In his 1748 article “Advice to a Tradesman,” Benjamin Franklin famously wrote, “Remember that time is money.” There is no doubt that this adage can be applied to the time we spend seeking medical care in the 21st century. Still, when we think of cancer care and the substantial costs of today’s treatment, researchers and policy makers tend to forget that time costs are a very real and very human component of the total economic burden of cancer. The article by Yabroff et al. in this issue of the Journal (1) helps us to view a little described part of the “forest” of the overall costs of cancer.

The study by Yabroff et al. extends previous efforts to develop estimates of the patient time costs associated with cancer and uses the now-familiar approach of assessing cost by phase of cancer care—initial, continuing, and last-year-of-life phases (2,3). Previously, this team had estimated the patient time costs for colorectal cancer (4) as a prelude to this more expansive effort on 11 cancers.

What we see here is a measure of the patient’s burden of commitment—measured in dollars—associated with receiving today’s cancer therapy. The large variation in patient time costs by cancer site reflects the considerable variation in intensity of treatment for the many diseases we know as cancer. Cancers that are generally found at early stage (breast, corpus uteri, melanoma, prostate, and bladder) can be treated with curative intent by surgery alone and fare well in this analysis. We typically screen for several of these cancers and, in turn, this analysis reveals the promise of early detection in a relative reduction in patient time cost. That the time cost difference persists for the last year of life is surprising; after all, if a patient will succumb to cancer, the disease is likely metastatic and there should be little clinical difference among cancer sites.

The authors find that time costs in the last year of life are largely hospital costs. Those who advocate for less aggressive, home-centered care for patients with advanced cancer may use these data to highlight another type of cost associated with our American preference to treat aggressively even as the cancers enter their terminal phase.

In their previous work on colorectal cancer, the authors estimated that patient time costs were 19% of direct medical costs in the first year after diagnosis and a rather astounding 37% of direct medical care costs during the last year of life. To provide for a context for the estimates in this study, similar calculations for the other 10 sites should be carried out.

The authors note the limitations of their work, and we point to a few here because we believe they affect the appreciation of the meaning of these costs. The age of the study population is 65 years and older. Younger cancer patients may receive more intensive therapy than older patients and correspondingly could have higher time costs; younger control subjects without cancer on average have lower health care costs. These factors will increase the difference in time costs between cancer patients and control subjects. Time spent away from work due to disability from the cancer or its treatment also is not counted. These are also direct nonsmedical costs and have been shown to be substantial (5). Family time costs are not calculated, and they also likely add a substantial amount to these estimates because many cancer patients are quite ill and require assistance with transportation and management of health care.

The lack of data on home health care, although not necessarily a limitation, is a feature of their analysis that will only grow in importance with time. Technology to treat patients has been moving from the hospital to home environment at an astonishing pace (6). In addition, drug therapy is moving—albeit slowly—away from traditional chemotherapy and toward targeted therapies that can be administered as pills at home. These technology trends will move care to the home and reduce the patient time costs spent traveling to and from clinical settings.

What are the implications of these findings? We already know that cancer is costly to society. One potentially valuable use of these estimates is to inform those responsible for the development of public policy regarding cancer, such as for the funding of the wide variety of research that National Cancer Institute has become known for since 1971. We hope that policy makers recognize the substantial economic burden of cancer in the United States and that this cost derives from many sources: direct medical costs, patient time, lost wages and productivity, and family time and costs. The time costs of cancer and their implications for society should be considered in debates regarding the level of public funding for cancer research.

Cost-of-disease studies have proven useful for the general debate about health care policy and for assessing burden on the population. The value of understanding the scope of the human costs of cancer most likely lies in our desire to appreciate the impact of the disease in its many manifestations and, perhaps, in using some of these findings as a guide to assert the importance of trying to reduce the morbidity and mortality due to this disease. It also continues to reinforce the importance of strategies such as early detection, which in turn will both directly and indirectly reduce the cancer burden.

Treatments that reduce time costs while maintaining or improving efficacy should be encouraged. Manufacturers of new cancer therapies that reduce patient time costs should quantify these benefits because they improve the value of the products. Similarly, health insurers should consider rewarding manufacturers of
therapies that reduce both direct medical and direct nonmedical costs, even though the latter do not enter into their bottom line. Does this study complete the picture of the overall burden of cancer? We have left out the incalculable emotional suffering of the patient and his or her family and friends. Without such a count, we know we have greatly underestimated the true cost of this disease. The goal over time should be the reduction of the disease and, of course, the reduction of its cost to the public health.

References


