Under time, the delivery of women's health care has evolved into a series of relatively distinct silos that separate a woman's pregnancy-related services from those unrelated to prenatal and intrapartum care; the latter services have been further compartmentalized into reproductive and non-reproductive care. Thus, it is common for family planning considerations not to be mentioned by a woman's endocrinologist, glycemic control issues to be overlooked by gynecologists, and for women to enter into pregnancy in poor health with potentially avoidable threats to pregnancy outcome already exercising their influence. The nation's approach to the clinical care of women is fragmented, inefficient, and, too often, incomplete and ineffective. How this silo organization affects the numbers of clinical encounters women have each year is unknown; it is known, however, that women ages 15-44 average 3.8 medical visits each year.

In 2005, the Kaiser Family Foundation reported in a survey of 2,766 women ages 18 and older that just over half of the women (55%) had talked to a doctor or nurse in the previous three years about diet, exercise, or nutrition while fewer than 50% had talked about calcium intake (43%), smoking (33%), and alcohol use (20%). Only 31% of women between the ages of 18-44 had talked with a provider about their sexual history in the preceding three years. Discussions of related topics such as sexually transmitted infections (STIs) (28%) and HIV/AIDS (31%) were even rarer. Emergency contraception was included in the content of care for 14% of the women and domestic and dating violence was addressed for 12%.

The experiences of 1,325 diverse women of childbearing age who participated in a cross-sectional random-digit telephone survey in central Pennsylvania also recorded large gaps in preventive services. Only half of the women reported receiving counseling about pregnancy planning or contraception in the prior year. One-third of the women did not receive any routine physical exam or screening services (pelvic exam, breast exam, Pap smear, and/or blood pressure measurement) during the preceding 12 months, and 57% of the sample reported not receiving health counseling or counseling about tobacco use, dietary intake, physical activity, alcohol and other drug use, safety and violence concerns, STI infections, or stress and stress management.

It could be possible to deduce that women in the various studies simply didn’t recall the content of their encounters. However, the findings of a chart audit examining the content of care included during routine gynecology visits supports the lack of attention to many important health promotion and disease prevention topics. For instance, 91% of records contained no documentation of nutrition related recommendations and 85% of records did not include documentation of the woman's medical history.

As other commentaries in this issue underscore, women’s health outcomes are not improved by our current organization of preventive and treatment services; neither are their pregnancies. Nearly 50% of all conceptions in the nation are unintentional and our infant and maternal mortality rates lag far behind other industrialized nations. In fact, despite spending more on health care than any other nation, the US ranked 30th in international infant mortality rate comparisons in 2005, and our ranking continues to drop. Twenty-five years ago, the US ranked 19th in international comparisons.

Efforts to close the distance between the various women’s clinical silos began to emerge approximately 30 years ago with the recognition that women who entered pregnancy in good health had an increased likelihood of healthy pregnancies and healthy infants. Energy was focused on stimulating awareness of the advantages of emphasizing preconception health for both women and clinicians. Over time, visits to promote preconceptional wellness began to be framed as a new categorical service—a special visit for women planning to

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become pregnant. This approach invited many objections, including the likelihood of increased fragmentation in services, additional health care costs, and, by definition, exclusion of the women who become pregnant by chance rather than by deliberate choice. Although a special preconception visit is appropriate for women with complex medical and reproductive risks, it is not sufficient or appropriate to recommend this strategy as a standard approach for improving the preventive care of women who may, at some time, become pregnant.

In 1990, Jack and Culpepper recommended that preconceptional care be made available to all women and their partners as an integrated part of primary care and that it also become a routine component of all initial and annual family planning visits. The authors’ interest in the natural alliance of family planning visits and preconceptional health promotion was stimulated, in part, by pioneering work done in North Carolina family planning clinics. By 2006, the desire to narrow the gap between reproductive and non-reproductive health care services gained great momentum when the Centers for Disease Control and Prevention convened a Select Panel on Preconception Care and produced recommendations to improve preconception health and health care.

Improved preventive care to women of childbearing age has the potential to benefit women’s health status in the immediate and more distant future and to result in healthier pregnancies and healthier pregnancy outcomes for those women who do become pregnant. Achieving these benefits will require a conscious determination to provide preventive services to “every woman, every time,” a concept first proposed by the California Preconception Initiative. This simple imperative is designed to take advantage of all health care encounters to stress prevention opportunities throughout the lifespan, address conception and contraception needs and choices at every encounter, and involve all medical specialties—not only those directly involved in reproductive health.

However, adding more tasks to patient encounters which are already burdened by regulations, reimbursement structures, and office inefficiencies, is unlikely to be successful. A recent study found that to meet current guidelines for the preventive, chronic, and acute care needs of an average family practice patient panel would require 21.7 hours a day. To address only preventive guidelines would require 7.4 hours. No professional organization, government agency, think tank, or educational institution has been able to produce more hours in the day so the only option for addressing the prevention needs of the women in North Carolina is to find pathways to work smarter, not harder.

Strategies for improving women’s health care and levels of wellness are being created across the nation. Table 1 (page 429) outlines points of assessment and evidence-based recommendations that are appropriate to the preventive care of all women of childbearing age. Achieving these recommendations will involve both clinical emphases as well as activities outside the examining room. Below is a list of ideas for busy providers to use in promoting higher levels of wellness for all women including those who will eventually become pregnant.

- Engage women in visit preparation by directing them to your office’s or other websites to print and complete pre-visit questionnaires. Whether women have access to computer resources should be ascertained when the appointment is made and, for those without access, paper copies of the requested materials should be mailed to the woman. Specific pre-visit consideration could be given to:
  - health history,
  - reproductive life plan,
  - identification of a specific health goal for the next year, and
  - completion of the online Surgeon General’s family history form.

- Introduce well woman prevention messages into the care of adolescents including weight management, calcium intake, daily use of a multivitamin with folic acid, and deliberate decisions about when (if ever) they hope to become pregnant.

- Utilize computer prompts in patient care encounters to tailor preventive care services to individual patient profiles.

- Use patient-driven worksheets to help patients develop specific strategies to address personal health goals. The Bright Futures for Women’s Health and Wellness project, sponsored by the US Health Resources and Services Administration, has a number of valuable tools for adolescent and adult women who want to decrease their health-related risks. Worksheets are available on weight control, exercise, physical activity for women with physical limitations and for women living in rural areas, interpreting nutrition labels, making healthy choices at the grocery store, calcium intake, and improving iron intake.

- Engage every member in the office in prevention messages and activities including nurses, laboratory personnel, and front desk staff, all of whom are likely to be underutilized relative to promoting preventive health behaviors. For example, if every woman was greeted with a message about folic acid utilization every time she called a clinicians’ office, the commitment of the practice to this behavior would be underscored.

- Expand the provider panel to include nurse practitioners who are especially skilled in health promotion and disease prevention.

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a Examples are available at www.beforeandbeyond.org.
b Available at www.hhs.gov/familyhistory or at http://www.beforeandbeyond.org under “Practice Supports.”
c These and many other materials can be accessed at http://www.beforeandbeyond.org under “Practice Supports.”
Introduce group care as a vehicle to reach more women with greater efficiency. A model of group care called Centering Pregnancy has been demonstrated to affect behaviors and improve pregnancy outcomes;\(^d\) groups built upon similar principles have also shown promising results. Women could be divided into natural subgroups (e.g., by decade of age, by pregnancy status such as between pregnancies or beyond pregnancies), or by specific health issues (e.g., pre-diabetes, hypertension, obesity) in order to efficiently encourage women to develop and sustain wellness plans.\(^d\)

\(^d\) For more information about group care go to http://www.centeringhealthcare.org.

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**Table 1. Recommendations for the Routine Care of All Women of Reproductive Age (Adapted from Moos et al\(^a\))**

<table>
<thead>
<tr>
<th>Family planning counseling and use of a reproductive life plan</th>
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<tr>
<td>Routine health promotion activities for all women of reproductive age should begin with screening women for their intentions to become or not become pregnant in the short and long term and their risk of conceiving (whether intended or not).</td>
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<tr>
<td>Providers should encourage patients (women, men, and couples) to consider a reproductive life plan and educate patients about how their reproductive life plan impacts contraceptive and medical decision-making.</td>
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<tr>
<td>Every woman of reproductive age should receive information and counseling about all forms of contraception, from abstinence to permanent sterilization to the use of emergency contraception, that are consistent with her reproductive life plan and risk of pregnancy.</td>
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<th>Physical activity</th>
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<td>All women should be assessed regarding weight-bearing and cardiovascular exercise and offered recommendations that are appropriate to their physical abilities.</td>
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<th>Nutrition</th>
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<td>All women should have their BMI calculated at least annually.</td>
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<td>All women with BMIs greater than 26 kg/mg should be counseled about the risks to their own health, the risks for exceeding the overweight category, and the risks to future pregnancies, including infertility. These women should be offered specific behavioral strategies to decrease caloric intake and increase physical activity and be encouraged to consider enrolling in structured weight loss programs.</td>
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<tr>
<td>All women with a BMI less than 19.8 kg/mg should be counseled about the short- and long-term risks to their own health and the risks to future pregnancies, including infertility.</td>
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<td>All women with a low BMI should be assessed for eating disorders and distortions of body image. Women who are unwilling to consider and achieve weight gain may require referral for further evaluation of eating disorders.</td>
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<th>Nutrient intake</th>
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<tr>
<td>All women of reproductive age should be advised to ingest 0.4 mg (400 mcg) of synthetic folic acid daily from fortified foods and/or supplements and to consume a balanced, healthy diet of folate-rich food.</td>
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<th>Immunizations</th>
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<td>All women of reproductive age should have their immunization status for tetanus, diphtheria, pertussis, measles, mumps, rubella, and varicella reviewed annually and updated as indicated.</td>
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<tr>
<td>All women should be assessed annually for health, lifestyle, and occupational risks for other infections and offered indicated immunizations.</td>
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<th>Infectious disease</th>
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<tr>
<td>Health care providers should assess STI risks regularly and routinely, provide counseling and other strategies that include immunizations to prevent the acquisition of STIs, and provide indicated STI testing and treatment for all women of childbearing age.</td>
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<th>Parental exposures</th>
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<tr>
<td>All women should be assessed for the use of tobacco at each encounter with the health care system, and those who smoke should be counseled, using the 5 As, to limit exposure.</td>
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<tr>
<td>All women should be assessed at least annually for alcohol use patterns and risky drinking behaviors and provided with appropriate counseling. All women should be advised of the risks to the embryo/fetus of alcohol exposure in pregnancy and that no safe level of consumption has been established.</td>
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providing women with a copy of their own health profile to carry between providers. A practice that holds promise is for primary care providers to supply their patients with a memory stick that includes a summary of the woman’s health profile. The woman should be instructed to carry the memory stick on her key chain and to provide it to every clinician she sees with a specific request that it be reviewed and updated as appropriate.

Use wellness contracts and wellness prescriptions. The North Carolina Folic Acid Council created a “Women’s Wellness Rx” which allows the provider to check preprinted health promotion recommendations such as 30 minutes of exercise most days of the week, 1,200 mg of calcium intake, and taking a multivitamin with folic acid daily; the provider then signs the “prescription” and hands it to the woman as a quick way to reinforce appropriate health promoting recommendations specific to her.4

Place posters that encourage health promoting behaviors throughout the office environment.6

Visit and revisit www.beforeandbeyond.org, the national preconception curriculum and resources guide for health clinicians. More information about this site is featured in this issue of the Journal. The educational modules offer free CMEs. Module 2, Every Woman, Every Time, uses a case-based approach to underscore opportunities for integrated care in routine encounters. Content of the site is continually updated.

Become familiar with the evidence-based preconception guidelines created by the CDC Select Panel on Preconception Care Clinical Committee and use these guidelines to provide or refer women to recommended care. These guidelines were published in a supplement to the American Journal of Obstetrics and Gynecology in December 2008.6,20

Engage members of your office staff in the use of evidence-based counseling strategies, such as the 5A approach to smoking cessation, which have been found to produce clinically meaningful changes in health behaviors.21

Refer women to behavior change support programs.

Distribute materials created in North Carolina to promote high levels of wellness for women, such as the Women’s Health Diaries.6

To be successful, the responsibility for achieving higher levels of women’s wellness cannot rest with clinicians and their office staff alone.21 The health of populations and individuals is shaped by a wide range of factors within the social, political, natural, built, and economic environments which interact with each other in complex ways. However, the influence of the clinician should not be lost in the complexity of influences on health behaviors as studies report that provider recommendations are critical to adoption of healthy behaviors.21,23 In addition, providers are generally respected and influential within communities and thus may be essential in guiding or reinforcing community-based initiatives to improve the health of the population.

Clinicians can be instrumental in stimulating and supporting existing agencies in their practice area around community-wide health promotion initiatives. While the specific organizational structure, strategies, and leadership to drive population-based health promotion foci can reside with local health departments, local hospitals, existing or new coalitions, or other local entities, clinician engagement and support will add credibility to the initiative and may increase its impact. For example, a Canadian study demonstrated that social marketing coupled with provider reinforcement resulted in 71% of women taking a supplement containing folic acid as compared to only 17% of those exposed to the social marketing campaign alone.22

Indeed, there is so much to do and so little time. However, changing the way we work, even in small ways, can empower our staffs, our patients, and our communities to value prevention and to take increasing interest in addressing their health habits and status. Continuing to expect short one-on-one, clinician-driven encounters to cover all that matters is to reinforce the existing paradigm which has resulted in care for our women that is costly and too often ineffective. With the current pressures on clinicians, we have little choice but to work smarter to make a difference for today’s women and tomorrow’s children. NCMJ


f Visit http://www.everywoman.nc for guidance in finding appropriate resources.

g All 17 articles can be reviewed or downloaded from http://www.beforeandbeyond.org under “Key Articles and Studies.”

REFERENCES


