Cancer: The War Wages On

As the United States enters the fifth decade of its “war on cancer,” deaths continue to decline, according to an exhaustive report based on official data released on Monday.

But that doesn’t tell the whole story, say experts not involved in the report from the National Cancer Institute, the American Cancer Society and other groups on progress against cancer since the 1970s. The improvements reflect such lifestyle changes as not smoking more than they do the billions of dollars spent to discover and implement advanced cancer treatments.

“We don’t look at this as progress,” said Fran Visco, president of the National Breast Cancer Coalition, of the new numbers. “This is such incremental improvement, when you look at the decades of investments, the cost of treatments, the number of researchers and journals, and then at the number of people who die … well, we are clearly doing something wrong,” said Visco, who was not involved in the study.

The decrease in deaths from all cancers – 1.8 percent a year for men and 1.5 percent for women from 2005 to 2009, the last year with enough data to analyze – while steady, is disappointing to many experts because it is no greater in the most recent five-year period than in the previous one, and because it has hardly been affected by supposed advances in detection and treatment.

“The decrease in cancer mortality is driven largely by the decrease in cancer incidence, which is mostly because of the decrease in smoking,” said Dr. Otis Brawley, chief medical and scientific officer of the American Cancer Society (ACS).

Smoking can cause more than a dozen cancers, including lung, head, neck, bladder and mouth.

Although improvements in treatment for breast and some other cancers have cut death rates, Brawley said, headline-making new drugs have contributed little. “Most of the expensive new drugs prolong survival for no more than three or four months,” on average, he said.

Incidence of Cancer Falls

At first glance, the findings in the report, published in the Journal of the National Cancer Institute, are worth cheering.

In men, the incidence of cancer fell an average 0.6 percent a year from 2000 to 2009, find the researchers, who include scientists from the NCI, ACS and other federal agencies and private groups. In women, cancer incidence was flat for those years but rose 0.6 percent a year from 2005 to 2009. (The statistics are adjusted to account for the aging of the population, since cancer is largely a disease of the elderly.)

Cancer incidence among women fell when fewer post-menopausal women opted for hormone-replacement therapy following a 2002 report that linked it to breast cancer and other disease, said NCI’s Brenda Edwards, the lead author of the report.

But no other factor occurred to cause another dip after the mid-2000s. Instead, although the incidence of breast cancer fell from 2000 to 2009 by an average 0.7 percent a year, it rose 0.9 percent a year from 2005 to 2009.

The trend in childhood cancer is also going in the wrong direction. From 2000 to 2009, cancer incidence among children 19 and younger rose 0.7 percent per year, on average.

Experts are not sure why the numbers are rising. But one reason may be, paradoxically, greater access to health insurance.

An uninsured child who developed flu-like symptoms in the 1990s might have died from what was actually leukemia, but

without medical care his death certificate said pneumonia, explained ACS's Brawley. With insurance, that child now is more likely to see a doctor and get correctly diagnosed.

Experts note that cancer incidence can be affected by such changes as how many people are screened for the disease, such as through mammography or prostate-specific antigen (PSA) tests. That may account for the recent increase in cases of thyroid and kidney cancers.

Incidence is therefore less accurate an indicator of progress against the disease than mortality. By this measure, too, progress has been halting at best, the report finds.

Death rates from cancer—the percentage of all deaths due to any form of this disease—have been declining since the early 1990s, by about 1.8 percent per year in men and 1.4 percent per year in women. But the decrease was also 1.8 percent per year from 2005 to 2009 for men, and 1.5 percent for women. So even as expensive new treatments were introduced, progress is not accelerating.

"We're all wondering why there hasn't been an acceleration in the rate of decrease" in mortality, said report co-author Edgar Simard, an epidemiologist at ACS.

One reason is that "cancer cells are wily foes," said Massachusetts Institute of Technology cancer biologist Robert Weinberg. "What is most frustrating is the ability of cancer cells that are under attack and being decimated by one therapy to invent a way of circumventing the therapy and finding a new way to thrive and proliferate."

Although the drop in smoking is responsible much of the decline in cancer death rates—42 percent of adults smoked in the mid-1960s, compared with about 21 percent now—some of the credit goes to improved screening.

Colorectal screening can find and remove polyps before they

become malignant, for instance. “So stage one never gets to stage two or three or four, and you have less mortality,” said Dr. Maurie Markman, senior vice president for clinical affairs at Cancer Treatment Centers of America. Deaths from colorectal cancer fell 2.9 percent a year from 2000 to 2009 among men and 1.9 percent among women.

The 1.9 percent annual decline in deaths from breast cancer over the same period probably reflects some improvements in treatment. But “a huge driver of the decrease is what we call breast awareness,” said Brawley. “It’s not monthly breast exams” that do not decrease deaths “but women being aware of their body and asking, what is this change in my breast?”

The rise in liver cancer may be the result of a high prevalence of chronic hepatitis C infection resulting from drug use decades ago, the report says. Obesity may be raising the incidence of liver, pancreatic and uterine cancers.

“If the American public really wants fewer people to die from cancer, then there will need to be major changes in lifestyle,” said MIT’s Weinberg, such as declines in tobacco use and obesity. The biggest reductions in cancer mortality “will come from prevention rather than treatment.”