

# **SEXUAL EDUCATION; ABSTINENCE ONLY VERSIS SCIENCE BASED; FAITH VERSIS FACTS**

**Wayne E. Martin, M.D., Chair for Reproductive Rights  
League of Women Voters of Washington**

## **Introduction**

To teach, or not to teach: that is the question: whether it is nobler in the mind to attempt to enforce teenage abstinence by exhortation and threats or to face the reality of sexual awakening, attempting both to delay its consummation and to minimize unwanted pregnancies and sexually transmitted infections(STIs). The really bad paraphrase of Hamlet's soliloquy seeks to make two points. First it is a yes/no choice. Second, the Abstinence Only advocates live in a different reality. Their logic seems to be, "I want this to be true, I need this to be true, I believe this to be true, therefore it is true". Claims and testimonials supporting the Abstinence Only programs are believed beyond questioning. Faith rules.

All sexual education programs cover the anatomy and physiology of sex. All teach that abstinence is an acceptable and healthy life-style and is the only 100% effective method of avoiding unwanted pregnancies and all STIs. The difference is that Abstinence Only programs stop here while Science Based programs include instructions and training which will minimize the undesirable consequences of premarital sexual activity.

## **Faith and Facts: A Summary of Findings**

1. Developers, instructors, and advocates of Abstinence Only programs have FAITH that these programs are so effective that unwanted pregnancies, abortions, and STIs will drop dramatically. FACT-There is no objective evidence that Abstinence Only programs decrease abortions, unwanted pregnancies, or STIs.
2. Developers, instructors, and advocates of Abstinence Only programs have FAITH that a dramatic reduction in teen sexual activity is so certain that objective evaluation is a waste of time and resources. FACT-Surveys of sexual activity of teens that had completed an Abstinence Only program reveal either no change or (rarely) a marginal decrease followed by a return to normal within 6 to 12 months. (1)
3. Developers, instructors and advocates of Abstinence Only programs have FAITH in the reports that condoms are ineffective in preventing unwanted pregnancies and all STIs. FACT-Condoms are very effective in preventing unwanted pregnancies and most STIs if the users are highly motivated and well trained.
4. Developers, instructors, and advocates of Abstinence Only programs have FAITH that their pupils will continue to abstain until marriage and will always be monogamous thereafter. FACT-Teens who complete an Abstinence Only program engage in premarital sexual activity at the same rate as their peers.

5. Developers, instructors and advocates of Abstinence Only programs have FAITH that non-barrier contraceptives are ineffective in preventing unwanted pregnancies. FACT-All non-barrier contraceptive techniques can also be highly effective in preventing unwanted pregnancy if used correctly but provide no protection against STIs.

6. Developers, instructors, and advocates of Abstinence Only programs have FAITH that these programs which are fixed in content and presentation, i.e. one size fits all, are equally effective in teens of all backgrounds and cultures. FACT-Given the wide variety of cultures and environments in which teens exist, success of a single rigid program is highly unlikely.

7. The Science Based programs developed during the last decade utilize a large body of research coupled with extensive field testing. All programs have been objectively evaluated and their success documented. Educators are able to access and evaluate all programs and mix and match them so as to produce a best fit for the needs of their students. Evaluation of Science Based programs is continuous so that programs or parts of programs that work replace programs that do not. Local instructors are trained in the general principles and instructional techniques so that the final decision as to content is under local control, thus preserving autonomy. (3, 4, 7)

## **BACKGROUND**

### **Abstinence Only-Failure of**

1. There is no solid evidence that these programs prevent unwanted pregnancies, abortions, or STIs. In a well designed, well controlled British study, the study group was given the Abstinence Only course and underwent an intensive individual hour long counseling session. Unknown to the students or to the instructors, a carefully matched control group was assembled in another location. The survey of the study group after the course reported a 20% reduction in sexual activity when compared to the control group. However, both the study group and the control group were followed for several years. The incidence of teenage pregnancy was identical in both the study group and the control group. (1) One can conclude that either the study group was less than honest in their answers or that the control group used contraception 20% more frequently than did the study group.

2. Discussing his complete review of the medical literature, Dr King Holmes concluded that even when a reduction in sexual activity was detected by survey studies of Abstinence Only programs, the reduction was “marginal at best and even this had gone in 6 to 12 months” (1)

3. The Texas Abstinence Only program is the proponent’s pride and joy. To demonstrate the overwhelming success of this program, the rates of sexual activity of 9<sup>th</sup> graders who had no sexual education training were surveyed. The following year 9<sup>th</sup> graders were given an Abstinence Only program and an identical survey was performed. In the first group (no abstinence program) the rate of sexual activity was 24% for girls and 25% for boys. In the group receiving the Abstinence Only program, the rate of sexual activity was 29% for girls and 39% for boys. (5)

4. One of the most spectacular failures of abstinence only programs occurred in 1917. The first group of Army draftees was given an intensive abstinence only program which included a rather gory film on the long term effect of syphilis. (I have been told by Korean War draftees that they were also shown the film.) When they returned from leave over 95% were infected with gonorrhea. Before the second group began training, the Army took the measures which were known to contain the infection rate of STIs, i.e. inspecting prostitutes for disease, establishing controlled brothels, providing prophylactic kits, etc. The infection rate of the second group was about 3%. (9) Years later, after experience proved the effectiveness of latex condoms in preventing STIs, infection with STI resulted in disciplinary action; the soldier clearly had disobeyed a direct order to use the device. (9)

5. Finally, The overseas experience is instructive. The Uganda program is celebrated as proof that the Abstinence Only program works. This is untrue. When President Musiveni took office in 1989, the incidence of HIV/AIDs was about 18%. President Musiveni made AIDs a top priority. The ABC (Abstinence, Be faithful, and Condoms) program was developed. By 1991 the program was in place and gave equal emphasis to A, B, and C. The incidence of HIV/AIDs began to fall, reaching about 10% by 1994. The incidence stayed at 10% for 2 years. In 1996 a publicity campaign was begun that emphasized the need to use condoms. Over the next 4 years 150 million condoms were imported and distributed either free or a much reduced cost. By 2000 the incidence of HIV/AIDs had dropped to 6%. (6) The new administration in the USA encouraged President Musineni to return to a primary abstinence program. As was predicted, the current HIV/AIDs incidence is back up to 9% in women and 7% in men. (The Economist, London, 8 Sept 2005)

The only reasonable conclusion that can be drawn from these observations is that the Abstinence Only programs are simply ineffective. Unfortunately there does seem to be one constant effect. Teens that receive an Abstinence Only instruction use condoms less frequently when they begin sexual activity than teens that receive other programs or no program at all. The downside to Abstinence Only programs is that they may well result in an increase in unwanted pregnancies, abortions, and STDs.

### **Condoms-Why successful**

This simple device is made of latex which cannot be penetrated by particles the size of viruses, bacteria, or spermatozoa. (12) If properly applied slippage is minimal. If withdrawn while the penis is still erect, spillage will not occur. The minimal manufacturing (FDA ) standard requires that there be no more than one leakage or rupture in 400 tested. This gives a maximum protection rate of 99.75% for pregnancy and many STIs. If Plan B is added, the rate would increase to 99.94% for pregnancy. This is not 100% but it is close. One can reasonably conclude that studies that find a high failure rate of condoms, in fact measure the non use and/or the improper use of the device. In the real world these are serious problems. (12)

Is there any evidence that the 99+% protection rate can be achieved? Yes, there is.

1. Personal experience. For medical reasons my wife and I used condoms as a sole contraceptive with a zero failure. While discussing this issue with 2 other older members of the LWVWA, they volunteered that they had also used condoms as the sole means of contraception throughout their marriage. Assuming an average rate of sexual activity, this gives a failure rate of 0 per at least 2000 acts of intercourse. Not a controlled scientific investigation, but it shows that very high rates of protection can be achieved.

2. In one year, only two of every 100 couples who use condoms consistently and correctly will experience an unintended pregnancy—two pregnancies arising from an estimated 8300 acts of sexual intercourse, for a 0.02% per-condom pregnancy rate. (12) Another way of expressing the failure rate would be that unwanted pregnancy occurred after 1 of 4150 acts of sexual intercourse.

3. As part of a study conducted during his naval career, Dr. King Holmes identified those sailors that had used condoms during their last liberty. There were no infections with gonorrhea in the group of sailors using condoms as contrasted with the usual high rate of infection in those who did not use the device. (1) So a protection rate of 99% + is possible.

4. A study published in the New England Journal of Medicine reported that in the study, there was not a single case of HIV transmission between HIV-positive individuals and their HIV-negative partners using condoms consistently, despite a total of 15,000 acts of intercourse. It should be noted that the infected partner was under treatment, so the viral exposure may well have been minimal. (2)

In a similar two-year study, two percent of uninfected partners who used condoms consistently became HIV-infected versus 12 percent among those who used condoms inconsistently or not at all.

Last, what is the protection rate of condoms in the real world as found in the complete review of the Medical Literature? (1)

1. For HIV—80 to 95%.
2. For gonococcus—100%. This is the only well-controlled study. A more realistic figure would be 80 to 95%, this lower figure reflecting the incidence of operator failure.
3. For Chlamydia—not presented but should be equal to gonorrhea.
4. For HPV—30 to 70%.
5. For HSV2—early studies suggested that the protection rate was minimal. More recent studies reveal protection rates of about 50% with better protection for females and less for males.

That condoms work very well when the users are highly motivated and well trained is simply fact and all the Faith in the world will not change it. The problems are straightforward. How do you get people to use the device? How, when, where, and by whom do you get the young people trained? Currently the percentage of teens using this device is far too low and far too many teens make mistakes that are easily avoided.

The disinformation and misinformation provided by opponents of condoms are nothing less than public health malpractice that cannot be defended on any rational basis. Of the two common STIs not adequately prevented by condoms, i.e. HPV and HSV2, the serious consequences of HPV can be eliminated by the new vaccine. The current vaccine for HSV2 is inadequate and treatment is not 100% effective. Clearly further research is needed because our current protective, preventive, and treatment options are inadequate. Unfortunately it is highly unlikely that the required research funds will be granted by the current administration.

### **Contraceptives (the pill and other methods)**

There are a lot of these. Again there is a significant difference between the best possible case and what actually happens in the real world. A high degree of protection is possible with almost all of the methods. The operator independent implant has a failure rate of 0.05% while the oral pill has a failure rate of 2%. Since both are designed to deliver the same blood level of progesterone, this also suggests operator failure. Unfortunately user error or nonuse with loss of protection is always possible. However, there are forms of contraception which are free of user error, e.g. injections, inserts, rings, IUDs, etc. (11) These options should be discussed in all sexual education courses.

### **Science Based Programs**

Science Based programs are actually based on solid research, not on faith. They also teach that abstinence is the only 100% certain way of avoiding unwanted pregnancies and STIs. Because at least 80% of teens will be sexually active by age 21, condoms and contraceptives are covered during the course or, if desirable, may be taught by a separate instructor. The courses provide proven techniques that teens can use to delay the initiation of sexual activity and/or to ensure that when it begins the risk is minimized. In addition, the instructor has available other techniques which raise the level of self-esteem of teens, particularly females. Details of these programs and descriptions of how the research was performed as well as the principles used to construct the programs can be found at these websites. (7)

### **Conclusions**

1. Abstinence Only programs are failures and should be rejected as the produce of wishful thinking or, if you wish, Faith.
2. Governmental funding of such programs should cease and this funding be switched to promoting and implementing instruction that has proven effectiveness i.e. Science Based programs.
3. Inclusion of condoms and other contraceptives is mandatory if the goal of a Sexual Education program is to reduce the incidence of unwanted pregnancies, abortions and STIs.

## Sources

Explanation: The literature is enormous and for the most part worthless. The sources listed are those I found most useful and are accompanied by a description of the groups and organizations so that the reader at least has my opinion of their value.

1. Holmes, King, MD. PhD. "Preventing HIV and other STIs, What's worked, What hasn't, and Why". Dr Holmes is a Professor of Medicine Univ. of Wash; Director, Center for AIDs and STDs. Univ. of Wash; Chief, Infectious Diseases Harbor Medical Center; and has been elected to the Institute of Medicine of the National Academy of Sciences. The lecture was a brief summary of a complete review of the worlds literature carried out by the members of the groups under his direction. 35,925 citations were reviewed. This was a gigantic undertaking and must be regarded as the definitive information source at this time. A VCR recording of the lecture is available through the League office.

2. "The Content of Federally Funded Abstinence-Only Education Programs." at [www.reform democrats.house.gov/story.asp?id=734](http://www.reform democrats.house.gov/story.asp?id=734) . This report was produced by the minority staff special investigations division. They have available both the contents of the Library of Congress and trained Librarians to assist in the literature search. It has been challenged by the advocates of Abstinence Only programs.

3. Abstinence and Abstinence-Only education:" A review of U, S. policies and programs. Journal of Adolescent Health. Volume 38, issue 1, pages 72-82. Search by "abstinence and abstinence-only education", then click on the sexedforlife entry to access the original article. One of the more readable articles.

4. "Adolescent Pregnancy: Current Trends and Issues". Pediatrics-Vol.16 No. 1 July 2005, pp. 281-286. at <http://pediatrics.aappublications.org/cgi/content/full/116/1/281> . Also at "Adolescent Pregnancy: Current Trends and Issues" "Pediatrics" (Google search). An excellent review of the problem with full documentation provided. Advocates "evidence-based (now labeled Science Based) that provide comprehensive information and services to youth". ... "directed at the specific needs of youth in that community".

5. "The Dallas Morning News, January 30, 2005". A summary is available at <http://www.msnbc.msn.com/id/6894568/> . This newspaper is conservative as are both the investigator and the university. It has been alleged that the students discovered the purpose of the study and that this knowledge contaminated the results. I have no comment.

6. "Univ. Calif. San Fran" "Country Aids Policy Analysis Project" "HIV/AIDS in Uganda" by Lisa Gauber and Elliot Marseille at <http://hivinsite.ucsf.edu/Insite.jsp/Insite?page=cr-ar1> then choose Uganda in the MS word file. This is frequently difficult to access. An alternate route is to use the title of the paper as written above and then click on the paper (Google search). If all else fails you can get a copy of my printed out version. This is the report of all papers on HIV/AIDS in Uganda. Earlier versions had the statistics laid out. The current version contains them in the bibliography. A brief summary can be found in The Economist 8 Sept 2005.

7. “Science and Success; Sex Education and Other Programs That Work to Prevent Teen Pregnancy, HIV & Sexually Transmitted Infections”, at

[www.advocatesforyouth.org/programsthatwork/index.htm](http://www.advocatesforyouth.org/programsthatwork/index.htm) then click on Executive Summary. This is an excellent summary of the complex series that constitutes the Science Based programs. “The Report on Abstinence-Only-Until-Marriage Programs in Ohio” by Dr. Scott Frank is another excellent source. At

[www.siedusdc.net/policy/states/2005/analysis.html](http://www.siedusdc.net/policy/states/2005/analysis.html)

8. Episode presented in the History Channel TV series “Sex in America”. I have not been able to confirm the sources on which the program is based. The weakest of the examples but I could not resist.

9. Personal communication from the Preventative Medical Officer, July 1963, Ft Sill Oklahoma.

10. From the Alan Guttmacher Institute. These folks have been around a long time and are very knowledgeable. Their abortion statistics on abortion are accepted as the most accurate available in this country. The data is from their slide collection at

<http://www.contraceptiononline.org/slides/slide01.cfm?q=alan+guttmacher+institute&dpg=3>

11. From the Center for Disease Control site Male Latex Condoms and Sexually Transmitted Diseases: at <http://www.cdc.gov/nchstp/od/latex.htm>

12. “Condom Effectiveness”, at

<http://www.advocatesforyouth.org/publications/factsheet/fscondom.htm>

I have tons more if anyone is a glutton for punishment.

Disclaimer-This document was developed by the author to clarify his thinking and is not an official League position document. It is offered for information and advocacy.