Imagine being surrounded by a silent killer. It is in the air, the food supply, water, even the floors and walls of your home and the people who promised to help and protect you deliberately kept life sustaining information from you in acts of betrayal and greed. In Judy Pasternak’s (2010) landmark work, Yellow Dirt: A Poisoned Land and the Betrayal of the Navajos, the true story of eight decades of American governmental and corporate greed unfolds with the turn of each page. Safety and welfare information regarding uranium mining was implemented in neighboring communities and was available to share with the Navajo Nation but a sheer disregard for the sanctity of life and environment precluded the Vanadium Corporation and federal government agencies from sparing generations of Native Americans physical, spiritual and environmental destruction. Pasternak’s expose divulges the painful journey of the Navajo Nation and the sacred lands they inhabit as public health workers, researchers, and many others hid the awful truth of uranium mining behind war efforts, democracy and the global race for nuclear weapons.

As an American I was horrified as I delved into the twisted world of uranium mining and the vast cultural divides that have and continue to separate our nation. There are not sufficient words to express the anger and sadness I felt as a white American as this story unfolded in my hands. Until I began a doctoral program in New Mexico, I was painfully naïve of not only the history of the mountain states and the desert Southwest but of the atrocities bestowed upon the Navajo at the hands of the United States government as well as the Bureau of Indian Affairs. Living in relatively close proximity to the Marsalis Shale (fracking range) in eastern Pennsylvania I believed I was in tune with current and historical environmental issues plaguing our country. Yellow Dirt divested me of that illusion. The politics of language are integral to the story that Pasternak masterfully lays out for her readers. Commonly used terms such as race and genetics take on new meaning in the context of the Navajo in the 20th century and both words had the potential to be catchall excuses for the health and welfare issues that came to the Four Corners area of Arizona, Utah, Colorado and New Mexico. Perhaps because of a lack of understanding of the inner workings of a tribal nation and clan-based society,
scientists and public health experts attributed the sudden and astronomical rates of miscarriages, malignancies and seemingly idiopathic processes such as “Navajo neuropathy” to an isolated society and their presumed societal norms. Few actively sought an exogenous cause such as uranium and the tailings or waste left behind. In the 1950s the medical specialty of genetics was just starting to take shape; to attribute these diseases to genetics was no more than hypothesis at the time. Blaming a vast public health crisis on “race” had great divisive power: us versus them, their problem versus our problem. By the time environmental causes were publicly acknowledged, emerging intergenerational effects of uranium exposure had started to become tragically evident.

As health problems began to surface in the Western states, on the other side of the country equally problematic racial and genetic history was being made with the Tuskegee Airmen and Henrietta Lacks. Parallels can be drawn between all three stories propelled by unequal care of minority populations, lack of industry regulations and a kind of necessary trust in the health care system. Human beings are not to be treated as guinea pigs. Yet the Navajo men, women and children near the uranium mines were treated as such with each passing day that safety and health related information was withheld from them while shared with Caucasian miners in surrounding states. With each passing day, essential findings were reported at scientific conferences but not used to inform treatment of emerging cancers among Navajo miners and their family members.

As first-hand witnesses to the atrocities associated with uranium mining, Navajo women had a unique role as representatives of community health concerns. While men left their homes and farms to work in the mines, Navajo women retained their positions as the heads of households, caregivers and caretakers. As one who gives life and enables all things needed to sustain life and balance, a Navajo woman has an inextricable bond with the land. At home and in the community Navajo women saw troubling new problems in the 1970s: changes in livestock reproductive and birth patterns as well as increasing rates of human miscarriage, unexplained respiratory and abdominal complaints (malignancies), and the emergence of congenital abnormalities, including “Navajo Neuropathy,” a wasting disease affecting hepatic, visual, muscular and nervous system functions. For decades Navajo women communicated with each other, shared stories, and in 2009 brought tales of illness and death to the attention of Congress.

The tough terrain and remote location of the Four Corners area played perfectly into a situation where the women’s valuable information would not easily be disseminated. When the prospectors and engineers from The Vanadium Corporation arrived in the early 1940s, they were captivated by the rugged beauty and remoteness of the land. There were no roads, no utilities, no reliable sources of supplies or news from outside of the immediate area: perfect conditions for executing a classified military/corporate mission. This isolated location also enabled the control of resources and control over public access to information about uranium mining and its consequences. I am awestruck that in 1979, a monumental spill of toxic (uranium enriched) water at Church Rock, New Mexico got less media coverage than the comparably small and contained incident months later at the Three Mile Island nuclear power plant in central Pennsylvania. In the 1990s why did increased (breast) cancer rates in small geographical areas of New York and New Jersey garner national attention by researchers while soaring rates of abdominal and lung cancer in Navajo men and women did not grab the same level of scientific and clinical attention? How could that happen in an equitable America?

Judy Pasternak’s style of investigative journalism reads like fiction as she tells a true story of crimes perpetrated on a sovereign nation within the borders of the United States. Pasternak makes it clear that the opportunity for health and public policy change is at hand. Navajo community members highlighted opportunities for policy development and change in the following areas:

- Enhanced environmental and health safety/promotion education in schools;
- Environmental protection and regulation regarding future attempts to extract uranium, other minerals or sources of fuel from reservation lands;
- Zoning regulations assessing safety and proximity of mines, wells or fracking systems to communities, homes, farms and water sources;
- Improvements in funding and services through the Indian Health Services to care for those affected by toxic sequelae of uranium mining and tailings;
- Safe water systems unaffected by and protected from uranium mining or tailings.

In addition to policy design and implementation an important aspect of public safety lies in closing community-level knowledge gaps through sufficient dissemination of research findings and epidemiological trends, and through ongoing health and safety education. Retrospectively, a knowledge gap clearly existed among the Navajo about the environmental effects of uranium mining and its far-reaching effects on the water table, soil and air quality, livestock and crops. Environmental protection education is sorely lacking nationally and in Navajo communities. Ethical decision-making and access to care are not reserved for “just some” individuals; the public health establishment is bound by the ethical principles of justice (a founding principle of the nation) and beneficence, doing no harm. Moving forward from this ugly chapter of American history offers a great challenge because lines of communication and trust need to be established and sustained.

*Yellow Dirt: A Poisoned Land and the Betrayal of the Navajos,* is a compelling reading and should be encouraged across health care disciplines and policy arenas. The lessons learned may vary but the understanding that the decisions of one person or a small group of people can have life changing effects on whole populations and that individual voices do count. The advocacy role of health care and policy professionals can be significantly strengthened by working through this book. Without awareness and understanding of the horrors the Navajo have endured, there is no guarantee that it will not happen again. Our charge as public health professionals, educators, administrators, policy makers and direct care nurses is to ensure that this public health disaster receives satisfactory resolution. I believe our collective efforts can be that powerful.

REFERENCES