

## NINR FOCUS: Biobehavioral Science and HIV/AIDS

### NINR Mission:

The mission of NINR is to promote and improve the health of individuals, families, communities, and populations.

NINR supports and conducts clinical and basic research and research training on health and illness across the lifespan.

The research focus encompasses health promotion and disease prevention, quality of life, health disparities, and end-of-life.

NINR seeks to extend nursing science by integrating the biological and behavioral sciences, employing new technologies to research questions, improving research methods, and developing the scientists of the future.

First recognized in 1981, infection with the human immunodeficiency virus (HIV), which causes acquired immune deficiency syndrome (AIDS), has become a public health scourge. Today, over 38 million people worldwide are living with HIV/AIDS, and over 4 million become newly infected each year. Widespread infection often has a devastating impact on families, communities, and entire populations.

HIV is most commonly spread through sexual contact with an infected individual, and anyone is susceptible. If left untreated, it damages the immune system, leaving the body vulnerable to infections or certain types of cancers. New medications to treat HIV/AIDS have drastically improved survival, in many cases transforming the disease from a fatal condition into a chronic illness. However, the side effects of these medications may cause numerous symptoms and long-term complications that greatly decrease quality of life.

There is no vaccine against HIV, and no cure for AIDS. The key to decreasing the spread and reducing the impact of this disease is to promote healthy behaviors that prevent infection or minimize the adverse effects of treatment. Health promotion, disease prevention, and symptom management are key components of the research conducted by the biobehavioral scientists supported by the National Institute of Nursing Research (NINR). The Institute funds both domestic and international HIV/AIDS research programs.

### NINR Findings in HIV/AIDS Prevention and Management

- ✦ **Skill-building to reduce HIV risk.** African-American women in the U.S. have an elevated incidence of HIV/AIDS, and this disease is the leading cause of death among those aged 25 to 34 years. A brief skill-building program on practices to reduce exposure to sexually transmitted diseases and HIV improved the protective behaviors in a group of inner-city African-American women for up to one year, and decreased their incidence of disease. *Jemmott, 2007.*
- ✦ **Culturally appropriate education.** Hispanic teens have a higher rate of HIV infection than White or African-American youths, and heterosexual contact is the major mode of HIV transmission. An educational program called “¡Cuidate!” presented Hispanic cultural values that support positive health behaviors for both abstinence and safe sex practices. Teens in this program reported a lower frequency of sexual intercourse, fewer sexual partners, and more consistent use of condoms. *Villarruel, 2006.*
- ✦ **Poor compliance with prevention.** In the U.S., the HIV rate is increasing among older adults, and is higher among African-American men than White men. A survey of 130 older African-American men with HIV/AIDS found that most had good knowledge about their disease. Still, roughly one-quarter, particularly those with fewer disease-related symptoms, had poor compliance with preventive practices and continued to engage in unprotected sex. The findings from this survey may indicate a need for special HIV-preventive interventions in this population. *Coleman, 2007.*
- ✦ **HIV prevention in Malawi.** The HIV infection rates in southern Africa are the highest in the world. As an initial step toward developing an HIV prevention program in the African country of Malawi, health administrators and workers in two rural districts were interviewed. Many stated they would be willing to serve as HIV prevention leaders. However, they identified health system barriers such as inadequate supplies, staff, facilities, and training, as well as personal barriers of stigmatizing attitudes, fear of infection, poor HIV knowledge, hopelessness, and their own high-risk behaviors. These findings provide insight into the barriers to effective interventions for HIV/AIDS prevention in countries around the world. *Norr, 2007.*

## Putting Research Results into Practice

Several NINR-funded investigators are translating their research results into effective programs:

- ✦ Dr. Loretta Sweet Jemmott of the University of Pennsylvania pioneered the development of interventions for HIV/AIDS awareness and prevention intended for African-American youths with her educational program, *Be Proud! Be Responsible!* Dr. Antonia Villarruel of the University of Michigan adapted this intervention for Latino youths through her program, *¡Cuidate!*. Both of these programs have been proven effective in improving HIV/AIDS awareness and protective behaviors, and have been adopted for distribution by the Centers for Disease Control and Prevention (CDC): <http://www.cdc.gov/hiv/topics/research/prs/best-evidence-intervention.htm>.
- ✦ In addition, Dr. Jemmott has worked with health care agencies in South Africa to develop HIV/AIDS prevention strategies, while Dr. Villarruel has carried her research to youths and families in Mexico.
- ✦ Dr. Rachel Jones of Rutgers University has developed an award-winning set of video vignettes to promote HIV/AIDS awareness and prevention behaviors. These videos can be viewed at: [www.stophiv.newark.rutgers.edu](http://www.stophiv.newark.rutgers.edu).

## NINR Workshop: Cultural Dynamics in HIV/AIDS Biobehavioral Research among Young People

Over the past twenty-five years, advances in behavioral and biomedical research have led to breakthroughs in the prevention and treatment of HIV/AIDS. However, more than half of new HIV infections each year occur in persons aged 24 or younger, indicating that young people have not fully benefited from these breakthroughs.

In 2005, NINR held a workshop to explore ways in which incorporating an understanding of cultural dynamics could help nurses and other health care workers better reach young people and slow the spread of HIV in this age group.

A special issue of the *Journal of the Association of Nurses in AIDS Care* presented a series of papers developed from this workshop. Dr. Martha Hare of NINR served as a guest editor of this issue, along with Dr. Villarruel. These papers are focused on current research into preventing the spread of HIV infection among youths of different sexual orientations and minority populations in the U.S., as well as in countries as diverse as Jamaica, Thailand, and sub-Saharan Africa. The purpose of this issue was to share the exciting dialogue in cultural research among youths that began at the NINR workshop and that remains ongoing, in the hope of deepening the appreciation of culture as a dynamic process and furthering the science of HIV/AIDS prevention.

Reference: *Journal of the Association of Nurses in AIDS Care*. 2007;18(2).

## Current HIV/AIDS Funding Opportunities

- ✦ PA-07-340: HIV Treatment Adherence Research (R21)
- ✦ PA-07-338: HIV Treatment Adherence Research (R01)
- ✦ PAR-07-348: AIDS International Training and Research Program (D43)
- ✦ PA-07-087: Recent HIV Infection: New Prevention Challenges and Opportunities (R01)

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