkovic and Haley question our use of nicotine capsules as a source of cotinine in nonsmokers because it fails to consider the lung as a site of metabolism. However, this is not an issue that affects our study, since we were not studying nicotine metabolism. Nicotine capsules were chosen simply as a means of achieving high cotinine levels. At least 12 hours elapsed after the last nicotine dose before cotinine sampling began. Twelve hours after smoking cessation, very little nicotine is expected to remain in the lung, so our subjects are similar to abstinent smokers in this respect. In addition, Benowitz, *et al,*[3] found the half-life of cotinine to be similar for subjects comparing smoking cessation to after intravenous cotinine conditions, indicating that nicotine metabolism has little impact.

Possible half-life differences between smokers and nonsmokers are important for interpretation of passive smoking dosimetry. To address this issue, one must consider two comparisons: 1) Is there a difference in the rate of metabolism of cotinine in smokers versus nonsmokers?; 2) Is there a different impact of continuing generation of cotinine in abstinent smokers versus passive smokers?

Our data indicate that, at comparable concentrations, the half-lives of cotinine are similar in nonsmokers to those reported in smokers in other studies. Kyerematen, *et al,*[4] did report differences between smokers and nonsmokers, but the magnitude of the difference was small (13 versus 10 hours). Thus, we conclude that at comparable blood concentrations the half-lives of cotinine, and presumably the rate of metabolism, are similar or only slightly different comparing smokers and nonsmokers.

The second question—the impact of continuing generation of cotinine in smokers versus passive smokers—remains to be answered. Etzel, *et al,*[5] and Haley, *et al,** report that in infants and adults, respectively, the half-life of cotinine is longer in passive smokers than in smokers. In contrast, it was noted by Haley, *et al,** that half-lives of cotinine were similar in abstinent smokers and ex-smokers after the latter had chewed nicotine gum.

These observations suggest that the longer half-life of cotinine in people passively exposed to tobacco smoke has nothing to do with different rates of metabolism but rather is due to continued introduction of cotinine into the circulation from ongoing low level exposure or from slow release of nicotine from tissue stores. In either case, continuing generation of cotinine from nicotine would prolong the half-life of cotinine in passive smokers, but would have no impact on half-life at the high levels of cotinine seen in smokers or in nicotine gum chewers.

*Haley NJ, Sepkovic DW, Louis E, Hoffmann D: Absorption and elimination of nicotine by smokers, nonsmokers and chewers of nicotine gum. Presented at the International Symposium on Nicotine, Gold Coast, Australia, 1987.

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EFNEP (Expanded Food and Nutrition Program)

I am writing in regard to the "Letters to the Editor" column in the January 1988 issue,[1] in which Barbara C. Sterne addresses an article on the relationship of participation in food assistance programs to the nutritional quality of diets published in the July 1987 issue.[2] She brings up an important point—that education on how to get the most nutrition for the food dollar "is sadly lacking in all but the WIC program." However, she has overlooked EFNEP (Expanded Food and Nutrition Program)—a nutrition education program administered out of the Extension Service at the county level. EFNEP, through trained paraprofessionals, works with low-income persons with young children (young families) on an intensive basis toward the goals of causing positive behavior change and acquisition of new food-related skills. EFNEP works with WIC and is able to provide the long-term intensive education that WIC cannot due to funding and staff restraints.

In Minnesota during 1987, EFNEP:

- reached 2,307 low/limited income participants and 8,070 family members;
- reached 3,414 low/limited income youth in 241 youth groups;
- utilized 441 volunteers;
- ensured that 60% of EFNEP participants received Food Stamps and 51% received WIC;
- demonstrated an average 43% knowledge increase occurred as a result of information taught; and
- found that more than 90% of participants exhibited a more varied diet as a result of EFNEP participation.

Statistics alone do not tell the whole EFNEP story. The self-sufficiency and self-esteem that some low-income persons receive from EFNEP is invaluable. Readers who would like additional information on Minnesota's EFNEP may contact me at 612/624-7479.

Editor's Note: For *national EFNEP information,* contact Extension Service, US Department of Agriculture, Office of Home Economics and Human Nutrition 202/447-2908. At the *local level,* EFNEP is administered through the Director of the Cooperative Extension Service, located at the land-grant university in the various states.

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Response from B. C. Sterne

In response to Ellen Schuster's letter regarding the Expanded Food and Nutrition Education Program (EFNEP), I certainly did not mean to imply that there are no other nutrition education programs available for fami-

lies receiving food assistance. I cited WIC because federal regulations mandate that nutrition education be considered a benefit of the program and be made available to all WIC recipients at least twice in each six-month certification period (US Dept. of Agriculture, Food & Nutrition Service, 7 CFR Part 246.11).

Certainly EFNEP is a fine program and does provide, as Ms. Schuster states, "long-term, intensive education that WIC cannot. . ." but, to a limited number of families.

I have some figures on the extent of EFNEP in Pennsylvania, provided to me by Lisa Sullivan, the state EFNEP Coordinator, and on Food Stamp Participation in Pennsylvania, provided by Carol Case, Supervisor, Bureau of Food Stamps, for FY '86-'87.

Food Stamp Recipients (PA, FY'86–'87): 401,216 households (990,342 individuals)

EFNEP Recipients (PA, FY'86–'87): 6,777 homemakers/households (representing 21,945 individuals)

EFNEP is available to persons whose income is 125% or less of the poverty level. In Pennsylvania, EFNEP is available in 45 of the 67 counties. In FY '86–'87 (PA), 69% of EFNEP recipients were on Public Assistance, 81% received Food Stamps, and 50% were on WIC.

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HIV Seropositivity in IV Drug Users in Ohio

Intravenous (IV) drug users are at high risk for human immunodeficiency virus (HIV) infection.[1] To determine the statewide seroprevalence of HIV among this population, the Ohio Department of Health (ODH), in cooperation with the state Bureau of Drug Abuse, undertook a study of methadone clinic participants. Nine of the eleven licensed Methadone Treatment Programs (MTP) (Cleveland [3], Columbus, Cincinnati, Dayton, Akron, Toledo, and Youngstown) in the seven largest metropolitan areas in Ohio participated in the survey. Individual enrollment in the survey was voluntary. Questionnaire data obtained included: demographic information, sexual history, and drug use history including drug use while traveling both within and outside of Ohio. Each sample was tested for HIV antibody using an enzyme-linked immunosorbent assay (EIA) at one of Ohio's five contract laboratories for HIV antibody testing using the Litton or Abbott test. Positives were confirmed by Western blot (except for one specimen which was repeatedly EIA positive for which inadequate serum was available).

Of clients attending the nine MTPs between April and November 1986, blood samples were obtained from 509 with IV drug use histories. Of these 509 individuals, seven (1.4 per cent) were seropositive for HIV. The sexual orientation of the group was primarily heterosexual, with eight males (1.6 per cent) giving a history of homosexual. Blacks and Hispanics were noted to have a greater prevalence of HIV seropositivity (OR 3.1, 95% CI = 0.5, 55.1, and OR 17.7, 95% CI = 2.4, 133.0, respectively), as were males who gave a history of gay or bisexual lifestyles (OR 14.1, 95% CI = 1.3, 153.0).

Of the seven HIV positive cases, three gave histories of having shared a needle in New York City since 1981, compared to 32 of 502 seronegative males. Controlling for sexual orientation, those who shared needles in New York City were at greater risk of HIV infection (OR 10.7, 95% CI = 2.1, 55.0)

This survey represents the first reported statewide data on the prevalence of HIV infection among IV drug users in methadone treatment programs. Being Black or Hispanic in Ohio and having shared needles in New York City appear to be associated with HIV positivity. It is likely that the survey underestimates the prevalence of HIV infection among all IV drug users in Ohio as users outside methadone programs may inject and possibly share needles more frequently that those in methadone programs. Motivations to reduce or eliminate use of IV drugs, particularly the fear of contracting acquired immunodeficiency syndrome (AIDS), may differ substantially from drug users not enrolled in a treatment program. Nevertheless, the majority (85 per cent) of the study participants had a history of having injected a drug within the 12 months prior to the study, suggesting that infection prevalence between IV drug users in and out of methadone treatment may not be dramatically different.

Educational efforts to prevent HIV transmission in the Ohio drug-using population with apparently low HIV seroprevalence offers a reasonable opportunity to limit the spread of AIDS.

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Changing Patterns of Drug Abuse in a Seaport: New Orleans, 1975–85

A prior investigation of drug use patterns in 1975 and 1980 of all patients admitted to the New Orleans Veterans Administration Medical Center (NOVAH) Drug Dependence Treatment Program (DDTP) indicated that heroin was the most frequently cited drug of choice in both years, although a downward trend was evident in 1980 and "Ts & Blues" were increasing. A trend toward lower preferences for marijuana and "downers" (tranquilizers and hypnotics) as drugs of first choice was observed in 1980 as compared to 1975, while stimulant use, Preludin and cocaine, was showing increases in 1980.

Descriptions of drug abuse patterns were obtained from all patients admitted to the NOVAH-DDTP in 1980 (307 patients) and in 1985 (215 patients). By 1985, the profile of first choice drugs of abuse had shifted from heroin and "Ts & Blues" in 1980 to cocaine, heroin, and marijuana. The 1980 second choices were primarily Preludin and "Ts & Blues," while in 1985 the order was cocaine, heroin, and marijuana. All ages and education levels showed such a switch in choice. Cocaine has now been elevated to the status of the most frequently preferred first drug (50.5 per cent) and second drug (23.1 per cent).

It is interesting to note that the 1975–80 study indicated that cocaine use was restricted primarily to White, single individuals, while the 1985 study shows that race is not associated with drug choice. Thus we see the increase in cocaine use moving across the demographic boundaries of race, marital status, age, and education levels.

In another ongoing series of drug incidence surveys conducted by our