

Behavioral Counseling Interventions to Prevent Sexually Transmitted Infections

US Preventive Services Task Force Recommendation Statement

US Preventive Services Task Force

IMPORTANCE Approximately 20 million new cases of bacterial or viral sexually transmitted infections (STIs) occur each year in the US, and about one-half of these cases occur in persons aged 15 to 24 years. Rates of chlamydial, gonococcal, and syphilis infection continue to increase in all regions. Sexually transmitted infections are frequently asymptomatic, which may delay diagnosis and treatment and lead persons to unknowingly transmit STIs to others. Serious consequences of STIs include pelvic inflammatory disease, infertility, cancer, and AIDS.

OBJECTIVE To update its 2014 recommendation, the US Preventive Services Task Force (USPSTF) commissioned a review of the evidence on the benefits and harms of behavioral counseling interventions for preventing STI acquisition.

POPULATION This recommendation statement applies to all sexually active adolescents and to adults at increased risk for STIs.

EVIDENCE ASSESSMENT The USPSTF concludes with moderate certainty that behavioral counseling interventions reduce the likelihood of acquiring STIs in sexually active adolescents and in adults at increased risk, including for example, those who have a current STI, do not use condoms, or have multiple partners, resulting in a moderate net benefit.

RECOMMENDATION The USPSTF recommends behavioral counseling for all sexually active adolescents and for adults at increased risk for STIs. (B recommendation)

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Summary of Recommendation

The USPSTF recommends behavioral counseling for all sexually active adolescents and for adults at increased risk for sexually transmitted infections (STIs).

B

See the Figure for a more detailed summary of the recommendations for clinicians. See the Practice Considerations section for more information on populations at increased risk for acquiring STIs. USPSTF indicates US Preventive Services Task Force.

Importance

Bacterial and viral sexually transmitted infections (STIs) are common in the US. Approximately 20 million new cases of bacterial or viral STIs occur each year in the US, and about one-half of these cases occur in persons aged 15 to 24 years.^{1,2} Rates of chlamydial, gonococcal, and syphilis infection continue to increase in all regions.² Sexually transmitted infections are frequently asymptomatic, which may delay diagnosis and treatment and lead persons to unknowingly transmit STIs to others. Serious consequences of STIs include pelvic inflammatory disease, infertility, cancer, and AIDS. Untreated STIs that present during pregnancy or birth may cause harms to the mother and infant, including peri-

natal infection, serious physical and developmental disabilities, and death.^{3,4}

USPSTF Assessment of Magnitude of Net Benefit

The US Preventive Services Task Force (USPSTF) concludes with moderate certainty that behavioral counseling interventions reduce the likelihood of acquiring STIs in sexually active adolescents and in adults at increased risk, resulting in a **moderate net benefit**.

See the Figure and Table 1 for more information on the USPSTF recommendation rationale and assessment. For more details on the methods the USPSTF uses to determine the net benefit, see the USPSTF Procedure Manual.⁵

Figure. Clinician Summary: Behavioral Counseling Interventions to Prevent Sexually Transmitted Infections

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What does the USPSTF recommend?	For sexually active adolescents and for adults at increased risk: Provide behavioral counseling to prevent sexually transmitted infections (STIs). Grade: B
To whom does this recommendation apply?	All sexually active adolescents and adults at increased risk for STIs
What's new?	This recommendation is consistent with the 2014 USPSTF recommendation. The current recommendation offers a broader range of effective counseling approaches, including those involving less than 30 minutes of counseling.
How to implement this recommendation?	<ol style="list-style-type: none"> 1. Assess whether adolescents are sexually active and, for adults, assess risk for STIs. Factors that put a person at increased risk include <ol style="list-style-type: none"> a. Being diagnosed with an STI within the past year b. Not consistently using condoms c. Having multiple sex partners or having a partner(s) at high risk for STIs d. Belonging to a population that has a high STI prevalence (such as persons seeking STI testing or attending an STI clinic, sexual and gender minorities, persons living with HIV, persons with injection drug use, persons who exchange sex for money or drugs, persons who have recently been in a correctional facility, and some racial/ethnic minority groups) 2. Provide behavioral counseling to sexually active adolescents and to adults at increased risk: <ol style="list-style-type: none"> a. Deliver counseling in person, refer patients to outside counseling services, or inform patients about media-based interventions b. Interventions that include group counseling, involve more than 120 minutes of counseling, and are delivered over several sessions have the strongest effect in preventing STIs <ul style="list-style-type: none"> • Counseling interventions shorter than 30 minutes delivered in a single session may also be effective c. Provide information on common STIs and STI transmission; aim to increase motivation or commitment to safer sex practices; and provide training in condom use, communication about safer sex, problem solving, and other pertinent skills.
What are other relevant USPSTF recommendations?	<p>The USPSTF has issued relevant recommendations on the following:</p> <ul style="list-style-type: none"> • Screening for chlamydia and gonorrhea • Screening for syphilis in nonpregnant persons and pregnant persons • Screening for HIV • Preexposure prophylaxis for HIV • Screening for intimate partner violence
Where to read the full recommendation statement?	Visit the USPSTF website to read the full recommendation statement. This includes more details on the rationale of the recommendation, including benefits and harms; supporting evidence; and recommendations of others.

The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision-making to the specific patient or situation.

USPSTF indicates US Preventive Services Task Force.

Table 1. Summary of USPSTF Rationale^a

Rationale	Assessment
Recognition of behavior	Primary care clinicians can identify sexually active adolescents and adults at increased risk for acquiring STIs. (See the "Practice Considerations" section for information on risk assessment.)
Benefits of behavioral counseling	Adequate evidence that behavioral counseling using in-person (individual or group), media-based, or both formats can reduce the likelihood of acquiring STIs, resulting in a moderate benefit.
Harms of behavioral counseling	Evidence is adequate to bound the magnitude of the overall harms of interventions as no greater than small, based on the few studies reporting no serious harms, the nature of the interventions, and the low likelihood of serious harms. When direct evidence is limited, absent, or restricted to select populations or clinical scenarios, the USPSTF may place conceptual upper or lower bounds on the magnitude of benefit or harms.
USPSTF assessment	Moderate certainty that behavioral counseling for adolescents and adults at increased risk for acquiring STIs has a moderate net benefit.

Abbreviations: STI, sexually transmitted infection; USPSTF, US Preventive Services Task Force.

^a See the eFigure in the Supplement for explanation of USPSTF grades and levels of evidence.

Practice Considerations

Patient Population Under Consideration

This recommendation applies to all sexually active adolescents and to adults at increased risk for STIs.

Definition of STIs

Sexually transmitted infections are transmitted through sexual activity and intimate physical contact. In the US, common STIs with significant clinical and public health effects include HIV, herpes simplex virus, human papillomavirus (HPV), hepatitis B virus (HBV), *Chlamydia trachomatis*, *Neisseria*

gonorrhea, *Treponema pallidum* (syphilis), and *Trichomonas vaginalis*.¹⁻⁴

Assessment of Risk

All sexually active adolescents are at increased risk for STIs because of the high rates of STIs in this age group and should receive behavioral counseling interventions. Adults at increased risk for STIs include those who currently have an STI or were diagnosed with one within the past year, do not consistently use condoms, have multiple sex partners, or have sex partners within populations with a high prevalence of STIs. Populations with a high prevalence of STIs include persons who seek STI testing or attend STI clinics; sexual and gender minorities; persons who are living with HIV, inject drugs, have exchanged sex for money or drugs, or have entered correctional facilities; and some racial/ethnic minority groups.¹⁻⁴ Difference in STI rates among racial/ethnic groups may reflect differences in social determinants of health.² To determine which adolescents are sexually active, and which adults might engage in activities that may increase their risk for STIs, clinicians should routinely ask their patients for pertinent information about their sexual history.

Behavioral Counseling Interventions

Intervention approaches include in-person counseling, videos, websites, written materials, telephone support, and text messages. Most successful approaches provide information on common STIs and STI transmission; assess the person's risk for acquiring STIs; aim to increase motivation or commitment to safer sex practices; and provide training in condom use, communication about safer sex, problem solving, and other pertinent skills. Interventions that include group counseling and involve high total contact times (defined in the evidence review as more than 120 minutes), often delivered over multiple sessions, are associated with larger STI prevention effects. However, some less intensive interventions have been shown to reduce STI acquisition, increase condom use, or decrease number of sex partners. Interventions shorter than 30 minutes tended to be delivered in a single session. There is not enough evidence to determine whether several intervention characteristics were independently related to effectiveness, including degree of cultural tailoring, counselor characteristics, or setting.

Implementation

Primary care clinicians can deliver in-person behavioral counseling interventions, refer patients to behavioral counseling interventions in other settings, or inform patients about media-based interventions. For more information about risk assessment methods and behavioral counseling interventions, see the Additional Tools and Resources section and **Table 2**.

Additional Tools and Resources

The following resources may help clinicians implement this recommendation.

- The Centers for Disease Control and Prevention (CDC) provides a tool for STI risk assessment suitable for primary care settings (<https://www.cdc.gov/std/products/provider-pocket-guides.htm>); provides information about behavioral counseling and other STI prevention strategies (<https://www.cdc.gov/std/prevention>);

and maintains a compendium of evidence-based behavioral counseling interventions that have been shown to reduce STI acquisition or increase safer sexual behaviors (<https://www.cdc.gov/hiv/research/interventionresearch/compendium/rr/complete.html>).

- The Community Preventive Services Task Force has issued recommendations on preventing HIV, other STIs, and teen pregnancy and has described effective individual- and group-level community interventions for school-aged youth (<https://www.thecommunityguide.org/findings/hiv-other-stis-and-teen-pregnancy-group-based-comprehensive-risk-reduction-interventions>) and for men who have sex with men (<https://www.thecommunityguide.org/findings/hiv-interventions-reduce-sexual-risk-behaviors-or-increase-protective-behaviors-prevent>).
- The National Coalition of Sexually Transmitted Disease Directors and the National Alliance of State and Territorial AIDS Directors have developed optimal care checklists for clinicians serving male patients who have sex with men (https://www.ncsddc.org/wp-content/uploads/2017/08/provider_brochure2.pdf).

Additionally, the CDC provides the following resources on how to help persons experiencing sexual violence or sex trafficking:

- <https://www.cdc.gov/violenceprevention/sexualviolence/index.html>
- <https://www.cdc.gov/violenceprevention/sexualviolence/resources.html>

Other Related USPSTF Recommendations

The USPSTF has issued several recommendations about screening for STIs (chlamydia,²⁷ gonorrhea,²⁷ syphilis,²⁸ HIV,²⁹ HBV,³⁰ and HPV³¹) and cervical cancer³¹ and offering preexposure prophylaxis to prevent HIV acquisition.³² The USPSTF has also issued a recommendation on screening for intimate partner violence and elder abuse.³³

Update of Previous USPSTF Recommendation

In 2014, the USPSTF recommended intensive behavioral counseling (defined as total contact time of 30 minutes or more) to prevent STIs for all sexually active adolescents and for adults at increased risk for STIs (B recommendation).³³ This updated recommendation statement is consistent with the 2014 USPSTF statement but slightly differs by recommending a broader range of effective counseling approaches, including those involving less than 30 minutes of total contact time. The USPSTF continues to conclude that the current evidence is lacking on the benefits and harms of behavioral counseling to prevent STIs in nonsexually active adolescents and in adults not at increased risk for STIs.

Supporting Evidence

Scope of Review

To update its 2014 recommendation, the USPSTF commissioned a systematic review of the benefits and harms of behavioral counseling interventions for preventing STI acquisition.^{25,34} The review included randomized and nonrandomized clinical trials in adolescents or adults of any sexual orientation, level of reported sexual activity, or pregnancy status that were published after 1999.

Table 2. Behavioral Counseling Interventions to Reduce Risk for STI Acquisition in Persons at Increased Risk for STIs^a

Characteristic	Intervention type		
	In-person behavioral counseling (group only or group + individual) ^b	In-person behavioral counseling (individual only) ^b	Media-based interventions without in-person counseling
References ^c	DiClemente et al, ⁶ 2004 ^d Shain et al, ⁷ 2004 ^d Jemmott et al, ⁸ 2005 ^d Jemmott et al, ⁹ 2007 ^{d,e} Kershaw et al, ¹⁰ 2009 Neumann et al, ¹¹ 2011 ^d Champion and Collins, ¹² 2012 ^d Wingood et al, ¹³ 2013 ^d	Jemmott et al ⁹ 2007 ^{d,e} Crosby et al, ¹⁴ 2009 ^d Marrazzo et al, ¹⁵ 2011 Berenson and Rahman, ¹⁶ 2012 Metsch et al, ¹⁷ 2013	Peipert et al, ¹⁸ 2008 Warner et al, ¹⁹ 2008 ^d Carey et al, ²⁰ 2015 Bailey et al, ²¹ 2016 Free et al, ²² 2016 Tzilos Wernette et al, ²³ 2018 Shafii et al, ²⁴ 2019
Intervention intensity	Most interventions with group counseling involved total contact times of more than 120 min and multiple sessions over 1 to 12 mo Group counseling interventions often focused on specific demographic groups defined by age range, race/ethnicity, or both	Most individual counseling interventions involved more than 30 min of total contact time and a single session	Approximately one-half of media-only interventions involved total contact times of 30 to 90 min; others involved less than 30 min Interventions involving video or computer interaction entailed fewer sessions than those involving repeated text messages or emails over many months
Intervention settings	Primary care clinics, research clinics, or STI clinics ^f		Persons identified at STI, primary care, family planning, prenatal, and obstetrics-gynecology clinics or through advertisements or community media received interventions in homes, their community, or STI clinic waiting areas ^f
Person delivering intervention	Researchers, facilitators, nursing professionals, counselors, health educators, trained peer counselors, or clinicians delivered group and individual counseling		Self-directed (such as interactive computer-based intervention) or passively received (such as video)
Intervention participants at increased risk for STIs ^a	Most study participants were adolescents or adults younger than 30 y and were members of racial/ethnic minority populations; the majority engaged in STI risk behaviors (such as unprotected intercourse or multiple sex partners) or had a history of STIs		
Behavior change goals and techniques	Most interventions provided information about common STIs and how STIs are transmitted; aimed to increase motivation or commitment to safer sex practices; and provided training in pertinent skills, such as condom use and negotiation, communication about safer sex, and problem solving Interventions used varied therapeutic approaches (such as motivational interviewing and cognitive behavioral therapy) and some applied specific theoretical models of behavior change (such as social cognitive theory, the Information-Motivational-Behavioral Skills Model, and the AIDS Risk Reduction Model)		
Demonstrated benefit	Behavioral counseling for persons at increased risk for STIs can reduce the likelihood of acquiring STIs (OR, 0.66 [95% CI, 0.54-0.81]) and also increase condom use or decrease the occurrence of unprotected intercourse ²⁵ Interventions with the largest effects for STI prevention tended to involve more than 120 min of total contact time and group counseling, often delivered over multiple sessions for up to 1 year; it is unclear whether the group counseling format, total contact time, or both were responsible for intervention effects because all but 1 intervention involving group counseling had total contact times of more than 120 min A few interventions with less total contact time have been shown to reduce STI acquisition or promote safer sexual behaviors		

Abbreviations: OR, odds ratio; STI, sexually transmitted infection.

^a Table adapted from Appendix F Table 1 in the full evidence review²⁵ and a modified Template for Intervention Description and Replication (TIDieR) checklist.²⁶

^b Some interventions combined several methods, such as in-person counseling followed by personalized text messages or emails.

^c The US Preventive Services Task Force does not endorse any specific intervention.

^d Study reported statistically significant reduction in 1 or more STI acquisition outcome.

^e Study included multiple intervention groups, including those with group counseling or individual counseling.

^f Studies in STI clinics tested interventions in persons who had sought care for STI symptoms or had known or suspected exposure to sex partners with STIs. Interventions for STI clinic patients with recent or current STIs often focus on reducing the risk for a subsequent STI, including those caused by reinfection by untreated partners.

^g The evidence review defined persons at increased risk for STI acquisition as sexually active adolescents or adults who reported STIs within the past year or current STIs, inconsistent condom use, multiple sex partners, or demographic characteristics associated with high STI incidence.

Benefits of Behavioral Counseling Interventions

Twenty trials assessed STI acquisition in persons at increased risk for STIs based on follow-up test results or diagnoses in medical records or public health registries at least 3 months after interventions started. Most reported STI outcomes after 12 or more months of follow-up. About one-half of trials were conducted in, or recruited participants from, US STI clinics. Other trials recruited participants from primary care, adolescent health, family planning, women's health, or behavioral health clinics, mostly in the US. A few trials recruited participants directly from the community. Nine trials enrolled members of populations with higher rates of STIs such as sexually active adolescents or young adults and persons who reported

unprotected intercourse, sex with multiple concurrent sex partners, or other STI risk behaviors. Eleven trials enrolled persons classified as at "highest risk for STI" who had current, recent, or suspected STI diagnosis or were attending STI clinics. Most participants were younger than 25 years, female, heterosexual, and reported African American or Hispanic race/ethnicity, and most trials specifically enrolled subpopulations defined by race/ethnicity, sexual orientation, age, gender, pregnancy, or other factors.

Many interventions used techniques or concepts from motivational interviewing, cognitive behavioral therapy, or other established behavioral counseling approaches that aimed to increase STI risk perception, knowledge, motivation, and skills for preventing

STI acquisition; to increase consistent condom use; and to reduce unprotected intercourse and the number and concurrency of sex partners. Interventions for adolescents who were not yet sexually active aimed to delay sexual activity or encourage abstinence. Interventions were delivered in person and through computer, video, telephone, text message, or print formats over 1 or more sessions. A majority of the interventions that were shorter than 30 minutes delivered the content in a single session. Control conditions included usual care, attention controls, wait list, or minimal interventions (such as less than 15 minutes of STI information).

Behavioral counseling interventions were effective for reducing STI acquisition by approximately 30% based on pooled analysis of 19 trials in persons at increased risk for STIs, of which 10 trials enrolled persons at highest risk ($n = 52\ 072$; odds ratio [OR], 0.66 [95% CI, 0.54-0.81]; $I^2 = 74\%$). Sexually transmitted infection prevention effects were stronger for interventions involving group counseling (8 trials; $n = 6567$; OR, 0.47 [95% CI, 0.28-0.78]; $I^2 = 75\%$) than for interventions without group counseling (11 trials; $n = 45\ 505$; OR, 0.90 [95% CI, 0.74-1.08]; $I^2 = 43\%$) ($P = .02$). Effects were also stronger for interventions with high total contact times (>120 minutes) (8 trials; $n = 3974$; OR, 0.46 [95% CI, 0.28-0.75]; $I^2 = 65\%$) ($P = .02$) than for interventions with moderate total contact times (30 to 120 minutes) (8 trials; $n = 9072$; OR, 0.90 [95% CI, 0.66-1.25]; $I^2 = 59\%$) or low total contact times (<30 minutes) (4 trials; $n = 39\ 230$; OR, 0.66 [95% CI, 0.36-1.24]; $I^2 = 44\%$). However, it was unclear whether group counseling format, contact time, or both were responsible for intervention effects because all but 1 group counseling intervention entailed more than 120 minutes.^{25,34}

Although interventions with more than 120 minutes of contact time, group counseling, or both were generally more effective, 3 interventions with moderate^{11,14} or low¹⁹ contact times and 2 interventions without group counseling^{14,19} yielded statistically significant reductions in STI acquisition in STI clinic patients. One brief, video-based intervention without in-person counseling was tested in a nonrandomized clinical trial of 40 282 adults in STI clinic waiting rooms.¹⁹ Patients who viewed 23 minutes of information about HIV and STI prevention; how couples communicate about newly diagnosed STIs; building skills, self-efficacy, and positive attitudes about condom use; and how to acquire, negotiate, and use condoms were significantly less likely than patients receiving usual care to acquire STIs after a mean of 15 months of follow-up (adjusted hazard ratio, 0.91 [95% CI, 0.84-0.99]).

Meta-regression analysis revealed that intervention effects were stronger in trials limited to adolescents (3 trials; $n = 1166$; OR, 0.22 [95% CI, 0.02-2.30]; $I^2 = 73\%$) than in trials that included adolescents and adults (16 trials; $n = 50\ 906$; OR, 0.78 [95% CI, 0.67-0.91]; $I^2 = 51\%$). However, it was difficult to isolate specific effects because the most effective intervention format (interventions involving group counseling) was tested in trials with similar participant characteristics (girls and women who identified as racial/ethnic minorities), and only 1 trial of adolescents included boys.^{25,34}

Thirty-four trials evaluated self-reported behavioral outcomes at least 3 months after interventions started in adolescents, young adults, or older adults, most of whom were at increased risk for STIs (30 trials). Intervention and participant characteristics were similar to those in trials that assessed STI outcomes. Behavioral counseling interventions were effective for increasing condom use, specifically dichotomous measures of consistent condom use or condom

use at last sexual encounter (13 trials; $n = 5253$; OR, 1.31 [95% CI, 1.10-1.56]; $I^2 = 40\%$) and for decreasing unprotected intercourse based on number of sexual acts or days of intercourse without a condom (14 trials; $n = 9183$; mean difference, -0.94 [95% CI, -1.40 to -0.48]; $I^2 = 16\%$).^{25,34}

Several trials found that interventions with high contact time were significantly associated with increased condom use or reductions in unprotected sex or the number of sex partners.^{25,34} Two interventions with moderate contact time were also significantly associated with increased condom use^{14,35} or abstinence from vaginal sex.³⁶ One intervention with low contact time that sent adolescents and young adults numerous emails with links to STI information and motivational content was significantly associated with a reduction in unprotected sex.³⁷ Most of the 8 trials that reported both STI acquisition and behavioral outcomes found that persons reporting more consistent condom use were less likely to acquire STIs.^{25,34}

Four trials evaluated behavioral counseling interventions in adults or adolescents at average STI risk who were recruited without respect to individual STI risk factors from primary care clinics (3 trials) or through community advertising (1 trial).^{25,34} None reported significant effects on STI acquisition. One trial found a significant effect on self-reported sexual behavior in adolescents aged 11 to 14 years (of whom most were not yet sexually active) who enrolled with their mothers in a multisession family therapy intervention that was endorsed by their clinician and aimed to reduce adolescent sexual activity. After 9 months of follow-up, adolescents in the intervention group were less likely to report vaginal intercourse than adolescents offered usual care (OR, 0.24 [95% CI, 0.11-0.55]).³⁶ A recent follow-up study using an updated version of the intervention in a broader group found similar results.³⁸

Harms of Behavioral Counseling Interventions

Seven of the trials that assessed STI or behavioral outcomes ($n = 3458$) also reported on potential harms of interventions in adolescents or adults at increased risk for STIs. None of these trials reported significant harms.^{25,34} There was no consistent evidence that interventions increased sexual activity in adolescents, unintended pregnancy, perceptions of shame or stigma, or mental health problems.

Response to Public Comment

A draft version of this recommendation statement was posted for public comment on the USPSTF website from December 17, 2019, through January 21, 2020. Many comments requested clarification about taking a sexual history and identifying which adults are considered at increased risk for STIs. In response, the USPSTF added clarifying language to the Risk Assessment section. Comments seeking additional clarification on recommended interventions were also received. Where the USPSTF was able to provide more details, it did so in the Behavioral Counseling Interventions subsection of the Practice Considerations section. Comments also highlighted additional research needs, which have been included in the Research Needs and Gaps section. Some comments requested that the current recommendation discuss HIV preexposure prophylaxis; HIV preexposure prophylaxis is addressed in a separate USPSTF recommendation.³² A few comments requested clearer guidance on how to provide counseling in situations in which the sexual activity is not in the control of the patient (such as sexual trafficking or abuse). The USPSTF acknowledges the importance of helping

persons in this situation, which goes beyond counseling on how to prevent STIs. The USPSTF added a link to relevant resources provided by the CDC in the Additional Tools and Resources section.

Research Needs and Gaps

- Most studies identified by the USPSTF enrolled heterosexual girls, women, and men at increased risk for STI acquisition. More research on counseling interventions to prevent STIs is needed in sexually active boys; pregnant persons; gay, lesbian, bisexual, non-binary, and transgender persons; and older adults at increased risk; as well as in adolescents who are not yet sexually active. Research on interventions that engage couples or sex partners of primary care patients is also needed. More national-level data on prevalence of STIs in certain risk groups are also needed, including lesbian, bisexual, nonbinary, and transgender persons. Additional research is needed on understanding the role of social determinants of health in contributing to increased STI rates.
- Few trials incorporated sexual risk assessment performed by primary care clinicians, and less than one-half of trials assessed interventions delivered by clinicians, nurses, psychologists, or other health professionals. Because many trials were conducted in STI clinics, research that is more applicable to general primary care populations would be valuable, such as trials that test interventions delivered in primary care settings, obstetrics clinics, and family planning and women's health clinics, or that is endorsed by primary care clinicians for patients who report increased STI risk based on well-defined risk assessment methods.

- Trials that follow up participants for longer than 12 months are needed to assess the durability of intervention effects.
- Research is needed to develop and test interventions that could extend group counseling to remote participants (such as interactive telemedicine) and that would be more feasible for asymptomatic patients in general primary care settings, such as brief or media-based interventions involving less than 30 minutes.

Recommendations of Others

The CDC recommends that all clinicians routinely obtain a sexual history and encourage abstinence, condom use, limiting number of sex partners, and other sexual risk-reduction strategies,^{4,39} as well as routine vaccination against HPV and HBV infection.^{40,41} Many organizations advise clinicians to periodically obtain sexual histories, conduct sexual risk assessments, discuss sexual risk reduction, or some combination thereof; these organizations include the American Academy of Pediatrics,⁴² the American Academy of Family Physicians,⁴³ the American College of Obstetricians and Gynecologists,⁴⁴⁻⁴⁹ the Society for Adolescent Health and Medicine,⁵⁰ the National Coalition of Sexually Transmitted Disease Directors and the National Alliance of State and Territorial AIDS Directors,⁵¹ and the National Health Care for the Homeless Council.⁵² Although it does not address STI prevention counseling directly, the Sexual Assault Forensic Examiner Technical Assistance Organization provides guidance on how to evaluate and provide STI care to persons who have experienced sexual assault.⁵³

ARTICLE INFORMATION

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They should not be construed as an official position of AHRQ or the US Department of Health and Human Services.

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Additional Information: The US Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific preventive care services for patients without obvious related signs or symptoms. It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment. The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision-making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.

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