Senator Specter, Members of the Committee--I am Richard Klausner, Director of the National Cancer Institute. I am pleased to have this opportunity to discuss progress against cancer and to respond to the recent article in the New England Journal of Medicine entitled "Cancer Undefeated." I wish to make eight brief points.

First--There is one overarching message that we all agree on: overall cancer mortality rates, which had been rising all century, have finally begun to fall. The 1-3% drop in age-adjusted mortality rates is, we hope, just a beginning--representing thousands of lives saved per year that would have been lost.

Second--To understand why mortality rates are changing, we must move away from lumping all cancers together and rather examine each cancer, for each is a different disease or, indeed, a different set of diseases.

Let us look at four examples.

1. Lung Cancer --This is the #1 killer whose death rate is finally dropping in men and in women under 65 and the reason is clear: the drop in smoking that began after the first Surgeon General's report in 1964.
2. Gastric Cancer--This has plummeted from the #1 killer in 1900 to #8 now, and we don't know why.
3. Colorectal cancer--This is the #2 cancer killer. Its mortality has been falling for 20 years due largely to early detection, and we believe that recent evidence of a 30% reduction in mortality following adjuvant treatment of moderately advanced disease is and will continue to contribute to the drop in mortality from this cancer.
4. Breast cancer--The significant recent decline in mortality is likely the result of both early detection and today's almost universal use of adjuvant treatment. I believe it is the latter that explains the bulk of the effect.
Third--We must take our victories against cancer where we can. For that reason, a balanced and constantly re-evaluated approach to prevention, detection, and treatment must remain the driving principle of the National Cancer Institute.

Currently, we do have a large investment in prevention. This does and must include research into the causes of cancer, identifying who is at risk for which cancer, conducting prevention research and prevention interventions, and amounts to $911 million or 38% of our budget.

Research into detection of cancer crosses the line between prevention and treatment. Early detection is of no benefit without effective treatment. Our investment in treatment-oriented research amounts to $845 million or 35% of our budget.

The remaining 27% of our budget is targeted to cancer biology, training, and education which I consider to be part of the necessary foundation for prevention, detection, or treatment.

Since I became director, I have commissioned a series of critical external reviews and two days ago, I received a comprehensive report from a very eminent panel of our country's cancer prevention researchers that will help guide the invigoration of our cancer prevention programs.

Fourth--Progress is dependent upon knowledge. Our investment in understanding the causes and characteristics of cancer is essential if we are to develop effective interventions--regardless of whether they are aimed at prevention or treatment.

Painstaking molecular, genetic and epidemiologic studies in colorectal cancer are revealing real targets for preventing the development of polyps, the precursors of colon cancer, and preventing their progression to cancer. Cellular and molecular studies of the hormone-dependent growth of breast and prostate cancer are allowing the design of specific antagonists that are providing the first preventives now being tested for these cancers.

Fifth--Progress takes time. The pace of progress against cancer frustrates all of us. Whether we like it or not, to move from an insight or an observation to a tested successful human intervention takes time, and this is why there will always be a lag between our investment, the development of the critical knowledge base, and the pay-off that we are finally seeing.

Childhood leukemia was not cured overnight. It took decades from the first tentative use of anti-metabolites and genotoxic drugs to achieve our current 70-80% cure rate.

Sixth--Success is measured in multiple ways. While the reduction in cancer mortality should be our ultimate goal, there have been critical advances in the quality of life for our 8.1 million cancer survivors. Longer survival time after diagnosis--time to spend with family and community, less destructive and disfiguring surgery, so that people who
would have lost their voices can speak, those who would have lost limbs can walk, and many others can keep the function of their bowel and bladder, better control of pain and other disabilities--these are all advances that benefit people, advances that should not be dismissed.

**Seventh**--The drop in mortality can be viewed as a fork in the road of our progress against cancer. What do we do at this fork? I agree with Yogi Berra "When you come to a fork in the road, take it." This year, over 1.3 million Americans will be diagnosed with cancer. While some significant fraction of these cases are a failure of prevention, even if all tobacco use stopped today, even if all of us instantly adopted a "perfect" diet (recognizing that we don't know for sure what the preventive efficacy is of changing diet), we would still be confronted with an enormous number of people who will be diagnosed with cancer. These people cannot and will not be written off because we have chosen one fork in the road and decided that if you slip past prevention, you're out of luck. Our broad-based approach is working. It would be foolish to abandon it.

**Eighth**--It is dangerous to make predictions, especially about the future. While the past is prologue to the future, the future is not easily predicted by the past. Before all of our breakthroughs, critics pronounced that we will never fly, never wipe out smallpox or polio, or never cure a child with leukemia. While cancer is clearly still undefeated, defeatism is simply not supported by our current data. The promise of ideal and total prevention of cancer may well contain as much hype as Dr. Bailar sees in the over promise of cure.

I believe that we can and must do much better in our fight against cancer. For the past two years, I have worked to bring a spirit of re-evaluation and change to the NCI to assure that our investment in understanding the causes and nature of cancer are optimally linked to the development of new strategies for prevention, detection, diagnosis and treatment which this collection of complex diseases demands.

Thank you Senator Specter, for asking me to appear before you today.

I would be pleased to answer any questions.