

Male Circumcision and HIV Prevention – Summary

HIV the Epidemic

- *“AIDS already represents the foremost threat to development in Africa and an ominous threat in much of the rest of the developing world. Until the world has credibly addressed the epidemic, we cannot regard anything else we do in development as secure.”* – Debrework Zewdie. The World Bank Perspective on HIV/AIDS, XIII International AIDS Conference, Durban, July 11, 2000.
- *“In 2005 approximately 40 million people in the world were living with HIV/AIDS and it was the fourth leading cause of mortality worldwide and the number one killer in sub-Saharan Africa.”* - UNAIDS. 2005 AIDS Epidemic Update: December 2005
- *“In the approximately 25 years since AIDS emerged as a major health emergency, the epidemic has had a serious, and in many places devastating, effect on human development.”* – UNAIDS. 2006 Report on the Global Aids Epidemic.

Male Circumcision and HIV Prevention

- *Three randomized controlled clinical trials (two of which were conducted by the US National Institute of Health), which enrolled more than 10,000 men; provide compelling evidence that circumcision provides a 50 to 60% reduction in heterosexual HIV transmission.* – UNAIDS – Press Release February 2007.
- *“The efficacy of male circumcision in reducing female to male transmission of HIV has been proven beyond a reasonable doubt.”* – UNAIDS Technical Consultation March 2007.
- *“Evidence exists showing a biological rather than behavioral explanation for the protective effect of male circumcision against HIV-1.”* – Reynolds, SJ. The Lancet Vol 363, March 2004.
- *“Circumcision likely reduces risk of HIV-1 acquisition in men by decreasing HIV-1 target cells.* – Patterson, BK. American Journal of Pathology 161:867-873, September 2002.
- *“These results demonstrate that the inner surface of the human foreskin is highly susceptible to HIV-1 infection.”* - Patterson, BK. American Journal of Pathology 161:867-873, September 2002.

Benefit of Male Circumcision

- *“Analysis show that male circumcision is amongst the most economically efficient of HIV prevention strategies in Sub-Saharan Africa...”* – Kahn, JG. PLoS Medicine, Vol 3, Issue 12, December 2006.
- *“Analysis shows that male circumcision could avert nearly six million new infections and save three million lives in Sub-Sahara Africa over the next twenty years.”* – Williams, BG. PLoS Medicine, Vol 3, Issue 7, July 2006
- *“Simulated models suggest that male circumcision programs could reduce HIV incidence in the general population, potentially to a point where the reproductive number could decline to < 1.0 and the epidemic would wane.”* – Gray, RH. AIDS 2007, 21:845-850.

Recommendations

- *“Since neonatal circumcision is a less complicated and risky procedure than circumcision in young boys, adolescents, or adults, such countries should consider how to promote neonatal circumcision in a safe, culturally acceptable and sustainable manner.”* – UNAIDS – Technical Consultation March 2007.

Concerns

- *“When circumcision is performed in clinical settings under aseptic conditions, by well trained and adequately equipped health care personnel, complication rates are low. High rates of complications have been found when male circumcision is provided by untrained, poorly equipped providers. Male circumcision should not be scaled up without assurance of quality and safety of services and appropriate follow-up of clients...”* – UNAIDS – Technical Consultation March 2007.
- *“HIV transmission may occur through circumcision related blood exposures in eastern and southern Africa.”* – Brewer, DD. Ann Epidemiology 2007; 17:217-226.
- *“The WHO in 2006 reported that the continent of Africa bears 24% of the global burden of disease but has only 3% of the health care workforce and 1% of the world’s financial resources.”* - WHO’s World Health Report 2006
- *The WHO in 2006 reported that 57 countries in Africa can not meet basic health care coverage and have a critical shortage of health care providers. 36 of these countries are in Sub-Sahara Africa, the epicenter of the epidemic.* – WHO’s World Health Report 2006

- *“The estimated number of surgeries per infection averted over 10 years is estimated to be 19-58.” - Gray, RH. AIDS 2007, 21:845-850.*
- *In 2006 it is estimated that there were 12 million male births in the continent of Africa. In the same year there was only 2 million male births in the United States. – U.S. Census Bureau, International Database, and The World Fact book.*
- *In 2006 it is estimated that there were another 12 million male births in India alone. And an additional 4 million male births in China. - U.S. Census Bureau, International Database, and The World Fact book.*
- *In August of 2000 the FDA issued an alert to health care providers. “We received 105 reports of injuries involving circumcision clamps between July 1996 and January of 2000 which included laceration, hemorrhage, penile amputation, and urethral damage.” - FDA MedWatch Reports, July 1992 through January 2000, Potential for Injury from Circumcision Clamps.*
- *An alert was again issued by the FDA in May of 2002. - FDA Patient Safety News: Show #4, May 2002, "Avoiding Patient Injuries from Circumcision Clamps"*

Conclusions

A new male circumcision device is urgently needed that can better address the needs of the world.

Requirements:

- Inexpensive
- One-time use only
- Disposable
- Easy to use (can be used safely by someone with little to no training)
- Eliminates the need for scissors and scalpels
- Protects contaminated parts
- Eliminates the risk of urethral injury
- Eliminates the risk of penile laceration
- Provides more accurate results
- Protects the infant from injury and infection