

Contract No.: HHS 100-98-0010
MPR Reference No.: 8549-110

MATHEMATICA
Policy Research, Inc.

**First-Year Impacts of
Four Title V, Section
510 Abstinence
Education Programs**

June 2005

*Rebecca A. Maynard
Christopher Trenholm
Barbara Devaney
Amy Johnson
Melissa A. Clark
John Homrighausen
Ece Kalay*

Submitted to:

U.S. Department of Health and Human Services
Office of the Assistant Secretary for Planning and
Evaluation
Hubert Humphrey Building, Room # 450G
200 Independence Avenue, SWp
Washington, DC 20201

Project Officer:
Meredith Kelsey

Submitted by:

Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543-2393
Telephone: (609) 799-3535
Facsimile: (609) 799-0005

Project Director:
Christopher Trenholm
(March 2004 –)
Rebecca Maynard
(September 1998 – February 2004)

EXECUTIVE SUMMARY

Abstinence education rose to prominence on the national public policy agenda in the mid-1990s due to persistent concerns about teen sexual activity and its consequences. In response, in 1996, Congress authorized \$50 million annually to support abstinence education programs through Title V, Section 510 of the Social Security Act. Program funding became available to states in fiscal year 1998 through a grant program administered by the U.S. Department of Health and Human Services. States must match the federal funds at 75 percent, resulting in a total of up to \$87.5 million annually for these programs.

Congress also authorized an evaluation of the Title V, Section 510 Abstinence Education Program (Public Law 105-33). The resulting multiyear evaluation includes both an implementation and process analysis and a rigorous impact evaluation. The implementation and process analysis documents the typical experiences of the organizations and communities applying for and receiving abstinence education funding. The impact evaluation is designed to estimate the effects of a select group of Title V, Section 510 abstinence education programs on behavioral outcomes, including sexual activity, risks of contracting sexually transmitted diseases, and risks of pregnancy. However, in order to understand the mechanism through which the programs cause changes in behavioral outcomes, the study also measures impacts of the interventions on intermediate outcomes that may be related to teen sexual activity, such as the views of youth on abstinence and teen sex and their expectations to abstain.

The impact evaluation relies on an experimental design. Under this design, youth in the study sample were randomly assigned to either a program group that receives the services provided by the Title V, Section 510 abstinence education programs or a control group that receives only the usual services available in absence of the Title V, Section 510 programs. When coupled with sufficiently large sample sizes, this experimental design supports an analysis that yields highly credible estimates of the impacts of the focal programs on the intermediate and behavioral outcomes of interest.

This report presents first-year impact findings of four selected programs that have received Title V, Section 510 Abstinence Education Program funds since 1998. The four programs are *My Choice, My Future!* in Powhatan, Virginia; *ReCapturing the Vision*, in Miami, Florida; *Teens in Control* in Clarksdale, Mississippi; and *Families United to Prevent Teen Pregnancy (FUPTP)* in Milwaukee, Wisconsin (Table 1). The report examines the extent to which the

programs affected the level and nature of health, family life, and sex education services youth received during the first year after enrolling in the program, and it provides estimates of the first-year impacts of the Title V, Section 510 programs on intermediate outcomes that may be related to teen sexual activity and other risk-taking behavior. These intermediate outcomes include measures of views on abstinence, teen sex and marriage; peer influences and relations; self-concept, refusal skills, and communication with parents; perceived consequences of teen and nonmarital sex; and expectations to abstain from sexual intercourse.

This report does not examine behavioral outcomes due to the short duration of the follow-up period and the young ages of the program participants. A future report, drawing on two additional waves of data collection (through 2005) will examine the impacts of these programs on teen sexual activity and other risk-taking behaviors, as well as the relationship between intermediate outcomes and sexual activity.

Findings in this report show that, over the first year following enrollment in the study sample, youth in the abstinence education programs reported significantly higher levels of participation in classes or programs addressing issues such as physical development, risk awareness, and interpersonal skills than did their control group counterparts. The findings also show that, on average, program youth were more likely than their control group counterparts to report having participated in classes or sessions they judged to be helpful in imparting knowledge, helping them relate better to peers, and building skills that could help them avoid risks.

Table 1. Focal Programs for the First-Year Impact Evaluation of the Title V, Section 510 Abstinence Education Programs

<i>My Choice, My Future!</i>	<i>ReCapturing the Vision</i>	<i>Teens in Control</i>	<i>Families United to Prevent Teen Pregnancy (FUPTP)</i>
Powhatan, VA	Miami, FL	Clarksdale, MS	Milwaukee, WI
Principal Program Components			
Three years of classroom-based curricula	One year of classroom-based curricula with supplemental components for participants and their families	Two years of classroom-based curricula	Up to four years of classroom-based curricula delivered as part of an after-school program; parenting education and support
Target Population			
Grade 8 at enrollment; full range of students; middle-income to working-class community	Grades 6-8 at enrollment; high-risk girls; poor, urban community	Grade 5 at enrollment; full range of students; poor, rural community	Grades 3-8 at enrollment; voluntary applicants; poor, urban community
Usual Services (Sources Other Than Title V, Section 510 Abstinence Education Programs)			
Limited other sources of health, family life, and sex education; no formal school sex education curricula	Many other sources of health, family life, and sex education; mandated school curricula in grades 6-8	Limited other sources of health, family life, and sex education; limited school-wide curricula in middle schools	Many other sources of health, family life, and sex education; mandatory school health curricula in grades K-12

In turn, the programs affected in intended ways some, but not all, of the intermediate outcomes examined. 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 nonmarital sex. There also is some evidence that the programs increased expectations to abstain from sex and reduced dating. However, program and control group youth reported similarly on the remaining measures examined, including their views on marriage, self-concept, refusal skills, communication with parents, perceptions of peer pressure to have sex, and the extent to which their friends hold views supportive of abstinence.

FOCAL PROGRAMS FOR THIS REPORT

The four focal programs for this report were selected purposefully from among the early recipients of Title V, Section 510 Abstinence Education Program funds. All four programs were judged to be operationally stable, to be replicable, and to have qualities necessary to support a rigorous, experimental design impact evaluation. However, they are not necessarily better than, nor are they representative of, the more than 900 abstinence education programs nationally that have received support through Title V, Section 510.

Like other programs supported under the Title V, Section 510 funding, the focal programs for this report comply with the “A-H definition” of abstinence education (Table 2). The four focal programs also share several other features common to many Title V, Section 510-funded abstinence education programs. Most notably, all four programs deliver their services in school settings, follow published curricula that are consistent with the A-H guidelines, and are focused on prevention. In part because of their prevention focus, all four programs begin serving youth in elementary and/or middle school, when few have become sexually active.

Table 2. A-H Definition of Abstinence Education for Title V, Section 510 Programs

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

Source: Title V, Section 510 (b)(2)(A-H) of the Social Security Act.

Note: Program guidelines specify that "it is not necessary to place equal emphasis on each element of the definition" (U.S. Department of Health and Human Services 1997).

The focal programs for this study also differ along some important dimensions, each of which influences the generalizability of the study findings. Among these differences are the grade levels they serve, their settings, their outreach and enrollment procedures, and their duration and intensity:

- **Grade Levels Served.** Two programs, *My Choice, My Future!* and *ReCapturing the Vision*, target their services to middle-school youth, primarily seventh and eighth graders, with the average age close to 13 (Figure 1). In contrast, *Teens in Control* and *FUPTP* target their services to upper elementary school youth, primarily fourth and fifth graders who are, on average, 10 and 11 years old, respectively, when they enter the program.
- **Program Setting.** Three programs (*My Choice, My Future!*, *ReCapturing the Vision*, and *Teens in Control*) serve youth as part of the school day, while the fourth program (*FUPTP*) serves youth in a voluntary, after-school setting.
- **Program Eligibility.** *My Choice, My Future!* and *Teens in Control* are designed as universal, nonelective programs beginning in eighth and fifth grades, respectively. (During the enrollment period for the study sample, the programs served roughly half of the students in these grades, while the other half formed the control group.) *ReCapturing the Vision* is a selective program that targets roughly 20 “high-need” girls per school. *FUPTP* is an elective program open to all youth in program schools who are age eight or older on a space-available basis.

Figure 1. Grade Level and Mean Age of Youth Enrolling in the Focal Programs for the Title V, Section 510 Abstinence Education Program Impact Evaluation

Grade at Enrollment	<i>My Choice, My Future!</i> Powhatan, VA	<i>ReCapturing the Vision</i> Miami, FL	<i>Teens in Control</i> Clarksdale, MS	<i>FUPTP</i> Milwaukee, WI
Eighth	Mean age = 13.3			
Seventh		Mean age = 12.8		
Sixth				
Fifth			Mean age = 10.7	
Fourth				Mean age = 10.3
Third or below				

Source: Tabulations of data from *Wave 1 Survey of Teen Activities and Attitudes* (Mathematica Policy Research, Inc. 1999) administered to youth at or near the time of their enrollment in the Title V, Section 510 Abstinence Education Program evaluation sample.

┌ Denotes middle 50 percent of grade distribution.

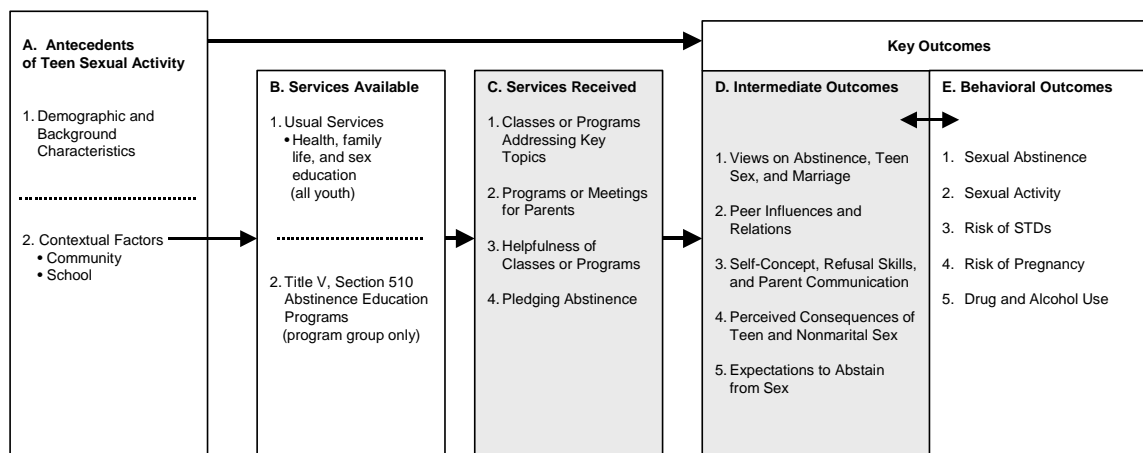
■ Denotes the full grade range.

- **Program Duration and Intensity.** *ReCapturing the Vision* serves students for a single school year, but the program meets every day throughout that time. *My Choice, My Future!* is a three-year intervention, providing between 8 and 18 classes each year. *Teens in Control* is a two-year intervention that entails weekly classes. *FUPTP* meets two and a half hours daily throughout the school year, and youth may participate for up to four years.

THE EVALUATION DESIGN AND METHODS

The design of the impact evaluation was guided by a conceptual framework that reflects the underlying logic of the Title V, Section 510 Abstinence Education Program (Figure 2). Following this general logic, the programs in this study were designed and implemented with attention to the characteristics of the community and the youth they intend to serve (Figure 2, box A), as well as the nature and level of the usual health, family life, and sex education services available through area schools and community service providers (box B, upper panel). The abstinence education programs (box B, lower panel) aim to alter services received (box C) in ways that, in turn, change intermediate outcomes (box D) that relate to future decisions by youth regarding sexual activity and other risk-taking behaviors. In the longer term, changes in these intermediate outcomes are hypothesized to lower rates of engagement in teen and nonmarital sexual activity and the associated risks (box E).

Figure 2. Conceptual Framework for the Impact Evaluation of the Title V, Section 510 Abstinence Education Programs



The Experimental Design

In order to measure reliably the effects of the programs on both the intermediate and behavioral outcomes, the evaluation uses an experimental design. Under this design, youth in the study sample were randomly assigned to either the program group or a control group that receives only the usual health, family life, and sex education services available through the schools or other community service providers. Because of the random assignment, the program and control group youth are similar in all respects, other than their access to the abstinence education program services. Therefore, unbiased estimates of program impacts can be generated by comparing mean values of outcome measures for the program group with those for the control group.

The Study Sample

The sample for this first-year impact analysis includes 2,310 youth who enrolled in the study over three consecutive years, beginning in the 1999-2000 school year (Table 3). This sample constitutes 92 percent of all 2,502 youth who were randomly assigned to the program and control groups across the four sites. The remaining 8 percent of youth in the study sample did not complete the first follow-up survey. Across all four sites, about 60 percent of these youth were assigned to the program group, and the remaining 40 percent were assigned to the control group.

Three of the four programs (*ReCapturing the Vision*, *Teens in Control*, and *FUPTP*) served youth in high-risk communities (Table 4). At the time they enrolled in the study sample, the majority of youth served by these three programs were from single-parent homes, virtually all lived in high-poverty neighborhoods, and relatively high proportions reported experiencing multiple life stressors, such as parents divorcing or separating, losing a job, or going on welfare. In contrast, the majority of youth served by *My Choice, My Future!* had married parents, lived in middle- and working-class neighborhoods, and reported relatively low levels of life stressors.

Table 3. Number Enrolled in the Title V, Section 510 Abstinence Education Program Impact Evaluation Sample and Number Available for the First-Year Impact Analysis

	<i>My Choice, My Future!</i> Powhatan, VA	<i>ReCapturing the Vision</i> Miami, FL	<i>Teens in Control</i> Clarksdale, MS	<i>FUPTP</i> Milwaukee, WI	Total
Number Enrolled in the Study Sample					
Total	551	598	849	504	2,502
Control group	203	260	399	178	1,040
Program group	348	338	450	326	1,462
Number in the Sample for This First-Year Impact Analysis Report					
Total	517	545	809	439	2,310
Control group	185	239	376	152	952
Program group	332	306	433	287	1,358

Source: Tracking system for the *Survey of Teen Activities and Attitudes* (Mathematica Policy Research, Inc., 1999 and 2000) administered to youth in the Title V, Section 510 Abstinence Education Program evaluation sample.

Table 4. Baseline Characteristics of the Sample for This First-Year Impact Analysis of Four Title V, Section 510 Abstinence Education Programs (Percentages)

	<i>My Choice, My Future!</i>	<i>ReCapturing the Vision</i>	<i>Teens in Control</i>	<i>FUPTP</i>	Total
	Powhatan, VA	Miami, FL	Clarksdale, MS	Milwaukee, WI	
Gender (% Female)	51.3	100.0	51.7	61.9	64.6
Race/ethnicity					
White, non-Hispanic	83.3	3.2	0.2	2.3	19.9
Black, non-Hispanic	10.6	63.3	86.5	75.7	62.0
Hispanic	3.3	22.5	8.0	7.5	10.3
Other	2.8	10.9	5.3	14.6	7.8
Parents are married	66.2	34.1	31.4	28.8	39.3
Parents have rules about dating	19.1	50.1	47.2	54.1	42.9
Parents divorced or separated in the previous year	7.7	14.9	25.2	28.7	19.2
Highly religious	20.7	28.5	48.0	38.7	35.5
Watches 6 or more hours of TV a day	11.3	48.2	46.5	48.1	39.3
Ever gone on date alone	41.7	23.4	24.5	15.8	26.4
Ever had sexual intercourse	13.7	9.4	n.a.	n.a.	11.5
Uses alcohol more than once a month	11.5	5.0	4.6	2.7	5.9
Sample Size	517	545	809	439	2,310

Source: *Wave 1 Survey of Teen Activities and Attitudes* (Mathematica Policy Research, Inc. 1999) administered to youth at or near the time of enrollment in the Title V, Section 510 Abstinence Education Program evaluation sample.

Note: Data presented are weighted means.

n.a. = not available. This information was not asked of youth in sixth grade and below.

Data and Analysis Methods

The data for the first-year impact analysis are from supervised, group-administered surveys completed by sample members at the time of their enrollment in the study and near the end of the school year following enrollment. Active parental consent was required for participation in the study.

The analysis uses nine outcome measures to examine the extent to which the programs alter the nature of health, family life, and sex education services youth report receiving through any source, including services the program group may receive as part of the Title V, Section 510 programs under study (see Figure 2, box C). It is through changing services that programs aim to affect behavior. In addition, the analysis examines the impact of 13 intermediate outcomes. These intermediate outcome measures fall into five clusters: (1) views on abstinence, teen sex, and marriage; (2) peer influences and relations; (3) self-concept, refusal skills, and communication with parents; (4) perceived consequences of teen and nonmarital sex; and (5) expectations to abstain from sex (Figure 2, box D).

Program impacts are estimated as the difference in the mean values of the outcome measures for the program group and the control group. Means are regression-adjusted to improve the precision of the estimated impacts and to account for differences between the program group and control group due to chance or differential patterns of nonresponse to the follow-up survey. (The control variables used in the analysis are summarized in Appendix Table A.1 of the full study report.)

FIRST-YEAR FINDINGS ON SERVICES RECEIVED

Each of the Title V, Section 510 programs aimed to alter the health, family life, and sex education services that youth received. In turn, the program-induced changes in the services received were expected to affect various intermediate outcomes associated with sexual activity and other risk-taking behaviors and, ultimately, to reduce the extent of such behaviors. Whether the programs altered services in important ways depends, in part, on the strength of the program's own services. However, it also depends on factors outside the programs, most notably the services youth receive through their schools, churches, and community organizations.

Overall, the programs achieved their initial aim of changing the services youth reported receiving relative to what they would have received had they not been in the program (Table 5). This can be seen by comparing the mean values on the various measures of

Table 5. Health, Family Life, and Sex Education Services Received by Control and Program Group Youth During the First Year After Enrolling in the Study Sample

Outcome Measures	<i>My Choice, My Future!</i>		<i>ReCapturing the Vision</i>		<i>Teen in Control</i>		<i>FUPTP</i>	
	Control Group (1)	Program Group (2)	Control Group (3)	Program Group (4)	Control Group (5)	Program Group (6)	Control Group (7)	Program Group (8)
Participation in a Class or Program on								
Physical Development and								
Reproduction	57%	91%***	87%	91%	66%	83%***	67%	70%
Risk Awareness	74%	93%***	92%	95%	89%	94%**	78%	82%
Interpersonal Skills	65%	95%***	89%	95%*	87%	95%***	80%	83%
Marriage and Relationships	45%	90%***	69%	82%***	71%	75%	68%	66%
Parent Participation in Classes or Meetings								
Parent Involvement	15%	16%	21%	29%	29%	27%	31%	36%
Participation in a Class or Program Perceived as Helpful with (Mean value on scale; range 0-1)								
Knowledge of Pregnancy and								
STD Risks	0.39	0.70***	0.80	0.85	0.65	0.77***	0.58	0.62
Peer Relations	0.09	0.23***	0.45	0.51	0.51	0.53	0.39	0.47
Risk-Avoidance Skills	0.47	0.63***	0.72	0.79*	0.65	0.72***	0.62	0.60
Pledging Abstinence								
Pledged to Abstain from Sex								
Until Marriage	8%	16%**	20%	64%***	10%	14%	24%	33%**
Sample Size	185	332	239	306	376	433	152	287

Source: *Wave 2 Teen Activities and Attitudes Survey* (Mathematica Policy Research, Inc. 2000) administered to youth 6 to 12 months after enrollment in the Title V, Section 510 Abstinence Education Program study sample.

Note: All estimates are adjusted, based on weighted regression models.

***p-value (of difference in means) <0.01; **p-value <0.05; *p-value <0.10, two-tailed test.

participation in classes or programs reported in Table 5 for the program and control group youth in each of the four sites. For example, during the year following enrollment in the study sample, 57 percent of the control youth in *My Choice, My Future!* reported having participated in a program or class that addressed physical development and reproduction (Table 5, column 1), compared with 91 percent of the program group (Table 5, column 2). The resulting estimate of the program impact (a 34 percentage-point increase) is statistically significant, as indicated by the asterisks following the program group mean.

Findings vary substantially across the four programs. Youth in *My Choice, My Future!* reported significantly higher levels of service receipt than did their control group counterparts across all but one of the nine measures examined. In contrast, youth in *FUPTP* reported significantly higher levels on just one of the nine measures (pledging to abstain from sex until marriage). The other two programs, *Teens in Control* and *ReCapturing the Vision*, fall in between these extremes, with program youth reporting significantly higher levels of service receipt than did control group counterparts on five of the nine measures examined.

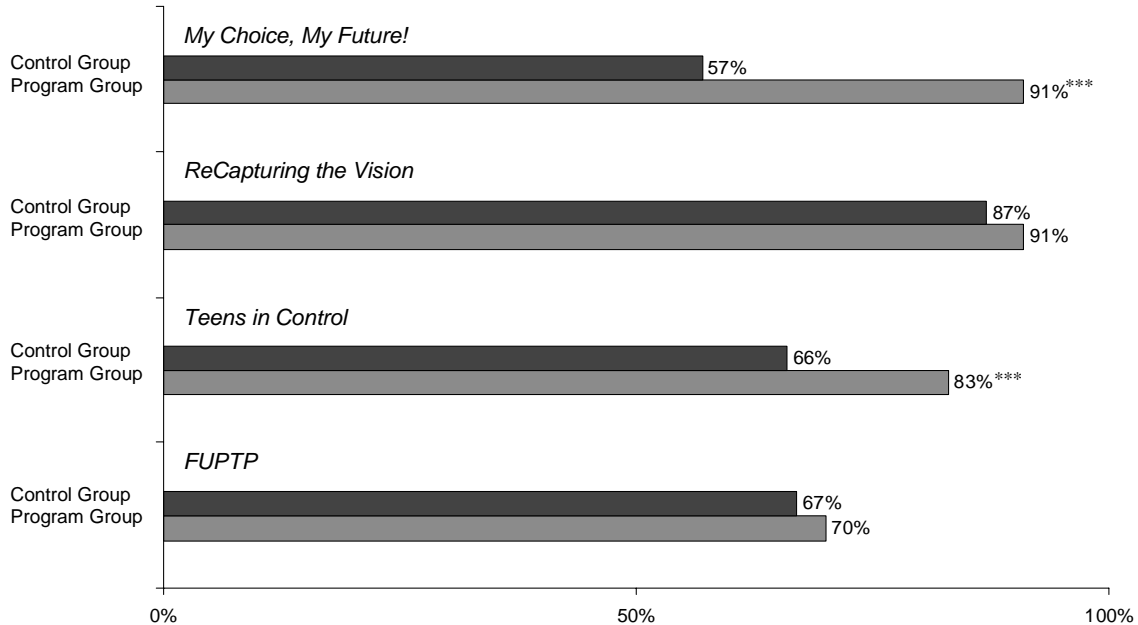
In many instances, this variation parallels differences in the usual services available to youth, as measured by the means for control group youth in each site. For example, control group youth for *My Choice, My Future!* reported relatively low mean levels of service receipt across the nine measures examined (Table 5, column 1), offering more opportunity for program participation to result in measurable gains in the services received. In contrast, youth in the control group for *ReCapturing the Vision* reported relatively high mean levels of service receipt (Table 5, column 3), offering less opportunity for program participation to result in measurable gains.

Specific findings on health, family life, and sex education services received include the following:

- In three of the four programs (all but *FUPTP*), program youth reported significantly higher levels of participation in classes or programs addressing particular topic areas than did their control group counterparts (Table 5). Across all four topic areas examined (physical development and reproduction, risk awareness, interpersonal skills, and marriage and relationships), youth in *My Choice, My Future!* reported significantly higher participation levels than did their control group counterparts. In comparison, youth in *ReCapturing the Vision* reported significantly higher participation in classes addressing two of the four topic areas, while youth in *Teens in Control* reported significantly higher participation in classes addressing three of the four topic areas.

As noted above, some of this variation across sites appears to be linked to the level of service receipt among control group youth. For example, as illustrated in Figure 3, program youth in two sites, *My Choice, My Future!* and *Teens in Control*, reported significantly higher participation in classes or programs addressing physical development and reproduction than did their control group counterparts. In both these sites, the share of control group youth who reported such participation is fairly low (57 and 66 percent, respectively). In contrast, for *ReCapturing the Vision*, 87 percent of the control group youth reported participating in classes or programs that addressed this topic, reducing the opportunity for the program to have a measurable effect on this outcome.

Figure 3. Percent of Youth in the Program and Control Groups Reporting Having Participated in a Class or Program that Addressed Physical Development and Reproduction During the Prior Year

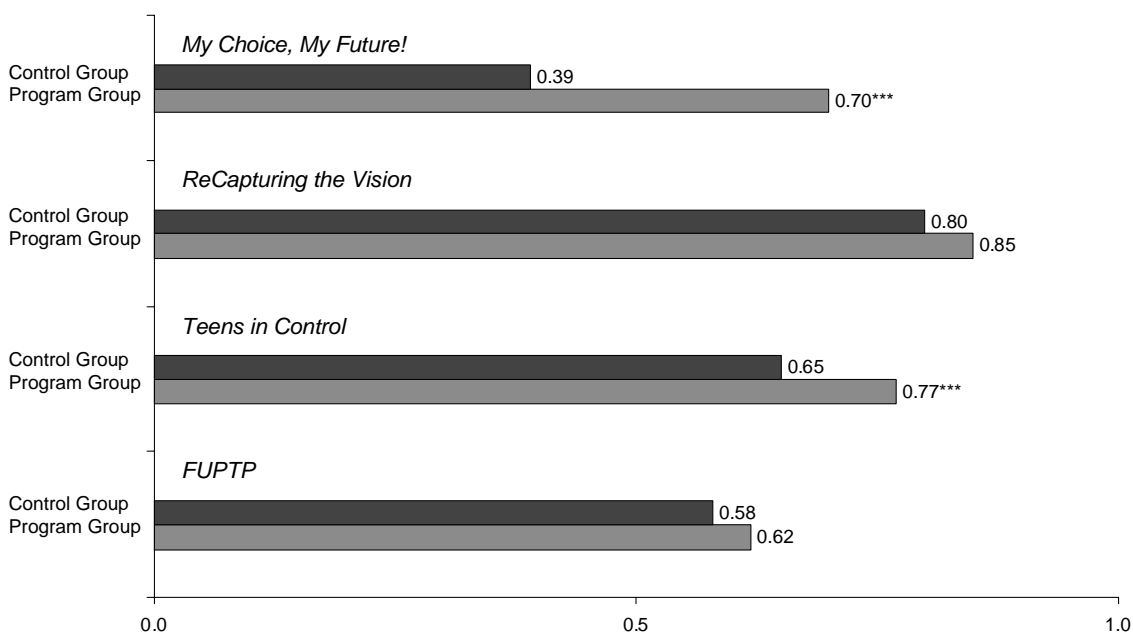


***p-value (of difference between program and control group) < 0.01; **p-value < 0.05; *p-value < 0.10, two-tailed test.

- Only youth in *ReCapturing the Vision* reported significantly higher participation by their parents in classes or meetings related to the four topics of interest than did their control group counterparts (Table 5). This result is consistent with the fact that, of the four programs, *ReCapturing the Vision* offered the most substantial set of services for parents.
- Compared with their control group counterparts, youth in all programs except *FUPTP* reported significantly higher levels of participation in classes that they perceived as helpful in at least one of three measured areas—knowledge of pregnancy and STD risks, improving relations with peers, and developing risk-avoidance skills (Table 5). Differences between program and control group youth vary by site—differences for *My Choice, My Future!* are largest and statistically significant across all three measured areas; differences for *ReCapturing the Vision* are statistically significant for one of the three topic areas; and differences for *Teens in Control* are significant for two of the three areas.

This pattern of results is illustrated by the findings for participation in classes perceived as helpful with knowledge of pregnancy and STDs (Figure 4). In both the *My Choice, My Future!* and *Teens in Control* sites, program youth reported significantly higher levels of participation in classes that they perceived as helpful in this area than did their control group counterparts. In contrast, for *ReCapturing the Vision*, there is no significant difference between program and control group youth on this measure, a result that may be linked to the relatively high mean value of this measure among control group youth (0.86 on a scale ranging from 0 to 1).

Figure 4. Participation in Classes Perceived as Helpful with Knowledge of Pregnancy and STD Risks [Scale Measure: Range 0-1] by Program and Control Group Youth



***p-value (of difference between program and control group) < 0.01; **p-value < 0.05; *p-value < 0.10, two-tailed test.

- Youth in all programs except *Teens in Control* were significantly more likely than their control group counterparts to report having pledged to abstain from sex until marriage (Table 5). The difference in pledge rates between youth in the program and control groups is particularly large (44 percentage points) for *ReCapturing the Vision* (64 percent and 20 percent for the program and control group youth, respectively), a result that is consistent with the program's formal use of abstinence pledging in its curriculum.

FIRST-YEAR FINDINGS ON INTERMEDIATE OUTCOMES

The four programs affected in the intended ways some, but not all, of the intermediate outcomes examined. This can be seen in the results for the full sample of program and control group youth across the four sites (Table 6). Overall there is evidence that the programs affected, in intended ways, youth's views on abstinence and teen sex and their perceptions of potential negative consequences of teen and nonmarital sex. In addition, there is limited evidence of program impacts on both dating and expectations to abstain. However, program and control group youth reported similarly on the remaining measures examined, including their views on marriage, self-concept, refusal skills, communication with parents, perceptions of peer pressure to have sex, and the extent to which their friends hold views supportive of abstinence.

Program impacts on intermediate outcomes vary substantially across the four programs (Table 7). The estimated impacts are most often statistically significant for the two programs that enrolled predominantly seventh and eighth graders—*My Choice, My Future!* and *ReCapturing the Vision* (Table 7, columns 1-4). For example, relative to their control group counterparts, youth in both of these programs reported views that, on average, are significantly less supportive of teen sex. Youth in both these programs also reported significantly higher mean values for the two measures of perceived consequences of teen and nonmarital sex than did their control group counterparts.

Program impacts are larger for youth enrolling in the study sample in the third and final year of sample enrollment than for youth enrolling in the previous two years (not shown). This result may be linked to changes in the program environment and/or to improvements in program delivery (see Chapter V of the full study report for details). For *ReCapturing the Vision*, it may also reflect the higher program participation rate among those enrolled during the third year.

Table 6. Intermediate Outcomes for Control and Program Group Youth Following the First Year of Enrollment in the Study Sample

Outcome Measure [scale range: lowest to highest value]	All Four Program Sites		
	Control Group Mean (1)	Program Group Mean (2)	Program-Control Group Difference (3)
Views on Abstinence, Teen Sex, and Marriage			
Views Supportive of Abstinence [Range: 0-3]	1.78	1.86	0.08 ***
Views Unsupportive of Teen Sex [Range: 0-3]	2.16	2.23	0.07 ***
Views Supportive of Marriage [Range: 0-3]	2.29	2.30	0.01
Peer Influences and Relations			
Friends' Support for Abstinence [Range: 0-5]	3.44	3.50	0.07
Dating [Range: 0-1]	0.33	0.28	-0.04 **
Peer Pressure to Have Sex [Range: 0-3]	0.11	0.16	0.05
Self-Concept, Refusal Skills, and Communication with Parents			
Self-Efficacy, -Esteem, and -Control [Range: 0-3]	1.94	1.95	0.01
Refusal Skills [Range: 0-2]	1.52	1.53	0.01
Communication with Parents [Range: 0-2]	0.90	0.92	0.02
Perceived Consequences of Teen and Nonmarital Sex			
General Consequences [Range: 0-3]	1.89	1.99	0.10 ***
Personal Consequences [Range: 0-2]	1.00	1.09	0.09 ***
Expectations to Abstain			
Expect to Abstain ^a [Range: 0-2]	1.30	1.37	0.07 *
Expect to Abstain As an Unmarried Teen [Range: 0-2]	1.20	1.25	0.05
Sample Size	952	1,358	2,310

Source: *Wave 2 Teen Activities and Attitudes Survey* (Mathematica Policy Research, Inc. 2000) administered to youth 6 to 12 months after enrollment in the Title V, Section 510 Abstinence Education Program study sample.

Note: All estimates are adjusted, based on weighted regression models.

^aFor youth who reported having had sex, the measure refers to expectations over the next year. For youth who reported not having had sex, the measure refers to the expectation to abstain as an unmarried teen.

*** p-value (of difference in means) <0.01; **p-value <0.05; *p-value <0.10, two-tailed test.

Table 7. Means of Intermediate Outcomes for Control and Program Group Youth Following the First Year of Enrollment in the Study Sample

Outcome Measure [scale range: lowest to highest value]	<i>My Choice, My Future!</i>		<i>ReCapturing the Vision</i>		<i>Teens in Control</i>		<i>FUPTP</i>	
	Control Group (1)	Program Group (2)	Control Group (3)	Program Group (4)	Control Group (5)	Program Group (6)	Control Group (7)	Program Group (8)
Views on Abstinence, Teen Sex, and Marriage [Range: 0-3]								
Views Supportive of Abstinence	1.59	1.64	1.93	2.02	1.77	1.87**	1.82	1.92
Views Unsupportive of Teen Sex	2.05	2.15**	2.26	2.38***	2.16	2.23	2.16	2.15
Views Supportive of Marriage	2.43	2.49	2.37	2.42	2.20	2.15	2.18	2.14
Peer Influences and Relations								
Friends' Support for Abstinence [Range: 0-5]	2.94	2.99	3.48	3.64	3.28	3.39	4.06	3.96
Dating [Range: 0-1]	0.44	0.40	0.21	0.17	n.a.	n.a.	n.a.	n.a.
Peer Pressure to Have Sex [Range: 0-3]	0.11	0.14	0.10	0.17	n.a.	n.a.	n.a.	n.a.
Self-Concept, Refusal Skills, and Communication with Parents								
Self-Efficacy, -Esteem, and -Control [Range: 0-3]	1.93	1.91	2.00	2.01	1.90	1.94	1.97	1.95
Refusal Skills [Range: 0-2]	1.33	1.34	1.70	1.73	n.a.	n.a.	n.a.	n.a.
Communication with Parents [Range: 0-2]	0.74	0.72	0.99	1.01	1.00	1.00	0.88	0.96
Perceived Consequences of Teen and Nonmarital Sex								
General Consequences [Range: 0-3]	1.74	1.84*	1.95	2.11***	1.96	2.03	1.92	1.99
Personal Consequences [Range: 0-2]	0.81	0.94***	0.94	1.08***	1.16	1.20	1.10	1.15
Expectations to Abstain [Range 0-2]								
Expect to Abstain ^a	1.15	1.20	1.46	1.55	n.a.	n.a.	n.a.	n.a.
Expect to Abstain As an Unmarried Teen	1.04	1.06	1.37	1.45	n.a.	n.a.	n.a.	n.a.
Sample Size	185	332	239	306	376	433	152	287

Source: *Wave 2 Teen Activities and Attitudes Survey* (Mathematica Policy Research, Inc. 2000) administered to youth 6 to 12 months after enrollment in the Title V, Section 510, Abstinence Education Program study sample.

Note: All estimates are adjusted, based on weighted regression models.

^aFor youth who reported having had sex, the measure refers to expectations over the next year. For youth who reported not having had sex, the measure refers to the expectation to abstain as an unmarried teen.

n.a. = youth in this site were not asked these questions because of their young ages.

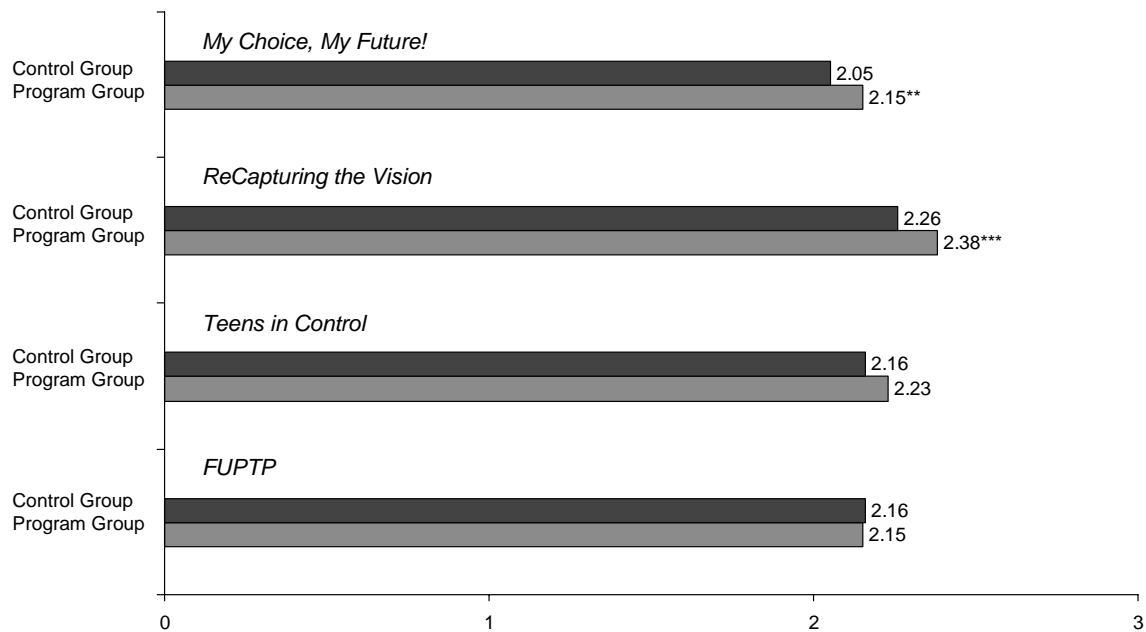
*** p-value (of difference in means) <0.01; **p-value <0.05; *p-value <0.10, two-tailed test.

The two programs that served predominantly upper elementary youth—*Teens in Control* and *FUPTP*—display less evidence of program impacts (Table 7, columns 5-8). Youth in *Teens in Control* reported views that, on average, are significantly more supportive of abstinence than those of their control group counterparts. However, there are no significant differences between the program group youth and their control group counterparts on any of the other outcome measures for either site. The fact that *FUPTP* had the lowest rate of participation and daily attendance among the four programs in the study may have contributed to the program's generally null results.

The following is a more detailed summary of the findings across the full set of 13 outcome measures presented in Table 7:

- Program youth reported views that, on average, are more supportive of abstinence and less supportive of teen sex than did their control group counterparts. Across three of the four programs (all but *FUPTP*), differences between the program and control groups are statistically significant on one of these measures (in the direction consistent with program goals). For example, both *My Choice, My Future!* and *Teens in Control* had statistically significant impacts on views unsupportive of teen sex (Figure 5). In contrast, there is no evidence that any of the four programs led youth to develop views more supportive of marriage than those of their control group counterparts (Table 7).
- There is limited evidence that the programs had impacts on peer influences and relations. In each of the four sites, program and control group youth reported similar levels of support for abstinence among their closest friends. In addition, in the two sites in which youth were old enough to address a wider range of outcomes, *My Choice, My Future!* and *ReCapturing the Vision*, program and control group youth reported similar levels of dating and peer pressure to engage in sex (Table 7). However, impact estimates for the two sites combined indicate that program group youth reported significantly lower levels of dating than those of their control group counterparts (Table 6).

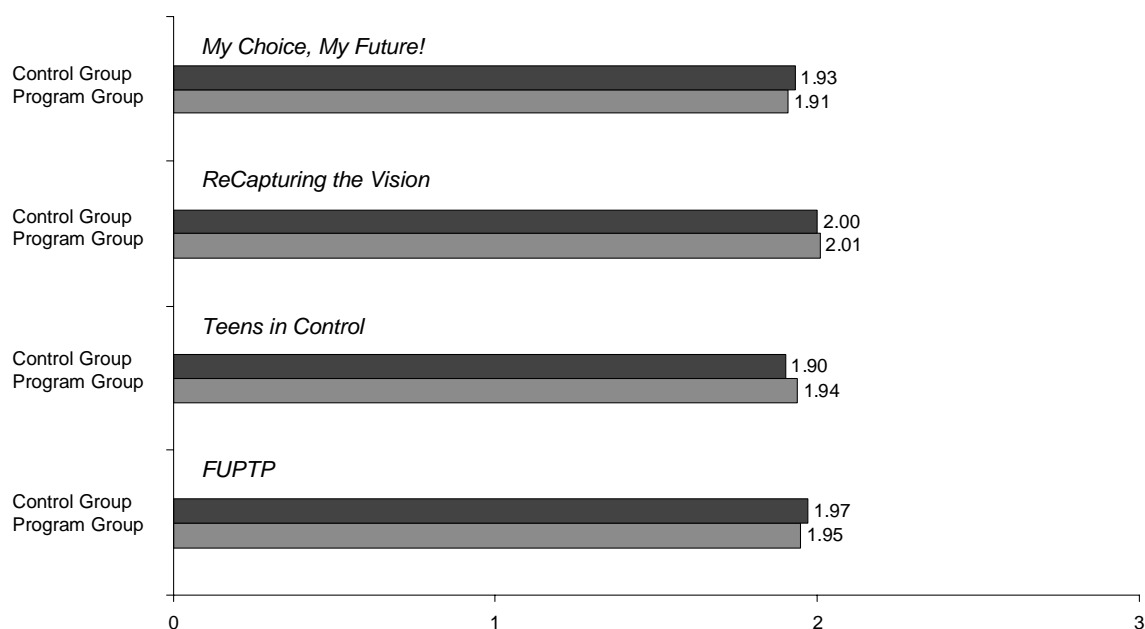
Figure 5. Views Unsupportive of Teen Sex [Scale Measure: Range 0-3], by Program and Control Group Youth



***p-value (of difference between program and control group) < 0.01; p-value < 0.05; p-value < 0.10, two-tailed test.

- Program and control group youth reported no differences in their self-concept, refusal skills, or communication with parents (Table 7). For example, on the measure of self-efficacy, -esteem, and -control (Figure 6), program and control youth reported nearly identical mean levels.
- The programs affected significantly youth’s perceptions of the potential adverse consequences of teen and nonmarital sex (Table 6). Means on two measures of perceived consequences of teen and nonmarital sex are higher for the program group youth than for their control group counterparts in all four sites, and the differences are statistically significant for both *My Choice, My Future!* and *ReCapturing the Vision* (Table 7).
- There is limited evidence that the programs raised expectations to abstain from sex. (Only youth in the two sites serving older students, *My Choice, My Future!* and *ReCapturing the Vision*, were asked about their expectations to abstain.) On two related measures, program youth in both of these sites reported a mean expectation to abstain that is higher than that of their control group counterparts, but only the mean difference for one of the two measures is statistically significant and only for the two sites combined (Table 6).

Figure 6. Self-Efficacy, -Esteem, and -Control [Scale Measure: Range 0-3], by Program and Control Group Youth



***p-value (of difference between program and control group) < 0.01; p-value < 0.05; p-value < 0.10, two-tailed test.

DISCUSSION

This study of first-year impacts finds evidence that the four selected Title V, Section 510 programs affected both the services that youth received and certain intermediate outcomes. However, the evaluation also identifies areas in which the programs did not have impacts during their first year of intervention—particularly in the areas of self-concept, refusal skills, and communication with parents; youth’s perceptions of peer pressure to engage in sex; and support for abstinence among friends.

In judging the significance of these first-year findings, it is important to consider the following three factors:

1. Only youth in *ReCapturing the Vision* had participated in the full set of intended abstinence education services at the time the first-year follow-up data were collected. Youth in the other three programs had received half or less of the intended intervention.
2. Participation in both *My Choice, My Future!* and *Teens in Control* was nearly universal among program group members. In contrast, only 58 percent of the youth assigned to the program group for *ReCapturing the Vision* and 45 percent of those assigned to the program group for *FUPTP* participated in the program. In the case of *ReCapturing the Vision*, nonparticipation resulted primarily from class schedule conflicts. In the case of *FUPTP*, it was due in large part to youth not being offered a program slot until midway through the school year. The result is that program impact estimates for these two programs understate the impacts for those who actually received the intervention, a fact that is discussed in the full study report.
3. The young ages of program participants and the limited duration of the follow-up period for this report preclude reliable estimation of program impacts on the ultimate outcomes of interest—sexual abstinence, sexual activity, risks of contracting sexually transmitted diseases, and risks of pregnancy.

The success of the programs in promoting abstinence, as well as in reducing risks of pregnancy and sexually transmitted diseases, cannot be fully determined without data that measure behaviors in the older teen years. Such data will be available for a large portion of the study sample once the fourth wave of data have been collected in 2005. Then, it will be possible both to estimate program impacts on the behavior-related outcomes of interest and to examine the mechanisms through which programs do or do not affect behavior.