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# THE JACOBS INSTITUTE OF WOMEN'S HEALTH REPORT ON THE PREVENTION OF HEART DISEASE IN WOMEN: FINDINGS AND RECOMMENDATIONS FROM THE "WOMEN AND HEART DISEASE: PUTTING PREVENTION INTO PRIMARY CARE" CONFERENCE

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## Introduction

The Jacobs Institute of Women's Health convened an invitational, multidisciplinary conference, "Women and Heart Disease: Putting Prevention into Primary Care," on December 4 and 5, 2002, in Washington, DC.<sup>†</sup> The purpose of the conference was to present key findings from research papers commissioned specifically for the conference and to formulate recommendations based on these findings for improving the prevention of heart disease in women's primary care. This report summarizes the background and scope of the conference, the major findings, and the key recommendations.

## Background and Scope

Heart disease is the leading cause of death in U.S. women and a major cause of mortality and disability.<sup>1,2</sup> Although the diagnosis and management of coronary heart disease (CHD) has improved markedly

in recent decades, women have not seen as dramatic a decrease in mortality, and there is evidence that the burden of heart disease for women may actually be increasing.<sup>3</sup> The reasons for this gender disparity are not well understood. CHD is considered to be a largely preventable condition, but women are generally unaware of their risk for heart disease and receive fewer preventive services than recommended.<sup>4–6</sup>

While more research on women and heart disease is needed, evidence already exists for the efficacy of risk factor reduction in women for both primary and secondary prevention of heart disease. A diet rich in fruits, vegetables, and low-fat dairy foods has been shown to decrease blood pressure in hypertensive women.<sup>7</sup> Lipid lowering therapy reduces the risk of heart disease mortality by one-quarter in women with prior coronary heart disease.<sup>8</sup> Nevertheless, modifiable risk factors in women are frequently not adequately addressed in clinical practice.

Women's health care is complex. Reproductive health services and other basic health services are frequently provided by multiple health care professionals and in different settings. Consequently, women often rely on several different types of health care professionals for primary care services.<sup>9</sup> In national surveys, between 37% and 42% of nonelderly women (ages 18 to 64) report that they see both a generalist physician (family practitioner or internist) and an obstetrician-gynecologist for regular health care.<sup>10</sup> Many women also receive some preventive services from advanced practice nurses. Improving prevention in women's primary care therefore re-

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† The conference was sponsored by Pfizer Inc. Women's Health, the Fannie E. Rippel Foundation, and the Agency for Healthcare Research and Quality (AHRQ). The conference was co-chaired by Sharonne N. Hayes, MD, FACC, Director of the Mayo Clinic Women's Heart Clinic and Carol S. Weisman, PhD, Professor of Health Evaluation Sciences and Obstetrics and Gynecology at Pennsylvania State University. The Steering Committee members assisting in the development of the conference and conferencepresenters are listed in Appendix 1.

quires modifying and coordinating the efforts of multiple types of health professionals. Because over 90% of women make at least one health care visit each year,<sup>10</sup> a key point of intervention for women's risk reduction and prevention of heart disease is the primary care setting.

For purposes of this conference, women's primary care was defined as encompassing all of the health care professionals and settings used by women for regular and preventive health care. The effectiveness of strategies, diagnostic tests, and treatments not currently recommended for use in primary and secondary prevention and evidence regarding effectiveness of community-based strategies for prevention were beyond the scope of this conference.

## Major Findings

The goal of the conference was to engage a diverse group of experts—including health care professionals, researchers, advocates, and policymakers—in examining the state of the evidence and drafting recommendations to improve the primary and secondary prevention of heart disease for women in the primary care setting. The conference provided updates on the epidemiology of heart disease in women and on the diagnosis and management of CHD in women from an evidence report commissioned by the Agency for Healthcare Research and Quality (AHRQ) and conducted by Grady and colleagues.<sup>11</sup> Three papers, published in this issue of *Women's Health Issues*, were commissioned by the Jacobs Institute to address the state of the evidence for key topics related to prevention of heart disease in primary care:

- Prevention of heart disease in women through health behavior change
- Physician adherence to preventive cardiology guidelines for women
- Quality of care performance measures and quality improvement strategies related to heart disease in women

The key findings of the conference, based on presentations, commissioned papers, and discussion are:

**1. Counseling women for tobacco cessation is recommended for use in the primary care setting, but there is a lack of research on the effectiveness for physical activity and nutrition counseling in these settings.**

Whitlock and Williams<sup>12</sup> examined whether counseling for behavior change related to smoking, physical activity, and healthy diet is effective in women through primary care interventions. The literature on smoking cessation counseling provides the best evidence base for the effectiveness of primary care counseling on behavior change. Primary care smoking cessation counseling is recommended for and is

equally efficacious in both women and men, although some gender differences in preferences for specific methods of quitting have been identified. For physical activity and healthy diet, there is insufficient evidence to recommend counseling to all women on a routine basis, at least utilizing practices typically available in the primary care setting.<sup>13,14</sup> However, there is sufficient evidence to recommend intensive behavioral dietary counseling for women with hyperlipidemia and other known risk factors for cardiovascular disease.

More research is needed to clarify the most effective and efficient means of providing these interventions in primary care. It is important that effectiveness be studied in diverse settings, including community-based, rural and Medicaid managed care plans, as these are likely to differ from private health plans, and many women get their care in these settings. Finally, preventive counseling might be provided optimally by multidisciplinary teams, rather than individual clinicians, and through multiple communication channels in addition to face-to-face encounters with patients.

**2. Multiple barriers prevent health care professionals' adherence to clinical practice guidelines related to heart disease, including lack of time, lack of familiarity or agreement with guidelines, low self-efficacy, absence of system supports for preventive counseling, inadequate insurance coverage for behavioral services, and fragmentation of women's primary care.**

Cabana and Kim<sup>15</sup> applied a framework for describing challenges in implementing clinical practice guidelines for prevention of CHD in women in primary care. Because the American Heart Association/American College of Cardiology "Guide to Preventive Cardiology for Women"<sup>16</sup> is a collection of recommendations for several areas of clinical practice, different barriers to physician adherence are likely for each recommendation. Specialty differences in guideline adherence among physicians who provide primary care to women also are likely. To date, there is no comprehensive data on physician knowledge, attitudes, or practices related to these guidelines. In addition, health care professionals often have limited time to address the range of issues required to provide optimal patient care during a standard primary care visit, making it hard to comply with all preventive recommendations. A recent study estimated that 7.4 hours per working day are needed for a physician to provide the preventive services recommended by the U.S. Preventive Services Task Force.<sup>17</sup> Research to assist health care professionals in preventive services prioritization for individual patients is needed.

Nurses also play an important role in primary care. The Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) recently published guidelines for nurses in the primary prevention of cardiovascular disease in women.<sup>18</sup> A primary objec-

tive is to increase the knowledge and awareness of nurses about cardiovascular disease, primary prevention, and risk reduction strategies. Selected nurses have been trained in use of these guidelines, and a preliminary evaluation indicates that the guidelines have been successful in increasing their knowledge of cardiovascular disease in women. Evaluation efforts to measure improvements in practice are ongoing.

The organizational and system barriers to health care professionals' adherence to evidence-based practice guidelines include time pressures, the lack of appropriate or gender-specific educational materials for health care professionals and patients, the absence of computerized medical records or patient reminder systems, lack of reimbursement for counseling services, inadequate insurance coverage for behavioral programs (e.g., exercise classes), and the lack of community-based organizations for referrals for behavioral programs.

**3. Despite research that confirms gender disparities in prevention and treatment of heart disease, efforts to improve quality of care for women are hampered because performance measures are not available by gender.**

Bird and colleagues<sup>19</sup> described recent work showing gender differences in quality of care measures in a small number of managed care plans and discussed the potential benefits and barriers to routine reporting of performance measures, such as the Health Plan Employer Data and Information Set (HEDIS), by gender. HEDIS is used by managed care plans to monitor quality of care, and 11 HEDIS measures are related to prevention or treatment of heart disease. In a research project within one large managed care organization, some plans had substantial gender differences, mostly favoring men, on these HEDIS measures.

Currently, the National Committee for Quality Assurance (NCQA) does not report these HEDIS measures separately for women and men, although gender (unlike race/ethnicity or socioeconomic status) is readily available from health plan records. Reporting CHD-related measures without consideration of gender can obscure important differences in the quality of care for women and men. Gender-stratified data would allow monitoring of gender disparities in care related to heart disease and provide a basis for quality improvement initiatives in women's health care.

**4. Strategies for increasing the provision of recommended preventive services for women are hindered by the lack of a comprehensive public policy agenda addressing gender-specific research and data collection, health promotion strategies, and improvements in public health programs.**

Several strategies have been developed to address the large burden of heart disease on the nation's health.<sup>20–22</sup> The recent "Heart Truth" public education campaign, sponsored by the National Heart, Lung,

and Blood Institute at the National Institutes of Health, is one of the few strategies developed specifically to raise awareness of heart disease in women.<sup>20</sup> However, most do not address women as a target population with specific intervention strategies. The Department of Health and Human Services in conjunction with the Centers for Disease Control and Prevention recently published a national action plan for preventing heart disease but did not promote the use of gender-specific approaches to address this issue.<sup>21</sup> There has been evidence that prevention practices that are known to work effectively in women have been underutilized.<sup>4,5</sup> Development of effective implementation programs for prevention services is difficult when current strategies do not take into account gender-specific data.

Recent studies have indicated the serious lack of evidence on the effectiveness of many of the current practices for the prevention of heart disease in women. Women represent only approximately one-third of participants in clinical trials focusing on the prevention, diagnosis, and treatment of heart disease.<sup>8,11</sup> Even when women are included in significant numbers, data are frequently not reported or analyzed by gender. Many research studies that perform gender-specific analyses do not report or publish them. This severely limits the ability to apply study findings to women and improve prevention practices.

### Key Recommendations

Four key recommendations emerged from the conference. The recommendations address clinical practice, research, quality improvement, and public policy.

**1. Reduce the barriers to provision of recommended preventive interventions, especially tobacco cessation, for women in the primary care setting by providing necessary educational resources to health care professionals, creating system supports for innovative approaches to patient education and counseling, and advocating for adequate health insurance coverage of behavioral services aimed at reducing risks.**

Reducing barriers to provision of recommended preventive interventions requires a comprehensive strategy that includes a broad range of health care professionals who provide primary care to women, such as physicians in several specialties (family practice, internal medicine, and obstetrics-gynecology), advanced practice nurses, dietitians, and others. Since the benefits of tobacco cessation interventions are well documented, this should be a primary area of focus.<sup>12</sup> Providing educational resources (e.g., guidelines for effective counseling, pocket guides, and patient education materials) and training health care professionals on their use allows for easier access and reference to information and increases the provision of preven-

tive services.<sup>23</sup> System supports, such as reminder systems, streamlined referral services, and performance feedback, are also needed to improve health care delivery.<sup>12</sup> Behavioral services, such as nutrition, exercise, and smoking cessation programs, are an essential component of prevention. Without adequate insurance coverage for these services, patients will be less likely to participate. Similarly, without reimbursement for counseling services, health care professionals will be less likely to provide them. Identifying comprehensive models that have been successful in behavior change and providing counseling services by multidisciplinary teams should be encouraged.

**2. Partner with health plans, insurers, health care professionals, and accreditation organizations, such as the National Committee for Quality Assurance, to demonstrate the feasibility of gender-stratifying HEDIS performance measures related to heart disease for monitoring and improving quality of care.**

A lack of gender-stratified quality performance measures limits the ability to adequately evaluate the quality of care received by women.<sup>24</sup> Although the burden on health plans for stratifying the data by gender is minimal, more information is needed to support a recommendation for routine gender stratification of HEDIS measures related to heart disease. For some measures, the number of eligible enrollees might be insufficient at the health plan level, requiring pooling data from several plans for analysis. In addition, the rationale for gender stratification would be strongest for those measures with the largest gender disparity and for which gender-based interventions are known. If gender differences are identified in nationally representative health plans, reporting of these measures by gender could be a key strategy for improving quality of care and for reducing gender disparities in the use of preventive, diagnostic, and treatment services related to heart disease. A constituency for gender-stratified reporting could include women's health advocacy and interest groups, business coalitions, and professional associations.

**3. Require that federally funded epidemiological, clinical, and health services research be analyzed by gender and that gender-stratified data be made available to the research community.**

While funding agencies require inclusion of women in research, few require investigators to report results by gender. The presentation of outcome data by gender can identify areas for improving care and generate further ideas for gender-based research. Outcome data analyzed by gender is especially helpful for conducting systematic evidence reviews and implementing updates in clinical practice. Investigators have had limited success in accessing and obtaining this data after study completion.<sup>11</sup> For these reasons, recent attention has focused on the publishing or archiving of data by subgroup.<sup>11,25</sup> Innovative ap-

proaches, such as providing access to data by subgroup on a public website, should be explored.

**4. Develop a comprehensive public policy agenda that addresses prevention of CHD in women by increasing federal funding for epidemiological, clinical, and health services research on heart disease health promotion and prevention, implementation of proven preventive strategies for women in public health programs at the state and local levels, measuring and improving the quality of care at the primary care level, and ensuring access to appropriate CHD services for women.**

Awareness and knowledge of heart disease in women continues to be poorly understood and contributes to a national public health crisis. Better implementation of current standards for inclusion of women in clinical trials and increasing the amount of research on heart disease in women is necessary.<sup>26,27</sup> Current public health programs aimed at heart disease prevention, such as the Centers for Disease Control and Prevention's WISEWOMAN and State Heart Disease and Stroke Prevention programs, also need to be evaluated and expanded to ensure that women receive access to appropriate, gender-based prevention practices. In addition to the development of quality standards for cardiovascular care in women, such as those at NCQA, methods to reducing these barriers to high-quality care must be found. These might include encouraging financial incentives for health care professionals to use "best practices" and creating better systems for adherence and implementation of clinical guidelines. A public policy agenda should also include eliminating barriers related to the reimbursement of preventive services.

### Next Steps

These recommendations are meant to serve as a framework for developing future research and policy agendas as well as provide the foundation for the next phases of the Jacobs Institute of Women's Health initiative on women's cardiovascular health. In the next year, the Jacobs Institute will work to implement many of the recommendations in this report, such as including women in national public health prevention strategies, by collaborating with conference supporters and participants. The Institute anticipates that the National Committee for Quality Assurance will initiate research for stratifying quality measures by gender.

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acknowledge the presenters and panel discussants at the conference who helped in drafting preliminary recommendations and summarizing conference discussion. Special thanks go to those who reviewed and edited this report.

#### **Appendix 1. Women and Heart Disease: Putting Prevention into Primary Care Conference Report**

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