Jemal and his colleagues took a different approach. They examined lung cancer trends in adults aged 30 to 39, reasoning that people who got lung cancer at younger ages—generally smokers who are genetically more susceptible—would provide an early indication of the benefit of tobacco-control policies.

“Monitoring trends in young adults is important for measuring the effectiveness of tobacco control activities,” Jemal said. Most lung cancers take decades to develop; the average age for people who develop lung cancer is close to 70, though most smokers start the habit in their teenage years. However, a decrease in lung cancer among younger people now predicts a future decrease in lung cancer among older people.

Jemal and the other ACS researchers looked at smoking patterns and lung cancer deaths between 1990 and 1994, and between 1995 and 1999. Then they compared these rates with an index of anti-tobacco programs that reflects cigarette prices and smoking restrictions in each state. Only 33 states were included in the analysis; in the other states, the number of deaths from lung cancer in the 30 to 39 age group was too small to be statistically reliable.

The lung cancer death rate in both time periods was lowest in states like Arizona and California, which had strong anti-tobacco programs. It was highest in states such as Mississippi, Arkansas, and Kentucky, which had weak antismoking programs. The death rate also dropped the most between the two time periods in states with strong antismoking programs. California’s rate fell almost 19%, while Oregon’s fell 28%. But 11 states with weak anti-tobacco programs saw the lung cancer death rate among 30- to 39-year-olds increase in the same interval. The rate in Kentucky, the state with the weakest anti-tobacco measures, rose the most—more than 34%. Missouri’s rate rose more than 29%, and West Virginia’s rose 25%. States that had strong anti-tobacco programs also had fewer current smokers and more people who had quit in the 30 to 39 age group.

These findings are in line with previous studies that found more rapidly declining rates of heart disease deaths and lung cancer incidence in California after that state adopted anti-tobacco programs in 1989. Overall, Jemal said, his findings indicate that antismoking measures are working. “There is no question about that,” he said. “Where you have stronger tobacco control activities you’re going to have lower lung cancer death rates and a greater decline in lung cancer rates.”

A recent study, published in the *New England Journal of Medicine* (2003;349:640–649), finds that most children who remain in remission from acute lymphoblastic leukemia (ALL) for 10 years or more go on to lead lives very similar to those of people who did not have cancer. However, children whose treatment included craniospinal radiation seem to experience more problems than children who were not treated with radiation.

Ching-Hon Pui, MD, and colleagues from the St. Jude Children’s Research Hospital and the University of Tennessee Health Sciences Center followed medical outcomes and socio-economic indicators of patients with ALL treated in clinical trials at St. Jude between 1962 and 1992. Radiation had been used to treat 597 of the patients, while 259 were treated without radiation. All were under age 21 when they were diagnosed (with a median age of 4.5) and all had been in remission from the leukemia for at least 10 years.

Estimated 20-year survival rates for the irradiated patients, nonirradiated patients, and the general US population were 95.1%, 98.3%, and 99.7%, respectively. (These rates are higher than the overall rates for ALL survival because...
the study included only subjects who were already 10-year survivors.) The cumulative 20-year incidence of developing a second neoplasm was 0.95% among nonirradiated survivors. Among those who had received cranio-spatial irradiation, the incidence was 20.9% (13.3% after excluding basal cell carcinomas). The most common second malignancies were tumors of the brain, thyroid, oral cavity and pharynx, and liver, and myeloid leukemia. Most second neoplasms occurred within or adjacent to the irradiated area.

The indicators of socioeconomic status reflected the known impact of cranial irradiation on physical and neurocognitive development. Women seemed particularly susceptible to these problems. Unemployment rates among female ALL survivors, and particularly those who had been irradiated, were higher than the national average. Relative to the national average, only those men who had been irradiated were more likely to be unemployed. Compared with national averages, the percentage of survivors currently married was lower among women who had received radiation therapy, but was not significantly different among non-irradiated women, or among men, regardless of their treatment. Rates of private health insurance coverage were not influenced by treatment in either men or women.

A few decades ago, the outlook for children with ALL was bleak, recalled Joseph V. Simone, MD, in an editorial accompanying the study. Treatment improvements since that time “are surely among the most dramatic in the history of cancer,” wrote Simone, a pediatric oncologist and Chairperson of the National Cancer Policy Board. Indeed, a graph in Simone’s editorial illustrates that long-term survival rates have increased from only a few percent in 1950 to their current level in excess of 80%.

Simone also recounted how addition of irradiation to chemotherapy made long-term survival a reality for children with ALL, and how craniospinal irradiation has been largely replaced by intrathecal chemotherapy once the late effects of the former were recognized.

However, the current practices and systems for follow-up care of childhood cancer survivors are inconsistent. With this in mind, the National Cancer Policy Board and Institute of Medicine reviewed current evidence and developed a report, *Childhood Cancer Survivorship: Improving Care and Quality of Life*. The report, which includes recommendations on services, professional education, and research, is available on the National Academies website, http://books.nap.edu/books/0,3090,88984/html/index.html.

“Cancer in children has largely become a chronic illness rather than an acute illness..., which is what it used to be. [The] cancer may be eliminated, but the effects of cancer and its treatment may not be. We need to maintain responsibility for that child and eventual adult to try to mitigate the effects of disease and treatment,” said Simone.

**RESULTS NEVER REPORTED FOR MANY LARGE CANCER TRIALS**

Many large Phase III clinical trials whose results were presented as abstracts at meetings of the American Society of Clinical Oncology (ASCO) were not published in the medical literature by as many as five years later, according to a new study. Aside from the ethical concerns this raises regarding relationships among study subjects, investigators, and funding organizations, failure to promptly publish results may affect which studies will be done in the future, and even how patients are treated, according to the study authors.

Writing in *JAMA* (2003;290:495–501), Monica Krzyzanowska, MD, MPH, of the Dana-Farber Cancer Institute, and colleagues from the University of Toronto found that more than one fourth of these Phase III trials remained unpublished after five years—their results unknown to researchers, clinicians, and patients.