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Following Up on Screening Tests

Early detection of disease has always been an important component of public health. Screening tests are the most frequently used method for detecting disease before the appearance of symptoms. Recently, however, the cost-benefit ratio of some mass screenings has stimulated controversy. Yet little research has been done on the outcome of screening—in particular, on the follow-up behavior of people with positive screening results for whom a visit to a health care provider is recommended.

We recently conducted a study of the follow-up behavior of adults screened at health fairs in Middlesex County, New Jersey. In September, October, and November 1996, 948 people older than 18 received from a Middlesex County Health Department (MCHD) registered nurse or physician one or more of the following tests at one of 12 local health fairs: oral cancer screening, hearing test, Papanicolaou test, clinical breast examination, rectal examination, glaucoma test, blood pressure reading or blood testing (SMA-24 with cardiac risk profile).

A total of 2193 screening tests were performed. Of the 948 adults screened, 470 (49.5%) had one or more test results outside the normal range, a figure consistent with previous researchers' experience. Those with abnormal results were notified by an MCHD representative, either in person at the time of the screening or by mail after laboratory results were received. They were told their test results were outside the normal range and were urged to discuss their results with a medical professional.

MCHD makes one routine telephone call to each person with abnormal results to find out whether the person has sought medical follow-up. We wanted to explore the reasons why people do or do not act on recommendations for follow-up medical appointments. Over a four-week period in Spring 1997, we administered a 31-item Health Belief Model-based survey, developed and pretested by MCHD, as part of the routine phone call to the 470 adults with screening tests outside the normal range. Three attempts were made to reach each person by telephone.

To achieve results at the 95% confidence level, 216 completed surveys were needed. We analyzed the data once 216 adults completed the survey (46% response rate). Many of those surveyed had taken multiple screening tests. More than two-thirds (67%) of those surveyed were female. Respondents ranged in age from 19 to 85. The mean age was 63.7, with more than two-thirds of respondents older than age 60.

Of the 216 respondents, 139 (64%) reported seeing or discussing their screening test results with a medical professional. Of them, 64% reporting following up within one month, 85% within two months, and 91% within three months. Many who had not followed up yet said they were now motivated to do so by the MCHD call.

The following findings may interest the public health community:

- A perception that the consequences of the identified health problem were very serious was the strongest predictor of following up on abnormal tests results.
- Lack of insurance and lack of a family physician were major barriers to follow-up among the younger adults.
- Reminders within the first three months of a screening test increased follow-up activity.
- Participants' intentions with regard to follow-up proved to be a useful predictor of actual follow-up behavior.
- For at least half of the respondents, screening was used to monitor existing conditions rather than to identify new conditions.
- A surprising number of participants mentioned an interest in herbal and alternative therapies. MCHD staff had expected requests for more information on chronic ailments such as diabetes or arthritis and were struck by this change.

If people with limited resources are using screening opportunities to monitor their health, health fairs may be providing an important service. Yet, our findings suggest that without additional follow-up efforts, screening at health fairs may not be an efficient use of resources. Patients may need more education about the seriousness or urgency of some health issues (for example, hearing loss or cervical cancer) to motivate them to be tested. Finding out whether people have medical care and providing access to care if they don't, assessing their intention to follow up if follow-up is indicated, and provid-

ing reminders increase the likelihood of compliance and justify screening. Attention must also be paid to the requests for self-care information, as reflected in respondents' interest in herbal and alternative therapies.

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Marketing Tobacco

We were pleased to see Dr. Judith Mackay's article, "The Global Tobacco Epidemic: The Next 25 Years" in *Public Health Reports* (Vol. 113, p. 14–21). As tobacco consumption declines in Western countries, it increases in developing nations as transnational tobacco companies expand their markets overseas. Tobacco remains a major health problem among immigrants from those developing nations here in the United States. A number of community surveys have documented that smoking rates among some Asian-American/Pacific Islander groups are high, especially among immigrant males. Surveys we have conducted among the Vietnamese have shown male smoking rates ranging from 35% to 56%. Surveys among other population groups have shown high rates among Korean males (33%), Laotian males (70%), Chinese-Vietnamese males (55%), and Cambodian males (71%).

Tobacco industry advertising heavily targets ethnic communities. Studies in California have shown that tobacco billboards are found in Asian/Pacific Islander neighborhoods 17 times more often than in white neighborhoods. Tobacco companies serve as sponsors of ethnic cultural and social events, peddling their lethal products to young and old alike. Until last year, British American Tobacco (BAT), manufacturers of the cigarette brand 555, appeared at the Vietnamese Lunar New Year (Tet) Festival of Northern California distributing free tobacco promotional items, recruiting festival goers for their contests, and signing them up on mailing lists to receive free cigarette samples without checking for anyone's age. The Tet Festival last year successfully implemented a new policy of banning all tobacco advertisements and promotions.

BAT has sponsored dances at Vietnamese nightclubs to promote its tobacco brand. Its tobacco ads, which have appeared in Vietnamese newspapers and magazines, were translated into Vietnamese in order to attract non-English-speaking readers. Yet the U.S. Surgeon General's warnings were printed in English. Tobacco industry–paid articles printed in these periodicals touted the tobacco company's "efforts to promote the welfare of the Vietnamese community."

The Vietnamese Community Health Promotion Project filed a complaint in 1996 with the U.S. Federal Trade Commission (FTC), urging that tobacco ads and promotional items appearing in non-English-speaking publications and other venues contain the U.S. Surgeon General's warnings translated into the language of the target community. An FTC ruling in this case will affect the Vietnamese and Chinese communities that the 555 ads target and all other non-English-speaking communities targeted by tobacco industry ads.

Asian/Pacific Islander and other ethnic groups in the United States are becoming more aware of the dangers posed by smoking and the tactics used by the tobacco industry to recruit new smokers.[1,2] The Vietnamese Tobacco-Free Community Task Force, a grassroots organization in the San Francisco Bay Area, disseminated an "open letter" last year urging the Vietnamese community to confront the health problem of smoking. Vietnamese in the Bay Area celebrated the first annual "Great Vietnamese Smoke Out Day" this year. Asian/Pacific Islander health advocates have raised serious questions in various statements and in letters to President Clinton about how the proposed tobacco industry settlement has not addressed the health needs of Asian/Pacific Islander and other ethnic communities here and in other countries.

As Congress and tobacco control advocates craft a final tobacco settlement, it is essential that the agreement consider the disproportionate tobacco burden borne by ethnic communities in the United States and by developing countries overseas. This must be coupled with implementation of strong, comprehensive national tobacco control campaigns in other nations and rigorous international regulation of tobacco. This must happen if we are to eradicate smoking as the number one preventable cause of premature deaths.

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