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## Bridging the Gap Between Behavioral Science and Public Health Practice in HIV Prevention

**F**ourteen years of planning, implementing, and evaluating efforts to stem the HIV epidemic in the United States have clearly shown that preventing HIV infection depends upon millions of individuals in diverse populations adopting or maintaining safe behaviors. The need for improving the scientific basis for understanding and influencing this behavior change is underappreciated. Progress in this scientific area has been rapid, but the field is nearly as new as the HIV epidemic itself.

It is important to keep this "newness" and "appreciation for behavioral science" in perspective in order to foster the critical thinking and patience needed to develop scientifically sound and effective prevention methods.

While we recognize the need for developing the applied database, recent experience with developing and implementing recommendations for use of zidovudine during pregnancy to prevent perinatal HIV transmission (1) emphasizes once more that the dichotomy between biomedical and behavioral interventions is artificial, and that there is a need to utilize behavioral and social science and research methods now to address emerging public health problems. In this case, a biomedical research breakthrough (2, 3) formed the basis for a potential major reduction in pediatric HIV infection in the United States. Implementation requires consensus building among professionals and the public and timely access and utilization of counseling and testing, prenatal care, and therapy. The decision to accept the intervention will be based upon trust between the pregnant patient and her provider (1, 3). Behavioral science methods will be critical in understanding, implementing, and evaluating this and other prevention strategies.

Transferring behavioral prevention technology to the public health sector is extremely complex. First, even when prevention methods based upon behavioral science are fairly well developed, they are not as well utilized within the public health infrastructure as the traditional methods for preventing other infectious diseases. Second, while many public health practitioners who have worked in chronic disease prevention may understand the importance of behavioral science, many involved with preventing infectious diseases in the era of vaccines and antibiotics may be less familiar with it. Therefore, there is a need to transfer not only the technology, but also an understanding of the need for such technology. And finally, we have to provide appropriate training for public health practitioners so they are able to

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adapt behavioral science methods for use in preventing HIV infection.

The next decade should provide an increased array of effective individual and community interventions to prevent HIV infection. This volume represents one step in the complicated process of transferring the technology of behavioral methods for use in public health practice. The primary purpose was to describe these methods for public health workers and to further the dialog between behavioral scientists and others in the public health community.

In developing articles for this volume, we sent out a call for abstracts of papers explaining behavioral methods that were being explored or used by CDC scientists in HIV prevention interventions. Of the 50 titles and abstracts submitted, the four guest editors (three of whom are behavioral scientists) selected 35 for submission of draft papers. Some of these drafts were then sent out for review by other scientists in their respective fields. The papers that appear in this edition were accepted for publication by CDC. *Public Health Reports* included them in this supplement without further review or editing from that group of drafts after further review by at least two of the guest editors.

It is crucial for public health practitioners to keep abreast of the science and rapidly implement interventions shown to be effective to prevent the continued spread of HIV throughout the world.

## References

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3. Connor, E. M., Sperling, R. S., Gelber, R., et al. Reduction of maternal-infant transmission of human immunodeficiency virus type 1 with zidovudine treatment. *N Engl J Med* 1994; 331: 1173-1180.