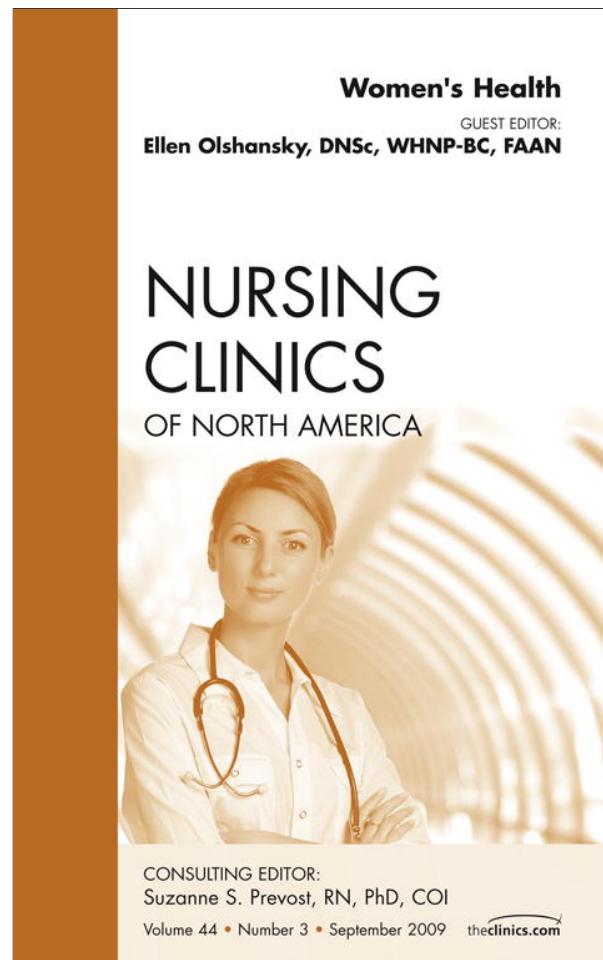


Provided for non-commercial research and education use.
Not for reproduction, distribution or commercial use.



This article appeared in a journal published by Elsevier. The attached copy is furnished to the author for internal non-commercial research and education use, including for instruction at the authors institution and sharing with colleagues.

Other uses, including reproduction and distribution, or selling or licensing copies, or posting to personal, institutional or third party websites are prohibited.

In most cases authors are permitted to post their version of the article (e.g. in Word or Tex form) to their personal website or institutional repository. Authors requiring further information regarding Elsevier's archiving and manuscript policies are encouraged to visit:

<http://www.elsevier.com/copyright>

The Role of Nursing in the Management of Unintended Pregnancy

Amy J. Levi, CNM, PhD, FACNM^{a,*}, Katherine E. Simmonds, RNC, MSN, MPH^b,
Diana Taylor, RN, PhD, FAAN^c

KEYWORDS

- Unintended pregnancy • Reproductive health
- Reproductive health counseling
- Nursing's role in unintended pregnancy management
- Nursing advocacy in unintended pregnancy

The American Nurses Association Code of Ethics charges all nurses to “practice(s) with compassion and respect for the inherent dignity, worth and uniqueness of every individual, unrestricted by considerations of social or economic status, personal attributes, or the nature of health problems.”¹ The identification of an unintended pregnancy may present a health problem that challenges the nurse’s own belief systems and desire to support patient autonomy. It is imperative that nurses recognize that the health of women includes all aspects of their well-being, including attention to reproductive health concerns. Nurses have an ethical responsibility to consider women’s needs for respectful and compassionate reproductive health care.

Nurses have been at the forefront of the protection and promotion of women’s reproductive health since the beginning of the twentieth century, when Margaret Sanger, a nurse, took up the cause of a woman’s right to control her fertility. A fearless, outspoken, and radical individual, Sanger’s work led to the creation of the Planned Parenthood Federation of America, one of the largest women’s health organizations in the United States. Margaret Sanger recognized that if women understood their reproductive cycles, they would be able to prevent pregnancy, and ultimately save themselves from the complications of self-induced abortions.² In this era of widely available contraception, it is hard to imagine a time when women did not have the ability to choose when they would conceive. It is equally difficult to appreciate that almost 100

^a Department of Obstetrics/Gynecology and Reproductive Sciences, School of Medicine, University of California San Francisco, 1001 Potrero Avenue, 6D-29, San Francisco, CA 94110, USA

^b Graduate Program in Nursing, Massachusetts General Hospital Institute of Health Professions, 36 1st Avenue, Charlestown, MA 02129, USA

^c Department of Family Health Care Nursing, School of Nursing, University of California San Francisco, 2 Koret Way, N411Y, San Francisco, CA 94143, USA

* Corresponding author.

E-mail address: levia@obgyn.ucsf.edu (A. J. Levi).

years after the activism that produced both an array of contraceptive methods and their availability, women still become pregnant at a time they neither intend nor desire.

There are several reasons for nurses to focus on unintended pregnancy over other reproductive health issues. Unintended pregnancy is an extremely common occurrence in women's lives; at least half of all women in the United States will experience an unintended pregnancy by the age of 45 years.³ Second, unintended pregnancy has negative consequences for the health of women and their children, and is associated with significant costs to the health care system.⁴ On a positive note, meeting reproductive health needs, particularly for family planning services, is an important entry point into the health care system for many women. Using these visits to address unintended pregnancy prevention can result in better health outcomes for women and their families. Finally, despite its frequency and significant costs, unintended pregnancy has received less attention—from research to the development of clinical care strategies—than other important health threats. This oversight can be attributed to the general fragmentation of health care services, as well as the politicization of reproductive health. These trends have contributed to the persistence of high rates of unintended pregnancy in the United States, which warrants the attention of all health professionals, including nurses.

NATIONAL HEALTH GOALS FOR REPRODUCTIVE HEALTH

Healthy People 2000 began as a public health compendium of national health goals, objectives, and tracking methods to be used as a road map for improving the health of all Americans. The nation's goal for unintended pregnancies as outlined in *Healthy People 2000* was a reduction in the rate of unintended pregnancies to 30% by the turn of the century. This goal was not met in 2000, and the rate of unintended pregnancy has remained stagnant at 50% over the past decade.⁵

Healthy People 2000 was redesigned in 2002 as *Healthy People 2010*, which includes 10 leading health indicators to assess the nation's health over the subsequent decade. Grounded in science, the *Healthy People 2010* national health indicators were selected because they motivate action, represent important public health issues, and can be measured to evaluate progress. The leading health indicators are physical activity, overweight/obesity, tobacco use, substance abuse, responsible sexual behavior, mental health, injury and violence, environmental quality, immunization, and access to health care. Improving responsible sexual behavior with the goal of improving pregnancy planning, preventing unintended pregnancy, and improving the health and well-being of women, infants, and families is the cornerstone of the national reproductive health goals in *Healthy People 2010*.⁶ **Box 1** identifies the Family Planning Objectives included in *Healthy People 2010*.

PREVENTING AND MANAGING UNINTENDED PREGNANCY

Toward the goal of preventing and managing unintended pregnancy, the first *Healthy People 2000* objective proposed to increase the percentage of intended pregnancies to 70% by 2000.⁷ However, nearly half of all pregnancies in the United States were unintended in 2002, giving the United States one of the highest unintended pregnancy rates in the industrialized world.⁵ (A birth is classified as unintended if the mother says that, at the time of conception, she wanted to have the child later or wanted to have no more children. For the purposes of these statistics, all pregnancies ending in abortion were assumed to have been unintended.^{8,9}) Of the approximately 6.4 million pregnancies in the United States in 2001, 3.1 million were unintended. Of these, approximately 1.4 million resulted in births, 1.3 million in abortions, and 430,000 in miscarriages. Although

Box 1**Healthy people 2010 objectives: family planning**

- 9.1 Increase the proportion of pregnancies that are intended from 51% (1995) to 70%
- 9.2 Reduce the proportion of births occurring within 24 months of a previous birth from 11% (1995) to 6%
- 9.3 Increase the proportion of females at risk of unintended pregnancy (and their partners) who use contraception from 93% (1995) to 100%
- 9.4 Reduce the proportion of females experiencing pregnancy despite use of a reversible contraceptive method from 13% (1995) to 7%
- 9.5 Increase the proportion of health care providers who provide emergency contraception
- 9.6 Increase male involvement in pregnancy prevention and family planning efforts
- 9.7 Reduce pregnancies among adolescent females from 68 pregnancies/1000 females aged 15 to 17 years (1996) to 43 pregnancies/1000 females
- 9.8 Increase the proportion of adolescents who have never engaged in sexual intercourse before age 15 years from 81% (1995) to 88%
- 9.9 Increase the proportion of adolescents who have never engaged in sexual intercourse from 62% (1995) to 75%
- 9.10 Increase the proportion of sexually active, unmarried adolescents aged 15 to 17 years who use contraception that both effectively prevents pregnancy and provides barrier protection against disease

Data from US Department of Health and Human Services. Healthy people 2010: understanding and improving health. 2nd edition. Washington, DC: US Government Printing Office; 2000.

some unintended pregnancies are continued, almost half (48%) end in abortion. Approximately 1 in 20 women of reproductive age had an unintended pregnancy in 2001.^{5,10}

There has been no substantial progress in meeting the target for this major reproductive health goal. Although unintended pregnancy rates have declined for middle- and upper-class women, rates are rising among the most socially disadvantaged women.^{5,10} Unintended pregnancy rates in 2001 were substantially higher than among other groups for women aged 18 to 24, unmarried (particularly cohabiting) women, low-income women, women who did not complete high school, and minority women. In 2001, poor women had more than double the national average for unintended pregnancy (112 per 1000 women 15–44 years old), were five times as likely to have an unintended birth, and more than three times as likely to have an abortion as their higher-income counterparts.¹⁰

Consequences of the decision to continue an unintended pregnancy and to parent a child include several adverse effects. Unintended pregnancy is associated with a greater risk of birth defects, later entry into prenatal care, a lower number of total prenatal visits, tobacco and alcohol use during pregnancy, low birth weight, infant mortality, child abuse, and insufficient resources for child development.⁸ Unintended pregnancy that results in a live birth is associated with physical abuse and violence during pregnancy and the 12 months before conception.¹¹

In addition to measurable negative health consequences, the economic impact of unintended pregnancies is sizable: in 2002, the direct health care costs of unintended pregnancy were estimated to be 5 billion dollars. In contrast, the medical care savings associated with contraceptive use were estimated at 19 billion dollars for the same period.⁴ Prevention of unintended pregnancy clearly is cost-effective, an important consideration during economically challenging times.

Screening, counseling, and preventive services have been found to be effective methods for meeting national health goals. The US Preventive Services Task Force (USPSTF), first convened by the Public Health Service in 1985, rigorously evaluates clinical research to assess the merits of preventive measures, including screening tests, counseling, immunizations, and preventive medications.¹² These primary and secondary preventive service recommendations, originally intended to inform primary care clinicians, now provide definitive standards for preventive services as well as providing health care quality measures for meeting national health objectives.

In the second edition of the *Guide to Clinical Preventive Services*,¹³ a portion of the evidence reviewed indicated that a combination of patient education and access to effective contraception could reduce unintended pregnancy. Periodic counseling about effective contraceptive methods was recommended for all women and men at risk for unintended pregnancy and given a “B” recommendation (A rating of “A” or “B” reflects the highest magnitude of net benefit as well as the highest level of evidence supporting the provision of specific preventive service whereas a rating of “I” indicates insufficient evidence and a “D” rating recommends against a specific preventive service).¹³ In the 1996 Preventive Services Guide, specific clinical guidelines for all sexually active adults and adolescents were included and recommended. However, despite the continuing high rate of unintended pregnancy, especially among minority and low-income women, primary and secondary preventive service guidelines related to unintended pregnancy have not been evaluated or included in subsequent guides. In contrast, most of the preventive services guidelines receiving A or B recommendations that are linked to national health goals have been regularly updated.¹²

In recent years, advances in prevention and the technology of early detection and management of unintended pregnancies have demonstrated improved safety and efficacy. Not only are these improvements not reflected in prevention guidelines, other evidence-based clinical practice guidelines for the prevention and comprehensive management of unintended pregnancy are virtually nonexistent. A review of the Agency for Health care Research and Quality National Guideline Clearinghouse identifies existing clinical practice guidelines that are narrowly focused on only a few components of unintended pregnancy prevention and management. For example, in the National Guideline Clearinghouse, the only practice guidelines relevant to this health issue are “Sexuality Education and Contraceptive Choices for Adolescents and Young People” and “Medical Management of Abortion.” In addition, outdated guidelines are referenced for Unintended Pregnancy Counseling for Adults and Adolescents including Emergency Contraception.¹³ Preconception care is one of the few aspects of unintended pregnancy prevention for which current evidence-based care models exist.

New advances have made earlier and simpler prevention and management of pregnancy possible, and appropriate for integration into primary care practice. Yet these advances have not translated into comprehensive, coordinated clinical processes to guide health professionals in the prevention and management of early unintended pregnancy. The politicization of sexuality across society, which extends to unintended pregnancy prevention and care, has resulted in fragmentation of services and a decline in access to coordinated care within primary care networks.

STRATEGIES TO PREVENT AND MANAGE UNINTENDED PREGNANCY: THE ROLE OF NURSING

In addition to a fragmented system for preventing and managing unintended pregnancies, there is also an overall lack of comprehensive sexuality education in the United States. As a result, many women do not fully understand how the reproductive system works, causing an underestimation of their true risk of pregnancy whether planned or

unplanned. This lack of knowledge combines with a cultural unease among health professionals about discussing sexual topics, limited time for health care appointments, and the lack of a coordinated system of clinical guidelines and strategies for unintended pregnancy prevention that results in a system-wide failure to successfully provide care to women at risk of unintended pregnancy. As providers of care across multiple settings and the largest single group of health care providers, nurses have enormous potential to contribute to the realization of these national health goals related to unintended pregnancy and reproductive health.

There are numerous strategies for policy and practice that can improve access to quality reproductive health services and contribute to the prevention of unintended pregnancy; here the focus is on several that specifically involve nurses. These strategies can be categorized according to: (1) normalizing contraceptive and abortion services into a prevention framework; (2) addressing the role of nursing education in advancing nursing care competencies in reproductive health; and (3) encouraging and supporting reproductive health advocacy within the nursing profession. Each of these categories is described in the discussion that follows.

NORMALIZING CONTRACEPTIVE AND ABORTION SERVICES INTO A PREVENTIVE FRAMEWORK IN WOMEN'S HEALTH CARE

Normalizing contraceptive and abortion services into a preventive framework that is integrated into the broader health system is one strategy in which nursing can play an important role. Clinical practice guidelines, when developed by professional consensus and based on systematically reviewed and developed evidence, can provide a model for quality care. However, no comprehensive evidence-based clinical practice guidelines currently exist for the prevention and management of unintended pregnancy. Such guidelines ideally would address screening and management of early unintended pregnancy using organized, systematic primary, secondary, and tertiary prevention strategies.

Public health solutions to national health problems require primary, secondary, and tertiary prevention strategies. Primary prevention consists of health care services, medical tests, counseling, and health education and other actions designed to prevent the onset of targeted condition. Routine immunization of healthy individuals is a general example of primary prevention.⁶ Primary prevention for unintended pregnancy should focus on activities before pregnancy to increase the chance that a pregnancy is desired and planned. These primary prevention strategies include preconception counseling; contraception counseling, dispensing and prescribing; and emergency contraception prescribing and dispensing.

Secondary prevention strategies are measures such as health care services designed to identify or treat individuals who have a disease or risk factors for a disease but who are not yet experiencing symptoms of the disease. Pap tests and high blood pressure screening are general examples of secondary prevention. Secondary prevention strategies for unintended pregnancy prevention are implemented once a pregnancy is detected. Essential prevention activities at this level include the following: pregnancy diagnostics (pregnancy tests, ultrasound) including screening for ectopic pregnancy and early pregnancy loss; pregnancy options counseling to support a woman to choose to continue a pregnancy, adoption, or abortion; referral and support for any decision reached following counseling to continue an unintended pregnancy and parent, adopt, or choose pregnancy termination; and pregnancy termination counseling for medication or aspiration abortion. For advanced practice nurses, this may include performance of medication or aspiration abortion depending on state regulations and professional

practice guidelines, and postabortion care and follow-up, which may include psychosocial support or counseling and contraception counseling.

Tertiary prevention is represented by preventive health care measures or services that are part of the treatment and management of persons with clinical illnesses. Examples of tertiary prevention include cholesterol reduction in patients with coronary heart disease and insulin therapy to prevent complications of diabetes. Tertiary prevention in women with unintended pregnancy includes late term pregnancies requiring psychosocial care and support to women and their families continuing the pregnancy, adoption counseling, referral, and support, and second trimester abortion for women requiring termination.

Preconception Counseling

Because a woman's intentions concerning pregnancy affect both maternal risk behaviors and infant outcomes, planning a potential pregnancy is an essential component of primary prevention and women's reproductive health.¹⁴ To achieve the *Healthy People 2010* objectives for reducing unintended pregnancy as well as other maternal and child health goals, a focus on preconception as well as perinatal health promotion has been recognized as an appropriate part of women's health care by the American Academy of Pediatrics,¹⁵ the American College of Obstetricians and Gynecologists (ACOG),¹⁶ the Association of Women's Health, Obstetric, and Neonatal Nurses (AWHONN),¹⁷ the March of Dimes,¹⁴ and others.

Preconceptual refers not only to women who are planning their first baby but can actually be applied to any period of time when a potentially fertile woman is not pregnant. Preconception care has evolved from being a specific entity to a health-promotion expectation of every professional providing care to any woman of childbearing capability. Preconception health promotion uses a prevention framework for every interaction with all women of childbearing potential. Nurses have made significant contributions to the development and provision of preconception health promotion and risk reduction activities.^{15,18,19} All nurses who work with women of reproductive age (whether directly, through women's health care, or indirectly, in education and outreach to mothers of infants) must become competent in preconception health promotion. Special visits are not necessary to provide preconception health promotion.¹⁴ For most women, counseling based on their personal profiles can be integrated into routine visits. This integration is likely to result in higher levels of personal wellness as well as an increase in intended, healthy pregnancies and healthy infants.

Every routine primary or specialty care visit and family planning visit (especially those that include a negative pregnancy test) is an opportunity to provide preconception care for health promotion, disease prevention, and reduction of prenatal and neonatal complications.²⁰ A major goal of preconception primary prevention is to provide counseling to delay pregnancy until the risks for poor pregnancy outcomes can be reduced. Preconceptual counseling can help a woman improve her lifestyle and health habits, and consider the responsibilities of carrying a pregnancy. Counseling about effective contraceptive use includes how an optimal pregnancy outcome is correlated with its intent and the woman's ability to prepare in advance. Other evidence-based practices for preconception counseling include the assessment of personal health risk factors, screening tests, and preventive health services, including all of the following:

- Review menstrual cycle physiology and educate about menstrual and ovulatory recording
- Review contraceptive use and contingency planning

- Review toxic exposures such as tobacco, alcohol, illicit or prescription medications, and potentially toxic chemicals or radiation
- Review nutritional and physical activity, immunization status, and psychosocial status
- Review medical and family history of patient and partner including sexually transmitted or other infections, genetic abnormalities, and serious conditions such as diabetes
- Screen for human immunodeficiency virus (HIV), hepatitis B, bacterial vaginosis, and other sexually transmissible infections
- Screen for genetic diseases and diabetes
- Supplement with at least 400 µg of folic acid daily to avoid birth defects
- Counsel about domestic violence, smoking cessation, and alcohol misuse
- Counsel about avoiding elevated body temperature (hot tubs) or fever from viruses and uncommon infectious organisms (eg, toxoplasmosis, salmonella)²¹

Opportunities for preconception health promotion can be integrated into all clinical settings in which nurses provide care. Some situations provide “teachable moments,” when education and counseling about optimal pregnancy and pregnancy prevention is likely to be relevant to the patient.²² These moments can occur following a negative pregnancy test result, diagnosis and treatment of a reproductive tract abnormality or infection, identification of a possible risk of infection with HIV or other sexually transmitted infections, identification of a substance abuse problem, or diagnosis of a significant medical problem.

Negative pregnancy test visits are a common and underexploited opportunity for primary prevention of unintended pregnancy. As many as one-quarter of all adolescent girls who conceive have had one or more visits to learn that their pregnancy test was negative.²³ Nurses who provide care to women and men of reproductive age in other clinical settings can also incorporate preconception health screening and health promotion strategies into their practice. In providing care to patients with chronic diseases such as hypertension, diabetes, depression, heart disease, autoimmune disease, epilepsy, asthma, or renal disease, both unintended pregnancy prevention and preconception health promotion can be addressed. Essential prevention strategies also include screening for hypertension, diabetes, and medications that are detrimental to fetal growth. Male partners' risk factors and the opportunity for pregnancy and infection prevention with male patients should also not be overlooked.

Nurses have been at the forefront in the development of resources for preconception health promotion, preconception risk assessment, and primary prevention strategies. In the Clinical Issues section of the *Journal of Obstetric, Gynecologic and Neonatal Nursing*, the scientific journal of the Association of Women's Health, Obstetric, Gynecologic and Neonatal Nursing, Merry K Moos²⁴ and other nursing leaders in reproductive health provide the evidence base for preconception health care.^{15,20,25,26} Other resources in primary prevention of unintended pregnancy^{27,28} and preconception health promotion for women's health care providers include evidence-based publications from AWHONN,¹⁵ the March of Dimes,¹⁴ and ACOG.¹⁶ A central component of preconception health promotion is unintended pregnancy prevention through contraceptive counseling and management. An overview of this primary prevention strategy for nurses follows in the next section.

Contraception Counseling and Management

Efforts to decrease the likelihood of unintended pregnancies have focused on fertility prevention and improving contraceptive use. Research shows that almost half of women (48%) with an unintended pregnancy in 2001 used a contraceptive method

during the month they became pregnant, as did 54% of those who had abortions.⁵ Those who do use contraception still face some risk of unintended pregnancy because all methods have a statistical failure rate, or their use of their chosen method is imperfect.

All nurses should be competent in the basics of contraceptive management, which includes counseling related to fertility prevention goals, instruction on contraceptive regimen initiation and adherence, provision of a backup method, and information about emergency contraception. In addition, all nurses should use evidence-based, culturally competent, and lifespan-appropriate guidelines for counseling women and their families. Advanced practice nurses who care for women and their partners who are at risk for unintended pregnancy may also prescribe contraceptive methods, manage problems, and provide supportive counseling to help women negotiate contraceptive issues within their relationships. An overview of the evidence for including contraceptive counseling as part of all health encounters for women and men at risk for unintended pregnancy is provided later in this article. Full discussion of contraceptive counseling and management guidelines can be found in selected publications and online resources.

Contraception counseling has been shown to be effective to decrease inconsistency and misuse of available contraceptive methods. In a 2001 study of 900 women aged 18 to 44 years, personalized counseling as opposed to no counseling or only informational counseling significantly increased the odds of satisfaction with counseling, current contraceptive use, and intent to use contraception in the following year if at risk for an unintended pregnancy.²⁹ However, a 2003 review of studies published in English between 1985 and early 2000 found almost no experimental or observational literature that could reliably answer whether counseling in the clinical setting could impact unintended pregnancies.²⁸ A subsequent Cochrane Systematic Review examining randomized clinical trials and determined that, whereas good personal communication between clients and providers is generally considered important for successful use of hormonal contraception, little high-quality research exists that demonstrates enhanced counseling improves contraceptive use.³⁰ However limited the existing research, some small, well-conducted studies serve to guide patient interactions to improve contraceptive use. In addition, these findings suggest that contraceptive counseling should be included in all encounters with women and men at risk for unintended pregnancy.

In general, patient-centered counseling (ie, encouraging patients to ask questions, to participate in decision making, and to take part in self-care) has been found to improve health outcomes.³¹ The USPSTF provides guidelines for clinicians regarding effective counseling interventions, and recommends that health care providers use every patient interaction as an opportunity to provide prevention-related and health counseling and education.¹² Moos¹⁴ has proposed counseling methods for involving patients in contraceptive decision making as well as guidelines for health professionals to help women achieve their contraceptive goals. Moos¹⁴ outlines four questions to engage a woman in considering a plan for preventing an unintended or mistimed pregnancy:

1. How many (more) children, if any, do you hope to have?
2. How long would you like to wait until you become pregnant (again)?
3. What do you plan to do to delay becoming pregnant until then?
4. What can I do to help you achieve your plan?

Counseling approaches for contraceptive users should include assessment, information, and strategies for successful contraceptive adherence.¹⁴ Approaches that

have been found to mobilize a patient's own decision and implement her intentions include the following:

- Assessment of the patient's understanding of the method and specific concerns. Ask questions such as: What experiences has she or her friends and family members previously had with the method? What has she heard about advantages or problems with the method?
- Inform the patient about potential side effects, their transient nature, and options available should the patient experience a problem. Dispel method misinformation and discuss noncontraceptive benefits.
- Contingency planning should be an important part of counseling. Clear, simple, and written guidance on what to do if the best intentions are not realized should be included with every contraceptive prescription. Every woman who is likely to have intercourse and who does not desire to become pregnant should be given anticipatory instructions on how to access and use emergency contraception (along with a prescription, if appropriate).²²
- Link contraceptive counseling with counseling for prevention of sexually transmitted infections (STIs) for all sexually active adolescents and adults who have multiple current sexual partners. The USPSTF³² now recommends high-intensity behavioral counseling to prevent STIs for all sexually active adolescents and for adults at increased risk for STIs.

Pregnancy Diagnostics and Options Counseling

All nurses should be able to appropriately evaluate individuals who present requesting a pregnancy test, or who are identified as at risk of pregnancy during a clinical encounter, and be able to provide counseling that is relevant to the results of that assessment.³³ In discussing options counseling, pregnancies that have been identified late in the pregnancy may present special needs for patients, including support and care for pregnancies that are going to be continued, adoption counseling and referrals, or care for women who decide to terminate.

THE ROLE OF NURSING EDUCATION IN ADVANCING NURSING CARE COMPETENCIES IN REPRODUCTIVE HEALTH

Despite the frequency of unintended pregnancy and abortion, many nursing, nurse practitioner, and nurse-midwifery programs do not adequately prepare students to care for these women, or teach about the most effective means of secondary prevention. Factors such as lack of faculty qualified to teach about reproductive options, fear of antichoice backlash, and the absence of appropriate didactic materials have been identified as barriers to incorporating this important subject into existing curricula.³⁴

Another strategy for addressing the national health goals regarding unintended pregnancy is to make education about the prevention of unintended pregnancy a standard component of professional and nursing education in all accredited institutions. All women's health care professionals should learn to provide pregnancy options and abortion counseling. Training in abortion care should also be readily available to all.

Nursing students need to be made aware that in the ethical framework of the nursing profession, the decision to continue or terminate a pregnancy belongs to the pregnant woman. An individual provider's religious or moral beliefs must not impair the quality of health care available to a patient. Statutory "conscience clauses" and "refusal clauses" pertaining to health care providers must not be allowed to deny or impair the access of women or men to legal reproductive health services, procedures, and medications.³⁵

Health care providers who do not provide contraceptive counseling or methods, pregnancy options counseling, or abortion referrals or services because of their personal moral or religious stance have a professional obligation to provide their patients with a timely referral to another health professional known to provide such services.

Some specific actions for advancing nursing education in the area of reproductive health include expanding innovative programs such as the Reproductive Options Education (ROE) Consortium for Nursing.³⁶ The ROE Consortium fills a critical void in nursing education by providing training, materials, support, and leadership to promote reproductive options in the curricula of nursing programs nationwide. By improving the training of nursing students, this project ultimately will advance quality and access to comprehensive reproductive health services for women and girls across the country.

Another specific action is to develop partnerships between nursing programs and reproductive health-focused professional or advocacy organizations to support and promote the integration of content on unintended pregnancy prevention and management, and facilitate training opportunities. Examples of existing partnerships include Clinicians for Choice and the Abortion Access Project, both of which are actively engaged with nurses, nurse educators, and nursing organizations and educational programs.³⁷ The Association of Reproductive Health Professionals (ARHP), an interdisciplinary organization representing health professionals and reproductive health advocates, has also developed an extensive Reproductive Health Education Curriculum that features peer-reviewed, evidence-based tools for health professions educators to use in their efforts to teach students about unintended pregnancy prevention and management, as well as other related reproductive health issues.³⁸ Further development of these existing partnerships, as well as the creation of new ones, will be essential for nursing to successfully integrate unintended pregnancy care into the core competencies of the profession.

Nursing faculty can also be influential in promoting reproductive rights and health in curriculum and educational policy. For example, the faculty of the Nurse-Midwifery and Women's Health Nurse Practitioner Program at the University of Illinois at Chicago support the international definition of reproductive health that "all people have the right to decide freely and responsibly the number and spacing of their children, and to have the information, education and means to do so; and the right to make decisions concerning reproduction free of discrimination, coercion and violence."³⁹ This definition provides the foundation for educational requirements for students in the program, as their policy on this subject states: "[w]hile individuals may have beliefs that differ, students are required to learn the full range of reproductive options available to women throughout the world and be able to counsel and refer women appropriately."⁴⁰ Other nursing programs could adopt similar educational policies that would further support the normalization of unintended pregnancy prevention and abortion as essential aspects of the care of women of reproductive age.

Nursing educators have been at the forefront in developing reproductive health curriculum and core competencies for women's health practice. Their dedication to high-quality education can continue by aligning educational curriculum and core competencies in women's and reproductive health with those for unintended pregnancy prevention including abortion care. To this end additional action steps that nurse educators can take include:

1. Situate abortion care curriculum within a broader public health model of unintended pregnancy prevention and management. At present, most programs teach primary prevention of unintended pregnancy such as preconception counseling, family

planning, and contraception skills including emergency contraception. As described in the previous section, secondary prevention of unintended pregnancy is focused on knowledge and skills of pregnancy diagnosis, pregnancy options counseling, and early abortion care, and tertiary care is focused on the care of women who present with unintended pregnancies at later gestational ages. It is these secondary and tertiary prevention components of unintended pregnancy that need development and incorporation into nursing education and training.

2. Specify core competencies for unintended pregnancy prevention and management across primary, secondary, and tertiary prevention competencies. For Advanced Practice Nursing faculty, this can mean the specification of Women's Health Core Competencies.⁴¹
3. Integrate core competencies into curriculum. Establish clinical opportunities for learning medication or aspiration abortion for basic and advanced practice nursing students.

REPRODUCTIVE HEALTH ADVOCACY WITHIN THE NURSING PROFESSION

There are many factors related to unintended pregnancy prevention beyond actual patient-provider encounter that nurses can influence. Some of these are barriers to contraceptive access due to insurance restrictions, conscience clauses making it possible for employers purchasing insurance packages to eliminate contraceptives as a covered service, and refusal of providers to prescribe, furnish, or dispense contraceptives including emergency contraception. In addition, regulation that limits or prohibits access to contraceptives services for minors, especially emergency contraception and abortion services, does not support reduction of unintended pregnancy, and may pose unnecessary health risks to young women and their families. As recently as 2007, the Centers for Disease Control reported that 48% of high school students had ever had sexual intercourse, and 15% of high school students had had four or more sex partners during their life, emphasizing the imperative for education and counseling for this high-risk population.⁴²

Advocacy is an important activity for nurses, particularly in regard to the issue of access to reproductive services. The Nursing Code of Ethics and position statements from organizations such as the National Association of Nurse Practitioners in Women's Health (NPWH) and the ARHP can help to clarify the professional responsibilities of nurses. However, nurses need to work collectively to help clarify their ethical responsibilities through such efforts as the development of online continuing education programs, professional guidelines for advocacy, and tools for operationalizing ethical responsibilities related to reproductive rights.

Examples of advocacy activities address several actions, which include updating official statements from professional nursing organizations that focus on the public health issues related to unintended pregnancy discussed here. Professional nursing organizations can also work toward developing position papers or resolutions on the role of nursing education to support patient education on family planning and reproductive health. A third activity is to engage support organizations, such as Clinicians for Choice, in identifying nurses and primary care providers to become competent in reproductive options counseling, referral procedures, postabortion care, and the integration of unintended pregnancy prevention strategies into women's primary care.

The consequences of not addressing the public health costs of unintended pregnancy will only increase over time. Nurses have a fundamental role in preventing unwanted pregnancies and responding to them when they occur. In addition to clinical care, the nursing profession needs to address the prevention of unintended pregnancy through improvement in the quality of educational tools that address unintended

pregnancy. Most importantly, advocacy activities by professional nursing organizations can reinforce the importance of the role of nursing education, clinical counseling, and regulatory support of nursing activities, which can ensure that families are able to have desired and healthy pregnancies.

REFERENCES

1. American Nurses Association. Code of ethics for nurses with interpretive statements. Available at: http://nursingworld.org/ethics/code/protected_nwcoe813.htm. Accessed March 2, 2009.
2. Gray M, Sanger M. A biography of the champion of birth control. New York: Richard Marek Publishers; 1979.
3. Jones RK, Singh S, Finer LB, et al. Repeat abortion in the United States. Occasional report. New York: Guttmacher Institute; 2006. No. 29.
4. Trussell J, Lalla AM, Doan QV, et al. Cost effectiveness of contraceptives in the United States. *Contraception* 2009;79(1):5–14.
5. Finer LB, Henshaw SK. Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Perspect Sex Reprod Health* 2006;38(2):90–6.
6. Office of Population Affairs, Dept. Health and Human Services. Healthy people 2010—reproductive health. Available at: http://www.hhs.gov/opa/pubs/hp2010/hp2010_rh.pdf. Accessed December 2008.
7. U.S. Department of Health and Human Services. Healthy people 2010: understanding and improving health. 2nd edition. Washington, DC: U.S. Government Printing Office; 2000.
8. Chandra A, Martinez GM, Mosher WD, et al. Fertility, family planning, and reproductive health of U. S. women: data from the 2002 National Survey on Family Growth. *National Center for Vital Health Statistics. Vital Health Stat* 2005;23(25).
9. Brown SS, Eisenberg L. From the Institute of Medicine. *JAMA* 1995;1274(17):1332.
10. Santelli J, Rochat R, Hatfield-Timachy K, et al. The measurement and meaning of unintended pregnancy. *Perspect Sex Reprod Health* 2003;35(2):94–101.
11. Goodwin MM, Gazmararian JA, Johnson CH, et al. Pregnancy intendedness and physical abuse around the time of pregnancy: findings from the pregnancy risk assessment monitoring system, 1996–1997. *Matern Child Health J* 2000;4(2):85–92.
12. US Preventive Services Task Force. Guide to clinical preventive service. 7th edition. Periodic updates; 2008. Available at: <http://www.ahrq.gov/clinic/uspstfix.htm>. Accessed February 20, 2009.
13. US Preventive Services Task Force. Unintended pregnancy counseling. Available at: <http://www.ahrq.gov/clinic/2ndcops/unpregn.pdf>. Accessed February 20, 2009.
14. Moos MK. Preconceptual health promotion: a focus for women's wellness. 2nd edition. White Plains (NY): March of Dimes; 2003.
15. American Academy of Pediatrics/American College of Obstetricians and Gynecologists. Guidelines for perinatal care. 4th edition. Elk Grove Village (IL): American College of Obstetricians and Gynecologists; 1997.
16. American College of Obstetricians and Gynecologists. Preconception care. No. 205. Washington, DC: ACOG Technical Bulletin; 1995.
17. Hobbins D. Full circle: the evolution of preconception health promotion in America. *J Obstet Gynecol Neonatal Nurs* 2003;32(4):516–22.

18. Cefalo RC, Moos MK. Preconceptual health care: a practical guide. 2nd edition. St. Louis (MO): Mosby; 1995.
19. Hobbins-Garbett D. Preconception counseling. In: Buttaro TM, Trybulski J, Bailey PP, editors. Primary care: a collaborative practice. St. Louis (MO): Mosby; 2000. p. 682–6.
20. Cullum AS. Changing provider practices to enhance preconceptional wellness. *J Obstet Gynecol Neonatal Nurs* 2003;32:543–9.
21. Hobbins D. Preconception care: maximizing the health of women and their newborns. Washington, DC: AWHONN; 2001.
22. Klein L, Stewart FH. Preconception care. In: Hatcher RA, Trussell J, Stewart F, et al, editors. Contraceptive technology. 18th edition. New York: Ardent Media; 2004. p. 617–28.
23. Zabin LS, Emerson MR, Ringers PA, et al. Adolescents with negative pregnancy test results. An accessible at-risk group. *JAMA* 1996;275(2):113–7.
24. Moos MK. Preconceptual wellness as a routine objective for women's health care: an integrative strategy. *J Obstet Gynecol Neonatal Nurs* 2003;32(4):550–6.
25. Postlethwaite D. Preconception health counseling for women exposed to teratogens: the role of the nurse. *J Obstet Gynecol Neonatal Nurs* 2003; 32(4):523–32.
26. Wallerstedt C, Lilley M, Baldwin K. Interconceptional counseling after perinatal and infant loss. *J Obstet Gynecol Neonatal Nurs* 2003;32(4):533–42.
27. Moos MK. Unintended pregnancies: a call for nursing action. *MCN Am J Matern Child Nurs* 2003;28(1):24–30.
28. Moos MK, Bartholomew N, Lohr K. Counseling in the clinical setting to prevent unintended pregnancy: an evidence-based research agenda. *Contraception* 2003;67:115–33.
29. Weisman CS, Maccannon DS, Henderson JT, et al. Contraceptive counseling in managed care: preventing unintended pregnancy in adults. *Womens Health Issues* 2002;12(2):79–95.
30. Henshaw S. Unintended pregnancy in the United States. *Fam Plann Perspect* 1998;30:24–9, 46.
31. Lipkin M Jr. Physician-patient interaction in reproductive counseling. *Obstet Gynecol* 1998;88:31S–40S.
32. US Preventive Services Task Force. Behavioral counseling to prevent sexually transmitted infections: recommendation statement. Available at: <http://www.ahrq.gov/clinic/uspstf08/sti/stirs.htm>. Accessed February 20, 2009.
33. Simmonds K, Likis F. Providing options counseling for women with unintended pregnancies. *J Obstet Gynecol Neonatal Nurs* 2005;34(3):373–9.
34. Foster AM, Polis C, Allee MK, et al. Abortion education in nurse practitioner, physician assistant and certified nurse-midwifery programs: a national survey. *Contraception* 2006;73(4):408–14.
35. Association of Reproductive Health Professionals. Abortion position statement. Available at: <http://www.arhp.org/About-Us/Position-Statements#1>. Accessed March 30, 2009.
36. The reproductive options education consortium for nursing. Available at: <http://www.abortionaccess.org/content/view/27/76/>. Accessed March 30, 2009.
37. Clinicians for Choice. Available at: <http://www.prochoice.org/cfc/>. Accessed March 30, 2009.
38. Association for Reproductive Health Professionals. Available at: <http://www.arhp.org/>. Accessed March 30, 2009.

39. United Nations Department of Public Information. Summary of the ICPD Programme of Action. Available at: <http://www.unfpa.org/icpd/summary.cfm#chapter2>. Accessed March 30, 2009.
40. University of Illinois-Chicago Nurse Midwifery and Women's Health Nurse Practitioner Program. Ethical requirements for CNM/WHNP students. Chicago, 2003.
41. United States Department of Health and Human Services. Health Resources Service Administration, Bureau of Health Professions, Division of Nursing. Nurse practitioner primary care competencies in specialty areas: adult, family, gerontological, pediatric, and women's health. Available at: <http://www.nonpf.com/finalaug2002.pdf>. Accessed March 30, 2009.
42. CDC. Youth risk behavior surveillance—United States, 2007. *MMWR Morb Mortal Wkly Rep* 2008;57(SS-4):1–131.