Youth, sex, taboos and condoms
THE HIV AIDS EPIDEMIC

Facts at a glance
- People living with HIV/AIDS, worldwide, end of 2002: 42 million
- People living with HIV/AIDS, U.S., end of 2001: 850,000 to 950,000
- People newly infected with HIV, worldwide, 2002: 5 million
- Cumulative AIDS deaths, worldwide, end of 2002: 28 million
- AIDS deaths, worldwide, in 2002: 3.1 million
- New adult/adolescent HIV infections among women, worldwide, 2002: 48%
- Adults/adolescents living with HIV/AIDS who are women, worldwide, end of 2002: 50%
- People newly infected with HIV who are under age 25, worldwide, 2001: 58%
- Young people living with HIV/AIDS, ages 15-24, worldwide, end of 2001: 12 million
- Children under 15 years who have lost one or both parents due to HIV/AIDS, worldwide, end of 2001: 14 million
- Southern and East Africa is home to 70% of the people with HIV/AIDS and 4% of the global population

Spending on the HIV/AIDS Epidemic
- Estimated spending on HIV/AIDS prevention, care, and support in low and middle income countries, 2002: $3 billion
- Estimated dollars needed to address HIV/AIDS prevention, care, and support in low and middle income countries: $6.5 billion in 2003, $10.5 billion in 2005, $15 billion in 2007
- Total pledges to the Global Fund to Fight AIDS, Tuberculosis, and Malaria to date: $2.1 billion over 5 years

SOURCES: Global Fund to Fight AIDS, Tuberculosis, and Malaria; Kaiser Family Foundation; UNAIDS; U.S. Centers for Disease Control and Prevention; U.S. Bureau of the Census
http://www.kaisernetwork.org/static/spotlight_hivaids_factsataglance.cfmAids epidemic update WHO 2002

There is nothing inherently wrong with sex if nobody gets mentally and physically hurt, and if no undesired pregnancies are caused. In this contribution the philosophy is not, “Is sex itself good or bad?” It is seen as bad if somebody has an unwanted pregnancy, an unwanted infertility, an unsatisfying sex life, is eaten up by jealousy, is prosecuted because of sexual orientation, is sexually misused, gets HIV from a partner or from the mother. It is seen as good if both partners are having an enjoyable sex life, not necessary
always with the same companion or within marriage, and having the wanted number of healthy children.

There are more or less two ways to prevent many of the risks related to sex:

A We equip people before they are going to have sex with enough knowledge (technical sex education), moral standards (good examples, peer pressure, moral sex education) and materials (Pill, condom, sexually transmitted infection (STI) clinics) to make sex potentially pleasant without too much risk to all involved. It does not mean that sex before marriage is to be encouraged, but if it happens most risks can be prevented. This is somewhat like teaching teenagers how to swim, how to use a boat and telling them how best to avoid crocodiles and bilharzia.

B We do not believe that it is possible to have sexual relationships outside a formal marriage without doing a lot of damage, so we create taboos and enforce them using tradition, the Bible or the Koran. This often also means presenting people with little information and sometimes misinformation. It is somewhat like refusing to teach teenagers to swim, how to use a boat and warning them about crocodiles, bilharzia and water witches - even in the swimming pool - in the hope of keeping them away from water.

Neither options are to be ridiculed. Approach A is used for example in The Netherlands with some success. There are few teenage pregnancies, abortions and STIs, including HIV. A successful example of approach B does not easily come to mind in the Western World, but there are certain orthodox religious communities were it works and certainly in the Muslim World this works in large subgroups. Many elderly Zimbabweans claim that this system was operative in Zimbabwe in the past. For approach A, one needs a certain educational standard such as Zimbabwe now has. Approach B is difficult to combine with a good educational system because the more education the less likely people will accept taboos and orders without questioning them. More education also means a rift between biological readiness for reproduction and being psychologically, emotionally, and economically ready to start a family. This segregation creates strong sexual tensions. In the past boys and girls were more or less ready to start a family at 16 years. Nowadays, if university education is involved, they might have to wait another 10 years during which the hormones are very active.
In Zimbabwe we pretend to favour approach B but too many have a sexual behaviour as if we lived in system A. A famous example in Bulawayo is that when a parliamentary committee came here a few years ago to study the problem of teenage pregnancies, a MP was, while denouncing sexual activity of young girls in the strongest terms, interrupted by a girl of 15 years claiming that the very same MP tried to seduce her the night before. The pretension of adhering to approach B prevents implementation of the educational requirements of approach A. This results in Roman Catholic (RC) schools refusing to include sex education in the curriculum and other schools not bothering much with it because the attitude of the RC schools makes it impossible to set exam questions related to sexual education. So people are nearly as sexually active as in The Netherlands but there is far less knowledge and access to protection.

Illogical taboos and misinformation
Cultures often “use” taboos to regulate behaviour. For example the generation before me was told not to masturbate otherwise the spinal cord would disintegrate. If you could not restrain yourself there was this terrible anticipation of the decay. When the degradation failed to materialise, you started to regard all taboos/cautions as attempts to manipulate you. See for example the popular acronym in Zimbabwe AIDS: American Ideas for Discouraging Sex.

In Zimbabwe many warnings against sex are not believed by teenagers because other threats turned out to be empty (if you hit your parents you become a mad beggar; if you see somebody naked you get an infection of your eye; if you sit on the street you get pimples on your buttocks; if you sew your dress when dressed you become infertile).

It is time to educate, not with taboos but with knowledge. A good example again is masturbation. One way of relieving sexual tensions before people are ready for the risks of sexual relationships is masturbation. A few years ago the (female) Surgeon General (minister of health) in the USA said this in public. Proponents of approach B started a storm of protests and she lost her job. Suddenly the risks of STIs, (unwanted) pregnancies and HIV did not feature any more as reasons not to have sex. Sex itself was bad. Masturbation is a taboo/sin for no logical reason yet we know that nearly everybody does it. Onan in the Bible was not punished for masturbation as many think, but for refusing to impregnate his brother’s widow Tamar by using the withdrawal method (Genesis 38).

Condoms
There is absolutely no doubt that condoms offer good protection against HIV. The protection is however not 100%. 
This fits in with those of approach B who think that condoms (or masturbation) are no good. It makes it possible to get away with pleasure without having to face the responsibilities and the repercussions: marriage, pregnancy, HIV. B-s also believe that the mysticism, the sacrament, disappears if people can have sex without a deep commitment.

So far so good; a viewpoint to be respected. But often the next step is that B-s believe that they have a God given dispensation to boycott moves in the direction of sex education and availability of condoms. There is no evidence that sex education will increase sexual activity of teenagers and there are many Christians and Muslims who believe in approach A. Objective evidence in relation to condoms does not suit the B-s so the next step is that some of them start manipulating the facts to fit their ideology. The newspapers are full of articles in which people with a scientific background claim that condoms have microscopically-sized holes large enough for HIV to go through. I have heard a very important and otherwise very wise official of a Church supporting approach B saying that the Pill causes thrombosis and the condom was worse than useless for HIV protection. His argument in relation to condoms went more or less as follows:

*It is an established scientific fact that condoms have lots of holes large enough for HIV to pass through, you can see them with a microscope. The condom has in relation to pregnancy a 12% failure rate. Zimbabweans are sexually very active, they do it at least 3 times a week (say 150 times a year) so they have 150 x 12% = a 1800% chance of picking up HIV if they sleep with a HIV-positive partner. If one sleeps around, then at least 10% of ones partners are HIV positive. Therefore the chance of contracting HIV becomes 1800/10 = 180% a year is 90% over a period of 6 months. Furthermore the chance is even higher because you can only get pregnant 3 days a month (Billing's teachings) but you can contract HIV 30 days a month. So the real chance of getting HIV is 30/3 x 180% = 1800%/year = 100% after only 20 days.*

The above was said while addressing secondary school teachers including some mathematic and science teachers many of whom were heathens. I wonder what the same man would say when talking to his own supporters club. The reality is somewhat different: women are more likely to get thrombosis when using the Pill. The Pill as used in Zimbabwe gives a risk of thrombosis of 20 per 100.000 users. One in 20 or so of the women with thrombosis will die from it. The chance of pregnant women suffering from thrombosis is three times as large. Moreover if one does not use reliable contraception there are even larger risks. The Maternal Mortality Rate in Zimbabwe is something like 300 per 100.000 pregnancies at the moment. That means that one in 333 pregnant women will die because of that pregnancy. If women have no access to contraceptives they might have 10 children and a lifetime risk of 1:33 of dying due to pregnancy. Taking into account all the side effects of the Pill, one in 10.000 users per year in Europe will die, mainly because women there smoke. The chance of dying because of a pregnan-
... in Western Europe is also 1 in 10,000. So the lifetime risk of dying due to pregnancy is around one in 5000 there. It is a great advantage to use the Pill in Zimbabwe, because pregnancy is so much more dangerous than in Europe but the anti-Pill lobby has success in developing countries and is completely ignored in Europe. Normal condoms have no holes: they are impervious to water. HIV is 1000 times larger than a water molecule. Indeed, condoms have in large series a failure rate of up to 12% for pregnancy per year: they can tear and slip off. It is a fact that in general a fertile, sexually active woman has a 90% pregnancy chance per year. Condoms will reduce that risk to 12% an eightfold decrease. If the use of condoms offers the same eightfold reduction of infection with HIV, it would mean that consistent use of condoms in potential risky situations would reduce the 90,000 new horizontal infections occurring annually in Zimbabwe to 12,000. Still very bad but much better, 78,000 lives would be saved. Another way of approaching this is: we know for sure that if a fertile woman has intercourse once without protection at a random point in her cycle, she has a 4-6% chance of getting pregnant (4.1% for ease of calculation). If 100 women each have three unprotected sexual encounters in one year about 12 (4.1% + 4% + 3.9% = 12%) will become pregnant. So the condom failure rate of 12% in relation to pregnancy indicates that on average the condom malfunctions 3 times a year. If Zimbabwean have sex indeed 150 times a year then the potential exposure to HIV will also be reduced from 150 to 3 times is 3/150 x 100% = 2%. In other words if a man has paid sex around 150 times in his life and a third of those partners are HIV positive, he will be exposed to HIV 50 times, but with condoms once. Assuming that there are no other STIs to facilitate transmission this once means perhaps a 1% chance he will pick up HIV. The 50 times exposure would have meant a chance higher than 30%. As seen in the example above HIV is not very infectious. The virus really gets its chance if there is damage to the penis, rectum or vagina. Most of this damage is caused by anal intercourse (homosexuals or girls in Latin America, with no access to the Pill and condoms, afraid of pregnancy), STIs or rape. There is absolutely no doubt that condoms are good protection against most STIs. If now and then the condom breaks in otherwise reliable condom users, then the chances that there are other STIs present to facilitate HIV transmission are slim. It is true that one can become pregnant only a few days a month and catch HIV the whole month. Still, there are 500,000 new pregnancies annually in Zimbabwe and 90,000 new horizontal HIV infections. The above discussion is about proportional reduction and it therefore makes no difference in the calculations if pregnancies can only be started a few days a month. If condoms are used consistently, then the HIV (and syphilis, gonorrhoea, chancroid, and chlamydia) epidemic would more or less fizzle out. In the above example of 12,000 new infections, far more people would die of AIDS every year (around 100,000 at the moment including children who became...
infected via their mother) than there would be new infections which would reduce the pool of infectious people over the years.

DISCUSSION
The B approach is not complete nonsense. There are men, and prostitutes with some other sources of income, who are promiscuous because condoms exist. Some of these and their partners and children get infected because the condom slips off. These people would not sleep around if condoms were not available because the fear of AIDS (and unwanted pregnancies) terrifies them too much. So in a sense the availability of condoms promotes AIDS, abortions and promiscuity. On the other hand libido and the need for intimate affection are such strong forces that many will have sex anyway, protection against pregnancy and/or HIV available or not. Prostitutes often have no choice; they need money to look after themselves and their dependents. If one subscribes to the argument that the availability of condoms and other contraceptives causes promiscuity and hence educating people about them and making them easily available provides a passport to the land of sex, then one should also oppose the development of an HIV vaccine. Attacking the development of a vaccine would be a public relations disaster, it is easier to become popular by bringing the reputation of condoms into disrepute.

- If men are told that condoms are useless they will go for very young girls to minimise their HIV risk.
- It is just as (il)logical to believe that condom vending machines promote the AIDS epidemic, as it is to believe that the existence of confession boxes facilitates people going to hell.
- Removal of the brakes from all cars would reduce speeding enormously, but would it save lives?

CONCLUSION
It seems obvious that sex education and the saturation of the sexual active population with condoms will save more lives than it costs, as the situation in Thailand proves. Undermining the use of condoms with lies motivated by ideology will result in serious preventable mortality especially because the instincts of men in Zimbabwe are anti condom anyway and they only need the slightest excuse not to use them. It is high time to take earnest steps to do something about HIV in Zimbabwe. That there are more than 1.3 million infected citizens is obscene. History will condemn our failure. We either try a complete transformation of society along the lines of the approach in Iran and Saudi
Arabia (a rather unrealistic aim). Or we take the open, everybody-to-be-informed, 100%-support-for-condoms-in-possible-risky-relationships route. People are dying.

**FOOTNOTE**

1 Normally condoms have no holes: the diameter of a spermatozoa is 3000 nanometres (0.003 mm); of Neisseria gonorrhoeae 800 nm; Chlamydia Trachomatis 200 nm; HIV 125 nm; Hepatitis B Virus 40 nm; table sugar molecule 0.7 nm; and table salt (NaCl) 0.3 nm. While the width of a spermatozoa is 25 times the size of HIV, the virus is 200 times larger than a sugar and 400 times larger than a NaCl molecule both of which cannot be tasted through the wall of a condom. An oxygen molecule is half the size of NaCl and condoms are airtight, the standard test is to see if they can contain 14 litres of air. The author has tried without success to make a 220 Volt electrical current go through the wall of a water filled condom while electrons are much smaller than air molecules.