Feasibility of Development of a Health Promotion Program: Assessment of the Health and Health Promotion Needs of the Shoshone-Bannock Tribes

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I. INTRODUCTION

The Shoshone-Bannock Tribal Health and Human Services Department has been in the process, for quite some time, of planning and developing a wellness/health promotion program for the Shoshone-Bannock community. The aim of the plan is to construct a wellness facility and program that is highly integrated with existing Tribal Health programs. This will enable the efficient and effective use of resources with the projected outcome being the ability to achieve maximum program value and community acceptance.

For this program and the feasibility study, "wellness" has been defined by the Shoshone-Bannock Tribes as a state of being in which individuals are healthy. Meaning they take care of themselves - their weight, blood sugar, and blood pressure are at safe levels, and they use alcohol and tobacco in moderation or not at all. "Wellness" means strong families with parents who care for their children, and have access to the resources they need to give those children a good start in life. "Wellness" also means a community in which people will organize to help themselves and each other, in which grass roots organizations spring up naturally, and in which Tribal government provides effective support for community initiatives.

The overall goal of the initiative is to establish a wellness center and complementary programs designed and dedicated to promoting the physical, emotional, spiritual, and social health and well-being of the entire Shoshone-Bannock community. The long-term goal, the need that triggered the request for this study, is to identify opportunities, challenges, and traditions that will work towards the improved linking of children, families, and the elderly to the full array of services and support needed to promote healthy growth and development of tribal members and the community. The Idaho State University, Institute of Rural Health team discovered through interviews, review of current programs, and an inventory of resources that there are specific challenges to meeting this goal. These include education, health, family functioning/family support, and infrastructure. The primary challenges are disparate services, funding, and personnel resources.

The expectation of this study/report is to move from a collection of individual service and capacity-building projects to an integrated set of programs that work at a community-wide level.

GENERAL RECOMMENDATIONS

- Develop and provide the support and resources needed to help these and similar initiatives become "innovation incubators": testing new ideas, establishing new approaches within and across service sectors, and finding new ways to build capacity within families, service sectors, and communities.
- Promote and enhance health sector participation in multi-sector, place-based initiatives for children, both as a way to strengthen the initiatives and their impact on children, and as a means to improving the health system.
- Identify, develop, and promote policy and system changes for long-term sustainability.

II. Analysis of Need: Feasibility of Developing an Integrated Comprehensive Health Promotion Program and Wellness Center

The need for expansion and integration of health promotion programs and activities for the Shoshone-Bannock Tribes has been recognized and pursued by the Tribal Health Human Services and Tribal Planning Departments for some time. A Wellness Center is proposed in the Draft Shoshone-Bannock Tribes Comprehensive Plan: Capital Facilities Development, April 20, 2006. Health Promotion programs focusing on several specific health areas are proposed and a Wellness Center to integrate all areas of community population health, health services, and health promotion are included in the Draft Health and Human Services Comprehensive Plan of October 10, 2006. And, the Tribal Health and Human Services Department Strategic Plan for 2005-2010 includes community wellness as one of eight long-term goals to promote community health and welfare. Implementation of a Community Wellness Center is an objective of the strategic plan.

There has been consistent recognition of the key role disease prevention and health promotion plays in developing and maintaining community health. This feasibility study has been performed to 1) provide estimates on the impact of expanded disease prevention and health promotion program activities on the health of the community and its members; 2) estimate the impact of health promotion on narrowing gaps in health disparities; 3) analyze the economic burden of disease on the Shoshone-Bannock community and the effect of health prevention and promotion; 4) analyze the potential impact of prevention and health promotion on utilization of medical care; and 5) provide estimates of the costs involved in developing a phased and comprehensive multi-purpose Health Promotion and Wellness Center, capable of providing a central location and resource for community health, wellness, and development programs and projects.

The determination of feasibility and desirability of a Health Promotion Program and Wellness Center is based upon the effectiveness of such a program to reduce the incidence and severity of several key chronic conditions. The prevention, early effective management and modification of these conditions in the Shoshone-Bannock population can have the effect of reducing demand for medical care services from the Indian Health Service's Ambulatory Care Clinic.

Health Promotion and the Elimination of Health Disparities

American Indian(AI) and Native Alaskan(AN) communities have consistently higher incidence and prevalence rates for many chronic illnesses when compared with the general United States population and even with African American, Hispanic, and Asian American rates. It is important to note that the elimination of disparities will not insure maximum health for Shoshone-Bannock community residents. This is because the nation is challenged by an epidemic of obesity and its complications, poor management of chronic illnesses, and a health care delivery system characterized by poor access to care for a large proportion of the population due to lack of health insurance and availability of comprehensive services.

While the elimination of health disparities is absolutely necessary for the elevation of community health and economic development, it is not a sufficient goal for the achievement of optimal community health. For example, a recent report by the U.S. Centers for Disease Control and Prevention indicated that the age adjusted incidence of diagnosed diabetes in Idaho rose 216% (3.1 per 1000 to 9.8 per 1000) from 1995-1997 through 2005-2007. This is the highest increase in the country over that period of time[20], so eliminating any disparity would result in a position far from ideal. That goal can only be achieved by preventing chronic illness and delaying the effects of these conditions as long as possible. The point is this: prevention is the only real and available opportunity to elevate community health. There will never be adequate resources available for the medical care delivery system to provide comprehensive inpatient and outpatient care for the Shoshone-Bannock Tribes. In addition, the nature of chronic and degenerative illness requires management of disease rather than cure. But chronic illness is to a great degree determined by individual and community behavioral patterns. At least 40% of premature mortality (deaths) can be attributed to unhealthy behaviors.[105] In addition, the most expensive health conditions are largely determined by health-related behavior. This has been consistently demonstrated in a number of national and regional studies. It is important to note that the major causes of illness for the Shoshone-Bannock community and the country as a whole are largely the same, and they are most manageable through preventive and health promotion activities. In fact, preventive interventions and behavioral modifications are the only real opportunities for dramatic immediate and long-term improvement in the health of the community's population.

Burden of Chronic Illness and Promise of Health Promotion

Chronic conditions are both difficult to manage and cost drivers for the health care system. They are the major burden on the health care delivery system and the economy. For specific areas, communities, and population groups the economic burden of chronic illness can be overwhelming. Prevention has been consistently shown to be highly cost-effective in the management of chronic disease. A recent report from the Prevention Institute showed that in Idaho an annual investment of only $10.00 per person for specific prevention programs would yield a Return on Investment (ROI) of $5.00 for every $1.00 invested within five years. This is because reduction in the incidence, prevalence and cost of care of specific chronic conditions has a multiplier effect and generates reductions in related conditions. This generates savings in the cost of treatment through reductions in related morbidity, improved productivity, and reduced disability.

It is important to understand where the Ft. Hall Community stands in health status when compared with the general population in the United States and that of Idaho. The impact of chronic illnesses that can be prevented and modified through prevention and lifestyle changes is very similar across populations. However, due to long existing disparities in diseases and chronic conditions and disparities in health care utilization, Shoshone-Bannock tribe members are starting off from a very uneven playing field. It is apparent that prevention and health promotion activities afford by the far the most promising avenues for improvement in the health and well being of the community and its members. The rapidly increasing cost of health care and the pre-existing level of health disparities indicate that the health care system will not be able to manage the levels of care necessary to treat, let alone cure, the epidemics of diabetes, obesity, mental health and substance abuse issues the

Tribes currently face. These conditions are projected to accelerate and claim larger and larger shares of both Tribal and Indian Health Service resources.

Comparative Health Status

It is useful to compare statistics describing the health and health care status of the Ft. Hall Reservation population with other American Indian/Alaska Native (AI/AN) populations and with the general population. The relatively small population of the Ft. Hall Community makes direct calculation of disease rates problematic since even small changes in incidence can result in dramatic changes in rates for specific diseases and conditions. Therefore, when possible and when the reported incidence and prevalence data are comparable, national and regional data for other AI/AN populations were included to stabilize estimates of impact and resource use. However, it should be clearly understood that there is wide variation among different tribes and tribal populations in many diseases and in the health related behaviors that determine disease incidence, prevalence and mortality. A great deal of care has been taken in presentation and interpretation of these data.

The following analysis reports comparative statistics and provides a baseline from which estimates of impact of a comprehensive, integrated health promotion are derived. The analysis is designed to demonstrate the importance of preventable and modifiable chronic illness on the health status of the community. The list of diseases, such as diabetes, heart disease, high blood pressure, some cancer and even mental health conditions such as depression, is determined or at a minimum greatly affected by personal and community health-related behavior. Obesity is a major risk in type 2 diabetes, high blood pressure, renal disease, cardiovascular, and cerebrovascular (stroke) disease. Once we have these diseases, management is usually the only option. Management of these diseases are major drivers for heavy health services use and increased cost of care. Prevention is dramatically more cost effective than medical care in elevating the health of the community and its members. This is shown in Table 1 illustrating the huge burden of chronic disease and the projected economic burden until 2023. This shows how fast these conditions are increasing and the burden of the country in attempting to care for those with these illnesses.

This table shows how quickly chronic diseases are increasing and how difficult this increasing incidence will be to manage with limited resources as time goes on. Since these conditions are actually increasing faster in AI/AN populations, managing and treating these epidemics are even more difficult and takes place in communities that have fewer resources to manage their care. These projected increases in prevalence in the absence of intensive health promotion interventions will be even more devastating in Tribal communities. This certainly applies to the Ft. Hall Reservation and the Shoshone-Bannock community. Neither the Shoshone-Bannock Tribes nor the Indian Health Service are economically able to provide the medical care necessary to manage these large increases in disease prevalence over the next decade. There is a direct need to plan and implement effective preventive measures to intervene in these processes. This table and the ensuing tables clearly show the opportunities that are presented by programs that intervene in these disease processes through individual and community preventive and health promotion-based regimens.

TABLE 1: CHRONIC DISEASE: CURRENT AND PROJECTED BURDEN, UNITED STATES, 2003-2023

Chronic disease	Increase in prevalence (2003-2023)[a]	Current cost (2003)	Future cost (2023)
Overall chronic illness[b]	42%	$1.3 trillion	$4.2 trillion
Cancers[c]	62	$319 billion	$1,106 billion
Diabetes	53	$132 billion	$430 billion
Hypertension	36	$312 billion	$927 billion
Pulmonary conditions	31	$139 billion	$384 billion
Heart disease	41	$169 billion	$927 billion
Mental disorders	54	$217 billion	$704 billion
Stroke	29	$36 billion	$98 billion

Source: R. DeVol and A. Bedroussian, *An Unhealthy America: The Economic Burden of Chronic Disease* (Santa Monica, Calif.: Milken Institute, October 2007).

Note: Cost figures include medical costs plus reduced on-the-job productivity.

[a] Population is expected to grow 19 percent from 2003 to 2023.

[b] These figures do not include all chronic conditions but are based on data for the seven most common chronic diseases: cancers, diabetes, hypertension, stroke, heart disease, pulmonary conditions, and mental disorders.

[c] Includes breast, colon, lung, prostate, and other cancers.

Reproduced from: Bodenheimer, T., Chen, E., & Bennett, H. D. (2009) Confronting the growing burden of chronic disease: Can the U. S. health care workforce do the job? *Health Affairs 28*(1), 64-74.

Table 2 shows the relationship of "Listed" causes of death and the "Actual" or real causes of death. Tobacco (especially cigarette smoking) use, poor diet and lack of physical activity (resulting in obesity), and alcohol use (overuse) alone account for nearly 40% (38.2%) of all deaths.

TABLE 2: LISTED AND ACTUAL LEADING CAUSES OF DEATH (2000)

Listed Leading Causes of Death			Actual Leading Causes of Death		
Heart disease	710,760	29.6%	Tobacco	435,000	18.1%
Malignant neoplasm	553,091	23.0	Poor diet and physical inactivity	400,000	16.6
Cerebrovascular disease	167,661	7.0	Alcohol consumption	85,000	3.5
Chronic lower respiratory tract disease	122,009	5.1	Microbial agents	75,000	3.1
Unintentional injuries	97,900	4.1	Toxic agents	55,000	2.3
Diabetes mellitus	69,301	2.9	Motor vehicle	43,000	1.8
Influenza and pneumonia	65,313	2.7	Firearms	29,000	1.2
Alzheimer disease	49,558	2.1	Sexual behavior	20,000	0.8
Nephritis, nephrotic syndrome, and nephrosis	37,251	1.5	Illicit drug use	17,000	0.7
Septicemia	31,224	1.4			
Other	499,283	20.8%	Other		51.8%

Mokdad, A. H., Marks, J. S., Stroup, D. F., & Gerberding, J. L. (2004). Actual causes of death in the United States, 2000. *Journal of the American Medical Association, 291*(10), 1238-1245.

Heart disease, many types of cancer, cerebrovascular disease, respiratory tract disease, nephritis and nephrosis (kidney) and diabetes (type 2) all are to a large degree caused by tobacco use and/or poor diet and exercise habits. While these figures are for the general American population, the situation for AI/AN populations are even less encouraging. Table 3 compares age adjusted percentages of different racial groups that have selected health conditions and diseases. AI/AN percentages are consistently higher across nearly all conditions. In some cases, such as diabetes, they are dramatically higher. They are comparable and even higher in categories that once were relatively below those of other races and ethnic groups. Heart disease and hypertension (high blood pressure) are two such categories.

TABLE 3: AGE-ADJUSTED PERCENTAGES OF ADULTS 18 YEARS OF AGE AND OVER WITH SELECTED CONDITIONS, 1999-2003

	American Indian or Alaska Native	White	Black or African American	Asian
Heart disease	13.6	11.5	10.4	7.0
Hypertension	29.7	22.8	33.9	19.3
Stroke	3.6	2.2	3.3	2.0
Asthma	11.8	9.8	10.2	6.5
Chronic bronchitis	6.1	4.8	4.4	1.7
Cancer	5.7	7.4	3.5	2.3
Diabetes	13.2	5.7	10.1	5.5
Ulcer	14.5	8.1	7.0	4.7
Migraine or severe headache	22.9	15.5	15.0	11.3
Pain in neck	20.7	15.3	11.9	9.4
Pain in lower back	33.9	28.3	25.0	19.1
A lot of trouble hearing or deaf	6.4	3.5	1.6	1.8
Absence of all natural teeth	11.3	8.7	10.1	6.9
Functional Limitation Status: Limited	41.4	31.0	31.4	20.6
Functional Limitation Status: Limited, caused by at least one chronic condition	40.3	29.3	29.7	18.8

Center for Disease Control (2005). Advance Data from Vital and Health Statistics No. 356, April 27, 2005.

In addition, AI/AN populations are differentially and severely affected by the functional limitations caused by chronic conditions. These disabilities are substantially higher than those of other racial groups. Functional limitations have a great impact on the ability of a community to develop economically and socially.

Table 4 shows similar patterns for age-adjusted percentages of adults with feelings of psychological distress. Here again AI/AN populations show figures three to four times higher than those of whites, African Americans, or Asians. These are important statistics to highlight since there is increasing scientific evidence indicating a strong relationship between mental health status and the utilization and cost of medical care services. These studies indicate that persons encountering psychological distress have significantly higher health care service utilization costs.

TABLE 4: AGE-ADJUSTED PERCENTAGES OF ADULTS 18 YEARS OF AGE AND OVER WITH FEELINGS OF PSYCHOLOGICAL DISTRESS, 1999-2003

	American Indian or Alaska Native	White	Black or African American	Asian
Serious Psychological Distress	8.2	2.8	3.2	1.7
Feel sad				
Most or all of the time	7.0	2.9	4.1	2.3
Some of the time	12.8	7.6	10.6	8.6
Feel nervous				
Most or all of the time	8.9	4.2	3.7	2.1
Some of the time	12.5	12.1	10.0	8.5
Feel restless				
Most or all of the time	9.6	5.1	5.2	2.2
Some of the time	14.7	11.9	11.0	8.0
Feel hopeless				
Most or all of the time	5.9	1.9	2.1	1.5
Some of the time	7.6	3.8	4.5	4.1
Feel like everything is an effort				
Most or all of the time	9.6	4.5	7.2	4.0
Some of the time	12.2	7.6	8.6	7.0
Feel worthless				
Most or all of the time	5.8	1.7	1.9	1.2
Some of the time	5.9	3.1	3.4	3.1

Center for Disease Control (2005). Advance Data from Vital and Health Statistics No. 356, April 27, 2005.

TABLE 5: AGE-ADJUSTED PERCENT DISTRIBUTIONS OF RESPONDENT-ASSESSED HEALTH STATUS OF ADULTS 18 YEARS OF AGE AND OVER, 1999-2003

	American Indian or Alaska Native	White	Black or African American	Asian
Excellent	24.9	32.3	24.3	32.9
Very Good	25.6	32.9	27.9	32.9
Good	28.9	24.0	28.7	24.4
Fair	12.7	8.1	14.2	7.5
Poor	8.0	2.8	5.0	2.3

Center for Disease Control (2005). Advance Data from Vital and Health Statistics No. 356, April 27, 2005.

Moreover, as Table 5 shows, fewer Native Americans consider themselves in Excellent or Very Good health and more consider their health to be only Fair or Poor. Prior studies have clearly indicated that self-reported health status is a solid indicator of health status. Those reporting Excellent or Very Good generally have a health status of Excellent or Very Good, those reporting Fair or Poor likewise, have a health status of Fair or Poor.

While self reported health status cannot be used as a proxy for epidemiological data, it has been found that there is a high degree of reliability in these reports, and perceived health status and problems are frequently accurate estimates of the health and health care status and needs of those reporting. So, while these statistics cannot be considered representative of the community's population, they are certainly indicators of health needs.

Regional and national Behavioral Risk Factor Surveillance System (BRFSS) data reporting health behaviors for AI/AN compared with all races show patterns very similar to those reported for Ft. Hall in Table 6 below. These include higher rates of obesity, high blood pressure, diabetes, smoking, heavy drinking, and lower rates of regular physical activity.

TABLE 6: HEALTH BEHAVIORS AMONG AMERICAN INDIANS AND ALASKAN NATIVES AND ALL RACES COMBINED, BY REGION, USING CDC BRFSS DATA, US--2003-2007

	Pacific Coast* Region		US Total	
Selected Health Behavior:	**AI/ANs Prevalence % (95% CI)**	**All Races Combined Prevalence % (95% CI)**	**AI/ANs Prevalence % (95% CI)**	**All Races Combined Prevalence % (95% CI)**
Percentage of all adults reporting health status as good or better:	71.8 (67.9-75.4)	83.4 (82.9-83.9)	73.4 (72.0-74.7)	83.7 (83.6-83.8)
Percentage of all adults that are non-smokers:	77.9 (74.4-81.1)	84.1 (83.6-84.5)	67.8 (66.4-69.2)	79.5 (79.3-79.6)
Percentage of all adults that are non-drinkers:	51.3 (47.2-55.4)	43.3 (42.7-43.9)	53.4 (51.9-54.9)	46.0 (45.9-46.2)
Percentage of all adults that did not binge[1] drink:	80.9 (77.4-84.0)	84.8 (84.3-85.3)	81.1 (79.8-82.3)	84.8 (84.7-85.0)
Percentage of all adults that did not heavy[2] drink:	93.5 (90.8-95.4)	94.2 (93.9-94.5)	93.3 (92.4-94.1)	94.8 (94.7-94.9)
Percentage of all adults neither overweight nor obese (e.g., a BMI < 25.0):	31.2 (27.4-35.3)	40.3 (39.7-40.9)	33.0 (31.5-34.5)	39.0 (38.9-39.2)
Percentage of all adults that exercised in the past 30 days:	71.6 (67.7-75.3)	78.2 (77.7-78.8)	71.0 (69.6-72.3)	75.8 (75.6-75.9)
Percentage of all adults that were ever told they have diabetes[3]:	11.1 (8.1-14.9)	7.2 (6.8-7.6)	11.6 (10.4-12.8)	7.9 (7.8-8.0)
Percentage of all adults that were ever told they have high blood pressure[4]:	22.2 (18.4-26.6)	24.7 (24.1-25.3)	26.0 (24.6-27.5)	26.6 (26.4-26.7)

[1]Binge drinking is defined as 5 or more drinks among men and women on one occasion during 2003-2005 and 5 or more drinks for men and 4 or more drinks for women during 2006-2007.

[2]Heavy drinking is defined as an average of 1 or more drinks per day among women or 2 or more drinks per day among men in the past 30 days.

[3]Does not include gestational diabetes or diabetes identified during pregnancy.

[4]Estimates based on data from the following years: 2003, 2005, and 2007.

*States included in this Region: California, Idaho, Oregon, Washington

Jarman, D. W. (n.d.). *Health Behaviors among American Indians and Alaskan Natives and All Races Combined, by Region, using CDC BRFSS data, US--2003-2007*. Indian Health Service. Retrieved from http://www.ihs.gov/NonMedicalPrograms/HPDP/

A useful method of illustrating the impact of chronic disease and prevention is to calculate the Years of Potential Life Lost (YPLL) that can be attributed to premature death from specific diseases, conditions and events. Table 7 shows the distribution of YPLL for AI/AN populations nationally and for Idaho. Here again, preventable conditions account for a disproportionate share of this burden, nearly 60% nationally and 65% in Idaho.

TABLE 7: YEARS OF POTENTIAL LIFE LOST (YPLL) BEFORE AGE 65

	Idaho (2006)		United States (2006)	
Unintentional injury	282	27.4%	45,896	28.0%
Heart disease	125	12.1	13,407	8.2
Suicide	120	11.6	12,628	7.7
Liver disease	97	9.4	8,190	5.0
Septicemia	65	6.3	*	*
Malignant neoplasms	33	3.2	12,198	7.4
Diabetes mellitus	27	2.6	3,976	2.4
HIV	22	2.1	*	*
Atherosclerosis	17	1.6	*	*
Influenza & pneumonia	17	1.6	*	*
Perinatal period	*	*	8,904	5.4
Homicide	*	*	8,673	5.3
Congenital anomalies	*	*	6,421	3.9
Cerebrovascular	*	*	2,567	1.6
All others	226	21.9	41,186	25.1

* *Included in 'All others' for this column.*

Center for Disease Control (2006). *WISQARS Years of Potential Life Lost (YPLL) reports, 1999-2006*. Retrieved June 15, 2009, http://webapp.cdc.gov/sasweb/ncipc/ypll10.html

In addition, a recent CDC study of alcohol-attributable deaths (AADs) and YPLL among AI/AN populations between 2001-2005 found that AADs accounted for 11.7% of all AI/AN deaths, about twice that of the general U.S. population. And AI/ANs lose at least 6.4 more years of potential life per AAD than the general population (36.3 years vs. 29.9 years).[19] This finding is highly relevant because of the severe burden of injury reported in AI/AN communities. A high proportion of fatal injuries on reservations are due to driving under the influence (DUI) related motor vehicle crashes, alcohol related falls, fires, and intentional and unintentional violence.

Another recent study reported the effect of obesity on Years of Life Lost (YLL) over the entire life span. This analysis estimated that obesity lowers life expectancy dramatically, especially for younger adults. Obese men may expect to have as much as a 22% reduction in remaining life span compared with the non-obese.[42] In addition, quality of life for obese individuals is limited due to physical limitations due to excess body weight. Also, a recent Rand study of obesity rates and disabilities showed that the increasing rates of obesity may, by 2025, completely wipe out recent reductions in disability among those 65 and over. Those entering that age cohort will be significantly more overweight than their predecessors, will be less healthy and have more severe levels of disability.[116]

The relationship between obesity and type 2 diabetes illustrates the importance of these relationships. Obesity and diabetes are the diseases that define the health of the population in the 21st century. They are particularly important for the AI/AN populations. AI/ANs are 2.2 times more likely to be diagnosed with diabetes than the general U.S. population. The prevalence of Type 2 diabetes among AI/AN adults age 20 and older was 15.3% in 2002 and is rapidly increasing. Between 1994 and 2004, the prevalence rate among AI/ANs younger than 35 years doubled (8.5% to 17.1%), far exceeding increases observed in the general U.S. population. Among older adults aged 45-75 years, rates of diabetes were found to range from 33% to 72% in AI communities; the average rate was 50%.[15, 26]

Several studies indicate the disease course of diabetes differs between AI/ANs and the general U.S. population. Among AI/ANs, diabetes is characterized by early onset and high rates of complications. Two-thirds of AI/ANs with cardiovascular disease (CVD) have diabetes, and rates of CVD now exceed those of other U.S. populations. Additionally, coronary heart disease may more often be fatal in AI/ANs than in other groups. Although hypertension is often thought to be less prevalent among AI/ANs than non-AI/ANs, hypertension rates are rising rapidly. Recent studies document rates similar to those for the general U.S. population. Diabetes accounts for a higher percent of new cases of end-stage renal disease (ESRD) among AI/ANs than among the general U.S. population (72% vs. 44%). According to the Strong Heart Study, the prevalence of lower-extremity amputation among AI/ANs with diabetes at baseline was 6.3%, and the 8-years cumulative incidence was 4.4%. Early onset and poor blood sugar control place AI/AN young adults with diabetes at high risk for such complications as they age.[26, 34, 50, 54]

The health of persons with diabetes, as well as their medical management, may be compromised by the presence of other health conditions, in particular psychiatric disorders. For example, rates of tobacco use, problem drinking, and alcohol dependence are higher among AI/ANs than among other racial/ethnic groups. Nearly 20% of AI/ANs with diabetes enrolled in the Healthy Heart Project, the demonstration project aimed at preventing CVD complications among AI/ANs with diabetes reported being current smokers, and 26% reported depression. AI/ANs with a prior alcohol dependence diagnosis, as compared to those without, were twice as likely to report having diabetes.

Diabetes and related co-morbidities not only impede daily activities, reduce productivity, and quality of life, but they also contribute to high rates of mortality. Diabetes mortality rates among AI/ANs are nearly four times those of non-AI/ANs, and diabetes is the 4th leading cause of death in

IHS's service population (the first being heart disease, for which diabetes is a common contributing factor). AI/ANs have the highest death rate attributable to premature heart disease among all races, exceeding that for whites by 2-4 times. It is probably not possible to overestimate the importance of obesity and diabetes to the health of AI/AN communities. [54, 84]

Potential Impact and Effects of a Comprehensive Health Promotion Program and Wellness Center for the Shoshone-Bannock Community

The foregoing discussion of health status and review of behavioral risk factor scientific findings is important because it identifies the elements most relevant to the planning of a Health Promotion Program and Wellness Center at Ft. Hall. These elements are: 1) high cost modifiable health conditions; 2) effects of the population structure; 3) burden of illness as measured by YPLL and; 4) potential beneficial effects from prevention and modification of health-related behavior.

Another Rand study goes far in summarizing the weight of the evidence regarding the effects of health-related behavior and risk factors on health status and health care cost. This study compared the effects of obesity, overweight, smoking and problem drinking on health and on the cost of health care. The findings indicate that the problem of obesity has become at least as prominent as smoking in affecting health. Obesity has about the same affect on chronic health conditions as 20 years of aging. This is much greater than the associations of smoking or chronic problem drinking. This is a dramatic finding especially as it relates to health service utilization and costs. Health service use "mirrors" these health effects. The study found that obesity is associated with a 36% increase in ambulatory and inpatient health care expenditure and a 77% increase in spending for medications. Smoking was associated with a 21% increase in ambulatory and inpatient spending and a 28% increase in spending for medications. Thus, "obesity appears to have a stronger association with the occurrence of chronic medical conditions, reduced health-related quality of life, and increased health care and medication spending than smoking or problem drinking". [115] This, of course, is not to say obesity is more important, but that the existence of all these risk factors and the high incidence and prevalence of chronic health conditions has very serious implications for the health, economic development, and long term viability of the Ft. Hall community and its people.

The effects of these behavioral risk factors are very evident from the utilization of Tribal and Indian Health Service (IHS) health care services on the Ft. Hall Reservation. Utilization certainly does mirror the diseases and health conditions that are prevalent. Utilization also mirrors the population structure of the community and closely shadows the chronic conditions that have been listed in the above discussion. There is no doubt that these are the most important and prevalent conditions affecting the Shoshone-Bannock Tribes and the entire Ft. Hall Reservation community. They are costly, difficult to treat and manage, and have serious long-term effects on the health of the people and on the community's ability to progress and develop. These are all problems that the entire nation is now facing, but AI/AN communities and specifically Ft. Hall are a few years ahead of this curve and must take steps to change the approach to the delivery of medical care, health promotion, and disease prevention and improve the long-term health of the community.

Tables 8, 9, 10, and 11 show the demographic characteristics of the Ft. Hall populations, ambulatory and substance abuse inpatient experience of the Direct IHS medical care services, and the Tribal

Health Services and Contact Care Inpatient substance abuse health services provided during the Federal Fiscal year 2008. It is striking how closely the diagnosis and treatment of these services parallel the chronic diseases and conditions discussed above.

The Shoshone-Bannock community is younger than the general populations of both Idaho and the United States. However, it is fairly typical of AI/AN communities. The younger mean age is largely due to a relatively higher fertility rate and a lower life expectancy. The proportion of the population over age 65 is substantially lower for the Ft. Hall Community. This is also due to the relatively high mortality rate for those in the 18-65 age interval. The premature mortality figure for this age group is very important because it, to a great degree, determines the ability of the community to

TABLE 8: KEY DEMOGRAPHIC CHARACTERISTICS – FORT HALL RESERVATION

Total estimated population (2008)	6,538
Indian Health Service population (2008)	6,072

Ft. Hall Median Age	
Native American	21.9
Male	21.5
Female	21.3
White	37.4
Male	38.3
Female	37.3
All Residents	27.8
Male	27.8
Female	27.8
Idaho	35.2
U.S.	35.3

Demographic	Ft. Hall %	U. S. %
Pop. Under 5 years	8.39	6.8
Pop. 18-65	58.0	61.9
Pop. Over 65	7.3	12.4
Disability Status (one or more disabilities)	21.0	
Average Family Size	3.26	2.59
Average Household Size	3.63	3.14

U.S. Census Bureau. (2000). *Demographic profile highlights: Idaho.* Retrieved April 26, 2009, from http://quickfacts.census.gov.

U.S. Census Bureau. (2007). *2005-2007 American community survey 3-year estimates: Idaho.* Retrieved April 26, 2009, from http://quickfacts.census.gov.

Indian Health Service. (2009). *Federal Employees Health Plan (FEHP) disparity index*. Retrieved June 15, 2009 from http://www.ihs.gov/NonMedicalPrograms/Lnf/index.cfm.

Indian Health Service. (2009). *FY 2009 Indian Health Care Improvement Fund (IHCIF) Allocations*. Retrieved June 15, 2009 from http://www.ihs.gov/NonMedicalPrograms/Lnf/2008/IHCIFAllAreaAllSites5-8-08.pdf.

maximize productivity and income as well as add to the economic development of the community. The "Dependency Ratio" (the proportion of the population in its most productive income earning age groups, usually 18-55, relative to the very young and elderly population groups) is extremely important for the development and future of the community.

The statistics illustrate the importance of chronic conditions in determining the final major utilization of health and medical care services in the Ft. Hall health care delivery system.

TABLE 9: FT. HALL LEADING CAUSES OF AMBULATORY CARE VISITS

Oct. 1, 2007 – Sept. 30, 2008: Indian Health Service – Direct services	
Hypertension	7,040
Diabetes II	5,313
Hyperlipidemia	2,574
Depressive disorder	2,297
Esophageal reflux	2,036
Hypothyroidism	1,937
Allergic rhinitis	1,709
Injuries	1,355

TABLE 10: FT. HALL LEADING CAUSES OF AMBULATORY CARE VISITS

Oct. 1, 2007 – Sept. 30, 2008: Tribal Health & Human Services	
Attention deficit with hyperactivity	433
Reoccurring depressive disorder	424
Post-traumatic stress disorder	326
Diabetes II	325
Inoculation against viral hepatitis	320
Routine child health exam	319
Vaccine and inoculation influenza	301
Vaccine for streptococcus pneumonia	218
Routine gynecological exam	214
Inoculation against varicella	210
Injuries	141

TABLE 11: FT. HALL LEADING CAUSES OF IN-HOSPITAL VISITS

Oct. 1, 2007 – Sept. 30, 2008: Contract Care	
Alcohol dependency	2,840
Combination drug	495
Tobacco use disorder	491
Cocaine dependency	69
Health hazards	13
Non-dependant alcohol abuse	2

As noted above, utilization of health services closely follows the care of chronic illnesses and conditions for the Ft. Hall population. For Direct IHS services 71% of ambulatory physician visits are devoted to care of patients with hypertension, diabetes, hyperlipidemia, and depressive disorders. Over one third of the services provided by Tribal Health are psychological or diabetes related.

It should be noted that Tribal Health and Human Services (THHS) provide a wide variety of health services. They are the primary source of care for mental health and for alcohol and substance abuse programs. In FY 2008 50.8% of all ambulatory health care visits provided by THHS were for mental health and for alcohol and substance abuse. The Ft. Hall Service Unit's Not-Tsoo Gah-Nee Indian Health Center (IHS) and the THHS programs are high volume operations that provided a total of 63,715 visits in FY 2008.[96] These visits represent a very broad range of clinical and preventive services provided by a large array of health care professionals. These are not just doctor office visits and visits to other primary care providers. For a community with a population the size of that of the Ft. Hall Reservation, the health service delivery system is relatively large and has developed many effective community specific programs. However, funding for health programs at Ft. Hall for the IHS Clinic and contracted/compacted services is seriously inadequate to fully manage the health needs of the community's population. As the foregoing analysis has clearly pointed out, the existence of serious health disparities, high prevalence and incidence of chronic conditions and the accelerating cost of health care make the elevation of community health status problematic through the sole reliance on medical care.

The serious disparity in health care spending between the general population and Shoshone-Bannock community is illustrated in Table 12. The Indian Health Service's Federal Employees Health Plan Disparity Index analysis (formerly the Level of Need Studies) shows the serious shortfall in funding of health programs and health service delivery at Ft. Hall. While some of the slack is picked up by specific grant programs (The Special Diabetes Program for example), this method of providing service introduces a serious degree of uncertainty of the continuation of programs at the termination of the grant period. This is a continuing and serious problem that requires the optimum use of resources through closely coordinated and integrated programs. Again, a focal Wellness Program would help provide the vehicle for integration and coordination.

TABLE 12: PER CAPITA HEALTH EXPENDITURES - 2008

U.S. per capita[a]	$7,804
Federal prison per capita[b]	$4,413 (FY 2007)
FEHB cost per user benchmark[c]	$4,106
Shoshone-Bannock estimated cost benchmark[c]	$2,767
Shoshone-Bannock IHS expenditure per user[c]	$1,726
Shoshone-Bannock expenditures as a percentage of:	
U.S. per capita	22.1%
Federal prison	39.1%
FEHB	42.0%
Shoshone-Bannock estimated cost benchmark	62.3%

[a]Sisko, A., Truffer, C., Smith, S., Keehan, S., Cylus, J., Poisal, J. A., et al. (2009). Health spending projections through 2018: Recession effects add uncertainty to the outlook (web exclusive). *Health Affairs 28*(2), published online February 24, 2009. Retrieved June 15, 2009 from http://content.healthaffairs.org/cgi/content/full/28/2/w346

[b]U.S. Department of Justice. (2008). The Federal Bureau of Prison's efforts to manage inmate health care. *Office of the Inspector General Audit Division, Audit Report 08-08*. February 2008.

[c]Indian Health Service. (2009). *Federal Employees Health Plan (FEHP) disparity index*. Retrieved June 15, 2009 from http://www.ihs.gov/NonMedicalPrograms/Lnf/index.cfm.

The FEHP Disparity Index analysis shows that expenditures from IHS funds for the Shoshone-Bannock Tribes is only 42% of those of Federal Employees through the FEHB using the National Benchmark for AI/AN. IHS expenditures at Ft. Hall are actually only $1,726 per capita. This serious gap in adequate funding calls into question the ability of the IHS to provide adequate future services due to the increasing prevalence of obesity and diabetes and the continuation of serious challenges with additional behavioral health problems.[64]

It is apparent that the most promising health strategy for the Shoshone-Bannock Tribes to adopt and follow is that of Prevention and Health Promotion. This strategy provides a method of planning the integration of all IHS and Tribal health resources and the coordination of their delivery to enhance efficiency and maximize value and effectiveness. The adoption of this strategy, which would include the designation of a Health Promotion Program and Wellness Center, holds the promise of being able to manage and even reduce the use of medical care services by reducing the need and demand for those services. While it is unlikely that the actual cost of care will be reduced, it is possible that utilization of expensive inpatient and emergency care can be managed more effectively so that both Direct Care and Contract Care services can be stretched further and provide better coverage for appropriate services.

While the largest proportion of clinical care is provided in the IHS Health Center, THHS services are provided in many sites and settings in the community. Although coordination among programs (many THHS programs are funded by federal grants, contracts and Contract Care Funds) is good, it is apparent that the lack of a centralized health system and focus for prevention has made it difficult for THHS programs to reach their maximum effectiveness. Since THHS is the major provider of prevention, mental health, substance and alcohol abuse, and health promotion services and programs, a focal area to integrate and coordinate programs more fully would be very productive. A multipurpose Wellness Center will go far in helping to provide community focus for preventive activities that currently exist and a ready platform for the creation of additional community driven initiatives. There is a clear need for a highly integrated, comprehensive community based program that emphasizes all aspects of physical, mental, emotional, and spiritual health.

Of course there will be a continuing and increasing need for medical care services in this growing community. The care of existing chronic conditions, even with vigorous and effective health promotion activities, will not nearly eliminate the need for medical care. However, the coordination of health promotion and medical care services and programs will help with the managing of resources so they can be used for maximum effectiveness. For example, there will certainly be a continuing need for statin therapies to reduce blood cholesterol levels even when diet and exercise prove highly effective. The same can be said for medications to control type 2 diabetes. However, behavioral health programs and activities can greatly reduce the actual need for these medications and thereby reduce demand and elevate treatment effectiveness and improve quality of life. This provides the avenue for the explicit provision of cost-effective care. This will be increasingly important for future health care programs because of increasing cost of medical care and the probability of decreasing availability of funding through both public and private insurance programs.

III. METHODOLOGY

In order to complete the feasibility study we completed the following steps:

- Reviewed various tribal documents and reports which included:
    - The Comprehensive Plan,
    - Strategic Plan,
    - various annual reports,
    - usage statistics from the Recreation Program,
    - Tribal Health & Human Services Strategic Goals and Objectives,
    - Wellness Center Needs Survey,
    - newsletters,
    - demographics,
    - and various program materials.
- Interviewed Health and Human Services Program Directors, Tribal Health Board Members, and members of the Tribal Council. These qualitative interviews were conducted in September and October 2008. The persons interviewed were selected for their first-hand knowledge of the health and wellness needs of the community, their specific health-related programs, and knowledge of community needs.
- Completed a literature review in the areas of health promotion programs, weight-related activities, exercise, fitness, nutrition, and healthy community planning.
- Reviewed health services utilization reports including local, state and national data and statistics to collect information and make recommendations specific to a cost-benefit analysis.
- Collected cost and resource estimates related to the building, maintenance, administration and management of fitness/wellness facilities. This included reviewing Fort Hall resources and a review of other Idaho and regional tribal wellness programs. Cost data includes the tribal prevailing wage scale for commercial and building. We have also collected current cost estimates specific to expressed needs. These include, at a minimum, replacing current facilities (e.g., Timbee Hall) and programs with a new facility, and at a maximum are associated to cost/resource estimates for various additional components (e.g., additional softball fields, additional basketball courts, cooking/demonstration kitchen, therapy pool, walking/running path, classrooms, meeting rooms, etc.).
- Collected tribal demographics.
- An accounting of current facilities, programs, resources, and needs.

Through these methods we discovered the following:

CAPITAL FACILITIES COMPREHENSIVE PLAN

The Wellness Center is envisioned as a complete community health, physical fitness, and physical therapy facility to provide services the present facility, Timbee Hall, cannot. An ad-hoc group has been meeting on this project, which is in the scoping phase. The proposed Wellness Center, as it is currently envisioned, would include exercise facilities and equipment, playing fields, and a running/walking track. Due to the physical area needs the location is limited to the one or two available sites large and centrally located enough to accommodate it.

The Wellness Center, as currently envisioned, would be a resource for youth and the elderly, and would reduce the pressure on the Indian Health Service (IHS) healthcare system, police, courts, and corrections. It is a key element supporting the Department of Health and Human Services prevention and wellness strategy meeting Tribal goals in the area of health and well-being.

The Current State of Health and Well-being (Shoshone-Bannock Tribes Comprehensive Plan: Health and Human Services, Draft October 10, 2006):

There are gaps in the available information about community health and social service needs. The best available information comes from the U.S. Census for the year 2000, from the Tribal Health Department's Behavioral Risk Factor Survey (BRFS), and from the IHS service unit records. Among the 329 respondents to the survey the following were reported:

TABLE 13: SHOSHONE-BANNOCK 2000 CENSUS DATA AND IDENTIFIED RISK FACTORS

Risk Factor	Percent Reporting	Percent U.S.
High blood pressure	27.2	25.5
High cholesterol	27.0	17.0
Diabetes	15.3	8.6
Overweight	83.8	65.0
Obese	54.8	31.1
Use tobacco regularly	43.6	29.8
Smoke cigarettes daily	38.8	23.0
Report chronic drinking (2 or more drinks per day)	15.6	8.1
Report acute drinking (5 or more drinks at one time in the last month)	34.7	22.6
Usually drink enough to get drunk or black out	6.7	N/A
Report having driven after "having too much to drink" in the last month	11.6	2.2

DOCUMENT REVIEW

A review of the various health management and health promotion programs, tribal plans, and demographics was undertaken. This included a review of the following documents:

- Shoshone-Bannock Tribes Comprehensive Plan, Health and Human Services, Draft, October 10, 2006;
- Shoshone-Bannock Tribes, Tribal Health & Human Services Department Strategic Plan, Plan Years 2005 – 2010;
- Shoshone-Bannock Tribes Comprehensive Plan: Capital Facilities Development, Draft, April 20, 2006;
- FY 2006 Annual Report, Tribal Health & Human Services Department;
- Usage statistics from the Fort Hall Recreation Program, 2008;
- Tribal Health & Human Services Strategic Goals and Objectives;
- Wellness Center Needs Survey, 2007
- Wellness Center Tour Summary, 2007

- Tribal Health & Human Services Department, Spring Newsletter, May 2008;
- Shoshone-Bannock Tribes Comprehensive Plan. Demographic and Statistical Profile. Shoshone-Bannock Tribal Planning Department, April 20, 2006;

KEY INFORMANT INTERVIEWS

These qualitative interviews were conducted in September and October 2008 with the Health & Human Services Program Directors and Tribal Health Board Members. The persons interviewed were selected for their first-hand knowledge of the health and wellness needs of the community and for their specific programs. The informal interviews focused around the following three questions. From your point of view:

1. What is really needed/necessary for a Health Promotion/Prevention Program and Health Promotion/Wellness Center?

2. For your population (the population you serve/represent) what needs to be done to induce people to get involved and stay with the program once it's up and running?

3. For the entire community/the community as a whole, what is needed (e.g., walking trail, fitness stations, skate park, communal area), and how could we get people to use them?

In interviewing Program Managers and Tribal Health Board Members we found that for question 1: "What is really needed/necessary for a Health Promotion/Prevention Program and Health Promotion Wellness Center?" that the answers could be grouped into four categories. These included:

1. facilities/areas (e.g., building needs);

2. programs/classes;

3. services;

4. functions (e.g., what function do they need to have to better serve the community.

The following tables, 14 through 19, present the interview results.

TABLE 14: WHAT FACILITIES/AREAS ARE NEEDED IN A WELLNESS CENTER?

Facility	Number (N = 14)
Aerobics Room(s)	1
Atrium/Nature Area	8
Baseball Diamonds	3
Basketball Courts	13
Boxing Room	8
Computer Lab (for training)	1
Day Care Center	7
Equine Area (for recreation and therapy)	1
Exam Rooms	1
Exercise equipment (treadmills, bikes, stair climbers, etc.)	12
Football Field	2
* Group Rooms for workshops, conferences (bead, cultural classes, boys/girls club meeting rooms (seating size 20 – 50)	12
Group Room – Large – seats up to 500	15
Kitchen (both for cooking demonstrations/classes and for community gatherings/events	11
Locker Rooms	3
Movie Theater	1
Office Space	1
Outpatient Recovery Rooms	1
Pain Management Area – massage, acupuncture, Jacuzzi, physical therapy (spa-type setting)	1
Playground	7
Racquetball Courts	2
Reception Area (central for all services/facilities)	4
Rehabilitation Facilities	1
Skate Board/Bike Park	2
Snack Area (deli, snacks, coffee/lunch bar)	1
Soccer Fields	9
Softball Fields	2
Soundproof Room (for drumming)	1
Sweat Lodge	1
Swimming Pool	5
Steam Room	1
Therapy Pool	10
Tumbling Room	1
Walking Path – Outdoor, with Fitness Stations (Could be used for X-country/skate skiing in winter)	12
Walking Track/Indoor Track	4
Weight Room(s)	6

* Group rooms (seating size 20 – 50) – responses of classrooms, meeting rooms, group rooms have been grouped into this item.

TABLE 15: WHAT PROGRAMS/CLASSES ARE NEEDED?

Program, Resource, Other	Number (N = 14)
Aerobics/Fitness Classes	1
All Tribal Health Programs Under One Roof	2
Boxing Classes	1
CPR Classes	1
Cultural Classes/Resources	8
Fitness Instructors	1
Health Education Classes and Programs	8
Life Skills Classes	2
Nutrition Classes	7
Parenting Groups	1
Personal Trainers	1
Physical Therapy Services	1
Prenatal Classes	1
Spiritual Helpers	1
Support Groups	1
Taekwondo Classes	1
Yoga/Dance Classes	8

TABLE 16: WHAT SERVICES ARE NEEDED?

Program, Resource, Other	Number (N = 14)
Pain Management Area – massage, acupuncture, Jacuzzi e.g., spa-type setting	1
Rehabilitation Facilities	1

TABLE 17: WHAT FUNCTIONS ARE NEEDED?

Program, Resource, Other	Number (N = 14)
Audio/Visual Equipment	1
Handicap and Elderly Accessible	9
One Stop Shop for the Community	1
Outreach to Full Community (services that are available to the whole reservation – not just at the Center)	7
Reception Area (central for all services/facilities)	1

TABLE 18: WHAT NEEDS TO BE DONE TO PROMOTE INITIAL/CONTINUED USE?

Service, Program, Resource, Other
Incorporate the facilities, programs, services into treatment (physical, emotional, spiritual)
Has to be handicapped accessible
Incentives/Recognition (food, s-shirts, water bottles, items that would get persons off the reservation to do activities (swimming, movie passes, gas vouchers)
All services under one roof
Role models
Set-up a program for kids to become professional athletes
Fees – to keep it clean, take care of it, promote ownership (either pay fees or work at the center)
Discount on user fees
Tribal health needs to be located in the center
Better service to clients
Coordination of services
Provide community programs (WIC, immunizations, community services)
Community Involvement
TERO
Getting buy-in from all community members, programs, and boards
Has to meet IBOC code (plumbing, electricians)
Monthly community dinner
Non-profit facility
Has to be clean, pleasant, somewhere you want to go
Has to be for THIS reservation
Has to be a priority for the council

TABLE 19: WHAT IS NEEDED/NECESSARY FOR THE ENTIRE COMMUNITY?

Service, Program, Other
Take resources/programs out to each district
Children and youth activities
Central area for community to meet, have events
Incorporate fitness as part of the treatment plan
Community ownership and pride has to be a part of the building
Organize health promotion/disease prevention staff and activities
All programs need to use the facility
Flexible space
Evening classes
More than just sports

IV. INTERVIEW SUMMARY/FINDINGS

The interviews indicated:

- At a minimum, the fitness, exercise, wellness, and community programs and resources currently available through Timbee Hall and the Recreation Department need to be continued, and need a new home. Timbee Hall is old, rundown, doesn't meet current community needs, and is not an inviting facility.
- To leverage dollars, services, and facilities the interviews indicated that it is optimal that health-related services, outreach programs, fitness, and the administrative functions of these programs should be under the same roof. This will provide the ability to leverage available resources. It was strongly felt that in order for the Wellness Center and its programs to become successful and remain successful, the therapy programs and resources need to be integrated.
- There is a tribal need and want for a Wellness Center. They want the programs and facilities, but the hope is for a place that will become the "center" of the community. It will bring the people, family, tribes and community together for a common goal, common events, and pride of ownership and involvement.
- A Wellness Center would help to focus the community on health activities, especially for the youth, and work to reduce drug and alcohol abuse and subsequent related activities (school drop out, vandalism, crime, etc.).
- There is a need to expand many of the current programs and add some specific resources:
    - There is not enough space for the current basketball or softball/baseball programs. Additional basketball courts and softball/baseball fields are needed;
    - An outdoor fitness/walking path is an identified high priority. Currently there is very little paved space that is walkable and safe. Many persons walk in the community, and it is felt that many more would if there was a dedicated and safe place to participate in walking;
    - Space where community gatherings can be held (up to 500 persons) is a high priority. It is felt that such space would serve the community well, bring the community together, and save money in the long run by having local facilities for meetings instead of renting rooms in Pocatello or Blackfoot.
    - A swimming pool and therapy pools are high on many peoples' wish list.
- There is the general feeling that we've talked about this long enough, and now need to get on with the work necessary to build and maintain the facility.

BEST PRACTICES/OTHER PROGRAM REVIEW

In reviewing the literature, currently running wellness/fitness programs both commercial and non-profit, as well as other tribal fitness/wellness facilities, we found the following information and trends:

- Fitness/Wellness facilities/centers are moving away from individualized fitness and back to community-based wellness. Some of this is due to the evolution of the market, and some of it is due to the tremendous increase in overweight and obesity rates. There are many national initiatives (Robert Wood Johnson Foundations, U.S. Centers for Disease Control and

Prevention) that are focusing on policy and community changes to develop more fitness/exercise promoting communities and programs.

- Just as in the schools, communities and fitness centers are moving away from team sports, individual fitness programs, and other community-based programs/wellness. In order for persons to become fit and maintain wellness the community, including the home, needs to include an environment that is conducive to promoting health and wellness. The wellness center is now moving towards a place that is a community center. A place where family and communities provide a physical, spiritual and societal connection.
- The vision of healthier individuals and communities should be approached vigorously and optimistically but with patience. There is no simple or quick answer to this multifaceted challenge. The initiatives call upon individuals, families, communities, schools, worksites, organizations, government, and the media to work together to build solutions that will bring better health to everyone in this country.

V. LITERATURE REVIEW

The literature review was undertaken with the intent of identifying programs, research, and trends specific to wellness centers and the larger impact of creating a healthy community. We looked at the literature to identify the potential impacts of the development of a community, including a Wellness Center. We did this to find a development plan in the following areas:

- Access to healthy foods – targets for markets and gardens (increase the number of farmers markets, produce stands, and community gardens)
- Crime and safety
- Injury
- Physical activity
- Sense of community
- Transportation (shift extreme auto use orientation)

These findings tie into the expressed needs from the key informant interviews, the Wellness Center Needs Survey. These are also tied to the analysis of health services utilization data patterns that programs included in a wellness center would address (exercise, nutrition, community health, therapy, and mental health services).

The literature indicated that the following all contribute to a reduction in cardiovascular disease risk factors, asthma risk factors, and risk factors for unintentional injuries:

- Create a more walkable and bikeable community
- Create well maintained, well utilized community gathering spaces (farmers markets, public plazas, gathering spaces)
- Increase opportunity for casual/more frequent interaction with friends/neighbors
- Increase sense of safety
- Individuals at various life stages remain in the community
- Increase social ties/social connections
- Change local norms

Design trends are moving away from compartmentalized areas toward an open plan that makes all the fitness visible and accessible. Many facilities are abandoning the concept of separate weight rooms in favor of all-in-one free weight, resistance training, and cardio areas, especially as weight training gains popularity with women.

VI. Analysis and Findings

The Community

The Shoshone-Bannock Tribes are located in Southeast Idaho, eight miles north of Pocatello along Interstate 15. The Fort Hall Indian Reservation was established by the Fort Bridger Treaty of 1868 as a 1.8 million acre homeland for the Shoshone and Bannock Indian Tribes. Today the reservation consists of 544,000 acres of which the tribe owns 96%.

In 1936, the Shoshone-Bannock Tribes adopted a constitutional form of government that established a seven member council (Fort Hall Business Council) elected by Tribal members living on the reservation. The Business Council established a Law & Order Code and other ordinances to regulate business and other activities on the reservation.

There are approximately 5,000 enrolled Tribal members of which approximately 3,500 live on the reservation. Tribal members are engaged in agriculture, construction, retail and service businesses. Many work for the Tribes within the Tribal enterprise system and for the Tribal government. On the reservation, the Tribes operate a grocery store, clothing store, museum, buffalo herd, farms, service stations, a junior/senior high school, and a casino.

The overall strategy outlined, which mirrors the Shoshone-Bannock Tribes Comprehensive Plan: Health & Human Services, is to present the findings and recommendations based on keeping people healthy- focusing on prevention and wellness first and treatment second.

Specifically targeted prevention and wellness programs and resources can reduce the need for health care and social services. There will always remain a need for chronic and acute health care, rehabilitation, long term care, child protective services, and shelters. However, well integrated programs and resources can leverage human and monetary capital, and get the most out of limited resources and overstretched programs.

"Wellness" is defined by the Shoshone-Bannock Tribes as a state of being in which individuals are healthy. They take care of themselves, their weight, blood sugar and blood pressure are at safe levels, and they use alcohol and tobacco in moderation or not at all. "Wellness" means strong families with parents who care for their children, and have access to the resources they need to give those children a good start in life. "Wellness" also means a community in which people will organize to help themselves and each other, in which grass roots organizations spring up naturally, and in which Tribal government provides effective support to community initiatives.

The Wellness Center

The Wellness Center is envisioned as a complete community health, physical fitness, and physical therapy facility which will provide services that the present facility, Timbee Hall, cannot. The proposed Wellness Center, as it is currently envisioned, would include, in addition to the current programs, equipment, facilities, additional playing fields, and a running track (Shoshone-Bannock Tribes Comprehensive Plan: Capital Facilities, 2006 Draft).

The Wellness Center would be a resource for youth and the elderly, and would reduce the pressure on the HIS healthcare system, the police, courts and corrections. It is a key element supporting the Department of Health and Social Services prevention and wellness strategy for meeting Tribal goals in the area of health and well-being (Shoshone-Bannock Tribes Comprehensive Plan: Capital Facilities, 2006 Draft).

HEALTH STATUS AND UTILIZATION OF SERVICES

The increased prevalence of obesity and obesity-related diseases among Americans is well-documented. The overall rate of obesity in adults grew to 30.5% in 1999-2000, from 22.9% in 1988-1994, and less than 15% in the 1970s. The prevalence of morbid, or severe, obesity has increased at a much faster rate than obesity in general. A substantial body of literature has also shown large financial consequences from obesity. For example, obese adults incur 36% greater annual medical expenditures than normal-weight persons, and overweight on obesity account for 9.1% of total medical expenditures.

Increased prevalence of obesity among the workforce may also have several financial consequences for employers. As increased rates of obesity contribute to rising medical costs, this will likely exacerbate health insurance costs. Recent research has shown that 12% of the rise in inflation-adjusted per capita medical spending between 1987 and 2001 was attributable to the increased prevalence of obesity. Obese employees have also been shown to be absent from work more often than their non-obese counterparts. Thompson, et al found that obese men were absent 2.7 more days per year than normal-weight men, and obese women missed 5.1 more days per year than normal-weight women.

WELLNESS CENTER

The design, development, and maintenance of a Shoshone-Bannock Wellness Center should seek any and all opportunities to cultivate an audience for health/land use connection. Current movements/trends in wellness that are pertinent to Fort Hall are as follows:

- The fitness focus is shifting away from just the club, and becoming more and more about community-based participation. It has been indicated in surveys, interviews, and reports that the Wellness Center needs to be more than a place to exercise and play. It needs to be the center of the community where people participate in activities that enhance their health, general well-being, and sense of community.
- Design trends are moving away from compartmentalized areas toward an open plan that makes all the fitness visible and accessible. Many facilities are abandoning the concept of separate weight rooms in favor of all-in-one free weight, resistance training, and cardio areas, especially as weight training gains popularity with women. Many of the comments have indicated the need for an open and inviting facility where children, adolescents, men, women, and families can participate in health-promoting programs and activities and not have the feeling of separate exercise/weight areas or programs. Again, the facility needs to be inviting, open, and accessible to all.
- Fitness operators can keep their facilities fresh by thinking of them as destination spots, not just exercise centers. At Fort Hall, the need has been expressed that this is not just a Wellness Center – but a place where the community can meet, play, plan, and promote health and well-being.

RESOURCE COMPONENTS/OPTIONS (LISTING)

- Wellness/Community Center to include (see spreadsheet for details – specifications, costs):
    - Indoor running/walking track
    - Weight/fitness room
    - Dance/aerobics room
    - Hot tub/sauna
    - Games Room
    - Multipurpose Room
    - Arts and Crafts Room
    - Indoor Swimming Pool
    - Classrooms
    - Kitchen
    - Vending area
    - Daycare Center
    - Common Area (reception desk, lobby)
    - Public Restrooms
    - Locker Rooms/Rest Rooms
    - Staff Locker Rooms/Restrooms
    - Parking
- Walking trails – extend walking paths throughout the community. One option is that the proposed golf course can include walking trails on the perimeter. These would be multi-use. Walking/jogging trails, and in the winter used for snow shoeing and/or cross country/skate skiing.
    - Walking Trail/Greenbelt (2 miles) (see Excel spreadsheet for specifications and costs
    - Land
    - Sprinkler system
    - Volunteer Labor
    - Engineering Path
    - Gravel
    - Landscaping
- Skatepark – Caldwell recently (November 2008) opened a 20,000 square foot facility which cost about $318,000, and includes street-style skating, as well as a nearly 10-foot deep bowl.
- iTech Fitness room included in the Wellness Center – a fully integrated and mobile exergaming system that can be purchased and easily installed in about 300 square feet of space. Active gaming incorporates physical activity into the video game experience. Players power a fighter jet by pedaling, dance alone or in a group, do tricks on a skateboard or snowboard, or take an exercise bike for a leisurely spin through beautiful scenery, or a thrilling stage of the Tour de France (just a couple of examples). The XRKade iZone option incorporates four LCDs, all gaming electronics, gaming consoles and up to eight items such as bikes, boards and dance pads into one convenient package. The system can be upgraded at any time with new gaming technologies.
- Community Recreation Facilities (see Excel spreadsheet for specifications and costs):
    - Playscape

- Two bay swing
- Slide
- Climber
- Rubber surfacing
- Softball Fields
- Baseball Fields
- Basketball Courts
- Picnic Shelter
- Outdoor Gathering Area
- Security Lighting
- Activity Lighting
- BBQ
- Unisex Restroom
- Drinking Fountain
- Benches
- Picnic Tables
- Trash Receptacles
- Power and Water
- Landscaping

POSSIBLE FUNDING SOURCES:

These resources are private and federal grant-making programs that fund specific programs as well as bricks and mortar. Amounts and application deadlines vary by organization.

- Kellogg Foundation
- Kresge Foundation
- Gates Foundation
- Other Idaho Foundations
- NARCH Grant Projects

VII. ESTIMATES OF PROGRAM AND FACILITY COSTS

The cost estimates presented in Table 20 are for the planning and construction of Health Promotion Program facilities for the Shoshone-Bannock Tribes. It should be clearly noted that these estimates are provisional and depend upon current market conditions. The recommendations for new programs and facilities are scalable depending on the level of resources that can be generated. Programs and facilities can be added sequentially as additional resources are made available. The Tribes can and should prioritize the addition of programs and facilities. The IRH recommendations are based upon the analysis of health promotion programs that are estimated to make the greatest and most cost effective impact on the health of the Shoshone-Bannock community in the briefest period of time. The primary goal of the Health Promotion Program is to prevent physical and mental illness, disability, behavioral health consequences, and premature death. The achievement of these goals will result in measureable elevation of productivity of the community's people; reduction in use of medical care and enhancement of the quality of life. All of these provide a path to greater success and viability of the community for the future. Prevention through Health Promotion can help greatly improve the health and productivity of the community, reduce the use of expensive health services and free-up community resources for alternative uses. Health promotion certainly comes at a cost but it is most frequently an investment that yields a highly favorable rate of return.

All of the estimates presented here are based on program costs derived from comparable programs in Idaho and neighboring states and communities. Precise costs will depend on current market conditions, cost of capital, availability of planning and engineering resources, donated volunteer time and materials, site selection and land costs. As noted, the projects are scalable. It should also be noted that new construction of a multipurpose Community Wellness Center at some level is highly recommended. There is an existing severe shortage of community facilities and no current buildings are adequate to house either new or existing programs.

It should also be noted that this analysis and the programs described in the feasibility study are derived from community surveys, interviews with key informants and extensive consultation with Tribal and community residents and health care professionals. The recommendations are based upon community preferences and prioritized through the analysis of programs projected to have the greatest impact. The Shoshone-Bannock Tribes and community are affected by the same health problems as the general Idaho and United States Populations. Over 70% of all health care costs are due to chronic diseases. Many of these conditions are due to poor health related behaviors such as poor diet and exercise habits, smoking and tobacco use, alcohol and drug abuse, and unintentional and intentional injury. All of these can be greatly reduced for all age groups through prevention and physical and mental health promotion programs and activities. The programs are proposed to be highly effective and cost-effective.

TABLE 20: SHOSHONE-BANNOCK WELLNESS/COMMUNITY CENTER, PRELIMINARY COST ESTIMATE, JANUARY 2009

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
Gymnasium (2 courts)	28' overhead clearance	26,300	sq ft	$110	$2,893,000
Indoor running/walking track	one-tenth mile circumference with weight/rest stations at each end	12,802	sq ft	$110	$1,408,220
Weight room/fitness room	Rolled rubber floor finish or other sheet goods product designed for weight/fitness area	1,000	sq ft	$110	$110,000
Dance/aerobics		900	sq ft	$100	$90,000
Hot tub/sauna		250	sq ft	$175	$43,750
Boxing	Rolled rubber floor finish or other sheet goods product designed for weight/fitness areas.	900	sq ft	$110	$99,000
Games Room		500	sq ft	$100	$50,000
Multipurpose Room	Room designed to be flexible - large to hold up to 500 people and flexible with moveable walls to be broken down into smaller meeting/classroom areas to hold up to 50 people	3,000	sq ft	$110	$330,000
Arts and Crafts Room		1,000	sq ft	$100	$100,000
Indoor Swimming Pool	Olympic Size Swimming Pool, Diving Area and Children's Pool	20,608	sq ft	$175	$3,606,400
Classrooms	6 classroomss, each 400 square feet.	3,500	sq ft	$100	$350,000
Dining / Eating Area Concessions		1,000	sq ft	$100	$100,000
Kitchen	Kitchen finished with vinyl composite tiles and equipped with standard industrial steel kitchen equipment.	900	sq ft	$155	$139,500
Vending Area		200	sq ft	$100	$20,000
Daycare Center		2,000	sq ft	$100	$200,000
Common Area / Reception Desk/ Lobby / Signage		500	sq ft	$100	$50,000
Public Restrooms		1,200	sq ft	$175	$210,000
Locker Rooms / Rest Rooms		2,000	sq ft	$175	$350,000
Staff Locker Rooms / Restrooms		1,000	sq ft	$175	$175,000
Drinking Fountains		3	ct	$1,500	$4,500
Security Cameras and Alarm System		1	ls	$75,000	$75,000
Fire Suppression System		1	ls	$450,000	$450,000
Janitorial and Storage Facilities		1,000	sq ft	$100	$100,000

TABLE 20: SHOSHONE-BANNOCK WELLNESS/COMMUNITY CENTER, PRELIMINARY COST ESTIMATE, JANUARY 2009

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
External Lighting		20	ea	$500	$10,000
First Aid Stations		2	ea	$1,500	$3,000
SUB-TOTAL FOR SPACES		**80,560**	**sq ft**		**$10,967,370**
Circulation		23,393	sq ft	$110	$2,573,230
Mechanical / Electrical Rooms		12,000	sq ft	$110	$1,320,000
Seating		500	ea	$55	$27,500
Lockers	Metal lockers each 1'x1'x3' high. 60% for men and 40% for women	200	ea	$110	$22,000
Bleachers	Each bleacher unit will sit 50 people	15	ea	$2,500	$37,500
Trash Receptacles		10	ea	$750	$7,500
SUB-TOTAL FOR SUPPORT					**$3,987,730**
Parking and Landscaping	Asphalt on compressed sub-base and gravel base. Provision for parking 500 - 600 cars. Shrubs, Trees, Planters, Turf	150,000	sq ft	$25	$3,750,000
SUB-TOTAL FOR PROJECT					**$18,705,100**
Sub-Total for Com Rec					**$1,673,100**
Sub-Total for Walk Trail					**$238,000**
Total-Wellness Center Project					**$20,616,200**

PROJECT PHASING

This is a significant and complex project that involves a great deal of planning and development of human and financial resources. It may be necessary to develop and adopt a phased approach toward accomplishing the health promotion goals of the community. The following discussion breaks the above aggregate estimates of program cost into six possible choices that can be pursued sequentially or concurrently depending on the establishment of priorities and development of financing sources and methods. This will help enable the Shoshone-Bannock Community to follow a planned health promotion path designed to have a large and measurable effect on the health of the community within a reasonable time-frame. As the discussion above indicates, the health status of the population is challenged by modifiable conditions and behaviors. The Health Promotion and

Wellness program option offers the opportunity to make a substantial positive impact on population health in a relatively short period of time. These six options are presented as examples of representative choices. There are certain to be additional options that can and should be considered as they emerge during the course of the project's planning and implementation. Each Option is accompanied by a separate Worksheet that details estimated cost for that choice:

TimBBMLTIndWalk - includes the replacement of Timbee Hall, material and equipment that is currently in Timbee Hall plus an additional basketball court, a large (500 seat) Multipurpose Room, 6 additional classrooms, and an Indoor Walking Track - **$14,715,450**

PlusPool-includes the replacement of Timbee Hall and the addition of a swimming and therapy pool. **$14,767,131**

TimbeeReplace - includes the replacement of only what is currently in Timbee - **$9,856,670**

FullCenter - includes the full list version - Timbee Replacement, an additional basketball court, 6 classrooms, Multipurpose Room, Kitchen, Daycare, Indoor Walking Track, Sauna/steam room, Kitchen, etc. Additionally - there are separate line items, included in the total for a Greenbelt and Outdoor Recreation Facilities (playground equipment, softball/baseball fields, picnic facilities, restrooms). **- $20,616,200**

CommRec - includes only the Outdoor Community Recreation Facilities - **$1,673,100**

WalkTrail - includes only the outdoor walking trail (e.g., greenbelt) - **$238,000**

The FullCenter option is the both the most desirable and most expensive. It offers the Community the opportunity to construct and utilize a multi-purpose facility designed to promote and maintain community physical, mental and emotional health. It can be designed to meet the specific cultural needs of the community as well as the health promotion needs. In addition the facility itself can be symbol of the Tribes' continued commitment to all aspects of the health and development of the community. However, each option can be independently considered depending on tribal priorities and the generation of construction and operational resources.

TIMBBMLTINDWALK - PRELIMINARY COST ESTIMATE

Includes the replacement of Timbee Hall, material and equipment that is currently in Timbee Hall plus an additional basketball court, a large (500 seat) multipurpose room, 6 additional classrooms, and an indoor walking track.

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
Gymnasium (2 courts)	28' overhead clearance	26,300	sq ft	$110.00	$2,893,000.00
Indoor running/walking track	one-tenth mile circumference with weight/rest stations at each end	12,802	sq ft	110.00	1,408,220.00
Weight room/fitness room	Rolled rubber floor finish or other sheet goods product designed for weight/fitness area	1,000	sq ft	110.00	110,000.00
Dance/aerobics		900	sq ft	100.00	90,000.00
Boxing	Rolled rubber floor finish or other sheet goods product designed for weight/fitness areas.	900	sq ft	110.00	99,000.00
Games Room		500	sq ft	100.00	50,000.00
Multipurpose Room	Room designed to be flexible - large to hold up to 500 people and flexible with moveable walls to be broken down into smaller meeting/classroom areas to hold up to 50 people	3,000	sq ft	110.00	330,000.00
Arts and Crafts Room		1,000	sq ft	100.00	100,000.00
Classrooms	6 classrooms, each 400 square feet.	3,500	sq ft	100.00	350,000.00
Dining / Eating Area Concessions		1,000	sq ft	100.00	100,000.00
Vending Area		200	sq ft	100.00	20,000.00
Common Area / Reception Desk/ Lobby / Signage		500	sq ft	100.00	50,000.00
Public Restrooms		1,200	sq ft	175.00	210,000.00
Locker Rooms / Rest Rooms		2,000	sq ft	175.00	350,000.00
Staff Locker Rooms / Restrooms		1,000	sq ft	175.00	175,000.00
Drinking Fountains		3	ct	1,500.00	4,500.00

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
Security Cameras and Alarm System		1	ls	75,000.00	75,000.00
Fire Suppression System		1	ls	450,000.00	450,000.00
Janitorial and Storage Facilities		1,000	sq ft	100.00	100,000.00
External Lighting		20	ea	500.00	10,000.00
First Aid Stations		2	ea	1,500.00	3,000.00
SUB-TOTAL FOR SPACES					**$6,977,720.00**
Circulation		23,393	sq ft	110.00	2,573,230.00
Mechanical / Electrical Rooms		12,000	sq ft	110.00	1,320,000.00
Seating		500	ea	55.00	27,500.00
Lockers	Metal lockers each 1'x1'x3' high. 60% for men and 40% for women	200	ea	110.00	22,000.00
Bleachers	Each bleacher unit will sit 50 people	15	ea	2,500.00	37,500.00
Trash Receptacles		10	ea	750.00	7,500.00
SUB-TOTAL FOR SUPPORT					**$3,987,730.00**
Parking and Landscaping	Asphalt on compressed sub-base and gravel base. Provision for parking 500 - 600 cars. Shrubs, Trees, Planters, Turf	150,000	sq ft	25.00	3,750,000.00
TOTAL					**$14,715,450.00**

PLUSPOOL - PRELIMINARY COST ESTIMATE

Includes the replacement of Timbee Hall and the addition of a swimming/therapy pool.

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
Gymnasium (1 courts)	28' overhead clearance	13,150	sq ft	$110.00	$1,446,500.00
Weight room/fitness room	Rolled rubber floor finish or other sheet goods product designed for weight/fitness area	1,000	sq ft	110.00	110,000.00
Dance/aerobics		900	sq ft	100.00	90,000.00
Boxing	Rolled rubber floor finish or other sheet goods product designed for weight/fitness areas.	900	sq ft	110.00	99,000.00
Games Room		500	sq ft	100.00	50,000.00
Arts and Crafts Room		1,000	sq ft	100.00	100,000.00
Indoor Swimming Pool	Olympic Size Swimming Pool, Diving Area and Children's Pool	20,608	sq ft	175.00	3,606,400.00
Classrooms	2 classrooms, each 400 square feet.	800	sq ft	100.00	80,000.00
Vending Area		200	sq ft	100.00	20,000.00
Common Area / Reception Desk/ Lobby / Signage		500	sq ft	100.00	50,000.00
Public Restrooms		1,200	sq ft	175.00	210,000.00
Locker Rooms / Rest Rooms		2,000	sq ft	175.00	350,000.00
Staff Locker Rooms / Restrooms		1,000	sq ft	175.00	175,000.00
Drinking Fountains		3	ct	1,500.00	4,500.00
Security Cameras and Alarm System		1	ls	75,000.00	75,000.00
Fire Suppression System		1	ls	450,000.00	450,000.00
Janitorial and Storage Facilities		1,000	sq ft	100.00	100,000.00
External Lighting		20	ea	500.00	10,000.00
First Aid Stations		2	ea	1,500.00	3,000.00

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
SUB-TOTAL FOR SPACES					**$7,029,400.00**
Circulation		23,393	sq ft	110.00	2,573,230.00
Mechanical / Electrical Rooms		12,000	sq ft	110.00	1,320,000.00
Seating		500	ea	55.00	27,500.00
Lockers	Metal lockers each 1'x1'x3' high. 60% for men and 40% for women	200	ea	110.00	22,000.00
Bleachers	Each bleacher unit will sit 50 people	15	ea	2,500.00	37,500.00
Trash Receptacles		10	ea	750.00	7,500.00
SUB-TOTAL FOR SUPPORT					**$3,987,730.00**
Parking and Landscaping	Asphalt on compressed sub-base and gravel base. Provision for parking 500 - 600 cars. Shrubs, Trees, Planters, Turf	150,000	sq ft	25.00	3,750,000.00
TOTAL					**$14,767,130.00**

TIMBEEREPLACE - PRELIMINARY COST ESTIMATE

Includes the replacement of only what is currently in Timbee

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
Gymnasium (1 courts)	28' overhead clearance	13,150	sq ft	110.00	1,446,500.00
Weight room/fitness room	Rolled rubber floor finish or other sheet goods product designed for weight/fitness area	1,000	sq ft	110.00	110,000.00
Dance/aerobics		900	sq ft	100.00	90,000.00
Boxing	Rolled rubber floor finish or other sheet goods product designed for weight/fitness areas.	900	sq ft	110.00	99,000.00
Games Room		500	sq ft	100.00	50,000.00
Arts and Crafts Room		1,000	sq ft	100.00	100,000.00
Classrooms	2 classrooms, each 400 square feet.	800	sq ft	100.00	80,000.00
Vending Area		200	sq ft	100.00	20,000.00
Common Area / Reception Desk/ Lobby / Signage		500	sq ft	100.00	50,000.00
Public Restrooms		1,200	sq ft	175.00	210,000.00
Locker Rooms / Rest Rooms		2,000	sq ft	175.00	350,000.00
Staff Locker Rooms / Restrooms		1,000	sq ft	175.00	175,000.00
Drinking Fountains		3	ct	1,500.00	4,500.00
Security Cameras and Alarm System		1	ls	75,000.00	75,000.00
Fire Suppression System		1	ls	450,000.00	450,000.00
Janitorial and Storage Facilities		1,000	sq ft	100.00	100,000.00
External Lighting		20	ea	500.00	10,000.00
First Aid Stations		2	ea	1,500.00	3,000.00
SUB-TOTAL FOR SPACES					**$3,423,000.00**
Circulation		11,697	sq ft	110.00	1,286,670.00

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
Mechanical / Electrical Rooms		12,000	sq ft	110.00	1,320,000.00
Seating		500	ea	55.00	27,500.00
Lockers	Metal lockers each 1'x1'x3' high. 60% for men and 40% for women	200	ea	110.00	22,000.00
Bleachers	Each bleacher unit will sit 50 people	8	ea	2,500.00	20,000.00
Trash Receptacles		10	ea	750.00	7,500.00
SUB-TOTAL FOR SUPPORT					**$2,683,670.00**
Parking and Landscaping	Asphalt on compressed sub-base and gravel base. Provision for parking 500 - 600 cars. Shrubs, Trees, Planters, Turf	150,000	sq ft	25.00	3,750,000.00
TOTAL					**$9,856,670.00**

FULLCENTER - PRELIMINARY COST ESTIMATE

Includes the full list version - Timbee Replacement, additional basketball court, 6 classrooms, Multipurpose Room, Kitchen, Daycare, Indoor Walking Track, Sauna/steam room, Kitchen, etc. Additionally - there are separate line items, included in the total for a Greenbelt and Outdoor Recreation Facilities (playground equipment, softball/baseball fields, picnic facilities, restrooms).

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
Gymnasium (2 courts)	28' overhead clearance	26,300	sq ft	$110.00	$2,893,000.00
Indoor running/walking track	one-tenth mile circumference with weight/rest stations at each end	12,802	sq ft	110.00	1,408,220.00
Weight room/fitness room	Rolled rubber floor finish or other sheet goods product designed for weight/fitness area	1,000	sq ft	110.00	110,000.00
Dance/aerobics		900	sq ft	100.00	90,000.00
Hot tub/sauna		250	sq ft	175.00	43,750.00
Boxing	Rolled rubber floor finish or other sheet goods product designed for weight/fitness areas.	900	sq ft	110.00	99,000.00
Games Room		500	sq ft	100.00	50,000.00
Multipurpose Room	Room designed to be flexible - large to hold up to 500 people and flexible with moveable walls to be broken down into smaller meeting/classroom areas to hold up to 50 people	3,000	sq ft	110.00	330,000.00
Arts and Crafts Room		1,000	sq ft	100.00	100,000.00
Indoor Swimming Pool	Olympic Size Swimming Pool, Diving Area and Children's Pool	20,608	sq ft	175.00	3,606,400.00
Classrooms	6 classrooms, each 400 square feet.	3,500	sq ft	100.00	350,000.00

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
Dining / Eating Area Concessions		1,000	sq ft	100.00	100,000.00
Kitchen	Kitchen finished with vinyl composite tiles and equipped with standard industrial steel kitchen equipment.	900	sq ft	$155.00	$139,500.00
Vending Area		200	sq ft	100.00	20,000.00
Daycare Center		2,000	sq ft	100.00	200,000.00
Common Area / Reception Desk/ Lobby / Signage		500	sq ft	100.00	50,000.00
Public Restrooms		1,200	sq ft	175.00	210,000.00
Locker Rooms / Rest Rooms		2,000	sq ft	175.00	350,000.00
Staff Locker Rooms / Restrooms		1,000	sq ft	175.00	175,000.00
Drinking Fountains		3	ct	1,500.00	4,500.00
Security Cameras and Alarm System		1	ls	75,000.00	75,000.00
Fire Suppression System		1	ls	450,000.00	450,000.00
Janitorial and Storage Facilities		1,000	sq ft	100.00	100,000.00
External Lighting		20	ea	500.00	10,000.00
First Aid Stations		2	ea	1,500.00	3,000.00
SUB-TOTAL FOR SPACES		**80,560**	**sq ft**		**$10,967,370.00**
Circulation		23,393	sq ft	110.00	2,573,230.00
Mechanical / Electrical Rooms		12,000	sq ft	110.00	1,320,000.00
Seating		500	ea	55.00	27,500.00
Lockers	Metal lockers each 1'x1'x3' high. 60% for men and 40% for women	200	ea	110.00	22,000.00

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
Bleachers	Each bleacher unit will sit 50 people	15	ea	2,500.00	37,500.00
Trash Receptacles		10	ea	750.00	7,500.00
SUB-TOTAL FOR SUPPORT					**$3,987,730.00**
Parking and Landscaping	Asphalt on compressed sub-base and gravel base. Provision for parking 500 - 600 cars. Shrubs, Trees, Planters, Turf	150,000	sq ft	25.00	3,750,000.00
SUB-TOTAL FOR PROJECT					**$18,705,100.00**
Sub-Total for Com Rec					**$1,673,100.00**
Sub-Total for Walk Trail					**$238,000.00**
Total-Wellness Center Project					**$20,616,200.00**

COMMREC – PRELIMINARY COST ESTIMATE

Includes only the Outdoor Community Recreation Facilities

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
Playscape		1	ea	$150,000.00	$150,000.00
Two bay swing		1	ea	2,000.00	2,000.00
Slide		1	ea	2,000.00	2,000.00
Bike/Skate Park		2,000	sq ft	100.00	200,000.00
Bike Racks	4'x8'	1	ea	1,000.00	1,000.00
Softball Fields	275'x275'	2	ea	161,000.00	322,000.00
Baseball Fields	350'x350'	2	ea	198,000.00	396,000.00
Basketball Courts	90'x60'	2	ea	28,000.00	56,000.00
Picnic Shelter	20'x20'	1	ea	50,000.00	50,000.00
Outdoor Gathering Area	30'x30'	1	ea	15,000.00	15,000.00
BBQ		2	ea	800.00	1,600.00
Security Lighting		10	ea	4,500.00	45,000.00
Activity Lighting		6	ea	9,900.00	59,400.00
Unisex Restroom	20'x30'	1	ea	188,000.00	188,000.00
Drinking Fountains		2	ea	3,500.00	7,000.00
Benches	240 sq ft	20	ea	1,300.00	26,000.00

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
Picnic Tables	6'x8'	5	ea	1,020.00	5,100.00
Trash Receptacles		10	ea	500.00	5,000.00
Maintenance/Program Storage Structure	1200 sq ft	1	ea	$100.00	$120,000.00
Water and power		1	ls		
SUMMARY - TOTAL COST					**$1,673,100.00**

WALKTRAIL – PRELIMINARY COST ESTIMATES

Includes only the outdoor walking trail (e.g., greenbelt)

Item	Specifications	Quantity	Unit	Unit Cost	Subtotal
Walking Trail / Greenbelt	1.0 Miles	1	ea	$160,000	$160,000
Land/Engineering	Donated				
Sprinkler System		1		26,000	26,000
Landscape/Trees/Shrubs					52,000
Estimated Total					**$238,000**

As noted above, the Wellness Center has been a central component of the Tribal Health and human Services Department Strategic Plan and Tribal Planning Department's Capital Facilities Development Plan for nearly 15 years. During that period the chronic disease toll taken on the health of the community has mounted rapidly. In the face of rapidly escalating health care costs and utilization the only real viable option is prevention of chronic illness through health promotion.

VIII. ASSESSMENT OF FEASIBILITY

This project is unusual in that it does not fit the model normally presented by the architect and building contractor sectors. In this case the Shoshone-Bannock Tribes need to look at the project as an investment in the human capital of the Ft. Hall Community and the Tribal members. Since the scope and scale of the project can be incrementally attained while health and social benefits are being generated, a complete assessment of costs and benefits is difficult to estimate. A determination of Return on Investment (ROI) is important but problematic because of the degree of uncertainty that accompanies the project. As the above analysis of community health status and changes in health status over time indicates, there are large and reoccurring long term costs that are absolutely certain to occur if steps are not taken to curtail the current deterioration of the health of the Ft. Hall population. Such an assessment entails the study and calculation of "Cost per Quality Adjusted Life Year (QALY) gained" that can be attributed to the Health Promotion Program and Wellness Center activities. The costs involved in these calculations are not only construction, operations, and program costs but also the costs that will accrue to the community if nothing additional is done. These are direct medical costs from increased use of medical care and hospital services and the loss of income and productivity from early death and disability (indirect costs). These costs have the ability to cripple a community and greatly reduce its ability to grow, develop, and improve quality of life for its residents.

Therefore, while the initial costs of the Wellness Center and its programs are substantial, the return on this investment will also be substantial and will generate substantial benefit for the Ft. Hall community over a very long time horizon. The total impact will depend on the success of the community in involving people in promotion of their own health and health of their families. It will also depend on the success of the Wellness Center in generating real and durable life-style changes that modify the course of disease processes. That statement clearly summarizes the findings of more than 25 years of research, demonstration and evaluation of the role of Therapeutic Lifestyle Changes (TLC) in health promotion, disease prevention, and clinical management of health care. As noted in the above discussion, it is highly unlikely that the health status of the community can be substantially elevated without preventive interventions. However, the promise of health promotion in elevating community health is very substantial. Adoption and fostering of health promotion and prevention as fundamental policies for the Ft. Hall community is an important step for the long-term improvement of the health and productivity of the community.

IX. POTENTIAL SOURCES OF PROJECT FUNDING

Under any of these scenarios this will be a substantial investment for the Tribes. However, it should be clearly understood that doing nothing at this point has severe implications for community health. The cost of inaction is extremely high and must be weighed against any and all alternative uses of Tribal resources. A specific comprehensive plan for development of financing strategies and accessing capital will need be constructed and applied. As noted above, The Departments of Planning and Economic Development have been involved in this process for quite a while. During the course of the study the ISU team identified several potential sources of partial project funding. It is very likely that several sources of partial funding will be necessary for completion of the project. The current financial climate and status of the national economy has made it more difficult to acquire large amounts of capital through the grant mechanism because of the rapid deterioration in the endowment funds for most private foundations. However, that situation is improving and is still a high priority for funding portions of this project. The National Rural Health Association has helped identify, through their rural health facilities Critical Access Replacement Studies, private capital development firms that specialize in community health facilities funding. The Shoshone-Bannock Tribes Health Promotion and Wellness Center project more than meets their major criteria for successful completion: "encourage leaders to develop plans that rely on strong data, reflect their communities' potential growth and make the largest possible contribution to community development and better public health".[*] This process has been well underway at Ft. Hall for a long period of time and most of the steps necessary for success have been completed. The Tribes are obviously very familiar with funding sources from the Federal Government through the Bureau of Indian Affairs, the Indian Health Service, the FDA, and HUD. Private foundation funding through the challenge grant mechanism is a good potential source and access to capital through traditional private capital markets is also warranted. Consideration of investment of Tribal funds, such as those from the Tribal gaming enterprises, is also warranted. This investment in the community's human capital can be compared with the return on investment from alternative investments and uses.

1. **Kresge Foundation:** www.kresge.org
   - The Kresge Foundation provides a one-time only, competitive grant for developing a sustainable "green" building. This type of structure has a minimal draw on non-renewable resources and gives high priority to respecting the physical and natural environment. This private foundation was founded in 1924 and is primarily known for its challenge grants for capital projects.
   - Challenge Grants – The Kresge Foundation awards facilities capital as a challenge grant to help nonprofit organizations build their base of private financial support as they conduct capital campaigns to build or renovate their facilities. Facilities capital challenge grants are awarded to organizations that cater specifically to the needs of poor, disadvantaged and disenfranchised in six fields of interest: health, the environment, arts and culture, education, human services, and community development.

[*] National Rural Health Association, *3rd Annual Rural Hospital Replacement Facility Study, 2007.* Stroudwater Associates, Red Capital Group and The National Rural Health Association, Portland, ME, 2007

2. **Economic Development Administration (EDA)**, Department of Commerce
   Funding Opportunity Title: Economic Development Assistance Programs – Availability of Funds under the Public Works and Economic Development Act of 1965 as amended and the Trade Act of 1974 as amended.

   Idaho Contact: Rick Tremblay – 334-1521
   304 N. 8th Street, Room 146
   Boise, Idaho 83702
   rtremblay@eda.doc.gov

   - Funds available for a wellness center – to provide new jobs and staffing. To include the development of job skills such as: computer/lab skills; crafts rooms; classrooms for professional development;
   - Funds approved and available through this program for a "Workforce Training Center" – with mixed usage (e.g., wellness, social programs). Mr. Tremblay has had previous conversations with Darryl Shea and Jon Norstog discussing a "master plan for the I-15 Exit 80" area. Work has been approved for funding several years ago – but a plan has to be presented which incorporates this into the master plan for that specific development area. The plan which could include a Wellness Center/Workforce Training Center has to have tribal support and buyoff – which means support and buy off from the tribe, council and elders. Currently there is very good political (federal, state, local) support (e.g., job growth and economic development). There is also precedent for this type of development. The Economic Development Administration (EDA) has worked with the Nez Perce Tribe in Idaho on a facility where 75% of the facility was to be used for workforce training and the other 25% of the facility for social/wellness programs (e.g., Headstart, etc.). In addition to providing the funding sources – Rick Tramblay will provide assistance on the proposal, as well as "pitching it" to Washington (national) and Seattle (regional) for approval.

3. **W.K. Kellogg Foundation:** www.wkkf.org
   One Michigan Avenue East
   Battle Creek, Michigan 49017-4012
   Telephone: 269-968-1611

   - The W.K. Kellogg Foundation has recently reorganized their strategic initiatives. They provide funding opportunities to build healthy communities through initiatives, projects, and policies.
   - The W.K. Kellogg Foundation has earmarked $100 million of its endowment assets for a pilot program in mission-driven investing. Mission-driven investing (MDI) is a process whereby the Foundation invests its assets in a way that realizes both financial and social returns, also known as "double bottom line" investing. Of the $100 million, $25 million has been designated to mission-driven investments in southern Africa, while the balance – $75 million – will be used for investments in the United States.
   - The goal of the Kellogg Foundation's mission-driven investment program is to understand how to better leverage the Foundation's assets for mission purposes. It hopes to recycle capital and preserve its endowment while driving mission impact and potentially extend upon this initial effort. "Ultimately, we want to make a positive difference by improving opportunities for individuals, families and communities, and still meet our financial investment goals," says Sterling Speirn, president and CEO. "Mission-driven investing is another tool that we can use to leverage our resources. Among other things, it allows us to preserve and grow our financial resources, while realizing greater social change by being able leverage our endowment to serve the public good."

4. **The U.S. Department of Health & Human Services'** Substance Abuse & Mental Health Services Administration (SAMHSA):
   - Project LAUNCH (Linking Actions for Unmet Needs in Children's Health. A new grant program designed to promote the physical, emotional, social, and behavioral health of young children, birth to 8 years of age. A wide range of early childhood service programs can be provided through Project LAUNCH grants including mental health consultations to promote more effective child care and early education programs, parenting skills training and other child-related programs.
5. **Indian Economic Development:** Bureau of Indian Affairs, Department of the Interior

   - AUTHORIZATION**:** Snyder Act of 1921, Public Law 67-85, 42 Stat. 208, 25 U.S.C. 13; Indian Reorganization Act of 1934, Section 10, Public Law 73-383, 48 Stat. 986, 25 U.S.C. 470; Public Law 93-262, 88 Stat. 77 through 83, 25 U.S.C. 1451; Indian Self-Determination and Education Assistance Act, Public Law 93-638, as amended, 25 U.S.C. 450.
   - OBJECTIVES: To assist federally recognized Indian Tribal Governments to develop resources to improve their economies through administration of credit programs and other economic development assistance activities.
   - TYPES OF ASSISTANCE: Direct Payments for Specified Use.
   - USES AND USE RESTRICTIONS: Funds are used to administer tribal revolving loan programs and guaranty loan programs in order to develop resources to improve access to capital in tribal economies. Final approval of loan guarantees is restricted to the Bureau of Indian Affairs.
   - ELIGIBILITY REQUIREMENTS:
     - *Applicant Eligibility:* Federally Recognized Indian Tribal Governments.
     - *Beneficiary Eligibility:* Federally Recognized Indian Tribal Governments and their members. Complete information on beneficiary eligibility is found in 25 CFR, Parts 26 and 27.
     - *Credentials/Documentation:* Initial application for financial assistance must be accompanied by a resolution of the governing body of the Indian tribe.
   - APPLICATION AND AWARD PROCESS:
     - *Pre-application Coordination:* Not applicable. This program is excluded from coverage under E.O. 12372.
     - *Application Procedure:* Initial applications to administer the program must contain the information specified in 25 CFR, Part 900, Subpart C, "Contract Proposal Contents." Completed applications should be submitted to the local Bureau of Indian Affairs agency office listed in Appendix IV of the Catalog. In some instances, the application will be forwarded to the Regional Director for approval.
     - *Award Procedure:* In most cases, the application to administer the program can be approved at the agency level. In some instances, the application will be forwarded to the Regional Director for approval.
     - *Deadlines:* None.
     - *Range of Approval/Disapproval Time:* Applications will be processed within 90 days.
     - *Appeals:* A Federally Recognized Tribal Government or Native American Organization whose request to administer the program is denied may request an informal conference with the deciding official, or may appeal the denial of the

application to the Interior Board of Indian Appeals, or may bring suit in U.S. District Court. Full appeal procedures are found in 25 CFR, Part 900.

- *Renewals:* Renewals may be granted indefinitely upon satisfactory performance by the contractor/grantee. A notice of intent to renew should be submitted at least 90 days prior to the expiration of the current award.

- ASSISTANCE CONSIDERATIONS:
  - Formula and Matching Requirements: None.
  - Length and Time Phasing of Assistance: Awards are made on an annual basis and the funds remain available until expended by the contractor/grantee. Payments may be made in advance or by way of reimbursement. The timing of payments will be negotiated with the contractor/grantee.
- POST ASSISTANCE REQUIREMENTS:
  - *Reports:* Federally Recognized Indian Tribal Governments and Native American Organizations administering the program must submit financial status reports, SF 269A. The timing and nature of program accomplishment data will be negotiated with the contractor/grantee.
  - *Audits:* Grantees and subgrantees are responsible for obtaining audits in accordance with the Single Audit Act Amendments of 1996 (31 U.S.C. 7501 et. seq.).
  - *Records:* Financial records must be retained for 3 years from the date of submission of the single audit report. Procurement records must be retained for 3 years from the date of final payment. Property records must be retained for 3 years from the date of disposition, replacement, or transfer. Records pertaining to any litigation, audit exceptions or claims must be retained until the dispute has been resolved.
- FINANCIAL INFORMATION:
  - Account Identification: 14-2100-0-1-452.
  - Obligations: (Total Amount of Awards) FY 01 $1,320,000; FY 02 estimated $1,400,150; and FY 03 estimated $1,639,590.
  - Range and Average of Financial Assistance:
    $5,000 to $300,000; Average: $215,000.
  - INFORMATION CONTACTS:
  - Regional or Local Office: Applications may be filed with the local Bureau of Indian Affairs agency office as listed in Appendix IV of the Catalog.
  - Headquarters Office: Office of Economic Development, Bureau of Indian Affairs, 1849 C Street, NW, MS-4640, Washington, DC 20240. Contact: Woodrow Sneed. Telephone: (202) 208-4796.

As the project progresses it is very likely that additional opportunities for funding the acquisition of equipment and services for specific programs (such as disease specific programs) will become available through the research and demonstration grants mechanism. Tribal Health and Human Services has been very successful in accessing and acquiring funding from many of these sources. ARRA (American Recovery and Reinvestment Act of 2009) funds for Wellness activities may also be available for some projects and activities, especially in the areas of communications and health information technology both in and outside of clinical delivery sites.

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