30th Anniversary

CONTRACEPTIVE TECHNOLOGY UPDATE®

A Monthly Newsletter for Health Professionals

June 2010: Vol. 31, No. 6
Pages 61-72

IN THIS ISSUE

Financial Disclosure:
Consulting Editor **Robert A. Hatcher**, MD, MPH, Author **Rebecca Bowers**, Associate Publisher **Coles McKagen**, Senior Managing Editor **Joy Dickinson**, and **Adam Sonfield** (Washington Watch Columnist) report no consultant, stockholder, speaker's bureau, research, or other financial relationships with companies having ties to this field of study. **Sharon Schnare** (Nurse Reviewer) discloses that she is a retained consultant and a speaker for Barr Laboratories, Berlex, and Organon; she is a consultant for 3M Pharmaceuticals; and she is a speaker for FEI Women's Health, Ortho-McNeil Pharmaceuticals, and Wyeth-Ayerst Pharmaceuticals.

Health care reform: What does it mean for family planning providers?

In March 2010, President Barack Obama signed the Patient Protection and Affordable Care Act into law, setting the wheels in motion for sweeping health care reform. Now that the dust has settled, what are the implications for those who provide reproductive health services, as well as those who receive them?

There are a number of "truly significant" changes for family planning provision under the new health reform law, says **Clare Coleman**, president and chief executive officer of the Washington, DC-based National Family Planning & Reproductive Health Association. Health care reform was a hot topic at the association's April 2010 national conference.[1]

According to an analysis by the Guttmacher Institute, a provision of the new law expands eligibility to all Americans with a family income below 133% of the federal poverty level, which allows 16 million more Americans to join Medicaid by 2019 than would otherwise be the case.[2] This is a plus for those seeking family planning services; all Medicaid recipients receive the program's guarantee of family planning services without cost sharing, along with coverage for its comprehensive package of reproductive health services beyond family planning, the analysis states.[2]

EXECUTIVE SUMMARY

Several aspects of the recent federal health care reform legislation might benefit family planning providers and their patients.

• Medicaid eligibility is now extended to all Americans with a family income below 133% of the federal poverty level. All Medicaid recipients will receive the program's guarantee of family planning services without cost sharing. States also will be able to immediately expand Medicaid access for family planning services up to the state's eligibility level for pregnant women.

• For uninsured patients with incomes above 133% of poverty level, the law allows them to purchase private insurance coverage through new health care exchanges, with almost all of purchases aided by a federal subsidy.

AHC Media LLC

Expanding access to health care through the Medicaid program for those with incomes under 133% of the federal poverty level is "tremendously important," says Coleman. "Thirty-seven states will see their Medicaid programs grow under this provision, and 16 million new beneficiaries are expected to be enrolled by 2019," she says. "Recognizing the severe budget shortfalls most states are currently facing, the federal government will assume all costs of the expansion for the first five years."

States also will have the option to immediately expand Medicaid access for family planning services up to the state's eligibility level for pregnant women, says Coleman. Twenty-seven states have Medicaid family planning programs under the waiver system; in all of those states, Medicaid family planning expansions have saved state and federal dollars, says Coleman. The option also gives states an important tool to fill gaps in the health care safety net until coverage is available through increased Medicaid and private health insurance access in 2014, she observes.

Check insurance changes

Many family planning patients who are uninsured individuals might benefit from changes in insurance propelled by the new legislation.

For those individuals with incomes above 133% of poverty, the law provides them an ability to purchase private insurance coverage through the new health care exchanges, with almost all of them aided by a federal subsidy.[2] Many of the plans will be required to offer a similar package of core services, according to the Guttmacher Institute analysis. While details are yet to be filled in, maternity care is included, which closes a major coverage gap in the individual and small group market. The final package is projected to include coverage such reproductive health services as contraceptive services and supplies. [2] Insurance plans participating in the exchanges will be required to contract with essential community providers, which include family planning centers, community health centers, public hospitals, and HIV/AIDS clinics.

An important benefit for women is the provision for all private insurance plans, inside and outside the exchanges, to cover a package of preventive and screening services for women without cost sharing. The exact package will be defined by the federal government, following a study to be conducted by the Health Resources and Services Administration. [2]

"Research clearly demonstrates that even nominal co-pays drastically reduce the utilization of preventive health care services, undermining key public health goals and ultimately only increas-

Contraceptive Technology Update® (ISSN 0274-726X), including STD Quarterly™, is published monthly by AHC Media LLC, 3525 Piedmont Road, Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodicals Postage Paid at Atlanta, GA 30304 and at additional mailing offices.

POSTMASTER: Send address changes to Contraceptive Technology Update®, P.O. Box 740059, Atlanta, GA 30374.

Subscriber Information
Customer Service: (800) 688-2421 or fax (800) 284-3291. E-mail: (customerservice@ahcmedia.com). Hours of operation: 8:30 a.m.-6 p.m. Monday-Thursday; 8:30 a.m.-4:30 p.m. Friday, EST. Subscription rates: U.S.A., one year (12 issues), $449. Add $17.95 for shipping & handling. Outside U.S., add $30 per year, total prepaid in U.S. funds. Discounts are available for group subscriptions, multiple copies, site-licenses or electronic distribution. For pricing information, call Tria Kreutzer at 404-262-5482. Back issues, when available, are $75 each.(GST registration number R128870672.) Photocopying: No part of this newsletter may be reproduced in any form or incorporated into any information retrieval system without the written permission of the copyright owner. For reprint permission, please contact AHC Media LLC. Address: P.O. Box 740056, Atlanta, GA 30374. Telephone: (800) 688-2421. World Wide Web: http://www.ahc media.com.

Opinions expressed are not necessarily those of this publication. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

AHC Media LLC is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

This activity has been approved for 15 nursing contact hours using a 60-minute contact hour.

Provider approved by the California Board of Registered Nursing, Provider #14749, for 15 Contact Hours.

AHC Media LLC is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

AHC Media LLC designates this educational activity for a maximum of 18 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

This activity is intended for OB/GYNs, nurses, nurse practitioners, and other family planners. It is in effect for 24 months from the date of publication.

Editor: Rebecca Bowers.
Executive Editor: Coles McKagen (404) 262-5420 (coles.mckagen@ ahcmedia.com).
Senior Managing Editor: Joy Daughtery Dickinson (229) 551-9195 (joy.dickinson@ahcmedia.com).
Director of Marketing: Schandale Kornegay.
Senior Production Editor: Ami Sutaria

Editorial Questions
Questions or comments?
Call Joy Daughtery Dickinson
(229) 551-9195.

ing health care costs," says Coleman. "Making an up-front investment in these services is critical to the goal of improving public health and lowering overall costs."

Young people who might have been without health coverage will see benefit from the new reform legislation. According to the Guttmacher Institute analysis, all private plans that provide dependent coverage will be required to make it available for unmarried adult children younger than age 26. For those who might be at risk for unplanned pregnancy or sexually transmitted infections (STIs), this provision, which goes into effect later in 2010, represents another important avenue for care. [2]

One important component of the health care reform legislation involves the inclusion of essential community providers in state-based exchanges, says Coleman. While expanding coverage is a critical component in health care reform, it is imperative that poor and low-income patients have access to health care providers, she states.

"Across the country, millions of Americans currently receive high quality, culturally competent health care from safety net providers, including publicly funded family planning health centers and community health centers among others," Coleman says. "To ensure that the most vulnerable have access to the providers who best meet their needs, it is imperative that health plans participating in the state exchanges work with the safety net provider community."

When combined with long-term investments in the health care workforce, the inclusion of safety net providers in state exchanges will help mitigate the growing provider shortage in preventive and primary health care, Coleman says. Including safety net providers greatly increase the odds that the newly insured patient population could see a provider on day one and that that provider could be reimbursed for providing that care, she states.

Safety net strengthened

New grants and programs stemming from health care reform legislation might benefit reproductive health care providers.

The new law includes $1.5 billion over five years to support maternal, infant and early childhood home visiting programs, with a focus on high-risk families. It also boosts the rebates pharmaceutical manufacturers must offer to state Medicaid programs for brand-name and generic drugs and in the discounts offered to safety-net providers, including Title X–supported family planning centers, under the 340B Drug Discount Program.

Significant new funding is included for community health centers, which provide family planning services and other basic reproductive health, according to the Guttmacher Institute analysis. [2] The legislation also establishes a dedicated $50 million yearly funding stream for school-based health centers, many of which provide contraceptive care.

Providers see benefits

How might the new legislation be of direct assistance to health care providers? The reform package includes several dozen programs designed to bolster the health care workforce through loan forgiveness and provider training programs, some of which are relevant for family planning providers, according to the Guttmacher Institute analysis.

Under the new law, certified nurse-midwives (CNMs) have achieved equitable reimbursement for their services under Medicare. As of Jan. 1, 2011, the CNM reimbursement rate will increase from 65% to 100% of the Medicare Part B fee schedule, according to the American College of Nurse-Midwives (ACNM).

"Payment equity for certified nurse-midwives under Medicare will increase the availability of much-needed midwifery services for women, including maternity care, family planning, and primary care services," says **Melissa Avery**, CNM, PhD, FACNM, FAAN, ACNM president. "We anticipate Medicaid and other payers will also provide equitable reimbursement to midwives, thus improving the opportunity for both midwifery practices and for other employers to hire midwives."

Challenges lie ahead

While several strides have been made in enacting the health care reform legislation, family planners need to be mindful of challenges that lie ahead, Coleman advises. The current economic downturn has exacted a heavy toll on publicly funded family planner facilities, which had struggled prior to the recession, she notes. On top of problems with staff shortages and unpredictable cost increases, family planning clinics have

increased demand for services, combined with public funding cuts.

"In my own experience running a publicly subsidized health system, I had to cut hours and staff to control costs more than once, leaving the system ill-prepared when patient demand began to grow," Coleman says. "Patients are less able to cover their share of costs, private donations are down, and state budgets will get worse before they get better. A big question is: Can the family planning public health system make it to health care reform?"

Many questions will be raised on how public health service programs such as Medicaid and Title X integrate with health insurance reform, states Coleman. Patients being seen under Title X or a Medicaid waiver today might move to traditional Medicaid or a state-based exchange, depending on income. This opens the door to problems with continuity of care, Coleman observes.

"Patients need consistency in their contraceptive care, and the programs aren't designed to work together well," she notes. "I can tell you from experience that it's frustrating for patients and a real hassle for administrators."

There is concern that support for Title X and other Public Health Services Act programs might diminish under the current reform legislation, says Coleman. The Massachusetts experience with health care reform has shown family planners that careful attention needs to be paid as laws are enacted and regulations are written to ensure public health programs are not penalized.

"In Massachusetts, since the passage of universal coverage, state family planning dollars have shrunk by nearly 70%, and the state has entirely defunded the STI clinic system," Coleman says. "Now, some patients are waiting for gynecological appointments, and there are safety-net systems in crisis." *[Editor's note:* Contraceptive Technology Update *reported on the historic health care reform legislation in a special March 23, 2010, e-mail bulletin. If you would like to sign up to receive future bulletins, contact Customer Service at customerservice@ahcmedia.com or (800) 688-2421.]*

REFERENCES

1. Waxman J, Seiler N. Family planning after health care reform. Presented at the National Family Planning & Reproductive Health Association 2010 National Conference. Arlington, VA; April 2010.

2. Guttmacher Institute. The new health care reform legislation: pros and cons for reproductive health. Accessed at www.guttmacher.org/media/inthenews/2010/03/29/index.html. ■

Study shows condom fit impacts its usage

The last time your teen-age male patient came to the adolescent clinic, he left with a bag of male condoms. However, when he returns to be tested for sexually transmitted diseases (STDs), he tells you he hasn't used the condoms. Why?

If the condoms provided aren't a comfortable fit, chances are your patient won't use them consistently and correctly. Results of a new study indicate that men who report wearing poorly fitting condoms are more likely to remove condoms before penile–vaginal sex.[1]

The research was conducted using a convenience sample of men recruited through advertisements and through a condom web site. The participants then completed a survey on The Kinsey Institute web site.

In the study, men who reported wearing ill-fitting condoms also reported a number of related problems. Compared with men who did not have condom fit problems, those who did had more breakage, more slippage, and were more likely to report irritation of the penis. They also were more likely to report reduced sexual pleasure, plus more difficulty reaching orgasm, both for themselves and for their sexual partner. Men with ill-fitting condoms said that the condoms interfered with their erection and contributed to dryness during intercourse. [1]

EXECUTIVE SUMMARY

Results of a new study indicate that men who report wearing poorly fitting condoms are more likely to remove condoms before penile–vaginal sex.

- Compared with men in the study who did not have condom fit problems, those who did had more breakage, more slippage, and were more likely to report irritation of the penis.
- They also were likely to report reduced sexual pleasure, plus more difficulty reaching orgasm, both for themselves and for their sexual partner. Men with ill-fitting condoms said that the condoms interfered with their erection and contributed to dryness during intercourse.

Give them choices

What can clinicians do to work with patients toward improved use of condoms?

Health care providers are in an ideal position to educate patients about condom "fit and feel" and then provide them with a variety of high-quality condoms in various sizes, says **Richard Crosby**, PhD, professor of health behavior at the Lexington-based University of Kentucky and lead author of the current research. Failure to do so might best be described by the old adage "penny-wise and pound foolish," Crosby notes.

When counseling on condom use, ask questions such as "Does this particular condom pinch or feel uncomfortable?" "Does it break?" and "Does it slip off?" advises study co-author **William Yarber**, HSD, professor in the departments of Applied Health Science and Gender Studies at Indiana University and senior research fellow at The Kinsey Institute. Previous research conducted by the research group shows that when condoms are ill-fitting, the risks for condom error increase.[2] *(*Contraceptive Technology Update *reported on the research; see "Your clinic can boost condom use," December 2006, p. 140.)*

When counseling on condom use, ask questions such as "Does this particular condom pinch or feel uncomfortable?" "Does it break?" and "Does it slip off?"

Offer patients two or more types of condoms, suggests Yarber. Encourage them to practice using them to determine which one feels better, he advises. While earlier research on condoms centered on parameters such as breakage and slippage, less attention has been focused on the eroticism and pleasure aspects, says Yarber. If patients encounter problems with the fit and feel of condoms, they are not going to use them, he states.

Encourage use of water-based lubricants, such as K-Y Jelly, Astroglide, and AquaLube. Such lubricants do not degrade the condom material and help to increase sensation. Advise against use of oil-based lubricants, such as petroleum jelly, which reduce condom integrity and might facilitate breakage.[3]

Science eyes scale

Discussing penis size or condom issues might be challenging for some patients.

To help clinicians engage men in discussion of condom fit and feel, researchers at the Sexual Health Research Working Group at Indiana University Bloomington have developed a questionnaire, the "Condom Fit and Feel Scale."[4] The questionnaire includes such statements as "Condoms feel too loose on my penis," "Condoms feel too tight along the shaft of my penis," and "Condoms feel too tight on the head of my penis." Answers cover a range from "always applies" to "never applies." The condom scale offers a way for men to express in a confidential way their condom concerns related to length, width, tightness, or looseness.

The group's research shows that one size doesn't fit all when it comes to condoms. In the study, 21% reported that condoms felt too tight, while 18% said their condoms felt too short. Ten percent of men said their condoms felt too loose, and 7% reported that condoms felt too long.[5]

Problems with condom fit aren't just confined to the United States. The Indiana researchers posed questions to men in five European countries (France, Germany, the Netherlands, Slovenia, and Spain) regarding condom fit. Data indicates those surveyed reported a wide variety of problems associated with condom fit and feel.[6] Men in the Netherlands were least likely to report that condoms fit fine and were most likely to report that condoms were too short and too tight. Men in Spain were most likely to report that condoms were too long, the analysis suggests.[6]

REFERENCES

1. Crosby RA, Yarber WL, Graham CA, et al. Does it fit okay? Problems with condom use as a function of self-reported poor fit. *Sex Transm Infect* 2010; 86:36-38.
2. Crosby RA, Yarber WL, Sanders SA, et al. Men with broken condoms: who and why? *Sex Transm Infect* 2007; 83:71-75.
3. Warner L, Steiner MJ. Male condoms. In: Hatcher RA, Trussell J, Nelson AL, et al. Contraceptive Technology: 19th revised edition. New York: Ardent Media; 2007.
4. Reece M, Herbenick D, Dodge B. Penile dimensions and men's perceptions of condom fit and feel. *Sex Transm Infect* 2009; 85:127-131.
5. Indiana University. When condoms don't fit. Living Well 2009; accessed at newsinfo.iu.edu/web/page/normal/6280.html#1.
6. Dodge B, Reece M, Herbenick D. Experiences of condom fit and feel among men in five European nations. Presented at the 137th Annual Meeting of the American Public Health Association. Philadelphia; November 2009. ■

Tampon use may indicate vaginal ring acceptance

As a clinician who counsels on contraceptive choice, how can you determine if a woman is a likely candidate for the contraceptive vaginal ring (NuvaRing, Merck & Co., Whitehouse Station, NJ)? New research suggests that young women who report tampon use are more likely to choose the contraceptive vaginal ring over oral contraceptives as their initial birth control method.[1]

The study was conducted as part of the Contraceptive Choice Project, a longitudinal study of 10,000 St. Louis area women. The project is designed to promote the use of long-acting, reversible methods of contraception while evaluating user continuation and satisfaction for all reversible methods.

To perform the current study, researchers performed univariable and multivariable analyses of the 311 women who were asked about tampon use at the time of enrollment in the project and who chose the contraceptive vaginal ring or combined oral contraceptives (COCs) in an effort to assess the association of tampon use and choice of combined hormonal method. Adjusted analysis indicated that tampon users were more likely to choose the contraceptive vaginal ring instead of combined pills (adjusted relative risk 1.34, 95% confidence interval 1.01-1.78).

While use of tampons might be considered an indicator for the initial acceptability of the contraceptive vaginal ring, all women should be offered the contraceptive vaginal ring regardless of experience with tampon use, says study co-author **Renee Mestad**, MD, clinical fellow at the Washington University School of Medicine, St. Louis.

"Many women enjoy the benefits of COCs, but have difficulty remembering to take the pill daily and subsequently quit using them without letting their clinician know," Mestad says. "When patients know there are other similar, but more user-friendly options available, they may be more inclined to call their clinician to try something else."

Don't think that women who do not use tampons aren't interested in the vaginal ring as well; in the current study, 7% overall of such women chose the ring when all options were presented, says Mestad. Tampon users have an easier time imagining or "visualizing" in a sentient way how to place the ring and how it would feel once placed, she says.

"Clinicians would only need to take an extra few minutes to explain to non-tampon users that the ring is not felt by the patient when it sits properly in the vagina," Mestad says. "Clinicians can also offer to place the first ring for their interested but skeptical patients to demonstrate the ease of placement and how it should feel when in place."

Who picks the ring?

Melissa Gilliam, MD, MPH, associate professor of obstetrics and gynecology at the University of Chicago and chief of its Division of Family Planning and Contraceptive Research, is looking at factors surrounding young women's selection of the contraceptive vaginal ring. Her research team is conducting the ACCEPT (Acceptability of NuvaRing versus Birth Control Pills in College Women) study to look at these factors.

In an early study, researchers surveyed college students regarding reasons for selecting the ring versus other methods,[2] says Gilliam. Those women who were interested in using the ring liked the fact that it was non-daily, did not mind self-insertion, did not mind feeling the ring during intercourse, liked the idea of a monthly method, had busy schedules, and were concerned about side effects, Gilliam reports. Women who were using oral contraceptives were less likely to consider using the ring.[2]

Gilliam's research team has just published results of a study designed to compare satisfaction with and adherence to the contraceptive vaginal ring and a daily low-dose oral contraceptive pill among college and graduate students.[3] To conduct the study, researchers randomly assigned 273

EXECUTIVE SUMMARY

New research suggests that young women who report tampon use are more likely to choose the contraceptive vaginal ring over oral contraceptives as their initial birth control method.

- While use of tampons might be considered an indicator for the initial acceptability of the contraceptive vaginal ring, all women should be offered the contraceptive vaginal ring regardless of experience with tampon use, study authors suggest.
- In counseling on ring use, explain that the ring is not felt by the patient when it sits properly in the vagina. Offer to insert the first ring to demonstrate the ease of placement and how it should feel when it is properly inserted.

women to the contraceptive vaginal ring (n = 136) or pill (n = 137) for three consecutive menstrual cycles. Participants completed daily Internet-based, online diaries regarding method adherence and satisfaction during cycles of use. At three months, they completed an online survey regarding intention to continue their method and overall acceptability. At six months, scientists surveyed participants to see whether they continued using contraception and, if so, which method was used.

"We found that many women did not continue their method — ring or pill — due to the cost of the method," observes Gilliam. "Discontinuation reasons specific to the ring included concerns about side effects, such as discharge or bleeding, and some were not sexually active, so discontinued the method. But most liked the method."

REFERENCES

1. Tepe M, Mestad R, Secura G, et al. Association between tampon use and choosing the contraceptive vaginal ring. *Obstet Gynecol* 2010; 115:735-739.
2. Gilliam ML, Holmquist S, Berlin A. Factors associated with willingness to use the contraceptive vaginal ring. *Contraception* 2007; 76:30-34.
3. Gilliam ML, Neustadt A, Kozloski M, et al. Adherence and acceptability of the contraceptive ring compared with the pill among students: a randomized controlled trial. *Obstet Gynecol* 2010; 115:503-510. ■

Time to turn the tide against trichomoniasis

Trichomoniasis is the most common curable sexually transmitted disease (STD) in young, sexually active women. An estimated 7.4 million new cases occur each year in women and men, according to the Centers for Disease Control and Prevention (CDC).[1] What can clinicians do to turn the tide?

Trichomonas vaginalis (TV) is the infectious agent that results in trichomoniasis. Interest in trichomoniasis has risen since research identified it as a risk factor for HIV. Women are especially at risk. Findings from one study indicate women with the infection have a 50% increased risk of acquiring HIV.[2] Infection with TV in women and men already infected with HIV can be problematic. Research indicates that those coinfected shed more HIV in their secretions than those without the STD and put their partners at increased risk for HIV infection.[3,4]

While other STDs such as chlamydia and gonorrhea are reportable conditions, trichomoniasis is not. Research now indicates that the burden of TV infection is high and that asymptomatic infections are common.[5] Results of a longitudinal study of men and women ages 18-26 indicate that TV was nearly as common as chlamydia and more common than gonorrhea.[6] Study findings also revealed 95% of those with documented TV reported no symptoms in the week prior to testing.[6]

Pros of making TV a reportable disease

Should TV be added to the list of reportable diseases? **Charlotte Gaydos**, MS, MPH, DrPH, professor of medicine in the Division of Infectious Diseases at Johns Hopkins University, discussed the pros and cons at the 2010 National STD Prevention Conference.[7]

The evidence is "very strong" for making TV a reportable disease, Gaydos says. The prevalence of the infection, coupled with its association with pelvic inflammatory disease and adverse birth outcomes, and the identification of the infection as a risk factor for HIV, are all arguments for such a public health mandate. However, with the current economic downturn, it is unlikely that the CDC will be able to obtain additional national funding for such an effort, Gaydos says.[7]

While TV infection can cause symptoms such as vaginitis and cervicitis in women and urethritis in women and men, in most cases, the infection is asymptomatic.[3] If it is not detected in women, trichomoniasis can lead to more serious consequences, such as pelvic inflammatory disease and

EXECUTIVE SUMMARY

Trichomoniasis (TV) is the most common curable sexually transmitted disease in young, sexually active women. An estimated 7.4 million new cases occur each year in women and men, according to the Centers for Disease Control and Prevention.

- Research now indicates that the burden of TV infection is high and that asymptomatic infections are common. Results of a longitudinal study of men and women ages 18-26 indicate that TV was nearly as common as chlamydia and more common than gonorrhea.
- Treatment of TV is simple. Clinicians can prescribe a single 2 gram dose of metronidazole or tinidazole.

preterm births.[8,9]

Since there is no standard guideline to screen for trichomoniasis , such as there is with chlamydia, many clinicians might think to test only when symptoms are present, says **Jill Huppert**, MD, MPH, assistant professor of pediatrics and obstetrics and gynecology at Cincinnati Children's Hospital Medical Center. Huppert and fellow researchers are focusing on better detection of the infection and looking at such options as rapid point-of-care tests and self-collected specimens in an effort to reduce transmission and potentially prevent future complications.

The most commonly used test to detect trichomoniasis is the wet mount; however, this in-office test detects only about 35-60% of infections in women.[10] There are no good tests for TV in men.[4] Culture can be used to test for infection, as well as two point-of-care tests: the OSOM Trichomonas Rapid Test (Genzyme Diagnostics, Framingham, MA) and the Affirm VP III (Becton Dickenson, San Jose, California), a nucleic acid probe test.[11]

Treatment of TV is simple: Prescribe a single 2 gram dose of metronidazole or tinidazole.[4] Be sure to treat the infected patient and partners; counsel that those treated should abstain from sex for the next week.[4] Use the moment to offer testing for other STDs, including HIV, and offer prevention and counseling messages.[4]

Science eyes options

While trichomoniasis is a common sexually transmitted infection in adolescent women, barriers to diagnosis lie in the need for a pelvic exam and wet mount. Huppert and research associates have conducted a study to see if women ages 14-22 could accurately perform a point-of-care (POC) test on a self-obtained vaginal swab.[12]

In the study, 218 sexually experienced women collected a vaginal swab and performed a POC test for trichomoniasis. Using a speculum, the clinician obtained vaginal swabs which were tested for trichomoniasis using the POC test, wet mount, culture, and transcription mediated amplification, using standard and alternative primers. Self and clinician results were compared to true positives, which were defined as culture positive or transcription mediated amplification positive with both sets of primers.

Findings indicate that the women performing the test for themselves detected as many trichomoniasis infections as clinicians doing the same test or culture, and twice as many as detected with wet mount.12 In the future, incorporating self-performed tests into routine practice could increase identification and treatment of trichomoniasis in vulnerable women such as adolescents, researchers conclude. This final point is of particular importance, because Pap smear recommendations are now putting off pelvic exams to an older age in many adolescents, says **Robert Hatcher**, MD, MPH, professor of gynecology and obstetrics at Emory University in Atlanta.

REFERENCES

1. Centers for Disease Control and Prevention. Trichomoniasis fact sheet. Accessed at www.cdc.gov/std/trichomonas/stdfact-trichomoniasis.htm.
2. McClelland RS, Sangare L, Hassan WM, et al. Infection with Trichomonas vaginalis increases the risk of HIV-1 acquisition. *J Infect Dis* 2007; 195:698-702.
3. Hobbs MM, Kazembe P, Reed AW, et al. Trichomonas vaginalis as a cause of urethritis in Malawian men. *Sex Transm Dis* 1999; 26:381-387.
4. Wang CC, McClelland RS, Reilly M, et al. The effect of treatment of vaginal infections on shedding of human immunodeficiency virus type 1. *J Infect Dis* 2001; 183:1,017-1,022
5. Huppert J. Trichomoniasis: An update for clinicians. Accessed at www.physiciansofficeresource.com/articles/trichomoniasis-an-update-for-clinicians.asp.
6. Miller WC, Swygard H, Hobbs MM, et al. The prevalence of trichomoniasis in young adults in the United States. *Sex Transm Dis* 2005, 32:593-598.
7. Gaydos C. Trichomonas vaginalis — the undervalued STI. How to get respect. Presented at the 2010 National STD Prevention Conference. Atlanta; March 2010.
8. Paisarntantiwong R, Brockmann S, Clarke L, et al. The relationship of vaginal trichomoniasis and pelvic inflammatory disease among women colonized with Chlamydia trachomatis. *Sex Transm Dis* 1995; 22:344-347.
9. Kienstra AJ, Ward MA. Third place winner. Three-year-old female with intermittent ovarian torsion. *J Emerg Med* 2002; 23:375-377.
10. Wiese W, Patel SR, Patel SC, et al. A meta-analysis of the Papanicolaou smear and wet mount for the diagnosis of vaginal trichomoniasis. *Am J Med* 2000; 108:301-308.
11. Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guideline 2006; accessed at www.cdc.gov/std/treatment/2006/vaginal-discharge.htm#vagdis3.
12. Huppert J, Hesse E, Hye-kyong K, et al. Adolescent women can perform a point-of-care test for trichomoniasis as accurately as clinicians. Presented at the 2010 National STD Prevention Conference. Atlanta; March 2010. ■

Use social marketing to reach at-risk teens

[Editor's note: Look to the July 2010 issue for the second of this two-part series for information on SWAP, an online database developed by the California STD/HIV Prevention Training Center.]

How can you reach at-risk teens with health information on sexually transmitted diseases (STDs) or other reproductive health issues? Look to the Youth Social Marketing Toolkit, an online resource developed by the California STD/HIV Prevention Training Center (CAPTC) in Oakland and the California Family Health Council in Los Angeles to help reproductive health providers develop cost-effective social marketing campaigns.

The toolkit is a one-stop free resource for providers, complete with planning materials, campaign samples, and links to related resources. *(See resource listing on p. 69 on how to access the online site.)* It was developed in response to requests from local health providers for technical assistance in developing social marketing campaigns, says **Amy Smith**, MPH, health promotion and health education unit chief in the STD Control Branch of the California Department of Public Health and the CAPTC. There are no costs to other facilities who wish to use the toolkit's resources, says Smith.

Social marketing uses the same collection of tools to "sell" healthy behaviors, just as marketers strive to sell commodities such as blue jeans to the public. The Youth Social Marketing Toolkit site explains how social marketing incorporates the four basic principles of commercial marketing, known as the "4 P's":

- **Product.** The product is a behavior change or a shift in attitude. For example, your clinic might want to develop a program to increase condom use among teens.
- **Price.** Price is defined as the cost of changing behaviors. The goal of social marketing is to reframe the recommended behavior change so that the consumer realizes that the benefits of change outweigh the efforts or costs.
- **Place.** Place represents all efforts to make the behavior change as easy as possible to a consumer. For example, if your facility is developing a condom program for teens, it might mean offering free or inexpensive condoms at convenient locations or changing your clinic's schedule to accommodate busy students.
- **Promotion.** How do you get the word out to the public on the program? Advertising is just one method. A promotional campaign includes incorporating messages about the recommended behavior change into all existing programs to reinforce the message on multiple levels.

Social marketing employs a fifth "P" -- policy -- which is not included in commercial campaigns. Efforts are made to influence policy that will promote positive behavior change.

Why use social marketing to reach adolescents? When messaging is designed with youth input and there is creative use of appropriate media for the audience, social marketing for sexual health messages can be particularly effective in "spreading the word," increasing awareness, and influencing behavior, says **Joyce Lisbin**, EdD, health communication coordinator at the STD Control Branch and the CAPTC.

Evaluation activities to determine the effectiveness of social marketing approaches have resulted in increased awareness and positive changes in attitude toward healthy behavior change, Lisbin says. Research indicates that social marketing interventions adopting social marketing principles can form an effective framework for behavior change interventions.[1]

Feedback indicates that most providers would be highly likely to use the resource to develop a social marketing campaign, says Smith. From its launch on Dec. 2, 2009, there have been 9,554 page views and 7,548 unique page views. Reviews of the site note its attractiveness, user-friendly features and its value as a resource for public health professionals.

About 300 hours of staff time were devoted to the development, distribution, and evaluation of the online resource, says Lisbin.

REFERENCE

1. Stead M, Gordon R, Angus K, et al. A systematic review of social marketing effectiveness. *Health Education* 2007; 107:125-191. ■

RESOURCE

To access the Youth Social Marketing Toolkit, visit the California STD/HIV Prevention Training Center web site, www.stdhivtraining.org. Click on "Resources" on the menu bar to access link.

TEEN TOPIC

New programs improve outcomes for teens

By **Melanie Gold**, DO
Clinical Associate Professor of Pediatrics
University of Pittsburgh School of Medicine
Staff Physician
University of Pittsburgh Student Health Service
and **Kaiyti Duffy**, MPH, Director of Education and Research
Anita Brakman, MS, Education & Research Manager
Physicians for Reproductive Choice and Health
New York City

Sexuality is a normal part of adolescent development. Though sexual behaviors can lead to adverse reproductive health outcomes, most adolescents will become sexually active during their teen-age years[1], which makes interventions that promote or enhance sexual health in adolescents increasingly important.

Until recently, most programs addressing teen sexuality have endorsed abstinence-only until marriage or focused predominantly on education about safer sex. However, there is widespread recognition that exposure to even the most effective sex education program is not enough to promote and sustain healthy adolescent sexuality.[2]

Positive youth development (PYD) programs represent a third approach. The March 2010 issue of the *Journal of Adolescent Health* (JAH) examined PYD programs in terms of their effects on adolescent sexual and reproductive health (ASRH) outcomes. The authors assert, "It is possible that sexuality education programs provide youth the skills and knowledge needed to practice safe sexual behavior, whereas PYD programs provide them with the motivation to do so."[3]

While PYD programs vary widely in their content, and the definition of PYD differs among researchers, the JAH chose to examine programs that focused on one or more of 12 goals identified by Catalano et al in earlier research on positive youth development.[4] These goals then were combined into four categories, described as the "4 C's": connectedness (bonding), competence (social, behavioral, cognitive, emotional, and moral), confidence (self-efficacy, belief in the future, self determination, and clear and positive identity), and character (pro-social norms and spirituality).[5]

Authors deemed individual goals or subconstructs protective when findings from two or more longitudinal studies showed a significant association between a goal or subconstruct and improvement in at least one ASRH outcome including: ever had sex, recent sex/current sexual activity, early sexual debut, use of contraception, use of condoms, number of sexual partners, frequency of sex, sexual risk index, contraction of a sexually transmitted infection, pregnancy/birth, and intentions to engage in sexual behaviors. Goals associated with a negative change were found to have risk associations.

Twelve goals and multiple subconstructs were examined. Several notable points emerged. Cognitive competence, mostly measured by academic achievement, had a protective association with ever having sex, contraceptive use, and pregnancy/birth.[6] Social and behavioral competence were combined, and when measured by a variety of scales measuring communication skills or assertiveness, had a protective association with contraceptive use.[6]

Connectedness was broken down into several smaller subconstructs. Sexuality-specific parent communication was found to have the most protective associations with improving outcomes in rates of ever having sex, contraceptive and condom use, number of sexual partners, frequency of sex, and pregnancy/birth.[7] Connectedness was the only category within which a risk association was found. Specifically, while the subconstruct "parental monitoring" had protective associations with various ASRH outcomes, parent overcontrol had a risk association with ever having sex.[7]

Two goals under the heading of "confidence"

COMING IN FUTURE MONTHS

- What's your knowledge level of contraceptive evidence?
- How are contraceptive costs impacting your facility's budget?
- How to reach adolescents of color with social marketing
- Check benefits and pitfalls of off-label drug use

had protective associations. Belief in the future was protective for early sexual debut and pregnancy/birth. Self-determination had a protective association with ever having sex and pregnancy/birth.[8] In examining "character," authors also found prosocial norms and spirituality to have protective associations.[9]

Although the findings had several limitations, these data offer many insights into the provision of sexual and reproductive healthcare to adolescents. Primarily, it is insufficient to solely ask a teen about sexual behaviors or to counsel only about contraception and condom use. Adolescent health providers must assess the various socio-cultural and interpersonal forces that affect an adolescent's determination to develop and sustain healthy sexual self. By incorporating the concepts presented through PYD programs, providers can screen more effectively for risk while, at the same time, promoting positive sexual development among teen patients.

REFERENCES

1. Centers for Disease Control and Prevention. Youth risk behavior surveillance — United States, 2007. Surveillance Summaries, June 6, 2008. *MMWR* 2008; 57(No. SS-4).
2. Mullen PD, Ramirez G, Strouse D, et al. Meta-analysis of the effects of behavioral HIV prevention interventions on the sexual risk behavior of sexually experienced adolescents in the United States. *J Acquir Immune Defic Syndr* 2002; 30:S94-105.
3. Gavin LE, Catalano RF, David-Ferdon C, et al. A review
continued onto page 72

CNE/CME INSTRUCTIONS

Physicians and nurses participate in this continuing nursing medical education/continuing education program by reading the articles, using the provided references for further research, and studying the questions at the end of the issue. Participants should select what they believe to be the correct answers and refer to the list of correct answers to test their knowledge. To clarify confusion surrounding any questions answered incorrectly, please consult the source material. After completing this activity with this issue, you must complete the evaluation form provided and return it in the reply envelope provided in that issue to receive a certificate of completion. When your evaluation is received, a certificate will be mailed to you. ■

CNE OBJECTIVES/QUESTIONS

After reading Contraceptive Technology Update, the participant will be able to:

- identify clinical, legal, or scientific issues related to development and provisions of contraceptive technology or other reproductive services;
- describe how those issues affect services and patient care;
- integrate practical solutions to problems and information into daily practices, according to advice from nationally recognized family planning experts;
- provide practical information that is evidence-based to help clinicians deliver contraceptives sensitively and effectively.

21. Which of the following lubricants is NOT safe for use with latex condoms?
A. Petroleum jelly
B. KY Jelly
C. Astroglide
D. AquaLube

22. In research by Tepe M, et al, Obstet Gynecol 2010, what was found to be a potential factor for acceptance of the contraceptive vaginal ring?
A. Previous use of an intrauterine device
B. Use of tampons
C. Previous use of a diaphragm
D. Previous use of spermicides

23. What is the most commonly used in-office test to detect trichomoniasis?
A. OSOM Trichomonas Rapid Test
B. Affirm VP III nucleic acid probe test
C. Wet mount
D. Pap smear

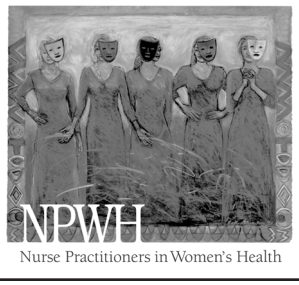
24. What are the "4 C's" that are incorporated in positive youth development programs?
A. Connectedness, competence, courage, and character
B. Connectedness, cohesiveness, confidence, and character
C. Connectedness, competence, confidence, and community
D. Connectedness, competence, confidence, and character

Answers: 21. A 22. B 23. C 24. D

continued from page 71

of positive youth development programs that promote adolescent sexual and reproductive health outcomes. *J Adolesc Health* 2010; 46:S75-91.
4. Catalano RF, Berglund ML, Ryan JAM, et al. Positive youth development in the United States. Research findings on evaluations of the positive youth development programs (Report to the US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation and the National Institute for Child Health and Human Development [Washington, DC], 1998). *Prev Treat* 2002; 5. Article 5.
5. Pittman KJ, O'Brien, R, Kimball M. Youth development and resiliency research: Making connections to substance abuse prevention. Forum for Youth Investment. New York, NY: Center for Youth Development and Policy, Research/ Academy for Educational Development. 1993.
6. House LD, Bates J, Markham CM, Lesesne C. Competence as a predictor of sexual and reproductive health outcomes for youth: A systematic review. *J Adolesc Health* 2010; 46:S7-S22.
7. Markham CM, Lormand D, Gloppen KM, et al. Connectedness as a predictor of sexual and reproductive health outcomes for youth. *J Adolesc Health* 2010; 46:S23-S41.
8. Gloppen KM, David-Ferdon C, Bates J. Confidence as a predictor of sexual and reproductive health outcomes for youth. *J Adolesc Health* 2010; 46:S42-S58.
9. House LD, Mueller T, Reininger B, et al. Character as a predictor of sexual and reproductive health outcomes for youth. *J Adolesc Health* 2010; 46:S59-S74. ■

Contraceptive Technology Update is endorsed by the National Association of Nurse Practitioners in Women's Health and the Association of Reproductive Health Professionals as a vital information source for health care professionals.



The Condom Fit and Feel Scale

Reece, M., Herbenick, D., & Dodge, B. (2009). Penile dimensions and men's perceptions of condom fit and feel. *Sexually Transmitted Infections, 85,* 127-131.

Please rate the extent to which each of the following statements has applied to you as you have used condoms for sexual activities in the past:	**Never Applies To Me**	**Sometimes Applies To Me**	**Often Applies To Me**	**Always Applies To Me**
Condoms fit my penis just fine	○	○	○	○
Condoms feel comfortable once I have them on my penis	○	○	○	○
Condoms are too long for my penis	○	○	○	○
I have some unrolled condom left at the base of my penis after I unroll it	○	○	○	○
Condoms are too short for my penis	○	○	○	○
Condoms will not roll down far enough to cover my penis completely	○	○	○	○
Condoms are too tight on my penis	○	○	○	○
Condoms fee too tight along the shaft of my penis	○	○	○	○
Condoms feel too tight on the head of my penis	○	○	○	○
Condoms feel too tight around the base of my penis	○	○	○	○
Condoms are too loose on my penis	○	○	○	○
Condoms feel too loose along the shaft of my penis	○	○	○	○
Condoms feel too loose around the head of my penis	○	○	○	○
Condoms feel too loose around the base of my penis	○	○	○	○

Source: Michael Reece, PhD, MPH, Director, Center for Sexual Health Promotion, Indiana University, Bloomington.