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The Changing Dimension of Native American Health: A Critical Understanding of Contemporary Native American Health Issues

GREGORY R. CAMPBELL

THE UNNATURAL HISTORY OF DISEASE

The health problems Native Americans are confronting today did not arise out of an historical vacuum. Diseases and ill health have a history. Health levels are linked to the social, political, and economic forces present at any historical moment. Thus, in order to understand some of the present day factors determining Native American health levels, it is imperative to examine the historical context from which these health patterns emerged.

The medical history of Native Americans since European contact can be characterized as an "unnatural history of disease"—unnatural because the epidemiology of Native American people changed under the hegemony of European contact.[1] Native Americans, from the sixteenth through the mid-twentieth century, experienced a new set of afflictions which decimated their populations.[2] Epidemics such as smallpox, rubella, influenza, malaria, yellow fever, and cholera ravaged Native American societies, creating societal disorganization. It is not surprising that these epidemic episodes coincided with European expansion and development of the frontier.[3]

Gregory R. Campbell is Assistant Professor of Anthropology at the University of Montana, Missoula.

By the time most Native Americans were forced onto reservations, they had experienced centuries of cultural change, including a decline in health status. Reservation life brought further alterations to Native American societies. Under full governmental control, the Bureau of Indian Affairs launched its assimilation program, which was designed to move Native American people out of "savagery" and into "civilization." Native Americans were subjected to rapid changes in settlement pattern, social organization, diet, and ideology. These rapid changes gave rise to new health problems rarely experienced by prereservation Native Americans. Reservation Indian populations experienced an increase in tuberculosis, trachoma, otitis media, venereal disease, and alcoholism.[4]

As part of its assimilation program the Bureau of Indian Affairs took charge of medical care for Native American people. Bureau medical personnel set about treating reservation diseases that had been created by the social and economic conditions engendered by the bureau's policies. The role of reservation medicine therefore was never separate from the political policy of assimilation. Hospitals, for example, were not constructed to isolate infectious Indian people or to provide a sanitary location to perform medical services, but were constructed to "civilize" sick Indian people away from tribal influences.[5] Needless to say, ill health continued into the mid-twentieth century.

Following the Second World War, governmental policies shifted toward terminating the government's trust responsibility with Native Americans. The policy shift coincided with rapid social changes. As social and economic services were phased out on reservations, many Indian people entered into the cash economy, migrated off the reservation to more urban locations, and began to consume more manufactured products. In addition, the responsibility of health care was shifted from the Bureau of Indian Affairs to the United States Public Health Service. The transfer represented not only the administrative restructuring of responsibility, but also the emergence of a new medical ideology. Assimilation through medicine was no longer the explicit goal; it was replaced by a medical ecological paradigm. The poor health of American Indians was attributed no longer to "savage ignorance," but to a lack of sufficient medical knowledge.

Parallel to these rapid alterations in Native American lifestyle

and political relationship with the federal government, significant health changes were taking place. As the Indian Health Service brought trachoma and tuberculosis under control, new chronic diseases emerged to take their place. Native Americans began to suffer from substance abuse, diabetes mellitus, carcinoma, heart disease, accidents, violence, and abuse.[6] To solve these health problems, the federal government passed the Indian Self-Determination and Education and Assistance Act of 1975 and the Indian Health Care Improvement Act of 1976.

The Indian Health Care Improvement Act declared as a national goal that Native Americans should be afforded the highest possible health status and should be provided the resources necessary to effect that policy.[7] Despite this policy objective, the health status of Native American people remains below the national average.[8] What health improvements have been accomplished over the last three decades are being erased by current United States governmental policy. The fiscal year budget request for 1990 proposes the total elimination of funding for housing, sanitation, and outpatient health facilities, and significant reductions in funding for Indian child welfare, rights protection, and housing improvements.[9] Health services and care, like other services provided by the federal government, are slowly being dissolved under the guise of self-determination through private sector investment. The government's argument is that the private sector will continue social programs. Such a policy amounts to termination by de-funding. As Ortiz has stated,

> although termination has been disavowed as an active federal policy, . . . there is a kind of de-facto termination. It is occurring by de-funding—by just not funding programs, but ignoring the law of the land and just cutting the funding out from programs. Without funds, there is de-facto termination.[10]

This is the "unnatural history of disease" for Native American people. It is a history in which health levels were, and still are, intimately linked to the social, economic, and political conditions under which Indian people must live. Native American health levels and health care are determined outside of the health sector.[11]

The papers presented in this volume represent some of the

most salient health problems facing contemporary Native Americans. The diversity of subject matter in the articles reflects the complexity of various health issues confronting Native Americans. They are health problems that have a history and will certainly affect the future. Perhaps the most perplexing and ambiguous issue that these papers address is the solution to these health problems. Intervention and prevention have always been elusive, but all the authors conclude, either explicitly or implicitly, that the health dilemmas of the American Indian will ultimately be solved by social means, rather than exclusively in the medical arena.

ACQUIRED IMMUNE DEFICIENCY SYNDROME: AN EMERGING EPIDEMIC

Since contact with Europeans, Native Americans have had to contend with the importation of fatal diseases. Today, a new contagion is beginning to impact Indian people. This deadly new communicable disease is caused by a human immunodeficiency virus and is called "Acquired Immune Deficiency Syndrome" (AIDS). Just as with other imported communicable diseases, Native Americans are particularly vulnerable. Acquired Immune Deficiency Syndrome is the most pressing health problem facing the Native American community. Yet, it is the most underrated and ignored health dilemma. Since 1981, considerable effort has been expended to examine the public health ramifications of the disease. Thus far, over 60,000 cases of AIDS have been reported in the United States, with a fatality rate of over 50 percent within two years of diagnosis. Recent projections indicate that by 1991 over 300,000 AIDS cases will have been diagnosed; a disproportionate number of these cases will be among minorities.[12]

Native Americans (including Native Alaskans) represent approximately 1.6 percent of the total United States population, but currently account for less than .07 percent of the reported AIDS cases. The Native American population is composed of a broad biogenetic, sociocultural, and economic spectrum. Currently, few Indian people have attained a degree of economic security, and over 50 percent of the population can be described as chronically poor. Furthermore, the Native American population is younger

and more poorly educated, and earns less than the larger population.[13] These sociodemographic variables contribute to a significant decline in the health status of Native Americans, subjecting them to higher forces of morbidity and mortality. Like other minorities and the poor, Native Americans are at a significant risk for contracting HIV and developing AIDS. Qualitative and medical observations suggest that American Indians possess a number of high-risk social behavior patterns which could result in a dramatic rise in AIDS cases among American Indians.[14]

Recent studies have demonstrated that sexually transmitted disease (STD) rates among American Indians are significantly higher than among non-Indians. According to Center for Disease Control statistics for 1985, Indian syphilis and gonorrhea rates are approximately 20 times higher than for non-Indians.[15] In Arizona, for example, Indian people had syphilis rates of 79.1 per 100,000, compared to a nationwide rate of 7.1 per 100,000 for non-Indians.[16] It has been well established that high STD rates correlate with promiscuity, multiple sex partners, bisexuality, homosexuality, and other high-risk behaviors associated with HIV infection. Sexually transmitted diseases may be a marker for infection with the HIV virus.[17]

Emerging evidence suggests there is a link between STD contact investigations on reservations and migration patterns from natal communities to urban centers and back again. This cyclical migration pattern is poorly documented, but it is common knowledge that American Indians who reside, either permanently or temporarily, in metropolitan locations frequently return to their home communities for various reasons.[18] Moreover, American Indians residing in an urban setting have a wider range of sexual contacts with non-Indians. In many cases, these contacts are with members of other minority groups or sub-populations which are at high risk for being carriers of the HIV virus.[19] American Indian migrants provide a direct transmission route from higher risk population areas (i.e., urban centers) to lower risk communities (i.e., reservations or natal communities, which are largely rural).[20]

Concomitantly, there is little data regarding the extent of bisexual or homosexual behavior among contemporary American Indians. Native American homosexuality and bisexuality remain largely "closeted" phenomena and, hence, a hidden reservoir

for potential HIV infection. Such information is critical to our understanding of AIDS, especially if we are to adequately assess the level of knowledge and provide sound intervention strategies in Indian country.

The above risk factors are further compounded by substance abuse. Approximately one-third of all Indian people die before the age of 45 from diseases directly related to alcohol.[21] Acute alcohol abuse leads some American Indian people to engage in sexually promiscuous behavior that would normally be avoided. For many years, alcoholism has been an Indian Health Service priority, but the IHS has

> . . . focused exclusively on the alcohol problem without monitoring and analyzing possible changes in patterns of abuse, especially among young Indian people . . . [E]vidence from residents and providers in California Indian alcoholism treatment programs as well as among tribal leaders appears to indicate that growing numbers of Indian youth are shooting drugs, especially amphetamines.[22]

Although the extent of drug use is not well documented, recent survey data in the San Francisco Bay area suggest that 50 percent of young American Indian alcoholics are using drugs intravenously.[23] The failure of health administrators to track the changes in substance abuse patterns (Finley, this volume), coupled with withdrawal of funding for urban Indian health clinics (Brod and LaDue, this volume), places Native American people at risk.

Because of the time lag in the development of AIDS after HIV infection has taken place and the lack of an effective treatment of the underlying disease process, those exposed to the virus must be presumed to be chronically infectious. Therefore, the most effective means of altering the course of the epidemic lies in education and in modifying high risk behaviors among uninfected Native Americans.

The number of Indian people developing AIDS has been increasing every year since 1985. The Center for Disease Control reports that at least 55 American Indians have the disease. Of that number, 21.8 percent have been reported in California. Current estimates indicate that for every reported AIDS case, there are 40 to 100 people infected with the HIV virus.[24]

Although the majority of the American Indian cases were from urban areas, AIDS is not exclusively an urban affliction. Already six people have died on the Navajo Reservation.[25] With only 1,500,000 Native Americans in the United States, any further spread of the disease could drive many tribal groups once again to the brink of extinction.

It is a political, economic, and health reality that a general correlation is emerging between ethnicity, poverty, and the impact of AIDS. Recent epidemiological data suggest that minorities will represent a significant number of AIDS cases by 1991. It is also an unfortunate truth that those most at risk for contracting AIDS are the most poorly informed. The youth, poverty, poor education, and cultural behaviors of Native Americans often militate against utilization of available services. Because of the unique political relationship American Indians have with the federal government, many are denied access to private health services and health education.

Since clinical treatment has had little impact in stopping the spread of AIDS in the general population, it is recognized that prevention through community education is the most viable intervention strategy. This is especialy important in American Indian populations, where basic demographic and attitudinal data are nearly nonexistent. Claymore's work provides a timely and important starting point for critically evaluating the need for and the barriers to developing an AIDS health education and intervention program.

Claymore's paper points out the urgency with which the Indian Health Service and various tribal communities must involve themselves in AIDS prevention. The author correctly points out that prevention efforts should be based on health education policies developed from factual, culturally specific, and relevant educational materials in order to enhance the level of knowledge about AIDS among American Indians.

Claymore's argument is well taken, but current Native American health policies view Native Americans as a homogenous ethnic group, despite the fact that there are over 483 distinct Native American cultures recognized by the United States federal government and over 100 non-federally recognized groups. Each of these societies has unique cultural traditions. To be successful, AIDS risk reduction education must be culturally specific. This

requires accounting for the cultural values and dynamics that have an important impact on high-risk behaviors. Any attempt to reach and educate Native Americans must present health information in a culturally sensitive and relevant manner, addressing American Indian high-risk behavior patterns. The next logical question that must be posed is whether the Indian Health Service is willing to model education programs based not only on cultural constructs, but also on the demographic realities of twentieth-century Native American life.

SUBSTANCE ABUSE AND TYPE II DIABETES MELLITUS: DISEASES OF SOCIAL CHANGE

The prevalence of alcohol and drug abuse among Native Americans is alarming. As of 1985, the age-adjusted alcoholism mortality rate for Native Americans was 4.2 percent higher than the United States all races rate.[26] Currently, seven of the ten leading causes of death among Indian people are directly attributed to alcohol abuse.[27] The problem is so acute that it led the United States Congress and the Indian Health Service to target alcoholism and substance abuse as "the most severe health and social problem facing Indian Tribes."[28]

A growing trend in Indian country is the abuse of alcohol and drugs among the youth. Finley's article attests to the importance of substance abuse prevention among today's Native American youth. In a comparison of Indian and non-Indian students between the sixth and twelfth grades, Finley discovered that both Native American males and females drank more often and more regularly than their non-Indian counterparts. By her criteria, 29 percent of Native American girls and 100 percent of Native American boys were heavy drinkers by the ninth grade. Further, in a previous survey, Finley found a 37 percent prevalence rate of marijuana, a 42 percent prevalence of inhalants, and an 11 percent rate of using hallucinogens, stimulants, and sedatives.[29] The Native American youth who abused alcohol and drugs cited boredom, peer pressure, poor economic hope, family instability, and lack of Native American spiritual values as primary contributing factors in their decision to drink and use drugs. The consequences of substance abuse are dropping out of school, sexual

promiscuity, illegitimate pregnancies, possible physical and sexual abuse, delinquency, and high morbidity and mortality, including suicide.[30]

Health professionals and organizations that serve Native Americans must develop an intervention model for substance abuse. The intervention strategy should not only treat the symptoms of abuse but should also, as Finley suggests, reify Native American values and identity. Although such an intervention strategy could go far in treatment and prevention, it is obvious that major social, economic, and political changes will have to take place if the problem of substance abuse is to be overcome.

Type II diabetes mellitus is a new disease among Native American people. Previous to 1940, few cases of diabetes were recorded for Native Americans. Since then, Type II diabetes mellitus (commonly called adult onset diabetes) has become a major epidemic. Diabetes mellitus is currently the seventh leading cause of death among Native Americans, exceeding by 2.8 times the United States all races age-adjusted mortality rate.[31] Diabetes is also a major cause of debilitation. Each year, thousands of Indian people undergo amputations and experience blindness, vascular complications, and kidney dialysis because of this chronic disease.

Justice's study of the prevalence of diabetes on the Warm Springs Reservation in Oregon traces the appearance of the disease since 1965. Justice outlines the changes in diet, food availability, activity output, and medical intervention which contributed to a cycle of obesity, high blood sugar levels, and, eventually, the onset of diabetes. By 1978, diabetes mellitus at Warm Springs was a growing and recognized health problem.

Although currently the explanation for the diabetes epidemic among Native Americans implicates a genetic predisposition for the disease, the appearance of Type II diabetes is directly related to rapid social change.[32] It is a political and economic scenario that has taken place among other Native American people and other indigenous people worldwide.[33] In reality, diabetes ". . . is a debilitating byproduct of the U.S. government's forced changes in Indian lifestyle, diet, and psychology."[34] Like alcoholism, drug abuse, suicide, and many other afflictions that plague Native American people, diabetes is a disease of colonialism in which social and economic circumstances, to a great extent, determine the onset and prevalence of the disease.

NATIVE AMERICAN DISABLED, INFANTS, AND ELDERLY: AN UNDERSERVED POPULATION AT RISK

Many of the identified health problems among Native Americans are preventable but continue to exist within a cycle of social disadvantage. In general, Native American people suffer from higher rates of fetal alcohol syndrome, bacterial meningitis, otitis media, diabetes, accidents, mental disorders, and substance abuse than the national averages. All of these afflictions lead to major disabilities among Indian people.

Recognizing the needs of Native Americans for prevention and rehabilitation, Congress passed Public Law 99-506, the Rehabilitation Act Amendments of 1986. The act specified governmental responsibility in serving Native American disabled and handicapped. Despite the legislation, involvement by federal and state health agencies was often fragmented and lacked any empirical data on the problems, barriers, and limitations confronting disabled Native Americans. Hodge's work begins to fill this void. Collaborating with the Native American Research and Training Center at the University of Arizona and three tribally operated vocational and rehabilitation centers located on the Navajo, Rocky Boy, and Fort Hall reservations, Hodge conducted a needs assessment of Native Americans with disabilities. The study revealed the social and economic burden that disabilities place on Native American communities. Hodge discovered that the

> . . . adult disabled Indian was relatively young (average age 33 years) and unemployed, resided in a state of poverty, and required a multitude of services incorporating medical care, rehabilitation, training, and financial assistance. Chronic health problems were evident; such problems as high blood pressure, arthritis, coughs, heart problems, and diabetes were noted. Multiple disabilities and health problems were also reported.[35]

The tragedy is that most of the diseases that contributed to the disabilities are associated with poverty and social disadvantage. Moreover, treatment of these disabilities is retarded by lack of services, lack of viable prevention strategy, and cultural insensitivity on the part of many health service providers. Until the maldistribution of health services is corrected and culturally sensitive preventive measures become policy and practice, disabled

Native Americans, as Hodge's analysis demonstrates, will continue to be confronted with institutional and medical barriers that limit their potential as viable members of their tribal community.

Demographically, Native Americans continue to constitute one of the fastest growing segments of the United States population. Between 1970 and 1980, the Native American population increased by 70 percent. If this rate of growth continues, the Native American population will increase by 150 percent over the next two decades.[36] The current Native American profile indicates a young, growing population. This age structure has important implications for health and health delivery services.

Population dynamics play a prominent role in defining the various dimensions of health and health-related behavior. These relationships include the effects of changing age and sex composition of a population on patterns of disease and on health programs.[37] Two age cohorts that are facing health problems at opposite ends of the epidemiologic continuum are Native American infants and elderly. The elderly experience health problems that are largely chronic, while the infants continue to suffer from infectious diseases, especially during the postneonatal period. Although Native American infants and elderly suffer from different types of diseases, they share the common bonds of higher rates of morbidity and mortality than the general United States population. Their health dilemma attests to the political and economic nature of the problem.

In 1980, 10.7 percent of the Native American population was under the age of five, and most of these children were one year of age or younger.[38] While medical technology has resulted in an 84 percent decrease in the national Native American infant mortality rate since 1954–1956, significant differences between Native Americans and other populations remain when comparisons are made on a regional basis.[39] This is especially true when the infant mortality rate is broken down into neonatal and postneonatal rates.

Campbell's article examines the differential infant mortality rates which existed between American Indians and non-Indians in the state of Montana between 1979 and 1987. According to a 1986 United States congressional study, the 1980 to 1982 neonatal and postneonatal infant mortality rates for the Billings Indian Health Service Area (which includes Native Americans residing in Montana and Wyoming) were higher than the United States all races

rates.[40] Campbell contends that the differences between the Montana American Indian and non-Indian rates is the result of poverty and social disadvantage, rather than biology. Thus, the solution to the infant mortality crisis should not solely be sought in the medical arena, but in political and economic change.

Over the past two decades, health professionals have come to realize that minority elders represent an underserved population.[41] This is especially true for Native American elderly.[42] As a segment of the total United States population, Native American elderly are statistically an insignificant minority subpopulation.[43] Even within the Native American population, the elderly, age 60 years and older, represent only 7.6 percent of the total population.[44] Because of their relatively small numbers, Native American elderly have experienced limited access to health service resources and are not a primary target population for the distribution of these resources.

The maldistribution of health resources magnifies the already poor health conditions of Native American elderly. In general, Native American elderly suffer from poverty, a poor diet, and inordinately high rates of disease associated with poverty and a low standard of living. Health conditions are worse for Native American elders on reservations or in rural areas, and they have greater unmet service needs. These Native American elders "... are poorer, have greater financial concerns, support more people on less income, have fewer social contacts and somewhat lower life satisfaction, and are in poorer health than urban Indians."[45] Regardless of their residence, many Native American elderly are unaware of available health resources, however limited those resources may be.[46] The result is a population that is invisible and grossly underserved in the health arena.

Recent evidence indicates that the full range of services is usually unavailable to tribal elders and that those services that are available are largely directed toward secondary health care needs. The resultant services are underserving American Indian elders. In addition, health care is often perceived as culturally insensitive.[47] That is, most services rendered provide the minimal instrumental assistance necessary to maintain physical, but not psychosocial, well-being.

Awareness and accessibility of services for eligible American Indian elderly do not guarantee service utilization. Most Native

American elderly, especially those who are members of recognized tribal entities, face a myriad of complex rules and governmental regulations before services can be rendered. This fact, combined with other obstacles such as lack of transportation, language barriers, and other difficulties, severely limit full utilization of health care services.

American Indian elderly suffer from a service system modeled by policymakers from a different cultural context, who are frequently unaware of the specific legal history each Indian community maintains with the federal, state, and county governments. At the heart of the issue is the degree of empowerment Native American communities have in formulating health policies for their elderly.[49]

Although a significant literature about Native American elders is emerging, there remains a fundamental gap in our knowledge about health and well-being among the American Indian elderly. The article by Weibel-Orlando entitled "Elders and Elderlies: Well-Being in Indian Old Age" begins to fill an important gap in our knowledge of the specific factors associated with well-being among Native American elderly. Weibel-Orlando discovered that successful aging was associated with ethnically inflected community statuses and roles that involved active participation in community and family. In other words, well-being was defined in large part by sociocultural criteria.

Weibel-Orlando's analysis points out the importance of cultural values in the delivery of health services.[50] Existing social and health services should construct a system utilizing ethnic community membership and participation as a positive resource toward well-being.[51] Such knowledge is essential to learning the delivery needs and problems of Native American elderly.

URBAN HEALTH CARE, UTILIZATION, AND SURVIVAL: A POLITICAL DILEMMA FOR THE 1990s

During the 1950s, the federal government encouraged Native Americans to relocate to selected urban centers. This relocation policy was carried out under the dubious theory that American Indians would find secure employment and eventually assimilate into the "mainstream" of urban American life. Although

many Native Americans returned to their home communities, many stayed in the cities. According to the 1980 census, 54 percent of the total United States Native American population resides in metropolitan areas.[52]

The urbanization of the Native American population has brought a number of serious threats to Native American health and well-being. Although the federal government encouraged Native Americans to urbanize, most recently there has been a general retreat on the part of the Indian Health Service from extending comprehensive health care to urban Native Americans. Faced with service population increases, mismanagement, escalating health care costs, shortages of qualified personnel, and federal budget restraints, the Indian Health Service has been forced to curtail or discontinue many health programs, including urban health programs.

Historically, support for Native American urban-based health care clinics has been tenuous at best. Since 1972, the Indian Health Service has funded urban health services through its community development branch. Appropriations were derived from Public Law 94-437, the Indian Health Improvement Act. The Indian Health Service funds only 51 percent of the total urban Indian health care program. The remaining economic resources are sought through other federal funds, private donations, and charges for services rendered.

Since 1980, Indian Health Service funding has increased, but funds reaching urban areas are decreasing. As of 1984, there were 37 health clinics or programs in urban areas in 20 states.[53] As a result of decreased funding, however, Native American urban health clinics have been reduced to 28 (circa 1987) and have experienced a significant decline in client caseload. These reductions, coupled with the conflicts that have arisen about the eligibility of clients, the servicing of non-Indians, and the desire of reservation governments to have greater control over urban programs, have led the Indian Health Service to call for the elimination of urban health programs. The withdrawal of support for health services for urban Native American people contradicts three decades of United States federal policy encouraging Native American people to leave their natal communities and relocate to metropolitan areas.[54]

Given the current nationwide assault on health services for Native Americans residing in urban areas, the papers by Brod and

LaDue, Taylor, and Joe and Miller are a timely addition to this volume. Utilizing a micro-level analysis of the Billings Indian Health Service Area, Brod and LaDue examine the political mobilization of the urban Indian community in Missoula, Montana and the western region of the Billings Indian Health Service Area in response to the proposed elimination of their programs. The study by Brod and LaDue, while regional in scope, demonstrates two critical realities of urban Native American life: first, that political mobilization is necessary if urban Native Americans are to receive any degree of equity with regard to health and community services; second, that there is a lacuna of research on urban health needs and utilization.

Taylor's work (this volume) addresses the issue of urban health care utilization. By regression analysis, Taylor explored the determinants of medical care utilization among urban Native Americans in Oklahoma City. The results of his research indicate that the primary reason for patient visits to the Oklahoma City Indian Health Clinic was for acute and chronic health problems. More importantly, the clinic served the two most underprivileged segments of the urban Native American population—impoverished young women and the elderly.

Complementing the work of Brod and LaDue and Taylor, the article by Joe and Miller focuses on the economic, organizational, and political problems faced by the Tucson Indian Clinic and its clients. The authors paint a picture similar to that of the Brod and LaDue study. The Tucson clinic continues to maintain a precarious existence while providing vital health care services to Native American people who are often impoverished and experiencing a high degree of cultural discontinuity. Culture is an important key in forging a positive health outcome. This is especially true for many Native American people who maintain a different perspective of health, disease, and illness from that of the general population.

WORLD VIEW AND HEALTH

The final paper in this volume, by Swentzell and Naranjo, reminds us that healing and well-being transcend the Western European biophysical model of ill health. Many Native American societies still maintain a viable ethnomedical system which de-

fines health, disease, and healing within their own cultural traditions and values. For the Tewa Pueblos, as the authors point out, health is "a state of balance"—an interconnectedness and interdependency which engenders a wholeness of the individual's body, spirit, and self, with society, the natural and physical environment, and the cosmos. Thus the entire Pueblo world, including health, is based on a broad, natural rhythm which is dualistic and largely symmetrical.[55] This symmetrical dualism is reflected in Tewa architecture, social organization, life cycle, and religious symbolism. It is not surprising, therefore, that health and healing powers emanate from all aspects of society.

In opposition, ill health must be defined as imbalance, not only in a biophysical sense, but in relation to society and the surrounding world. Diseases and ill health are symbolically classified into this dualistic model of the world. "[F]or a Tewa is never just ill;" according to Ortiz, "he has either a 'hot' illness or a 'cold' one, and it must be treated with appropriate herbs."[56] In the Tewa case study, presented by Swentzell and Naranjo, health is not merely the absence of illness; it is a social construct which is tied to the structure of society. If intervention and prevention strategies are to be successful, the health care policy must not conflict with but must support the prevailing cultural paradigm of health, disease, and healing.

THE SOCIAL CONSTRUCT OF HEALTH

Just as health is connected to society, so, too, are the origins of ill health. If we are ultimately to understand the nature of ill health among Native American people, we must examine health levels within the particular historical and social context in which they have arisen. By doing so, we can begin to comprehend the "contending forces in and out of the health arena that impinge on health and healing."[59] It is a credit to the authors of this volume that they have critically addressed these particular Native American health problems within their wider social context. As the commentary by Red Horse, Johnson, and Weiner indicates, the next essential task will be to build solutions within the same social arena.

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NOTES

1. Meredeth Turshen, *The Political Ecology of Disease in Tanzania* (New Brunswick: Rutgers University Press, 1984), 9–19.

2. Gregory R. Campbell, "Plains Indian Historical Demography and Health," *Plains Anthropologist*, Memoir 23 (Lincoln, NE: Agustums Printing Service Incorporated, 1989); Shereburne F. Cook, *Essays in Population History* (Berkeley: University of California Press, 1971); Henry F. Dobyns, "Estimating Aboriginal American Population: An Appraisal of Techniques with a New Hemispheric Estimate," *Current Anthropology* 7:4 (1966): 495–516; Henry Dobyns, *Their Number Become Thinned* (Knoxville, TN: University of Tennessee Press, 1983); Russell Thornton, *American Indian Holocaust and Survival: A Population History Since 1492* (Norman, OK: University of Oklahoma Press, 1987).

3. Gregory R. Campbell, *Plains Indian Historical Demography and Health; The Political Economy of Ill-Health: Changing Northern Cheyenne Health Patterns and Economic Underdevelopment* (Ph.D. dissertation, University of Michigan, Ann Arbor, 1987); Diane T. Putney, *Fighting the Scourge: American Indian Morbidity and Federal Policy* (Ph.D. dissertation, University of Michigan, Ann Arbor, 1980); Paul T. Stuart, *Nation Within a Nation* (New York: Greenwood Press, 1987).

4. Campbell, *Plains Indian Demography and Health; Political Economy*; Putney, *Fighting the Scourge*; Stuart, *Nation Within a Nation*.

5. Gregory R. Campbell, "Medicine as Civilization: American Indian Health Care Under the Bureau of Indian Affairs" (Manuscript, 1989).

6. U.S. Department of Health and Human Services, *Indian Health Service*

Chart Series Book, April 1988 (Washington, D.C.: U.S. Government Printing Office, 1988).

7. Office of Technology Assessment, *Indian Health Care* (Washington, D.C.: U.S. Government Printing Office, 1986), 45.

8. Department of Health and Human Services, *Indian Health Service*; Office of Technology Assessment, *Indian Health Care*.

9. Letter, Representative Pat Williams to Mrs. Betty A. Peace, 2 June 1989.

10. Alfonso Ortiz, "Half a Century of Indian Administration: An Overview," in *American Indian Policy and Cultural Values: Conflict and Accommodation*, ed. Jennie R. Joe (Los Angeles: American Indian Studies Center, 1986).

11. Hans Baer, Merrill Singer, and John H. Johnsen, "Toward a Critical Medical Anthropology," *Social Science and Medicine* 23:2(1986): 95.

12. J. W. Curran, H. W. Jaffe, et al., "Epidemiology of HIV Infection and AIDS in the United States," *Science* 239 (1988):610–16.

13. M. B. Tucker, W. M. Herron, et al., *Ethnic Groups in Los Angeles: Quality of Life Indicators* (Los Angeles: UCLA Ethnic Studies Center, 1986).

14. R. Rowell and T. Tafoya, *Acquired Immune Deficiency Syndrome: The Basics* (Oakland, CA: National Native American AIDS Prevention Center, 1986).

15. Ron Rowell, "Native Americans: Historic Problems Hamper AIDS Prevention and Care," *NAN Multi-Cultural Notes of AIDS Education and Service* 1:11 (1988):1.

16. *Ibid.*

17. Patrick Johannes and Rice C. Leach, "The Indian Health Service AIDS Prevention Program," *The IHS Primary Care Provider* 13:6 (1988):53–57.

18. *Ibid.*, 54.

19. Recent data indicate that minority populations, especially blacks and Latinos, are disproportionately represented among the reported AIDS cases. Blacks and Latinos comprise 12 percent and 6 percent of the United States population, respectively, yet now account for 25 percent and 14 percent of all reported AIDS cases. Current evidence indicates that these populations are at significantly higher risk of HIV infection because of increased exposure through high-risk behaviors and lack of sufficient educational services. Behavioral evidence indicates that AIDS could impact Native American people in a similar manner. See S. R. Friedman, J. L. Sotheran, et al., "The AIDS Epidemic among Blacks and Hispanics," *The Milbank Quarterly* 65 (1987):455–99; and Ron Rowell, "Native Americans: Historic Problems Hamper AIDS Prevention and Care," *NAN Multi-Cultural Notes of AIDS Education and Service* 1:11 (1988).

20. Rowell, "Native Americans," 1.

21. *Ibid.*, 2.

22. *Ibid.*

23. *Ibid.*

24. Johannes and Leach, "AIDS Prevention Program," 54.

25. *Ibid.*, 55.

26. Department of Health and Human Services, *Indian Health Service*, 46.

27. *Ibid.*, 35.

28. U.S. Congress, "Indian Alcohol and Substance Abuse Prevention and Treatment Act of 1986," *Congressional Record* H11259 (Washington, D.C.: U.S. Government Printing Office, 1986).

29. Britt Finley, *Patterns of Alcohol and Drug Related Behavior Among Missoula County Youth: Indian and Non-Indian* (Missoula, MT: Missoula City-County Health Department, 1988), 35.
30. Office of Technology Assessment, *Indian Health Care*, 92, 95.
31. *Ibid.*, 97.
32. Dennis W. Weidman, "Type II Diabetes Mellitus, Technological Development, and the Oklahoma Cherokee," in *Encounters With Biomedicine*, ed. Hans A. Baer (New York: Gordon and Breach Science Publishers, 1987), 43-71.
33. *Ibid.*, 47-49.
34. Chuck Cook, Mike Masterson, and M. H. Trahant, "Diabetes Epidemic Linked to Sundering of Lifestyle," *The Arizona Republic*, 7 October 1987, 19.
35. Felicia Hodge, "Disabled American Indians: A Special Population Requiring Special Considerations," *American Indian Culture and Research Journal* 13:3 & 4 (1989) (this issue).
36. Thornton, *American Indian Holocaust*, 182.
37. Abdel R. Omran, "Population Epidemiology," *American Journal of Public Health* 64:7 (1974):676.
38. Department of Health and Human Services, *Indian Health Service*, 15.
39. *Ibid.*, 22.
40. Office of Technology Assessment, *Indian Health Care*, 129.
41. Laculine J. Jackson, *Minorities and Aging* (Belmont, CA: Wadsworth Publishers, 1980); Ron C. Manuel, ed., *Minority Aging: Sociological and Social Psychological Issues* (Westport, CT: Greenwood Press, 1982); R. L. McNeely and John N. Colen, eds., *Aging in Minority Groups* (Beverly Hills, CA: Sage Publications, 1983); National Council on Aging, *Indian Elderly and Entitlement Programs: An Assessing Demonstration Project* (Albuquerque, N.M.: NICOA, 1981); National Council on Aging, *Access, A Demonstration Project: Entitlement Programs for Indian Elders 1* (Albuquerque, N.M.: NICOA, 1983); E. Percil Stanford and Shirley A. Lockery, eds., *Trends and Status of Minority Aging* (San Diego, CA: Campanile Press, 1982).
42. National Council on Aging, *Indian Elderly and Entitlement Programs*; National Council on Aging, *Access, A Demonstration Project*.
43. Marilyn R. Block, "Exiled Americans: The Plight of Indian Aged in the United States," in *Ethnicity and Aging*, ed. Donald E. Gelfand and Alfred J. Kutzik (New York: Springer Publishers, 1979), 184.
44. Department of Health and Human Services, *Indian Health Service*, 15.
45. Robert John, "Social Policy and Planning for Aging American Indians: Provision of Services by Formal and Informal Support Networks," in *American Indian Policy and Cultural Values: Conflict and Accommodation*, ed. Jennie R. Joe (Los Angeles: American Indian Studies Center, 1986), 126.
46. *Ibid.*, 111.
47. E. Daniel Edwards, Margie E. Edwards and Geri M. Daines, "American Indian/Alaska Native Elderly: A Current and Vital Concern," *Journal of Gerontological Social Work* 2(1980):213-24.
48. Frank C. Dukepoo, *The Elderly American Indian* (San Diego, CA: Campanile Press, 1975).
49. The problem of empowerment faces all elderly in the United States. For a discussion of this issue, see M. A. Mendelson, *Tender Loving Greed: How the*

Incredibly Lucrative Nursing Home Industry is Exploiting America's Old People (New York: Knopf Publishers, 1974); and B. Vladeck, *Unloving Care* (New York: Basic Books, 1980).

50. Wynne H. DuBray, "American Indian Values: Critical Factor in Casework," *Social Casework* 66(1985):30–37; Jimm G. Good Tracks, "Native American Non-Interference," *Social Work* 18(1973):30–34; Ronald G. Lewis and Man Keung Ho, "Social Work with Native Americans," *Social Work* 20(1975):379–82; C. T. Goodluck and D. Short, "Working with American-Indian Parents—A Cultural Approach," *Social Casework* 61(1980):472–75; Taylor J. Satala, "Multi-Cultural Skill Development in the Aging Network: An Indian Perspective," in *Multi-Cultural Dimensions in the Aging Network: Cross-Cultural Perspectives in Gerontology*, ed. Jacob V. Gordon (Lawrence, KS: National Caucus on Black Aged, 1981).

51. Block, "Exiled Americans"; Robert M. Moroney, *Families, Social Services, and Social Policy: The Issue of Shared Responsibility* (Washington, D.C.: U.S. Government Printing Office, 1980); Steve H. Murdock and Donald F. Schwartz, "Family Structure and Use of Agency Services: An Examination of Patterns Among Elderly Native Americans," *Gerontologist* 18(1978):475–81; C. Jean Rogers and Teresa E. Gallion, "Characteristics of Elderly Pueblo Indians in New Mexico," *Gerontologist* 18(1978):482–87.

52. U.S. Department of Commerce, Bureau of the Census, *American Indians, Eskimos and Aleuts on Identified Reservations and in the Historic Areas of Oklahoma (Excluding Urbanized Areas)* (Washington, D.C.: U.S. Government Printing Office, 1986).

53. Department of Health and Human Services, *Indian Health Service*, 36.

54. Thornton, *American Indian Holocaust*, 235–39.

55. Alfonso Ortiz. *The Tewa World: Space, Time, Being, and Becoming in a Pueblo Society* (Chicago: University of Chicago Press, 1969).

56. *Ibid.*, 118.

57. Baer, Singer, and Johnsen, "Toward a Critical Medical Anthropology," 95.