

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

Stan E. Weed, Ph.D.

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## 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).

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

*\*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 <small>(Those with Similar Outcomes, Populations, &amp; Timeframes out of 115 Reviewed Studies from 1990–2007<sup>1,2</sup>)</small>		
Outcomes <sup>3</sup>	Number of Studies with 4+ Years Follow-up <sup>4,5</sup>	
	Abstinence (n=1)	Comprehensive (n=11)
<i>Increased Abstinence</i>	0	0
<i>Increased CCU</i>	0	0
<i>Decreased STDs</i>	0	0
<i>Decreased Pregnancies</i>	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.

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

### 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 <sup>1,2</sup> )		
Outcomes <sup>3</sup>	Number of Studies with 1–3 Years Follow-up <sup>4</sup>	
	Abstinence ( <i>n</i> =7)	Comprehensive ( <i>n</i> =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.

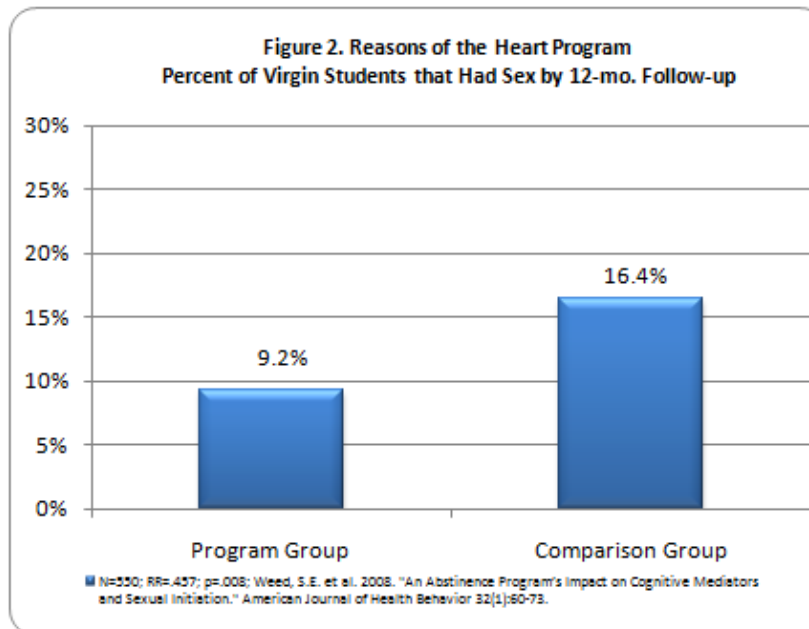
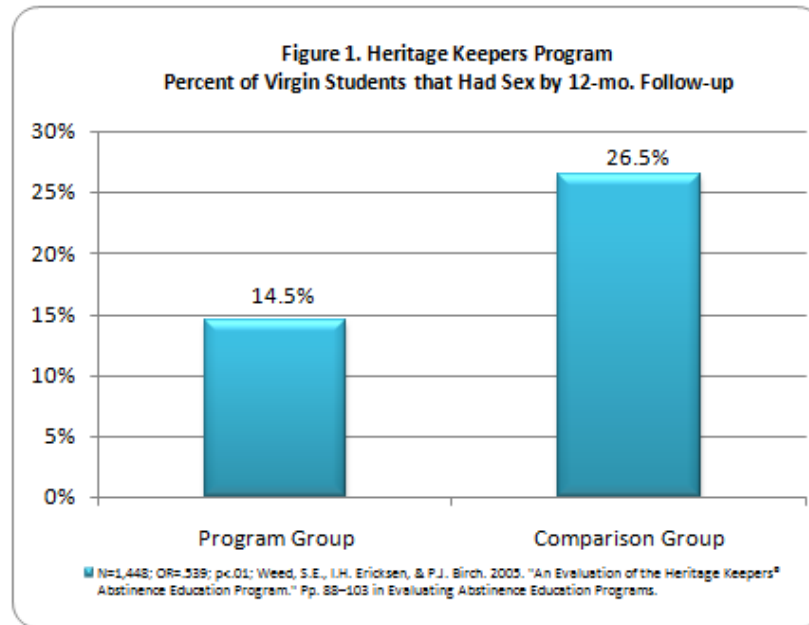
**New Evidence regarding Abstinence-Centered Education**

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

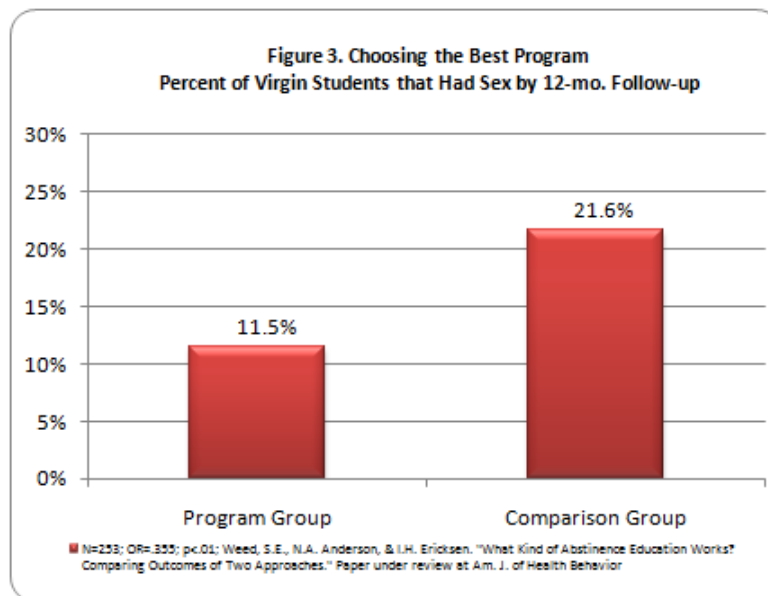
also achieved impact on cognitive mediators that appeared to contribute to the program's success (see Figure 2).



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.

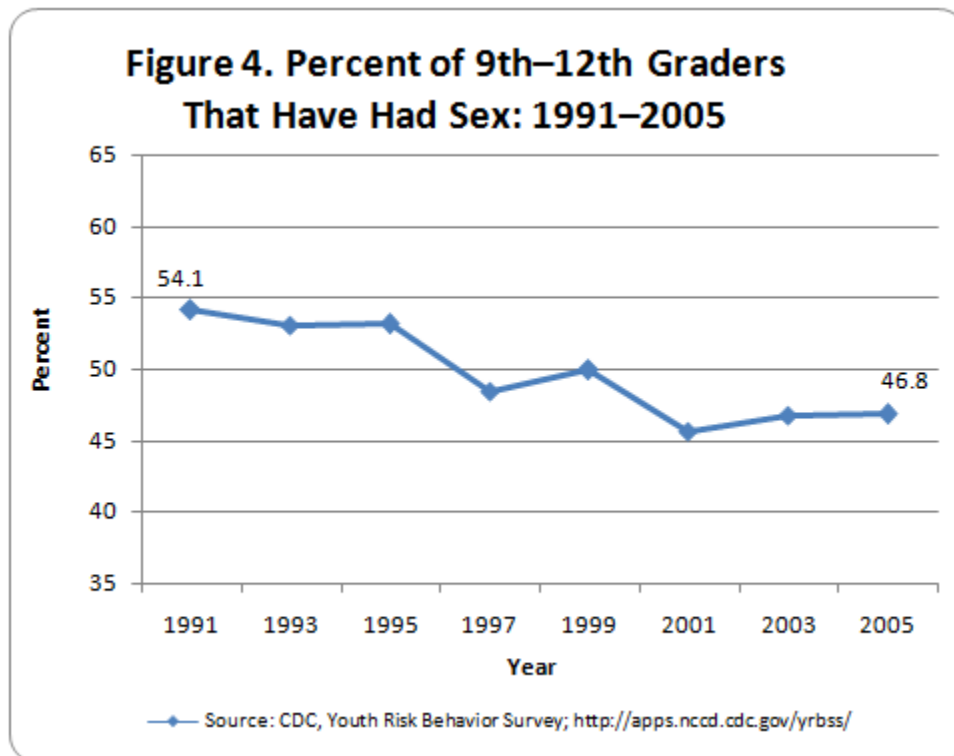
Medical and social science research may suggest some causes. At least three factors seem plausible. First, there appears to be a disconnect between the sex education strategy of providing teens with contraceptive and STD information for responsible decision making (even if it is medically accurate), 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.



### 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
<b>TOTALS:</b>	<b>2763</b>	<b>321</b>	<b>9:1</b>

\*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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