D r. Andrew von Eschenbach, the director of the National Cancer Institute, has made it clear that while our old battle cry against cancer was “seek and destroy,” with the new designer chemotherapeutic agents that rely on genomic information, we are now in a “target and control” mode.

I would like to think that five years from now, Dr. von Eschenbach will be able to say that we have moved on to still another phase—one in which we can “control and cure” cancer. And if that does indeed come to pass, then a final sequel may one day be the “cure and elimination” of cancer.

Timeline: Actually, our experience with cancer (as well as with the extrapolation of other scientific knowledge) makes us realize that the timeline of such a progression is most difficult to predict. For example, imatinib mesylate (a drug known by the brand name Gleevec) was welcomed to the oncologist's armamentarium because of its specificity; it targets the molecular cause of chronic myelogenous leukemia. But it is already encountering the expected resistance of cancer cells as therapy progresses.

Yet this unprecedented era of discovery in cancer management will surely contribute to what can only be called sea changes in public health. At best, cancer patients will shift from being categorized as victims of acute disease to those fighting a chronic disease; at least they will live longer and there will be more of them. From the broad perspectives of public health and of economics, anything that increases the chronicity of disease raises a warning flag to factor this information into health-care planning.

The growth of chronic disease is a real problem for our society. It is actually a good problem to have, better than the obvious alternative. In some ways, the problem of chronic disease is a problem of riches—in this case the riches of lives prolonged by medicine. One of the reasons for the growth of chronic disease is the real success story of American medicine in treating acute disease. A generation ago, many of the Americans now facing problems of chronic disease in the elderly would have been long since dead from a heart attack.

Disease: Now it is true that one way to prevent chronic disease is simply to lessen our treatment of acute disease, to lessen our efforts in prevention of fatal disease. You should know, without my stating it, that I would never advocate this, but there are those who do.

When I first went to Washington as U.S. surgeon general, I came across a document suggesting that we soft-pedal advice to senior citizens regarding seat-belt use. A higher early mortality, so the thinking went, could reduce Medicare costs and Social Security benefits in the long run. Then there was a recent study, commissioned by Philip Morris and written by Arthur D. Little, supposedly showing that in Czechoslovakia, the elimination of antismoking campaigns would be a cost-effective move because earlier deaths due to smoking would avoid later medical bills. Of course the study was flawed and the conclusions wrong, but this mentality lingers on.

In many ways, chronic illness is a silent crisis, because most chronically ill Americans are neither hospitalized nor institutionalized, but are cared for at home.

These unethical means of reducing the cost of chronic care lurk below the surface, especially in a society where the debate about entitlements is clouded with the persistent problem of poverty, the legacy of racism, and the demand that taxes and health insurance premiums be kept low. But the demands of chronic disease will only grow in the future, as each year medicine makes another acute disease chronic. For example, only 20 years ago AIDS was an acute and devastatingly fatal disease; while still fatal, it has been transformed into a chronic disease from which its sufferers will die, but with which they can live for years.

Silent crisis: In many ways, chronic illness is a silent crisis, because most chronically ill Americans are neither hospitalized nor institutionalized; indeed, most are cared for at home by family members. One in four Americans now provides some kind of care for a person with a chronic condition. When the baby-boom generation reaches 65, it is estimated that number will be three in four. But the increasing unavailability of family members to provide this assistance means that the unmet needs of the chronically ill will skyrocket. These unmet needs—such as help with bathing, getting out of a chair, cooking, eating, walking, or shopping—lead directly to the injuries and illnesses that force hospitalization or institutionalization, with all its attendant costs and stress.

To deal with the needs of these people, American medicine and American society need not only improved skills and therapies, but also an improved attitude to enable our quick-fix culture to deal compassionately and effectively with the long-term problems of the chronically ill and their families. The problems of chronic care and long-term care need to be addressed now—not only by the health-care system, and by affected families, but by the entire American society. We are not socioeconomically prepared for the increase in chronic disease or the burden on caregivers, even without considering cancer patients. With them, the burden will be great and the cost, at the moment, almost incalculable.

If these predictions come to pass, while this transitional period will seriously tax the public health community, the good news is that we have reason to expect that the long-term goals of “control and cure” and “cure and elimination” can be realized.