

## **Closing Thoughts**

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SEER data indicate that cancer incidence has risen slightly (10%), 5-year cancer survival has risen substantially (40%), and cancer mortality has dropped modestly (25%) since 1975 [1]. An increase in incidence and 5-year case survival are difficult to interpret for reasons discussed in this primer. But a reduction in cancer mortality of any magnitude is a success.

President Nixon spoke of the conquest of cancer when he proposed the National Cancer Act in 1971 [2], and others have used similar war-like language over the years. Data from SEER, however, suggest that we have not conquered cancer. We know much more about cancer today than we did in 1971, but we still do not seem to know enough to make a huge impact. Cancer "fads" have come and gone; some have and some haven't made a lasting difference. Chemoprevention has reduced the risk of breast cancer recurrence, and prevention of smoking initiation and smoking cessation have led to meaningful decreases in lung cancer incidence and mortality. On the other hand, autologous bone marrow transplant for breast cancer was used for a number of years to no avail. Our understanding of the relationship of diet and cancer is still poor. It was estimated that in 2018, 600,000 Americans would die from cancer. Though a small percentage of the population, the absolute number is large.

Where does cancer screening fit into the picture? It depends on who you ask. Most researchers believe that earlier detection due to cancer screening has led to some reduction in cancer mortality, though there is widespread disagreement as to the degree of its impact. There is general agreement, however, that cancer screening programs impact health care spending and availability of resources yet benefit only a few of those who are screened. There is less agreement, however, regarding what constitutes benefit and harm, and even less regarding the acceptable ratio of harm to benefit. Discussion of the complexities of cancer screening began to appear in some lay press publications about 20 years ago, yet the predominant feeling among individuals in the general public is that cancer screening is important and worthwhile, and that cancer detection at the earliest stage can only lead to good.

The forces that drive the availability of cancer screening and the choice to be screened are complex. So too are the issues that were covered in this primer. I believe, however, that most people, patients and clinicians alike, are educable, and the complexities of cancer screening need not be out of reach. I hope that this primer has helped you in your quest to understand.

## References

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