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## 6. *Stayner and Colleagues Respond*

Langer and Nolan, and Mossman and Gee, express several criticisms of our recent review of the amphibole hypothesis.[1] Langer and Nolan suggested that we failed to present the amphibole hypothesis in a developmental perspective. Our objective was to put this hypothesis in a public health perspective.

The scope of the amphibole hypothesis has been confusing to many, scientists and laypeople alike. We thank Langer and Nolan for reminding us that the hypothesis was first proposed in regard to asbestosis and later extended to mesothelioma. Mossman and Gee[2] may have contributed to this confusion by suggesting that chrysotile may also be less pathogenic than crocidolite in the causation of lung cancer and fibrosis. Therefore, we welcome their statement that the thrust of the amphibole hypothesis is only for mesothelioma. This restriction sharply limits the public health relevance of the hypothesis, since most studies have found that asbestos produces more lung cancers than mesotheliomas.

Langer and Nolan cite several early South African studies as evidence for the hypothesis that crocidolite is more potent than chrysotile in the induction of mesothelioma. We recognized in our paper that "chrysotile *may be* less potent than ... some amphiboles with regards to ... mesothelioma [italics added]"[1(p18)] and cited the most recent report on South African miners.[3] However, the interpretation of these epidemiologic findings is severely hampered by the lack of information on fiber exposure concentrations and dimensions, so no firmer conclusion can be drawn.

Langer and Nolan cite lung burden studies as evidence that tremolite, rather than chrysotile, could be the agent in the induction of asbestosis and mesothelioma. We do not share their enthusiasm for the lung burden studies. Given that chrysotile has a lung half-life of a few months and that mesothelioma has a latency period on the order of 20 to 30 years, it is unlikely that the chrysotile fibers found at autopsy are a meaningful indicator of historical exposure to chrysotile. As an analogy, if we failed to find cigarette smoke in the lungs of a deceased ex-smoker, should we then conclude that cigarettes could not have caused the death?

Mossman and Gee complain that our review failed to cite conference reports "endorsing the amphibole hypothesis." However, the publications they cited generally involved issues of asbestos exposure in buildings and were not pertinent to occupational exposures to chrysotile, which was the subject of our paper. We did cite papers from one of the proceedings[4] that they referred to; in fact, the first reference in our paper, to an article by Pigg,[5] was from this workshop.

Mossman and Gee misquote us as stating that the experimental evidence for the increased pathogenicity of crocidolite is primarily derived from in vitro studies; in fact, we stated that it comes primarily from lung burden studies. They also state that we failed to recognize dozens of references that support the role of superoxide radicals and the increased pathogenicity of amphiboles relative to chrysotile. We note that the BéruBé et al. study[6] that they mentioned was published a month after our own paper. Although we are aware of the additional mechanistic studies referred to, we would argue that theories based on mechanistic arguments, however attractive, must give way to substantive empirical evidence. In this case, the epidemiologic and toxicologic evidence for the pathogenicity of chrysotile is overwhelming.

Finally, Mossman and Gee suggest that critical reviews and annotations should be written by scientists in the "mainstream of relevant panels and scientific meetings." We find this suggestion bizarre. Our own experience in this area is substantial. One of us (RA Lemen) has been active in this area for more than 25 years, has authored numerous scientific papers on asbestos (including a book[7]), was the principal drafter of the International Agency for Research on Cancer's monograph on asbestos, and has testified on asbestos issues to the US Congress and the US Department of Labor on numerous occasions. Another one of us (LT Stayner) has participated in several recent asbestos-related meetings, including a World Health Organization task force on this issue. Frankly, we had hoped that the fact that some of us do not have a long track record in this area would bring a fresh perspective to the debate. We suggest that critical reviews should be written by scientists who are willing to examine all of the relevant data critically, whether or not the data support their own beliefs. We have endeavored to do just that. □

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# Integrating HIV Prevention, STD, and Family Planning Services

## 1. The Availability of HIV Services at Different Types of Clinics: A Survey

We concur with Zena Stein's observations and concerns regarding the separation of services for family planning, sexually transmitted disease, and acquired immunodeficiency syndrome (AIDS), as voiced in her editorial.[1] Recent preliminary animal data suggesting that Depo-Provera—the injectable hormonal contraceptive used widely in the United States and in the developing world—may increase vaginal permeability to HIV under-

**TABLE 1—Percentage of Publicly Funded Clinics Offering HIV-Related Services: National Survey of HIV and Substance Abuse Services Directors in the 50 States and the District of Columbia, 1995**

| | HIV Related Services | |
|---|---|---|
| Public Clinic Type | Counseling and Testing | Outreach and Education |
| Family planning | 92 | 74 |
| Prenatal care | 75 | 63 |
| Gynecology | 56 | 56 |
| Abortion | 31 | 18 |
| Substance abuse | 90 | 88 |

scores the urgency of integrating family planning and HIV prevention efforts.[2] Family planning, sexually transmitted disease, and HIV require services for stigmatized needs, and they have been categorically funded. These two factors have pushed providers and advocates for these services into the defensive pursuit of single-minded agendas.

Data from a telephone survey we conducted in 1995 of state directors of HIV and substance abuse services both confirm Stein's worries and offer some grounds for cautious optimism (Table 1). HIV counseling, testing, and education are now offered at a host of other publicly funded clinics, including those for family planning, prenatal care, and drug treatment. Unfortunately, they are less integrated with services for women that are either unrelated to pregnancy or controversial, such as gynecological services or abortion. This particular avoidance of controversy (characterized by defensiveness) has impeded cooperation and jeopardizes the health of those at risk. (Presumably, many women seeking abortion are having unprotected sex and need both family planning and HIV preventive services.)

The successful linkage of HIV and substance abuse services shown in Table 1 demonstrates that integration of services is possible. Each of these services could offer the opportunity to engage women in comprehensive care. They should be intelligently coordinated and linked, rather than isolated and categorical. □

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2. Marx PA, Spira AI, Gette A, et al. Progesterone implants enhance SIV vaginal transmission and early virus load. *Nature Med.* 1996;2:1084–1089.

## 2. Comprehensive Efforts in Philadelphia

Based on my 25 years of experience in family planning, I believe that Zena Stein, in her editorial on family planning,[1] was describing the family planning and sexually transmitted diseases (STD) systems of the 1960s. The family planning, STD, and human immunodeficiency virus (HIV) service system today looks *nothing* like Dr Stein's vision.

For the past 7 years, with funding from the Centers for Disease Control and Prevention, the Family Planning Council in Philadelphia has been successfully providing family planning counseling *and* medical services in drug treatment centers. We took family planning, STD testing and treatment, and HIV prevention services out of the clinic and integrated them into community settings.

The Family Planning Council also manages a comprehensive program providing medical, case management, and other support services for families affected by HIV and acquired immunodeficiency syndrome (AIDS). This program, "The Circle of Care," is a testament to the interconnections between family planning and HIV/AIDS. Furthermore, we have been providing confidential as well as anonymous HIV testing for women at numerous family planning agencies. We are justifiably concerned with AIDS and its dramatic impact on low-income women and their families, and we have responded with services well beyond the traditional family planning agenda.

From its inception, the Title X program has assumed the dual mantle of pregnancy and disease prevention by requiring gonorrhea and syphilis screening. Currently, family planning agencies across the nation are cooperating with STD programs to screen, diagnose, and treat chlamydia. These partnerships refute Dr Stein's assertion that traditional STD programs and family planning programs do not work together.

Dr Stein's claim that family planning staff are "actively resistant, even hostile" towards barrier methods maligns dedicated staff who are providing contraceptive methods along with male and female condoms to millions of family planning patients. The accusation of hostility towards barrier methods is better directed at the mass media, where people fall in and out of bed without ever getting an STD, and yet condoms are rarely if ever mentioned.

Dr Stein ends with a plea for testing new models of service. The time for testing is past. We know what works. What we need are ample resources and unfettered programs. We need to go forward as an integrated provider system to a future where family planning, STD, and HIV services are fully funded and enjoy the universal political and social support they deserve. □

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## Reference

1. Stein Z. Editorial: family planning, sexually transmitted diseases, and the prevention of AIDS—divided we fail? *Am J Public Health.* 1996;86:783–784.

## 3. A Sexual and Reproductive Health Approach in Latin America and the Caribbean

In her June 1996 editorial,[1] Dr Zena Stein questions whether the categorical/vertical nature of family planning, human immunodeficiency virus (HIV) prevention, and sexually transmitted diseases (STD) diagnosis and treatment services