Facilitating the Success of Native Investigators in Research Careers

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Linking Disparities in Health to a Paucity of Native Investigators

Native people worldwide have long experienced health status worse than that of the non-Native population. Native Americans experience higher rates of disease than other non-Native populations across many areas of health, including diabetes, HIV/AIDS, certain cancers, mental health, and substance use. Factors known to contribute to health status and disparities are complex, and may include multiple social, economic, environmental, and biological factors. Unfamiliarity with our complex health care system may adversely influence health status and also may reduce the acceptability of health research. However, a history of unethical research practices, inaccurate interpretation of findings, and little change in the health status among Native people has created an environment of distrust of research and researchers by Native communities. Building the capacity of Native communities to develop and implement their own research programs and by involving Native researchers as lead investigators could help repair trust relationships in research leading to a reduction in health disparities.

Disparities in Educational Attainment

While data is sparse, the number of Native American scientists and health scientists is significantly lower than any other racial or ethnic group (National Science Foundation [NSF], 2008). We know that this disparity exists along the entire educational pipeline with fewer NA students graduating from high school and college and with fewer applying to graduate programs and health professions programs. Typical barriers to education for any population include poverty and a lack of role models but the historical abuses in the name of education create a barrier that is unique to Native communities.

The Institute of Medicine recommends increasing the number of minority health professionals as a key strategy to eliminate health disparities (Smedley, Butler, & Bristow, 2004). Despite years of efforts however, to increase the number of scientists from underrepresented groups, the number of Native American students in the health sciences is very limited. According to the National Science Foundation in 2006 there were 29,854 doctorate recipients of science and engineering degrees of which 52 were American Indian/Alaska Native (0.17%) (NSF, 2008). Retaining students over the long complex academic career path that can take well over 14 years is key. And graduating with a terminal degree does not immediately translate to an independent research career. The Council of Graduate Schools (2009) reports that of 130,957 graduate students enrolled in health science programs in 2009, there were 892 American Indian/Alaska Natives (AIAN) (0.7%). Strategies found to be successful in working with Native American students include providing research training opportunities, professional skills development, peer networks and role

models (Pewewardy, 1999). Peer relationships can provide considerable influence on student success (Astin, 1993; Nora, 1987; Spady 1973; Terenzini & Pascarella, 1977; Tinto, 1993). Support, guidance, and role modeling is a key function of mentoring soon-to-be scientists (Grossman & Rhodes, 2002; Kram, 1985). *It is critical to surround students and trainees with role models who can facilitate resources and serve as champions.* Mentors must link trainees to those activities prized by both the academic community and the science enterprise, which includes opportunities to publish.

Native American Research Centers for Health (NARCH)

In order to increase the number of Native American scientists, the National Institutes of Health (NIH) in collaboration with Indian Health Service (IHS) developed the NARCH program. NARCH creates collaborations between Federally recognized American Indian and Alaska Native (AI/AN) Tribes or Tribal organizations and institutions that conduct intensive academic-level biomedical, behavioral, and health services research. The purpose of the NARCH initiative is to reduce health disparities, enhance partnerships and reduce distrust of research by AI/AN communities while developing a cadre of AI/AN scientists and health research professionals. The funding also allows Tribes and Tribal Organizations to build research infrastructure.

The Faculty Researcher Development Program at the American Indian Research Center for Health (AIRCH)

The Faculty/Researcher Education and Development program (FRED) at the Native American Research and Training Center (NARTC) at the University of Arizona (UA) provides such opportunities. One such opportunity is the set of articles presented in this issue of the Fourth World Journal.

The Center for World Indigenous Studies in partnership with the NARTC created this special opportunity for the FRED Fellows. This collaboration provided the rare opportunity for the Native investigators to meet the academic requirement of information dissemination through publication, but also to meet the expectation of their communities to provide information to the Native community through this journal. The Fellows were responsible for developing a theme of articles, creating the call for papers, and working with the editors to pull the manuscripts together for review. They received invaluable experience in science writing with feedback from senior investigators and in working to bring a collaborative academic work to fruition.

Summary

Preparing a critical mass of Native investigators in health is an extension of the assertion of sovereignty by setting the research agenda to benefit Native Nations. Highly skilled and trained Native scientists are a critical component for the elimination of health disparities and scientific inquiry. Creating opportunities for Native scientists to succeed, including opportunities to publish in an environment that understands the delicate nature of research in Native communities benefits the young investigator, the publisher, and the community.

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