When Judith Salmon Kaur, M.D., wants to get a little laugh from an audience of oncologists, she talks about her maiden Choctaw Cherokee surname. “I tell them it’s very appropriate to be a salmon and going into cancer research and cancer prevention because you’re always swimming upstream.”

But that’s not so true nowadays, given the recent recognition of Kaur’s research. After decades of studying and treating cancer in American Indians, Kaur is now coauthor of a federal report showing that the progress the country has been making as a whole in reducing cancer is not being generally reflected in American Indian populations. And solving the problem will not be simple because several cancers occur at much higher rates in some tribes than in others.

This information, from the Annual Report to the Nation on the Status of Cancer, 1975–2004, released last October, was the first nationwide assessment of cancer rates in American Indians. And its results were markedly different from those that were presented to Kaur in 1984, when she first started treating Northern Plain Indians. Cancer isn’t much of a problem in the 4 million Americans who are Indians, she was told, so reducing the alcoholism believed to be so rampant in Indians was the major focus of research and treatment.

But Kaur and James Hampton, M.D., a 76-year-old oncologist in private practice in Oklahoma City—the only two oncologists in the nation who are members of an Indian tribe—helped to accurately portray the disease. They were the first to detail growing rates of cancer in Indians and the first to call for the creation of an American Indian cancer control plan. Kaur pioneered a cancer outreach program to American Indians that has since become a national model.

“She has done a remarkable job in both educating Native Americans about cancer in their communities as well as highlighting the issue for the public,” Hampton said. “She is not only an excellent scientist but brings her own Native American perspective to cancer control. She has compassion, is very dedicated, and knows how to speak to the issue.”

Kaur believes that her work on the American Indian cancer section of the report reflects the notion that she was meant to do this work. “Indian philosophy says that there’s a path that you’re supposed to take, and if you stay on that, good things will happen.”

Driven To Share Skills
Kaur’s father, an American Indian from Oklahoma, instilled in his daughter values common to Native peoples. “One is a strong sense of spirituality that we are put on this earth to care for one another and for Mother Earth,” she said. “There are responsibilities that go with that that are not based on competition but on brotherhood and community. And I learned that we all have talents we’ve been given from our creator that we need to share.”

Kaur’s gift was her intelligence. At age 16, she was the first person in her family to graduate from high school—her parents worked as a truck driver and waitress. She graduated from college at 19 and then earned a master’s degree in counseling at Northwestern University. She spent the first years of her career as a junior high school counselor. Then at age 29, married and with a 3-year-old daughter, she entered medical school. “My husband noted that I was much more fond of reading Scientific American than doing housework, and he said I should get a Ph.D., maybe go to medical school.”

She spent the first 2 years of medical school at the University of North Dakota, which recruited her into its Indians into Medicine program, and then finished her medical degree, with honors, at the University of Colorado Health Sciences Center in Denver in 1979. It was in Colorado that she first helped treat cancer patients and researched the relationship among breast cancer, melanoma, and hormone receptors.

After a fellowship and residency—and a near move to Florida—Kaur finally started an oncology practice in North Dakota in 1984. “There was a path that I was supposed to follow to stay connected to Indian people.” She taught at her alma mater, the University of North Dakota School of Medicine, and eventually became the preferred provider for regional cancer patients from the Indian Health Service. She also began to do research through the North Central Cancer Treatment Group, a National Cancer Institute–sponsored, nationwide network of cancer researchers based at the Mayo Clinic in Rochester, Minn. It was through these studies and her practice that Kaur detected a discrepancy between published
and actual data on cancer rates in American Indian populations.

“Her message was eventually heard at the federal level, but it wasn’t necessarily gladly received,” said Hampton, who initiated a cancer control plan for Indians that Kaur later took over. “They didn’t think the issue was important.”

Blind to Burgeoning Cancer
Kaur found that there were “quite a few and quite varied” types of cancer in the American Indian patients whom she was treating from North and South Dakota, including excess rates of breast, cervix, stomach, lung, and colon cancers. “And when I went to the literature, it kept saying that the rates are low in American Indians,” she said. So with the help of the North Dakota State Department of Health and representatives from several local tribes, Kaur secured funds from the Centers for Disease Control and Prevention (CDC) to look at cancer patterns among the area’s American Indians.

Kaur found that the data from the SEER (Surveillance, Epidemiology, and End Results) registry on cancer rates in Indians were based on samplings from the Southwest and Alaska. But even the low incidence rate for the Southwest was misleading, Kaur said. “There might be fewer Navajo or Hopi or other southwestern tribes with cancers, but if they got cancer, they were less likely to survive it,” she said.

In the late 1980s, Kaur worked on a screening project for breast and cervical cancers, and she found that local clinics were not keeping track of the cancer rates in American Indian patients. “Patients weren’t being treated directly on the reservation. They were being sent elsewhere on contract health referrals, and people weren’t aware of the cancer incidence,” she said. “... They were blind to what a problem cancer was becoming.” Her work on a cancer control plan for American Indians and Alaska Natives led to the inclusion of American Indians in the CDC’s breast and cervical cancer screening program.

Kaur and other researchers have since found that geographic differences in cancer rates among Native Americans are “very distinct and dramatic, which is one of the interesting findings from the Report to the Nation,” Kaur said. For example, researchers found a sixfold difference in colorectal cancer between American Indians from Alaska and the Northern Plains, such as the Sioux, compared with those from the Southwest. The reasons are believed to be environmental, not genetic, because most scientists don’t believe that there is a lot of genetic variation between tribes, Kaur said, adding that studies on these differences may increase understanding of the etiology of colon cancer in general.

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Taking Ownership of Their Health
After running a full-time oncology practice in North Dakota for 10 years, Kaur decided to move to the Mayo Clinic to work on American Indian issues full-time. At Mayo, Kaur is the medical director for three programs for American Indians. The first, the Native Circle, is designed to provide educational materials about cancer that have cultural relevance to Native Americans. The Native Web trains nurses to provide breast and cervical cancer screening and education to Indians on reservations and in urban clinics. So far, more than 150 nurses have been trained. And the Spirit of Eagles works to bring American Indian students into health care professions, particularly cancer-related careers, and to change cancer screening, treatment, and prevention policy in tribes.

Kaur’s work on the Report to the Nation found that, for all cancers combined, American Indian incidence rates were lower in the Southwest and higher in the Plains and Alaska. Specifically, lung and colorectal cancer rates were highest in the Northern Plains and Alaska and were substantially elevated in comparison with those for non-Hispanic white men and women in the same areas. Also, the incidence rates for cancers of the kidney, stomach, liver, cervix, and gallbladder were higher in American Indians and Alaskan Natives than those in the non-Hispanic population.

Kaur is also working with other authors on a monograph about the report, which will act as the primer of cancer in Indians, and on a model cancer control plan that any of the 500 different American tribes (40% of whom live on reservations) can modify to use as they wish.

Many of Kaur’s accomplishments are due to her “dual perspective of the Native community and the practicing oncologist,” said David Espey, M.D., lead author of the report and a CDC cancer epidemiologist assigned to the Indian Health Service division of epidemiology and disease control in Albuquerque, N.M. Her participation in the report was critical, he said. She has “convened a network of Native leaders, scientists, and clinicians to develop and promote cancer prevention and control across Indian country. Dr. Kaur has the ideal background, the passion, and the commitment for this agenda,” Espey said.

Much has changed in how Native peoples view cancer since she entered the field, Kaur said. “It went from being very, very difficult to even say the word ‘cancer’—because it was viewed as a death sentence or as a punishment—to today, when tribes are taking ownership of their health care and are interested in working together in partnerships.

“I think this is where I was supposed to be,” she said. “My cultural teaching is that if you stay on that road, the red road, then you will be shown the way that things can happen that are positive.”