Disparities in breast cancer care and outcomes by race and ethnicity are well documented. For example, black women have a lower incidence of breast cancer than their white counterparts but have a higher overall mortality (1). The inferior outcomes observed among black women are multifactorial in origin and can be attributed to many factors including more advanced stage at diagnosis (2,3), a lower proportion of hormone receptor–positive tumors (4), differences in comorbidity (5), provider variability (6), and a range of socioeconomic and cultural factors (7–10). Unraveling the complex relationship between race and socioeconomic status (SES) is difficult. Research has often focused on census data and population-based registries with variable inclusion of education, income, and insurance status into the analyses (11–13). Even when studies have controlled for SES, race appears to influence the likelihood that a patient will receive standard adjuvant treatment (11–13).

Because breast cancer care requires that a patient see several physicians and receive a series of treatments, the failure to transition from one step to the next can result in suboptimal care. It is well documented that women from underserved populations are less likely to receive radiation therapy (14,15), chemotherapy (16), and hormonal therapy (16) than their white counterparts. It is also known that adjuvant treatment improves disease-free and overall survival, and by extrapolation, failure to receive effective therapy would lead to inferior outcomes (17,18). However, the extent to which inadequate treatment leads to less favorable survival outcomes in underserved women is not fully understood. Some stud...
ies report equal breast cancer–specific outcomes by race when all patients receive similar care (19,20), but others have observed differences in overall survival despite administration of homogeneous treatments in a controlled setting (21–23). Indeed, the etiologic factors that account for the inferior outcomes of breast cancer in racial minorities may include complex societal forces and biologic influences (4). Although efforts to ensure equal access to care remain critical, specific interventions aimed to improve the quality of breast cancer care for vulnerable patients have been relatively slow to take hold.

In this issue of the Journal, Bickell et al. (24) have attempted to promote optimal care by implementing a provider-based intervention. A tracking registry in six New York City hospitals used an electronic database within surgical practices to document follow-up appointments with medical oncologists for a group of 300 women with stage I–II breast cancer. If a medical oncology appointment was missed by the patient before the surgical practice was contacted by a research assistant to encourage patient follow-up. The researchers did not assess whether the surgical practices actually followed up with patients after the reminder calls. The intervention was implemented in 2006, and rates of medical oncology consultations and receipt of clinically indicated adjuvant treatments were compared with a retrospective cohort of 639 patients during 1999–2000.

In comparison to historical controls, Bickell et al. (24) have observed improved rates of medical and radiation oncology consultations and more appropriate use of adjuvant therapies for women in the intervention group. Among black and Hispanic women, statistically significant increases in completed oncology consultations as well as increases in use of radiotherapy, chemotherapy, and endocrine therapy were observed. Indeed, after adjustment for age, comorbidity, stage, and insurance status during the intervention period, patients identified as black or Hispanic were equally likely to have an oncology consultation as their white or Asian counterparts (odds ratio [OR] = 1.0, 95% confidence interval [CI] = 0.5 to 1.8). They were also equally likely to receive adjuvant treatment (OR = 1.1, 95% CI = 0.7 to 7.7).

Although the findings (24) are encouraging, the study has several limitations, most of which are unavoidable in a nonrandomized design that relies on the use of historical controls. It is possible that other practice improvements accounted for the differences seen over time. Without detailed information about the follow-through on the part of the surgical practices, it is difficult to know if the intervention actually affected surgical practice or patients’ behavior. Furthermore, physicians’ and patients’ behavior may have been influenced by the knowledge that they were participating in a study, independent of the actual intervention. Of concern, the intervention was not provided to more than 40% of potentially eligible patients due to inability of research staff to make telephone contact or because of patients’ refusal to participate. As a result, women at highest risk for suboptimal care may have been excluded.

Although Bickell et al. (24) acknowledge that navigator programs were in place in four of six hospitals before and after the intervention, they do not comment on whether their navigation services expanded over the study period or if these programs could have partially accounted for improved rates of medical oncology consultations. For the past decade, navigator programs designed to assist underserved patients have been broadly implemented to assist patients with the coordination of appropriate care and to avoid delays in treatment. Trained and experienced patient navigators can address multiple patient, provider, and institutional barriers to care (25). Multiple programs funded by the National Cancer Institute’s Patient Navigation Research Program (26) have been in place since 2005 and have been augmented by locally funded navigator services. Although navigation is widely used and is viewed favorably (27), limited data are available about the efficacy, impact, and cost-effectiveness of patient navigator programs.

In a study reported by Battaglia et al., a pre–post intervention study of navigator services was conducted at a major academic medical center in Boston and at its community affiliates to assess receipt of “timely follow-up” among healthy women who had been identified to have breast abnormalities. The authors reported timely follow-up for 64% of patients in the preintervention group vs 78% in the postintervention group ($P < .001$) (28). Other efforts to assess navigator programs have been conducted in screening populations and have demonstrated improved follow-up rates (29–31) and shorter times to diagnostic resolution of mammographic abnormalities (32). However, these studies have not consistently randomized patients and have been mostly examined in individuals without a known diagnosis of cancer.

Although the study by Bickell et al. (24) offers an innovative provider-based approach to increase the proportion of patients who are seen for consultation, their research should be viewed as preliminary. If a simple tracking system can help eliminate disparities, some might argue that similar programs should be broadly implemented even if definitive evidence is lacking. We believe that the work described by Bickell et al., albeit promising, needs to be replicated using a prospective, randomized design. The intervention appears to be a low-cost solution, but it relies heavily on busy providers to follow up with patients. If the financial burden associated with the physician and staff time is included, the expense will increase substantially. More importantly, there is an opportunity cost associated with almost any intervention. If the tracking registry is ultimately not as effective as the initial study would suggest, it may divert resources away from other efforts. Disparities in cancer care represent one of the most important challenges facing the oncological community, and although we need to act quickly, we cannot rush to implement approaches that have not been thoroughly evaluated through rigorous investigation.

Additional research is urgently needed. Of the 40 000 deaths from breast cancer each year, we know that a substantial number could be prevented if all women had the same access to care and actually received the same care as a prototypic white, middle-aged, married woman living in a city who has been well educated, has social support, and does not lack health insurance. As cancer treatment becomes more complex, more costly, and more effective, the potential for disparities will only increase. Now is the time to conduct the research that will allow us to eliminate these disparities in the years ahead. Failure to do so will limit our ability to take full advantage of the progress that is occurring in basic, translational, and clinical research. Addressing these disparities will require not only clarification of the contributions of SES, insurance status, and race but also a more complete understanding of patient preferences, provider practice patterns, and the cultural and structural
barriers that limit breast cancer care. The task is daunting, but it is a challenge we simply must address.

References


Notes

The authors take full responsibility for the writing of this editorial and report no conflicts of interest. The authors acknowledge Ann H. Partridge, MD, MPH, for her thoughtful review of the article.