

COMMITTEE ON HEALTH
Senator David Ige, Chair
Senator Josh Green, Vice Chair

Senate Bill 777

Friday, February 13, 2009, 2:40 p.m.
Conference Room 16, State Capitol

My name is Dana Abdinoor, I am a Graduate Student at the University of Hawai'i Myron B. Thomson School of Social work. I am providing written testimony on the measure Relating to Comprehensive Sexuality Health Education (SB777). I strongly SUPPORT this bill in its effort to require medically accurate, factual, and comprehensive sexuality health education.

I am a firm believer in the "Knowledge is Power" adage. The more knowledgeable our children, the better equipped they are to make informed and hopefully responsible decisions. Comprehensive sexuality health education is a proactive approach to addressing social concerns such as abortion and the spread of sexually transmitted diseases/infections. Incomplete education begets distorted perceptions, which perpetuate the need for reactive measures such as emergency contraception. Current abstinence-only-until-marriage education models ignore and often alienate sexually active youth (more than 30% in 2007). Neglecting to provide education about the proper use of contraceptives based on the assumption that it encourages sexual activity is irresponsible and discourages healthy dialogue. At the very least, frank discussion about sex and sexuality fosters an environment of tolerance and acceptance. Instead of debating the effectiveness of abstinence-only education, we should be focusing on the best way to inform today's youth about the various responsibilities, pleasures, and possible consequences associated with sex.

Thank you for the opportunity to testify in support of SB777.

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Testimony Before the U.S. House of Representatives Committee on Oversight and Government Reform

Stan E. Weed, Ph.D.

April 23, 2008

Testimony Before the U.S. House of Representatives Committee on Oversight and Government Reform

Stan E. Weed, Ph.D.

Introduction

Thank you for the invitation to participate in this hearing. I look forward to a healthy discussion. We are dealing today with the common perception that abstinence education is *not* effective, and the corollary assumption that comprehensive sex education *is* effective at preventing the problems related to teen sexual activity. My testimony today will address these perceptions.

I started my examination of abstinence education nearly 20 years ago with a very skeptical mind about the likelihood of finding any success. Since that time, I have examined over 100 different abstinence education programs from an empirical standpoint. I have collected data from nearly 500,000 adolescents. I have personally interviewed more than 2,000. I may be the only person on this panel today who has actually been “on the ground” evaluating abstinence education programs. This has given me direct, extensive exposure to young people and their world. I have learned some things from that experience that are very difficult, if not impossible, to replicate through secondhand experience.

Over that same time period, I have also discussed this issue with many opponents of abstinence-centered education. Two camps of critics emerge. One camp would abandon abstinence education as a strategy and policy because they don't believe that it can work. For those, abstinence is a noble idea, but not practical. Their primary concern is *effectiveness*. Were they to see good evidence regarding effectiveness, they would at least consider it as a viable policy.

The second group of critics oppose abstinence education because it goes against their core value system. They believe that our society ought to be more free and open about sex, overcome our inhibitions, and simply enjoy the pleasures of physical intimacy regardless of age or marital status. For this group, effectiveness of abstinence education is not the most important issue. They oppose it because it is counter to their core values. If you are one of those in opposition, you might ask yourself “If it worked, would I still be in opposition?” My testimony today will probably be of more interest and value to those in the first camp.

Establishing Criteria for Program Effectiveness

The Need for Appropriate Criteria

I understand that the primary concern of this hearing is with evidence of effectiveness. Given that, we must first establish the *criteria for effectiveness*. The outcomes of teen pregnancy and STDs are common concerns for both the comprehensive sex education and abstinence-centered approaches to prevention. However, it is surprising how little actual evidence is available on those fundamental outcomes. For example, a recent publication from the National Campaign to Prevent Teen and Unplanned Pregnancy (NCPTUP) titled "What Works 2008: Curriculum-Based Programs that Prevent Teen Pregnancy" (National Campaign to Prevent Teen and Unplanned Pregnancy, 2008) lists 28 programs that have the "strongest evidence of success." The title of this report implies there is good evidence that these 28 programs actually prevented teen pregnancy. Upon closer examination, however, we see that 20 of those 28 programs did not measure rates of teen pregnancy as an outcome. Of the 8 programs that did, 2 did not reduce teen pregnancy, only 3 reduced pregnancy for 12 months or longer. Of those 3, one was not a sex education program—it did not include any sex education or discussion of sex (Lonczak, et al., 2002)—and one of the remaining 2 was found to be ineffective in a second evaluation study by Dr. Doug Kirby (Kirby, et al., 2005). This leaves only one comprehensive sex education program that reduced teen pregnancy rates for at least one year, out of 28 supposedly effective programs. This does not constitute "strong evidence for success" as the brochure claims (see Table 1).

Table 1. Evidence of Success in 28 Programs that "Prevent Teen Pregnancy"	
1. Did the Programs Measure Teen Pregnancy as an Outcome?	
↳ Yes, 8 Programs DID Measure It	
↳ No, 20 Programs DID NOT Measure It	
2. Did the 8 Programs that Measured Teen Pregnancy Demonstrate Impact?	
↳ 2 Had NO Impact	
↳ 3 Had Impact on Teen Pregnancy for Less Than 12 Months	
↳ 3 Reduced Teen Pregnancy for 12 Months or More	
3. Of the 3 Programs that Reduced Teen Pregnancy for 12 Months or More:	
↳ 1 Was Actually Not a Sex Education Program (Did not Teach About Sex at All)	
↳ 1 Was Found Ineffective by a Later Study	
↳ 1 Sex Education Program had a Lasting Impact	

**Published by The National Campaign To Prevent Teen and Unplanned Pregnancy in 2008.*

Another common concern, that of STD transmission, is also lacking adequate measurement history in program evaluation. In a recent and thorough review of 115 of the best sex education research of the past 15 years by Kirby (Kirby, 2007) only 22 evaluation studies measured reduction of STDs as a program outcome. Twenty of those found no reduction in STDs. The two that did find a reduction both occurred with self-selected patients in a clinic setting, not part of a curriculum based comprehensive sex ed program. If you read the report carefully, you will be surprised to find that there were no school- or community-based comprehensive sex education programs that reduced STDs.

Comparable Measurement Criteria

Given this lack of evidence regarding program impacts on the very outcomes that these efforts are designed to address, we are left with the challenge of establishing other criteria for determining “effectiveness.” The impact of prevention programs is often assessed by examining shorter-term behavioral outcomes such as sexual activity (initiation and discontinuation), condom use, and a host of attitude, knowledge, and intention questions. The idea is that if programs can change these outcomes, we should also see reductions in the primary outcomes of interest, namely pregnancy and STDs. Using such evidence can be valuable, but will be useful in decision-making and policy-crafting only when the same criteria are used to measure outcomes for the various programs being compared—“apples to apples”. Let me suggest three categories that can help establish comparability of evidence across different programs.

1. Time Frame. The first category for comparable evidence is the time frame for the outcome measure. For example, the widely cited Mathematica report, which evaluated 4 abstinence-centered education programs, measured outcomes 4 to 6 years after the program’s end, with no interim support or reinforcement of the message (Trenholm, et al., 2007). Not surprisingly, none of the 4 programs showed decreased sexual activity 4 to 6 years after the program. Several news reports touted this study as the final proof that abstinence education does not work (Guttmacher Institute, 2007). However, when the 107 comprehensive or condom-centered programs in the Kirby review are held to this same time frame (Kirby, 2007), not one of them reported an increase in consistent condom use (CCU), nor did any of them report a decrease in STDs over that time period (see Table 2). And only one program reported a decrease in pregnancy rates (Vincent, et al., 2004). This lack of program impact was not similarly reported in the news as evidence that comprehensive sex education programs do not work.

Table 2. Comparing Program Results Using Similar Criteria

(Those with Similar Outcomes, Populations, & Timeframes out of 115 Reviewed Studies from 1996–2007^{1,2})

Outcomes ³	Number of Studies with 4+ Years Follow-up ^{4,5}	
	Abstinence (n=1)	Comprehensive (n=11)
Increased Abstinence	0	0
Increased CCU	0	0
Decreased STDs	0	0
Decreased Pregnancies	0	1

NOTES:

1. Kirby, D., *Emerging Answers 2007*, published by The National Campaign to Prevent Teen and Unplanned Pregnancy.
2. All programs studied employed quasi-experimental design or random assignment and were peer-reviewed.
3. Some programs did not measure all outcomes.
4. These numbers represent raw counts of studies and not rates of effectiveness.
5. The 4-year time frame is used for comparability to the Mathematica study’s time frame.

Clearly, using equivalent time frames is an important factor in assessing outcomes. When we set up a race in a track meet, everybody in the same race runs the same distance. Our institute uses a minimum one-year follow-up time interval for measuring behavioral outcomes, for the following reasons: 1) a shorter interval is not adequate to detect changes in sexual behavior for young teens, 2) 12 months is the typical interval between school-based program installments (once per school year), and 3) an impact that lasts one year

should be considered a minimum standard for a program to be called effective; program effects lasting less are only providing temporary impact.

2. Setting and Population. The second category for comparable evidence has to do with the setting and population where the intervention occurred. Most abstinence-centered education programs, including those funded under Title V, Title XX, and CBAE, are primarily offered in a school setting, either during or after school. Some are based in community settings such as recreation facilities. These are population-based strategies offered to *all* youth in the setting as a group, not to be confused with *clinical intervention* strategies where self-selected youth seek health services, often on a one-on-one basis. A comprehensive or condom-centered strategy that might work in a clinic setting with clients seeking STD diagnosis or treatment would not necessarily work in the school setting with school children. Results of programs in these two categories should not be compared against each other, nor can we expect that approaches found effective in one setting would necessarily work well in the other, or that the findings from the clinical interventions could be generalized to population-based strategies.

3. Outcome Measure. The third category for comparable evidence is the outcome measure itself. In abstinence education, there is a fairly high behavioral standard of success: to reduce sexual initiation rates, and to promote discontinuation for those that have already started. In comprehensive or condom-centered sex education the outcome measures often use a lower behavioral standard—including condom use at first or last intercourse, or frequency of condom use. This might be comparable to abstaining at first or last sexual opportunity. I don't think anybody here would accept the outcome of "abstinent on the first date," "abstinent on the last date," or "abstinent most of the time" as good evidence for program success in abstinence programs. Consistent condom use (CCU)—using a condom for every act of intercourse—is behaviorally a more equivalent measure to abstinence and is the standard by which the condom's capacity for partial prevention of STDs is measured. According to the Centers for Disease Control (CDC), it is *consistent use* that provides the partial protection that condoms are capable of: "inconsistent use, e.g., failure to use condoms with every act of intercourse, can lead to STD transmission because transmission can occur with a single act of intercourse" (CDC, 2003). According to a study in the journal *AIDS* (Ahmed, et al., 2001), for example, "Irregular condom use was not protective against HIV or STD and was associated with increased gonorrhea/Chlamydia risk." A Denver study (Shlay, et al, 2004) reported that "when all condom users were compared with non-users ($N=126,220$), there was limited evidence of protection against specific STD." But when consistent vs. inconsistent users were compared, the consistent users had significantly lower infection rates.

Measures such as condom use at first or last intercourse might serve as preliminary indicators of some program impact, but the gap between such measures and consistent use for American teens is often wide, suggesting that such measures are as likely to indicate inconsistent use as consistent use. (For example, in 2002, 68% of sexually active teen girls reported condom use at first sex, compared to 28% who said they always use a condom. See Franzetta, et al., 2006.) For a program to be deemed one that "works," promoted to the public and school officials, and implemented widely, surely the basic standard—abstinence or CCU—should be employed. Clearly, the effectiveness of different programs should only be assessed using comparable criteria. For example, comparing the effectiveness of abstinence-centered education on abstinent outcomes to comprehensive programs' effects on condom use at first intercourse would be inappropriate. For these reasons, any measure less than "consistent condom use" would be an unacceptable standard of success for comprehensive sex education.

Even the *consistent condom use* measure is not equal to the abstinence standard in terms of effectiveness, since even with consistent use, 20% to 30% of those exposed to an STD will acquire it, though they are assumed to be protected (Crosby, et al., 2003 and Winer, et al., 2006). However, it is as close as we can come to similar outcomes for comparing abstinence-centered and condom-centered programs and policies. Unfortunately, this more appropriate and comparable measure was used in only 6 of the 72 studies reviewed by Kirby that had a minimum follow-up time of 1 year (Kirby, 2007). This leaves scant evidence upon which to judge the relative success of abstinence versus comprehensive sex education. The 3 categories of comparable evidence are summarized in Table 3.

Table 3. Comparable Evidence-Based Criteria: Categories that Define Program Effectiveness	
1. Similar Behavioral Outcomes:	
↳	<i>Abstinence</i>
↳	<i>Consistent Condom Use (CCU)</i>
↳	<i>Sexually Transmitted Disease (STD)</i>
↳	<i>Pregnancy</i>
2. Similar Target Populations:	
↳	<i>School- or Community-Based</i>
↳	<i>Not Clinic-Based</i>
3. Appropriate & Similar Time Frame (Duration of Program Effect):	
↳	<i>12-month Minimum</i>
↳	<i>4 Years: Seldom Measured or Achieved by Any Sex Education Program</i>

Evidence for Abstinence and Comprehensive Sexuality Education

Evidence from 17 Years of Sexuality Education Studies

After establishing comparable measurement standards for effectiveness, we can look at Kirby's list of 115 credible studies and identify the abstinence-centered and comprehensive sex education programs that meet these criteria. We can then do a side-by-side comparison of the results of these two types of programs, given that they have 1) a common setting and population (school- or community-based), 2) an appropriate and similar time frame (1 to 3 years), and 3) comparable outcome measures (either abstinent behavior, CCU, STDs, or pregnancy). Out of the 115 studies reviewed, we found 34 studies of comprehensive sex education and 7 studies of abstinence-centered programs that met these criteria.

For the 34 comprehensive sex education studies that are comparable to the abstinence education studies on these three categories, none of the published studies reported an increase in consistent condom use (CCU) after one year (many did not even measure it). In addition, as shown in Table 4, none of the 34 studies reported reductions in STD rates (either not significantly different after at least one year or not measured). And, there were only 3 studies that reported decreases in pregnancy rates (Philliber, et al., 2002; Stanton, et al., 2004; and Vincent, et al., 2004), one of which was not replicated by another study 3 years later (Kirby, et al., 2005). Most of these studies measured sexual initiation (33) and 9 found significant

reductions (Coyle, et al., 2004; Hubbard & Rainey, 1998; Kirby, et al., 1991; Philliber, et al., 2002; Sellers, et al., 1994; Aten, et al., 2002; Sikkema, et al., 2005; Zimmerman, et al., *in press*; and Zimmerman, et al., *in press*), one of which was not replicated 3 years later (Kirby, 2005). As can be seen, the actual evidence regarding comprehensive sex education as a prevention strategy is far less compelling than what the public perception and conventional wisdom would suggest. Using these same three categories to make the evidence more comparable, we look at the 7 abstinence education studies from Kirby's list that meet the criteria. Of these, 5 of the 7 reported a significant reduction in initiation rates (Clark, et al., 2005; Denny & Young, 2006; Doniger, et al., 2001; Howard & McCabe, 1990; Weed, et al., 1992). It is interesting to note that the comprehensive sex education programs appeared to be more effective at achieving teen abstinence than achieving the other outcomes, although not as effective proportionately as the abstinence-centered programs (5 out of 7 versus 9 out of 33).

Table 4. Comparing Program Results Using Similar Criteria (Those with Similar Outcomes, Populations, & Timeframes out of 115 Reviewed Studies from 1990–2007 ^{1,2})		
Outcomes ³	Number of Studies with 1–3 Years Follow-up ⁴	
	Abstinence (n=7)	Comprehensive (n=34)
Increased Abstinence	5	9
Increased CCU	0	0
Decreased STDs	0	0
Decreased Pregnancies	1	3

NOTES:

1. Kirby, D., *Emerging Answers 2007*, published by The National Campaign to Prevent Teen and Unplanned Pregnancy.
2. All programs studied employed quasi-experimental design or random assignment and were peer-reviewed.
3. Some programs did not measure all outcomes.
4. These numbers represent raw counts of studies and not rates of effectiveness.

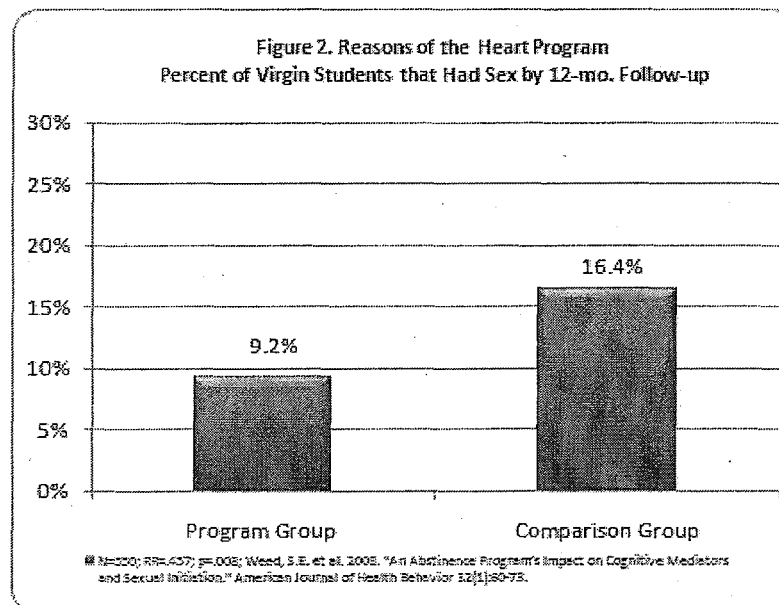
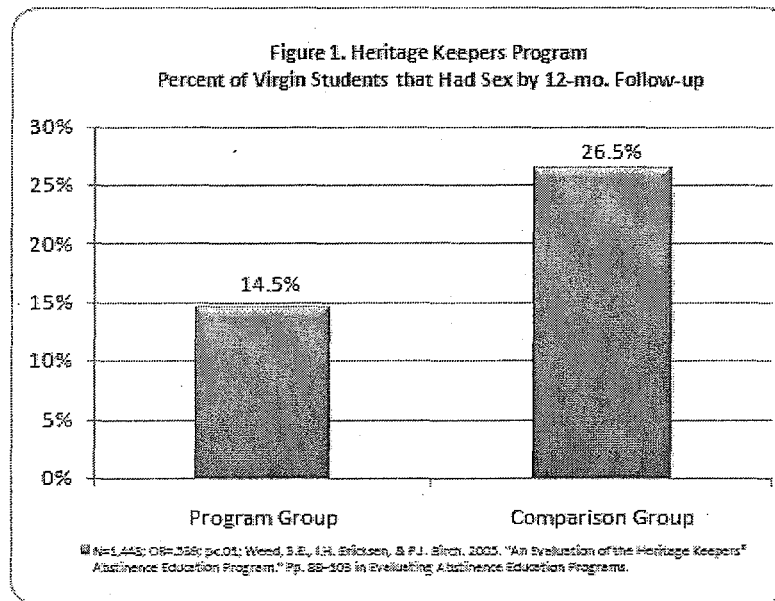
New Evidence regarding Abstinence-Centered Education

While program and policy evaluation is relatively new to abstinence education, we are now seeing a pattern of evidence indicating that well-designed and well-implemented programs can be effective. Let me share some additional, recent studies that have been published in peer-reviewed venues but were not included in Kirby's list or in any of the recent reviews of abstinence-only evaluation:

Heritage Keepers. The *Heritage Keepers Abstinence Education* study used a large sample size (n=1,535), matched comparison group, and 12-month follow-up (Weed, et al., 2005). It found that program students were about one-half as likely to initiate sexual intercourse after one year as were the comparison students, after controlling for pretest differences (odds ratio=.539, p<.001). Program students also had significant improvement on cognitive factors that appeared to mediate teen abstinence (see Figure 1).

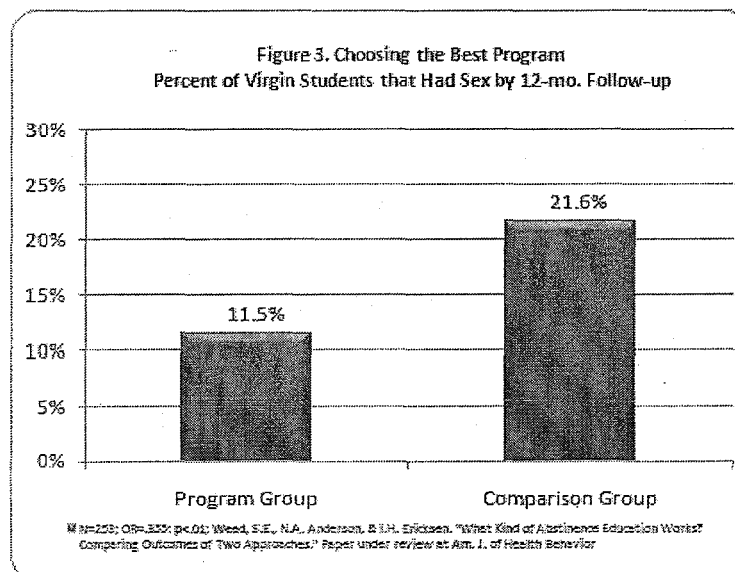
Reasons of the Heart. An evaluation of the *Reasons of the Heart* abstinence curriculum (Weed, et al., 2008) found that adolescent virgins who received the program were less than one-half as likely as the matched comparison group to initiate sexual activity after one year (odds ratio=.413, p<.05). This program

also achieved impact on cognitive mediators that appeared to contribute to the program's success (see Figure 2).



In addition to these studies, a randomized trial conducted by Jemmott, et al. (2006) found that an abstinence-centered intervention significantly reduced sexual initiation among young adolescents after a 24-

month follow-up period. The 3 studies provide new and more rigorous evidence that abstinence education programs can be effective. Two more studies that are in the publication pipeline show similar patterns of effectiveness (see Figure 3 for one of them). Taken together, a pattern of scientific evidence is emerging that indicates abstinence-centered sex education programs, if properly designed and implemented, can cut rates of teen sexual activity by as much as half for significant periods of time, without reducing condom use by the sexually active. (Condom use was measured by the Jemmott, et al., 2006 and Trenholm, et al., 2007 studies of abstinence programs and no adverse effect was found.) This suggests that teaching adolescents to avoid sexual activity is a viable primary prevention strategy, one that can fully prevent the harmful and costly consequences of teen sex.



It should be noted here that critics of abstinence education cite several recent reviews of abstinence education studies that found no positive impact on teen sexual behavior (Kirby, 2007, Kohler, et al., 2008, and Underhill, et al., 2007). Most of the studies included in those reviews occurred during the first decade of federal abstinence funding at a time when abstinence education programs and program evaluation was still in its infancy. There was a lack of research—both quality and quantity—in this first decade of abstinence funding. This trend is changing, and unfortunately none of those cited reviews included the recent abstinence evaluations we refer to in the preceding paragraphs. These recent studies render the previous reviews and their findings somewhat outdated and not representative of the state of the science of abstinence research.

Characteristics of Successful Programs



Do *all* abstinence programs work? Of course not. We have also evaluated programs that do not work, or do not work well, or that do not work for all of the program participants. (This is more common for programs in the early stages of development and implementation, when they have not had the value of data to provide direction for program modification and improvement.) The real question we need to be asking then is not "Do they work?" but rather "Which ones work, for whom, and under what conditions?" Answers to *these* questions will move us further down an effective policy road than the simplistic "Do they work?" In our studies of abstinence-centered interventions for teens, clear patterns of program effectiveness have emerged. Successful programs usually share the following characteristics:

1. **Adequate Dosage.** Successful programs attend to the critical factor of adequate "dosage," and deliver that dosage on an effective schedule.
2. **Mediating Factors.** They go beyond the simplistic notion of "providing information" (even if it is medically accurate) and effectively address the key predictors of adolescent sexual risk behavior that are amenable to intervention.
3. **Messenger.** They give as much attention to the messenger as they do to the message. Effective teachers make more of a difference in program outcomes than do printed materials. These teachers engage students in the learning process, gain their respect, model their message, and believe in their ability to impact students.
4. **Evaluation.** Effective programs conduct quality program evaluation, and take seriously the lessons learned, especially those that identify program shortcomings.

Medical Accuracy

Medical accuracy is a reasonable standard, and it ought to be applied to *all* sex education material. If we were to scrutinize all curricula in the broad field of sex education, we would find a plethora of outdated, inaccurate, or misleading information. An example of the latter comes from the research vs. public policy on human papillomavirus (HPV), the STD that is responsible for more than 90% of all cervical cancer in women (Bosch, 1995). More women die annually in the U.S. from cervical cancer than die of AIDS spread through sexual contact (American Cancer Society, 2002 and CDC, 2003a). As early as 1999, the CDC knew that HPV was directly linked to cancer, and that condom use was not an effective barrier to transmission of the virus, but chose not to warn the public about this because they felt it would be counterproductive to condom use that could still provide some protection for other STDs. At the same time some abstinence education programs were criticized for stressing these facts about HPV. I think all would agree that adolescents and their parents should be given accurate information about sexuality and that programs should use the latest and best scientific information available.

Equally important, however, is this well established fact: *adolescent behavior is not primarily driven by their information system.* There are several factors that drive behavior that are far more important and potent than information—no matter how accurate it is. The key predictors of risk behavior do not include medical facts about physiology, biology, and the risks of unprotected sex. These of course can be covered, and should be covered accurately. But we cannot count on medical information and risk assessment to have a major impact on adolescent risk behavior. The recent research on the adolescent brain and its development has helped explain this phenomenon, which flies in the face of conventional wisdom. It is important for program

developers to realize that an emphasis on information is not an effective strategy for changing adolescent behavior.

Changing Behavior—Consistent Condom Use and Abstinence

The National Center for Health Statistics reported that only about 28% of sexually active female teens report consistent condom use over a one-year period. For sexually active boys the number is 47% (Franzetta, et al., 2006). As has been illustrated above, programmatic attempts to increase CCU and maintain it among teens have shown little evidence of success, causing us to look for reasons why.

Medical and social science research may suggest some causes. At least three factors seem plausible. First, there appears to be a disconnect between the sex education strategy of providing teens with contraceptive and STD information for responsible decision making (even if it is medically accurate), and the developmental capacity of the teen brain. According to the latest medical research, the areas of the brain responsible for impulse control, risk assessment, anticipation of consequences, forward planning, and reasoned judgment—all of which are important for consistent correct condom use—are not fully developed until after the teen years, in the early twenties (Giedd, et al., 1999; Romanczyk, et al., 2002; and Thompson, 2001). In other words, as our legal system recognizes, adolescents are not fully capable of responsible decision-making. Those of us who have raised teenagers can relate to this fact. Their developmental schedule mitigates against consistent condom use. As one frustrated condom-centered sex education high school teacher told me “They can’t even remember to bring a pencil to class. How will they be good condom users?” Moreover, logical, foresighted thinking is even less likely to occur in the moment of passion. This is illustrated by two studies of teen girls, one which found that being diagnosed with an STD did not lower their sexual risk-taking behavior (Morrison-Beady, et al., 2003) and the other that reported that those who were *inconsistent* condom users actually had better knowledge about HIV risk than those who were consistent condom users (Kershaw, et al., 2003).

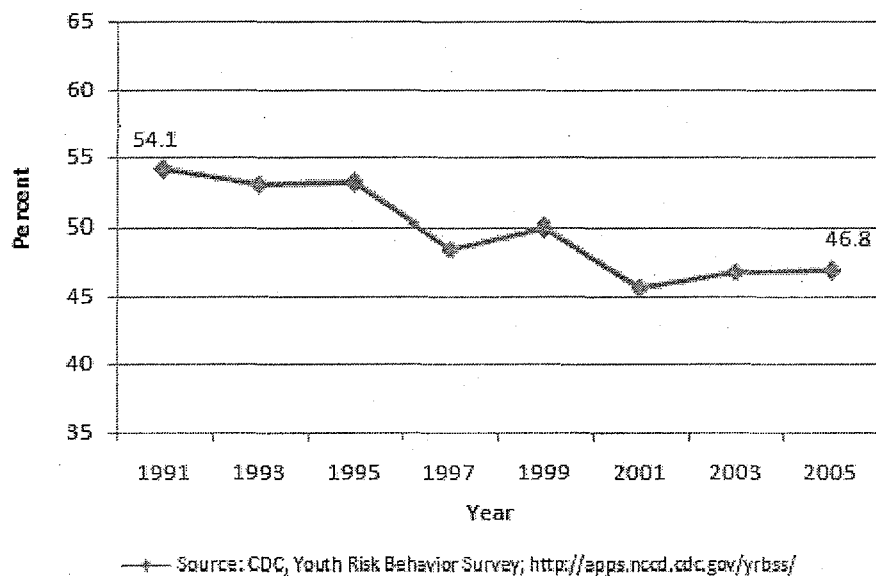
Second, it seems likely that the nature of teen relationships affects condom use. Several studies have shown that requesting condom use is sometimes interpreted as a lack of love, intimacy, commitment, and trust in a relationship, especially by females (Gebhardt et al, 2003; Ackermann & de Klerk, 2003; Hebling & Guimaraes, 2004). Given teen’s inherent need to be accepted and to be loved, it may be difficult to pull out a condom and give the implicit message that “I don’t trust you to be free of disease, nor can you trust me. But since this is just a casual hook-up with no commitment or loyalty expected, let’s just enjoy the moment and do it more safely.” Teen relationships *can* be shallow, but most are not, and most are looking for something more meaningful. Thus, sex *without* a condom may be more compatible with teens’ social and emotional needs, outweighing the risks it presents.

A third obstacle to teen condom use may be that those who are at greatest risk (teen girls), are often those with the least amount of control in the relationship. And, relationship control/power has been shown to be related to condom use (Pettifor, 2004). Teen girls are often outweighed and easily overpowered by their male counterparts, and may be more likely to be seeking love and closeness. Boys are typically more assertive and driven to seek physical pleasure, and may see condom use as an obstacle to that goal.

Admittedly, there are also barriers to promoting abstinence as a lifestyle, especially given the cultural context in which adolescents live. Movies, music, peers, Internet pornography, and other influences are constantly pushing a sexual message. Many teens have and will succumb to that influence. Abstinence education clearly faces an uphill battle. In spite of that, the studies reviewed here today (see Table 4)

showed more positive outcomes for increased abstinence (14 total) than for all of the other outcomes combined (4 total). Recall that of the 34 comprehensive sex education programs that fit the comparability categories, 9 reported significant improvement in abstinence, while none reported an increase in consistent condom use. And, this was in programs where abstinence was not the central message. The national trends in teen sexual activity show a consistent decline in sexual intercourse over the past ten years (see Figure 4). Apparently, this is a behavior that is amenable to change. Dr. Kirby's (1991) statement that "it may actually be easier to delay the onset of intercourse than to increase contraceptive practice" is bearing out. That change in behavior corresponds with the decline in teen pregnancy, teen births, and teen abortions—an encouraging trend by anyone's standards. Although not easy to achieve, it appears that abstinence-centered programs that are well designed and implemented can affect that behavior.

Figure 4. Percent of 9th–12th Graders That Have Had Sex: 1991–2005



Why Not "Abstinence-Plus"?

Why not have abstinence-centered and condom-centered education in the same program? This is the argument made by proponents of what is called "abstinence-plus" sex education programs, suggesting that both abstinence and condom education should occur in the same program. There are several reasons why this is problematic.

1. **Diluted Message.** A strong abstinence message that is not diluted with lessons about condom use and negotiation is necessary to provide teens the strong support they need to "say no" to the pervasive cultural message that teen sex is normal, acceptable, and admirable behavior. Most "comprehensive" or "abstinence-plus" programs are condom-driven, with abstinence as a minor part of the message. The proponents of this approach often are not committed to abstinence and give it only passing coverage in the curriculum, with most content focused on condom acquisition, condom negotiation with partners, and proper condom use. For example, the SIECUS website

recommends 37 topics for sexuality education curriculum content—abstinence is only one of the topics. And, an analysis of 10 popular comprehensive programs found condom use was mentioned 9 times as often as abstinence (see Table 5). These two strategies are based on very different assumptions and premises about human sexuality, healthy relationships, and family formation. It is difficult to see how these two different ideologies and philosophies could be combined.

2. **Separation of Messages.** Separating these approaches is consistent with the wishes of most American parents. In 3 national polls (NPR/Kaiser Foundation, 2004; Zogby, 2003; Zogby, 2004), a majority of American parents (70% to 90%) want a strong abstinence message given to teens. More than 90% believe that adolescents should not become sexually active and 67% say it is morally wrong for them to do so. In fact, 67% of teens who had already initiated sex expressed regret for doing so and the number was even higher for girls (77%). Most parents also favor the separation of abstinence education from information about sexual biology and risk prevention. Fewer than half (40%) think that abstinence and contraception should be taught in the same classroom. Most parents prefer that biological facts about contraception either be taught in a health curriculum separate from the abstinence program (56%) and some prefer it not be taught at all (22%).
3. **Withholding Information.** Comprehensive sex education programs are reluctant to give teens accurate information about the limitations of condom protection. This is an important part of abstinence education and consistent with the wishes of American parents. While a majority of parents believe teens should have information about risk reduction, 76% oppose withholding from teens medically accurate information about the limits of condoms in preventing STDs (Zogby, 2003; Zogby, 2004).
4. **Explicit Content.** Many parents oppose the explicit content found in many comprehensive sexuality programs. It is true that many parents respond favorably when asked whether teens should be given information about how to obtain and use condoms—39% and 58% in one poll (NPR/Kaiser Foundation, 2004), and 78% and 81% in another (Zogby, 2004). However, when asked to respond to the actual content of popular comprehensive sex education curriculum materials, the large majority of parents (70% to 90%) opposed the explicit information they contained about sexual practices, condom application and use, and masturbation. Most importantly, only 7% of parents want sex education to convey the message that “it’s okay for teens...to engage in sexual intercourse as long as they use a condom.” Parents should be able to have their children “opt out” of this kind of program content without also having to forego the abstinence message imbedded somewhere in it. (See NPR/Kaiser Foundation, 2004; Zogby, 2003; Zogby, 2004.)

Table 5. References to Condoms and Abstinence in "Abstinence Plus" Curricula*			
Curriculum	condom / condoms	abstinence / abstain	Ratio
<i>Reducing the Risk</i>	183	90	2:1
<i>Be Proud, Be Responsible</i>	495	50	10:1
<i>Safer Choices 1</i>	383	5	77:1
<i>Safer Choices 2</i>	389	5	78:1
<i>AIDS Prevention for A.I.S.</i>	136	0	infinite
<i>Becoming a Responsible Teen</i>	262	19	14:1
<i>Teen Talk</i>	22	32	1:1
<i>Reach for Health</i>	8	15	1:1
<i>Making Proud Choices</i>	650	18	36:1
<i>Positive Images</i>	235	87	3:1
TOTALS	2763	321	9:1

*The Administration for Children and Families (ACF), Department of Health and Human Services (HHS). "Review of Comprehensive Sex Education Curricula." May, 2007.

5. **"Plus" is Not Effective.** Comprehensive or abstinence-plus education has not been shown to be effective at increasing teen CCU, which is the means through which condoms provide teens with partial protection from STDs. We might ask the opponents of abstinence-centered education why, if abstinence does not work, do they want to add it to a condom-centered education? And conversely, if abstinence education does work, why should abstinence programs add the thing that is not working? Recall that in the context of the three categories for comparability of evidence, there were no programs that had an increase in consistent condom use. Until that outcome is attained in risk reduction prevention programs, considering it as a supplement to abstinence would be a flawed strategy.

6. **Contraceptive Availability Elsewhere.** Risk reduction methods for sexually active teens, such as condom application, may best be taught in a separate health class, apart from the abstinence message. It is there, that sexually active teens can be referred to nearby clinics for one-on-one health care and prevention counseling. An estimated 68% of schools in the U.S. already have some form of comprehensive sex education, while only one-fourth receive an abstinence-centered program of some type. Abstinence education funding has not depleted the funding for comprehensive sex education, on the contrary, its' funding streams are smaller than what is available for comprehensive sex.

CONCLUSION

The research results presented here indicate that risk avoidance can be a viable strategy for protecting youth from all of the negative consequences of teen sexual activity. That is, emerging evidence supports the notion that abstinence-centered strategies, if well-designed and implemented, can significantly and substantially reduce teen sexual initiation for periods of 1 to 2 years and thereby may positively impact the health of American adolescents. When measured using comparable criteria, comprehensive sexuality education strategies (risk reduction) show little evidence for success at achieving the crucial outcomes of consistent condom use, reduced pregnancy, and STD rates. This pattern of data argues for continued support and expansion of abstinence-centered education, especially considering the regret that most sexually active teens express for becoming sexually active and the support that most parents show for programs that help their teens avoid sexual activity and its hazards.

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THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

PREPARED FOR

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THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
I. BACKGROUND.....	1
II. PURPOSE AND METHODOLOGY.....	4
III. FINDINGS.....	7
A. Eleven of Thirteen Abstinence-Only Curricula Contain Errors and Distortions	7
B. Abstinence-Only Curricula Contain False and Misleading Information about the Effectiveness of Contraceptives.....	8
1. HIV Prevention.....	8
2. Prevention of Other STDs.....	10
3. Condoms and Pregnancy Prevention.....	11
C. Abstinence-Only Curricula Contain False and Misleading Information about the Risks of Abortion	13
D. Abstinence-Only Curricula Blur Religion and Science	15
E. Abstinence-Only Curricula Treat Stereotypes about Girls and Boys as Scientific Fact.....	16
1. Stereotypes that Undermine Girls' Achievement.....	16
2. Stereotypes that Girls Are Weak and Need Protection.....	17
3. Stereotypes that Reinforce Male Sexual Aggressiveness	18
F. Abstinence-Only Curricula Contain False and Misleading Information about the Risks of Sexual Activity	18
1. Cervical Cancer Prevention	18
2. HIV Risk Behaviors.....	19
3. Chlamydia	20
4. Mental Health	20
G. Abstinence-Only Curricula Contain Scientific Errors.....	21
IV. CONCLUSION.....	22

EXECUTIVE SUMMARY

Under the Bush Administration, federal support for “abstinence-only” education programs has expanded rapidly. The federal government will spend approximately \$170 million on abstinence-only education programs in fiscal year 2005, more than twice the amount spent in fiscal year 2001. As a result, abstinence-only education, which promotes abstinence from sexual activity without teaching basic facts about contraception, now reaches millions of children and adolescents each year.

At the request of Rep. Henry Waxman, this report evaluates the content of the most popular abstinence-only curricula used by grantees of the largest federal abstinence initiative, SPRANS (Special Programs of Regional and National Significance Community-Based Abstinence Education). Through SPRANS, the Department of Health and Human Services provides grants to community organizations that teach abstinence-only curricula to youth. The curricula used in SPRANS and other federally funded programs are not reviewed for accuracy by the federal government.

The report finds that over 80% of the abstinence-only curricula, used by over two-thirds of SPRANS grantees in 2003, contain false, misleading, or distorted information about reproductive health. Specifically, the report finds:

- **Abstinence-Only Curricula Contain False Information about the Effectiveness of Contraceptives.** Many of the curricula misrepresent the effectiveness of condoms in preventing sexually transmitted diseases and pregnancy. One curriculum says that “the popular claim that ‘condoms help prevent the spread of STDs,’ is not supported by the data”; another states that “[i]n heterosexual sex, condoms fail to prevent HIV approximately 31% of the time”; and another teaches that a pregnancy occurs one out of every seven times that couples use condoms. These erroneous statements are presented as proven scientific facts.
- **Abstinence-Only Curricula Contain False Information about the Risks of Abortion.** One curriculum states that 5% to 10% of women who have legal abortions will become sterile; that “[p]remature birth, a major cause of mental retardation, is increased following the abortion of a first pregnancy”; and that “[t]ubal and cervical pregnancies are increased following abortions.” In fact, these risks do not rise after the procedure used in most abortions in the United States.
- **Abstinence-Only Curricula Blur Religion and Science.** Many of the curricula present as scientific fact the religious view that life begins at conception. For example, one lesson states: “Conception, also known as

THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

fertilization, occurs when one sperm unites with one egg in the upper third of the fallopian tube. This is when life begins.” Another curriculum calls a 43-day-old fetus a “thinking person.”

- **Abstinence-Only Curricula Treat Stereotypes about Girls and Boys as Scientific Fact.** One curriculum teaches that women need “financial support,” while men need “admiration.” Another instructs: “Women gauge their happiness and judge their success on their relationships. Men’s happiness and success hinge on their accomplishments.”
- **Abstinence-Only Curricula Contain Scientific Errors.** In numerous instances, the abstinence-only curricula teach erroneous scientific information. One curriculum incorrectly lists exposure to sweat and tears as risk factors for HIV transmission. Another curriculum states that “twenty-four chromosomes from the mother and twenty-four chromosomes from the father join to create this new individual”; the correct number is 23.

The report finds numerous examples of these errors. Serious and pervasive problems with the accuracy of abstinence-only curricula may help explain why these programs have not been shown to protect adolescents from sexually transmitted diseases and why youth who pledge abstinence are significantly less likely to make informed choices about precautions when they do have sex.

I. BACKGROUND

Under the Bush Administration, there has been a dramatic increase in federal support for “abstinence-only” education programs. Also called “abstinence education” or “abstinence-until-marriage education,” these programs promote abstinence from all sexual activity, usually until marriage, as the only way to reduce the risks of pregnancy, disease, and other potential consequences of sex. The programs define sexual activity broadly and do not teach basic facts about contraception.

In fiscal year 2001, under the last budget passed under the Clinton Administration, abstinence-only education programs received approximately \$80 million in federal funding.¹ Since then, federal abstinence-only funding has more than doubled, with the final omnibus appropriations bill containing \$167 million in funding for fiscal year 2005.² President Bush had proposed \$270 million for abstinence-only programs in fiscal year 2005.³

There are three principal federal programs that support abstinence-only education:

- Special Programs of Regional and National Significance — Community-Based Abstinence Education (SPRANS). SPRANS, which is the largest and fastest growing source of abstinence-only education, provides federal grants to community-based organizations that teach abstinence until marriage to youth.⁴ In its first year of funding in fiscal year 2001, 33 SPRANS recipients received \$20 million in grants.⁵ By fiscal year 2004,

¹ HHS Office of Budget, *2005 President's Budget All-Purpose Table* (received via e-mail Sept. 28, 2004); Administration for Children and Families, *All-Purpose Table — Fiscal 2003–2005* (online at www.acf.hhs.gov/programs/olab/fy2005cj/section04_all_purpose_table.pdf); Conference Report to Accompany H.R. 4818 — Consolidated Appropriations Act, 2005, Division F, Joint Explanatory Statement (online at www.congress.gov/omni2005/confreptindex.html); HHS Office of Budget, *Adolescent Family Life Act (AFL) Abstinence Education/Prevention* (Oct. 6, 2004).

² Fiscal Year 2005 Consolidated Appropriations Act (Omnibus), Division F, Title II, Joint Explanatory Statement, H. Rept. 108-792, Cong. Rec. H10643–693 (Nov. 19, 2004).

³ Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2005; Department of Health and Human Services*, 140 (Feb. 2, 2004) (online at www.whitehouse.gov/omb/budget/fy2005/pdf/budget/hhs.pdf).

⁴ HHS, Health Resources and Services Administration [HRSA], Maternal and Child Health Bureau, *SPRANS Community-Based Abstinence Education Project Grant Program* (fact sheet) (undated) (online at ftp://ftp.hrsa.gov/mchb/abstinence/cbofs.pdf). Programs must be consistent with all eight components of the federal definition of abstinence programs. See *infra* note 8.

⁵ HHS, HRSA, Maternal and Child Health Bureau, *The Special Projects of Regional and National Significance Community-Based Abstinence Education Program, 2001 Grantees'*

THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

the program had over 100 grantees and a budget of \$75 million.⁶ For fiscal year 2005, \$104 million has been appropriated, an increase of more than 30%.⁷

- Section 510 of the 1996 Welfare Reform Act. This 1996 law provided \$250 million for over five years for programs with the “exclusive purpose” of promoting abstinence, requiring a state match of \$3 for every \$4 from the federal government.⁸ The law has since been extended, most recently in June 2004, at a level of \$50 million per year.⁹

Annual Summary (Feb. 2004) (online at <ftp://ftp.hrsa.gov/mchb/abstinence/SPRANS01annualrpt.pdf>).

⁶ HHS, HRSA, Maternal and Child Health Bureau, *HRSA SPRANS Community Based Abstinence Education Program Grantee Address List FY 2003* (online at www.mchb.hrsa.gov/programs/adolescents/03granteedir.htm); HHS Office of Budget, *2005 President's Budget All-Purpose Table*, *supra* note 1; Administration for Children and Families, *supra* note 1. On June 9, 2004, the SPRANS program was transferred from HRSA to the Administration for Children and Families (*see* www.mchb.hrsa.gov/programs/adolescents/abstinence.htm).

⁷ Conference Report to Accompany H.R. 4818, *supra* note 1.

⁸ Personal Responsibility and Work Opportunity Reconciliation Act of 1996. Pub. L. No. 104-193 (1996) (hereinafter “PRWORA”). PRWORA §510(b) states that a qualifying program:

(A) has as its exclusive purpose, teaching the social, psychological, and health gains to be realized by abstaining from sexual activity;

(B) teaches abstinence from sexual activity outside marriage as the expected standard for all school age children;

(C) teaches that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases, and other associated health problems;

(D) teaches that a mutually faithful monogamous relationship in context of marriage is the expected standard of human sexual activity;

(E) teaches that sexual activity outside of the context of marriage is likely to have harmful psychological and physical effects;

(F) teaches that bearing children out-of-wedlock is likely to have harmful consequences for the child, the child's parents, and society;

(G) teaches young people how to reject sexual advances and how alcohol and drug use increases vulnerability to sexual advances; and

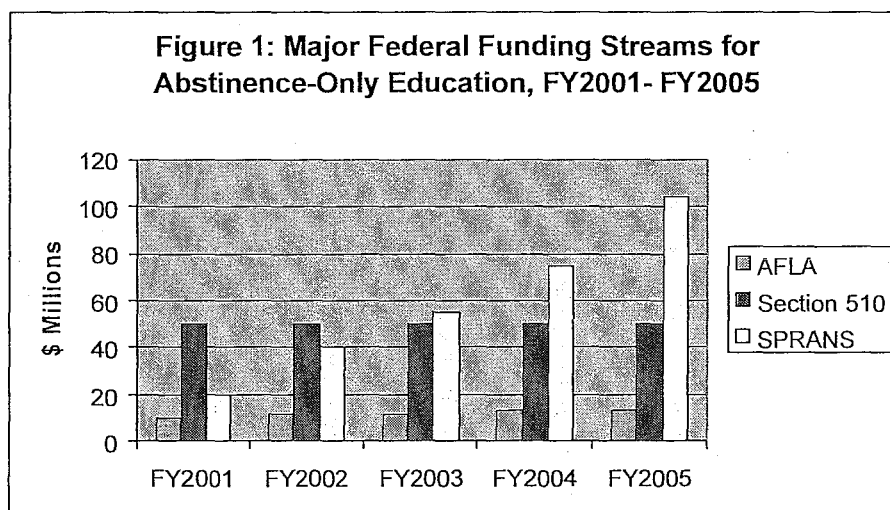
(H) teaches the importance of attaining self-sufficiency before engaging in sexual activity.

⁹ TANF and Related Programs Continuation Act of 2004, P.L. 108-262.

THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

- The Adolescent Family Life Act. This legislation was passed in 1981 to promote “prudent approaches” and self-discipline to adolescents.¹⁰ It provided \$13 million in fiscal year 2004 for abstinence-only education programs, and the same amount was appropriated again for fiscal year 2005.¹¹

Figure 1 shows the federal funding provided to each of these three programs from fiscal year 2001 through fiscal year 2005, with SPRANS funding increasing the fastest.¹² Collectively, these three programs reach millions of children and adolescents in the United States each year.¹³ In fact, given the scarcity of comprehensive sex education courses in schools across much of the United States, abstinence-only education programs may be the only formal reproductive health education that many children and adolescents receive.



There have been several studies of the effectiveness of abstinence-only education. These studies have found that abstinence-only education does not appear to decrease teen pregnancy or the risk of sexually transmitted diseases. In the most comprehensive analysis of teen pregnancy prevention programs, researchers found that “the few rigorous studies of abstinence-only curricula that have been

¹⁰ Adolescent Family Life Act, 42 U.S.C. § 300z (1982 & Supp. III 1985).

¹¹ Conference Report to Accompany H.R. 4818, *supra* note 1; HHS Office of Budget, *Adolescent Family Life Act*, *supra* note 1.

¹² *Id.*; HHS Office of Budget, *2005 President's Budget All-Purpose Table*, *supra* note 1; Administration for Children and Families, *supra* note 1.

¹³ HHS, HRSA, Maternal and Child Health Bureau, *supra* note 5; HHS, HRSA, Maternal and Child Health Bureau, *2000 Annual Summary for the Abstinence Education Provision of the 1996 Welfare Law P.L. 104-193* (July 2002) (online at <http://mchb.hrsa.gov/programs/adolescents/abreport00/default.htm>).

THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

completed to date do not show any overall effect on sexual behavior or contraceptive use.”¹⁴

One recent study of abstinence-only programs found that they may actually increase participants’ risk. Columbia University researchers found that while virginity “pledge” programs helped some participants to delay sex, 88% still had premarital sex, and their rates of sexually transmitted diseases showed no statistically significant difference from those of nonpledgers.¹⁵ Virginity pledgers were also less likely to use contraception when they did have sex and were less likely to seek STD testing despite comparable infection rates.¹⁶

In contrast, comprehensive sex education that both encourages abstinence and teaches about effective contraceptive use has been shown in many studies to delay sex, reduce the frequency of sex, and increase the use of condoms and other contraceptives.¹⁷

II. PURPOSE AND METHODOLOGY

While there have been evaluations of the effectiveness of abstinence-only education programs, the content of the curricula taught in these programs has received little attention. The federal government does not review or approve the accuracy of the information presented in abstinence-only programs. SPRANS

¹⁴ Douglas Kirby, The National Campaign to Prevent Teen Pregnancy, *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy (Summary)*, 18 (May 2001) (online at www.teenpregnancy.org/resources/data/pdf/emeranswsum.pdf). An analysis of claims that certain abstinence-only programs had “worked” found numerous methodological flaws in those evaluations, concluding: “There do not currently exist any abstinence-only programs with strong evidence that they either delay sex or reduce teen pregnancy.” Douglas Kirby, The National Campaign to Prevent Teen Pregnancy, *Do Abstinence-Only Programs Delay the Initiation of Sex among Young People and Reduce Teen Pregnancy?*, 6 (Oct. 2002) (online at www.teenpregnancy.org/resources/data/pdf/abstinence_eval.pdf). States that have conducted analyses of their abstinence-only programs have also not found positive results. A recent analysis of 11 states’ evaluations of some or all of their abstinence-only programs found some increases in participants’ favorable attitudes towards abstinence but no lasting positive impact on behavior. Advocates for Youth, *Five Years of Abstinence-Only-Until-Marriage Education: Assessing the Impact*, 2–3 (Sep. 2004) (online at www.advocatesforyouth.org).

¹⁵ Kaiser Family Foundation, *Teenagers Who Take ‘Virginity Pledges,’ Other Teens Have Similar STD Rates, Study Says* (Mar. 10, 2004) (online at www.kaisernetwork.org/daily_reports/rep_index.cfm?DR_ID=22603), describing research by Peter Bearman and Hannah Bruckner, *After the Promise: The Long Term Consequences of Virginity Pledges* (paper presented at the National STD Conference, March 9, 2004, Philadelphia).

¹⁶ *Id.*

¹⁷ Douglas Kirby, *Do Abstinence-Only Programs Delay the Initiation of Sex among Young People and Reduce Teen Pregnancy?*, *supra* note 14, at 6.

THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

applicants, for example, are required to submit only the table of contents or a brief summary of the curricula they plan to use.

At the request of Rep. Henry Waxman, this report is a comprehensive evaluation of the content of the curricula used in federally funded abstinence-only education programs.¹⁸ It is based on a review of the most popular abstinence-only curricula used by grantees in the SPRANS program.

To conduct this evaluation, the Special Investigations Division obtained from the Health Resources and Services Administration the program summaries of the 100 organizations that received SPRANS abstinence funding during fiscal year 2003.¹⁹ Each summary contains a proposal listing the curricula that the program intends to use. The Special Investigations Division then acquired each curriculum that was listed by at least five funding recipients.²⁰ Thirteen curricula met this criterion (Table 1).

The 13 curricula were reviewed for scientific accuracy. For several curricula with a separate teacher's guide, both the student and teacher manuals were included. The review was intended to provide an overall assessment of the accuracy of the curricula, not to identify all potential errors.

¹⁸ The Sexuality Information and Education Council of the United States (SIECUS) and NARAL Pro-Choice America have conducted reviews of some abstinence-only programs. See www.siecus.org; www.naral.org.

¹⁹ HHS, HRSA, Maternal and Child Health Bureau, *HRSA SPRANS Community Based Abstinence Education Program Grantee Address List FY 2003* (online at www.mchb.hrsa.gov/programs/adolescents/03granteedir.htm); Curriculum summaries from applications of organizations receiving SPRANS abstinence funding (received May 7, 2004 from HRSA).

²⁰ One program, *The Art of Loving Well*, is a literary anthology used as a course supplement; it was not included in this review.

THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

Table 1: Curricula used by five or more SPRANS recipients, FY 2003

Curriculum	Publisher and Year
Choosing the Best Life	Choosing the Best (2003)
Choosing the Best Path	Choosing the Best (2001)
A.C. Green's Game Plan	Project Reality (2001)
WAIT Training	Abstinence and Relationship Training Center
Choosing the Best Way	Choosing the Best (2001)
Sexual Health Today	Medical Institute for Sexual Health (1999)
Me, My World, My Future	Teen-Aid (1998)
Friends First/STARS	Friends First (2003)
Why kNOW	Why kNOW Abstinence Education (2004)
Navigator	Project Reality (2003)
FACTS	Northwest Family Services (2001)
Managing Pressures Before Marriage	Adolescent Reproductive Health Center, Grady Health System (1997, 2003)
Sex Can Wait	ETR Associates (1994, 1997)

III. FINDINGS

A. Eleven of Thirteen Abstinence-Only Curricula Contain Errors and Distortions

Eleven of the thirteen curricula most commonly used by SPRANS programs contain major errors and distortions of public health information (Table 2).²¹

Table 2: Curricula containing errors and distortions of public health information

Curriculum	Number of SPRANS recipients using the curriculum
Choosing the Best Life	32
Choosing the Best Path	28
A.C. Green's Game Plan	23
WAIT Training	19
Choosing the Best Way	11
Sexual Health Today	10
Me, My World, My Future	8
Friends First/STARS	8
Why kNOw	7
Navigator	7
FACTS	5

The eleven curricula are used in 25 states by 69 grantees, including state health departments, school districts, and hospitals, as well as religious organizations and pro-life organizations.²² These 69 grantees received over \$32 million in SPRANS abstinence-only funding in fiscal year 2003, the year examined in this report.²³ In total, the 69 grantees have received over \$90 million in federal funding since fiscal year 2001.²⁴

²¹ The two curricula which do not contain major errors and distortions are *Sex Can Wait* and *Managing Pressures before Marriage*, each used by five grantees.

²² Curriculum Summaries, *supra* note 19.

²³ HHS, Health Resources and Services Administration, Office of Federal Assistance Management, *2003 Abstinence Education Grants* (spreadsheet) (received Oct. 7, 2004).

²⁴ *Id.*; HHS, Health Resources and Services Administration, Office of Federal Assistance Management, *2002 Abstinence Education Grants* (spreadsheet) (received Oct. 7, 2004); HHS, *Tracking Accountability in Government Grants Systems* (database) (online at <http://taggs.hhs.gov/index.cfm>).

B. Abstinence-Only Curricula Contain False and Misleading Information about the Effectiveness of Contraceptives

Under the SPRANS requirements, abstinence-only education programs are not allowed to teach their participants any methods to reduce the risk of pregnancy other than abstaining until marriage.²⁵ They are allowed to mention contraceptives only to describe their failure rates. Although the curricula purport to provide scientifically accurate information about contraceptive failure rates, many exaggerate these failure rates, providing affirmatively false or misleading information that misstates the effectiveness of various contraceptive methods in preventing disease transmission or pregnancy.

1. HIV Prevention

According to the Centers for Disease Control and Prevention (CDC), “Latex condoms, when used consistently and correctly, are highly effective in preventing the transmission of HIV, the virus that causes AIDS.”²⁶ Contrary to this scientific consensus, multiple curricula provide false information about condoms and HIV transmission.

Several curricula cite an erroneous 1993 study of condom effectiveness that has been discredited by federal health officials. The 1993 study, by Dr. Susan Weller, looked at a variety of condom effectiveness studies and concluded that condoms reduce HIV transmission by 69%.²⁷ Dr. Weller’s conclusions were rejected by the Department of Health and Human Services, which issued a statement in 1997 informing the public that “FDA and CDC believe this analysis was flawed.”²⁸ The Department cited numerous methodological problems, including the mixing of data on consistent condom use with data on inconsistent condom use, and found that Dr. Weller’s calculation of a 69% effectiveness rate was based on “serious error.”²⁹ In fact, CDC noted that “[o]ther studies of discordant couples — more recent and larger than the ones Weller reviewed, and conducted over

²⁵ HHS, Health Resources and Services Administration, Maternal and Child Health Bureau, *Special Projects of Regional and National Significance (SPRANS) Community-Based Abstinence Education Project Grants, HRSA-04-077, Catalog of Federal Domestic Assistance (CFDA) No. 93.110, FY 2004 Program Guidance Competing Announcement*, 5 (“Projects must clearly and consistently focus on the Section 510 definition of ‘abstinence education’ and applicants must agree not to provide a participating adolescent any other education regarding sexual conduct in the same setting”).

²⁶ U.S. Centers for Disease Control and Prevention, *Male Latex Condoms and Sexually Transmitted Diseases* (Jan. 2003) (online at www.cdc.gov/std).

²⁷ Susan Weller, *A Meta-Analysis of Condom Effectiveness in Reducing Sexually Transmitted HIV*, *Social Science and Medicine*, 1635–44 (June 1993).

²⁸ HHS, *Background on the Weller Study* (Jan. 1, 1997).

²⁹ *Id.*

THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

several years — have demonstrated that consistent condom use is highly effective at preventing HIV infection.”³⁰

Despite these findings, several curricula refer approvingly to the Weller study. One curriculum teaches: “A meticulous review of condom effectiveness was reported by Dr. Susan Weller in 1993. She found that condoms were even less likely to protect people from HIV infection. Condoms appear to reduce the risk of heterosexual HIV infection by only 69%.”³¹ Another curriculum that cites Dr. Weller’s data claims: “In heterosexual sex, condoms fail to prevent HIV approximately 31% of the time.”³²

Other abstinence-only curricula contest CDC’s finding that “latex condoms provide an essentially impermeable barrier to particles the size of STD pathogens.”³³ These curricula rely on the false idea that HIV and other pathogens can “pass through” condoms. One curriculum instructs students to:

Think on a microscopic level. Sperm cells, STI organisms, and HIV cannot be seen with the naked eye — you need a microscope. Any imperfections in the contraceptive not visible to the eye, could allow sperm, STI, or HIV to pass through. . . . The size difference between a sperm cell and the HIV virus can be roughly related to the difference between the size of a football field and a football.³⁴

The same curriculum states, “The actual ability of condoms to prevent the transmission of HIV/AIDS even if the product is intact, is not definitively known.”³⁵ This distorts CDC’s finding and scientific consensus.

One curriculum draws an analogy between the HIV virus and a penny and compares it to a sperm cell (“Speedy the Sperm”), which on the same scale would be almost 19 feet long. The curriculum asks, “If the condom has a failure rate of

³⁰ *Id.* CDC cites Isabelle DeVincenzi et al., *A Longitudinal Study of Human Immunodeficiency Virus Transmission by Heterosexual Partners*, *New England Journal of Medicine*, 341–46 (1994); and A. Saracco et al., *Man to Woman Sexual Transmission of HIV: Longitudinal Study of 343 Steady Partners of Infected Men*, *Journal of Acquired Immune Deficiency Syndromes*, 497–502 (1993).

³¹ *Me, My World, My Future*, 141.

³² *Why kNOw*, 91. Other programs rely on the Weller 69% figure, stating: “HIV is reduced by 69–90 percent” (*Choosing the Best Path*, 18) and “Studies that have investigated condom effectiveness against HIV/AIDS have shown a risk reduction of between 69–90 percent” (*Choosing the Best Life*, 25). The latter curriculum cites three sources, none of which indicates an effectiveness rate as low as 69%.

³³ U.S. Centers for Disease Control and Prevention, *Male Latex Condoms and Sexually Transmitted Diseases*, 2 (Jan. 2003) (online at www.cdc.gov/std).

³⁴ *I’m in Charge of the FACTS* (Middle School Curriculum), 111.

³⁵ *Id.*

14% in preventing 'Speedy' from getting through to create a new life, what happens if this guy (penny) gets through? You have a death: your own."³⁶

Another curriculum inaccurately attacks a study published in the *New England Journal of Medicine* that demonstrated that condoms are effective in preventing HIV transmission. 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.³⁷ The curriculum states: "This study has been criticized by three different university groups as being seriously flawed in at least six areas, and therefore the results are questionable and not statistically significant."³⁸ In fact, the "university groups" referred to in the curriculum appear to refer to individuals who sent letters to the editor to the journal in which the study appeared.³⁹ The central finding that consistent condom use resulted in zero HIV transmission was statistically significant and has not been challenged.

2. Prevention of Other STDs

Several curricula distort public health data on the effectiveness of condoms in preventing other sexually transmitted diseases. One curriculum claims: "If condoms were effective against STDs, it would be reasonable to expect that an increase in condom usage would correlate to a decrease in STDs overall — which is not the case. Rather, as condom usage has increased, so have rates of STDs."⁴⁰ Another states: "[T]he popular claim that 'condoms help prevent the spread of STDs,' is not supported by the data."⁴¹

These assertions are wrong. The curricula fail to note that rates of important sexually transmitted diseases, such as syphilis and gonorrhea, have been dropping over the past decade.⁴² Contrary to the assertions in the curricula, the most recent data show that consistent condom use is associated with:

³⁶ Why kNOw, 97.

³⁷ Isabelle De Vincenzi et al., *supra* note 30.

³⁸ Me, My World, My Future, 142.

³⁹ J. Ambati et al., *Heterosexual Transmission of HIV*, *New England Journal of Medicine*, 1717 (Dec. 22, 1994); E. Morrison, *Heterosexual Transmission of HIV*, *New England Journal of Medicine*, 1717 (Dec. 22, 1994); S. Brody, *Heterosexual Transmission of HIV*, *New England Journal of Medicine*, 1717 (Dec. 22, 1994).

⁴⁰ Navigator Guide Book [Teacher's Manual], 47.

⁴¹ A.C. Green's Game Plan Coach's Clipboard [Teacher's Manual], 34.

⁴² Reported incidences of syphilis have declined from 54.3 cases per 100,000 in 1990 to 11.9 in 2003, a 78% decrease. Also since 1990, the rate of gonorrhea has declined 58%; and chancroid, an ulcer-forming bacterial infection, has dropped from 1.7 cases per 100,000 to practically zero. U.S. Centers for Disease Control and Prevention, *Sexually Transmitted Disease Surveillance 2003, Table 1: Cases of Sexually Transmitted Diseases Reported by State Health Departments and Rates per 100,000 Civilian*

THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

- Reduced acquisition of syphilis by women and by men;
- Reduced acquisition of gonorrhea by women;
- Reduced acquisition of urethral infection by men; and
- Faster regression of HPV-related lesions on the cervix and penis, and faster clearance of genital HPV infection in women.⁴³

The assertions in the curricula are presented next to a chart of “Increasing Condom Usage” alongside a chart showing increased rates of chlamydia over the same time period.⁴⁴ Yet in the case of chlamydia, CDC attributes the increase in reported infection rates to increased detection because of “increased screening, recognition of asymptomatic infection (mainly in women), and improved reporting, as well as the continuing high burden of disease.”⁴⁵ Indeed, both CDC and independent experts have found that condoms can reduce the risk of chlamydia infection.⁴⁶

3. Condoms and Pregnancy Prevention

None of the curricula provides information on how to select a birth control method and use it effectively. However, several curricula exaggerate condom failure rates in preventing pregnancy.

Failure rates for contraception are calculated as the probability of a couple experiencing pregnancy when relying primarily on the contraceptive method over the course of one year. “Typical use” failure rates are often higher than “perfect use” rates largely because the former include people who use the method incorrectly or only sometimes. Condoms have a typical use contraceptive failure rate of approximately 15% and a perfect use failure rate of 2% to 3%.⁴⁷

Population: United States, 1941–2003 (online at www.cdc.gov/std/stats/tables/table1.htm).

⁴³ K. Holmes et al., *Effectiveness of Condoms in Preventing Sexually Transmitted Infections*, Bulletin of the World Health Organization, 454 (June 2004) (online at www.who.int/mediacentre/factsheets/fs243/en/).

⁴⁴ A.C. Green’s Game Plan Coach’s Clipboard [Teacher’s Manual], 34; Navigator Guide Book [Teacher’s Manual], 47. See also Sexual Health Today, slide 5, p. 9, Comments.

⁴⁵ U.S. Centers for Disease Control and Prevention, *Sexually Transmitted Disease Surveillance 1998*, 5 (online at www.cdc.gov/nchstp/dstd/Stats_Trends/1998Surveillance/98PDF/Section2.pdf).

⁴⁶ U.S. Centers for Disease Control and Prevention, *Male Latex Condoms and Sexually Transmitted Diseases*, *supra* note 33; K. Holmes et al., *supra* note 43.

⁴⁷ J. Trussell, *Contraceptive Failure in the United States*, *Contraception*, 89–96 (Aug. 2004); World Health Organization, *Effectiveness of Male Latex Condoms in Protecting against Pregnancy and Sexually Transmitted Infections* (June 2000) (online at www.who.int/mediacentre/factsheets/fs243/en/).

THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

According to the World Health Organization, the difference between typical and perfect use “is due primarily to inconsistent and incorrect use, not to condom failure. Condom failure — the device breaking or slipping off during intercourse — is uncommon.”⁴⁸

Several curricula misrepresent the data to exaggerate how often condoms fail to prevent pregnancy:

- The parent guide for one curriculum understates condom effectiveness by falsely describing “actual use” as “scrupulous.” It states: “When used by real people in real-life situations, research confirms that 14 percent of the women who use condoms scrupulously for birth control become pregnant within a year.”⁴⁹ In fact, for couples who use condoms “scrupulously,” the 2% to 3% failure rate applies.
- Two other curricula underestimate condom effectiveness by neglecting to explain that failure rates represent the chance of pregnancy over the course of a year. One states: “Couples who use condoms to avoid a pregnancy have a failure rate of 15%.”⁵⁰ The other claims: “The typical failure rate for the male condom is 14% in preventing pregnancy.”⁵¹ These statements inaccurately suggest that the chance of pregnancy is 14% to 15% after each act of protected intercourse. In addition, they do not make clear that most condom “failure” is due to incorrect or inconsistent use.

Another curriculum presents misleading information about the risk of pregnancy from sexual activity other than intercourse. The curriculum erroneously states that touching another person’s genitals “can result in pregnancy.”⁵² In fact, the source cited for this contention specifically states that “remaining a virgin all but eliminates the possibility of becoming pregnant.”⁵³

⁴⁸ World Health Organization, *id.*

⁴⁹ Choosing the Best, The Big Talk Book [Parent Book], 39.

⁵⁰ Another curriculum similarly states, “Couples who use condoms to avoid a pregnancy have a failure rate of 15%.” Choosing the Best Way Leader Guide, 33.

⁵¹ Why kNOw, 91.

⁵² Sexual Health Today, slide 52, p. 112, Comments.

⁵³ M.A. Schuster et al., *The Sexual Practices of Adolescent Virgins: Genital Sexual Activity of High School Students Who Have Never Had Intercourse*, American Journal of Public Health, 1570 (Nov. 1996).

C. Abstinence-Only Curricula Contain False and Misleading Information about the Risks of Abortion

A high number of the programs receiving SPRANS funding are formally opposed to abortion access. Multiple SPRANS recipients are explicitly pro-life organizations such as “crisis pregnancy centers.”⁵⁴ Several of the curricula used by these and other recipients give misleading information about the physical and psychological effects of legal abortions.

For example, one curriculum relies on numerous outdated sources to present a distorted and exaggerated view of the dangers of legal abortion. Much of the data cited is from the 1970s, yet according to the American Medical Association Council on Scientific Affairs, “[t]he risk of major complications from abortion-related procedures declined dramatically between 1970 and 1990.”⁵⁵ The curriculum inaccurately describes the risks of sterility, premature birth and mental retardation, and ectopic pregnancies:

- The curriculum states, “Sterility: Studies show that five to ten percent of women will never again be pregnant after having a legal abortion.”⁵⁶ In fact, obstetrics textbooks teach that “[f]ertility is not altered by an elective abortion.”⁵⁷
- The curriculum states, “Premature birth, a major cause of mental retardation, is increased following the abortion of the first pregnancy.”⁵⁸ In fact, obstetrics textbooks teach that vacuum aspiration, the method used in most abortions in the United States, “results in no increased incidence

⁵⁴ The website of one “Crisis Pregnancy Center” receiving SPRANS funding states: “Our objective at the Crisis Pregnancy Center is to defend life. We desire to bring wholeness to lives traumatized by abortion; sharing the love of Jesus Christ and educate our community to adopt a Godly view of sexuality and the sanctity of human life.” Crisis Pregnancy Center Anchorage (online at www.cpcanchorage.com/9073379292/aboutus.html). Another states: “The Pregnancy Center of Pinellas County is a Christian ministry whose mission is to defend life by supporting women in crisis pregnancies and bringing healing and wholeness to lives traumatized by abortion.” Pregnancy Center of Pinellas County (online at www.pregctr.net/organization_mission.html).

⁵⁵ American Medical Association (AMA), *Induced Termination of Pregnancy before and after Roe v. Wade, Trends in the Mortality and Morbidity of Women*, Journal of the American Medical Association, 3231–39, 3235 (Dec. 1992).

⁵⁶ Me, My World, My Future, 157.

⁵⁷ F. Gary Cunningham et al., *Williams Obstetrics 21st Edition*, 877 (2001). The textbook notes that “[a] possible exception is the small risk from pelvic infection.” Another textbook states that “[c]oncerns about infertility as a result of induced abortion seem largely unfounded, except for the rare severe complication managed by hysterectomy.” Steven Gabbe et al., *Obstetrics: Normal and Problem Pregnancies, 4th Edition* (2002).

⁵⁸ Me, My World, My Future, 157.

THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

of midtrimester spontaneous abortions, preterm delivery, or low-birthweight infants in subsequent pregnancies.”⁵⁹

- The curriculum states, “Tubal and cervical pregnancies are increased following abortions.”⁶⁰ In fact, obstetrics textbooks teach that “[s]ubsequent ectopic pregnancies are not increased if the first termination is done by vacuum aspiration.”⁶¹

The curriculum also misrepresents the relationship between abortion and serious mental health issues. The curriculum states:

The psychological effects of the abortion choice should also be considered. . . . [A] woman could experience anxiety, grief, regret, guilt, and/or depression. In many cases, follow-up counseling for women who have had abortions has been necessary and helpful. Following abortion, according to some studies, women are more prone to suicide and therefore need extra support from family and health professionals.⁶²

In fact, an expert panel of the American Psychiatric Association found that “[f]or the vast majority of women, an abortion will be followed by a mixture of emotions, with a predominance of positive feelings.”⁶³ A longitudinal study of young women aged 14 to 21 found that “[a]lthough women may experience some distress immediately after having an abortion, the experience has no independent effect on their psychological well-being over time.”⁶⁴

⁵⁹ F. Gary Cunningham et al., *supra* note 57, at 877. Another text states that “[a] single induced abortion appears safe as far as later reproduction is concerned” and found no association between multiple induced abortions and low birthweight, prematurity, or perinatal loss. Steven Gabbe et al., *supra* note 57. In 2000, 95.6% of abortions in the United States were performed by vacuum aspiration, compared to 74.9% in 1973. U.S. Centers for Disease Control and Prevention, *Abortion Surveillance — United States, 2000* (Table 1) (Nov. 2003) (online at www.cdc.gov/mmwr/preview/mmwrhtml/ss5212a1.htm).

⁶⁰ Me, My World, My Future, 157.

⁶¹ F. Gary Cunningham et al., *supra* note 57, at 877.

⁶² Me, My World, My Future, 157.

⁶³ N.E. Adler et al., *Psychological Factors in Abortion: A Review*, *American Psychologist*, 1194–1204, 1202 (Oct. 1992).

⁶⁴ S. Edwards, *Abortion Study Finds No Long-Term Ill Effects on Emotional Well-Being*, *Family Planning Perspectives*, 193–94 (July–Aug. 1997). The study used data from the National Longitudinal Survey of Youth, with respondents aged 14 to 21 at the start of research. Data was from 1979 through 1987.

D. Abstinence-Only Curricula Blur Religion and Science

By their nature, abstinence-only curricula teach moral judgments alongside scientific facts.⁶⁵ The SPRANS program mandates, for example, that programs teach that having sex only within marriage “is the expected standard of human sexual activity.”⁶⁶ In some of the curricula, the moral judgments are explicitly religious. For example, in a newsletter accompanying one popular curriculum, the author laments that as a result of societal change, “No longer were we valued as spiritual beings made by a loving Creator.” The curriculum’s author closes the section by signing, “In His Service.”⁶⁷

In other curricula, moral judgments are misleadingly offered as scientific fact.

Although religions and moral codes offer different answers to the question of when life begins, some abstinence-only curricula present specific religious views on this question as scientific fact. One curriculum teaches: “Conception, also known as fertilization, occurs when one sperm unites with one egg in the upper third of the fallopian tube. This is when life begins.”⁶⁸ Another states: “Fertilization (or conception) occurs when one of the father’s sperm unites with the mother’s ovum (egg). At this instant a new human life is formed.”⁶⁹

A related question, also answered differently by people of differing beliefs, is whether a developing fetus is a person. Several curricula offer as scientific fact moral or religious definitions of early fetuses as babies or people, in the process supplying inaccurate descriptions of their developmental state.

One curriculum that describes fetuses as “babies” describes the blastocyst, technically a ball of 107 to 256 cells at the beginning of uterine implantation,⁷⁰ as “snuggling” into the uterus:

⁶⁵ Many SPRANS recipients are religious organizations; for example, \$800,000 was awarded to the Catholic Diocese of Orlando on September 15, 2004. HHS, *HHS Awards \$800,000 to Diocese for Abstinence Education; “Think Smart” Program to Help Youth Make Positive Choices in Life* (Sep. 15, 2004) (online at www.acf.hhs.gov/news/press/2004/orlando_think_smart.htm). See also *supra* note 54, on crisis pregnancy centers.

⁶⁶ This requirement is part of the federal definition of abstinence programs, established in PWRORA, to which all SPRANS programs must adhere. See *supra* note 8.

⁶⁷ Why kNOW, *In the kNOW* (2004).

⁶⁸ Middle School FACTS, 23.

⁶⁹ Me, My World, My Future, Teacher Manual, 85.

⁷⁰ F. Cunningham et al., *supra* note 57, at 87.

After conception, the tiny baby moves down the fallopian tube toward the mother's uterus. About the sixth to tenth day after conception, when the baby is no bigger than this dot (.), baby snuggles into the soft nest in the lining of the mother's uterus.⁷¹

Another teaches: "At 43 days, electrical brain wave patterns can be recorded, evidence that mental activity is taking place. This new life may be thought of as a thinking person."⁷² The curriculum cites a source which does not in fact call a 43-day-old fetus a "thinking person."⁷³

The same curriculum tells students: "Ten to Twelve Weeks After Conception: . . . He/she can hear and see."⁷⁴ The curriculum cites a source that actually states, "Can the fetus see inside the uterus? We do not know."⁷⁵ The source also states that fetuses begin to react to sounds between the fourth and fifth months, not at 10 to 12 weeks.⁷⁶

E. Abstinence-Only Curricula Treat Stereotypes about Girls and Boys as Scientific Fact

Many abstinence-only curricula begin with a detailed discussion of differences between boys and girls. Some of the differences presented are simply biological. Several of the curricula, however, present stereotypes as scientific fact.

1. Stereotypes that Undermine Girls' Achievement

Several curricula teach that girls care less about achievement and their futures than do boys.

One curriculum instructs: "Women gauge their happiness and judge their success by their relationships. Men's happiness and success hinge on their accomplishments."⁷⁷ This curriculum also teaches:

Men tend to be more tuned in to what is happening today and what needs to be done for a secure future. When women began to enter the work

⁷¹ Middle School FACTS, 24; High School FACTS, 34.

⁷² Me, My World, My Future, Teacher Manual, 77.

⁷³ John M. Goldenring, *Letter to the Editor: Development of the Fetal Brain*, New England Journal of Medicine, 564 (Aug. 26, 1982).

⁷⁴ Me, My World, My Future, 53.

⁷⁵ Lennart Nilsson, *A Child is Born*, 112 (1990).

⁷⁶ *Id.* at 114.

⁷⁷ Why kNOw, 122.

force at an equal pace with men, companies noticed that women were not as concerned about preparing for retirement. This stems from the priority men and women place on the past, present, and future.⁷⁸

Another curriculum lists “Financial Support” as one of the “5 Major Needs of Women,” and “Domestic Support” as one of the “5 Major Needs of Men.”⁷⁹ The curriculum states:

Just as a woman needs to feel a man’s devotion to her, a man has a primary need to feel a woman’s admiration. To admire a man is to regard him with wonder, delight, and approval. A man feels admired when his unique characteristics and talents happily amaze her.⁸⁰

A third curriculum depicts emotions as limiting girls’ ability to focus. It states: “Generally, guys are able to focus better on one activity at a time and may not connect feelings with actions. Girls access both sides of the brain at once, so they often experience feelings and emotions as part of every situation.”⁸¹

2. Stereotypes that Girls Are Weak and Need Protection

Some of the curricula describe girls as helpless or dependent upon men.

In a discussion of wedding traditions, one curriculum writes: “Tell the class that the Bride price is actually an honor to the bride. It says she is valuable to the groom and he is willing to give something valuable for her.”⁸²

The curriculum also teaches: “The father gives the bride to the groom because he is the one man who has had the responsibility of protecting her throughout her life. He is now giving his daughter to the only other man who will take over this protective role.”⁸³

One book in the “Choosing the Best” series presents a story about a knight who saves a princess from a dragon. The next time the dragon arrives, the princess advises the knight to kill the dragon with a noose, and the following time with poison, both of which work but leave the knight feeling “ashamed.” The knight eventually decides to marry a village maiden, but did so “only after making sure she knew nothing about nooses or poison.” The curriculum concludes:

78 *Id.*

79 WAIT Training, 199.

80 *Id.* at 196.

81 Choosing The Best Life, Leader Guide, 7.

82 Why kNOw, 59.

83 *Id.* at 61.

Moral of the story: Occasional suggestions and assistance may be alright, but too much of it will lessen a man's confidence or even turn him away from his princess.⁸⁴

3. Stereotypes that Reinforce Male Sexual Aggressiveness

One curriculum teaches that men are sexually aggressive and lack deep emotions. In a chart of the top five women's and men's basic needs, the curriculum lists "sexual fulfillment" and "physical attractiveness" as two of the top five "needs" in the men's section. "Affection," "Conversation," "Honesty and Openness," and "Family Commitment" are listed only as women's needs.⁸⁵ The curriculum teaches: "A male is usually less discriminating about those to whom he is sexually attracted. . . . Women usually have greater intuitive awareness of how to develop a loving relationship."⁸⁶

The same curriculum tells participants: "While a man needs little or no preparation for sex, a woman often needs hours of emotional and mental preparation."⁸⁷

F. Abstinence-Only Curricula Contain False and Misleading Information about the Risks of Sexual Activity

Many of the curricula distort information about the risks of sexual activity. In the case of cervical cancer, the risk of disease is stressed, but simple prevention measures often go unmentioned. HIV exposure risks are discussed in confusing terms, and risks of substances and activities are exaggerated. Several curricula also present misleading information about the relationship between sexual activity and mental health, inaccurately suggesting that abstinence can solve all psychological problems.

1. Cervical Cancer Prevention

A critical fact for girls and women to know about cervical cancer is that routine Pap smears can prevent most occurrences of the disease. Women should have Pap smears annually once they are sexually active or, at the latest, starting at age

⁸⁴ Choosing the Best, Inc., *Choosing the Best Soulmate*, 51 (2003). This book is the latest in the "Choosing the Best" series and was published since the most recent round of SPRANS grants; it was reviewed because the other Choosing the Best books were all among the most popular programs.

⁸⁵ WAIT Training, 199.

⁸⁶ *Id.*

⁸⁷ *Id.*

18.⁸⁸ Yet few of the curricula reviewed mention the importance of this intervention.⁸⁹

Instead, some of the curricula provide distorted information on cervical cancer, suggesting that it is a common consequence of premarital sex. For example, the teaching manual of one curriculum explicitly states: "It is critical that students understand that if they choose to be sexually active, they are at risk" for cervical cancer.⁹⁰ Another curriculum asks, "What is the leading medical complication from HPV? *Cervical cancer*."⁹¹ Neither of these curricula mentions that human papilloma virus (HPV), though associated with most cases of cervical cancer, rarely leads to the disease, nor that cervical cancer is highly preventable when women get regular Pap smears.

Other curricula advise that condoms have not been proven effective in blocking the transmission of HPV and that "no evidence" demonstrates condoms' effectiveness against HPV transmission.⁹² According to the CDC, however, evidence indicates that condoms do reduce the risk of cervical cancer itself, a fact which both curricula omit.⁹³ These curricula also say nothing about the importance of Pap smears.

2. HIV Risk Behaviors

Curricula also distort information on HIV exposure risks.

One curriculum presents data on HIV exposure in a misleading and confusing way. The curriculum uses data from a CDC chart originally titled "HIV infection cases in adolescents and adults under age 25, by sex and exposure category."⁹⁴ The original CDC chart looks at all people with HIV under 25 and categorizes

⁸⁸ U.S. Centers for Disease Control and Prevention, *2004/2005 Fact Sheet: The National Breast and Cervical Cancer Early Detection Program: Saving Lives through Screening* (online at www.cdc.gov/cancer/nbccedp/about2004.htm).

⁸⁹ Two which do provide this information are *Sexual Health Today* (Slide 31, p. 61, Comments; Slide 57, p. 123, Comments) and *WAIT Training* (212).

⁹⁰ *Navigator*, 48.

⁹¹ *Why kNOW*, 52 (emphasis in original).

⁹² *Friends First/STARS*, 61; *Choosing the Best Way*, 33.

⁹³ U.S. Centers for Disease Control and Prevention, *Report to Congress: Prevention of Genital Human Papillomavirus Infection*, 4 (Jan. 2004) ("[A]vailable studies suggest that condoms reduce the risk of the clinically important outcomes of genital warts and cervical cancer").

⁹⁴ U.S. Centers for Disease Control and Prevention, *Table 14, HIV Infection Cases in Adolescents and Adults under Age 25, by Sex and Exposure Category, Reported through June 2000, from the 34 Areas with Confidential HIV Infection Reporting*, in *HIV/AIDS Surveillance Report Mid-Year 2000 Edition* (2000) (online at www.cdc.gov/hiv/stats/hasr1201/table14.htm).

them by reported route of exposure, such as heterosexual sex or intravenous drug use. But the curriculum misleadingly puts the CDC data in a new chart called “Percent HIV Infected” and scrambles the CDC data in a way that suggests greatly exaggerated HIV rates among teenagers. For example, where the CDC chart showed that 41% of female teens with HIV reportedly acquired it through heterosexual contact, the curriculum’s chart suggests that 41% of heterosexual female teens have HIV.⁹⁵ It similarly implies that 50% of homosexual male teens have HIV.⁹⁶

3. Chlamydia

One curriculum makes a spurious claim about chlamydia’s health effects:

The Institute of Medicine states, “. . . the full clinical spectrum of many STDs is still being described.”. . . [An] example is that studies are finding chlamydia in the atherosclerotic plaque (‘hardening of the arteries’) that is often the cause of heart attack and strokes many Americans suffer. Some researchers are suggesting that chlamydia may actually cause this problem. Only time and good research will tell.⁹⁷

In fact, the research cited in the curriculum found an association between heart disease and a type of chlamydia (called *Chlamydia pneumoniae*) that is not sexually transmitted.⁹⁸ This bacteria spreads from person to person through respiratory transmission and is a common cause of pneumonia among children and adolescents.⁹⁹ It is an entirely different bacteria from *Chlamydia trachomatis*, which is sexually transmitted.

4. Mental Health

Several of the curricula that mention mental health concerns depict them as simple problems that can be fixed by abstaining from sexual activity. There does not appear to be scientific support for these assertions, however.

For example, one curriculum tells youth that a long list of personal problems — including isolation, jealousy, poverty, heartbreak, substance abuse, unstable long-term commitments, sexual violence, embarrassment, depression, personal disappointment, feelings of being used, loss of honesty, loneliness, and suicide —

⁹⁵ Middle School FACTS, 112–113.

⁹⁶ *Id.*

⁹⁷ Sexual Health Today, Slide 12, p. 24, Comments.

⁹⁸ J.D. Muhlestein, *The Link between Chlamydia pneumoniae and Atherosclerosis*, *Infectious Medicine*, 380 (1997).

⁹⁹ *Stedman’s Medical Dictionary* (2004).

“can be eliminated by being abstinent until marriage.”¹⁰⁰ Other curricula teach that mental health problems are a consequence of sexual activity, without considering the evidence that these problems might themselves cause premature sexual activity, or that they might have a common origin.¹⁰¹

G. Abstinence-Only Curricula Contain Scientific Errors

In addition to the inaccurate and misleading information discussed above, a number of the abstinence-only curricula contain erroneous information about basic scientific facts. These errors cover a variety of issues:

- **Human Genetics.** One curriculum states: “Twenty-four chromosomes from the mother and twenty-four chromosomes from the father join to create this new individual.”¹⁰² In fact, human cells have 23 chromosomes from each parent, for a total of 46 in each body cell. The same curriculum also teaches: “Girls produce only female ovum, boys, however, have both male and female sperm.”¹⁰³ This too is inaccurate. Females produce ova with X chromosomes, and males produce sperm with either X or Y chromosomes. These combine to make an XX combination (female) or an XY combination (male).
- **Infectious Disease.** One curriculum defines “sexually transmitted infections” as “bacterial infections that are acute and usually can be cured” and defines “sexually transmitted diseases” as “infections that are viral in nature, chronic, and usually can not be cured, but rather controlled through treatment.”¹⁰⁴ In fact, these terms are used interchangeably in medicine, and the program’s definitions are not widely accepted.¹⁰⁵

¹⁰⁰ Choosing the Best Path, 19.

¹⁰¹ For example, one curriculum has the teacher ask: “*Why might sexually active teens experience depression?* (Investment in another results in pain when breakup occurs; feels like a failure; feels deeper pain because already sees events in emotional way) *What consequences can this depression have?* (May lead to attempted, or successful, suicide. One study showed that girls who had been sexually active were six times more likely to attempt suicide than those who were virgins.)” Choosing the Best Life Leader Guide, 9. The study cited for this figure in fact states that “We are not suggesting that premature sexual experience is a cause or leads to the other negative behaviors,” and notes that other researchers have shown bi-directional associations. D.P. Orr et al., *Premature Sexual Activity as an Indicator of Psychosocial Risk*, *Pediatrics*, 141–47, 146 (Feb. 1991).

¹⁰² Why kNOW, 166.

¹⁰³ *Id.*

¹⁰⁴ WAIT Training, 209.

¹⁰⁵ See, e.g., *Stedman's Medical Dictionary* (2004), defining “sexually transmitted disease” as “any contagious disease acquired during sexual contact e.g., syphilis, gonorrhoea, chancroid” (online at www.stedmans.com).

THE CONTENT OF FEDERALLY FUNDED ABSTINENCE-ONLY EDUCATION PROGRAMS

- **Puberty.** One curriculum tells instructors: “Reassure students that small lumps in breast tissue is common in both boys and girls during puberty. This condition is called gynecomastia and is a normal sign of hormonal changes.”¹⁰⁶ This definition is incorrect. In adolescent medicine, gynecomastia refers to a general increase in breast tissue in boys.¹⁰⁷
- **HIV.** Another curriculum erroneously includes “tears” and “sweat” in a column titled “At risk” for HIV transmission.¹⁰⁸ In fact, according to the CDC, “[c]ontact with saliva, tears, or sweat has never been shown to result in transmission of HIV.”¹⁰⁹

IV. CONCLUSION

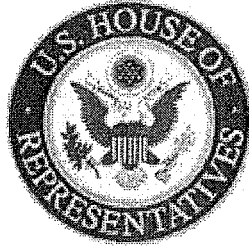
Under the Bush Administration, federal support for abstinence-only education has risen dramatically. This report finds that over two-thirds of abstinence-only education programs funded by the largest federal abstinence initiative are using curricula with multiple scientific and medical inaccuracies. These curricula contain misinformation about condoms, abortion, and basic scientific facts. They also blur religion and science and present gender stereotypes as fact.

¹⁰⁶ Me, My World, My Future, Teacher’s Manual, 40.

¹⁰⁷ *Stedman’s Medical Dictionary* (2004).

¹⁰⁸ WAIT Training, 219.

¹⁰⁹ U.S. Centers for Disease Control and Prevention, *Which Body Fluids Transmit HIV?* (Dec. 15, 2003) (online at www.cdc.gov/hiv/pubs/faq/faq37.htm).



**UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON GOVERNMENT REFORM**

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ABSTINENCE AND ITS CRITICS

STAFF REPORT

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TABLE OF CONTENTS

I. EXECUTIVE SUMMARY.....	3
II. BACKGROUND.....	4
A. The Crisis of STDs and Teen Pregnancies.....	4
B. The Need for Abstinence Education.....	5
C. Definition of Abstinence Education.....	6
D. Federal Funding of Abstinence Education.....	6
III. ABSTINENCE EDUCATION.....	9
A. Background.....	9
B. Findings.....	10
C. Evaluation.....	12
D. Polls.....	13
IV. THE WAXMAN REPORT.....	15
A. Background.....	15
B. The Waxman Report is Widely Criticized.....	17
C. The Waxman Report is Misleading.....	17
D. Misrepresentation and Distortion of Abstinence Curricula.....	19
E. Abortion.....	21
F. "Moral Judgments".....	22
G. Abstinence Education Works.....	22
H. Comprehensive Sex Education Programs are Ineffective.....	24
I. Comprehensive Sex Education Programs are Not Age-Appropriate.....	25
J. Medical Accuracy.....	28
V. CONCLUSION.....	31
VI. APPENDIX	34

I. EXECUTIVE SUMMARY

In December of 2004, the Democrat Staff of the House of Representatives' Government Reform Committee released the report *The Content of Federally Funded Abstinence-Only Education Program*.¹ Commonly known as the Waxman Report, it is ostensibly an objective review of federally-funded abstinence education. While the stated purpose of the Waxman Report to "examine the scientific and medical accuracy of the most popular abstinence curricula used by programs receiving funds from the largest federal abstinence initiative" is welcomed, the Report fails to offer a fair and accurate assessment of abstinence education programs. Unfortunately, the Report has been heralded as an official and trustworthy review of abstinence education even though it is riddled with errors, half-truths and mischaracterizations.

This report is a review of the findings of the Waxman Report. While admittedly there is room for more studies to assess the accuracy and effectiveness of all sex education programs (abstinence and comprehensive sex education), the content and conclusions of the Waxman Report fail to provide a fair evaluation of abstinence curricula. By any reasonable standard, it cannot be considered a definitive statement on abstinence education and should not be taken as such.

The Waxman Report also fails to offer any review of comprehensive sex education. While this is not the stated purpose of the Report, there is an implied message that comprehensive sex education programs are the only curricula that should be supported by taxpayer dollars. Comprehensive sex education, however, already receives a disproportionate amount of funding relative to abstinence education and its effectiveness is suspect at best.

The content of comprehensive sex education often contains graphic discussion about sex acts divorced from emotional content that, for many parents, is inappropriate for their children. There are examples where comprehensive sex education curricula encourage experimentation with condoms and other contraceptives in provocative ways. Some curricula encourage sexual contact (including masturbation, or even bathing together) for students too young for consensual sex under applicable state law, and in some instances for students as young as nine.² In fact, while such curricula encourage sexual activity,

¹ See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>.

² See *Becoming a Responsible Teen*, ETR Associates, Santa Cruz, California, 1998, at 114-115, *Id* at 119; *Be Proud! Be Responsible*, Select Media, New York, NY, 1996, at 80; *Teen Talk: Reproduction and Contraception Curriculum*, Sociometrics Corporation, Los Altos, CA, at 16; *Focus on Kids*, ETR Associates, Santa Cruz, CA, 1998, at 108; <http://www.siecus.org/pubs/biblio/bibs0010.html> and <http://www.plannedparenthood.com/pp2/portal/files/portal/educationoutreach/educationprograms/programs-responsible-choices-2nd.pdf>.

there is rarely any mention of the benefits of abstinence as the healthiest choice and the only certain and effective means to avoid STDs and unplanned pregnancies.³

Additionally, the information offered through comprehensive sex education is often directly contrary to the interest of parents, and even the students themselves. In recent polls over 90 percent of teens and adults, not to mention pre-teens, believe that teens should be given a strong abstinence message not to have sex until they are at least out of high school. Nearly 80 percent of parents think teens should be taught to delay sexual activity until marriage or in an adult relationship leading to marriage. Over 60 percent of teens say morals and values are equally important as health information and services in influencing teen sexual behavior and preventing teen pregnancy, and by contrast nine percent of teens believe that health information and services are *more* influential.⁴ And yet, the Waxman Report defends comprehensive sex education curricula that rejects the clear desires of parents and their children.

This report is an effort to correct many of the errors of the Waxman Report. The physical, mental and emotional health of America's youth is tied in part to their decision of whether they engage in sexual behavior at an early age. The value of abstinence for young people cannot be overestimated, and it is the duty of Congress to support programs that serve the interests of America's youth.

II. BACKGROUND

A. The Crisis of STDs and Teen Pregnancies

According to the Center for Disease Control and Prevention (CDC), there are approximately 19 million new sexually transmitted disease (STDs) infections in the United States each year. Nearly half of these new STD infections are among youth ages 15 to 24, and the number of new infections in adolescents under the age of 19 is approximately three million annually.⁵

Using data through the year 2003, the CDC estimated that 38,490 young people in the United States have been diagnosed with AIDS, 4,000 of whom were diagnosed in 2003 alone.⁶ Approximately 10,041 young people with AIDS have died through 2003, and

³ Shanna Martin, Robert Rector and Melissa Pardue, "Comprehensive Sex Education Versus Authentic Abstinence: A Study of Competing Curricula", Heritage Foundation, 2004. p11; at <http://www.heritage.org/Research/Welfare/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=67539>.

⁴ *With One Voice 2004: America's Adults and Teens Sound Off About Teen Pregnancy*, National Campaign to Prevent Teen Pregnancy, Dec. 2004; at <http://www.teenpregnancy.org/resources/data/pdf/WOV2004.pdf>.

⁵ *Healthy Youth! Health Topics and Sexual Behaviors*, Centers for Disease Control and Prevention; at <http://www.cdc.gov/HealthyYouth/sexualbehaviors/index.htm>. See also, *Initial Announcement for Community-Based Education Program*, Department of Health and Human Services Administration for Children and Families; at <http://www.acf.hhs.gov/grants/open/HHS-2006-ACF-ACYF-AE-0099.html>.

⁶ *HIV/AIDS Among Youth*, Centers for Disease Control and Prevention, May 2005; at <http://www.cdc.gov/hiv/pubs/facts/youth.pdf>.

there has been a 37 percent increase in the number of young people living with AIDS since 1999.

Approximately 820,000 young women under the age of 19 become pregnant every year, and 34 percent of young women become pregnant at least once before they reach the age of twenty.⁷ Although teen pregnancy and birthrates have improved in recent years,⁸ U.S. rates are still higher than any other developed nation. Teen mothers are less likely to complete high school, more likely to be single parents and more likely to live in poverty than other teens.⁹

B. The Need for Abstinence Education

With these statistics setting the background, the CDC recommends that “adolescents need accurate, age-appropriate information about HIV infection and AIDS, including the concept that abstinence is the only 100 percent effective way to avoid infection.”¹⁰ Funding for abstinence education has increased steadily under the Bush administration, growing almost \$100 million between FY 2001 and FY 2005. Abstinence funding was \$79 million in FY 2001, \$100 million in FY 2002, \$115 million in FY 2003, \$135 million in FY 2004 and \$168 million in FY 2005. The funding for abstinence education increased again for FY 2006 to a total of \$178 million for FY 2006.¹¹

As the funding for abstinence education has increased, so has the debate between abstinence education and comprehensive sex education, which are the two main educational approaches to reducing teen pregnancy and STDs. The approach of comprehensive sex education programs is that today’s youth need information to make decisions about whether to engage in sexual activities, that teens should be empowered to make their own decisions regarding sexual activity and that contraceptives as well as abstinence are effective in preventing pregnancy and sexually transmitted diseases. Abstinence education programs, on the other hand, promote the message that abstinence is the most effective means of preventing unwanted pregnancy and sexually transmitted diseases, that sex outside of marriage is harmful to teens’ physical and emotional health, that youth can and should be empowered to say no to sex and that promoting birth control along with abstinence undermines the strength of an abstinence message.¹² Abstinence education programs also place a large emphasis on character education and decision-making skills for dealing with peer-pressure, drugs and alcohol.

⁷ *Healthy Youth! Health Topics and Sexual Behaviors*, Centers for Disease Control and Prevention; at <http://www.cdc.gov/HealthyYouth/sexualbehaviors/index.htm>.

⁸ From 1990 to 2000, the pregnancy rate decreased 33% and the birth rate declined 42% from 1991 to 2003. *MMWR Weekly*, Feb. 4, 2005; at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5404a6.htm>.

⁹ *Healthy Youth! Health Topics and Sexual Behaviors*, Centers for Disease Control and Prevention; at <http://www.cdc.gov/HealthyYouth/sexualbehaviors/index.htm>.

¹⁰ *HIV/AIDS Among Youth*, Centers for Disease Control and Prevention, May 2005; at <http://www.cdc.gov/hiv/pubs/facts/youth.pdf>.

¹¹ *Reducing Teen Pregnancy: Adolescent Family Life and Abstinence Education Programs*, Congressional Research Service Report for Congress, Carmen Solomon-Fears Domestic Social Policy Division. Updated Feb. 14, 2006.

¹² *Id.*

The Waxman Report has received an enormous amount of media attention and blurred the debate between abstinence education and comprehensive sex education with mischaracterizations of the former. This report seeks to correct the errors of this report and media statements regarding abstinence education.

C. Definition of Abstinence Education

Section 510 of the Social Security Act, created under Section 912 of the 1996 Welfare Reform law, established a new categorical program of grants to states for abstinence education.¹³ Abstinence education is defined in the law as an educational or motivational program which:

- A. has as its exclusive purpose, teaching the social, psychological, and health gains to be realized by abstaining from sexual activity;
- B. teaches abstinence from sexual activity outside marriage as the expected standard for all school age children;
- C. teaches that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases, and other associated health problems;
- D. teaches that a mutually faithful monogamous relationship in the context of marriage is the expected standard of human sexual activity;
- E. teaches that sexual activity outside of the context of marriage is likely to have harmful psychological and physical effects;
- F. teaches that bearing children out-of-wedlock is likely to have harmful consequences for the child, the child's parents, and society;
- G. teaches young people how to reject sexual advances and how alcohol and drug use increases vulnerability to sexual advances; and
- H. teaches the importance of attaining self-sufficiency before engaging in sexual activity.

While there are a wide range of abstinence education programs, all the federally-funded programs are required to include the definitions A-H.

D. Federal Funding of Abstinence Education

¹³ Personal Responsibility and Work Opportunity Reconciliation Act of 1996. Pub. L. No. 104-193 (1996) (hereafter "PRWORA"). See also, *Initial Announcement for Community-Based Abstinence Education Program*, supra note 5.

Abstinence education programs are awarded federal funds through the Adolescent Family Life Act, The Temporary Assistance for Needy Families Act and the Community-Based Abstinence Education Program. Each of these programs is distinct from the others, but together they were appropriated roughly \$178 million for FY06.

Adolescent Family Life Act: The Adolescent Family Life Act (AFLA) was signed into law in 1981 as Title XX of the Public Health Service Act to provide support for pregnant and parenting teens. This legislation has a pregnancy prevention component aimed at discouraging premarital sexual behavior among teens, and beginning in FY97, funds within AFLA were tied to the “A-H” standard of abstinence education found in Title V. From 1981 until 1996, the AFL program was the only federal program that focused directly on the issues of adolescent sexuality, pregnancy and parenting. AFL provides approximately \$13 million in funding for abstinence education per year, and these funds are provided through a competitive grants process.¹⁴

Title V: Congress created the Title V abstinence education program in the original 1996 welfare reform act, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA). Specifically, Section 510(b) of Title V of the Social Security Act created a new funding stream to provide grants to states to conduct abstinence education activities. Title V funds are administered by the Administration for Children and Families (ACF) and Family Youth Services Bureau (FYSB) of the Department of Health and Human Services (HHS). Title V provides a mandatory appropriation of \$50 million annually in federal funds that are distributed on a formula basis to states.¹⁵ States that choose to accept these funds must match every four federal dollars with three state-raised dollars and are then responsible for using the funds or distributing them to community-based organizations, schools, county and state health departments, media campaigns or other entities. Currently every state except California, Pennsylvania and Maine accept Title V funding.¹⁶ In addition to providing a funding stream for abstinence education, Title V established the “A-H” definition of abstinence education.¹⁷

Title V State Abstinence Education Program grants are formula grants to states that are awarded based on a statutory formula determined by the proportion of low-income children in a state to the total number of low-income children nationally according to the latest census data. Applications are submitted by states and reviewed by ACF to ensure the grant requirements are met. While it is unusual for an application to be rejected for

¹⁴ Adolescent Family Life Act, 42 U.S.C. § 300 (1982 & Supp. III 1985). See also, *Reducing Teen Pregnancy: Adolescent Family Life and Abstinence Education Programs*, and Title XX of the Public Health Service Act P.L. 97-35.

¹⁵ See U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau, fact sheet, “Section 510 Abstinence Education Grant Program” (Apr. 2002); at [ftp://ftp.hrsa.gov/mchb/abstinence/statefs.pdf](http://ftp.hrsa.gov/mchb/abstinence/statefs.pdf).

¹⁶ California has consistently elected not to receive Title V funds, and so the actual Title V spending is less than the \$50 million appropriated each year. In 2002, for example, the federal government spent a total of \$43.4 million to fund Title V abstinence programs, which is thirteen percent less than the \$50 million appropriated.

¹⁷ PRWORA, §510(b).

conformity purposes, approval of the New Mexico Department of Health's application for a FY06 State Abstinence Education grant was recently withheld because New Mexico's proposed program did not target the age groups that are most at-risk for pregnancy and STDs.¹⁸

Community-Based Abstinence Education: Community Based Abstinence Education (CBAE) was created in the FY01 Labor/HHS Appropriations bill as an effort to supplement the abstinence education funds provided by Title V. CBAE dollars were originally designated as a "Special Project of Regional and National Significance" (SPRANS), which was administered by the Maternal and Child Health Bureau (MCHB) of the Health Resources and Services Administration (HRSA). In FY2005, this program was moved to the Department of Health and Human Services' ACF division and is now overseen by the Family Youth Services Bureau (FYSB). Funding for the CBAE program has grown from \$20 million for FY01 to \$113 million (proposed by Congress) for FY07. CBAE grantees are required to adhere to the "A-H" definition of abstinence education.

Through these three programs the total funding for abstinence education for FY06 totaled \$177.5 million: \$13 million for the AFLA abstinence education projects, \$50 million for Title V abstinence education programs, \$110 million for the CBAE programs and \$4.5 million for an evaluation of CBAE programs.¹⁹

Comparison of Funding for Abstinence Education vs. Comprehensive Sex-Ed: Congressman Waxman and many of his Democratic colleagues have argued that \$177.5 million is an excessive amount of funding for abstinence programs, if they allow for *any* expenditure on alternatives to comprehensive sex education. In comparison, however, federal funding for comprehensive sex education, which often includes instruction that undermines a strong abstinence message, receives at least ten times the amount for authentic abstinence education. While it is difficult to get precise numbers as to the federal spending on the full range of comprehensive sex education programs, one recent study states that in 2002 an estimated \$1.73 billion was spent on comprehensive sex education programs.²⁰ In that same year, \$144.1 million was spent on abstinence programs.²¹ In comparison, then, the federal government spent \$12 to promote comprehensive sex education programs for every \$1 spent on abstinence programs.²²

This wide disparity in funding is directly contrary to the desires of the vast majority of parents. A 2004 Zogby poll indicates that only seven percent of parents surveyed approve of teaching teens that it is okay for them to have sex as long as they use a condom. By contrast, 96 percent of parents said that sex education class should teach that abstinence from sexual activity is best for teens. Also, 91 percent of parents said

¹⁸ *State Can't Limit Abstinence Ed to Younger Kids*, ALBUQUERQUE JOURNAL, May 4, 2006.

¹⁹ *Reducing Teen Pregnancy: Adolescent Family Life and Abstinence Education Programs*, Congressional Research Service Report for Congress, Carmen Solomon-Fears Domestic Social Policy Division. Updated Feb. 14, 2006.

²⁰ Melissa Pardue, Robert Rector and Shannan Martin, *Government Spends \$12 on Safe Sex and Contraceptives for Every \$1 Spent on Abstinence*, The Heritage Foundation, Jan. 14, 2004.

²¹ *Id.*

²² *Id.*

teens should be taught that the best choice is for sexual activity to be linked to love, intimacy and commitment – qualities most likely to occur in faithful marriages.²³ And yet the Ranking Member of this Committee would have abstinence programs stripped of federal support and have all funding go to programs that often endanger our youth with classes that undermine a strong abstinence message.

Most abstinence programs are run by small non-profits with small budgets that rely on donations, the sale of their material and government funding. Because abstinence is the only 100 percent effective means to prevent out-of-wedlock pregnancy and STDs, abstinence programs should receive government support. In fact, more funding will enable these programs to help more young people to live happy and healthy lives.

The disparity in funding between comprehensive sex education and abstinence education is dramatic and limits the alternatives for state and local entities to provide the type of instruction that most parents want for their children. If parents, who are the most responsible for their children's health and well-being, support the principles behind abstinence-based programs over the deceptively named "safe-sex" alternatives, then it is only fitting that these programs continue to be funded and made available to the nation's youth. To cut funding for abstinence programs, as is the recommendation of the Waxman Report, would significantly undermine the authority of parents to provide the type of formation that they want their children to receive.

Comprehensive sex education programs already receive significantly more funding than abstinence programs, and there is no effort to eliminate federal support for comprehensive sex education, so the question is not whether the comprehensive approach will be funded, but whether there will be the opportunity to offer abstinence programs as an alternative. The Minority Report would prefer to eliminate support for abstinence programs, whereas the Majority has consistently supported abstinence education as a viable alternative to the well-funded comprehensive sex education programs that exist today.

III. ABSTINENCE EDUCATION

A. Background

As the funding for abstinence education has increased, so has the debate between abstinence education and comprehensive sex education, which are the two main educational approaches to reducing teen pregnancy and STDs. The approach of comprehensive sex education programs is that today's youth need information to make decisions about whether to engage in sexual activities, that teens should be empowered to make their own decisions regarding sexual activity and that contraceptives as well as abstinence are effective in preventing pregnancy and sexually transmitted diseases.

²³ Zogby International Poll for Focus on the Family, "Survey on Parental Opinions of Character – or Relationship-Based Abstinence Education vs. Comprehensive Sex Education," Jan. 2004.

There is some confusion about the distinctions between abstinence education and comprehensive sex education. Abstinence education programs are not the same as comprehensive sex education or “abstinence-plus” programs. In abstinence education programs, information about contraception is included only as it supports the abstinence message: contraception information must be age-appropriate, abstinence education programs do not distribute or endorse contraceptive usage.²⁴ Contraception is usually discussed in terms of its failure rates and inability to completely protect individuals from pregnancy and sexually transmitted diseases.

Comprehensive and abstinence-plus programs endorse and instruct teens how to use contraception and, as this report will examine later, often contain explicit sexual content and encourage sexual activity other than sexual intercourse. Furthermore, as this report discusses below, “abstinence-plus” is a misleading label for comprehensive sex education programs that contain little, if any, abstinence-related material.

B. Findings

Data shows that abstinence programs are effective.

- In the 1980s, a five year study was conducted in South Carolina to determine the effectiveness of an abstinence education program intended to decrease teen pregnancy. This highly successful, well-documented study, which has been published in peer-reviewed literature, found that the half of the counties using the abstinence education program remarkably reduced the teen pregnancy rate in comparison to the surrounding areas and the portion of the targeted area that did not use the abstinence education material.²⁵
- In an attempt to lower the high teen pregnancy rate in the area, a health department in Monroe County, NY implemented a successful abstinence education program in the 1990s. Pregnancy rates in Monroe County declined faster than the comparison areas, and there was a drop in self-reported sexual activity. The study concluded that well-designed and competently-implemented abstinence programs “can have a measurable community impact.”²⁶
- There were also several other existing studies showing the effectiveness of abstinence education in decreasing sexual activity²⁷ that had been criticized

²⁴Initial Announcement for Community-Based Education Program, Department of Health and Human Services Administration for Children and Families; at <http://www.acf.hhs.gov/grants/open/HHS-2006-ACF-ACYF-AE-0099.html>.

²⁵ Vincent, et al. *Journal of the American Medical Association*, 1987; 257, 3382-3386.

²⁶ Doniger A., Adams E., Utter C. and Riley J., “Impact Evaluation of the ‘Not me, Not Now’ Abstinence-Oriented, Adolescent Pregnancy Prevention Communications Program,” Monroe County, New York, *Journal of Health Communications*, Jan.-Mar. 2001; 6(1):45-60.

²⁷ Elaine Borawski, et al., *Evaluation of the Teen Pregnancy Prevention Programs Funded through the Wellness Block Grant (1999–2000)*, Center for Health Promotion Research, Department of Epidemiology and Biostatistics, Case Western Reserve University School of Medicine, Mar. 23, 2001. The program

by some researchers due to differences of opinion in proper sample size, duration, and research design.²⁸ Despite the criticisms of the individual studies, the existence of several studies all showing positive effects of abstinence programs viewed together offers evidence supporting the overall effectiveness of abstinence education.

In addition, since the publication of the Waxman Report, there have been several more studies supporting the effectiveness of abstinence education.

- An analysis of the *Best Friends* program, an abstinence education program that began in the District of Columbia in 1987 and is now used in over 100 schools nationwide, found that the program participants were nearly seven times more likely than the control group to practice abstinence/abstain from sex/not have sex/avoid sexual activity.²⁹
- A study to determine the effectiveness of abstinence education programs in middle school teens analyzed seven middle schools throughout the Midwest that were using an abstinence education program. The study found that the program increased knowledge and abstinence beliefs and decreased intentions to have sex. Participating students who had sex during the evaluation period reported fewer sexual episodes and fewer partners than did controls. The study also found that the program reduced condom use intentions, but the researchers noted that this could quite possibly be due to participants' intentions to remain abstinent until marriage. Overall, the study found that abstinence-until-marriage programs "can influence knowledge, beliefs, and intentions, and among sexually-experienced students, may reduce the

effects on sexual activity were significant at the 93 percent confidence level. Stan E. Weed, *Title V Abstinence Education Programs: Phase I Interim Evaluation Report to Arkansas Department of Health*, Institute for Research and Evaluation, Oct. 15, 2001. The effects of the program in reducing the onset of sexual activity were statistically significant at the 98 percent confidence level. Stan E. Weed, *Predicting and Changing Teen Sexual Activity Rates: A Comparison of Three Title XX Programs*, report submitted to the Office of Adolescent Pregnancy Programs, U.S. Department of Health and Human Services, Dec. 1992. The effects the programs on at-risk high school students were significant at the 99 percent confidence level. Stephen R. Jorgensen, Vicki Potts, and Brian Camp, "Project Taking Charge: Six-Month Follow-Up of a Pregnancy Prevention Program for Early Adolescents", *Family Relations*, Oct. 1993, pp. 401-406. The effects of the program in reducing the rate of onset of sexual activity were statistically significant at the 94.9 percent confidence level. The effects of the program on specific areas of knowledge were significant at the 95 percent confidence level and above.

²⁸ Douglas Kirby, The National Campaign to Prevent Teen Pregnancy, *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy (Summary)*, 18 (May 2001); at www.teenpregnancy.org/resources/data/pdf/emersumsum.pdf; Douglas Kirby, The National Campaign to Prevent Teen Pregnancy, *Do Abstinence Programs Delay the Initiation of Sex Among Young People and Reduce Teen Pregnancy?* 6 (Oct. 2002); at www.teenpregnancy.org/resources/data/pdf/abstinence_eval.pdf.

²⁹ Lerner, Robert, "Can Abstinence Work? An Analysis of the Best Friends Program," *Adolescent and Family Health*, 2005 Apr. Vol. 3, No. 4: 185-192.

prevalence of casual sex. Reduction in condom use intentions merits further study.”³⁰

- An evaluation of abstinence education authorized by Congress is being carried out by Mathematica Policy Research Inc.³¹ The first of several reports from this study were released in June 2005. This report evaluated the first-year impact of these programs and found that “the programs led youth to report views more supportive of abstinence and less supportive of teen sex than would have been the case had they not had access to the abstinence education programs. In addition, the programs increased perceptions of potential adverse consequences of teen and non-marital sex. There is also some evidence that the programs increased expectations to abstain from sex and reduced dating.”³²
- There is hard evidence that there has been a national decline in teen sexual activity. In 2003, 46.7 percent of all high school students reported that they had sexual intercourse. This is a 13.7 percent decrease from 1991 (54.1 percent).³³ Additionally, the teen birth rate has declined steadily from 1991 to 2004, with an overall decline of 33 percent for those aged 15 to 19. This reverses the 23 percent rise in the teenage birthrate from 1986 to 1991.³⁴

C. Evaluation

It is important to remember that abstinence programs are new, and Congress and the Department of Health and Human Services are continuing to study their effectiveness with positive results. Regardless of the form of sex education (abstinence education or comprehensive sex education), the measurement for its success should be rates in sexual activity, non-marital pregnancy and STIs since these rates are scientifically measurable.

Secretary Leavitt recently offered congressional testimony regarding the work of HHS to review abstinence education. He testified that HHS spends \$4.5 million annually on evaluation, and that the Office of the Assistant Secretary for Planning and Evaluation (ASPE) is developing a multi-year evaluation of the CBAE program and other teen pregnancy prevention programs and is planning to award a competitive contract for the evaluation in FY2006. This study will follow a sample of youth from age 12 to age 18 in participating programs.³⁵

³⁰ Elaine Borawski, *Effectiveness of Abstinence Intervention in Middle School Teens*, AMERICAN JOURNAL OF HEALTH BEHAVIOR, 2005 Sept-Oct; 29(5): 423-434.

³¹ As part of the 1996 Social Security Act, Title V, §510 that authorized funding for abstinence education programs, Congress authorized an evaluation these §510 programs. Pub. L. No. 105-33.

³² *First Year Impact of Four Title V, §510 Abstinence Education Programs*, (Executive Summary), Mathematica Policy Research, Inc., June 2005.

³³ *National Youth Risk Behavior Survey: 1991-2005*, Department of Health and Human Services, Centers for Disease Control and Prevention.

³⁴ MMWR Weekly. Feb. 4, 2005; at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5404a6.htm>.

³⁵ Appropriations Subcommittee on Labor, Health and Human Services, Education, and Related Agencies Hearing, Questions for the Record, Mar. 8, 2006.

Several evaluation efforts are also underway:

- An independent, rigorous, longitudinal evaluation of abstinence education programs funded through the State Abstinence Education grant program. Last year, HHS released a report from this evaluation, conducted by Mathematica Policy Research, on the first-year impacts of four federally-funded abstinence programs. The results showed that abstinence programs led youth to report views more supportive of abstinence and less supportive of teen sex. The programs also increased teens' understanding of the potential harmful consequences of non-marital sex. A final report which examines the impact of these programs on behavioral outcomes is expected at the end of the contract.³⁶
- HHS is developing evaluation designs for a rigorous study of Community-Based Abstinence Education programs and other teenage pregnancy prevention approaches.
- Rigorous research takes time and money. These two efforts are long term studies of a relatively new programmatic approach. The goal of these studies is to determine the effectiveness of abstinence education. Once these studies are completed there will be more scientific evidence upon which abstinence education can be evaluated.

Most programs, given time, include information about reproductive anatomy, fetal development, major STD's, including HIV/AIDS, and condoms. It is also important to note that abstinence programs receiving federal funds are prohibited from using the money for religious purposes. Federal oversight includes the protection of the First Amendment, and the grant process should include strict protections from the use of federal money for the promotion of faith.

D. Polls

Abstinence programs have broad support. They are available to communities with no requirement that they accept federal funds, and no prohibition on offering contraceptive education. National polls consistently show that parents and students believe that abstinence is a valuable decision, and that students should receive a strong abstinence message from sexual health education programs.

Illustrating the point, every year the National Campaign to Prevent Teen Pregnancy conducts a nationally-representative survey on a variety of issues related to teen pregnancy. The following statistics are results from the 2004 survey.³⁷

³⁶ Id.

³⁷ "With One Voice 2004: America's Adults and Teens Sound Off About Teen Pregnancy," National Campaign to Prevent Teen Pregnancy, Dec. 2004; at <http://www.teenpregnancy.org/resources/data/pdf/WOV2004.pdf>.

- 94% of teens and 91% of adults believe that teens should be given a strong abstinence message not to have sex until they are at least out of high school;
- Nearly seven in ten teens do not think it is okay for high school teens to have sexual intercourse;
- Two-thirds of all sexually experienced teens wish they had waited longer to have sex;
- 56% of the teens surveyed said that the appropriate number of sexual partners for teens to have is "none;"
- 85% of the teens surveyed said that sex should only occur in a long-term committed relationship;
- Support for a strong abstinence message has remained "rock solid (90% or better) in every National Campaign survey conducted since 1997;
- 64% of teens say morals and values are equally as important as health information and services in influencing teen sexual behavior and preventing teen pregnancy, while nearly one quarter of teens (23%) say that morals and values are more influential than health information and services. By contrast, nine percent of teens believe that health information and services are *more* influential.

A survey conducted by the Kaiser Family Foundation and *Seventeen* magazine produced similar results.³⁸

- Nearly half of teens surveyed (49%) wish they waited until they were older to have sex;
- 28% of teens surveyed regret the decision to have sex altogether;
- 92% of teens surveyed think that being a virgin in high school is a good thing.

A new Harris Poll gathered enlightening information about the perception of abstinence education, showing that "adults under the age of 30 are more likely to believe that abstinence programs are effective, and it is of course these adults who are the main targets for the programs."³⁹

- 56% of people ages 18 to 24 and 60% of those 25 to 29 think abstinence programs effectively reduce or prevent the occurrence of HIV/AIDS;

³⁸ *SexSmarts Survey: Virginity and the First Time*, Kaiser Family Foundation, Oct. 2003; at <http://www.kff.org/entpartnerships/upload/Virginity-and-the-First-Time-Summary-of-Findings.pdf>.

³⁹ Jennifer Harper, *Youths Support Abstinence as Sex Education*, WASHINGTON TIMES (Jan. 22, 2006).

- 49% of people ages 18 to 24 and 52% of those ages 25 to 29 say the programs reduce or prevent unwanted pregnancies.

Adults and parents of teens also believe that students should be given a strong abstinence message:

- 79% of parents surveyed think teens should be taught to delay sexual activity until marriage or in an adult relationship leading to marriage;⁴⁰
- 91% of parents surveyed want students to be taught that adolescents should abstain from sexual activity through the high-school years;⁴¹
- 62% of the persons surveyed agree that abstinence from sexual activity outside of marriage is the expected standard for all school age children;⁴²
- 57% of the persons surveyed agree that sexual activity outside of marriage is likely to have harmful psychological and physical effects.⁴³

Parental and student support for abstinence education is very strong. Comprehensive sex education programs that devote 4.7 percent of their curricula to abstinence-related material are not meeting their own claims nor the desires of parents or students, who are footing the bill with their education tax dollars.

IV. THE WAXMAN REPORT

A. Background

The Democrat Office of the House of Representatives' Committee on Government Reform released a report in December 2004 entitled "The Content of Federally Funded Abstinence Education Programs." The stated purpose of the report, hereafter referred to as the Waxman Report, was to "examine the scientific and medical accuracy of the most popular abstinence curricula used by programs receiving funds from the largest federal abstinence initiative."⁴⁴ The report reviewed the most popular abstinence curricula and claimed that most of the curricula contain false, misleading or distorted information about

⁴⁰ *Survey on Parental Opinions of Character- or Relationship-Based Abstinence Education vs. Comprehensive Sex Education*, Zogby International, Jan. 2004.

⁴¹ *Id.*

⁴² See *Sex Education in America: General Public/Parents Survey*, National Public Radio/Kaiser Family Foundation/Kennedy School of Government (Jan. 2004); at <http://www.npr.org/programs/morning/features/2004/jan/kaiserpoll/principalsfinal.pdf>.

⁴³ *Id.*

⁴⁴ Undated Press Release from the Minority Office of the Committee on Government Reform, U.S. House of Representatives; at <http://www.democrats.reform.house.gov/Documents/20041201095458-38938.pdf>.

reproductive health.⁴⁵ This Democrat Office review of the abstinence curricula contains numerous inaccuracies and is severely flawed, as discussed below. Nonetheless, the partisan report received widespread and favorable media coverage.

Since its publication, the flawed report has been used to discredit abstinence education. For instance, the American Civil Liberties Union (ACLU) used the Waxman Report as its basis for launching *Not In My State*, a nationwide action program aimed at combating what it characterized as “dangerous” abstinence-until-marriage curricula.⁴⁶ *Not In My State* encourages ACLU members to write their local school superintendents and request that “unsafe” abstinence curriculum be kept out of the classroom. Four out of the nine citations contained in the sample letter posted on ACLU’s website refer to the Waxman Report.⁴⁷ A letter from the Illinois Division of the ACLU to a school superintendent criticizing abstinence education and asking for documentation of the present sex education curricula used the Waxman Report for over half of its citations.⁴⁸ The *Journal of Adolescent Health* published a paper entitled *Abstinence-only education and programs: A position paper of the Society for Adolescent Medicine* which simply adopts the so-called findings of the Waxman Report as scientific, thereby giving the Waxman Report more standing than it has on its own.⁴⁹ The report has also been used by various sexual health organizations to sharply criticize abstinence education.⁵⁰ The unverified Waxman Report is being referenced as a legitimate Congressional study, and the purported findings are being used to affect public perception, local school systems and their students.

While the Waxman Report is flawed, being neither a representative nor conclusive study of abstinence education curricula, it does raise some important questions about abstinence education and comprehensive sex education:

⁴⁵See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>, at 5.

⁴⁶ ACLU Press Release, “ACLU Announces Nationwide Action”, Sep. 21, 2005; at http://www.aclu.org/reproductiverights/gen/20117_prs20050921.html.

⁴⁷ “Not In My State: Sample Letter”, ACLU website; at <http://www.takeissuecharge.org/resource/?release=16> (last visited Mar. 14, 2006).

⁴⁸ Letter from Lorie A. Chaiten, Director of Reproductive Rights Project, ACLU-Illinois, to Illinois School Superintendent (Sep. 21, 2005) (on file with Subcommittee on Criminal Justice, Drug Policy and Human Resources).

⁴⁹ *Journal of Adolescent Health*, *Abstinence-only Education and Programs: A Position Paper of the Society for Adolescent Medicine*, 2006; 38: 85. See also, *Journal of Adolescent Health*, *Abstinence and abstinence-only education: A review of US policies and programs*, 2006; 38:72-81. For a refutation of the errors contained in these articles, see *The Attack on Abstinence Education: Fact or Fallacy?*, The Medical Institute, May 5, 2006.

⁵⁰“Planned Parenthood Applauds New Report Confirming That Abstinence Sex Education Contains False and Misleading Information”, <http://www.plannedparenthood.com/pp2/portal/files/portal/media/pressreleases/pr-041202-waxman.xml>; See *It Gets Worse: A Revamped Federal Abstinence Program Goes Extreme*, SEXUALITY INFORMATION AND EDUCATION COUNCIL OF THE UNITED STATES SPECIAL REPORT, SIECUS Public Policy Office http://www.siecus.org/policy/Revamped_Abstinence_Goes_Extreme.pdf.

- Are abstinence education programs accurate and effective, or are they as misleading, error-filled and ineffective as the Waxman Report suggests?
- How should the effectiveness and accuracy of abstinence education and comprehensive sex education be determined, and what exactly determines “medical accuracy?”
- How are recipients of Federal Abstinence and Sex Education Grants selected, and how are their curricula selected and approved?

Examining the scientific and medical accuracy of abstinence curricula, as well as sex education and any health information taught to youth, is vitally important. Nonetheless, it is important to note that the Waxman Report is not a thorough examination of the issue and does not constitute any scientific or official Congressional findings. This report was funded and conducted solely by a partisan committee staff and was never submitted to the full Committee on Government Reform for review. Furthermore, there were no Congressional hearings held to discuss this issue and the Waxman Report’s findings.

B. The Waxman Report is Widely Criticized

The Waxman Report was severely criticized by some Members of Congress. For example, Congressman Joseph Pitts (R-PA 16), said the Waxman Report “was prepared at taxpayer expense by partisan committee staff and was not reviewed in any hearings or publicly discussed with experts in abstinence education. Instead, Representative Waxman took advantage of a slow news cycle to pass off his ideological attack as a legitimate congressional study.”⁵¹

While it is important that content of the curricula used in both abstinence and comprehensive sexuality education be reviewed for accuracy, it is equally important that such evaluations are themselves accurate. The Waxman Report claimed to be “a comprehensive evaluation of the content of curricula used in federally funded abstinence education programs” and “an overall assessment of the accuracy of the curricula.”⁵² The actual product is a gross misrepresentation of abstinence education and curricula.

Alma Golden, MD, then serving as the Deputy Assistant Secretary for Population Affairs, Office of Public Health and Science for the U.S. Department of Health and Human Services, publicly stated that the Waxman Report “misses the boat. These issues have been raised before and discredited. Unfortunately, what they continue to do for purely political reasons is to take issues and information out of context to try and discredit

⁵¹ Representative Joseph Pitts (R-PA), from a letter submitted to the Editor of the WASHINGTON POST on Dec. 3, 2004. (on file with Subcommittee on Criminal Justice, Drug Policy and Human Resources).

⁵² See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>, at 5.

abstinence education, which is a disservice to our children.”⁵³ A comparison of the Waxman Report and the actual abstinence curricula reviewed therein reveals that the Waxman Report relies heavily on information taken out of context.

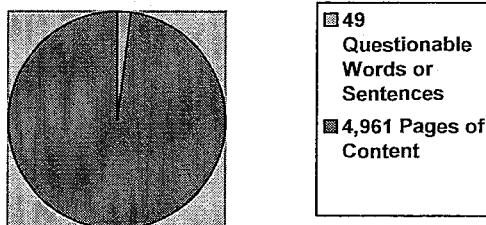
C. The Waxman Report is Misleading

The report claims that “over 80% of the abstinence curricula, used by over two-thirds of SPRANS (Special Projects of Regional and National Significance) grantees in 2003, contain false, misleading, or distorted information about reproductive health.”⁵⁴ This sweeping statement is extremely misleading.

Out of the thirteen curricula most commonly used by SPRANS recipients and reviewed by Representative Waxman’s staff, eleven were alleged to contain at least one instance of false, misleading or distorted information. This finding does not mean that 80 percent of the entire information contained in these curricula is false, misleading or distorted. In fact, although the Waxman Report claims that abstinence curricula are riddled with “numerous” and “serious and pervasive” errors, “major errors and distortions,” and “multiple scientific and medical inaccuracies,”⁵⁵ the actual number of alleged errors found by Representative Waxman’s staff is very small.

Despite its assertions, the Waxman Report is actually evidence of the high quality of abstinence curricula. Representative Waxman’s staff listed only some forty-nine occurrences of allegedly questionable information in the thirteen curricula they reviewed. These curricula contained 4,961 pages of reviewable material. In nearly 5,000 pages of material, 49 questionable words or sentences represent less than one percent of all pages in the reviewed curricula.

Abstinence Curricula



By way of comparison, a 2001 study of the twelve most popular middle school science textbooks, used by approximately 85 percent of students nationwide, found 500 pages of

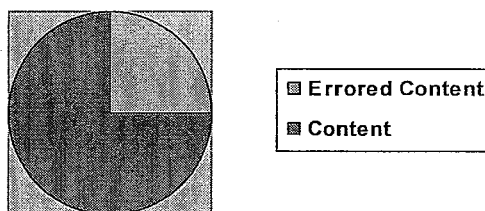
⁵³ Alma Golden, MD, Deputy Assistant Secretary for Population Affairs, Department of Health and Human Services, Office of Public Health and Science; Official Response to Critical Abstinence Education Report; at <http://www.medicalnewstoday.com/medicalnews.php?newsid=17268>.

⁵⁴ See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>, at Executive Summary.

⁵⁵Id. at ii, 7, 22.

scientific errors.⁵⁶ A review of the math textbooks submitted for use in California found numerous mistakes and as many as one error for every four pages, which is 25 percent of the curriculum.⁵⁷

California Math Textbooks



This one percent of questionable material found by the Waxman Report becomes even smaller when the purported inaccuracies are adjusted for misunderstandings of the curricula, good faith typographical errors, trivialities and outright distortion and bias.

D. Misrepresentation and Distortion of Abstinence Curricula

In a section entitled *Abstinence Curricula Contain False and Misleading Information about the Effectiveness of Contraceptives*, the Waxman Report criticizes the *A.C. Green's Game Plan Coach's Clipboard*, a publication of the abstinence education group Project Reality, for allegedly distorting public health data on the effectiveness of condoms in preventing sexually transmitted diseases (STDs). The Waxman Report considers the statement, "The popular claim that condoms help prevent the spread of STDs is not supported by the data" to be wrong.⁵⁸ However, the curriculum's statement is supported by the 2001 National Institute of Health Report which states that "epidemiological evidence is insufficient to determine the effectiveness of condoms" for preventing most STDs.⁵⁹

In a section entitled *Abstinence Curricula Contain False and Misleading Information about the Risks of Sexual Activity*, the Waxman Report claims that another curriculum of Project Reality entitled *Navigator Guidebook*, "explicitly states: 'It is critical that students understand that if they choose to be sexually active, they are at risk' for cervical

⁵⁶ Hubisz, John L. Ph.D. (2001), *Review of Middle School Physical Science Texts*, Final Report, David and Lucile Packard Foundation, Grant 1998-4248; at http://www.ncsu.edu/ncsu/pams/science_house/middleschool/reviews/hubisz.rtf.

⁵⁷ Andrew Goldstein, *Amending the Texts: New technology promises to make them more accurate, up-to-date, interactive—and lightweight*, TIME MAGAZINE (Feb. 12, 2001).

⁵⁸ See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>, at 10.

⁵⁹ See *Workshop Summary: Scientific Evidence on Condom Effectiveness for Sexually Transmitted Disease Prevention*, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Department of Health and Human Services Report, July 20, 200, at 3; at <http://www.niaid.nih.gov/dmid/stds/condomreport.pdf>.

cancer.”⁶⁰ This is a blatant distortion of the *Navigator* curriculum, which clearly states that sexually active students need to understand that they are at risk for human papillomavirus (HPV). The curriculum does state the fact that cervical cancer can be a result of HPV, but it also states that “most cases of HPV do not result in cervical cancer.”⁶¹ This sentence directly contradicts the Waxman Report statement that this curriculum does not mention “that HPV, though associated with most cases of cervical cancer, rarely leads to the disease”⁶² The Waxman Report’s assertion that the *Navigator* curriculum “explicitly” states sexual activity leads to cervical cancer is entirely wrong.

The *Friends First/Stars* curriculum and the *Choosing the Best Way* curriculum are both considered to be “misleading” by the Waxman Report for stating that there is no evidence for condom prevention against the transmission of HPV.⁶³ However, both these curricula cite the leading condom study by the National Institute of Health, which found that there is no evidence that condom use reduces the risk of HPV infection, although study results did suggest that condom use might reduce some risk of HPV-associated diseases, including warts in men and cervical neoplasia in women.⁶⁴

In addition to taking information out of context, the Waxman Report also includes some inconsistencies that should deter readers from considering the report as an objective or scientific document. For example, the report criticizes abstinence curricula for supposedly drawing a strong correlation between HPV and cervical cancer: “Neither of these curricula mentions that human papilloma virus, though associated with most cases of cervical cancer, rarely leads to the disease.”⁶⁵ Only a few sentences later the Waxman Report criticizes two other curricula for *failing* to draw a strong correlation between HPV and cervical cancer: “Other curricula advise that condoms have not been proven effective in blocking the transmission of HPV and that ‘no evidence’ demonstrates condoms’ effectiveness against HPV transmission. According to the CDC, however, evidence indicates that condoms do reduce the risk of cervical cancer.”⁶⁶

That the Waxman Report is unusually critical about assertions that condom use cannot prevent the transmission of HPV is not surprising. In 2004, Mr. Waxman stated at a hearing entitled “Cervical Cancer and Human Papillomavirus” that “I am concerned that this hearing will instead pursue a different question entirely – how the science of HPV

⁶⁰ See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>, at 19.

⁶¹ Libby Gray and Scott Phelps, *Navigator Guidebook*, Project Reality, Illinois 2003.

⁶² *The Content of Federally Funded Abstinence Education Program*, supra note 1 at 19.

⁶³ Id at 12.

⁶⁴ *Workshop Summary: Scientific Evidence on Condom Effectiveness for Sexually Transmitted Disease Prevention*, supra note 60 at 29. “For HPV, the panel concluded that there was no epidemiological evidence that condom use reduced the risk of HPV infection, but study results did suggest that condom use might afford some protection in reducing the risk of HPV-associated diseases, including warts in men and cervical neoplasia in women.”

⁶⁵ See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>, at 19.

⁶⁶ Id.

can be used to advance the ideological agenda of abstinence-only education.”⁶⁷ He accused critics of the policy of relying on condoms as the primary method of prevention of HPV infection of using “the example of HPV to try to undermine public confidence in any other approach besides abstinence”⁶⁸ while conceding that “it is true that condoms have not been proven to reduce the risk of HPV infection.”⁶⁹ Notwithstanding the importance of communicating the weight of scientific evidence to consumers, Mr. Waxman asserted that “anything that undermines the effectiveness of condoms for these uses will have serious public health consequences.”⁷⁰

Another curriculum severely distorted by the Waxman Report is the middle school FACTS curriculum. The Waxman Report claims that the FACTS curriculum “scrambles the CDC data in a way that suggests greatly exaggerated HIV rates among teenagers. For example, where the CDC chart showed that 41 percent of female teens with HIV reportedly acquired it through heterosexual contact, the curriculum’s chart suggests that 41 percent of heterosexual female teens have HIV. It similarly implies that 50 percent of homosexual male teens have HIV.”⁷¹ Contrary to the Waxman Report’s claims, the text of the curriculum immediately preceding the chart clearly states that “the table below displays the incidence of transmission for HIV infection in the U.S. as reported from confidential reports from states to the CDC.”⁷² The curriculum is clearly presenting information on HIV transmission, not the overall infection rates as the Waxman Report claims.

In yet another instance of blatant or careless distortion, the Waxman Report claims that a curriculum by *The Medical Institute for Sexual Health* teaches that touching another person’s genitals can result in pregnancy.⁷³ The material referred to by the Waxman Report, which is not a curriculum although erroneously designated as such, actually states that “mutual masturbation is activity which can spread STDs and can result in pregnancy.”⁷⁴ The curriculum is clearly talking about a specific sexual act and not the mere touching of another person’s genitals.⁷⁵ This information is scientifically accurate

⁶⁷ “Cervical Cancer and Human Papillomavirus,” hearing before the House Subcommittee on Criminal Justice, Drug Policy and Human Resources, Committee on Government Reform, 108th Cong. (March 11, 2004) (statement of Henry Waxman, Ranking Minority Member, House Government Reform Committee); at [http://reform.house.gov/UploadedFiles/96225\[1\].pdf](http://reform.house.gov/UploadedFiles/96225[1].pdf)

⁶⁸ Id.

⁶⁹ Id.

⁷⁰ Id.

⁷¹ See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>, at 20.

⁷² FACTS Middle School Curriculum, 112-113, Northwest Family Services, 2001.

⁷³ Id. at 12.

⁷⁴ *Sexual Health Update*, The Medical Institute, Spring 2005; at <http://www.medinstitute.org/includes/downloads/ishspring2005.pdf>.

⁷⁵ Response to The Waxman Report in *Sexual Health Update*, Spring 2005, The Medical Institute; at <http://www.medinstitute.org/includes/downloads/ishspring2005.pdf>, at 12.

and presented by organizations that support comprehensive sex education, including Planned Parenthood.⁷⁶

The Waxman Report faults two other curricula, *Choosing the Best Way Leader Guide* and *Why kNOW*, for understating condom effectiveness by “neglecting to explain that failure rates represent the chance of pregnancy over the course of a year.”⁷⁷ The curricula do not distinguish between annual failure rates and per-act failure rates, but that is because published failure rates are assumed to be annual rates. Furthermore, the *Choosing the Best Way Leader Guide* is intended for sixth grade students, and the next curriculum in the *Choosing the Best* program intended for seventh graders contains an entire page discussing and defining failure rates.⁷⁸ The Waxman Report either overlooked this page or chose to ignore it.

E. Abortion

The Waxman Report also alleges that “a high number of the programs receiving SPRANS funding are formally opposed to abortion.”⁷⁹ However, there are only two programs cited in the report, out of more than 100 programs that actually receive SPRANS funding.⁸⁰ Few would agree with the Waxman Report statement that two programs constitute a “high number.”⁸¹ Furthermore, this matter has nothing to do with the *content* of federally-funded abstinence education programs, and the organizations cited did not produce any of the reviewed curricula.

Why is the Waxman Report evaluating whole organizations, when its purpose is to evaluate curricula? Here, the Waxman Report is not merely taking information out of context; it is taking information out of an unrelated source and using it to criticize the reviewed curricula. The Waxman Report does not contain any examples from the reviewed curricula of formal opposition to abortion.

F. “Moral Judgments”

⁷⁶ “Ask the Experts,” Teenwire of Planned Parenthood; at <http://www.teenwire.com/ask/2005/as-20051212p1175-sperm.php>. Dec. 12 2005 and <http://www.teenwire.com/ask/2005/as-20050505p1022-pregnant.php>, May 5, 2005.

⁷⁷ See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>, at 12.

⁷⁸ Cook, Bruce, *Choosing the Best Path* (Student Manual), Choosing the Best Publishing, LLC, 2001 at 19.

⁷⁹ See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>, at 13.

⁸⁰ HHS, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau, *HRSA SPRANS Community Based Abstinence Education Program Grantee Address List FY 2003* (online at www.mchb.hrsa.gov/programs/Adolescents/03grantedir.htm); HHS Office of Budget, *2005 President's Budget All-Purpose Table*; Administration for Children and Families, *supra* note, 5. On June 9, 2004, the SPRANS program was transferred from HRSA to the Administration for Children and Families (see www.mchb.hrsa.gov/programs/adolescents/abstinence.htm).

⁸¹ *Id.*

In a section entitled *Abstinence Curricula Blur Religion and Science*, the Waxman Report claims that “abstinence curricula teach moral judgments alongside scientific facts.”⁸² Besides the fact that what the report pejoratively deems as “moral judgments” are simply the federally-defined standards for abstinence education, as mentioned above, the footnote for this assertion does not even cite any of the curricula: “Many SPRANS recipients are religious organizations; for example, \$800,000 was awarded to the Catholic Diocese of Orlando on September 15, 2004. HHS, *HHS Awards \$800,000 to Diocese for Abstinence Education; “Think Smart” Program to Help Youth Make Positive Choices in Life.*”⁸³ The fact that some religious organizations are using the reviewed abstinence curricula does nothing to prove that the curricula blur religion and science.

The Waxman Report continues to criticize abstinence curricula without finding evidence for the criticisms within the curricula. The Waxman Report states, “In some of the curricula, the moral judgments made are explicitly religious.”⁸⁴ To support its claim, however, the Waxman Report fails to give an example from any of the curricula. Rather, the Report’s assertion stems from a newsletter that purportedly accompanied one popular curriculum. However, the Report fails to establish whether the newsletter was an essential part of the curriculum – funded by SPRANS – or was an entirely separate part of the organization’s wide-ranging programs.

G. Abstinence Education Works

While the Waxman Report’s review of the leading abstinence curricula contains numerous inaccuracies, the report is also inaccurate in its discussion regarding the effectiveness of abstinence education and comprehensive sex education. The Waxman Report states that, “There have been several studies of the effectiveness of abstinence education. These studies have found that abstinence education does not appear to decrease teen pregnancy or the risk of sexually transmitted diseases.”⁸⁵ For evidence, the Waxman Report cites portions of two studies by Dr. Douglas Kirby (2001, 2002) which state that the abstinence studies completed to that date did not show an overall impact on contraceptive use, sexual behavior or teen pregnancy.⁸⁶ The Waxman Report fails to mention that both these studies go on to state the following:

“The primary conclusion that can be drawn from these three⁸⁷ studies is that the evidence is not conclusive about abstinence programs [...] given the paucity of

⁸² See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>, at 15.

⁸³ Id.

⁸⁴ Id.

⁸⁵ Id at 3.

⁸⁶ See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>. See also supra note 28.

⁸⁷ Supra note 28, *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy (Summary)*. “Very little rigorous evaluation of abstinence-only programs has been completed; in fact, only three studies met the criteria for this review.”

the research and the great diversity of abstinence programs that is not reflected in these three studies, one should be very careful about drawing conclusions about abstinence programs in general. Fortunately, results from a well-designed, federally-sponsored evaluation of Title V- funded abstinence programs should be available within the next two years.”⁸⁸

“This does not mean that abstinence programs are not effective, nor does it mean that they are effective. It simply means that given the great diversity of abstinence programs combined with very few rigorous studies of their impact, there is simply too little evidence to know whether abstinence programs delay the initiation of sex. That is, “the jury is still out.” Increasingly it seems likely to this author that sooner or later studies will produce strong evidence that some abstinence programs are effective at delaying sex and that others are not.”⁸⁹

Furthermore, although the latter study did not classify the findings as “strong evidence” it did state that an abstinence education program “produced *some* evidence that the program delayed the initiation of sex and reduced teen pregnancy rates.”⁹⁰ Nonetheless, the Waxman Report jumps to the very conclusion that its own cited studies say cannot be supported or substantiated.

Since the publication of the Waxman Report, the 2001 Kirby study that the Waxman Report cites has received some criticism. One review noted that:

“Kirby commits what statisticians refer to as “Type II error.” Type II error occurs when the research hypotheses is falsely, often prematurely, rejected because of a lack of statistical significance (e.g., Agresti & Findlay, 1986; Cohen, 1988). In nonstatistical terms, this is the assertion of the false negative. Such false and premature rejection of the hypothesis is often due to factors that can be corrected in subsequent research. One such correctable factor is sample size. Kirby observes that proper studies require samples of at least 500 subjects to attain statistically significant results (Kirby, 2001). Many abstinence studies contain far fewer than 500 subjects. Findings of nonsignificance cannot be considered proper tests of either the particular abstinence education program under investigation or the underlying abstinence paradigm.”⁹¹

The Waxman Report failed to mention then-existing studies that find that abstinence education programs do decrease teen pregnancy and the risk of sexually transmitted diseases as noted above in Section III, B.

⁸⁸Id.

⁸⁹ Douglas Kirby, The National Campaign to Prevent Teen Pregnancy, *Do Abstinence Programs Delay the Initiation of Sex among Young People and Reduce Teen Pregnancy?* 6 (Oct. 2002); at www.teenpregnancy.org/resources/data/pdf/abstinence_eval.pdf.

⁹⁰Id at 3.

⁹¹ Lerner, Robert, “Can Abstinence Work? An Analysis of the Best Friends Program,” *Adolescent and Family Health*, Apr. 2005, Vol. 3, No. 4: 185-192.

The Waxman Report fails to fully evaluate abstinence education programs and ignores evidence showing the effectiveness of abstinence programs.⁹² The Waxman Report also fails to examine the comprehensive sex education programs that it presents as the alternative to abstinence programs and the solution to the sexual health epidemic. Equal standards should apply to abstinence education and comprehensive sex education if there is to be an honest comparison in effectiveness.

H. Comprehensive Sex Education Programs are Ineffective

The Waxman Report claims that comprehensive sex education has been shown to be effective in delaying sex, reducing the frequency of sex and increasing the use of condoms and other contraceptives.⁹³ However, these factors seem to have little impact on the desired outcomes of teen pregnancy, STDs and HIV.

Despite studies claiming that comprehensive sex education programs are effective, very few, if any school-based sex education programs measure their program's effect on sexually transmitted diseases, HIV and non-marital pregnancy, which are all outcomes they claim to reduce.⁹⁴ The few programs that have measured these outcomes have not demonstrated reduced rates of these desired outcomes.⁹⁵

Furthermore, while comprehensive sex education programs continue to promote condoms and other forms of contraceptives, 50% of cohabiting teens using contraception get pregnant within a year,⁹⁶ 23.2% of unmarried women under the age of 20 using condoms get pregnant within a year⁹⁷ and 20% of teens aged 12-18 using the pill get pregnant within six months.⁹⁸

In fact, the only comprehensive sex education program that has been clearly shown to reduce teen pregnancy is a highly-touted pregnancy prevention mentoring program in New York that provides Depo-Provera to young women. Depo-Provera, an injectable contraceptive that prevents ovaries from releasing eggs, prevents the girls from becoming

⁹² A recent report from a longitudinal study on four Title V abstinence programs found that abstinence education is effective in changing young people's attitudes with regard to sexual behavior. See Rebecca Maynard, et al., "First-Year Impacts of Four Title V, Section 510 Abstinence Education Programs", Mathematica Policy Research, Inc., June 2005.

⁹³ See *The Content of Federally Funded Abstinence Education Programs*, COMMITTEE ON GOVERNMENT REFORM—MINORITY STAFF SPECIAL INVESTIGATION DIVISION REPORT, Dec. 2004; at <http://www.democrats.reform.house.gov/Documents/20041201102153-50247.pdf>, at 4.

⁹⁴ Daniels, Dr. Scott E., *In Defense of Abstinence*, The Medical Institute, 2005, at 1.

⁹⁵ Response to Rep. Waxman's Report, "The Content of Federally-Funded Abstinence Education Programs, Sexual Health Update, Spring 2005, The Medical Institute; at <http://www.medinstitute.org/includes/downloads/ishspring2005.pdf?PHPSESSID=35ce97988ad6d2182414f5cc5366de7>.

⁹⁶ Dinerman L., Wilson M., Duggan A. and Joffe A., "Outcomes of adolescents using levonorgestrel implants vs. oral contraceptives or other contraceptive methods," *Arch Pediatrics Adolescent Medicine*, 1995; 149: 967-972.

⁹⁷ Haishan Fu, et al. "Contraceptive Failure Rates: New Estimates from the 1995 National Survey of Family Growth," *Family Planning Perspectives*, 1999; 31(2): 56-63.

⁹⁸ CDC, *1995 Survey of Family Growth, Table 45: Oral Contraceptive Use and Consistency of Oral Contraceptive Use*.

pregnant, but does not protect them from STDs. In addition to the high cost of adding Depo-Provera to comprehensive sex education programs, there are also harmful side effects from the contraceptive drug, including bone loss and the loss of bone mineral density.⁹⁹

I. Comprehensive Sex Education Programs are Not Age-Appropriate

While it is important to evaluate comprehensive sex education programs for their effectiveness or lack thereof, it is also important to evaluate their content. Comprehensive sex education, especially when it is described as “abstinence-plus” education, is misleading because most the curricula are hardly “comprehensive.” An analysis of nine so-called comprehensive/abstinence-plus curricula promoted by the *National Campaign to Prevent Teen Pregnancy, Division of Adolescent and School Health (DASH) of the CDC, Advocates for Youth, and the Sexuality Information and Education Council of the United States (SIECUS)*, found the curricula contained very little information about abstinence. Despite claims that comprehensive/abstinence-plus education programs contain a strong abstinence message,¹⁰⁰ the average page content of the curricula devoted to abstinence-related material is only 4.7 percent.¹⁰¹

Dr. Douglas Kirby, who sits on the board of The National Campaign to Prevent Teen Pregnancy, describes abstinence-plus education as giving “real weight to abstinence, you give it serious attention, you say that abstinence is the only method that is 100 percent effective against pregnancy and sexually transmitted diseases. But then you also talk about condoms and contraception in a balanced accurate manner.”¹⁰² When only 4.7 percent of the curricula mention abstinence, abstinence is not being given “real weight” or “serious attention.” When 28.6 percent of the content of the reviewed curricula is devoted to promoting and encouraging contraception use,¹⁰³ the curricula is anything but balanced. The *average* curriculum allocates nearly seven times more content to

⁹⁹ Depo-Provera’s website (<http://www.depoprovera.com>) contains warnings of the side effects and contains a link to a press release by Pfizer, the drug’s maker, warning of these side effects. http://www.pfizer.com/pfizer/are/news_releases/2004pr/mn_2004_1118.jsp.

¹⁰⁰ Advocates for Youth defines comprehensive sex education: “Comprehensive Sexuality Education teaches about abstinence as the best method for avoiding STDs and unintended pregnancy but also teaches about condoms and contraception to reduce the risk of unintended pregnancy and of infection with STDs, including HIV.” See Advocates for Youth, “Sexual Education Programs: Definitions & Point-by-Point Comparison,” *Transitions*, Vol. 12, No. 3 (Mar. 2004), p. 4; at www.advocatesforyouth.org/publications/transitions/transitions1203_3.htm. SIECUS states that, “Helping adolescents to postpone sexual intercourse until they are ready for mature relationships is a key goal of comprehensive sexuality education. Such education has always included information about abstinence . . . Effective programs include a strong abstinence message as well as information about contraception and safer sex.” See Sexuality Information and Education Council of the United States, “Fact Sheet: Adolescence and Abstinence,” *SIECUS Report*, Vol. 26, No. 1 (Oct./Nov. 1997). SIECUS and Advocates for Youth, in a joint statement, claim that comprehensive sexuality education programs “emphasize the benefits of abstinence while also teaching about contraception and disease prevention methods.” See Advocates for Youth and SIECUS, “Toward a Sexually Healthy America: Roadblocks Imposed by the Federal Government’s Abstinence-Until-Marriage Education Program,” 2001, p. 7.

¹⁰¹ Shanna Martin, Robert Rector and Melissa Pardue, *supra* note 3 at 11.

¹⁰² E. J. Dionne, Jr., *Abstinence Plus*, THE WASHINGTON POST, July 16, 1999, p. A23.

¹⁰³ Shanna Martin, Robert Rector and Melissa Pardue, *supra* note 3.

contraception than abstinence, but in some curricula the ratio is as imbalanced as 27 to one.¹⁰⁴ These programs would be more accurately described as “Contraception-plus Sex Education” because they fail to present a strong abstinence message at all. “Abstinence plus” is a misnomer, and entirely misleading.

While it is important to note what comprehensive sex education does *not* contain – a strong abstinence message – it is equally important to examine the information that is contained in comprehensive sex education curricula. It is an unfortunate fact that many comprehensive/abstinence-plus sex education curricula contain sexually explicit information that is both irrelevant for sexual health education, and inappropriate for the targeted age groups.

Listed below are several examples from sex education curricula intended for high school students. These examples all come from curricula promoted on the websites of SIECUS (Sexuality Information and Education Council of the United States) and Planned Parenthood, two of the nation’s largest sex education advocacy groups.¹⁰⁵

“Sometimes people don’t have a water-based lubricant handy. If you were trying to find something around the house, or at a convenience store, to use as a substitute what would be safe?...Some ‘grocery store’ lubricants are safe to use if they do not contain oil: grape jelly, maple syrup, and honey.”¹⁰⁶

Give each group a penile model, some lubricant, spermicide and paper towels, then say... “One step at a time, I want each of you to practice the condom application and removal steps, with or without a lubricant. Your teammates have a task, too...They are going to give you a round of applause and praise what you did right.”¹⁰⁷

“Go to the store together. Buy lots of different brands and colors [of condoms]. Plan a special day when you can experiment. Just talking about how you’ll use all of those condoms can be a turn on.”¹⁰⁸

“Invite students to brainstorm ways to increase spontaneity and the likelihood that they’ll use condoms...Examples: Store condoms under mattress...Eroticize condom use with partner...Use condoms as a method of foreplay...Think up a sexual fantasy using condoms...Act sexy/sensual when putting the condom on...Hide them on your body and ask your partner to find it...Tease each other manually while putting on the condom.”¹⁰⁹

¹⁰⁴ Id.

¹⁰⁵ See <http://www.siecus.org/pubs/biblio/bibs0010.html> and <http://www.plannedparenthood.com/pp2/portal/files/portal/educationoutreach/educationprograms/programs-responsible-choices-2nd.pdf>.

¹⁰⁶ *Becoming a Responsible Teen*, supra note 2.

¹⁰⁷ Id at 119.

¹⁰⁸ *Be Proud! Be Responsible*, supra note 2, at 80.

¹⁰⁹ Id at 78-79.

“Show condoms. Have several different brands including lubricated and reservoir tip. Open packages and unroll condoms for students to inspect. You may pass them around. Use plastic model of penis or two fingers for demonstration... You may blow up rubber to demonstrate how strong they are.”¹¹⁰

While these curricula are intended for high school-aged students, the highly-explicit information they contain encourages students to think, even fantasize about sexual activity. Furthermore, it is also important to note that a large portion of high school students are too young for consensual sex under applicable state law.

The following examples come from a curriculum that is intended for students 9-15 years of age. Most 9 year olds are in fourth or fifth grade and 15 year olds, while in high school, are still too young for legal consensual sex.

“Assign teens to create a list of ways to be close to a person without having intercourse, including, body massage, bathing together, masturbation, sensuous feeding, fantasizing, watching erotic movies, reading erotic books and magazines.”¹¹¹

“Youth will practice the proper way to put on a condom... Divide youth into two teams and give everyone a condom. Have the teams stand in two lines and give the first person in each line a dildo or cucumber. Each person on the team must put the condom on the dildo or cucumber and take it off... The team that finishes first wins.”¹¹²

While these curricula contain plenty of content encouraging the use of contraception, tips for performing sexual activities, and suggestions to increase sexual arousal, *none of these curricula contain content encouraging youth to abstain from sexual activity*. In fact, out of 942 pages of reviewed comprehensive sex education curricula, there is not one single sentence encouraging youth to delay sexual activity at least through high school.¹¹³

SIECUS in its guidelines for comprehensive sexuality education suggests that children ages five through eight be taught the following about masturbation:

- touching and rubbing one’s own genitals to feel good is called masturbation
- some boys and girls masturbate and others do not
- masturbation should be done in a private place¹¹⁴

¹¹⁰ *Teen Talk: Reproduction and Contraception Curriculum*, Sociometrics Corporation, Los Altos, CA, at 16.

¹¹¹ *Focus on Kids*, ETR Associates, Santa Cruz, CA, 1998, at 137.

¹¹² *Id* at 108.

¹¹³ Shanna Martin, Robert Rector and Melissa Pardue, *supra*, note 3.

¹¹⁴ Guidelines for Comprehensive Sexuality Education, 3rd Edition, SIECUS; at <http://www.siecus.org/Pubs/guidelines/guidelines.pdf>, at 51.

These guidelines for curricula seem shockingly explicit and hardly relevant for children between kindergarten and the third grade. It does not seem wise to introduce sexual activity to children at such a young age if the goal of these programs is to delay the onset of sexual activity when they are older.

Clearly, the state of abstinence education is far more positive and accurate than the Waxman Report portrays, and while all sexual health education programs merit more study, there is a credible body of evidence suggesting that abstinence education is indeed effective. Just as more studies need to be conducted to evaluate the effectiveness of abstinence education, comprehensive sex education programs need to be studied and evaluated to make sure they are age-appropriate, effective and medically accurate.

J. Medical Accuracy

One of the reasons there is so much controversy and confusion about the effectiveness of sex education is because the term “medical accuracy” is widely used but has no clear definition and carries no guidelines for determining either the medical accuracy of a curriculum or the effectiveness of a program.

Currently, sexual health education providers commonly cite peer-reviewed journals to appear medically accurate, promote the effectiveness of a sexual health education programs and criticize other sexual health education programs. However, this method alone is insufficient for ensuring the accuracy of sexual health education material and the effectiveness of programs, since the goal of journal reviews is primarily to examine proper use of statistical methods and statistical significance, not the medical accuracy of content within programs themselves. For example, as cited in Section IV, I of this report, few would agree that encouraging teens to use grape jelly or maple syrup as a lubricant would be considered “medically accurate,” however, the program that contains this information was evaluated and published in a peer reviewed journal, then was touted as an effective program. A recent lead editorial in *The Wall Street Journal* raised serious doubts regarding the impartiality of the peer review process.¹¹⁵ While this example should not discredit the peer review process across the board, it does raise serious questions about its credibility in all cases and suggests that there needs to be other ways of authenticating data.

In its final guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by Federal agencies, the Office of Management and Budget stated the following:

“Some comments argued that journal peer review should be adequate to demonstrate quality, even for influential information that can be expected to have major effects on public policy. OMB believes that this position overstates the effectiveness of journal peer review as a quality-control mechanism. Although

¹¹⁵ *New England Journal of Politics*, THE WALL STREET JOURNAL, Jan. 16, 2006.

journal peer review is clearly valuable, there are cases where flawed science has been published in respected journals. (66 Fed. Reg. 52137, October 12, 2001).¹¹⁶

In an article discussing the abuse of science in public policy debates, the Guttmacher Report on Public Policy warned that “there are no guarantees, of course, that even the most rigorous study in the most prestigious journal is correct in its conclusions. Science progresses by accumulating evidence from multiple studies, a key reason why transparency and replicability are vital. Moreover, science advances: over time, scientists develop more refined methods, acquire more appropriate data and explore new explanations for old mysteries.”¹¹⁷

The goal of any sexual health education program should be to provide information that is consistent with the current state of scientific knowledge. Providing medically accurate and referenced information allows students to make informed decisions and increases the probability that their decisions will lead to healthy behavioral choices.

While both abstinence education and comprehensive sex education groups strive to present “medically accurate” information, the differing philosophies of what constitutes healthy information for teens causes a serious problem when it comes to defining medical accuracy. For example, the quotes from comprehensive sex education curricula in Section IV, I of this report contain information that most citizens would not consider to be “medically inaccurate.” Therefore, the only way to ensure that actual curricula are medically accurate is to review the content of curricula itself. Many federally-funded programs do not review curricula at all before granting funding for these programs.

Without review of actual curricula content, achieving such an elusive standard as “medical accuracy” will be a difficult task. Sexual health education programs of all varieties have at least occasionally presented information that lacked a clear scientific basis. Some of the assertions are based on morality, some on ideology and some on matters of simple opinion. For example, in the past, some sexual health education providers claimed that condoms had “holes” which permitted the passage of HIV.¹¹⁸ At the other extreme, some claim even today that condoms provided nearly 100 percent protection against pregnancy.¹¹⁹ Currently, some claim that the term “protect” accurately describes the action of condoms against pregnancy and STDs since condoms reduce the risk. Others, however, claim that the term “protect” is inaccurate and misleading to

¹¹⁶ Office of Management and Budget, Executive Office of the President. *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies*; at <http://www.whitehouse.gov/omb/fedreg/reproducible.html> (last visited Apr. 27, 2006). See also 66 Fed. Reg. 52137, Oct. 12, 2001.

¹¹⁷ Sonfield, Adam, *The Uses and Abuses of Science In Sexual and Reproductive Health Policy Debates*, The Guttmacher Report on Public Policy, Vol. 8 (4), Nov. 2005; at <http://www.guttmacher.org/pubs/tgr/08/4/gr080401.html>.

¹¹⁸ Heritage House '76, *Condoms – Do They Really Work?* 1998 Heritage House 76, Inc.; at http://www.abortionfacts.com/literature/literature_9331cd.asp.

¹¹⁹ Sexuality Information and Education Council of the United States (SIECUS), *The Truth About Condoms*; at <http://63.73.227.69/pubs/fact/fact0011.html>.

describe the action of condoms against pregnancy and STDs, since condoms do not eliminate the risk.¹²⁰

The dissemination and acceptance of inaccurate or incomplete information could have a negative impact on public health and discredit the sexual health education curricula, or parts of the curricula – that are medically accurate. The failure to review and ensure the validity of sexual health education curricula has greatly harmed students, the public in general and sexual health education providers. It has also lead to the inefficient use of taxpayer and government dollars for educational programs that are not medically accurate.

The current federal guidelines regarding curricula review need to be changed and replaced by a fair, balanced and accurate assessment of curricula content. The current guidelines are intended to “ensure and maximize the quality, objectivity, utility, and integrity of information disseminated.”¹²¹ To date most attempts to define medical accuracy have been inadequate for the following reasons:

- the criteria suggested are not directed toward all sexual health education providers—i.e., comprehensive sex education *and* abstinence education programs
- there is no objective measurable standard of determining whether the data and other material included in the particular sexual health education curricula are accurate
- there is no objective measurable standard of determining whether there are serious omissions from the material presented which render such material inaccurate or deceptive
- there is no across-the-board review of curricula itself

It is equally important for federally-supported programs to use the same source data, both within the various programs and in their evaluation. How the data is used can be a matter of methodology and interpretation, but the data itself should be verifiably accurate.

One possible solution to this problem would be for the government agencies reviewing grants for comprehensive sex education programs and abstinence education programs to review curricula for accuracy during the grant review process. Because these programs are funded under many different funding streams and agencies, each agency would be required to establish and implement a curricula review protocol within its grant review process. This curriculum review process would be subject to oversight by the Office for

¹²⁰ Daniels, Dr. Scott E., *In Defense of Abstinence*, The Medical Institute, 2005, at 7.

¹²¹ Office of Management and Budget, Executive Office of the President. *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies*; at <http://www.whitehouse.gov/omb/fedreg/reproducible.html>. See also 66 Fed. Reg. 52137, Oct. 12, 2001.

Evaluation and Planning to ensure fair, balanced and accurate review and funding. In many cases, potential grantees are not required to submit curricula for review before receiving funding. This increases the risk of funding out-of-date or inaccurate curricula.

The general basis for curricula accuracy review for agencies to use in their grant review process would include the following:

- A review for accurate footnoting and referencing of recent medical data before funding is given. If minor corrections are needed, they should be made before funding is granted.
- A general overview of data to ensure that government agencies and reputable sources are referenced for any medical fact stated in the curricula.
- A check for bias among curricula reviewers to ensure that science—not politics—is applied in the process of reviewing curricula.
- A review of all curricula material—including pamphlets, videos/DVDs and teachers' guides—to ensure that all materials are consistent in their citations of source data.
- A review to make certain that curricula marketing material matches curricula content. For example, if a comprehensive sex education curriculum claims to have a strong emphasis on abstinence, the curriculum contents should match that description.

Reviewers of abstinence and/or comprehensive sex education curricula would then be able to review curricula based on whether information contained in the curricula is “medically referenced.” Reviewers of curricula would be advised of the national and governmental organizations (such as the CDC, NIH, et al.) that are acceptable to reference for accurate information on teen health. Reviewers can then check each fact referenced in both abstinence and/or comprehensive sex education curricula to ensure that it is correctly footnoted and referenced by a recognized, respected source that is not outdated or incorrect.

Ensuring that sexual health education information is medically accurate is vitally important to public health, but doing so is impossible if there is no accountability by the curriculum providers and the government agencies funding these programs. This issue must be resolved before any form of sexual health education can be written off as being false, misleading or distorted.

Currently there is also no formal process by which inaccurate data is corrected. Guidelines should be adopted in order to correct inaccurate data for both comprehensive sex education programs and abstinence programs. This would be helpful in maintaining the integrity of federal sponsored programs.

Not only do abstinence education and comprehensive sex education programs need to be reviewed for medical accuracy, they must also be awarded their grants through a competitive process to make sure that only suitable programs receive funding. A competitive process will also ensure that medically inaccurate or inappropriate curricula will not be used by grant recipients and that inaccurate or inappropriate information will be kept out of the classroom.

That being said, if the same criteria were used to critique the claims of the Waxman Report as the Report uses against abstinence programs, then the Waxman Report itself would be discredited. As already noted, its criticism of abstinence programs is filled with errors and half-truths that betray any sense of objective analysis. Its failure to critique the obvious failure of comprehensive sex education is also a discredit to the Report. Any objective standard of review should dismiss the Waxman Report as a failed attempt to discredit the success of abstinence education.

V. CONCLUSION

The Waxman Report outlines a number of serious concerns regarding abstinence education and challenges Congress's support of these programs. Its criticisms, however, are unfounded and falsely portray abstinence education as ineffective. In truth, abstinence programs provide character development and health education that empowers children and adolescents to make healthy decisions. Studies indicate that abstinence education serves to reduce teen pregnancy and the contraction of STDs, as well as guarding the emotional health of those who participate in abstinence programs.

Currently, abstinence education receives only a small percentage of total federal expenditure on sex education programs. However, should the policy of the Democrats as reflected in the Waxman Report be adopted and abstinence education be stripped of federal funding, then the only programs receiving federal support would be those whose effectiveness is highly questionable and that are contrary to the wishes of the vast majority of parents and students. Parents and teens would be denied any alternatives to the already highly-funded comprehensive sex education programs that undermine a strong abstinence message. Rather than providing state and local entities more flexibility in their programs, Congress would limit state and local choices in the character formation and health education of America's youth.

Therefore, the Waxman Report should be rejected as authoritative, and abstinence education should receive the continued support of the U.S. Congress as it empowers state and local entities and parents to provide invaluable formation for the physical and emotional health of America's youth.



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Efficacy of an abstinence-only intervention over 24 months: a randomized controlled trial with young adolescents

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[Conference Overview](#)

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Background: Adolescents worldwide face the disquieting consequences of early sexual involvement, including not only HIV, but also other sexually transmitted infections and unintended pregnancies. Some have advocated an abstinence-only intervention strategy to reduce these risks others have raised concern about potential adverse effects of such interventions on condom use, but few randomized controlled efficacy trials have been reported. We report such a trial.

Methods: 662 young African American adolescents were randomized to one of four interventions based on social cognitive theory—an abstinence-only intervention, a safer-sex intervention, a comprehensive safer-sex and abstinence intervention, or a health-promotion control intervention—and completed baseline, 3-, 6-, 12-, 18-, and 24-month follow-up surveys.

Results: The participants were 10 to 15 years of age (mean = 12.0); 53.5% were girls. The 24-month follow-up rate was 84.4% and did not differ by condition. At baseline, 23.4% reported ever having sexual intercourse, whereas at 24-month follow-up, 57.0% reported ever having sexual intercourse. Logistic regression revealed that adolescents who received the abstinence-only intervention were less likely to report ever having sexual intercourse at 24-month follow-up than were those in the health-control intervention ($p = .02$), the safer-sex intervention ($p = .007$), or the comprehensive intervention ($p = .05$), controlling for baseline behavior, gender, and age. A subgroup analysis on participants who were virgins at baseline revealed that a smaller percentage initiated intercourse during the follow-up period in the abstinence-only intervention as compared with the health-control ($p = .01$), the safer-sex ($p = .007$), and comprehensive interventions ($p = .07$). There was no difference between the abstinence-only intervention and the health-control intervention in condom use over the follow-up period.

Conclusions: Theory-based abstinence-only interventions have the potential to reduce sexual activity or delay sexual debut among young adolescents, without having adverse effects on condom use when adolescents initiate sexual activity.

[Back](#)

**An Evaluation of the
Heritage Keepers[®] Abstinence Education Program**

**A Peer-reviewed Paper Presented at
The Abstinence Education Evaluation Conference
Of the
Administration for Children and Families & Office of Population Affairs
U.S. Department of Health and Human Services**

Baltimore, Maryland

November 4, 2005

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An Evaluation of the Heritage Keepers® Abstinence Education Program

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Abstract

An abstinence education program for middle school students in South Carolina was evaluated using a quasi-experimental design with matched comparison groups to determine its impact on the rate of sexual initiation after 12 months for the virgin students in the sample. Pretest, posttest, and 1-year follow-up measures were taken of psychosocial factors (known predictors or mediators of adolescent sexual initiation) and of the sexual behavior of the sample. These three measures were linked for individual students to allow for a repeated measures analysis. A predictive model of sexual initiation was confirmed using the mediator variables. The 12-month follow-up measure indicated a significant reduction in sexual initiation for the program participants ($OR=.54, p<.001$), after controlling statistically for some pretest differences between program and comparison groups. Confirmatory analyses done to further test the impact of pretest differences and attrition at follow-up consistently produced odds ratios in the range of .44 to .50 for the sexual initiation of the program versus comparison group. The conclusion that there was a significant and sustained program effect on initiation rates seems warranted.

Introduction

Primary prevention strategies for adolescent risk behavior have become increasingly prevalent in recent years as a method to ameliorate the results of premature sexual activity. The negative consequences of teen pregnancy are well documented (Miller and Moore 1990; Maynard 1997; Jaffee 2002). Sexually transmitted diseases are a growing threat to adolescent health because of their high prevalence in this age group, their destructive results, and the difficulty of preventing some STDs by means of barrier methods (Centers for Disease Control 2001; National Institute of Allergy and Infectious Diseases 2001; Sulack 2003; Genuis and Genuis 2004; Weinstock, Berman, and Cates 2004).

Primary prevention—risk avoidance

In its 2000 issuance of *Healthy People 2010*, the U.S. Department of Health and Human Services included the following in its list of protective behaviors that are its first line of defense for the problems attendant to teen sexual activity:

“The protective behaviors of interest are completely abstaining from sexual intercourse during adolescence (primary abstinence), [and] reverting to abstinence for long periods of time after having had intercourse in the past (secondary abstinence)...”

The key question is whether or not adolescents can be influenced to abstain from sexual activity. Over the past decade the proportion of U.S. teens who have not engaged in sexual intercourse has been growing. Presently more than half (53.3 percent) of high school students are in this category (Grunbaum and others 2004). In addition, some 82 percent of U.S. teens said that teens should not be sexually active, according to the National Campaign to Prevent Teen Pregnancy’s 2003 national survey. Among those who had already initiated sexual activity, 67 percent, in the same survey, said they wish they had waited. These statistics suggest that it may be possible to influence teens towards sexual abstinence.

Increased interest in primary prevention has led to a proliferation during the past decade of abstinence education programs aimed at American teens. However, efforts to evaluate such programs up to this point in time have been limited—in number and in rigor (Thomas 2000; Kirby 2001; Manlove and others 2002; Scher and others 2005). For the few evaluations that are available, there is often disagreement about the quality of the research and the meaning of the results (Rector 2002; Kirby 2002b). There is agreement, however, that more and better program evaluations need to be done. The present study attempts to address this need.

A risk avoidance model for adolescent sexual behavior

The lack of research about effective abstinence interventions has been compounded by a lack of understanding of the causal mechanisms which influence teen abstinence. The developers of Heritage Keepers® Abstinence Education sought to identify causal mechanisms that would influence teen sexual abstinence, and then develop a model around which to design their abstinence program. Psychosocial constructs are an important focus in the study of behavior change, in part because they are strong predictors of behavior and are more amenable to manipulation than demographic or environmental factors (Armitage and Conner 2000). The predictive power of these variables has held up well in empirical studies of health behavior (Armitage and Conner 2000; Strecher and others 1986; Godin and Kok 1996; Floyd, Prentice-Dunn, and Rogers 2000). In addition to their established role in health behavior models, psychosocial factors have been found to be important in understanding adolescent sexual behavior (Miller and Moore 1990; Kirby 2001; Plotnik 1992; Resnick and others 1997; Kirby 2002a). Preliminary work by Weed and Olsen (1988) and Weed and others (1992) explored a broad set of cognitive/affective constructs as predictors of sexual initiation versus abstinence for several samples of U.S. teens .

From this work, in conjunction with the literature on antecedents of teen sexual behavior (Miller and Moore 1990; Plotnik 1992; Resnick and others 1997; Kirby 2002a) program developers formulated a predictive model with features similar to the theory of planned behavior, social cognitive theory, and protection motivation theory (Armitage and Conner 2000; Floyd, Prentice-Dunn, and Rogers 2000; Bandura 2004; Ajzen 1991; Conner and Armitage 1998). This model posits *behavioral intentions* as the primary antecedent or first-order predictor of teen sexual abstinence (as measured by rates of sexual initiation). Variables predicting behavioral intentions (second-order predictors) are in these categories: self-efficacy, which they label *abstinence efficacy*; outcome expectancies called *future impact of sex*; attitudes or *justifications for sex*; and moral norms, called *abstinence values*. This model was incorporated into the Heritage curriculum design, to be tested as part of the program evaluation.

Purpose of the study

The ultimate goal of the Heritage program is primary prevention, i.e., to influence adolescents to postpone sexual initiation until marriage. Therefore the focus of this evaluation was the program's impact on sexually inexperienced (virgin) youth. The primary purpose of the study was to evaluate the impact of an abstinence intervention on both the mediating variables and the behavioral outcome of sexual initiation for the virgin students in the sample. A secondary purpose was to examine further the relationship between the mediating variables and the behavioral outcome of teen sexual initiation. A third purpose was to assess the program's system for continuous improvement, i.e., for monitoring and maintaining a high level of implementation and fidelity to program design and for optimizing teacher effectiveness.

Four central hypotheses were tested to accomplish these purposes.

- There will be a direct and significant relationship between the second-order, mediating variables *abstinence values, justifications for sex, abstinence efficacy, and future impact* and the first-order mediator *behavioral intention*.
- There will be a direct and significant relationship between the mediator *behavioral intention* and the behavioral outcome of *sexual initiation*.
- Program group students will demonstrate significant pre-post improvement on the mediating variables, and this improvement will be significantly greater than the pre-post change for the comparison group. The program group will maintain a position that is significantly better on the mediating variables than the comparison group at the 12-month follow-up.
- After 12 months, virgin program students will be significantly less likely to have initiated sex than the virgin comparison group students.

Program description

Heritage Keepers[®] Abstinence Education is a 450-minute, interactive curriculum that is designed for middle and/or high schools. It is presented in 45-minute class periods over 10 consecutive school days

or in 90-minute sessions for five consecutive days. This level of annual program dosage is intended for presentation to students over three successive years. There are two levels of curriculum, one that establishes a foundation and a second that builds upon and expands the concepts that were presented in the first level. The first level is to be presented in each of two consecutive years and the second level curriculum is intended for the third year. The curriculum content is based on the Title V, Section 510 (b)(2)(A)–(H) guidelines, with particular attention to the mediating constructs identified as causal mechanisms for influencing teen sexual behavior. These concepts are delivered by teachers who are selected and trained by Heritage to relate well with students and engage them in active learning processes that foster commitment to abstinence.

Method

Sample

Heritage Keepers® promotes its abstinence program on a regional basis in South Carolina through outreach directly to middle and high schools. Program schools contain the range of demographic profiles and risk levels found among students in the state. The program schools used in this evaluation were the subset of the Heritage schools where fidelity to plan was considered high. Comparison schools were selected based on demographic and geographic similarity to these schools, as well as the fact that they had implemented no abstinence education program. This evaluation was approved by the school board for each district in the sample, and parental approval was gained through passive consent.

The sample for this study consisted of students in grades 7–9 from 34 program schools and 7 comparison schools in South Carolina. The Heritage curriculum was presented in required classes at each school. All students in these classes participated in the program unless their parents exempted them from the program. The rate of parental refusal was low, at approximately 3 percent.

There were 2,529 virgin students in the program schools and 417 in the comparison schools. The number of virgin students whose 12-month follow-up surveys could be linked with their pretest survey (using a confidential ID code) was 1,281 for the program group and 254 for the comparison groups, for a retention rate after one year of 50.7 percent and 60.9 percent respectively. This level of attrition seems consistent with the unusually high student mobility and dropout rates for South Carolina, which one ranking showed having the lowest high school promotion rate in the country at 51 percent (Hall 2005). In our study, this was compounded by a scheduling conflict with state-mandated testing that caused several hundred follow-up cases to be unobtainable. Although the percent retained was lower for the program group than the comparison group ($p < .001$), the impact of this attrition difference on group comparability was negligible. For both groups, those lost to attrition were somewhat higher in risk propensity, but the attrition differences between groups were insignificant, so their relative distribution on grade, race, and mediator scores remained about the same after attrition as before. The main concern is whether the pretest program and comparison groups are similar on measures of propensity for risk behavior.

Table 1 presents a description of the linked sample, with significant differences between program and comparison groups indicated. The demographic composition and pretest scores on mediating variables made the comparison group appear to be a somewhat higher-risk sample. These pretest differences were considered to be in a range within which adjustments could be made statistically to compensate for any impact on outcomes. The analyses that adjust for these differences are described in the results and discussion section.

Research design

The evaluation study used a quasi-experimental design with matched comparison schools, repeated measures, and one year follow-up. Pre- and posttest surveys were conducted for two different cohort years, with a 12-month, follow-up survey for each cohort. In a few schools in our program sample, the Heritage curriculum had operated the year prior to our initial data collection, meaning that students in the older grades probably received at least one dose of the program prior to taking the pretest. (The reliability of self-report on prior program exposure was not adequate for classifying students.) Regardless of prior exposure, all pretest students were followed for one year, to assess program effects on behavior over time. The 1-year follow-up measure was taken prior to the commencement of the curriculum installment for that next year. (Where prior program exposure occurred, the effect would likely be to minimize the measures of positive program impact.)

Posttest surveys were administered by the abstinence teacher in the classroom. One-year follow-up surveys were typically conducted by a different teacher than the one who taught the students the previous year. Questionnaires were anonymous; there were no identifying marks and the students deposited their surveys directly into a box. Identification codes were created later for linking purposes but never connected to the student's name. Prior to administering the questionnaire, teachers reviewed these anonymity procedures with students, encouraged them to be candid, and reminded them of the importance of accurate responses.

Instrumentation

A 58-question survey was administered at the pre, post, and 12-month follow-up. It included demographic questions, behavioral questions, and multiple items that formed five scaled measures of the mediating constructs. The key demographic questions included gender, ethnicity, grade, and repeated grade. The behavioral questions included a basic question of whether or not students had ever had sexual relations, with follow-up questions, such as age of first sexual intercourse and last time they had sexual intercourse. These questions were used to improve the accuracy and reliability of the *ever had sex* question.

The mediating variables were measured by multiple item scales that used a 5-point Likert response format, usually ranging from strongly disagree to strongly agree. The scale *abstinence values* (six items) addressed students' commitment to maintaining sexual abstinence until marriage and their acceptance of the idea that marriage is the most appropriate context for sexual activity. *Abstinence*

efficacy (six items) assessed students' confidence in their ability to resist pressure to have sex, to avoid situations that would compromise their abstinence position, and to disengage from people who try to pressure them to have sex. *Future impact* (five items) measured students' perception of the impact of sexual involvement on their future education, career, marriage and family life. *Justifications for sex* (five items) measured the rationalizing that adolescents often engage in to legitimize their initiation of sexual activity, such as "being in love" or adopting "safer sex" practices. *Behavioral intentions* (two items) measured students' level of intent and commitment to abstain from sexual activity in the coming year and/or until marriage. Test-retest reliability estimates for these scales ranged from .67 to .75, and internal consistency (Cronbach's alpha) were between .76 and .85.

Analysis

Hypothesis 1. To see how well mediating measures would explain variance in *behavioral intention*, a linear regression model was estimated. The relative contribution of these targeted program variables, versus the group of demographic variables, was determined by partitioning the shared variance based on the proportion of unique variance attributable to each block.

Hypothesis 2. A logistic regression model predicting sexual initiation was estimated. Grade, gender, race, repeated grade, and scores on the behavioral intention measure at baseline were entered into the equation. Categorical variables were effect coded, such that the sum of the category codes within a variable was zero. The intention measure was centered at the mean. These coding revisions aid interpretation of the model by allowing an assessment of the odds-ratio of initiating sexual activity at the predetermined levels of the covariates and given the mean on *behavioral intention*. Program and control respondents who reported they had never had sex as of the pretest were selected and whether or not they initiated sex by the follow-up was predicted. Entering *behavioral intention* measures at the two time points allows an assessment of whether posttest scores, controlling for pretest, are predictive of initiation into sexual activity. This assesses the potency of *behavioral intention* scores (both the level and the change) in predicting *sexual initiation*.

Hypothesis 3. This hypothesis addresses the program's effect on the intervening variables. Separate, repeated-measures ANOVAs were conducted for each mediator variable and each of the three possible time periods (pre to post, pre to follow-up, and post to follow-up). This resulted in a series of 2 X 2 analyses for each time period. These time periods were analyzed separately in order to clarify the pattern of change across time. Given the program and comparison group differences on race and grade, these were controlled for in the repeated measures design. The key result for each of these analyses was the "time by program" effect, which indicates whether the pre-post, the pre-follow-up, or the post-follow-up change was different between the program and the comparison group.

In addition to the change score analysis, a univariate ANOVA was also employed to test the significance of the difference between the program and comparison group scores on the mediator variables at the 12-month follow-up. This tested whether the 12-month follow-up score on the mediating

variables was different for the program than for the comparison group, after controlling for pretest differences on the same mediator scale, with race and grade as covariates.

Finally, we performed hierarchical (multilevel) analysis (Raudenbush and Bryk, 2001) to see if the results of the previous analyses were stable. Specifically, we added random intercepts for school and controlled for the repeated measures among individuals to ensure that observed variation between groups was not better accounted for by the clustering of students within schools or correlations between observations.

Hypothesis 4. A logistic regression analysis was used to test whether program participation was a significant predictor of the likelihood of initiating sex by the 12-month follow-up, for those who were virgins at pretest. The categorical variables of grade and race were entered as covariates. Race was effect-coded into two categories, black and white. Grade was coded using a simple contrast to compare the odds of sexual experience given a grade of 8 or 9 compared to seventh-grade students. The five scales were centered at the mean and entered as covariates in order to control for the amount of the initiation-rate differences attributable to the pretest differences on these measures. The program variable was coded as a zero for the comparison group and as a one for the program group. These coding revisions aid interpretation of the model. Specifically, the odds-ratio associated with the intercept value indicates the odds that a comparison group individual will initiate sex, given an average on all of the other covariates. These odds can then be compared to the odds that the average program student will initiate sex, given an average on all other covariates.

Program improvement process. The final focus of the evaluation was to assess the Heritage Keepers[®] self-correcting mechanisms for maintaining a high caliber program. We reviewed two aspects of the program's system. First, the data that is collected about individual teachers and how it is used to improve overall teaching effectiveness, and, secondly, the monitoring and feedback that occurs with regard to fidelity-to-plan in field settings.

Results

Hypothesis 1

The analysis indicates that 60.7 percent of the variance in behavioral intention was explained by all of the variables. We calculated that most of the variance, 49.4 percent, was uniquely explained by the mediating variables, about 1.6 percent was uniquely explained by the demographic variables, and the remaining variance was shared between the two blocks of variables. The shared variance, when proportionately distributed, brings the variance explained by the mediating variables to 58.8 percent. Adding the shared variance to the demographic block of variables brought that contribution to 1.9%. The model with the mediators entered first is reported in Table 2.

Hypothesis 2

Results of the logistic regression analysis showed a significant relationship between virgin students' *behavioral intention* scores and their initiation of sexual intercourse one year later. Ignoring program involvement and controlling for demographic covariates, the estimated odds of initiation of sexual intercourse after one year were .208 (Table 3). The odds of initiation drop to .115 when *behavioral intention* scores one unit above the mean are factored in ($.552 \times .208 = .115$) indicating that students scoring higher on the *behavioral intention* measure were significantly less likely to initiate sex after one year.

Hypothesis 3

Table 4 contains the means and standard deviations of the pre, post, and 12-month follow-up scores on all five mediating variables for the program and comparison group. It also contains the F-values and significance levels for the time-by-program analysis for each of the three time periods. For the first time period (pre to post), the time-by-program interaction term was significant for all five mediating variables. The effect sizes (Cohen's *d*) for the mediating variables in this time period were calculated at .42 for *abstinence values*, .34 for *behavioral intentions*, .36 for *future impact*, .44 for *justifications for sex*, and .35 for *abstinence efficacy*.

For the second time-period analysis (pre to follow-up), the program-by-time interaction term was significant for three of the five mediating variables, and in the expected direction. This effect appears to be the result of a pattern whereby the program students made a significant pre-post gain over the comparison students and maintained that difference over time. Two mediating variables where this pattern did not occur were *justification for sex* and *abstinence efficacy*. The pattern for these variables did not show the same decline over time (from post to follow-up) among the control group as was found for *behavioral intention*, *abstinence values*, and *future impact*.

The positive pre-post change achieved on the mediating variables was not expected to last indefinitely. Deterioration from post to follow-up (our third time-period analysis) was found on all of the mediators for the program group and for three of the mediator-scale scores in the comparison group. The amount of deterioration in scores over 12 months was similar for both groups for three of the mediating variables (*abstinence values*, *future impact*, and *behavioral intentions*) scores. Most importantly, the differences between groups in scores on these variables at posttest were still apparent at the follow-up 12 months, with *justification for sex* and *abstinence efficacy* being the exceptions (last column, table 4).

When we ran all of the same comparisons as above using the multilevel models, we found essentially the same patterns. While significant variance was accounted for by the school and within subject correlations, the sign and significance of the program to comparison group tests were the same in every case except for one. In the repeated-measures designs, *justifications for sex* did not show a significant effect from pre to follow-up. In the multilevel model, it was marginally significant ($b = .065, p = .067$).

Hypothesis 4

Results of this logistic-regression prediction of sexual initiation rates (table 5) indicated that the odds of initiation for the average comparison student were .271. The odds of initiation for the average program participant were .146 ($.539 * .271 = .146$), significantly lower than the comparison group odds ($p < .001$). More concretely, of 1,216 program students who were virgin at the pretest and who also answered the follow-up sex question, 176, or 14.5 percent, had sex between the pre and the follow-up. Of 253 virgin comparison students, 67, or 26.5 percent, initiated sex between the pre and the follow-up. The model containing the program variable and covariates was compared to the model containing only the covariates. The difference in the model chi-squares was statistically significant ($\Delta Chi^2 = 11.2$ with $df = 1$, $p < .001$), indicating that the program variable explains statistically significant variance in initiation rates.

Program-improvement process

Survey data recording students' pre-post change on key mediating variables is tied to the individual Heritage program teachers. Statistical analysis is performed at the teacher level, with tests for significant pre-post differences by teacher. Each teacher is given feedback at mid-year on their students' outcomes (table 6) so they can make mid-year adjustments in teaching methods where needed. Teachers with strong results on the mediating-variable concepts were asked to present some of their methods in meetings with all teachers. In addition, teachers that demonstrated weak improvement on specific scales were paired with, and trained by, a teacher who demonstrated strong improvement on that scale. Teachers were required to develop a personalized improvement plan, approved by the central office, and which they were expected to follow.

The program's fidelity to plan is monitored frequently through means of a telephone check-in with teachers by the Heritage Keepers® central staff every two weeks. Teachers report progress on their personalized teaching improvement plans, including the content of lessons and fidelity to the program, as well as teaching methods. Teachers are given feedback immediately if a pattern of deviation appears. Starting with school year 2005-2006, this information will be recorded on a daily log that indicates which students were in attendance and what topics were covered. These logs will be entered in a data file, allowing for a more systematic analysis and use.

Discussion

The results of this study provide support for all four hypotheses. Most notably, program virgins were about one-half as likely (odds ratio=.539) as comparison group virgins to initiate sex by the 12-month follow-up, after controlling for pretest differences (on race, grade, and all mediating variables). The results also demonstrated the importance of several mediating variables that explain the way in which the program produced the outcome of delayed initiation. Specifically, we found that a self-report measure of *behavioral intention* was predictive of initiation of sexual activity. *Behavioral intention*, in turn, was

strongly related to other constructs central to the behavioral influence model on which the intervention was based: *abstinence values, justification for sex, abstinence efficacy, and perceived future impact of sex.*

Further analyses showed that the change in these mediating constructs was consistent with the difference between groups in sexual initiation rates at 12-month follow-up. As might be expected, the short-term results dissipated over the 12-month follow-up absent ongoing support and reinforcement. The dissipation rate was similar for program and comparison groups. However, the between group differences in three of the five mediating variables observed at post test were maintained for one year, and those differences corresponded to differences in sexual initiation rates measured at the 12-month follow-up. This lends further support to the explanation that the program, through direct impact on targeted mediating factors, was responsible for the observed initiation rate differences between treatment and comparison groups. The results of the multilevel models analysis increased confidence that the observed improvements on mediator variables were reflective of a program effect and not a failure of the analyses to appropriately estimate the model. In addition, the program effects on the mediator scores were equally strong among males and females, blacks and whites, and seventh, eighth, or ninth graders.

An obvious alternative explanation for initiation rate differences is that they were related to sample differences between the two groups. It is important to determine whether the treatment and comparison groups were affected by either selection bias or attrition bias so that the observed initiation rate differences between the two groups can more confidently be attributed to program effects rather than sample differences. And if the treatment and comparison groups are different on relevant variables, to account for or control for those differences.

Attrition bias could affect group comparability if it results in significant differences on the key measures. In this sample, the attrition that occurred did not increase the dissimilarity between the treatment and comparison groups, but did leave both groups in the final sample somewhat less risk prone than the original sample. The end result is that the program effect is not undermined by attrition, but there is a limitation in generalizing the findings to the original sample.

This leads to a further examination of starting differences or selection bias as a contributing factor in program outcomes. At pretest, both the program and comparison group had a higher proportion of females than males, and the comparison group had a higher proportion of minorities, more ninth graders, and lower scores on the mediating variables than the program group (table 1). Since the analysis examining initiation rates for virgin students controlled for grade, race, and mediator-variable scores at pretest, the significant program effect reported has already accounted for the preexisting differences between groups.

As a further test of the impact of sample differences, race and gender groups were examined separately (grade level was not, since it was not a significant predictor of initiation rates). The difference between program and comparison students' initiation rates was large among both blacks and whites. Specifically, 30.6 percent of blacks in the comparison group initiated sex by the follow-up compared to 17.4 percent of blacks in the program ($\chi^2 = 12.6, p < .001$). The numbers for whites were 20.8 percent of comparison students versus 12.0 percent of program students ($\chi^2 = 6.03, p = .014$).

Looking at odds ratios separately by race produced a similar result. The odds ratio of initiation for program blacks versus comparison blacks was .498, compared to an odds ratio for whites of .472, after controlling for pretest differences in risk level. Thus, it does not appear that the overall group differences found in initiation rates were accounted for by the lower proportion of blacks in the program group. The initiation rate differences between the program and comparison group were also statistically significant for both boys (19.7 percent vs. 31.9 percent, $p < .05$) and girls (11.3 percent vs. 23.5 percent, $p < .05$), suggesting that the program effect was not related to the higher proportion of girls in the sample.

A final test of sample effects was conducted by creating a subset of the program sample that attempted to correct for the pretest differences that existed between groups in the full sample. First, a subset was created that matched on demographic variables (gender, race, grade, and repeated grade). Then within each of those cells (seventh-grade white males, etc.) we produced exact matches on the five mediating variables at baseline, using propensity scores obtained from a logistic regression to predict treatment or comparison group membership. This produced program and comparison groups that were extremely well matched on variables predictive of the outcome measure of sexual initiation (no significant differences). Examination of the initiation rates at one year follow-up revealed a 13.9 percent rate for the program group, and 25.6 percent for the comparison group (odds ratio=.444, $p < .001$) results that were nearly identical to (or slightly better than) those for the full, but less well matched, sample.

After controlling for these pretest differences in the demographic and mediating variables using three different methods, the program students were still significantly less likely than comparison students to initiate sex at the 12-month follow-up, suggesting that the initiation rate differences were not attributable to the pretest differences of the sample.

Finally, the Heritage program takes seriously the implementation and process issues as factors in program success. It has developed a fairly rigorous system of tracking the level of implementation in the field, measuring the quality of teaching, and providing regular data-based feedback to the appropriate staff in productive settings.

Limitations

It is possible that, in spite of best efforts to control for differences between program and comparison groups, these groups differ in some ways not measured by our study, and that these differences are contributing to the reduction in initiation rates. This also limits our ability to measure the true effect size of program impact. In addition, the high attrition rate limits our ability to generalize the findings to a higher-risk population. These limits on the interpretation of results may be addressed with better-matched comparison groups or a random assignment design, and with better long-term follow-up of individuals.

Program implications and recommendations

Testing the connection between key mediator variables and the transition into risky behavior helps to establish a better causal model for adolescent risk avoidance. The significant drop in mediator scores from post to follow-up has important program delivery implications in terms of maintenance and reinforcement. This argues for strategies that will extend, support, and reinforce the intervention's impact over time—no easy task in a school setting where multiple demands are competing for student time and attention.

Conclusions

The results of this study suggest that a carefully developed abstinence-centered education program can lower the rate at which virgin youth initiate sex. The Heritage program produced a significant and substantial delay in sexual initiation 12 months after the intervention. In addition, a better understanding of the mechanisms that produced this change was realized by including hypothesized mediating factors in the program design and evaluation. These findings support the premise that primary prevention (risk avoidance) efforts to influence teens towards sexual abstinence are a viable strategy.

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Table 1. Demographic distributions of program and comparison groups

Pretest data for virgins only, linked pre-to-follow-up

Variable	Program N=1,281 (percent)	Comparison N=254 (percent)	Test of statistical significance
Grade			
7	664 (53.2)	85 (33.5)	3.42***
8	238 (19.1)	48 (18.9)	.03
9	346 (27.7)	121 (47.6)	4.0****
Gender			
Female	776 (62.2)	162 (63.8)	0.38
Male	472 (37.8)	92 (36.2)	0.29
Race			
Black	569 (45.6)	147 (57.9)	2.66**
White	679 (54.4)	107 (42.1)	2.37*
Repeated grade			
Yes	204 (16.4)	47 (18.7)	0.38
No	1038 (83.6)	205 (81.3)	0.81
Abstinence efficacy	3.74	3.83	1.7
Abstinence values	3.82	3.60	11.6***
Future impact	3.54	3.21	22.3****
Justification for sex	3.78	3.59	10.1***
Behavioral intentions	3.73	3.50	9.4**

Note: Demographic variables tested using Hintze's test of the difference in two independent proportions. Mediating variables tested with univariate F ratio.

* $p < .05$, ** $p < .01$, *** $p < .001$, **** $p < .0001$

Table 2. Linear regression analysis explaining variance in pretest behavioral intentions

N = 1,464 list-wise cases, virgins only

Source	B	SE B	β
Constant	0.60	0.15	
Step 1			
Values	0.37	0.03	0.32***
Efficacy	0.28	0.02	0.26***
Impact	0.07	0.02	0.07**
Justification	0.34	0.03	0.28***
Step 2			
Grade	-0.11	0.02	-0.09***
Race	-0.19	0.04	-0.09***
Gender	-0.15	0.04	-0.07***
Repeated Grade	-0.01	0.05	-0.00

Note. $adj. R^2 = 0.592$ for Step1; $\Delta adj. R^2 = 0.016$ for Step 2 ($p < .001$). * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3. Logistic regression analysis predicting initiation of sex at the follow-up

N=1,291, virgins only

Source		df	B	SE	Exp(B)
Grade	8 vs. 7	1	-0.06	0.14	0.94
	9 vs. 7	1	0.08	0.12	1.08
Race		1	0.38	0.17	1.46*
Gender		1	0.28	0.17	1.32
Repeated grade		1	0.79	0.19	2.19**
Centered pretest behavioral intention		1	-0.09	0.10	0.92
Centered post test behavioral intention		1	-0.60	0.10	0.552**
Constant		1	-1.57	0.11	0.208**

Note. * $p < .05$, ** $p < .01$.

Table 4. Mean scores on intermediate variables and results of repeated-measures analyses of variance

Virgins only		Mean (standard deviation)			F of time by program effect			F
Scale	Group	Pre	Post	Follow-up	Pre-post	Pre-follow-up	Post-follow-up	Follow-up
Abstinence values	Program	3.81 (.88)	4.08 (.83)	3.84 (.92)	37.1***	32.2***	.04 NS	64.6***
	Comparison	3.61 (1.10)	3.49 (1.08)	3.27 (1.20)				
Behavioral intention	Program	3.74 (1.04)	3.98 (1.03)	3.65 (1.12)	25.1***	12.8***	.40 NS	24.8***
	Comparison	3.50 (1.18)	3.43 (1.19)	3.16 (1.22)				
Future impact	Program	3.54 (1.00)	3.90 (.95)	3.61 (1.01)	26.9***	31.5***	.17 NS	67.0***
	Comparison	3.22 (1.08)	3.22 (1.13)	2.92 (1.21)				
Justification for sex	Program	3.77 (.87)	4.06 (.82)	3.82 (.85)	40.4***	.66 NS	40.1***	.72 NS
	Comparison	3.60 (.91)	3.51 (.95)	3.70 (.97)				
Abstinence efficacy	Program	3.75 (1.00)	4.00 (.92)	3.77 (1.02)	25.6***	3.3 NS	8.9**	2.4 NS
	Comparison	3.81 (.96)	3.74 (1.04)	3.75 (.98)				

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

The last column represents the F value and significance level for between-group difference at follow-up, controlling for grade, race, and the pretest score.

Table 5. Logistic regression prediction of sexual initiation rates, controlling for pretest scores, grade, and race

N=1,448, virgins only

Source	df	B	SE	Exp(B)
Grade				
8 vs. 7	1	-.105	.207	0.90
9 vs. 7	1	.085	.176	1.09
Race				
Black vs. White	1	.427	.155	1.53**
Centered pretest predictor scores				
Abstinence values	1	.017	.124	1.02
Behavioral intention	1	-.147	.108	0.86
Future impact	1	-.09	.095	0.91
Justification for sex	1	-.301	.119	0.74**
Abstinence efficacy	1	-.231	.094	0.79**
Program participation	1	-.617	.181	0.539**
Constant	1	-1.61	.098	0.271***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 6. Student outcomes on mediating variables by individual teacher, fall 2004–05

	Strong Teacher (student N=152) PRE POST F-value Sign.	Weaker Teacher (student N=48) PRE POST F-value Sign.
Abstinence values	3.81 – 4.44 97.89 ****	2.98 – 3.11 3.15 (*)
Abstinence Efficacy	4.10 – 4.58 53.28 ****	2.79 – 3.04 1.21 NS
Future impact	3.52 – 4.23 121.09 ****	2.72 – 2.91 5.23 *
Independence from peers	4.05 – 4.32 24.01 ****	3.47 – 3.35 2.79 NS
Justification for sex	3.91 – 4.48 73.03 ****	2.91 – 3.17 5.86 *
Behavioral intention	4.03 – 4.60 80.95 ****	2.65 – 2.61 .04 NS

(*) $p < .10$, * $p < .05$, **** $p < .0001$, NS = not significant

An Abstinence Program's Impact on Cognitive Mediators and Sexual Initiation

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Objectives: To evaluate the impact of an abstinence education program on sexual intercourse initiation and on possible cognitive mediators of sexual initiation for virgin seventh graders in suburban Virginia. **Methods:** Measures of sexual behavior and 6 mediating variables were compared at 3 time periods for program participants and a matched comparison group (n=550), controlling for pretest differences. **Results:** At posttest, program stu-

dents scored significantly better on 4 of the 6 mediators. After one year, program students had a substantially lower risk of sexual initiation than did comparison students (RR=.457, P=.008). **Conclusion:** The program achieved a significant reduction in teen sexual initiation, and the role of the cognitive mediators was supported.

Key words: abstinence, teen pregnancy, STDs, sex education, program evaluation

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In 2005, approximately 63% of US adolescents had experienced sexual intercourse by the end of high school,¹ and approximately one in 7 had sex for the first time at age 14 or younger.² Despite a recent decline, teen pregnancy rates are still high; approximately 1 in 13 adolescent girls in the United States becomes pregnant each year.³ In addition, the per-

centage of teen births occurring outside of marriage has dramatically increased in recent decades, from 46% in 1980 to 80% in 2002.⁴ The negative consequences of teen pregnancy to teen mothers, their children, and society are well documented.⁵⁻⁷

In addition to the problems of teen pregnancy, sexually transmitted diseases (STDs) are a serious and growing consequence of teen sexual activity.⁸⁻¹⁰ Approximately 4 million new STD infections occur in US adolescents each year.⁹ Adolescents represent about 10% of the US population but contract about 25% of the new STD cases each year, including one fourth of all new HIV infections.^{11,12}

The high rate of STDs among teens may be due in part to the fact that adolescent girls have a heightened biological susceptibility to many STDs.^{8,11,12} The problem may also be compounded by the fact that although condom use can reduce the risk of STDs, it does not provide full protection, and most estimates of this protection are based on consistent condom

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use, ie, use with every act of intercourse.¹³ Unfortunately, US teens have fairly low rates of consistent condom use. Among the sexually active, only 47.8% of males and 27.5% of females report they are consistent condom users over a one-year time period.¹⁴ Although several interventions appear to have increased teen condom use at first or last intercourse, or frequency of use,¹⁵ efforts to increase adolescent rates of *consistent* condom use have produced little evidence of success. A recent review of 83 sex education evaluations reported that only one program had significantly increased consistent condom use over a 12-month time period—from 45.3% to 58.1% for a self-selected high-risk population.^{15,16}

Whether or not a pregnancy or STD occurs, early sexual initiation has been associated with poorer emotional health for adolescents, including depression, increased risk of suicide, lower self-esteem, and regret for sexual activity, as well as a higher likelihood of experiencing sexual exploitation (such as statutory rape) and unwanted or forced intercourse.¹⁷⁻²²

These factors have contributed to an increased interest in a primary prevention (risk avoidance) approach to adolescent sexual health. This interest, combined with new federal funding for abstinence initiatives, has led to a proliferation during the past decade of abstinence education programs aimed at US teens. However, few evaluations of these programs have been conducted, and there is disagreement about the quality of the research and the meaning of the results.^{15,23-25} Yet there appears to be some positive, if mixed, evidence that it is possible to influence US teens to postpone the initiation of sexual intercourse.^{15,24-26} This evidence comes from several types of sexuality education programs, both those that take a *risk reduction* approach and those that promote *risk avoidance*.

Prevention programs taking a risk reduction approach often emphasize condom use or other protective measures for sexually active adolescents while also teaching abstinence as the best option. A few programs of this type have reported statistically significant delays in sexual initiation. They include the CAS-Carrera youth development program, the Reach for Health community youth service program, and the Reducing the Risk, Draw

the Line/Respect the Line, and Becoming a Responsible Teen sex education programs.²⁷⁻³² Their results suggest that it is possible to delay adolescent sexual initiation, even when it is not the primary focus of the intervention.

The risk avoidance approach is typified by prevention programs focused solely on teaching sexual abstinence. An early abstinence version of the Postponing Sexual Involvement program produced a reduction in sexual intercourse initiation in an eighth-grade minority student population of approximately 40% ($P < .01$) after one year,³³ but such positive results were not found in a later replication.³⁴ An abstinence version of the Be Proud Be Responsible HIV/AIDS prevention program reported a significant delay in sexual initiation for pretest virgins after 3 months ($P = .02$), but not at 6 and 12 months.³⁵ The Sex Respect and Teen Aid programs reduced the rate of initiation of sex by more than one-third ($P < .01$) for the high-risk students in a high school sample after 12 months, but the effect was not found for the low-risk students, possibly due to a ceiling effect.³⁶ Project Taking Charge reduced the number initiating intercourse by 50% (18 percentage points) after 6 months for a sample of 91 teens ($P = .051$).^{24,25} Bearman and Bruckner¹⁸ found that making a "virginity pledge" accounted for a 34% reduction in the relative risk of sexual initiation for pledge-takers ($P < .05$). A subsequent analysis found that upon becoming sexually active, pledgers were less likely to use a condom at first intercourse but not at last intercourse.³⁷ A 5-year countywide mass communications program, Not Me, Not Now, appeared to produce a significant reduction in the percent of teens under age 16 who had experienced sex (46.6% vs 31.6%, $P < .05$) but did not show the same impact for older teens.³⁸ And an evaluation by Borawski et al of an abstinence-only curriculum called For Keeps found a significant reduction in levels of sexual activity for sexually active program students after 5 months (odds ratio = .47/.50, $P < .05$). However, no impact on sexual initiation was detected at that point.³⁹

Most of the above abstinence evaluation studies have methodological limitations—eg, lack of replication, results found for some subgroups but not others, small sample sizes, lack of adequate comparison groups or long-term follow-up, or fail-

An Abstinence Program

ure to establish clear causal connections. A recent study of the Heritage Keepers abstinence program avoided some of these pitfalls. This evaluation had a large sample size, matched comparison group, 12-month follow-up, and measurement of mediating factors. It found a significant and sizeable reduction of sexual initiation for middle school students one year after program participation (odds ratio=.539, $P<.001$). However, the attrition of higher risk students in both the program and comparison group limited the ability to generalize the program effect to a broader population of teens.⁴⁰

All of the above trends point to the need for more and better research to evaluate the effectiveness of abstinence programs. This is coupled with a need to better understand the causal mechanisms which influence teen sexual abstinence.³⁹ Evidence is accumulating that social-cognitive factors are important to understanding adolescent sexual behavior, including abstinence, especially because they are more amenable to manipulation than demographic or environmental influences.³⁹⁻⁴¹ Research by Weed and Olsen and others^{36,40,42} explored a broad set of cognitive/affective constructs with several samples of US teens and identified a set of mediator variables that are common to established social-cognitive theories of behavior change, including health behavior change models.⁴³⁻⁴⁶ These constructs are significant predictors of sexual abstinence in adolescents, and include behavioral intentions or proximal goals, self-efficacy, outcome expectancies, moral norms or values, and subjective norms or perceived social expectations/pressures.

The purpose of this evaluation was 2-fold: (1) to determine the impact of an abstinence education program on the initiation of sexual intercourse by virgin teens after a one-year period and (2) to understand *how* this impact occurred, ie, to determine the program's impact on intermediate outcomes that were hypothesized to be key mediators in a predictive model of teen sexual initiation. Consistent with previous research and established social-cognitive theories,^{36,40,41,43} this model posited behavioral intentions for sex as a primary mediator or first order predictor of teen sexual initiation. Variables predicting behavioral intentions, ie, second order predictors, included the

cognitive constructs of self-efficacy—called *abstinence efficacy* in the present study, outcome expectancies—called *future impact of sex*, moral norms—called *abstinence values*, and 2 measures of perceived social expectations—*peer environment* and *opportunity for sex*. It was expected that program students' scores on these mediators at posttest would be significantly better than comparison students' scores (controlling for pretest differences) and that this difference would correspond to a lower rate of sexual initiation one year later.

METHODS

Program Description

The present study was a one-year evaluation of an abstinence education curriculum operating in the Commonwealth of Virginia. The Virginia Department of Health developed the Virginia Abstinence Education Initiative (VAEI) as a primary prevention/risk avoidance strategy that could target the full spectrum of STDs as well as pregnancy and emotional health concerns for adolescents. This paper summarizes the first-year evaluation of a VAEI program called Reasons of the Heart (ROH) taught to public middle school students in a suburban northern Virginia county. The core of the program was a 9-unit abstinence curriculum taught consecutively over 20 class periods, called Reasonable Reasons to Wait: Keys to Character. This curriculum complies with Title V's "A through H" guidelines. It emphasizes the development of personal character and teaches the benefits for individuals, families, and society of abstaining from sex until marriage. It was presented as part of the required physical/health education class and was taught by the public schools' certified health teachers after they received 8 hours of ROH training.

Research Design and Procedures

This study used a quasi-experimental design; 3 middle schools were selected to receive the ROH program, and 2 middle schools from the same geographic region with similar demographics served as the comparison group. All seventh-grade students in those 5 schools participated in the evaluation. Comparison school students received the generic family life education prescribed by the state, delivered by regular classroom teachers. In

this curriculum, sexual health topics were covered using 2 videos on HIV/STD prevention and one 30-minute video on abstinence called "Choosing to Say No." Classroom hours for this program were about one third of the ROH program. Baseline data were collected during the 1999-2000 school year. All data were obtained using paper-and-pencil questionnaires. A pretest was administered in the week prior to program startup, a post-test was administered within a week of program completion, and a follow-up questionnaire was administered 12 months later. Comparison students were surveyed on the same schedule as the program students. Privacy was ensured and the linking of individual cases across each time period was accomplished through the use of a confidential identification code. The confidentiality and the aggregate use of the questionnaire data were emphasized by the instructors before students filled out the survey.

Sample

All students in the designated seventh-grade classes on the day of the pretest filled out a survey, and those absent that day took the pretest survey on a make-up day. The study sample of 550 virgin students (those who had not experienced sexual intercourse as of the pretest) was obtained from the initial sample of 820 seventh-grade students. There were 421 virgin students in the 3 program middle schools and 241 in the 2 comparison middle schools at the pretest. (The proportion of virgin students was not statistically different in the program versus the comparison schools.) The proportion of pretest surveys that successfully linked to the one-year follow-up surveys by means of the confidential ID codes was fairly high—84.8% for program virgins, 80.1% for comparison virgins—and not statistically different between groups ($\chi^2=2.40$, $P=.12$ and Fisher's exact test of 2 proportions, $P=.067$). After linking the pretest and one-year follow-up surveys, there were 357 virgins in the program group and 193 in the comparison group, for a total sample size of 550.

Measures

Behavioral outcome. The primary outcome of the study was sexual initiation, referring to virgin students who went on to experience vaginal sexual intercourse

during the following year. The questionnaire asked about sexual intercourse experience in 3 different ways. Respondents were asked if they had ever had sex, how many times, and how recently. For the latter 2 questions, the first response option allowed them to say they had never had sex. This triangulation increased the accuracy of the sexual intercourse measure, Ever Had Sex. Sex was defined in the questionnaire as "sexual intercourse, sometimes also called *going all the way* or *doing it*."

Intermediate outcomes. The cognitive mediators were measured by multiple questions in the survey instrument and then transformed into scale measures through factor analysis. (The exception was *opportunity for sex*, which was a single-item measure.) Most of the questionnaire items used a 5-point Likert scale response format. All cognitive scales were coded so that a higher score was the desired or positive result.

The *behavioral intentions* for sex variable consisted of 2 items ($\alpha=.76$), "If someone you were attracted to tried to get you to have sex with them during the next year, what would you do?" with responses ranging from "I definitely would not do it" to "I definitely would do it," and "How likely do you think it is that you will remain abstinent until you are married?" with responses ranging from "I am sure I will abstain until I am married" to "I am sure I will not remain abstinent until I am married." In the survey, *abstain* was defined as "not having sex." The *abstinence values* scale ($\alpha=.87$) was 6 items assessing students' beliefs and values about sex before marriage, eg, "Having sex before marriage is against my personal standard of what is right and wrong." The *future impact* variable ($\alpha=.51$) consisted of 2 items, "Having sex as a teen could really mess up my future" and "Having sex now would not affect my future goals." These items all used the strongly agree/strongly disagree response format. *Abstinence efficacy* ($\alpha=.88$) measured students' confidence in their ability to remain abstinent in sexually risk-prone settings. The 4 items began with "How sure are you that you could..." with endings like "...firmly say no to having sex?" and responses ranging from not sure at all to very sure. The 3-item *peer environment* measure ($\alpha=.68$) asked whether the respondent's close friends supported

Table 1
Program and Comparison Group Distributions on
Baseline Demographics and Sexual Attitudes
Virginia Seventh Graders, 1999–2000

	Pretest Measures					
	All Virgins			Linked Virgins ^a		
	Program Group n=421	Comparison Group n=241	Test of Significant Difference ^b	Program Group n=357	Comparison Group n=193	Test of Significant Difference ^b
Males	47.3% 199/421	44.4% 107/241	NS	45.7% 163/357	42.0% 81/193	NS
Females	52.7% 222/421	55.6% 134/241	NS	54.3% 194/357	58.0% 112/193	NS
Married Parents	68.6% 289/421	63.2% 152/241	NS	70.9% 253/357	66.5% 128/193	NS
African American	9.0% 38/421	22.4% 54/241	****	9.0% 32/357	22.3% 43/193	****
White	73.9% 311/421	60.6% 146/241	NS	74.8% 267/357	62.2% 120/193	NS
Other	17.1% 72/421	17.0% 41/241	NS	16.2% 58/357	15.5% 30/193	NS
Behavioral Intentions for Sex^c	3.96	3.98	NS	3.97	4.02	NS
Abstinence Values^c	3.77	3.92	NS	3.79	3.95	NS
Abstinence Efficacy^c	3.79	3.85	NS	3.81	3.93	NS
Future Impact of Sex^c	3.88	4.02	NS	3.90	4.05	NS
Opportunity for Sex^c	3.72	3.53	*	3.76	3.51	*
Peer Environment^c	3.79	3.80	NS	3.80	3.84	NS

Note.

a Individuals' pretest and one-year follow-up surveys were identified and linked.

b Significant differences were tested using a Fisher's exact test for 2 proportions; NS = not significant (P>.05), * = P<.05, **** = P<.0001.

c Mediator variable score, given as a mean. A higher score is better; ie, a higher score indicates a lower risk for initiation of intercourse, for all mediator variables.

and approved of abstinence and whether they were having sex. The single item measuring *opportunity* for sex asked, "During the next year, how likely is it that someone might try to get you to have sex with them?" with options ranging from "I'm sure this won't happen" to "I'm sure this will happen." (See Appendix for notes on scale reliability.)

Demographics. Measures included

grade level, gender, race (Native American, Asian/Pacific Islander, black/African American, Hispanic, white, biracial/multiracial, or other), and family composition (both natural parents, single mother/father, reconstituted family, living with grandparents/other adults).

Analyses

Analyses were run to test for similarity

between the program and comparison group virgins in the pretest sample and the one-year linked follow-up sample. This also tested the effects of attrition and of the loss of cases from the linking procedure. Following this, a series of statistical analyses was performed to test the program's impact. First, the difference in sexual initiation rates for program and comparison students over the one-year follow-up period was computed. Then, the difference in these rates was tested for statistical significance using a logistic regression analysis that controlled for pretest differences between groups on the demographic and mediator variables. Further subgroup analyses were performed to examine alternative explanations of program impact.

Next, to confirm the validity of the proposed predictive model, 2 regression analyses were conducted—logistic regression to confirm the predictive impact of *behavioral intentions* on sexual initiation in this sample and linear regression to verify the relationship of the other 5 mediator variables to *behavioral intentions*. In each case, the hypothesized mediator variables competed with 7 other related scale measures in the regression analysis.

Finally, a repeated measures analysis of covariance was conducted to test the program's impact on the mediator variables at the posttest, the point at which effects are most observable. For all statistical tests, the P-value of .05 was selected as the cutoff for statistical significance.

RESULTS

Sample

Table 1 contains a description of the sample at each time period. For both the original sample of virgins and the linked one-year follow-up sample, the program and comparison groups were not statistically different with respect to gender composition, the percent living with married parents, or their pretest scores on 5 of the 6 mediating variables. However, there were statistically significant differences in the racial composition of these groups for both the original and the linked samples, with fewer African Americans in the program group than the comparison group in both samples (9% vs 22%, $P < .0001$, Table 1). This difference was controlled for statistically in the outcome

Table 2
Virgin Seventh-grade Students
Initiating Sexual Intercourse
After One Year

	Program Group		Comparison Group	
	n	%	n	%
Ever Had Sex ^a :				
Yes	32	9.2	31	16.4
No	315	90.8	158	83.6
Total	347	100.0	189	100.0

Note.

a A triangulated measure derived from responses to 3 questions about sexual intercourse experience.

analysis, and African Americans were also examined as a separate subgroup.

Behavioral Outcome

Impact on sexual initiation. Of the 189 comparison group pretest virgins for whom there was a valid sexual behavior measure, 31, or 16.4%, had initiated sexual intercourse by the one-year follow-up. In the program group, 32 out of 347 pretest virgins, or 9.2%, had initiated by the follow-up (Table 2).

When the difference was tested in a logistic regression analysis controlling for pretest differences between groups, including the imbalance on race, it produced an odds ratio of .413 for program participation (Table 3, $Exp(B)$, $P = .008$; χ^2 change = 7.0, $P = .008$). The odds ratio was converted to a relative risk ratio (per Zhang⁴⁸), resulting in a relative risk (RR) of .457.

African American subgroup analysis. The race variable was not significant in the above logistic regression predicting the program effect. In order to further examine the possible impact that the disparate race distribution (Table 1) might have had on the outcome measures, the subsample of African Americans ($n = 73$) was subjected to an exploratory analysis. Using pretest scores on *behavioral intentions* for sex as an hypothesized indicator

Table 3
Logistic Regression Predicting Initiation of Sexual Intercourse
After One Year (seventh-grade virgins, n=492^a)

	B	S.E.	Wald	df	P	Exp(B)
Centered Pretest Variables						
Abstinence Efficacy	-0.374	0.187	3.999	1	.046	0.688
Future Impact of Sex	-0.470	0.170	7.627	1	.006	0.625
Abstinence Values	-0.181	0.238	0.580	1	.446	0.834
Opportunity for Sex	-0.338	0.151	5.017	1	.025	0.713
Peer Environment	0.162	0.227	0.507	1	.476	1.176
Behavioral Intentions for Sex	0.357	0.273	1.703	1	.192	1.428
Race						
Black to White	0.609	0.455	1.791	1	.181	1.838
Other to Whites	0.429	0.429	1.002	1	.317	1.536
Gender						
Females to Males	-0.839	0.352	5.694	1	.017	0.432
Family Composition						
Reconstituted to Intact ^b	0.577	0.451	1.636	1	.201	1.780
Single Parent to Intact ^b	-0.158	0.431	0.134	1	.715	0.854
Other to Intact ^b	1.822	1.089	2.802	1	.094	6.185
Program Participation						
	-0.884	0.335	6.963	1	.008	0.413
Intercept	-1.139	0.354	10.342	1	.001	0.320
R² (Nagelkerke) = .213						
Note.						
a Individual pretest and one-year follow-up survey forms were linked in the data file; some loss of cases due to the large number of variables in the analysis (ie, due to missing values).						
b Intact =Living with both natural parents.						

of baseline risk level for sexual initiation, program and comparison students were compared to assess their similarity. No significant difference was found. Next, sexual initiation rates were computed for the virgin African American students in the program group versus the comparison group. Fourteen out of 42, or 33.3%, of the virgin African American comparison group students initiated sexual activity after 12 months, whereas only one of 31, or 3.2%

in the program group did so. Given these small cell sizes, the computation of an odds ratio—as was done for the full sample—was not appropriate, so the difference was tested using McNemar's chi-square and found to be significant ($\chi^2=5.82$, $P=.02$). In addition, Time x Race x Program interaction terms were not significant for 5 of the 6 hypothesized mediator variables, suggesting there were similar intermediate program effects for blacks

Table 4
Logistic Regression Predicting Sexual Intercourse at One Year
via Social Cognitive Constructs, Regardless of
Program Participation (seventh-grade virgins, n=482^a)

Centered Posttest Scores	B	S.E.	Wald	df	P	Exp(B)
Behavioral Intentions for Sex	-0.783	0.286	7.511	1	0.006	0.457
Peer Environment	0.284	0.244	1.352	1	0.245	1.329
Beliefs About Marriage	0.032	0.319	0.010	1	0.920	1.033
Marriage in the Context of Sex	-0.018	0.264	0.005	1	0.944	0.982
Parental Values About Sex	-0.061	0.291	0.044	1	0.834	0.941
Religious Values	-0.047	0.133	0.126	1	0.722	0.954
Self-control	-0.144	0.133	1.170	1	0.279	0.866
Parental Supervision	0.071	0.188	0.140	1	0.708	1.073
Opportunity for Sex	-0.208	0.146	2.045	1	0.153	0.812
Abstinence Values	0.115	0.350	0.108	1	0.742	1.122
Abstinence Efficacy	-0.181	0.205	0.780	1	0.377	0.835
Future Impact of Sex	-0.155	0.184	0.705	1	0.401	0.857
Reasons for Waiting for Sex	0.003	0.318	0.000	1	0.993	1.003
Intercept	-2.502	1.283	3.803	1	0.051	0.082
R ² (Nagelkerke) = .192						

Note.

a Individual pretest and follow-up survey forms were linked, program and comparison groups were combined; some loss of cases due to the large number of variables in the analysis (ie, due to missing values).

and whites. (These analyses were not reported in table form.)

Gender analysis. In a separate logistic regression to test the interaction effect of gender and program participation on sexual initiation, the interaction term was not significant, and program participation remained significant (odds ratio=.408, P=.03). With regard to program impact on the mediating variables, repeated measures analysis that included gender as a factor produced no significant 3-way (Time x Program x Gender)

interaction for any of the measures. (The above results were not reported in table form.)

Intermediate Outcomes

Predictive model. A logistic regression analysis indicated that virgin students' posttest scores on *behavioral intentions* for sex were predictive of sexual initiation when the program participation variable was not in the equation (odds ratio=.457, P=.006, see *Exp[B]*, Table 4) and that none of the other

Table 5
Linear Regression Predicting Behavioral Intentions for Sex
(All seventh-grade virgins, n=589^a)

Pretest Scores	B	S.E.	Beta	t	P
(Constant)	-0.069	0.218		-0.317	0.751
Reasons for Waiting for Sex	0.020	0.044	0.014	0.455	0.649
Beliefs About Marriage	0.006	0.045	0.004	0.144	0.886
Marriage in the Context of Sex	-0.015	0.039	-0.014	-0.376	0.707
Parental Values About Sex	0.065	0.043	0.051	1.530	0.127
Religious Values	0.022	0.019	0.033	1.144	0.253
Self-control	0.039	0.020	0.049	1.917	0.056
Parental Supervision	0.025	0.026	0.026	0.945	0.345
Peer Environment	0.125	0.032	0.116	3.888	0.000
Opportunity for Sex	0.128	0.021	0.161	6.173	0.000
Abstinence Values	0.403	0.045	0.425	9.036	0.000
Abstinence Efficacy	0.164	0.030	0.183	5.423	0.000
Future Impact of Sex	0.083	0.026	0.093	3.127	0.002
R ² (adjusted) = .653					

Note.

^a Pretest surveys only (ie, not linked), program and comparison groups combined; some loss of cases due to the large number of variables in the analysis (ie, due to missing values).

social cognitive constructs in the analysis, including the other 5 hypothesized mediators, were significant. The $R^2_{Nagelkerke}$ indicated that the equation accounted for an estimated 19.2% of the variance in sexual initiation. We also tested whether any of these variables would be indirect predictors of initiation through their relationship to *behavioral intentions*. As Table 5 shows, a linear regression analysis demonstrated that pretest scores on these 5 potential mediators were all significantly related to pretest *behavioral intentions* for sex ($\leq .002$ in all cases, with standardized *beta* values ranging from .09 to .43) and that none of the other

cognitive variables was significant. This analysis accounted for approximately 65% of the variance in *behavioral intentions* ($R^2_{Adjusted} = .653$).

Impact on mediator variables. The pre-post repeated measures analysis produced significant Time x Program interaction effects for 4 scales ($P < .05$)—*behavioral intentions*, *abstinence values*, *future impact of sex*, and *opportunity for sex*—with effect sizes ranging from .17 to .44 (Table 6). The same pattern was seen in the scores for *abstinence efficacy*, but the P-value did not quite meet the .05 level of significance ($.05 < P < .10$). The observed interaction effect for the mediator variables was due in part to significant deterioration by the

Table 6
Pre-Post Differences^a on Mediator Variables
(Linked seventh-grade virgins, n=550)

Variable	Statistic	Program Group			Comparison Group			Signif- icance ^b	d ^c
		Pre- Test	Post- Test	Signif- icance ^b	Pre- Test	Post- test	Signif- icance ^b		
<i>Behav. Intent.</i>	Means ^d & Simple Effects	3.99	4.08	*	4.01	3.77	**		
	Time×Program Interaction							***	
	Effect Size							0.35	
<i>Abstin. Values</i>	Means ^d & Simple Effects	3.80	4.05	***	3.92	3.74	**		
	Time×Program Interaction							***	
	Effect Size							0.44	
<i>Future Impact of Sex</i>	Means ^d & Simple Effects	3.90	4.08	**	4.02	3.90	NS		
	Time×Program Interaction							**	
	Effect Size							0.30	
<i>Abstin. Efficacy</i>	Means ^d & Simple Effects	3.82	3.84	NS	3.93	3.78	NS ^e		
	Time×Program Interaction							NS ^e	
	Effect Size							0.16	
<i>Opport. for Sex</i>	Means ^d & Simple Effects	3.74	3.62	NS ^e	3.52	3.16	***		
	Time×Program Interaction							*	
	Effect Size							0.17	
<i>Peer Envirmt</i>	Means ^d & Simple Effects	3.80	3.73	NS	3.88	3.71	**		
	Time×Program Interaction							NS	
	Effect Size							0.12	

Note.

a Differences tested using repeated measures analysis of covariance

b NS = not significant ($P > .05$), * = $P < .05$, ** = $P < .01$, *** = $P < .001$

c Cohen's *d*, a measure of effect size

d A higher score is better; ie, a higher score indicates a lower risk for initiation of sexual intercourse on this and all mediator variable means.

e .05 < $P < .10$

comparison group on 3 of the measures (*behavioral intentions for sex, abstinence values, and opportunity for sex*) and in part

to significant improvement by the program group on 3 of the measures (*behavioral intentions for sex, abstinence values, and*

future impact of sex).

DISCUSSION

The main purpose of this study was to assess the impact of an abstinence education program on teenage initiation of sexual intercourse for a sample of suburban seventh graders using behavioral outcomes measured one year later. The program's goal of reducing the rate at which these adolescents initiated sexual intercourse appears to have been realized. After controlling for pretest differences on mediating and demographic variables (including gender and race), the relative risk value was .457 (odds ratio=.413, Table 3), indicating that virgin program students were about 46% as likely to initiate sexual intercourse as the virgins in the comparison group after one year. This result appears to compare favorably to the reductions in initiation achieved by some of the abstinence programs cited previously, while deriving from a study that improves in some ways on the rigor of these previous evaluations. The results appeared to hold up across demographic groups and suggest a fairly broad program effect.

For example, because African American teens typically have higher rates of sexual activity and are more likely to initiate sexual intercourse at an earlier age,¹⁷ the higher percentage of African American students in the comparison group could have contributed to a higher initiation rate for that group without any program effect having occurred. However, in this evaluation, the program's positive impact held up in the regression analysis on sexual initiation, which controlled for race; and when examined as a subsample, the African American program group appeared to have a substantially lower sexual initiation rate after one year (3.2%) than the comparison group (33.3%), even though the groups appeared well-matched on preexisting risk indicators. Thus, having somewhat more African American students in the comparison group did not appear to account for the significant program effects that were found with the races combined. However, the small cell sizes in this African American analysis do not allow for strong conclusions about program impact on this subsample.

Evidence also suggested that the program effect did not differ by gender. Separate analyses testing the interaction of

gender and program effects on behavioral and mediator outcomes (not reported in table form) produced no significant results. In addition, whereas gender was predictive of sexual initiation (odds ratio=.432, $P=.017$) it did not eliminate the program effect (odds ratio=.413, $P=.008$, Table 3). These findings, and the above examination of race, suggest that the program effect was not simply a function of the demographic characteristics of the groups.

It is important to note that the program and comparison groups did not differ in pretest scores on 5 of 6 mediating variables—hypothesized indicators of pretest risk to initiate sex—suggesting there was not a significant difference in initial risk propensity that influenced the program effect. In addition, neither the composition of the program or comparison groups nor their similarity to each other changed appreciably from pretest to follow-up on these key variables. This suggests that differential attrition did not occur and thus did not influence the estimation of program impact on initiation (Table 1).

A second purpose of the study was to learn more about the possible mechanisms that mediate adolescent propensity to initiate sexual intercourse. A predictive model was proposed consisting of a set of 6 social-cognitive constructs that previous research suggested would be important mediators of teen sexual initiation and also amenable to program intervention.^{36,40,43} The study findings supported both of these premises and built on recent research regarding cognitive mediators and teen abstinent behavior.^{18,39,40} Logistic regression on the predictive model suggested that *behavioral intentions* was an important direct predictor of teen sexual initiation because it was the only significant variable out of 13 social-cognitive measures in the equation, and it accounted for 19% of the variance in initiation (Table 4). The other 5 mediating variables appeared to be indirect predictors of initiation, by virtue of their significant correlation with *behavioral intentions*, which occurred in competition with 7 other variables in a linear regression (Table 5). Given these results on the predictive model, it was important to find that the pre-post change in program students' scores was significantly better than the comparison students' pre-post change on 4 of these mediating variables. One of

the other 2 variables showed a similar pattern, although not significant at the .05 level. (Table 6.) Considering how well matched the 2 groups were on these measures at the pretest, this post-program difference suggests that program influence had occurred.

These results point to the mediating variables as important candidates for consideration in testing and establishing a causal model for influencing teen abstinence. If the role of these variables can be further validated, they will provide important tools for program design and for early assessment of potential program impact.

Limitations

The researchers used several methods to minimize respondent error and maximize candor. However, the self-reported nature of the data should be kept in mind when considering the findings. The limitations of a quasi-experimental or comparison group design should also be remembered. The 2 groups were well matched on all key variables with one exception—the somewhat higher ratio of African Americans in the comparison group. Although this racial imbalance was taken into account in the statistical analysis, it would have been preferable to have had a better match on race at the outset. In addition, there may have been other sources of pretest dissimilarity that were not measured.

Recommendations

This evaluation was designed around several hypothesized predictors of sexual initiation. A valuable next step would be to test a program designed specifically around these theoretical predictors. Also, measuring condom use and the reduction of sex by the sexually active, as was done in the Borawski study,⁴² adds an important dimension to the measurement of the impact of abstinence programs. Follow-up periods of more than one year would facilitate the tracking of both pregnancy and STD outcomes, as well as more durable postponement of sexual initiation. Future efforts should refine comparison group matching procedures to further minimize the limitations of quasi-experimental design where random assignment is not practical. Given the limited number of rigorous evaluations, replication will be important in order to assess patterns of evidence

regarding abstinence education.

CONCLUSION

This paper contributes to the research on the effectiveness of abstinence education programs by reporting the results of a quasi-experimental evaluation study with an adequate sample size, linked one-year follow-up, low student attrition, and the examination of possible causal connections. The finding of significant program effects on social-cognitive factors at posttest and on sexual initiation after 12 months suggests that by focusing on key mediators, abstinence programs can achieve significant reductions in teen sexual initiation.

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Appendix

A recent article by Helms et al⁴⁷ reviewing the literature on the use and interpretation of Cronbach alpha coefficients, indicates that coefficients computed on the same scales across several samples can inform scale reliability if the samples are demographically similar. The same 6 mediator scales used in this study have been used in previous studies^{39,43} with similar populations and have been found to have Cronbach alpha coefficients ranging from .76 to .85. The Helms article also cites .70 as an oft-used rule of thumb for an adequate alpha coefficient size, but notes that values ranging from .50 to .90 can be considered adequate depending on other psychometric factors. In this study, the alpha for the 2-item *future impact* measure (.51) is the only one below the .70 benchmark (*peer environment*, at .68 is roughly the same), suggesting it may not be a strong measure. However, similar measures of this construct in similar samples have been found to have alpha values above .70 and to predict *behavioral intentions*.^{39,43} ■

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An Abstinence Program

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Impacts of Four Abstinence Education Programs

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A recent study of four abstinence education programs, conducted by Mathematica Policy Research Inc., finds that the programs had no effect on the sexual abstinence of youth. But it also finds that youth in these programs were no more likely to have unprotected sex, a concern that has been raised by some critics of these programs.

The study, conducted for the U.S. Department of Health and Human Services, was authorized by Congress in 1997 to evaluate the effectiveness of programs funded under Title V, Section 510 of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996. Nationwide, more than 700 Title V, Section 510 programs receive up to \$50 million annually from the federal government in order to teach youth about abstinence from sexual activity outside of marriage. Additional funding from state matching block grants brings annual spending for Title V, Section 510 sexual abstinence education programs to \$87.5 million.

The study found that youth in the four evaluated programs were no more likely than youth not in the programs to have abstained from sex in the four to six years after they began participating in the study. Youth in both groups who reported having had sex also had similar numbers of sexual partners and had initiated sex at the same average age.

Contrary to concerns raised by some critics of federal funding for abstinence education, however, youth in the abstinence education programs were no more likely to have engaged in unprotected sex than youth who did not participate in the programs.

"This is the first study of multi-year abstinence programs, and it is one of the few that has tracked its sample members for as long as six years," notes Christopher Trenholm, the project director and a senior researcher at Mathematica. "The study finds that the sexual abstinence of students in four programs selected for the study was much the same as that of students who did not participate in these programs."

"Some policymakers and health educators have criticized the Title V, Section 510 abstinence education programs, questioning whether the focus on abstinence puts teens at risk of having unprotected sex," says Barbara Devaney, one of the study's principal investigators and vice president and director of Human Services Research at Mathematica. "The evaluation findings suggest that this is not the case. Participants in the abstinence education programs and nonparticipating youth had similar rates of unprotected sex at first intercourse and over the past 12 months."

Looking Forward

The study findings highlight the challenges faced by programs aiming to reduce adolescent sexual activity. Two lessons are important for future programming in this area:

Targeting youth at young ages may not be sufficient. Most Title V, Section 510 abstinence education programs are implemented in upper elementary and middle schools and most are completed before youth enter high school. The findings from this study provide no evidence that abstinence programs implemented at these grades reduce sexual activity of youth during their high school years. However, the findings provide no information on the effects programs might have if they were implemented in high school or began at earlier ages but continued through high school.

Peer support for abstinence erodes during adolescence. Peer support for abstinence is a significant predictor of later sexual activity. Although the four abstinence programs had at most a small impact on this measure in the short term and no impact in the long term, this finding suggests that promoting support for abstinence among peer networks should be an important feature of future abstinence programs.

Methodology

The study used the most rigorous, scientifically based approach to measure the impacts of the programs. Much like a clinical trial in medicine, this approach compares outcomes for two statistically equivalent groups—a program group and a control group—created by random assignment (similar to a lottery). Youth in the program group were eligible to receive the abstinence education program services, while those in the control group were not, and received only the usual health, family life, and sex education services available in their schools and communities. When coupled with sufficiently large sample sizes, longitudinal surveys conducted by independent data collectors, and appropriate statistical methods, this design is able to produce highly credible estimates of the impacts of the programs being studied.

Youth were enrolled in the study sample over three consecutive school years, from fall 1999 through fall 2001, and randomly assigned within schools to either the program or the control group. The results in this report are based on a survey given to 2,057 youth in 2005 and 2006, roughly four to six years after they began participating in the study; 1,209 had participated in one of the Title V, Section 510 abstinence education programs and 848 had been assigned to the control group. By the time the last follow-up survey was completed, youth had entered their mid to late teens, permitting the researchers to reliably measure program impacts on teen sexual activity and other risk behaviors.

The four programs studied include My Choice, My Future! in Powhatan County, Virginia; ReCapturing the Vision in Miami, Florida; Teens in Control in Clarksdale, Mississippi; and Families United to Prevent Teen Pregnancy in Milwaukee, Wisconsin. These four programs were chosen because they had well implemented and replicable programs and were willing and able to take part in a rigorous evaluation.

More Information

The report, "[Impacts of Four Title V, Section 510 Abstinence Education Programs](#)," by Christopher Trenholm, Barbara Devaney, Ken Forston, Lisa Quay, Justin Wheeler, and Melissa Clark is available online at www.mathematica-mpr.com. For more information, contact Mathematica Publications at (609) 275-2350. For more information about the study, go to www.mathematica-mpr.com/welfare/abstinence.asp.

Members of the technical work group for the evaluation can also speak on behalf of the report and the overall study. Some of the available members include:

Sarah Brown, National Campaign to Prevent Teen Pregnancy: (202) 478-8500
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To: Senator David Ige, Chair
Senator Josh Green, Co Chair

From: Deborah Kato, Classroom Presenter
Catholic Charities Hawai'i
Mary Jane Program (Try Wait Program)

Date: February 11, 2009

Place: Senate Health Committee Hearing
February 11, 2009
Room 016
3:00 p.m.

RE: **Testimony in opposition to SB 777**

My name is Deborah Kato; I am currently a classroom presenter for the "Try Wait Program". Not only do I believe in the importance of this message, I also believe in our youth and their capability to make good and responsible decisions for their own well being and future. Our message is abstinence. However, we educate, share and encourage our students on many other adolescent issues, topics and concerns; issues and concerns that I believe are extremely detrimental at this age, and desired to be approached and discussed from our students themselves. We discuss issues on peer pressure, self-worth and respect, alcohol and how to stand up for yourself and be assertive, emotional consequences and much more. I have been with the "Try Wait" program for the past year and a half and have witnessed first-hand the impact that our team has on our students overall sense of self and emotional development. I believe that educating our youth with information, statistical and facts helps not only to empower them but, also encourage them if abstinence is the choice that they are choosing to make. We do not by any means tell them that this is the only option to choose. Nor do we claim that by choosing abstinence your are **guaranteed** physical and / or psychological harm. We merely provide abstinence as an option for them to choose if they decide to.

This message of abstinence is not only a professional matter to me but, holds personal weight and significance in my life. I have learned first hand about the consequences that having sex can have on an individual because not only was I sexually active as a teen, I also, became pregnant at the age of 19. I now have an 8 year old son and am proud to say that I have broken the typical stereotype of a teen parent through my struggles, lowest points and triumphs. I have overcome a lot over the past nine years of my life and the truth is that raising my son as a single mom wasn't and hasn't been the hardest thing for me to face and deal with. The permanent and emotional scarring that occurred since my first intimate relationship when I was a teen still haunts me and so vividly remains. Dealing with these emotional wounds has by far been one of my deepest, most vulnerable ordeals to try and overcome, and that has never gone away till this day. I strongly believe in this message of abstinence and I oppose SB 777. Thank you for your time and consideration.

Sincerely,



Deborah Kato

To: Senator David Ige, Chair
Senator Josh Green, Co Chair

From: Sean Nishimura, Classroom Presenter
Catholic Charities Hawai'i
Mary Jane Program (Try Wait Program)

Date: February 11, 2009

Place: Senate Health Committee Hearing
February 11, 2009
Room 016
3:00 p.m.

RE: **Testimony in opposition to SB 777**

Aloha and good afternoon, my name is Sean Nishimura. I am currently a Classroom presenter for the Try Wait Program. Before working for the Try Wait Program, I was a counselor for 5 ½ years with the Hawai'i National Guard Youth Challenge Academy. For the year and a half, I have witnessed, first hand, the positive affects of the Try Wait Program. The program teaches youth the benefits of living an abstinent lifestyle before marriage and how personal goals can be reached with this option. Emotional Consequences and contraceptive use are also covered by the program. I have seen how the Program impacts students and gives them personal power to make positive choices in Their lives. The cadets of the Youth Challenge Academy have been very receptive to the Try Wait Program. I have seen many cadets go on to some sort of higher learning, enlist in the military, or enter the work force and believe that the program plays an integral part in assisting students in fulfilling their future goals.

Therefore, I am against SB 777

Thank you,



Sean Nishimura

To: Senator David Ige, Chair
Senator Josh Green, Co Chair

From: Chelsie Omo, Classroom Presenter
Catholic Charities Hawai'i
Mary Jane Program (Try Wait Program)

Date: February 11, 2009

Place: Senate Health Committee Hearing
February 11, 2009
Room 016
3:00 p.m.

RE: **Testimony in opposition to SB 777**

My name is Chelsie Omo and I am a classroom presenter for the Try Wait program.

I have been a classroom presenter for 3 years going on 4. I oppose SB 777.

The Try Wait program has serviced 20,000 students from the grades 7th -12th

Over the entire state of Hawai'i with the message that abstinence until marriage is one of
The options to avoid such things as teen pregnancy, STD's (according to CDC) and
Emotional consequences. Our program included scientific facts about Sexually Transmitted
Diseases that were found through the Center for Disease Control, condom use rates,
boundaries, pressures that a teenager may face, ways to say NO and how to be assertive.
We have just begun our high school curriculum that discusses the same topics but, with
New, age appropriate activities. Not only are we educators but we are also, positive role
models to the students that abstinence until marriage is the best path for a teenager to take.
We have built many special relationships with both students and teachers. We have
Received numerous letters from students stating that we have changed their ideas about sex,
some of them state that they have never heard the message about abstinence, and they now
want to choose abstinence for their lives. We have also, helped students with their own
personal concerns about STD's and relationship issues.

We understand that the DOE requires that students be taught both contraception's

and abstinence, thus most teachers that have use come to their schools and also, use other programs that cover the topic of contraception. It works great for the students because they have an opportunity to see new faces and new styles of presenting and not have to sit through one program the entire time.

We are also, in the midst of evaluating our program through the University of Hawai'i, if you decide to pass this bill the University Of Hawai'i School Of Social work will not be able to complete their comprehensive study.

I feel that the Try Wait program is an asset to the State of Hawai'i and I think that students deserve the opportunity to choose abstinence. If you pass this bill there will be no other program that will continue this message. Please don't pass this bill, I believe that it will be a detriment to our students.

Sincerely,

A handwritten signature in black ink, appearing to read "Chelsie Omo". The signature is fluid and cursive, with the first name "Chelsie" written in a larger, more prominent script than the last name "Omo".

Chelsie Omo

To: Senator David Ige, Chair
Senator Josh Green, Co Chair

From: Lani Kenfield Classroom Presenter
Catholic Charities Hawai'i
Mary Jane Program (Try Wait Program)

Date: February 11, 2009

Place: Senate Health Committee Hearing
February 11, 2009
Room 016
3:00 p.m.

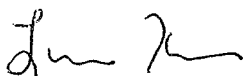
RE: **Testimony in opposition to SB 777**

My name is Lani Kenfield; I am currently a classroom presenter for the "Try Wait Program" of Catholic Charities Hawai'i. Our program is an abstinence education program. I have been with the program for almost three years. We have been able to go to private and public schools to provide teens with knowledge and information about the benefits of being abstinent. We understand that teens have options so we present it as such one option for them if they so choose. Our program teaches students not just about abstinence, but also about the emotional consequences, STD's, teen pregnancy, pressures teens face, how to set boundaries, how to say no they are choosing to do so. We are loved and appreciated by many kids and schools' across the islands. This program is making a difference kid's lives allowing them to choose the option that might be best for them. The "Try Wait" program provides a positive option for teens in choosing their sexual lifestyle.

I oppose SB 777. Please do not pass this bill, but allow teens to make a choice for themselves on what they deem to be the best option for them in their lives. I believe in this message we teach. I know that it is possible to be abstinent till marriage. I am a 27 year old female who is making this choice, I am choosing to wait till marriage myself, though it's not popular and rare I believe my testimony is strong to the kids that many do not practice abstinence it can be possible to Try Wait till marriage.

Teens are exposed to many different messages they are influences in different ways in our society to make tough choices. Other great programs are able to teach about the contraception use verses that we teach about the limits of contraception. I believe it's important that teens hear other options as well as our program that teaches abstinence. Let's give the teens of Hawai'i an option to make their own choice, allow them to hear all messages from different programs so they are equipped with the knowledge they need to make the best decision for themselves and be proud of it. I believe in empowering teenagers. I believe that if you equip them knowledge and facts so they can make great choices for themselves and feel a sense of self confidence in the choices they make.

Mahalo and Aloha,



Lani Kenfield

To: Senator David Ige, Chair Health Committee
Senator Josh Green, Co Chair Health Committee

From: Christopher Hadden, Classroom Presenter
Catholic Charities Hawai'i
Mary Jane Program (Try Wait Program)

Date: February 11, 2009

Place: Senate Health Committee Hearing
February 11, 2009
Room 016
3:00 p.m.

RE: **Testimony in opposition to SB 777**

My name is Christopher Hadden and I am a classroom presenter for the Try Wait program. I am opposed to SB 777.

In a recent news article, it has been reported that abstinence only education is ineffective. However, I question the validity of this report. There are many factors to take into consideration when concluding a program such as abstinence only education is in fact ineffective. Is this a general study or did it target a certain groups (i.e. inner city youth)? What types of pressures are the adolescents facing? Media? Peer pressure? Family influence?

In a society where we, as people, try to find simple solutions to a critical problem is like trying to put a band aide on a mortal wound. Telling youth students that it's okay just to use a condom and not stressing the emotional consequences (e.g. depression, guilt, fear, lose of self respect) resulting from sexual activities is setting our adolescents up for failure. Condom use does not protect young adolescents from being emotional scarred if the relationship does not last.

According to an article written by Dr. Stan Weed, it is stated that, "after 20-plus years of comprehensive sex education in the U.S., adolescent rates of consistent condom use are not high enough to eliminate the STD's for which condom are most preventive, such as HIV, let alone STD's for which condom are least preventive. Adolescents contract one fourth of all new HIV infections."

It's interesting to point our how a recent news article indicated that chlamydia is on the rise in our nation but no one is pointing a finger to any comprehensive sex education group. If chlamydia is on the rise, does not that mean comprehensive sex education groups are failing? No, but it does indicate that we are a nation need to address this issue.

While reviewing SB 777, I noticed that not only is this bill flawed but it is also detrimental towards the Try Wait program and to our kids as well. The bill states that as of September 2008, twenty-five states have refused to participate in abstinence only programs. What it failed to mention is that there are still twenty five other states that endorse abstinence education. Why is it bad to present both perspective of sex education? Is the fear of presenting both comprehensive and abstinence education as separate programs but within the public and private schools could be misleading to our adolescents? If that's the case, then we as parents need to get involved with our kids' lives. We as a society need to act now.

It is disheartening and disturbing that the department that provide our children with education is trying to shun the Try Wait program and withhold abstinence education from our students. Studies show that an abstinence curriculum that was taught in addition to an existing comprehensive sex education decreased sexual initiation by approximately 40% after 20 months for program students versus comparison students in a high-risk population.

The bill also requires any sex education programs to teach both abstinence and contraception. However, what the bill fails to define is to what extent should the organizations teach contraception. Try Wait program do in fact teach about contraception, but not to extent or perspective that our sister agencies desire. Our program talks about the limits of alternate contraceptive in hopes that they too will understand that abstinence is the only 100% way to prevent pregnancy and STD's. As an abstinence education program, our funding does not allow us to teach how to use every contraceptive.

To what extent does comprehensive sex education talk about abstinence? Is that defined in the bill? Since the bill does not clearly define to the extent that abstinence and contraceptive should be taught, I believe it is important that there be separate programs to teach abstinence and contraception. These programs can serve as a check and balance as opposed to a "one shoe fits all" program, especially since not every parent or constituents in your community is comfortable about teaching middle school students how to use a condom. I recently had a concerned parent from Moanalua Middle School as me if we were teaching her son how to use a condom. She clearly stated she did not want her son to learn this skill.

When considering the outcome of this bill, it is not important to please any group that are represented here today or which program is the best but, consider what is important for our kids. Abstinence education is not about pledges, religious and moral beliefs, or politics. It is about giving students the knowledge and tools to make the right choices during difficult situations. It's about life skills. More importantly, it is the time for all types of sex education groups to stop fighting and work together to complement each other on the topic of sex. By giving different perspectives of sex education, students will receive an overall education about

sex and be able to make right choices. If this bill is approved, then the kids will be the one who will suffering today. Think about it. Thank you for your time and consideration.

With care,

A handwritten signature in black ink, appearing to be 'Ch', with a long horizontal stroke extending to the right.

Christopher Hadden



CATHOLIC CHARITIES HAWAII

To: Senator David Ige, Chair
Senator Josh Green, Vice-Chair
Senate Health Committee Members

From: Criselda Smith, Program Director 1
Catholic Charities Hawaii
Try Wait! Program

Date: February 11, 2009

Place: Senate Health Committee Hearing
February 11, 2009
Room 016
3:00 p.m.

My name is Criselda Smith Program Director for the Try Wait Program of Catholic Charities Hawaii. The Try Wait Program is a federally funded Abstinence Education Program that serves the island of Oahu and most recently the island of Molokai.

I am opposed to Senate Bill 777.

There are several key points from this Bill that I would like to correct. There appears to be several misconceptions to what HB 330 HD1 believes Abstinence education programs actually do. Areas of this Bill that could be construed as misleading are the areas that state that contraceptions and or alternative methods of disease prevention are not being discussed, that the Mathamatica study that is referenced can be applied generally to all Abstinence programs and that the purpose for which this Act states is being created will provide students with balanced sex education.

Contraception's and alternative methods happen to be subjects that are discussed in great lengths with students that are enrolled in the



Try Wait Program. The Try Wait Program provides interactive activities, opens dialog and invites students to present "myths" that they may not be sure of. I take great pride in saying that each of our presenters are Bachelor degreed young adults that find their roles to be not only facilitators of truth but also a shoulder that many teens lean on for guidance. We discuss the limits of contraception as not to create a cushion for our youth. Our goal is that by stating the limits we can provide a clear picture of what they might be getting themselves into. We want our youth to see that Abstinence is the only 100% way to stay clear of STD's and Teen pregnancy. A statement that even the Center for Disease Control states in their website www.cdc.gov.

This Bill referenced the Mathematica study which if you haven't read references only 4 of the earliest abstinence programs. A study that cannot be generalized to represent the efficacy of abstinence programs in general. It is important to mention that the Try Wait program is currently conducting its own study which we started in November. We have hired the University Of Hawaii Department Of Social Work to evaluate what impact the Try Wait program is having with students. It is our goal to make sure that if we are going to present something to our youth that we do it in a manner which is responsible and real.

Lastly, this House Bill 330 states that it's purpose is to require any recipient of state funding to provide medically accurate, factual and comprehensive information that is age appropriate and includes education on abstinence and contraception. My question to you would be "what type of balance will this bill require?" As a supporter of Abstinence education I would wish for students to receive a program that would be balanced on both abstinence and contraceptive use. If the belief is that we need to provide all information, do it responsibly. I say this because a local study does show that half of our Hawaii youth are not engaging in sex and therefore they need to be supported too in their decision. The Try Wait Program is valued in our Community. We are presently serving two schools at a time and are booked through April. We have also been recently invited to the high school on the island of Molokai. The community has been able to provide us with air-fair, lodging and a vehicle, as a way to show that our message is valued too.

As a mother of two adolescents who attend Hawaii High schools, I have vested interest in how and what information is provided when referencing sex education. I am determined to believe in our youth. I believe that when provided the holistic picture of what can occur if our youth choose to engage in sex they can make the right choice. Let's believe in them. Let's continue to provide a true picture addressing every area; emotional consequences, limits of contraception use, boundaries and most importantly self respect.

Thank You



CATHOLIC CHARITIES HAWAII

To: Senator David Ige, Chair
Senator Josh Green, Vice-Chair
Senate Health Committee Members

From: Danny Morishige, Program Director II
Catholic Charities Hawai'i
Mary Jane Program (Try Wait! Program)

Date: February 11, 2009

Place: Senate Health Committee Hearing
February 11, 2009
Room 016
3:00 p.m.

RE: **Testimony in opposition to SB 777**

My name is Danny Morishige and I am the Program Director of the Mary Jane Program of Catholic Charities Hawai'i. The Mary Jane Program assists women and teens facing unplanned pregnancies, adoption services, and has a community based abstinence educational program called "Try Wait!". I oppose SB 777.

Our Try Wait! Program is a five-year federal CBAE grant and is currently in our third year. We also had received and completed a three years SPRANS grant. During that time we have presented our abstinence education program to more than 10,000 public and private school students on all six islands. To date we have made presentations to over 20,000 students. Our teams use a nationally used abstinence curriculum with locally made videos (instead of the videos that came with the curriculum), interactive activities, and skits to discuss



the abstinence option. Students are given examples on: how to deal with peer pressure to have sex, how to set boundaries, how the media can affect their views on sexual behavior, teen pregnancy and STDs. In addition the students receive a locally made music CD with songs that promote the abstinence message. Our federal funding prohibits our program from promoting contraception because it would confuse students by sending mixed messages. We do not promote religion and we do not scare students about sex.

Our program has been well received. We are booked for presentations almost a year in advance and have high satisfaction ratings from students, teachers and parents.

The schools teach contraception through their own programs and presentations made by other agencies. Thus we act in concert with the schools and other agencies to teach students about both abstinence and contraception. We present the abstinence portion and the schools or other agencies teach the contraception portion. We feel this is a win-win situation as the students receive the full message about both abstinence and contraception.

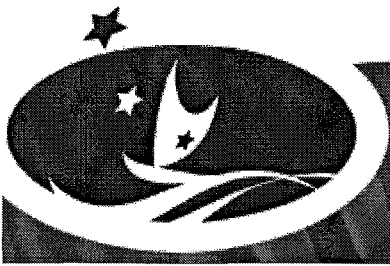
S.B. 777 jeopardizes our federal grant. It would require programs receiving state funds to teach **both** abstinence and contraception. Our federal grant prohibits our program from promoting contraception. Our agency currently receives state funding through different state contracts and this bill would force us to violate either the state requirement or the federal requirement. Secondly, S.B. 777 would also stop our efforts to evaluate the Try Wait! Program. Our current contract has a research component. The University of Hawai'i School of

Social Work is conducting an evaluation of our program. This bill would terminate this research. The findings could contribute to the body of scientific evidence supporting the efficacy of abstinence education.

I oppose SB 777 for the following reasons:

- The Department of Education currently has a policy, (Policy 2110) which requires that both abstinence and contraception be taught in schools. Since both abstinence and contraception are being taught, this bill is unnecessary;
- This bill will eliminate federal funding for Try Wait! because the federal grant prohibits us from promoting contraception;
- Our program and the state will lose over \$1.2 million in federal grant money which is especially significant given the State's economic difficulties;
- For the past five years Try Wait! has been teaching abstinence in the public and private schools and students can receive a comprehensive sex education with abstinence and contraception groups working together:
- The federal grant requires Try Wait! to be evaluated, which is now being done through contract with the University of Hawaii School of Social Work. If we lose our federal funding, UH will also lose this grant money;
- Evaluation of the effectiveness of Try Wait! on Hawaii students will not be completed if we lose our federal funding and UH is not able to complete the evaluation;
- Hawaii students will lose a comprehensive abstinence program. If our program is gone who will replace us? This bill makes no provision to carry on this work
- The Catholic principles which our agency is required to follow do not allow us to teach all forms of contraception which would be required by this bill;
- Most experts agree that further scientific evaluation on the effectiveness of abstinence education programs has not yet been completed. There are new studies that have come out that have found support for abstinence education programs.

In developing Policy 2110, the DOE recognized that "abstention from sexual intercourse is the surest and most responsible way to prevent unintended pregnancies, sexually transmitted diseases such as HIV/AIDS and consequent emotional distress". Education about the abstinence option is important given the messages students receive through TV, movies, music, magazines and other sources that promote or glorify sexual activity without any repercussions. Do not end our abstinence education program by passing this bill.



WOMEN'S CAUCUS

DEMOCRATIC PARTY OF HAWAII

Hawai'i State Democratic Women's Caucus 1050 Ala Moana Blvd #D-26, Honolulu, HI 96814 Email: hidemocraticwomenscaucus@yahoo.com

February 11, 2009

To: Senator David Ige, Chair
Senator Josh Green, Vice Chair and
Members of the Committee on Health

From: Jeanne Ohta, Chair of the Legislative Committee, Hawai'i State Democratic Women's Caucus

Re: SB 777 Relating to Comprehensive Sexuality Health Education
Hearing: February 11, 2009, 3:00 p.m., Room 016

Position: STRONG SUPPORT

Thank you for allowing me to testify today, in strong support of SB 777 Relating to Comprehensive Sexuality Health Education.

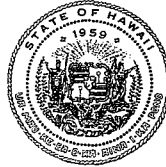
The Hawai'i State Democratic Women's Caucus is a catalyst for progressive, social, economic, and political change through action on critical issues facing Hawai'i's women and girls. It is in keeping with our mission that we support the provision of comprehensive sexuality health education.

We believe that comprehensive, medically-accurate information about reproductive health is good public policy. It provides age appropriate information on abstinence while also teaching about contraception, disease-prevention methods, and a variety of other topics related to sexuality such as sexual development, reproductive health, interpersonal relationships, body image, decision-making, and gender roles. The important thing to know about comprehensive sexuality education is that it works. Research shows that teenagers who receive sexuality education that includes discussion of contraception are more likely than those who receive abstinence only messages to delay sexual activity, to use contraceptives when they do become sexually active, and to have fewer partners. (*Kirby, D. (2001) Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy. Washington, D.C.: national Campaign to Prevent Teen Pregnancy, 88*)

Major medical, public health and research groups and institutions support more comprehensive forms of sexuality education that includes information about both abstinence and contraception. They include the American Medical Association, the American Academy of Pediatrics, the American Nurses Association, the American College of Obstetricians and Gynecologist, the American Public Health Association, the National Institutes of Health, and the Institute of Medicine.

It is critical for the State of Hawai'i to set the standard for sexuality education that would give teens the information they need and deserve. We urge this committee to pass SB 777 and thank you for the opportunity to testify.

LINDA LINGLE
GOVERNOR



PATRICIA HAMAMOTO
SUPERINTENDENT

STATE OF HAWAII
DEPARTMENT OF EDUCATION
MOANALUA MIDDLE SCHOOL
1289 MAHIOLE STREET
HONOLULU, HAWAII 96819

January 28, 2009

To Whom this may concern,

At Moanalua Middle School, the TRY WAIT program has been an integral part of our Teen Health program for the last five school years effectively reaching every single 7th grader. As the lead Teen Health teachers, we've seen the high level of mastery the presenters have over the areas they cover and we find that the methods they use in presenting the information, as well as the various perspectives used have proven to be effective and 'real' to the kids.

The TW presenters have always conducted themselves professionally with their manner and dialect with the students, school personnel as well as with each other. They have always communicated well with the school and lead teachers, have always prompt, as well as flexible and understanding to the last-minute changes the school may have sent in their direction. TW has also collaborated with one of our teachers to produce a standards-based assessment for the lessons presented.

The members of TW have always shown 'heart' and really made connections with both our staff and more importantly, our students, having in the past and recently, agreeing to revisit with our students [post program completion] continuing to make a difference as excellent adult role models.

We, the undersigned, feel that discontinuation of the TRY WAIT program at Moanalua Middle School will create a vast void in the lives of our students for the ever so difficult to find positive role models, a great loss in the expertise the presenters bring to the table, a loss in the many hours of collaborative planning of student assessment, and a real sadness that the younger brothers and sisters of our students will not have the opportunity to experience the TRY WAIT program. We are hoping that whatever differences which are jeopardizing the relationship and curriculum may be worked out, and that we will be able to continue to strengthen what has been built over the past five years. In short, we value what TRY WAIT brings to the table and we will continue to look forward to continuing our relationship with the program and the presenters.

With sincere regard,

Handwritten signature of Lisa Nagamine in black ink.

Lisa Nagamine--Acting Principal

Clete Yokoe HPE Teacher

Handwritten signature of Laura Oshiro in black ink.

Laura Oshiro HPE Teacher

Handwritten signature of Damian Mew in black ink.

Damian Mew HPE Department Head HPE Teacher

Handwritten signature of Andrew Hopoi in black ink.

Andrew Hopoi HPE Teacher

January 28th 2009

To Whom It May Concern;

My name is Craig Knohl and I am a Health Educator at Kahuku High and Intermediate School. I am writing this letter on behalf of the Try Wait Program funded by the Catholic Charities of Hawaii.


In the past 5 years that I have worked with the Try Wait members I have been more than satisfied with the program and presentations taught to my 8th grade students. The program has always maintained the proper balance of abstinence based education for the students here at Kahuku High and Intermediate School.

I am planning to continue my working relationship with Try Wait on the basis that it is a quality program with very qualified professionally mannered presenters.

If there are any questions concerning the program and its presenters please feel free to contact me at Kahuku High and Intermediate School

Sincerely,

Craig Knohl



Health Educator at Kahuku High and Intermediate School (808-293.8950)

**Robert P. Woods
Kahuku Intermediate and High School
59-290 Kamehameha Hgwy
Kahuku, HI 96731**

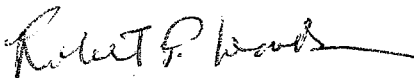
Subject: Try-Wait Program

I have personally witnessed the on-going progress of this exceptional program since their initial involvement, approximately 5 years, at Kahuku Intermediate and High School. The curriculum demonstrates all areas of the learning processes with students' constant mental and social engagement. Additionally the facilitators are in the age group close to the teenage years, young single adults and young marrieds. This aspect enables a close understanding with students.

The program facilitators are adequately prepared to interact with teenagers, and provide relevant information relative to sexuality challenges. Inclusive in the program are comprehensive elements of student involvement. These various processes include Questions and Answers interaction between presenters and students, Visual images such as pictures, graphs and videos and including followup interview homework with parents. Please note that the Try-Wait program incorporates all areas of the Hawaii's Health Standards.

Finally, all health students enthusiastically welcome another outstanding perspective from community resources and I strongly endorse the Try-Wait Program.

Sincerely,

A handwritten signature in black ink that reads "Robert P. Woods". The signature is written in a cursive style with a long horizontal line extending to the right.

Robert P. Woods

Sheila Lei Woods
Kahuku High School
59-290 Kamehameha Hgwy
Kahuku, HI 96731

Subject: Try Wait Program

This letter is in support of the Try Wait Program. This program has been invaluable to our students. They address the Health standard of Sexual Health and Responsibility in an ethical and dignified manner. The information shared is current and factual. The questions and needs of the students are addressed and parents are informed prior to the presentations of the curriculum covered.

I know that the information and concerns that this program presents clears up many misconceptions about Sexual Health in the minds of teens. Data is also presented to back up their facts.

I urge you to continue the excellent services of the Try Wait Program so they can benefit the students of the State of Hawaii.

Sincerely,

A handwritten signature in cursive script that reads "Sheila Lei Woods".

Sheila Lei Woods

Faye Ramos

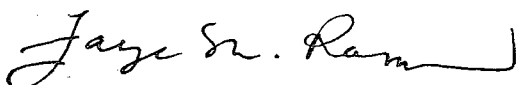
To whom it may concern,

My name is Faye Ramos and my son, Makana Ramos, participated in the Try Wait abstinence education program at Kamehameha Schools. I found this to be an excellent program that provided comprehensive sexuality education. My son stated that the program was relevant, informational and provided helpful demonstrations and skits about sexuality, contraception and disease prevention.

My son was engaged by the program and brought weekly assignments home that generated discussion about what he was learning each week. I appreciated the objective manner in which the information was provided as well as the quality of information he received about contraception options, sexually transmitted diseases and the emotional aspects of a sexual relationship. This program encourages parents and teens to explore their thoughts and feelings about sexuality together through creative, relevant activities.

I was very impressed by the quality of this program and the comprehensive nature of the information provided. This program has positively affected our family and provided my son with much more than "abstinence only" education. I feel that if you discontinue this program it will have a very negative impact on Hawaii's youth. Please feel free to contact me for further information.

Sincerely,



Faye Ramos
737 Akumu St.
Kailua, HI 96734
261-4942