

## Summary Table: Review of the Research Literature and Implications for Targeted Activities to Improve Adolescent Reproductive Health

AREAS FOR TARGETED INTERVENTION ACTIVITIES	Experimental Research Studies			Nonexperimental Research Studies
	WHAT WORKS	WHAT DOESN'T WORK	MIXED REVIEWS	<u>"BEST BETS"</u>
<b>Initiation of Sexual Intercourse</b>	<ul style="list-style-type: none"> <li>- A program that included voluntary community service, preparation time, and time for reflection after service through activities such as group discussions, papers, or journaling had a positive impact (Reach for Health).</li> </ul>	<ul style="list-style-type: none"> <li>- Only 1 abstinence-only education program has been experimentally evaluated (Postponing Sexual Involvement/ENABL) and showed no impact on sexual activity. Few strong experimental evaluations of abstinence-only programs have been conducted. Future evaluations will assess the effectiveness of these programs.</li> <li>- Only 1 experimental study has examined the impact of programs to increase parent-child communication about abstinence, sexuality, or HIV. This program showed no impact on the initiation of sexual intercourse (Facts and Feelings).</li> </ul>	<ul style="list-style-type: none"> <li>- 8 sexuality education programs measured sexual initiation as an outcome. Of these, 1 showed positive impacts for boys (Draw the Line/Respect the Line), 1 showed positive impacts for girls (Postponing Sexual Involvement, Human Sexuality, and Health Screening), 5 showed no impact (McMaster Teen Program; Project SNAPP; Safer Choices; Teen Talk; and Blake et al., 2000 in Michigan), and 1 showed negative impacts for 9<sup>th</sup> and 10<sup>th</sup> graders (Healthy for Life Project).</li> <li>- Of the 5 HIV/AIDS education programs that measured sexual initiation as an outcome in experimental evaluations, 2 showed positive impacts (Becoming a Responsible Teen and Be Proud! Be Responsible! A Sexual Abstinence Curriculum). Three programs showed no impacts (Be Proud, Be Responsible; Be Proud! Be Responsible! A Safer Sex Curriculum; and YAPP).</li> </ul>	<ul style="list-style-type: none"> <li>- Reduce other risky behaviors such as substance abuse and delinquency</li> <li>- Focus on developing abstinence values among teens and encourage them to sign virginity pledges</li> <li>- Work with adolescents to change their perception that most peers are sexually active and that sexual experience elicits respect from peers</li> <li>- Improve educational performance</li> <li>- Encourage teens to form high educational aspirations</li> <li>- Promote participation in sports (effective for girls only)</li> <li>- Place importance on religious and moral beliefs</li> <li>- Promote church attendance/religiosity/religious activities</li> <li>- Having an older sibling who is sexually experienced is a risk factor for early sexual initiation.</li> <li>- Promote stability in parents' marital status</li> <li>- Strengthen parent-child emotional bonds and relationships</li> </ul>

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				<ul style="list-style-type: none"> <li>- Encourage parents to talk with their teens about sex and contraception; in particular, communicate disapproval of these behaviors</li> <li>- Advocate strong parental monitoring</li> <li>- Focus on ways to reduce "intergenerational transmission" of teenage sexual behaviors</li> <li>- Improve family economic standing and parent education</li> <li>- Live in a community with higher socioeconomic status and lower crime levels.</li> <li>- Encourage teens to form friendships with peers who favor delayed sexual initiation and with same-age peers (as opposed to older teens), or change peer group values.</li> <li>- Reduce the occurrence of non-voluntary sexual experiences</li> <li>- Delay teen involvement in romantic relationships</li> </ul> <p>- Of sexuality and HIV education programs, Kirby's review (2001) of primarily experimental studies concludes that 10 components are needed to improve outcomes:</p> <ol style="list-style-type: none"> <li>1) Aim to reduce behaviors leading to pregnancy or STDs.</li> <li>2) Adapt theory-based approaches shown to be effective for other health outcomes to reproductive outcomes.</li> <li>3) Consistently emphasize abstinence and contraception.</li> <li>4) Provide basic factual information about</li> </ol>

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				<p><i>the risks of sex, as well as methods of disease and pregnancy protection.</i></p> <p><i>5) Incorporate activities that teach teens to deal with social pressures about sexual behaviors.</i></p> <p><i>6) Help teens develop communication, negotiation, and refusal skills.</i></p> <p><i>7) Use participant involvement methods so information is more personalized to teens.</i></p> <p><i>8) Gear training to the specific teen population being served.</i></p> <p><i>9) Allow enough time for teens to absorb message</i></p> <p><i>10) Provide strong training to committed teachers or peer leaders.</i></p> <p><i>(Kirby, 2001, p.6).</i></p> <ul style="list-style-type: none"> <li>- Sexuality or HIV education programs that did not include the 10 components listed in "what works," including programs that were primarily didactic and that did not include teen involvement were not associated with delayed sexual initiation.</li> <li>- Programs short in duration appear to have no association with outcomes, suggesting longer durations are more desirable.</li> </ul>

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	WHAT WORKS	WHAT DOESN'T WORK	MIXED REVIEWS	"BEST BETS"
Frequency of Sexual Activity		<ul style="list-style-type: none"> <li>- Only 1 abstinence-only education program has been experimentally evaluated (Postponing Sexual Involvement/ENABL) and it showed no impact on the frequency of sexual activity. Few strong evaluations of abstinence-only programs have been conducted. Future evaluations will assess the effectiveness of these programs.</li> <li>- All 3 clinic-based programs that examined frequency of sexual activity as an outcome found either no impacts (ASSESS; Danielson et al. 1990 in Portland, OR and Vancouver, WA) or negative impacts (DeLameter et al. 2000 in Milwaukee, WI).</li> <li>- 2 sexuality education programs measured frequency of sexual activity as an outcome (Project SNAPP and Safer Choices). Neither program showed an impact on the outcome.</li> </ul>	<ul style="list-style-type: none"> <li>- 5 HIV/AIDS education programs measured frequency of sexual activity as an outcome. 2 showed positive impacts among at least some populations (Becoming a Responsible Teen; and Be Proud, Be Responsible); 2 had no impact (Be Proud! Be Responsible! A Sexual Abstinence Curriculum and YAPP); and 1 had some positive impacts that varied by length of follow-up (Be Proud! Be Responsible! A Safer Sex Curriculum).</li> <li>- One program that combines youth development and sexuality education and had a positive impact on the frequency of sexual activity (Washington State, 1 out of 3 sites had a positive impact).</li> </ul>	<ul style="list-style-type: none"> <li>- Focus on delaying age of sexual debut</li> <li>- Promote participation in sports (effective for girls only in non-experimental research)</li> <li>- Having an older sibling who is a teen parent is a risk factor.</li> <li>- Implement AIDS education (effective for non-blacks, but not for blacks)</li> <li>- Strengthen mother-child relationships and combine with mom's disapproval of sex (for sample of low SES blacks)</li> <li>- Promote high parent education levels</li> <li>- Sexuality education and HIV education programs that include 10 components were associated with more positive outcomes (Kirby, 2001) (see above).</li> <li>- Sexuality or HIV education programs that did not include the 10 components listed in "what works," including programs that were primarily didactic and that did not include teen involvement were not associated with a reduced frequency of sexual activity.</li> <li>- Programs short in duration appear to have no association with outcomes.</li> </ul>

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<b>Number of Sexual Partners</b>		<ul style="list-style-type: none"> <li>- Only 1 abstinence-only education programs has been experimentally evaluated (Postponing Sexual Involvement/ENABL) and it showed no impact on the number of sexual partners. Few strong evaluations of abstinence-only programs have been conducted. Future evaluations will assess the effectiveness of these programs.</li> <li>- The two clinic-based programs that examined number of sexual partners showed either no impacts (ASSESS) or a negative impact (DeLameter et al. 2000 in Milwaukee, WI).</li> <li>- Out of the 2 sexuality education programs that experimentally measured the number of sexual partners as an outcome, neither had an impact (Project SNAPP and Safer Choices).</li> </ul>	<ul style="list-style-type: none"> <li>- Of the 4 HIV/AIDS experimental education programs that measured the number of sexual partners as an outcome, 1 showed positive impacts (Be Proud, Be Responsible). The other 3 programs had no impact (Becoming a Responsible Teen; YAPP; and Gilmore et al. 1997 in Seattle, WA)</li> </ul>	<ul style="list-style-type: none"> <li>- Focus on delaying age of sexual debut</li> <li>- Reduce other risky behaviors such as substance abuse and delinquency</li> <li>- Promote participation in sports (effective for girls only)</li> <li>- Convey to parents the importance of talking to teens about HIV and expressing disapproval of teen sexual activity</li> <li>- Advocate strong parental monitoring</li> <li>- Reduce the occurrence of non-voluntary sexual experiences</li> <li>- Encourage teens to form friendships with peers who are not sexually experienced</li> <li>- Sexuality education and HIV education programs that include 10 components were associated with more positive outcomes (Kirby, 2001) (see above)</li> <li>- Sexuality or HIV education programs that did not include the 10 components listed in "what works," including programs that were primarily didactic and that did not include teen involvement were not associated with fewer sexual partners.</li> <li>- Programs short in duration appear to have no association with outcomes, suggesting longer durations are more desirable.</li> </ul>

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	WHAT WORKS	WHAT DOESN'T WORK	MIXED REVIEWS	<u>"BEST BETS"</u>
Use of Condoms for STD and/or Pregnancy Prevention		<ul style="list-style-type: none"> <li>- Only 1 abstinence-only education program has been evaluated (Postponing Sexual Involvement/ENABL) and showed no impact on condom use. Few strong evaluations of abstinence-only programs have been conducted. Future evaluations will assess the effectiveness of these programs.</li> </ul>	<ul style="list-style-type: none"> <li>- 3 sexuality education programs focused on condom use as an outcome. One program had a positive impact (Safer Choices) and 2 programs showed no impacts (Healthy for Life Project and Project SNAPP).</li> <li>- 7 HIV/AIDS education programs measured condom use as an outcome. 3 programs had a positive impact (Becoming a Responsible Teen; Be Proud, Be Responsible; and Be Proud! Be Responsible! A Safer Sex Curriculum); 3 had no impact (YAPP; Gilmore et al. 1997 in Seattle; and Slonim-Nevo et al. 1996 in St. Louis); and 1 had some positive impacts that varied by length of follow-up (Be Proud! Be Responsible! A Sexual Abstinence Curriculum).</li> <li>- Clinic-based programs that include counseling and instruction from a medical provider, give a clear message about sexual activity and contraceptive use, and include 1-on-1 counseling may have had mixed impacts on condom use. 2 such programs showed positive impacts (DeLameter et al. 2000 in Milwaukee, WI; Orr et al. 1996 in Indianapolis, IN), and 1 had mixed impacts depending on length of follow-up (ASSESS).</li> </ul>	<ul style="list-style-type: none"> <li>- Reduce other risky behaviors such as substance abuse and delinquency</li> <li>- Convey to parents the importance of talking to teens about HIV and condom use and of expressing disapproval for teen sexual activity</li> <li>- Advocate strong parental monitoring</li> <li>- Promote high parent education levels</li> <li>- Work to change adolescents' perception that peers do not like or use condoms</li> <li>- Talk with partner about sexual risks (findings based on non-representative sample – blacks &amp; Hispanics in AL, NY and Puerto Rico)</li> <li>- Sexuality education and HIV education programs that include 10 components were associated with more positive outcomes (Kirby, 2001) (see above)</li> <li>- Sexuality or HIV education programs that did not include the 10 components listed in "what works," including programs that were primarily didactic and that did not include teen involvement were not associated with increased condom use.</li> <li>- Programs short in duration appear to have no association with outcomes, suggesting longer durations are more desirable.</li> </ul>

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Use of Contraception		<ul style="list-style-type: none"> <li>- Only 1 abstinence-only education program has been evaluated (Postponing Sexual Involvement/ENABL) and showed no impact on contraceptive use. Few strong evaluations of abstinence-only programs have been conducted. Future evaluations will assess the effectiveness of these programs.</li> </ul>	<ul style="list-style-type: none"> <li>- 5 sexuality education programs measured contraceptive use as an outcome in experimental studies. Of these, 1 showed a positive impact (Safer Choices), 1 had positive impacts for boys only (Teen Talk), 1 had a positive impact for girls only (Postponing Sexual Involvement, Human Sexuality, and Health Screening), and 2 showed no impacts (McMaster Teen Program and Project SNAPP).</li> <li>- Intensive long-term youth development programs that combine youth development and sexuality education (CAS-Carrera had a significant impact for females but not males and Washington State for contraceptive use at most recent sex at 1 of 3 sites and for always use contraceptives at 2 of 3 sites).</li> <li>- 2 clinic-based programs aimed to improve contraceptive use. 1 program had a positive impact (Danielson et al. 1990 in Portland, OR and Vancouver, WA), while the other had no impact (Herceg-Baron et al. 1986 in Philadelphia).</li> </ul>	<ul style="list-style-type: none"> <li>- Reduce other risky behaviors such as substance abuse and delinquency</li> <li>- Implement contraceptive education in schools</li> <li>- Promote participation in sports (effective for girls only)</li> <li>- Provide supports for maintaining intact families</li> <li>- Strengthen parent-child relationships</li> <li>- Promote high parent education levels</li> <li>- Encourage teens to date partners close to their own age, rather than older partners</li> <li>- Reduce the occurrence of non-voluntary sexual experiences</li> <li>- Sexuality education and HIV education programs that include 10 components were associated with more positive outcomes (Kirby, 2001) (See above)</li> <li>- Programs short in duration appear to have no association with outcomes, suggesting longer durations are more desirable.</li> <li>- Attending schools with school-based or school-linked health clinics that provide contraceptives, focus intensely on contraception, and give a clear message about abstinence and oral contraceptives were associated with increased contraceptive use.</li> </ul>

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<b>Pregnancies and Births</b>	<ul style="list-style-type: none"> <li>- Programs that include voluntary community service, preparation time, and time for reflection after service through activities such as group discussions, papers, or journaling. (Teen Outreach Program)</li> <li>- Early childhood programs that include strong preschool child care for low-income families reduce the likelihood of pregnancies and births during the teen years (Abecedarian) and out of wedlock births by age 27 (High/Scope Perry Pre-School).</li> <li>- Nurse home visiting programs, in which trained nurses visit expectant teen mothers before and after the baby is born and help promote maternal and child outcomes reduce subsequent pregnancies. (Olds)</li> </ul>	<ul style="list-style-type: none"> <li>- Welfare demonstration programs have shown minimal impacts on subsequent fertility (New Chance, TPD)</li> <li>- Neither of the 2 sexuality education programs that focused on pregnancy/births had an impact (McMaster Teen Program and Project SNAPP)</li> <li>- The only clinic-based program to measure pregnancy outcomes showed no impact (Herceg-Baron et al. 1986 in Philadelphia).</li> </ul>	<ul style="list-style-type: none"> <li>- One short-term youth development program (Quantum Opportunities) showed no impact on birth rates, except in the Philadelphia site.</li> <li>- Of the 4 vocational education programs that measured pregnancies and births as an outcome, only one showed a positive impact (Conservation and Youth Service Corps). This positive impact was observed for black women only; there was no impact on non-Hispanic white or Hispanic women. The other 3 programs vocational education programs had no impact (Job Corps; JOBSTART; STEP)</li> <li>- One intensive long-term program that combines youth development and sexuality education (CAS-Carrera for females but not males)</li> </ul>	<ul style="list-style-type: none"> <li>- Focus on delaying age of sexual debut</li> <li>- Reduce other risky behaviors such as substance abuse and delinquency</li> <li>- Improve educational performance</li> <li>- Discourage dropping out of school</li> <li>- Encourage teens to form high educational aspirations and to develop friendships with peers who have also high educational aspirations</li> <li>- Promote participation in sports (effective for girls only)</li> <li>- Promote church attendance/ religiosity/ religious activity</li> <li>- Having an older sibling who is a teen parent is a risk factor</li> <li>- Encourage parent-child communication about pregnancy</li> <li>- Strengthen parent-child emotional bonds and relationships</li> <li>- Emphasize importance of shared activities between parents and children</li> <li>- Improve family socioeconomic standing</li> <li>- Provide supports to maintain intact families</li> <li>- Convey to parents the importance of having high college expectations for their adolescents (effective for boys)</li> <li>- Focus on ways to reduce "intergenerational transmission" of teenage sexual behaviors</li> <li>- Encourage teens to date partners close to their own age, rather than older partners</li> <li>- Reduce the occurrence of non-</li> </ul>

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<b>Contracting STD</b>	<ul style="list-style-type: none"> <li>- Very few intervention programs have measured STD outcomes. However, programs that are associated with delayed sexual initiation, reduced frequency of sexual intercourse, fewer sexual partners, and increased condom use will also affect STD outcomes (see other parts of this table).</li> <li>- The ASSESS clinic-based program measured STD outcomes and found a positive impact.</li> </ul>	<ul style="list-style-type: none"> <li>- Only 1 sexuality education program has targeted STD outcomes and it did not have any impact (Project SNAPP).</li> </ul>		<ul style="list-style-type: none"> <li>- Focus on delaying age of sexual debut</li> <li>- Reduce other risky behaviors such as substance abuse and delinquency</li> <li>- Emphasize to teens the risks of having multiple partners</li> <li>- Encourage teens to date partners close to their own age, rather than older partners</li> <li>- Make contraceptives accessible and easy to use (beneficial for males)</li> <li>- Teach males that they are as responsible for contraception as their female partners</li> </ul>