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**An Analysis of the Nutritional Transition from Traditional Foods to Commodity Food  
Distribution Programs Amongst the Sioux**

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## EPIGRAPH

“A long time ago my father told me what his father told him, that there was once a Lakota holy man, called Drinks Water, who dreamed what was to be; and this was long before the coming of the Wasichus [the White-men]. He dreamed that the four-leggeds were going back into the earth and that a strange race had woven a spider’s web all around the Lakotas. And he said: ‘When this happens, you shall live in square gray houses, in a barren land, and beside those gray square houses, you shall starve.’ They say he went back to Mother Earth soon after he saw this vision, and it was sorrow that killed him. You can look about you now and see that he meant these dirt-roofed houses we are living in, and that all the rest was true. Sometimes dreams are wiser than waking.” – **Black Elk**<sup>1</sup>

“...for Native Americans, current federal dietary guidelines promoting a meaty, cheesy diet amount to, perhaps inadvertently, the nutritional equivalent of smallpox-infected blankets.” – **Neal Barnard, M.D. and Derek M. Brown**<sup>2</sup>

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<sup>1</sup> Black Elk, “Black Elk Speaks” 1979. Pg. 9-10

<sup>2</sup> Neal D. Barnard, M. D., and Derek M. Brown. U.S. Dietary Guidelines Unfit for Native Americans. *Commentary* Retrieved 12/6/09, from <http://www.pcrm.org/news/commentary9909.html>

**AN ANALYSIS OF THE NUTRITIONAL TRANSITION  
FROM TRADITIONAL FOODS TO  
A COMMODITY FOOD DISTRIBUTION PROGRAM AMONGST THE SIOUX**

*By Morgan Hills*

To visit the Sioux over five hundred years ago on the land now known as South Dakota would have revealed a population with virtually no incidence of diet-related disease.<sup>1</sup> However, it was not long after encountering White settlers, that the Sioux began to die from many ‘Western’ diseases they had never experienced before, including smallpox, influenza, and tuberculosis.<sup>2</sup> However today, these illnesses are no longer the leading cause of death due to the establishment of modern medicine and sanitation practices,<sup>3</sup> yet the Sioux are now plagued by what can be referred to as “diseases of modernization,”<sup>4</sup> or otherwise, obesity, diabetes and other non-communicable diseases. For a variety of reasons, data describing the extent to which the Sioux are affected by nutrition-related diseases is limited. However, we do know that the prevalence of diabetes for Native Americans is almost double the rate of non-Hispanic whites in the United States at 16.5 percent<sup>5</sup> and figures show that Native Americans are 25 percent more likely to develop diabetes than non-Natives.<sup>6</sup>

Despite these alarming statistics, chronic health problems amongst Native Americans are the least of the problems for many tribal leaders who are dealing with extreme poverty, isolation, high unemployment rates, lack of health care and medical facilities, and eroding cultural norms. With due respect to these challenges noted, the constraints of this essay do not allow for a thorough detail of environmental factors for which are in play on Native American reservations. Yet, in terms of the net outcome of many socio-economic determinants, these problems are

manifested in the widespread condition of food insecurity amongst the Sioux. Food insecurity is related to an individual's ability to access nutritious food. As income decreases, so does one's ability to purchase food—but also correlates to diminished procurement of fruits, vegetables and other healthful foods; replacing these items with a diet of energy-dense foods, often higher in fats and sugars.<sup>7</sup> Overall, at play on reservations are patterns symptomatic of what can be defined as a nutritional transition—moving from high rates of malnutrition and starvation to obesity and related diseases—due to a significant alteration in food production.<sup>8</sup> In brief, two hundred years of assimilation, removal from land and destruction of natural food resources has left its mark in the form of the present day's obesity epidemic.<sup>9</sup>

In 1977, the Food Distribution Program on Indian Reservations (FDPIR) was authorized under the Food Stamp Act of that year, whereas Native Americans had originally been covered under Food Stamp Program (FSP) since its inception in 1964. However, in 1977, Congress raised specific concerns over how effectively the FSP was operating on reservations. In particular, many of the Native American households were in remote regions where access to locations where Food Stamps could be spent was insurmountable.<sup>10</sup> Thus, to accommodate these individuals the FDPIR would provide each household enrolled in the program a monthly package of food consisting of a variety items—often weighing between 50-70 lbs.<sup>11</sup> Eligibility for participation in the FDPIR and the FSP would be the same, though each household would only be able to participate in one of the programs each month. In the joint conference report that accompanied the original legislation in 1977, it was noted that, “the commodity package [would not] of itself constitute a nutritionally adequate diet,”<sup>12</sup> however, it was left open to have the nutritional standards be updated as needed. Across the following thirty years, FDPIR food packages have expanded to cover the equivalent of the average Recommended Daily Allowance

(RDA) for calories, protein and most vitamins and minerals, along with giving consideration to including ‘traditional’ foods in the allotments.<sup>13</sup>

Today, preliminary numbers for FY 2009 estimate that there were 95,369 individuals receiving support from the FDPIR.<sup>14</sup> In FY 2008, Congress set aside 88.5 million dollars for the FDPIR; 53.8 million dollars would go towards food purchases; the remainder, 34.7 million dollars, would be used for local administrative expenses.<sup>15</sup> In comparison, about 303,000 Native Americans participated in the FSP in 2002, but it is unknown what the costs directly associated with this population were.<sup>16</sup>

In acknowledgement of this disparity in enrollment between the two programs, this paper will still focus on the FDPIR primarily, because of the two, it is the one where policy has been crafted out of a dialogue between the US government and the Native Americans. Inherent in this particular legislation exists the historical consequences of a nutritional transition from traditional means of food production to an agriculture/industrial food system and therein, the continued ‘Western’ debasement of a differing culture. As posited by Siri Damman, et al.:

When the right to adequate food is seen in light of indigenous peoples’ special rights, it emerges that governments should respect, protect and explicitly promote indigenous peoples’ traditional diets and lifestyles, within the context of their right to culture and on the basis of self-determination or participation. Policies and programmes should aim to improve household economies (and thus the economic access to and availability of marketed food of good quality), and also facilitate local initiatives and efforts to maintain and improve the availability and access to traditional foods.<sup>17</sup>

In order to inform future policy in this direction, where it has since lacked, this paper will examine the history of the Sioux, tracing their culture and relationship to food through pre-contact with Whites and their subsequent resettlement onto reservations. Additionally, measure must be taken to ascertain both the effect and challenges associated with the FDPIR.

In the earliest physiological records that exist for the Sioux, they show that they were very tall, which some researchers give testament to their nutritional success before many changes in their standard of living were made.<sup>18</sup> Though Native Americans may have appeared poor based on ‘Western’ norms,<sup>19</sup> the Sioux were primarily subsistence hunters who lived in close proximity to buffalo, a source of protein-dense meat. Additionally, the buffalo also represented a pillar to their functioning way of life, in the form of clothing and shelter, and cultural foundation. Black Elk, an esteemed Sioux Holy Man, recalls that “it is the story of all life that is holy and is good to tell, and of us two-leggeds sharing in it with the four-leggeds and the wings of the air and all green things; for these are children of one mother and their father is one Spirit.”<sup>20</sup> Before the advent of horses or advanced weaponry, hunting of buffalo included the work of an entire tribe for chasing, killing, slaughtering, and gathering the entire bounty of these five-hundred pound beasts. A feast would commence soon thereafter a successful hunt, while remaining bits of meat would be smoked for later consumption. Because large hunts of this type happened infrequently, the Sioux also relied upon the forging for nutrient dense berries and vegetables on the plains including: prairie turnips (*tipsina*), chokecherries (*champ pah*), buffalo berries (*mastincha-pute*), wild onion (*pshin*), June berries or saskatoons (*wipazuka*), red plums (*cauntah*), and wild artichokes (*panghai*).<sup>21</sup>

As settlers began to move westward into Sioux land, the lives of the tribes changed drastically. While the plains had seemed relatively unpopulated, eco-sociologist William Catton would have drawn a different conclusion that the Sioux had already reached their ‘carrying capacity’ for which, the “environment’s carrying capacity for a given kind of creature (living a given way of life) is at the *maximum persistently feasible load*—just short of the load that would damage that environment’s ability to support life of that kind... it can be expressed as

quantitatively as the number us, living in a given manner, which a given environment can support *indefinitely*.”<sup>22</sup> This concept illustrates that the Sioux’s food security wasn’t disturbed solely by the policies and forced migration to reservations, but rather by a toxic injection of people into a space already at its threshold of what it could support through hunting and gathering. As the natural food systems of Sioux began to fail, they were forced to adopt unfamiliar methods of food production, through agriculture and rations provided by the federal government.<sup>23</sup> Without explicitly documenting the chronology of events, these historical changes can be summarized within a qualitative analysis as a nutritional transition of the Sioux. However, most notably, by the 1880s, the buffalo was nearly extinct<sup>24</sup> and while some attempt was made to hunt other big game instead, such as elk and deer, the stage was set for the forced induction of a commoditization of food.<sup>25</sup>

Food and culture have long been intrinsically linked for the Sioux. Even as ‘Western’ food was beginning to change the lives of the Sioux, the cultural underpinnings of their society were being deconstructed. Families, which were central to the tribes, were broken up, sending relatives to different reservations and many of the children away to boarding schools to be assimilated into ‘Western’ culture.<sup>26</sup> In this process of attempting to reinvent the Native Americans, Sioux children learned to eat food that was not part of their natural diet leaving a gap in the knowledge available today about many Sioux customs and traditions.<sup>27</sup> By the end of the century, the land of the Sioux was gone, “the food was gone and the Native American family structure was gone.”<sup>28</sup>

Today, the Sioux are still dealing with the issue of food security on their reservations. Among their problems include high rates of unemployment, high cost of food in stores, and lack of accessibility. Furthermore, access to traditional foods has virtually ceased. There is a

distinction drawn between what are perceived as ‘contemporary traditional’ foods and ‘way-back’ foods.<sup>29</sup> Available only in short supply, the uses ‘way-back’ foods are normally limited to important ceremonies, symbolically connecting their culture.<sup>30</sup> As a result of any functioning food mechanisms on the reservations, the majority of Native Americans are dependent on the emergency food programs available to them.<sup>31</sup> Until only a few years, the package that would have been supplied through the FDPIR was high in fat and sugar for which members of the reservation coined the term, “commod-bod” to describe the perceived health outcomes from such a diet.<sup>32</sup> There is an awareness that there is a problem with diabetes among the Sioux, but not an acute understanding of the causes.<sup>33</sup> Some Sioux believe that, “people are not living right anymore” or that “the times are not good” and for many, this is “just another of the diseases that the White-man has brought us.”<sup>34</sup> Making matters more complicated still is that there is a rejection of modern medicine approaches in favor of traditional healings, yet the treatments and changes of diets required, do not completely translate for the Sioux.<sup>35</sup> As many feel convinced that there is a causal relationship between federal food distribution programs and diabetes, research is admittedly absent from the academic discussion.

Meanwhile, the USDA has been busy updating the foods available through the FDPIR. Of about one hundred items including, canned fruits and vegetables, dry beans, frozen meat, baking goods, pasta and cereals, each household is allowed to select an allotment for delivery.<sup>36</sup> The FDPIR is then administered by State run organizations or Indian Tribal Organizations (ITOs) at a local level, whereby food availability and delivery schedules can vary based on the particular location. The most current improvements put out by the Food Packaged Review Work Group (specifically created for the FDPIR) featured, “removing high fat, high sodium, and non-nutrient dense food items, offering more fresh fruits and vegetables and offering foods packed in

smaller sizes to accommodate one-person households... [also, the] USDA recently removed shortening, corn syrup, luncheon meat and butter from the food package<sup>37</sup> It will remain to be seen what these modifications will do to change the nutritional intakes of the Sioux. It is most likely that these behavior changes will need to be supplemented with nutritional education to reinforce healthier eating habits, which to date, has been mostly lacking. In 1989, an in-depth study of the FDPIR revealed that 8 out of 30 program administrators reported any amount of spending on nutritional education, relying almost entirely on the literature received from the USDA.<sup>38</sup> There is little evidence that this does not still remain the case today.

The support provided by the FDPIR is critical in the prevention of starvation in the absence of any other means of sustenance; however, the program also undermines the consumption of traditional foods by failing to promote and protect the self-sufficiency and dignity of the Sioux.<sup>39</sup> The supplying of foods grown and raised outside of the reservations and then trucked in does not lend well to the culturally significant methods once used by the Sioux to their success and self-reliance. Furthermore, while it was considered a breakthrough to have frozen bison meat included in the FDPIR packages, other 'traditional' foods are often passed over because of equivalent foods already offered, or due to cost and availability constraints.

In recent literature, there has been a great deal of discussion regarding the affects of encouraging Native Americans to return to a traditionally styled diet. By emphasizing high protein intake of 25% of total energy, moderate carbohydrates (45-50% of total energy), and low fat (25-30%), this diet would resemble more closely the daily intakes of the ancestral Sioux.<sup>40</sup> In a recently published article, Kattelman, et al describe the Medicine Wheel Nutrition Intervention, which focused on educating a small group from the Cheyenne River Sioux Tribe. As an alternative to the USDA/FDA Food Pyramid, the educators used the Lakota Foodway as

an educational tool, which had only four food groups: Four Legged (buffalo, deer, elk, rabbit), Gathered Ones (seeds, nuts, fruits/berries, greens, roots), Trade Crops (corn, beans, potato, squash), Water and Teas.<sup>41</sup> The results of this study were not substantial nor significant, but rather made reference to the negative environmental influences, including “food access, poverty, public policy and peer and family level influences” being a factor in the studied outcome.<sup>42</sup>

At this juncture, it is critical that tribal leaders begin to develop food security, and more specifically, their own food independence, to be able to feed their hungry without the use of federal aid. With respect to the economic disparities and complete lack of plausibility of returning to hunting buffalo for subsistence, optimism may still be found in the words of Black Elk: “the bison were a gift of the good spirit, and were our strength, but should we lose them, and from the same good spirit we must find another strength.”<sup>43</sup> In essence, even without the buffalo at the center of their food supply, the Sioux culture has still much to draw from in terms of their relationship with nature and tribal customs. In deference of the sovereignty of the Sioux, I withhold explicitly stating what intervention should be followed. Too often are the well-intentioned ideas and interests of outsiders been established within Native American lands at the disastrous expense of their livelihoods.<sup>44</sup> Instead, I would encourage Tribal Leaders to consider stimulating the development of food production mechanisms on the reservations and express the intent to end federally operated food aid programs.

Of particular interest would be an examination of how the Food Stamp Program is administered on the Sioux Reservations. The criticisms of the FDPIR may elicit some resemblance to the FSP, which if certain deficiencies were found, might enable the Leaders to seize upon a provision written into current the Code of Federal Regulations, stating:

[if the] FNS has determined State failure and FNS has also determined that the [Indian Tribal Organization] is capable of administering a Food Stamp Program in accordance

with the terms and requirements for participating State agencies as established in the Act and regulations, then the ITO shall assume administration of the Food Stamp Program on the reservation. The State agency shall continue to administer the Food Stamp Program on the reservation until an effective termination and transition arrangement has been completed in accordance with §281.8. (7 CFR §281.3; Determination of Failure)

Following a transfer of administrative duties, the ITO will be responsible for operating the program pursuant to the same manner as any other State agency, however, all funding would be distributed to the local ITO. The perceived benefit would be to increase the budget of the ITOs dramatically and create greater coordination between the FDPIR and FSP at the local level. Evaluations of the ITO facilities currently running the FDPIR programs have been assessed with a great degree of improvement in the capabilities of each site, in terms of food storage and refrigeration, and food procurement and delivery. To this date, no such appeal has ever been made.

Food has always been central to the cultural identity of the Sioux. As this paper describes, the effects of a nutritional transition on this population has affected not only the food supply of the Sioux, but also their self-efficacy through policies and programs such as the FDPIR and FSP. To this point, these programs have prevented starvation, but they have *not* prevented the cultural and health problems associated with the nutritional transition. As the push for traditional-nutritional social marketing gathers momentum on the reservations, it is critical that the component of self-sufficient food security exist for Native Americans so that these efforts can follow through with their potential. The Native American right to adequate food should not be considered alone, but rather in the context of all rights—social, cultural and political. In lieu of an exact intervention, I encourage the Sioux and their leaders to grapple with the issues of food security within their discussion of other concerns on the reservations.

## REFERENCES

- Bigart, R. J. (1972). Indian culture and industrialization. *74*(5), 1180-1188.
- Black, E. (1979). *Black Elk speaks : being the life story of a holy man of the Oglala Sioux*. Lincoln: Lincoln : University of Nebraska Press.
- Catton, W. R. (1980). *Overshoot, the ecological basis of revolutionary change*. Urbana: Urbana : University of Illinois Press.
- Compher, C. (2006). The Nutrition Transition in American Indians. *J Transcult Nurs*, *17*(3), 217-223.
- Damman, S., Eide, W. B., & Kuhnlein, H. V. (2008). Indigenous peoples' nutrition transition in a right to food perspective. *Food Policy*, *33*(2), 135-155.
- Edwards, K., & Patchell, B. (2009). STATE OF THE SCIENCE: A CULTURAL VIEW OF NATIVE AMERICANS AND DIABETES PREVENTION. *Journal of Cultural Diversity*, *16*(1), 32-35.
- ERS/USDA *Food Distribution Programs on Indian Reservations*: ERS/USDA.
- Finegold, K., Pindus, N., Wherry, L., Nelson, S., Triplett, T., & Capps, R. *Background Report on the Use and Impact of Food Assistance Programs on Indian Reservations*: ERS/USDA.
- Gittelsohn, J., Anliker, J. A., Sharma, S., Vastine, A. E., Caballero, B., & Ethelbah, B. (2006). Psychosocial Determinants of Food Purchasing and Preparation in American Indian Households. *Journal of Nutrition Education and Behavior*, *38*(3), 163-168.
- Harper, E., Orbeta, R., Southworth, L., Meade, K., Cleveland, R., Gordon, S., et al. (2008). *FDPIR Food Package Nutritional Quality: Report to Congress*: FNS: USDA.
- Kendra, K. K., Kibbe, C., & Cuirong, R. (2009). The Medicine Wheel Nutrition Intervention: A Diabetes Education Study with the Cheyenne River Sioux Tribe. *Journal of the American Dietetic Association*, *109*(9), 1532-1539.
- Komlos, J. (2003). Access to food and the biological standard of living : Perspectives on the nutritional status of Native Americans. *The American Economic Review*, *93*(1).
- Lang, G. C. (1985). Diabetics and health care in a Sioux community. *Human Organization* V. 44 (Fall 1985) P. 251-60, 44, 251-260.
- Mihesuah, D. A. (2003). Decolonizing Our Diets By Recovering Our Ancestors' Gardens. *The American Indian Quarterly* V. 27 No. 3/4 (Summer/Fall 2003) P. 807-39, 27(3/4), 807-839.
- Neal D. Barnard, M. D., and Derek M. Brown. U.S. Dietary Guidelines Unfit for Native Americans. *Commentary* Retrieved 12/6/09, from <http://www.pcrm.org/news/commentary9909.html>
- White, R. (1987). Review: Simple Stories of a Complicated People, or Complicated Stories for a Simple People? [Book Review]. *Montana: The Magazine of Western History*, *37*(1), 4.

## WORKS CITED

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- <sup>1</sup> Lang, G. C. (1985). Diabetics and health care in a Sioux community. *Human Organization V. 44 (Fall 1985) P. 251-60, 44*, pg. 251
- <sup>2</sup> Lang, pg. 255
- <sup>3</sup> Compher, C. (2006). The Nutrition Transition in American Indians. *J Transcult Nurs, 17(3)*, pg. 219
- <sup>4</sup> Lang, pg. 251
- <sup>5</sup> Harper, E., Orbeta, R., Southworth, L., Meade, K., Cleveland, R., Gordon, S., et al. (2008). *FDPIR Food Package Nutritional Quality: Report to Congress: FNS: USDA.*, pg 5
- <sup>6</sup> Mihesuah, D. A. (2003). Decolonizing Our Diets By Recovering Our Ancestors' Gardens. *The American Indian Quarterly V. 27 No. 3/4 (Summer/Fall 2003) P. 807-39, 27(3/4)*, pg. 808
- <sup>7</sup> Gittelsohn, J., Anliker, J. A., Sharma, S., Vastine, A. E., Caballero, B., & Ethelbah, B. (2006). Psychosocial Determinants of Food Purchasing and Preparation in American Indian Households. *Journal of Nutrition Education and Behavior, 38(3)*, pg. 163
- <sup>8</sup> Compher, pg. 217
- <sup>9</sup> Compher, pg. 222
- <sup>10</sup> ERS/USDA Food Distribution Programs on Indian Reservations, pg. 297
- <sup>11</sup> ERS/USDA, pg. 297
- <sup>12</sup> Harper, pg. ES-1
- <sup>13</sup> Harper, pg. 8
- <sup>14</sup> FNS/USDA: FD on Indian Reservations Annual Participation:  
<http://www.fns.usda.gov/pd/21irpart.htm>
- <sup>15</sup> Harper, pg. ES-1
- <sup>16</sup> Finegold, K., Pindus, N., Wherry, L., Nelson, S., Triplett, T., & Capps, R. Background Report on the Use and Impact of Food Assistance Programs on Indian Reservations: ERS/USDA, pg 5
- <sup>17</sup> Damman, S., Eide, W. B., & Kuhnlein, H. V. (2008). Indigenous peoples' nutrition transition in a right to food perspective. *Food Policy, 33(2)*, pg 151
- <sup>18</sup> Komlos, J. (2003). Access to food and the biological standard of living : Perspectives on the nutritional status of Native Americans. *The American Economic Review, 93(1)*, pg. 253
- <sup>19</sup> Komlos, pg. 252
- <sup>20</sup> Black, E. (1979). *Black Elk speaks : being the life story of a holy man of the Oglala Sioux*. Lincoln: Lincoln : University of Nebraska Press, pg. 1
- <sup>21</sup> Lang, pg. 254
- <sup>22</sup> Catton, W. R. (1980). *Overshoot, the ecological basis of revolutionary change*. Urbana: Urbana : University of Illinois Press., pg. 4
- <sup>23</sup> Mihesuah, pg. 820
- <sup>24</sup> Komlos, pg. 252
- <sup>25</sup> Damman, pg. 135-6
- <sup>26</sup> Edwards, K., & Patchell, B. (2009). STATE OF THE SCIENCE: A CULTURAL VIEW OF NATIVE AMERICANS AND DIABETES PREVENTION. *Journal of Cultural Diversity, 16(1)*, pg. 33
- <sup>27</sup> Mihesuah, pg. 819
- <sup>28</sup> Edwards, pg. 33
- <sup>29</sup> Lang, pg. 251
- <sup>30</sup> Finegold, pg. 255
- <sup>31</sup> ERS/USDA, pg. 209

- <sup>32</sup> Harper pg. 21
- <sup>33</sup> Finegold, pg. 255
- <sup>34</sup> Finegold, pg. iv
- <sup>35</sup> Finegold, pg. iv
- <sup>36</sup> “USDA Foods Available for 2010: FDPIR” <http://www.fns.usda.gov/fdd/foods/fy10-fdpiirfoods.pdf>
- <sup>37</sup> Harper, ES-2
- <sup>38</sup> Finegold, pg. 9
- <sup>39</sup> Damman, pg. 150
- <sup>40</sup> Kendra, K. K., Kibbe, C., & Cuirong, R. (2009). The Medicine Wheel Nutrition Intervention: A Diabetes Education Study with the Cheyenne River Sioux Tribe. *Journal of the American Dietetic Association*, 109(9), pg. 1534
- <sup>41</sup> Kendra, pg. 1533
- <sup>42</sup> Kendra, pg. 1538
- <sup>43</sup> Black, pg. 32
- <sup>44</sup> Damman, pg. 140