

## Chapter XXII

# Community Education in New HIV Prevention Technologies Research

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### ABSTRACT

*An estimated 39.5 million people are living with HIV worldwide. There were 4.3 million new infections in 2006 with 2.8 million (65%) of these occurring in sub-Saharan Africa with important increases in Eastern Europe and Central Asia, where there are some indications that infection rates have risen by more than 50% since 2004. In 2006, 2.9 million people died of AIDS-related illnesses (UNAIDS, 2006). The continued increase in new HIV infection is a call for concern. It is imperative that more innovative ways of combating the infections are found sooner. There is an enormous body of evidence that HIV infection is caused mainly by sexual contact. There is also undisputed evidence that there are other contributing factors such as extreme poverty, survival sex, gender inequality, lack of education, fatalism, religious barriers and others. This chapter seeks to support the need to do more research in finding new technologies and innovative ways of dealing with the spread of HIV. The chapter suggests that the involvement of researched communities be effectively involved. Involving communities in finding solutions will help, in that research protocols and health programmes will take into account the cultural acceptability of the new technologies and systems and ensure that recipients of health services become effective organs of change. The chapter seeks to highlight the fact that, if the recipients are involved in all stages of development of health programmes, including technologies, we may begin to see changes in how new technologies are taken up or may shift toward getting technologies that are acceptable. There are various suggested and implemented ways which aid in achieving the protection for individuals and communities; such as community involvement, community participation and community education (Collins, 2002; Gupta 2002), this chapter will focus on community education and a proposal for a community principle.*

## **INTRODUCTION**

The world is currently faced with challenges that are brought about by increase in diseases and the complexity involved in disease management. There are differences in the nature of diseases and associated challenges between the developing and developed world. This chapter focuses on the HIV epidemic in a developing country. HIV is a very complex disease which brings along very complex manner in which to deal with; one of such complexities is the different strains in different regions and its socio-economic linkage. Counseling, testing, use of the male and female condom remains the only currently available technologies proving to be good options for HIV prevention. However there is continuing evidence of ongoing transmission of HIV despite active promotion and distribution of condoms. While the reasons for effective technologies not resulting in clear interruption of transmission in public health setting is complicated it is the argument of this chapter that when these stated technologies were introduced into the health service the communities were not well prepared for the lifestyle change which comes with use of condom and behavioural adjustment. This makes the continued search for a safe and effective HIV-preventive technology seem reasonable. Thus it is imperative that the scientific community pursue new ways of preventing, identifying and treating HIV. This effort requires a great expansion in what is known and what can still be learnt in order to deal with the situation. However there is a need to streamline how these new technologies are brought into the health care service. The expansion of knowledge and introduction of the new technologies starts at the research stage. The expansion of knowledge cannot be divorced from the advancement of technology. Some of the technologies that are currently under research are the Diaphragm (cervical barrier), Microbicides (topical vaginal barriers) and Vaccines (systemic barriers). The ongoing HIV epidemic raises the

need for improved intervention strategies through improved knowledge.

Research forms an integral part of the development of technologies that can be applied to health problems in order to improve health. Improved interventions require improved technology which in turn may raise new ethical challenges. With the expansion of knowledge through advancement of technology comes additional responsibility for recognizing and dealing with ethical issues (Goldner, 2002). The conduct of research is guided by codes and regulations (international, national and local) which were developed due previous ethical lapses. Such guidelines are revised from time to time to keep pace with social change and advancement in science. A reliance on guidelines alone is not sufficient to bring about ethically sound research. Community involvement in research is a critical aspect in ensuring that the community concerns are taken into consideration. Biotechnology is relevant to the health needs not only of rich nations, but also those of the world's poor. This chapter focuses on the techniques of preparing communities for change; that is brought about by the investigation or application of new technologies. Appropriate community engagement can facilitate cultural acceptability of change and thus ensure that researched communities become effective advocate for change within their respective societies. The purpose of writing this chapter is to:

- Highlight the importance of biotechnology in improving HIV prevention in developing countries.
- Offer guidance and influence the development of community education in research.

## **BACKGROUND**

Biotechnology has been seen as a way in which health can be improved throughout the world. Some scholars have strongly advocated for more

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