South Dakota, to some, may be considered a desert for academic and research opportunities. Perhaps it seemed so to many American Indians when they heard the word “cancer,” but as a radiation oncologist, moving my career to South Dakota was an opportunity to make a difference for the people and to be part of a community with solid family values. The results of this move have stunned me, as well as a number of supporters and skeptics, as to what we have done and what we can accomplish. Imagine, for a moment, that we are leaders in concepts in global health from the state known for Mount Rushmore and buffalo roundups.

Narrative is a key component of the American Indian culture and other indigenous populations in general, making experience and lessons learned broadly applicable. I am grateful for the opportunity to contribute this narrative to convey how I, as a radiation oncologist, went from an academic practice specializing in gynecologic oncology to my current location for 18 years—Rapid City, SD, where I have had the opportunity to work with the Northern Plains American Indians as part of a National Cancer Institute (NCI)-funded cancer disparity project called Walking Forward. The aim was to bring the plight of indigenous populations off the sidelines into the middle of a "Jim Thorpian"-type playing field where stakes are huge.

When I decided to relocate back to my home state of South Dakota in 1999, several of my colleagues questioned this decision, including one of my mentors, Dr. Ted Lawrence, who wrote me the following in a very nice letter that I have kept: “Dan, I was, indeed, stunned to get your recent letter that you are leaving the University of Wisconsin-Madison and even more fortunate to have led the radiation therapy portion of the gynecologic oncology service for 5 years.

When I decided to relocate back to my home state of South Dakota in 1999, several of my colleagues questioned this decision, including one of my mentors, Dr. Ted Lawrence, who wrote me the following in a very nice letter that I have kept: “Dan, I was, indeed, stunned to get your recent letter that you are leaving the University of Wisconsin... It sounds like you have given this a lot of thought and that it is the right thing for you.” It was one of those letters that you save in your permanent file. So, thank...
you, Dr. Lawrence, for your feedback and support 18 years ago. Indeed, I had given it great thought, with the idea of returning home to help build and sustain excellence in cancer care and to be part of life in a community that had strong values of self-reliance and helping one another when the need arose. However, the culture of science and service in which I was immersed was going with me.

Although family was a key motivating factor for relocating back to my home state, another was the potential to work with the American Indian community who suffer tremendous health disparities. In 2002, the “stars aligned” when the NCI announced the Cancer Disparity Research Partnership Program for community cancer centers. We were well positioned to compete for this request for applications and soon were the recipient of a multimillion-dollar grant. I woke up the next morning anxious about how we were going to implement this Herculean project. The proposal was pioneering in providing resources to the “little guy” with help from mentors at University of Wisconsin, Mayo, and the NCI. It was a reverse paradigm: from little to big. It was serious NCI science.

The initial hypothesis for the first 5 years of Walking Forward was to address cancer disparities through patient navigation, clinical trial access, and identification of barriers to early detection and successful treatment for American Indians. There are many lessons learned and published, but the most important was the need to listen, listen, listen, and then listen some more. It took 2 years to gain the confidence of a community that saw nothing but suspicion in government programs. To be simply trusted was a high point in my life. We were successful in understanding the epidemiology of the cancers, the reasons for gaps in care, and the benefits to patient navigation and in demonstrating that the American Indians and their resource-limited neighbors would, indeed, join clinical trials. They only needed to understand and be given a chance.

The second 5-year grant cycle was a continuation of similar themes, but with a much more in-depth patient navigation program. We recently completed a smoking cessation project for 256 American Indians through a randomized controlled trial using nicotine replacement, counseling, and text messaging to mitigate the high rates of tobacco use (40% to 50%) and tobacco-induced cancers—a bit removed from radiation oncology, perhaps, but not really because we are complete doctors! In June 2017, we submitted a National Institutes of Health Research Project Grant Program proposal with the goal of increasing low-dose computed tomography scan rates to screen eligible smokers for the entire western part of South Dakota by targeting 135 primary care providers and 1000 high-risk individuals through 2 interventions. The objective is, of course, to reduce lung cancer mortality rates.

Published critical outcomes include establishment of trust within tribal communities, identification of barriers to cancer screenings, creation of research infrastructure, and clinical trial enrollment of 4000 American Indians, as well as higher completion-of-treatment and patient satisfaction rates for patients undergoing cancer therapies. Recent Walking Forward data analysis suggests that American Indian cancer patients with screen-detectable cancers are now presenting with earlier stages of disease and subsequently higher cure rates.1-8

To accomplish those results required, on a quarterly basis and sometimes more, 300-mile round trips totaling thousands of “on the road” miles have been conducted since 2002 to visit staff and community members residing on the reservations of Pine Ridge, Rosebud, and Cheyenne River. For the first few years, the journeys were weekly or monthly. The road time has given me hundreds of hours to meet and listen to countless fascinating individuals. I truly have learned much more from the American Indian population than they have from me.

One invaluable exchange, for example, provided us with key direction. KILI radio is situated on a butte within the Pine Ridge Indian reservation, 5 miles from the site of the Wounded Knee Massacre (a story that, I believe, should be required American history reading). Hour-long interviews on KILI continue to be an especially effective method of communicating our messages. While driving back from conducting one such interview, I stopped for gas. A Native fellow asked if I were “that cancer doctor” he’d just heard on the radio. I responded yes, and he replied, “Well, if you get cancer, it doesn’t matter; everyone dies.”

From that brief exchange, a realization surfaced: that man and his family were not going to seek cancer screening. Our staff began conveying essential messages to the community about early detection leading to successful treatment.

Continuing that message over the years, several cancer survivors have participated in our interviews. Today, terms commonly heard in the community include IMRT, prostate and breast brachytherapy, and SBRT. Who would have thought!

I cannot ignore the call to help people who are marginalized and suffer tremendous historic trauma from events including Wounded Knee in 1890, not when there are opportunities to make a difference. My father was able to rise above his disadvantaged beginnings. I hope that the American Indian population will rise above their current dilemma. I see evidence of progress happening. What is now becoming appreciated is that the American Indian issue is not merely one of poverty but a much more complex issue of how indigenous people in resource-rich countries relate to their society at large. Indeed, in the last 2 Union for International Cancer Control meetings, indigenous populations in higher income countries are recognized to have similar issues to people in low-resource countries with severe cancer care disparities. Thus, the work we are now doing is considered a key component of
global health, being addressed by the Union for International Cancer Control and the International Cancer Expert Corps, of which I am a contributing member.

Radiation oncologists working to address cancer disparities in our communities and abroad are well poised to do so.9 We are physicians who care for patients with a dire illness. We use our marvelous tools to relieve suffering. We can do so much more than sit behind our computers and work on dose-volume histograms all day. We can reach out to understand why patients present as they do and to remove barriers. And we can produce cure, relieve suffering, and provide hope. The work challenges and rewards on many levels.

Nowadays, life as a doctor is more and more filled with paperwork, forms, data, billings, and credentialing and recredentialing. But the essence is still in helping humanity and taking on challenges. It has been “the road less traveled,” but one that is most fulfilling. It remains a huge opportunity to make a difference and to demonstrate that unique research can be conducted in the community and that there is room in our technological world of radiation oncology for ongoing narrative and fantastic opportunities guided by the courage and wisdom of my father and the leaders in the community who simply do not give up.

Finally, as I have the luxury of chasing walleyes on a local reservoir, I continue to ponder the many life lessons learned from my father, my community, and my family as the reflection of the moon and our creator continue to give back to me. To quote my father, “Life has been a miracle”—a miracle to which we contribute!

References