



Original article

The Role of the Obstetrician/Gynecologist in the Prevention of Cardiovascular Disease in Women

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A B S T R A C T

Purpose: A qualitative study was conducted to understand the current and potential role of the community obstetrician/gynecologist (OBGYN) in risk factor screening and prevention of cardiovascular disease.

Methods: A total of four focus group discussions were conducted among 46 OBGYN residents and practicing physicians in the mid-Atlantic region.

Main Findings: Five main thematic areas were identified including scope of practice, professional knowledge and skills in non-reproductive care, potential for liability, logistical and structural barriers, medical practice community, and support for collaborative care. There were no differences between residents and those in practice within and between cities. Comprehensive care was most often defined as excluding chronic medical care issues and most likely as focusing on screening and referring women. The OBGYN recognized their common role as the exclusive clinician for women was, in part, a consequence of patients' nonadherence with primary care referrals. Barriers and strategies were identified within each thematic area.

Conclusion: Additional training, development of referral networks, and access to local and practice specific data are needed to support an increased role for the OBGYN in the prevention of cardiovascular disease in women. Establishment of evidence-based screening and referral recommendations, specific to women across the age spectrum, may enable clinicians to capitalize on this important prevention opportunity. Longer term, and in concert with health care reform, a critical evaluation of the woman's place in the center of her medical home, rather than any one site, may yield improvements in health outcomes for women.

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Introduction and Background

Cardiovascular disease is the leading cause of mortality for women in the United States. Although mortality rates have fallen for men over the past 10 years, the same decline has not been observed among women (Lloyd-Jones et al., 2009). Improvements in screening and management of cardiovascular risk

factors is needed for women, yet it is not quite clear where this type of screening and management would be administered. The vast majority of women in the United States routinely access preventive health care, often from two types of providers: traditional primary care providers (PCPs; family practitioners and internists) as well as obstetrician/gynecologists (OBGYNs). According to a 2004 Kaiser survey, 87% of women had at least one visit with a health care provider during the past year, and almost half (46%) had an OBGYN visit (Salganicoff, Ranji, & Wynn, 2005). During her reproductive years, a woman is more likely to be connected to an OBGYN. Of the 560 million physician visits by women in 2005, 19.7% were preventive care (Health Resources and Services Administration, 2008). In a study of

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young, low-income women, 38% of those surveyed considered their OBGYN provider as their primary care physician (Scholle & Kelleher, 2003).

As the sole clinician for many women, the OBGYN plays a critical role in cardiovascular disease prevention starting early in the life course (Mikkola, 2009; Whitlock & Williams, 2003). Prior research suggests divergent views among OBGYN providers regarding their role as a PCP as well as the adequacy of their training in primary and preventive care (Coleman et al., 2007; Stovall et al., 2007). Studies of self-reported physician practices have focused on provision of preventive health care, preconception health care, and obesity. They found variation in the patterns of practice as well as perceived gaps in training (Power, Cogswell, & Schulkin, 2006). However, none of these earlier studies have focused on screening and management of cardiovascular risk factors, which contribute to the leading cause of death among women. The purpose of this study was to better understand the scope of practice of the OBGYN and their perceived role in primary care and as providers of comprehensive care, and to identify strategies that could potentially increase their role in the screening and prevention of cardiovascular disease in women.

Methods

Study Design

A qualitative approach with focus group discussions was used to gather data on OBGYNs perceptions regarding the comprehensive health care of their non-obstetric patients. Qualitative research is grounded in “peoples lived experiences,” making this a suitable method to address our aims about provider perceptions of comprehensive health care for women. Approval was obtained from the Christiana Care Health System Institutional Review Board before the study was initiated.

A priori assumptions were derived from clinical experience and informal discussions with colleagues and included: 1) The scope of comprehensive women's health care includes nonreproductive and reproductive care; 2) OBGYNs view themselves as PCPs; 3) OBGYNs are not energized by addressing chronic medical diseases; and 4) the most significant barrier to cardiovascular disease screening is training.

Recruitment and Participants

Forty-six OBGYN residents and practicing physicians were recruited to participate in four focus groups at Christiana Care Health System in Delaware and Drexel University College of Medicine in Philadelphia, Pennsylvania. The practicing physicians recruited in Delaware included both faculty and community physicians, whereas those from Drexel were all faculty physicians. Program flyers and e-mails were used for advertising the focus group sessions.

Procedure

Four focus group discussions took place between February and May 2010. Two groups included OBGYN residents, one in each community, and two groups included practicing OBGYNs, one in each community. All focus groups were tape-recorded and later transcribed verbatim. Questions centered on five domains that related to the overall study goal: 1) perception of scope of care and the role of including cardiovascular prevention;

2) training and experience; 3) barriers and changes needed; 4) tools, resources, and training needed; and 5) patient responsibility.

Data Analysis

Data from the focus group transcripts were analyzed using an inductive and step-wise approach to identify themes. First, data were summarized into codes individually by each research team member and then collectively to discuss discrepancies among the codes until consensus was achieved for a final set of codes. Matrices of the codes were then developed to compare the data by geographic area (Pennsylvania and Delaware) and by physician type (resident and practicing physician).

Results

Characteristics of the Sample

A total of 46 physicians participated in the four focus groups, namely, 31 residents and 15 practicing generalist OBGYNs. Twenty-three residents (75%) planned to work as generalist OBGYNs after completing their residency, 2 planned to pursue training in maternal fetal medicine, 1 in reproductive endocrinology, and 9 responded “other.” They represented all levels of postgraduate training, with 8 first-year, 8 second-year, 7 third-year, and 8 fourth-year residents. There was no difference between residents and those in practice nor between locations for the majority of the questions, so the results are presented together and differences are highlighted when they are divergent.

The OBGYN residents and providers in practice identified barriers to the provision of cardiovascular screening related to scope of practice as well as logistical and structural practice factors. Scope of practice was reported to vary in its inclusion of cardiovascular screening and was related to professional identity, knowledge, and skills in non-reproductive health care, and potential for liability. There were also several logistical challenges discussed that were perceived to stand in the way of treatment of non-reproductive health issues. These included the internal office and practice structure of the OBGYNs and more global issues related to the medical communities in which they practice. Finally, potential strategies and solutions were identified in the areas of resident training, continuing education, utilization of electronic medical records, and the development of collaborative practice between the OBGYN and PCPs. Table 1 includes sample quotes of statements from focus group participants related to the main themes.

Thematic Findings

Scope of practice of the OBGYN in cardiovascular risk screening and prevention

The majority of both residents and practicing physicians in each of the focus groups agreed that it was important for them to offer comprehensive care for women. Notably, however, participants differed with regard to the type of services that were included in their definition of comprehensive care. Definitions ranged from comprehensive gynecologic care with an emphasis on screening of non-gynecologic conditions (domestic violence and blood pressure) at an annual examination, to complete care, including chronic medical conditions. The majority indicated that the former was most appropriate for an OBGYN; the

Table 1
Themes and Representative Quotes

Theme	Representative Quote
Professional identity	"We see patients from the age of 16 to the age of 90. Everything. So we, in terms of screening, are exposed to a woman's lifespan which is why a lot of patients probably want to come to us as their primary care." "People think they are coming to us for their pap and breast exam. You condition people to say, that's a primary care issue. You go see your internist for that. We (OBGYN's) do your well woman care, which is breast care, pap smears, and surgical issues and things like that." "... we are telling congress [ACOG], I want our patient to (have us) as our home base. While home base has recognized what her issues are, I can treat her initially, but that's it."
Knowledge and skills	"I obviously have the basics, but I'm sure there are all these new kinds of drugs that we don't get exposed to and know about, so I think it is better managed by primary care doctors." "I don't know if I'm exceedingly comfortable with it. I do know enough about it to at least begin it and to make the appropriate referrals." "I don't know of anyone around this table who wants to be in like a 12-year residency. I don't think you could possibly be a well trained OBGYN and a well-trained primary care physician. I just don't think there is time."
Potential for liability	"You might have the knowledge to treat the high blood pressure and diabetes but, really, how far do you go in treating them when the patient has a complication and then it comes back to you that you're not even an internist."
Office and practice structure	"And to say to someone, always come back for your blood pressure check, we don't have that built into our schedule." "I don't think an insurance company is going to pay for your OBGYN every month to check your blood pressure medications." "They (private practitioners) are having to slam 40 patients through the door every day, each just to (make ends meet)." "I think it's feasible to screen but I agree with everyone else, I don't want to manage. I don't think I have time to manage."
Practice community and support for collaborative care	"But patients can't get in to primary care physicians." "We've seen this type of system certainly in our care of HIV-positive patients; it is very multidisciplinary and has expanded to focus on diabetes and hypertension management successfully."

minority, the latter. Two important exceptions were noted. First, pregnancy status, in which addressing 'all' health concerns including chronic medical conditions were expected. Second was geographic location and local resources, for example, rural setting, which would shape scope of care to include chronic disease diagnosis and co-management.

Although most providers felt that they could offer basic screening services, they did not feel that they should be responsible for managing conditions/diseases that were not reproductive in nature. They reported that management of abnormal screening test results was nearly always seen to be outside of their scope of care and were therefore handled by a referral to another provider. Management of hypertension, diabetes, and abnormal lipids were areas within cardiovascular risk management perceived by most to be beyond scope of practice for OBGYNs. Some providers reported addressing lifestyle risks, including tobacco use. Of interest, obesity was identified by many to be within the scope of care, although some providers almost uniformly stated that they lacked resources and referral options.

Scope of practice was informed by issues related to professional identity, knowledge and skills, and potential for liability.

Professional identity. Overall, if OBGYNs identified themselves as PCPs, they only viewed themselves as such for healthy women of reproductive age. Older women, and those with chronic disease, were felt to need an internist or family practitioner for primary care. Several participants mentioned that they were supportive of the OBGYN serving as the medical home for women, but acknowledged that services for non-gynecologic chronic conditions were not currently readily available. Others felt that they were a woman's PCP only during pregnancy because "no one else will do it," but they did not otherwise see themselves as PCPs. "We are specialists. I need to do well what we do well." Participants in all groups recognized that they are the exclusive source of health care for many of their patients, which results in the need to provide comprehensive health care. This was most often discussed among providers caring for low-income women. "You should be up on your prevention and screening and stuff" because you "might be that patient's only doctor at that time. She might not be able to afford to go to another doctor."

Further discussion of the debate over the "identity" of the OBGYN as women's health PCPs versus specialists identified a lack of consensus and therefore direction from the American College of Obstetricians and Gynecologists (ACOG). It was observed that the current ACOG guidelines do not support cardiovascular risk factor screening as a priority, perhaps consistent with a move to identify the OBGYN as reproductive, surgical experts in women's health who 'screen and refer.' Some physicians discussed the current consideration and debate over separating training into two areas—obstetrics and gynecology—with the expectation that gynecology could add more training time in primary care. Finally, there was recognition that health care reform might carry additional implications.

Professional identity was also tied to their perceptions of their patients' expectations. Both residents and practicing providers recognized that women are in the habit of attending an annual well-woman examination with an OBGYN provider. There was an overall impression that women's preferences for their OBGYN as their primary health care provider influenced, and perhaps forced, their identity as a PCP. Some felt that the OBGYN was perceived to be more women centered; others felt it was owing to poor access to the care of primary care physicians in their community. "There are so many barriers to their care and they don't know how to access that care." A number of residents and practicing providers reported that although they often encourage patients to go to an internist, they acknowledged that for many of their patients, this never happens. Of interest, it was observed, however, that patients rarely come to the OBGYN and ask about cardiac disease.

Knowledge and skills in non-reproductive health care. Linked to the discussion of identity as specialist or PCP, participants highlighted issues of clinical competence related to knowledge and skills. Practicing physicians and residents alike expressed discomfort at the idea of providing "comprehensive care." Most felt that it was important for providers to "know" their comfort level and to not go beyond it. "Be able to do what your comfort base is—start them on the baseline drug if you are familiar with it. . . . I think a big thing for anybody in any topic is to know your limit." "I think that if you want the best care for your patient, you

need to understand what your limits are as a physician and then go from there.” Several participants linked the discussions of comfort level to issues of training and liability discussed below.

Both residents and practicing OBGYNs identified inadequate training in primary care as a barrier to their ability to provide comprehensive women's health care, and cardiovascular disease prevention and management in particular. Although some reported that their faculty is currently training residents to screen for cardiovascular disease risk factors and address other non-reproductive health issues, everyone acknowledged that there is not enough time spent on traditional internal medicine and primary care topics in the current curriculum. Participants, particularly residents, also noted that because they are primarily seeing younger, reproductive-aged women during their training, they are not often exposed to women at high risk for or with established cardiovascular disease. Therefore, residents do not gain the experience in screening or disease risk stratification, much less management of cardiovascular risk factors or disease.

Potential for liability. There was discussion of the concern for liability and the role of fear and “defensive medicine” in guiding provider behaviors. One participant stated, “There has to be protection from litigation because a lot of reason the whole system is clogged is because everyone feeling that they must refer to a specialist for every little thing because everyone is practicing defensive medicine.” All groups mentioned the fear of litigation as a contributing factor to how OBGYNs define their scope of practice and their lack of comfort in going beyond screening and referral.

Logistical and structural barriers

The groups discussed several logistical challenges that stand in their way of treatment of non-reproductive health issues. These included their internal office and practice structure and more global issues related to the communities in which they practice.

Internal office and practice structure. It was stated that many OBGYN offices are not currently set up either with staff or processes to appropriately manage and provide longitudinal care for chronic diseases such as hypertension, for women outside of pregnancy. One participant stated, “I just don't have time to deal with the follow-up.” Several participants in each of the groups suggested that their challenges to providing non-reproductive comprehensive care to patients included issues around time and reimbursement. Some participants stated that a high patient volume prohibited them from providing non-reproductive comprehensive care. Many felt that it was unrealistic to go beyond the reproductive health issues and concerns. They also reported that they are not reimbursed “adequately.” Moreover, concerns and questions arose surrounding the question of whether the additional responsibilities would be reimbursable. Overall, it was discussed that the role of financial incentives would be needed to encourage OBGYNs to include more non-reproductive health care, including cardiovascular disease prevention, in their practice. Some suggested that clinicians providing only gynecologic care might find it more feasible than those who also do practice obstetrics.

Medical practice community and support for collaborative care. Many providers in the groups from both communities identified the importance of improved referral network. They recognized that the absence of an established referral network and

collaborative relationship with PCPs was a barrier to their ability to effectively address cardiovascular disease risks for their patients. For example, they discussed the importance of having dedicated PCPs to whom they could refer postpartum women for cardiovascular disease care. Many also related the difficulty referring women to a PCP, which they attributed to inadequate numbers of primary care physicians who could see women quickly. They noted that these problems did not arise during the care of the obstetrical patient, because there was a perceived urgency during pregnancy. Additionally, some participants discussed lack of clarity about who was ‘in charge’ when caring for women with chronic medical conditions. “Who is responsible for what? Who's in charge? And I think a lot of primaries . . . believe they are in charge and I'm going to send them a report.” Last, the absence of insurance coverage for additional professional services (e.g., nutritionist, mental health providers) was noted as an example of insufficient support for needed services.

Potential strategies and solutions

Strategies to improve the ability of the OBGYN to play an enhanced role in cardiovascular disease risk factor screening and prevention emerged during the discussion of scope and barriers. These strategies primarily addressed issues related to knowledge and skills, development of a team approach to women's health care, and the benefit of increased integration of electronic medical records.

Training. Several options were discussed for integrating more primary care training into their residency program. Suggestions included extending the duration of residency training and including more internal medicine rotations in their training, as had been the practice in the past, and including primary care training throughout residency rather than including it only in the early years, as is the practice in the two residency programs represented. Ultimately, some agreed that with more training (and this was a necessity), the non-reproductive aspects of comprehensive care would be more feasible. Others felt that they were interested in and focused on being an OBGYN, not an internist, and they did not want the role of a PCP. These individuals did not feel that additional training was wanted nor needed.

Both residents and practicing physicians discussed the need for continuing medical education, through grand rounds, lectures, and other training opportunities, to help them stay up to date on cardiovascular disease screening and management guidelines for women. Some felt that this would be too complicated and that without proper reinforcement of the additional skill set, ongoing competency would not be achieved. The suggestion of the development of ACOG-supported training in cardiovascular disease prevention was favorably received by most residents. However, questions were raised by both residents and practicing providers over the utility of additional training in primary care, cardiovascular risk factor screening, and management. Some stated that it would only be valued if additional reimbursement is tied to this training (e.g., additional reimbursements for blood pressure checks). In addition, training would have to be easily accessible, used routinely, and new skills would need to be reinforced. They also stated the training must be endorsed by professional organizations such as ACOG, the American Medical Association, and the American Heart Association. Other practicing providers felt that the goal of the training would not be achieved owing to preexisting clinical expectations and challenges.

Collaborative care. Many providers suggested that the development of a multi-specialty team or increased access to a specialty provider network as one way to address some of the barriers that they had articulated. All of the groups agreed that a multidisciplinary approach with a primary care partner would be the best option and would provide better care for patients. A one stop shop model was proposed. Some providers are finding that a common electronic medical record at their institution has helped to address co-management and referral issues. One group of residents commented on the utility of an electronic medical record to gain access to PCP/cardiologist-generated health information as valuable in supporting their ability to provide clinical care. Again, providers reiterated that a major challenge is that their system is not structurally designed to support them going beyond screening and referring to support the management of disease.

Discussion

This study explored the scope of care provided by the OBGYN in non-reproductive screening and management with a focus on cardiovascular disease prevention, through focus groups of residents in training and providers in practice in two distinct regions of the mid-Atlantic. Variations in practice within and across the four groups were identified. The initial assumptions linked to the findings found mixed support. Respondents agreed that they provide comprehensive women's health care (non-reproductive and reproductive care) during pregnancy, but felt that their scope outside of pregnancy was associated with reproductive issues only. The only exceptions were with obesity and smoking. The consensus was that OBGYNs were the woman's doctor, due to their advocacy and accessibility, but not necessarily a PCP. There was a high degree of consensus that their role was to screen and refer, not diagnose and manage. Exceptions noted here were clinicians practicing in geographically isolated places or those who might choose to do so on an individual basis. Although we had anticipated the most significant barrier to cardiovascular disease screening would be perceived to be inadequate training, there was a mixed response. Despite consensus that current curricular hours, role modeling by clinicians, and exposure to high-risk patients during training were inadequate, many cited important structural and logistical barriers beyond training.

The major thematic issues identified by both residents and providers in practice could be distilled into two main areas: scope of practice and barriers (logistical and structural). Potential strategies to address these issues included changes in resident training, continuing medical education, and improvement in the structure of health care delivery to promote collaboration between the OBGYN and PCPs.

Perceptions of appropriate scope of practice by both groups were framed and supported by their professional identity, level of knowledge and skills, and their perceived potential for liability. Professional identity for the OBGYN was linked to their self-described role as the preferred doctor for women and the perception that they deliver comprehensive care within the framework of annual health screenings and the well-woman examination. This role was reinforced by the influence of patient behavior. Although they were aware that for many women they are the only physician they see and therefore their only access to screening and risk assessment, they preferred to define their role as reproductive health physicians and surgeons, except during pregnancy. Management of chronic medical

Table 2

Recommendations for Future Research

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| <ol style="list-style-type: none"> 1. Study a national sample of practicing OB/GYNs to create a representative snapshot. 2. Explore themes with the primary care community to identify strategies to develop multidisciplinary teams. 3. Conduct research in the epidemiology and risk factor profile of gynecologists' patients. 4. Conduct research to develop and test the effectiveness of referral guidelines. 5. Study characteristics of successful models of handoffs from OB/GYNs to other primary care providers. |
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conditions, except perhaps obesity, was considered to be beyond their scope of care. Knowledge and skills, particularly in the screening and management of cardiovascular risk factors, was not perceived to be sufficiently acquired during their training, either because of a lack of time or it being outside of the scope of their curriculum. Respondents' perceptions were that the message from ACOG, their professional body, was not clear. These factors led to concerns about liability.

Logistical and structural barriers identified were similar to those reported by other PCPs and included time and reimbursement (Abbo, Zhang, Selder, & Huang, 2008; Pollak et al., 2008; Chen, Farwell, & Jha, 2009). However, what differed for the OBGYNs was their ability to work collaboratively with providers in other specialty areas. Likely because they primarily screen and refer, their willingness to provide primary care depended on their ability to establish a referral network of primary care physicians willing to see their patients.

Our findings support prior survey work in this area. As earlier surveys of ACOG fellows have reported, there was variability in the extent of screening completed by the providers, especially with respect to cardiovascular disease risk, suggesting non-uniform adherence to ACOG guidelines (Power et al., 2006). These findings support health services usage data that shows that women who see more than one physician undergo more recommended screenings than those who see only a PCP or an OBGYN (Henderson, Weisman, & Grason, 2002). Regardless of the defined parameters of screening, management of abnormal screening results was nearly always seen to be outside of their scope of care and was therefore handled by a referral to another provider. In contrast to screening for hypertension and obesity, there was a variable response to perceived comfort or expertise in lifestyle, blood pressure, or lipid management (Mosca et al., 2005; Mosca et al., 2006) Respondents felt that recommending lifestyle change was something they do frequently, but the extent and impact of their counseling efforts was not explored. As others have found, OBGYNs felt female patients preferred them to their other doctors, and that this preference could contribute to women deferring or delaying obtaining a PCP (Barnhart, Lewis, Houghton, J. L., & Charney, 2007). Further, the gynecologists felt this was especially true for premenopausal women. Contrary to prior literature, in this study there was a divergence in opinion about the preferred PCP for postmenopausal women being non-gynecologists.

Clearly, elements of scope of care vary by the region, community, age, and training experience of the provider. Thus, despite consistencies found in this study among physicians and residents in the Mid-Atlantic, our findings may not be fully representative of the diverse community of all OBGYNs in the United States. Additionally, both sites have been exposed to cardiovascular disease risk factor awareness messages as a result

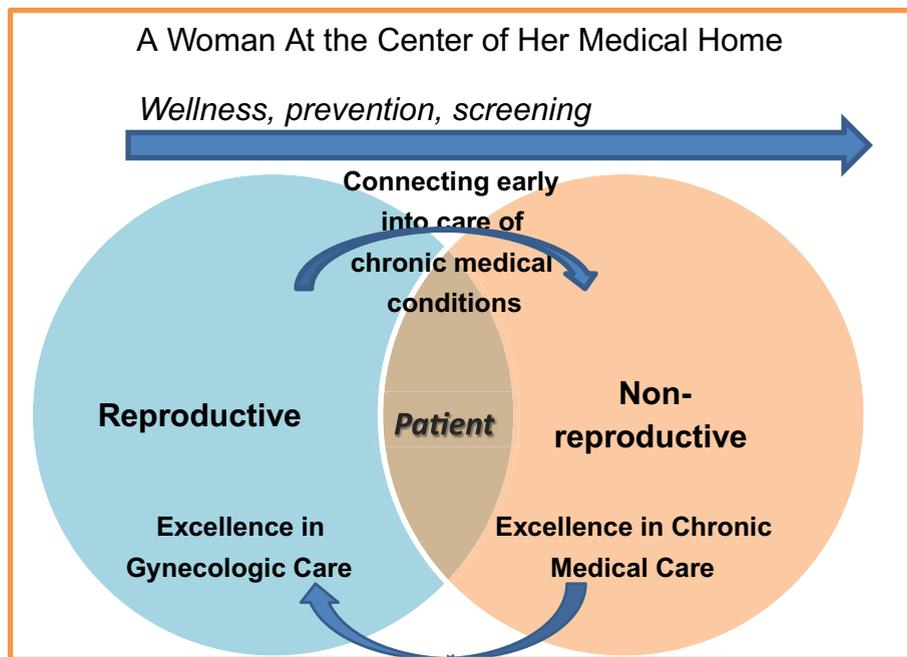


Figure 1. The dual components of a medical home for women.

of *The Heart Truth* campaign and therefore may have heightened awareness to the issues of screening. Similar to other self-report based studies, we explored attitudes and opinions, neither of which may be reflective of actual care provided by the physicians. Further exploration of these questions with OBGYN providers across a variety of communities is clearly needed.

Implications and Recommendations

We believe the findings of this study have important implications for the ability of the current health care system to provide effective and comprehensive care for women, and suggest the following recommendations be considered in the exploration of future models of care. To assess the OBGYN's role in cardiovascular risk factor screening, better epidemiologic data should be gathered, both locally and nationally, that describe the risk profile of women in gynecologic practice. There is also a need for a clearly articulated definition of comprehensive or primary care for women, development of evidence-based referral guidelines for women across the age spectrum, and effective referral networks to improve transitions in care. Finally, as always, provider training must be aligned with clinical expectations, but addressing this alone is not likely to be sufficient. These and other potential areas for future research are listed in Table 2.

In conclusion, it seems that the overarching desire of the OBGYN to provide excellent care for women, and advocacy on their behalf, reinforces the screening and referral approach already in place at annual gynecologic examinations. There is a unique opportunity and need to engage both high risk premenopausal and postmenopausal women in early cardiovascular disease prevention. This represents an untapped potential role for OBGYNs; however, the practice has mixed receptivity among clinicians. Addressing this need requires strategies that

identify practices with a high prevalence of women at increased risk (e.g., having a large population of women with gestational diabetes); increase awareness of the unique cardiovascular disease risk factors of premenopausal women; develop and incentivize referral networks that better link care delivery practice to health outcomes and enable practice improvement (e.g., "told to see an internist for hypertension, but never does over 5 years"); and support those OBGYNs wishing to advance beyond screening and referring through additional training in cardiovascular disease prevention. The medical home initiative embraces quality improvement. However, further study may reveal that the women must be at the center of her medical home—not one clinical site (Figure 1). In fact, she may need two sites, one for chronic disease prevention and one for reproductive care, to achieve optimal health.

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