Fall 11-5-2015

Physical Activity Levels and Health of Passamaquoddy Tribe at Indian Township

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PHYSICAL ACTIVITY LEVELS AND HEALTH OF THE PASSAMAQUODDY TRIBE AT INDIAN TOWNSHIP

By

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B.S. University of Maine at Presque Isle, 2010

A THESIS

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Science

(in Kinesiology and Physical Education)

The Graduate School

The University of Maine

August 2015

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THESIS ACCEPTANCE STATEMENT

On behalf of the Graduate Committee for Michael Best I affirm that this manuscript is the final and accepted thesis. Signatures of all committee members are on file with the Graduate School at the University of Maine, 42 Stodder Hall, Orono, Maine.

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ACKNOWLEDGEMENTS

I would like to acknowledge the help of the Passamaquoddy Health Center and Passamaquoddy Tribal Government for their help and support throughout this project. I would also thank my thesis committee for their guidance and patience throughout the past couple years. Lastly, I would like to thank my friends and family for their patience and unwavering support of my Master's Project. In particular I would like to thank my wife. Without you none of this would be possible.

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LIST OF ABBREVIATIONS

American Indians (AI)

Physical Activity (PA)

American College of Sports Medicine (ACSM)

Metabolic Equivalent (MET)

Intertribal Heart Project (ITHP)

Leisure Time Physical Activity (LTPA)

Cardiovascular Disease (CVD)

Alaskan Natives (AN)

ITHP-Questionnaire (ITHP-Q)

World Health Organization (WHO)

WHO - Monitoring of Trends and Determinants in Cardiovascular Disease (MONICA)

WHO - MONICA Optional Study of Physical Activity (MOSPA)

Statistical Package for the Social Sciences (SPSS)

CHAPTER 1

INTRODUCTION

Current studies indicate American Indians (AI) have the highest age-adjusted prevalence of diabetes among all U.S. racial and ethnic groups (American Diabetes Association, 2015), low but increasing levels of heart disease (Welty & Coulehan, 1993; Yurgalevitch, 1998), and high levels of obesity (Broussard et al., 1991). However, these diseases and associated risk factors may be mitigated, at least partially, through physical activity (PA). Habitual PA has been demonstrated to reduce the morbidity and mortality associated with these diseases (Storti et al., 2009**)**. For example, resistance training can be an effective way to increase insulin sensitivity and help maintain healthy glucose levels in type 2 diabetics (Kaminsky, 2006).

Despite knowledge that inactivity (sedentary behavior) is a modifiable risk factor, AI have relatively low levels of PA (Casper, 1996; Dzuira, 2010; Slattery, 2010; N.I. Teufel-Shone, 2009), even lower than other minority groups, such as Blacks and Hispanics (Slattery et al., 2010). However, physical activity is not a problem limited to AI. Pratt, Macera, and Blanton (1999) found among all adults, only 27.7% meet recommendations for moderate or vigorous activity on a weekly basis, and 29.9% report no PA outside of work. But regardless of the average American having levels of PA lower than recommended by the American College of Sports Medicine (ACSM), AI have even lower levels. For instance, AI have lower PA levels than non-Hispanic whites and other minority groups. Moreover, PA levels of AI have decreased over recent decades (Roeykens, 1998; Storti, 2009) and still remain lower than the U.S. population as a whole

(Department of Health and Human Services [DHHS] and Center for Disease Control and Prevention [CDC], 2005). Among all forms of activity, vigorous intensity activity is associated with the most health benefit, such as improved aerobic fitness and cardio-protective benefits (Swain and Franklin, 2006). Vigorous intensity means exercising at greater than 6 METs. As youth, participation in vigorous intensity activity is more pronounced; 63.8% of high school students in the United States report participating in at least 20 minutes on 3 or more days per week. (Pratt, Macera, and Blanton, 1999). However, adult participation in recommended levels of moderate and vigorous intensity activity drops to 27.7%.

A CDC study in collaboration with the Chippewa and Menominee tribes known as the Intertribal Heart Project (ITHP) (Fischer et al., 1999) and a study related to PA of AI groups in the Dakotas, southeastern Oklahoma, and Arizona, found relatively low levels of physical activity (Yurgalevitch et al., 1998). The ITHP study also made distinctions between the number of months tribal members were active. Only 12% of women and 17% of men were active 7-12 months in past year, and 33% of women and 21% of men reported no leisure time physical activity (LTPA). The good news was the ITHP reported high levels of occupational and household activity but also reported that further study is needed to identify the specific outcomes associated with these types of PA (Fischer et al., 1999). Other studies such as the CDC's Trends in Leisure-Time Physical Inactivity by Age, Sex, and Race/Ethnicity monitoring trends from 1994 to 2004 (2005) found insufficient sample sizes to assess national trends in American Indian and Alaskan Natives specifically. Still, other investigators have found off reserve First Nations people in Canada were significantly more likely than non-Aboriginal Canadians

to have an active lifestyle. The investigator also found that First Nations people living off reserve were more educated, made more money, and experienced fewer barriers to exercise as opposed to their on reserve counterparts (Statistics Canada, 2011). Evidentially, this issue is complicated and in need of further study, especially in the Northeastern United States.

The majority of PA studies have focused on American Indians from the Southwest, Oklahoma, the Dakotas, and Alaska (Redwood, 2009; Slattery, 2010; Storti, 2009; Teufel-Shone, 2009; Yugalevitch, 1998). Investigations in other regions of the country are severely lacking. For example, there are no investigations on PA levels of AI of the Northeast. The closest evidence would be PA interventions administered to tribes of the Northeast. Interventions such as the Penobscot Exercise Program involved mostly children and were part of a systematic review. But research on PA habits of on-reservation AI adults in the Northeast is non-existent. N.I. Teufel-Shone et al. (2009) found most PA interventions for AI have been implemented in the Southwest at 35.4%. In addition, almost half, or 45%, of the reviews describing interventions of AI are focused on Arizona and New Mexico. So whether it is more formal research or a systematic review, the Northeast is in need of PA investigation.

Lastly, AI have high levels of diabetes that could lead to increased cardiovascular disease (CVD). Surprisingly, AI and Alaskan Natives (AN) have lower levels of Ischemic heart disease and atherosclerosis compared to the U.S. population (Welty & Coulehan, 1993). Surprisingly because diabetes and obesity are risk factors for CVD, one would expect higher levels of CVD among AI. However, since current studies indicate coronary heart disease is inversely related to PA (Powell, 1987; Yurgalevitch,

1998), increased CVD levels are inevitable, particularly given reported low levels of PA among AI in recent decades. For example, those AI in the 25-44 yr. group already have higher death rates from CVD than the U.S (Welty & Coulehan, 1993).

Presently, the level of PA in AI of the Northeast and particularly Maine is unknown. The main purpose of this study was to determine associations, if any, between PA levels and chronic disease, as well as other variables, such as cigarette smoking and nutrition. Another purpose of the study is to simply document the PA levels and health measures of AI in this region. It was hypothesized that there would exist low levels of PA of AI in this region. It was further hypothesized that the odds ratio between low levels of PA (those that do not meet recommendations) and disease associated with a sedentary lifestyle and other risk factors would be high. A high odds ratio means as levels of PA go down, the prevalence of certain diseases goes up. Also worth noting is that Maine is ranked 25th in obesity according to the United Health Foundations Health Rankings. Moreover, the CDC *State Indicator Report on Physical Activity (2010)* ranked Maine high in weighted PA and highly active individuals. So the need for work here is evident to determine if AI follow suit or are distinct in their PA habits and CVD risk factors. It was also hypothesized that the distribution of PA, such as leisure-time, occupational, household, and transportation, would be similar to other studies of AI in other regions.

CHAPTER 2

METHODS

Participants

Twenty-two men and 14 women between the ages of 25 and 44 yr. from the Passamaquoddy tribe at Indian Township participated (see Table 1). Tribal membership requires one quarter Passamaquoddy blood quantum. Tribal membership was verified at the clinic, so there was no reason to refer to the tribal census for confirmation. In addition, participants who were randomly selected from the computer database were seen at the Passamaquoddy Clinic within the past year. Because of a lack of interest and cooperation using random sampling through recruitment letters, only about half the participants were recruited this way. The remainders were volunteers, recruited through additional letters, social media, and from the various tribal departments.

Participants lived on the reservation for a mean of 27.9 years. Twenty-one participants were employed, 11 were unemployed or homemakers, 3 were college students, and 1 was disabled. Twenty five percent of participants had a high school diploma or less, and 75% had at least some technical school or college. Of the 27 participants who attended technical school or college, 52% graduated.

In terms of household income, 36% made over $30,000. Of the 36 participants, 75% perceived their health to be good, very good, or excellent. The remaining 25%, perceived their health to be fair or poor. Indicators of a traditional lifestyle were also evident; 81% of participants ate wild game either 1-6 or 6-12 months out of the past year. Also, 83% of participants had a degree of Indian blood of ½ or more. Presence of

chronic diseases included at least one of the following: heart attack or other heart trouble, stroke, kidney failure, thyroid trouble, stomach ulcer, liver disease or other liver problems, or cancer. Twelve, or 33%, of participants 25-44 yrs. had a presence of chronic disease. Lastly, 92% of participants consumed less than 5 fruits or vegetables per day.

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Table 1

Socio-demographic Characteristics of the Passamaquoddy Tribe at Indian Township, Ages 25-44

Characteristic	Total	Percentage
Gender		
Male	22	61.1
Female	14	38.9
Degree of Indian blood		
¼	6	5.6
½	12	44.4
¾	16	33.3
Full	2	16.7
≥ 12 years of education	27	75
Household income		
≤ 15,000	8	22.2
15,001 to 30,000	14	38.9
Over 30,000	13	36.1
Current smoker	16	44.4
Consumes ≥ 5 fruits & vegetables/day	3	8.3
Presence of chronic disease	12	33.3
Months consuming wild game		
never	7	19.4
1-6 mos.	16	44.4
6-12 mos.	13	36.1
Employment		
Employed	21	58.3
Unemployed or Homemaker	11	30.6
College student	3	8.3
Disabled	1	2.8

Apparatus

Health Status and Socio-demographics. Coordinators of the ITHP and the Chippewa and Menominee Indians using focus groups and pilot testing developed the ITHP-Questionnaire (ITHP-Q, See Appendix A). The ITHP-Q is interviewer administered. Questions in the ITHP-Q included demographic information about gender, age, and years lived on the reservation, for example. The ITHP-Q also asked about medical history, family history, access to health care, hypertension, cholesterol, diabetes, alcohol, weight, smoking, employment, income, depression, reproduction, health knowledge, angina and claudication, medication, and food habits. The questionnaire takes about 60 minutes to complete. All participants signed informed consent forms before participating in the questionnaire, informing them of the risks, rewards, and ensuring them of the confidentiality of their answers. The study was conducted under the auspices of the University of Maine Institutional Review Board (IRB).

Physical Activity (PA). PA was assessed using the World Health Organization's (WHO) Monitoring of Trends and Determinants in Cardiovascular Disease (MONICA) Optional Study of Physical Activity (MOSPA)(Jones, 1997). The Inter-tribal Heart Project used a shortened version of the MOSPA-Q due to its length and time required to administer the questionnaire (Fischer et al., 1999). The results were said to be a less than optimal measure of PA, especially for occupational and household, where some AI groups have measured high (Fischer et al., 1999). For this reason, the MOSPA-Questionnaire was used in its entirety. The MOSPA-Q was shown in a Flemish population to be a relatively valid and reliable estimate of PA (Roeykens, 1993).

Leisure-Time Physical Activity (LTPA). LTPA included four categories. Participants were categorized as being regularly active 6-12 months or 1-6 months in the past year if they reported doing vigorous or moderate intensity activity for at least 20 minutes three days per week or 30 minutes five days per week, respectively. These intensities, times, and durations are based on ACSM recommendations for physical activity, so it made sense to add in total times per week to categorize LTPA. Total time per week was recently added to the ACSM/CDC recommendations for exercise. Participants were also asked for how many months of the past year they performed a particular sport or exercise. This helped further categorize regular activity. Participants who were not categorized as regularly active were categorized as no-LTPA, if they reported playing no sport or exercise in the past twelve months, or irregularly active if they did not fit in either regularly active or no-LTPA.

To determine vigorous or moderate intensity activity, the same process applied by Fischer et al. (1999) was used. Each activity was assigned a metabolic equivalent (MET) using the compendium of physical activity (Ainsworth et al., 1993) and subsequent updates (Ainsworth et al., 2000, 2011). One MET is 3.5 milliliters of oxygen per kilogram of weight, or the amount of energy a person expends while sitting quietly at rest. When a person is physically active, they expand more energy than at rest. MET values are increased as more energy is expanded or intensity of exercise increases. One-3 MET is considered low intensity, 3-6 is considered moderate intensity, and 6 and above is considered vigorous intensity (Swain and Franklin, 2006).

Non-Leisure Time Activity. Non leisure time physical activity encompasses occupational, transportation, and household PA. Participants were asked questions about

walking and lifting at work, walking or bicycling to and from work, school, or shopping, and time spent on chores at home such as sweeping, vacuuming, and scrubbing floors, respectively. Mean values for the all participants were reported**.** In addition, a percentage for each gender's participation in occupational activity and any discrepancy, such as time lifting 5-10 kg at work, was reported. This was completed for any occupational related task.

Data Analysis

Descriptive statistics was the principal form of data analysis. Statistics were computed using IBM's predictive analytical software, statistical analysis in social sciences (SPSS). Frequency tables and histograms were generated, as well as chi-square and inter-correlations testing**.** Relationships were assessed between no-LTPA, blood pressure, and select variables.

Design and Procedure

The design was case-control, originally developed in epidemiology (2013, May 23). Retrieved from http://www.gwumc.edu/library/tutorials/studydesign101/case. With case control, two groups of participants are alike except for one factor, in this case level of PA. This helped to determine if PA was associated with a health effect. The study also used a retrospective cohort design, where a cohort of patients who have a disease or outcome of interest (cases) were compared and examined with a cohort who do not have a disease or outcome (controls). This was done to compare how PA or other risk factors for each group determines the relationship between the risk factor and the disease. Also, recording the level of PA was just as imperative as the comparison of PA and disease.

Data was collected from January 2014 to June 2014. The 25-44 yr. age range was chosen because of high death rates from cardiovascular disease compared to the U.S. population (Welty & Coulehan, 1993).

Participants were members of the Passamaquoddy Tribe who had been seen at the Passamaquoddy Health Clinic within the past year. Participants were identified using previously listed criteria, and letters were sent out explaining the purpose of the study, study design, questionnaire, and members of the research team. Those who responded to the letter and agreed to participate were contacted by the Health Director of the Passamaquoddy Clinic to make an appointment with the staff nurse for physical measurements. Therefore, only if tribal members agreed to be in the study would their identities be known to the principal investigator, ensuring their privacy. The staff nurse measured height, weight, and blood pressure. Once an appointment with the principal investigator was made, the questionnaire was administered. The interviews took place at the Passamaquoddy Health Center, the Tribal Office, and occasionally at the homes of participants. Home visits were arranged to accommodate scheduling conflicts and health issues, as well as the privacy of conducting the questionnaire in their residence. The Questionnaire addressed PA, medical history, access to health care, diabetes, hypertension, cholesterol, dietary habits, and alcohol use.

CHAPTER 3

RESULTS

Descriptive Analysis of Health Perception

Diet and Exercise. Participants who used "diet and exercise" to control their weight, were 1.6 times as likely to rate their health as excellent, very good, or good, compared to participants who did "neither diet nor exercise" to control their weight. Participants who used "diet and exercise" to control their weight compared to participants who used only "diet or exercise", were also more likely to rate their health as excellent, very good, or good.

Gender. Gender did not play a role in determining whether participants rated their health as excellent, very good, or good compared to fair or poor. Seventy-five percent of men and women rated their health as excellent, very good, or good compared to fair or poor.

Correlational Analysis of High Blood Pressure

There was an anticipated relationship between high blood pressure (BP) and key variables. For example, if participants were not watching their weight, exercising, eating a low salt diet to control their BP, a relationship with high BP was expected and found. Other important relationships were also observed. Participants who smoked 100 cigarettes in their lifetime, smoke cigars now, and participants who felt "they take orders from someone who does not know as much as they do", were all shown to have a positive correlational relationship with high BP (See Appendix D). A relationship that was not

expected was the negative correlational relationship between current smokers and high blood pressure.

Prevalence of Leisure Time Physical Activity

After assigning participant LTPA levels into regularly active 6-12 months, regularly active 1-6 months, irregularly active, and no LTPA, percentages for each category were calculated. Again, these categories represent PA over the past year. For the regularly active 6-12 month group, 13 participants met the requirements (see *LTPA* in METHODS) , followed by regularly active 1-6 months with 11 participants, no LTPA with 8 participants, and irregularly active with 4 participants (see Figure 1). However, only 8.3% of participants met ACSM recommendations 12 months of the year. See study limitations in *Discussion* about changes to these classifications.

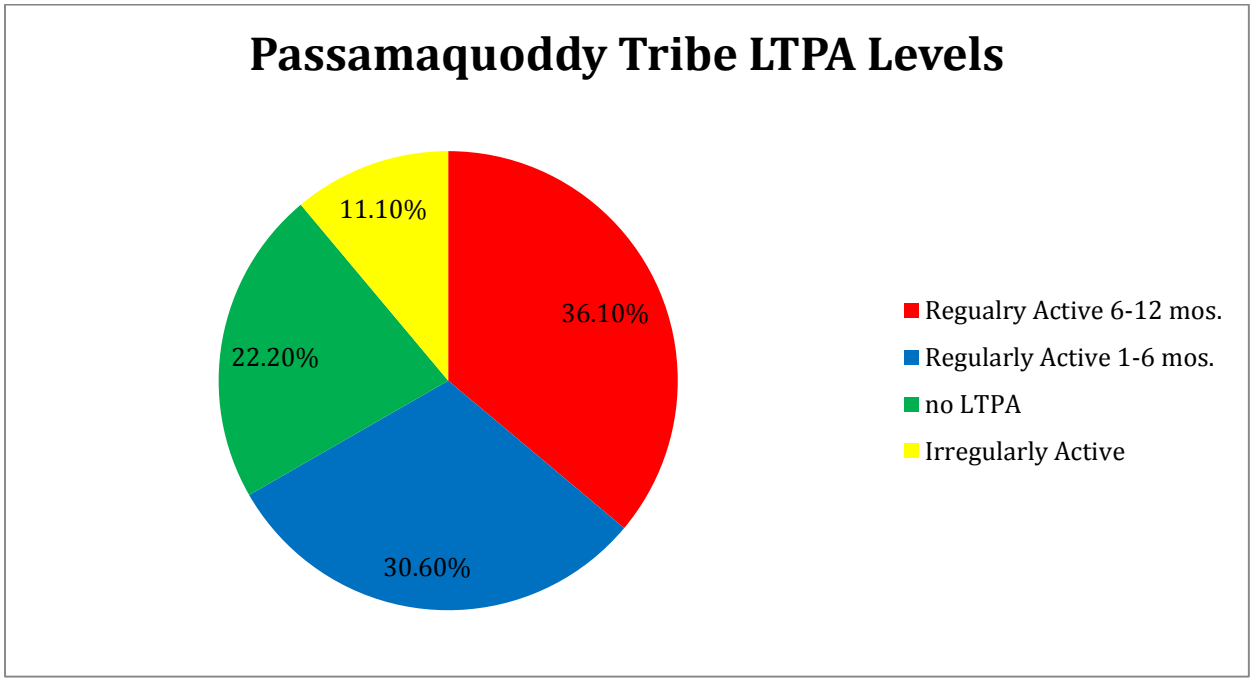

Figure 1 – Prevalence of Leisure-time Physical Activity

Non-Leisure-Time Physical Activity (Occupational, Transportation, Household)

The mean daily values for occupational activity or inactivity were as follows: The 21 employed participants were sitting or standing for 3 hrs. and 51 min., walking for 2 hrs. and 27 min., lifting or carrying moderately heavy objects for 42 min., and lifting or carrying very heavy object for a mean of 37 min. Occupational, transportation, and household inactivity was compared between men and women (see Table 2). For employed women, 12.5% walked 0 hrs./day and 87.5% lifted or carried (both moderately and very heavy objects) 0 hrs./day. For employed men, 15.4% walked 0 hrs./day, while only 30.8% lifted or carried 0 hrs./day.

Table 2 - Prevalence of Occupational, Transportation, and Household Physical Inactivity for Women and Men

Type of Physical Activity	Women %	Men %
Occupational		
Walking 0 hrs./day	12.5	15.4
Lifting 0 hrs./day	87.5	30.8
Transportation 0 hrs./day	21.4	40.9
Household 0 hrs./week	14.3	13.6

*Transportation included walking or biking, not at work, home, or shopping.

Other means were calculated for transportation and household activity. Participants walking for transportation, including going to and from work, school, or shopping, had a mean time of 32 min./day. Twelve participants did not walk at all for transportation, while 10 participants walked for transportation 60 or more min./day. One

participant bicycled for transportation for a total of 30 min./day. Finally, participants performed moderately vigorous or very vigorous chores at home for a mean time of 49 min./daily Only five participants had no household activity, and of the remaining participants, only one did less than 30 min. of daily chores, meaning 83.3% of participants did at least 30 min. of moderately or very vigorous chores per day.

Correlational and Descriptive Analysis of Leisure-Time Physical Activity (LTPA)

A positive correlational relationship was found between gender and participating in LTPA ($r = .329$, $p = .05$). Comparing men and women, 42.9% of women reported no LTPA and only 16.7% were regularly active 6-12 months out of the past year. Conversely, 13.5% of men reported no LTPA and 54.5% were regularly active 6-12 months out of the past year. Of participants who were regularly active every month in the past year, all three were men.

Most Frequently Reported Leisure-Time Physical Activity

Of the 36 participants, 30 spend at least one hour per week walking in their leisure time. However, when asked if they played a sport or did an exercise at least 12 times in the past year and what that sport or exercise was, the most frequently reported on activity was weight lifting, with 11 participants took part in the past 12 months (see Figure 2). The second most frequent sport or exercise participated in the past 12 months was baseball/softball, with 10 participants having played at least 12 times.

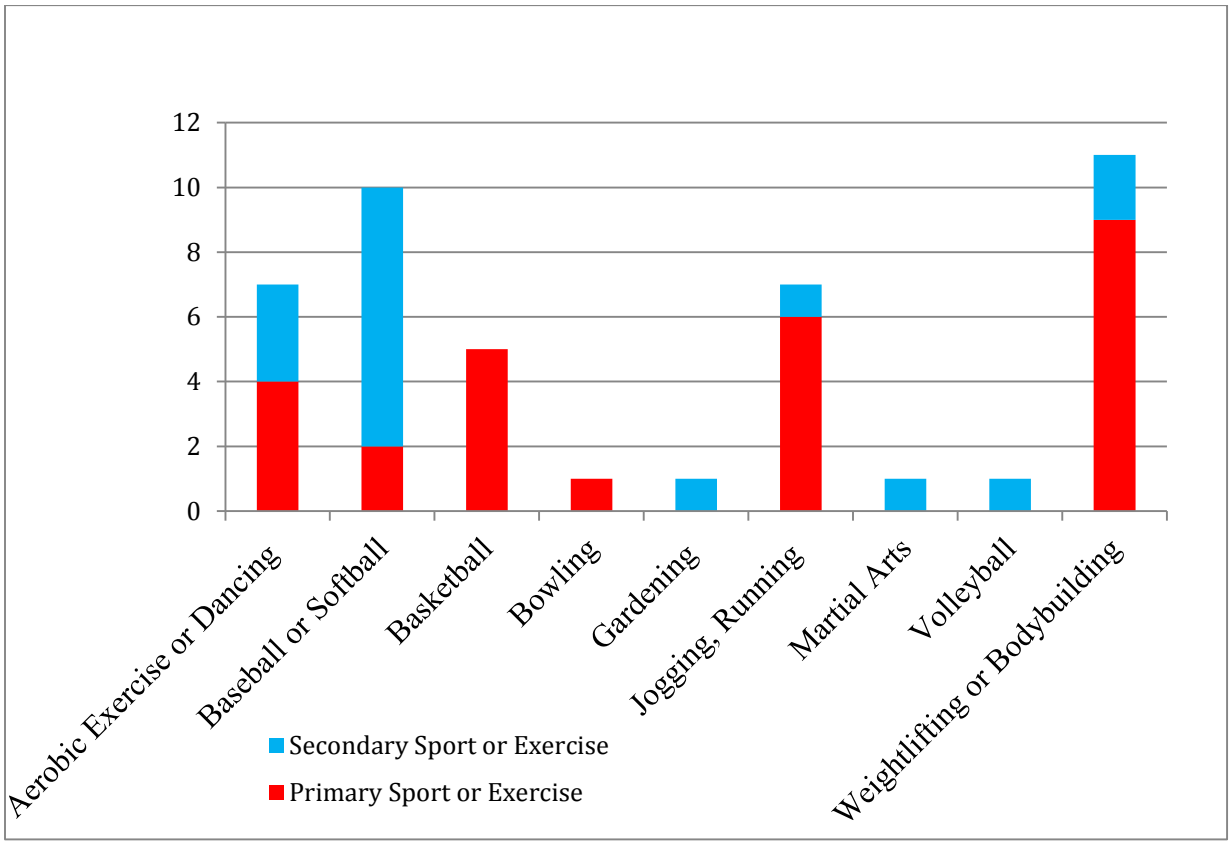

Figure 2 – Most Frequently Reported Leisure-Time Physical Activity

CHAPTER 4

DISCUSSION

Compared to only 8.3% of the Tribe meeting recommendations for LTPA, 27.7% of adults in the United States met recommendations of moderate or vigorous activity on a weekly basis**.** For PA outside of work, 36.1% of participants reported no PA or only light PA outside of work, while in the general population, 29.9% report no PA outside of work (Pratt, Macera, and Blanton, 1999). Results indicated a positive relationship between LTPA and gender. Fischer et al. (1999) reported 33% of women and 21% of men having no-LTPA. Conversely, 42.9% of women and 13.5% of men reported no-LTPA. The gender role in LTPA and no-LTPA participation is established in literature for AI, and it was anticipated in the present study.

As far as LTPA, Fischer et al. (1999) reported 12% of women and 17% of men were regularly active 7-12 months in the past year. Contrariwise, 36.1% of current participants were regularly active 7-12 months. There could be multiple reasons for this discrepancy: First, we adjusted the criteria for "regularly active" to reflect the change in ACSM recommendations for PA. Presently, ACSM recommendations for PA include weekly totals for PA. For example, 150 minutes / week of moderate intensity PA, for at least 10 minutes per session is a new recommendation since the ITHP study. Another reason for the discrepancy might be the bias associated with volunteering for a study.

Occupational and household activity was comparable to the ITHP data and other studies reporting household activity in AI. However, the specific outcomes associated

with these domains activity are unclear. As is apparent, the only discrepancy is in lifting or carrying moderately or very heavy objects at work. Transportation to and from work, school, or shopping was somewhat misleading because walking was not done continuously for 10+ minutes, but rather stop and go walking; for example, walking down the driveway, to the car, or in grocery store.

Small sample sizes have been reported in other studies as well. The 2005 CDC's Trends in Leisure-Time Physical Inactivity by Age, Sex, and Race/Ethnicity monitoring trends from 1994 to 2004 found "insufficient sample sizes to assess national trends in AI and AN specifically". Larger sample sizes might result in a relationship between no-LTPA and unemployment, lower income, low perception of health, less education, and smoking. Further study is needed.

The most frequently reported leisure time activity was walking, similar to ITHP and Redwood et al. (2009) studies. However, new activities are becoming more prevalent. These include weight lifting, which was reported in 11 of 36 participants as the activity done most frequently in the past 12 months. In addition, of the 3 participants who met ACSM recommendations 12 months in the past year, all 3 were weightlifters.

The negative correlational relationship with blood pressure and current cigarette smokers was not anticipated. Cigarette smoking and blood pressure exhibited a moderate to large correlational strength ($r = -.657$, $p=.05$); this seems to be counterintuitive. As the number of current smokers goes up the number of participants with high blood pressure goes down. But a closer look reveals the reason; there was a confounding variable. The smokers tended to be younger in age, and since age and high blood pressure usually have

a positive relationship, this caused an artifact between high blood pressure and cigarette smoking. Another reason for these participants not reporting high blood pressure might also have been because of their age. Participants might have had high blood pressure but have not checked it in a while, a false negative. Whereas, older people have their blood pressure checked more often.

Certain key demographics were very compelling. Thirty-three percent of participants who had a presence of chronic disease matched closely with the 25% of participants who rated their health as fair or poor. The other 75% of participants who rated their health as excellent, very good, or good, matched the ITHP perception of health data exactly. Something of concern was the number of employed participants in the study. Twenty-one were employed, representing 58% of the sample, while the tribe reports having 60-70% unemployment. The most unexpected demographic was the percentage of participants who don't eat at least 5 fruits and vegetables a day, 92%. This was especially surprising because there seemed to be a bias in the data. A bias indicating a higher percentage of employed, highly educated, higher income and physically active participants then would be expected in this population.

A study limitation was the inherit bias of using volunteers for participants. Volunteers became a necessity when the random sampling produced only 18 participants. In addition, many volunteers worked for the tribal government. The lack of interest during random sampling of the Passamaquoddy Health Center patients caused us to take volunteers using social media, additional recruitment letters, and word of mouth. In addition, data was collected for height, weight, and blood pressure on only 12 participants. The result was a selection bias. According to PsychWiki.com (2012),

> "Volunteers tend to have a higher social status and intelligence, exhibits an increased need for approval, and have a tendency to be less authoritarian and conforming. Also, those who participate and find the topic particularly interesting are more likely to volunteer for that study, same to those who are expected to be evaluated on a positive level (Heiman, 2002)."

The higher income was the result of using tribal employees recruited by the Health Center as volunteers. However, the present study was consistent with other investigations. For instance, Storti et al. (2009) reported useful data in spite of a non-random sample. Worth noting is the actuality that participants still had high rates of inactivity, presence of chronic disease, and very low fruit and vegetable intake. Participants tended to mimic off reservation AI more closely (Statistics Canada, 2011).

Another study limitation was a low number of participants related to a lack of incentive. Incentive was offered, but it consisted of a single $100 gift certificate raffled off for participants. Had monetary incentive been offered, random sampling might have been possible. In retrospect, offering an incentive would have made data collection more efficient. Hypothetically, the participants could have made an appointment over a 5 day span. At this time, participants would come into the Health Center and sign the necessary forms, get physical measurements done, have the questionnaire administered, and receive their incentive. In addition, there are challenges with accessing an American Indian population. I had hoped to overcome the lack of trust because I am a member of the tribe. Ultimately, I was able to convince the Passamaquoddy Health Center quite easily to work with me and access their patients. However, getting patients to participate was

much harder, leading back to lack of incentive. Had we offered enough incentive, I believed it would have alleviated some of those concerns.

Having not been there to observe blood pressures being taken, I cannot say for sure whether nurses followed the proper procedure for taking blood pressure. In the beginning, the proper procedures were sent via email to each nurse taking physical measurements. When corresponding with the nurses, it seemed that some of them felt offended, "I've been taking BP for years, and I'm familiar with the proper procedure". Of course, this was not my intention. But in research it is extremely important to follow procedures exactly in order to make sure the data is reliable. And since I could not be sure procedures were followed exactly, this was another reason not to use the data from physical measurements.

Similar categorical problems existed with our study, as did with the ITHP study. In categorizing participants as regularly active or irregularly active, MOSPA-Q questioning did not differentiate between simultaneous or sequential PA over the past twelve months. So some participants might have done multiple sports or exercise over the past twelve months, but we could not tell if they were done at the same time or one after the other. This made determining 1-6 months or 6-12 months difficult in a few cases. Further study should focus on randomizing the sample, having larger sample sizes, and collecting more PA data. Eventually barriers and facilitators can be studied and recommendations made.

In conclusion, the most important part of this study might have been the knowledge gained from working with an understudied population; a population that has

traditionally been hard to reach, because of mistrust, or whatever it might be. Future research should be aware of these problems. The low number of participants, because of lack of incentive or possible mistrust, conducting data collection in an orderly and efficient way, being there to observe blood pressure being taken, offering enough incentive to ensure random sampling, and most importantly doing whatever it takes to gain the trust of the community, should all be addressed in future research. In 2014, Colorado State University Institutional Review Board sent out a document called "Human Research Participant Protection Native American Population". The document gives tips on working with the Native American (American Indian) population, such as find out if you need permission from within the tribe, work with collaborators to make sure material is culturally appropriate, and don't be helicopter researcher (give back to the tribe). This would be a great place to start for anyone thinking of working with this population.

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APPENDIX A: RECRUITMENT LETTER

March 12, 2014

Dear Patient,

The Health Center is partnering with one of our tribal members in an effort to help him obtain his Master's Degree in Physiology at the University of Maine. Mike Best is currently finishing his degree and would like his last project to be related to the health of the Passamaquoddy people. The study is based on physical activity habits and the effects those habits have on our health.

We are taking Tribal members ages 25-44 for this study. The study consists of an interviewer-administered questionnaire with Mike and four physical measurements that will be taken by our nursing staff.

You do not have to say yes to participation, and this will not affect your services here at the clinic. The survey will take about 45 minutes to complete. The questionnaire includes questions on physical activity, health history, disease, nutrition, and alcohol consumption. The survey will be administered in person by Mike Best and interviews will take place at the Health Center or at another designated tribal facility.

If you choose to take the questionnaire, everything you say will be kept private. The questionnaire **will not** be included in your medical record. If you don't want to answer a question, you won't have to. Your answers will be part of a larger pool of information. No information that identifies you will be included in any published report. You may choose to participate in this questionnaire or not. Again, the survey will take 45 minutes to complete, and information pertaining to your physical activity level and subsequent effect on health, like whether or not you meet recommendations, will be passed on to you once the statistical analysis has been done.

We hope you will take this chance to tell us about your physical activity habits while also helping one of our own complete his education. If you have any questions about the survey, please call Mike at ~~(207-227-0201).~~ 214-2173

Sincerely,

Nakia Dana
Health Director

401 Peter Dana Point Road, P.O. Box 97, Indian Township, ME 04668-0097
Phone 207.796.2321 Fax 207.796.2422
Medical Records Fax 207.796.2195

APPENDIX B: INFORMED CONSENT AND DISCLOSURE FORMS

UMaine Institutional Review Board
Approved for Use Through:

DEC 18 2014

INFORMED CONSENT FORM

You are invited to participate in a research project being conducted by Michael Best, a graduate student in the Department of Education and Human Development at the University of Maine. The faculty sponsor is Dr.Steve Butterfield. The purpose of the research is to find the physical activity levels of the Passamaquoddy Tribe and the effect on health. You must be between the ages of 25-44, and live on the reservation at Indian Township.

Procedure

If you decide to participate, you will be asked to complete an interviewer administered questionnaire. Questions about physical activity as it relates to your free time, job, transportation, and home activity will be asked. In addition, there will be questions about your heart health, health history, and alcohol use, among other things. There is the possibility that I will need to contact you later on for follow-up questions via phone. There will also be physical measurements taken by a nurse. These include blood pressure, height, weight, and waist circumference. The questionnaire should take 40-45 minutes to administer.

Risks

There is a risk that you may feel uncomfortable answering some of the questions. Also, the questions about alcohol pose a risk in the situation that you disclose high use and abuse, and the information will be identifiable to the investigator (Michael Best). However, I will keep this information confidential, and any information I give to the Health Center will not have you name on it or your specific date of birth. Instead, only your age range (e.g., 30-34) will be connected to your data.

Benefits

You can find out if you current activity level meets national guidelines and what else if anything need to be done to meet those guidelines. Other than the study's direct benefit to you, this research will help us learn more about physical activity levels of an American Indian Tribe in the Northeastern United States. The Northeast has no studies done on physical activity of American Indians in this region. This will also help researchers get a better picture of physical activity levels of American Indians as a whole.

Confidentiality

A code number will be used to protect your identity on each questionnaire. The de-identified data and a key with participant's names and code numbers will be kept in the home office of the investigator. The key will be kept in a locked filing cabinet. The de-identified data will be kept separate from the key with participant's name and code number. Others with access to the de-identified data, but not the key with participant's names, are Dr. Steve Butterfield, my faculty advisor, and Nakia Dana, Health Director at the Passamaquoddy Health Center. Your

name or other identifying information will not be reported in any publications. The key linking your name to the data will be destroyed after data analysis is complete in May of 2014, and all de-identified data will be handed over to Nakia Dana and kept in a surveilled/locked room indefinitely.

Voluntary

Participation is voluntary. If you choose to take part in this study, you may stop at any time. However, this might alter our ability to gage your physical activity level and the subsequent effect on health. You may skip any questions you do not wish to answer. The decision to withdraw will no alter the health services you receive at the Passamaquoddy Health Center.

Contact Information

If you have any questions about this study, please contact me at 207-227-3255 (or email michael.best@umit.maine.edu). You may also reach the faculty advisor on this study at 207-581-2469 (or email steve.butterfield@umit.maine.edu). If you have any questions about your rights as a research participant, please contact Gayle Jones, Assistant to the University of Maine's Protection of Human Subjects Review Board, at 207-581-1498 (or email gayle.jones@umit.maine.edu).

Your signature below indicates that you have read and understand the above information and are willing to participate in this research study. You will receive a copy this form.

_____ _____

Signature Date

UMaine Institutional Review Board
Approved for Use Through:

DEC 18 2014

Passamaquoddy Health Center

Indian Township, Maine

AUTHORIZATION for the Use and/or Disclosure

of HEALTH INFORMATION

Name:_____ Address: _____

Telephone: _____ DOB: _____

Instructions: Please complete all of the sections of this form. Please note incomplete or inaccurately completed forms will not be honored.

I hereby authorize the Passamaquoddy Health Center to use and/or disclosure of my health information as described below. List the type and amount of information to be used or disclosed, and dates of service if applicable: blood pressure, height, weight, and waist circumference _____.

I understand that my specific consent is required to use and/or disclose information pertaining to treatment and/or diagnosis of mental health conditions, substance abuse and/or HIV status. Please fill out all of the sections even if one or more of them are not applicable to you. Any of the following sections not completed will be presumed to be a refusal to authorize use and/or disclosure of such information. (The information below will not be FAXED even if disclosure is authorized.)

(A) HIV status information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to testing, diagnosis or treatment of HIV, ARC or AIDS.

(B) Substance Abuse Treatment Information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to treatment, testing or diagnosis of alcohol or substance abuse. Substance abuse treatment information may not be re-disclosed without the Individual=s express written authorization or as otherwise permitted by law. Unless otherwise revoked, this SPECIFIC authorization will expire on _____, 20____ or 6 months from the date of signing whichever comes first.

(C) Mental Health Treatment Information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to mental health treatment, not including Psychotherapy Notes which cannot be disclosed pursuant to this Authorization.

(D) Sexually Transmitted Disease Information. I DO/DO NOT (Circle one) authorize use and/or disclosure of health information related to Sexually Transmitted Diseases.

The Purpose of Use and/or Disclosure is: for a research study entitled, "Physical Activity of the Passamaquoddy Tribe at Indian Township and the Effect on Disease and Certain Health Measures"

Release Information to: (Name of Individual or Facility): Michael Best

Address: University of Maine, Kinesiology and Physical Education Department, Lengyel Hall, Orono, ME 04469

Subsequent Disclosures: I DO /DO NOT (Circle one) authorize subsequent disclosures to be made of the health information identified above. This does not apply to re-disclosure of alcohol or substance abuse treatment information disclosed under section (B) above.

* I understand I have the right to revoke this authorization at any time by sending a written revocation to Michael Best. I understand the revocation will not apply to information that has already been released in response to this authorization and may be the basis for the denial of health benefits or other insurance coverage or benefits.
* Unless otherwise revoked, this authorization will expire on May 31, 2014, or 30 months from the date of signing whichever comes first.
* I understand that authorizing the use or disclosure of this health information is voluntary.
* Partial or incomplete disclosures, as compared to the information requested to be disclosed, will be labeled as such.

* I can refuse to sign this authorization. I need not sign this form in order to assure treatment, payment, enrollment in a health plan or eligibility for

benefits (if applicable), except (a) if my treatment is related to research, then an authorization may be required; or (b) if the purpose of the health care is solely to create health information to be provided to a third party, then an authorization may be required.

* I may refuse to disclose all or some health information, but that refusal may result in improper diagnosis or treatment, denial of coverage or claim for health benefits or other insurance or other adverse consequences.

* I understand that I have a right to a copy of this authorization.

* I understand any disclosure of information carries with it the potential for unauthorized re-disclosure and the information may not be protected by federal or state confidentiality rules anymore.

* If I have questions about use or disclosure of my health information, I may contact Michael Best, 207/227-0201

Signature: _____ Date: _____

Parent/Guardian: _____ Date: _____
(if under 18 years of age)

Personal Representative: _____ Date: _____

IF NOT SIGNED BY THE INDIVIDUAL, PLEASE PROVIDE THE FOLLOWING INFORMATION:

Relationship to the Individual: _____

Describe Authority to Act for Individual: _____

RE-DISCLOSURE OF MEDICAL RECORD INFORMATION IS STRICTLY FORBIDDEN BY RECIPIENTS UNLESS DULY AUTHORIZED BY THE PATIENT.

ADDITIONAL NOTICE TO RECIPIENTS OF SUBSTANCE ABUSE TREATMENT INFORMATION: This information has been disclosed to you from records protected by federal confidentiality rules (42 CFR Part 2). The federal rules prohibit you from making any further disclosure of this information unless further disclosure is expressly permitted by the written consent of the person to whom it pertains or as otherwise permitted by 42 CFR Part 2. A general authorization for the release of medical or other information is NOT sufficient for this purpose. The federal rules restrict any use of the information to criminally investigate or prosecute any alcohol or drug abuse patient.

Revised: 05/13/2013

APPENDIX C: ITHP & MOSPA QUESTIONNAIRES

INTER-TRIBAL HEART PROJECT

MENOMINEE, RED LAKE, WHITE EARTH

QUESTIONNAIRE COVER SHEET

Participant ID Number |__|-|__|__|__|__|

Interviewer ID Number |__|__|__|

Date of Interview MONTH|__|__| DAY|__|__| YEAR|__|__|

STATEMENT OF CONFIDENTIALITY:

Before we start, I would like to assure you that this interview is voluntary and every effort will be made to safeguard the confidentiality of the information provided. If we should come to any question which you don't want to answer, just let me know and we'll go on to the next question.

What is your full name?

LAST NAME _____

FIRST NAME _____

MIDDLE NAME _____

Since we may need to obtain information from various sources about your medical history, we would like to ask you about other names which you have used previously that might help us find this information.

WOMEN ONLY:

If you are married, or have ever been married, what is your maiden name?

MAIDEN NAME _____

Are there any other names that you use or have used? [PLEASE INCLUDE NICKNAMES]

NAME 1 _____

NAME 2 _____

Current Address?

STREET NO./

P.O. BOX _____

CITY/TOWN _____

COUNTY _____

STATE AND
ZIP CODE _____

Phone Number? Daytime: (|___|___|___|) |___|___|___|-|___|___|___|___|

Evening: (|___|___|___|) |___|___|___|-|___|___|___|___|

Social Security Number? |___|___|___|-|___|___|-|___|___|___|___|

[PLEASE REMOVE THIS SHEET FROM QUESTIONNAIRE]

INTER-TRIBAL HEART PROJECT QUESTIONNAIRE 12/07/92

MENOMINEE, RED LAKE, WHITE EARTH

Participant ID Number |0|-|0|3|9| (1-4)

Interviewer ID Number |0|0|1| (5-7)

Date of Interview MONTH|__|__| DAY|__|__| YEAR|__|__| (8-13)

START Time (military time) HOUR|__|__|: MINUTE|__|__| (14-17)

DEMOGRAPHIC INFORMATION

001. Participant's gender |__| (18)

1 = man
2 = woman

002. What is your date of birth? Month|__|__| Day|__|__| Year|__|__| (19-24)

[DON'T KNOW/NOT SURE - RECORD 88-88-88; REFUSED - RECORD 99-99-99]

003. How many years have you lived on the reservation? |__|__| (25-26)

["ALL THEIR LIVES" = RESPONDENT'S AGE, DON'T KNOW/NOT SURE - RECORD 88, AND REFUSED - RECORD 99]

004. Do you have a telephone in your home? |__| (27)

1 = yes (GO TO Q006)
2 = no (GO TO Q005)

005. If NO, how many miles do you have to go to get to a phone? |__|__|__| (28-30)

[LESS THAN ONE MILE - RECORD 001, DON'T KNOW/NOT SURE - RECORD 888, AND REFUSED - RECORD 999]

MEDICAL HISTORIES

Now I'd like to ask you a few questions about your health.

006. Compared to other people who are the same age and sex as you, would you say that your health in general is excellent, very good, good, fair, or poor? |___|(31)

1 = excellent
2 = very good
3 = good
4 = fair
5 = poor
8 = don't know/not sure
9 = refused

007. Has a doctor or nurse ever said you had any of the following:

1 = yes 2 = no 8 = don't know/not sure 9 = refused

a. Heart Attack? |___|(32)

b. If YES, were you hospitalized? |___|(33)

c. Any other heart trouble? |___|(34)

If YES, specify type or symptoms: _____

d. Stroke? |___|(35)

e. If YES, were you hospitalized? |___|(36)

f. Kidney failure? |___|(37)

g. Thyroid trouble? |___|(38)

h. Ulcer of your stomach? |___|(39)

i. Liver disease or other liver problems? |___|(40)

If YES, specify type: _____

j. Cancer, including leukemia and lymphoma, or tumor? |___|(41)

If YES, specify type: _____

k. Any other major disease? |___|(42)

If YES, specify type: _____

008. What would you do if you experienced crushing pain in your chest that lasted longer than 15 minutes. Would you: |___|(43)

[READ RESPONSES OR USE **RESPONSE CARD**]

1 = sit down and wait until it passed
2 = continue what you're doing and hope it goes away
3 = call an ambulance
4 = go to a traditional healer
5 = go to a medical facility right away
6 = go to a medical facility when it becomes convenient
7 = other
8 = don't know/not sure
9 = refused

FAMILY HISTORY

The next questions are about possible health conditions of your immediate family, that is, your mother, father, sisters and brothers.

009. Have either of your biological parents, brothers or sisters ever been told by a doctor that he or she had:

1 = yes 2 = no 8 = don't know/not sure 9 = refused

a. Diabetes ___ (44)

b. High Blood Pressure ___ (45)

c. Stroke ___ (46)

d. Heart Attack ___ (47)

e. Kidney Disease ___ (48)

[DO NOT INCLUDE BLADDER INFECTION]

We believe that the degree of Indian heritage may influence your risk for heart disease; therefore, we need to ask you about your degree of Indian blood (blood quantum).

010. What is your degree of Indian blood? If you are unsure, please give your best estimate. ___ (49)

[READ RESPONSES]

1 = full
2 = 3/4
3 = 1/2
4 = 1/4
5 = less than 1/4
8 = don't know/not sure
9 = refused

88 = don't know/not sure
99 = refused

015. Which of the following do you use to pay for health care?

1 = yes 2 = no 8 = don't know/not sure 9 = refused

a. IHS direct care |___|(57)

b. IHS contract care |___|(58)
(i.e., referred from IHS/tribal clinic to a non IHS facility)

c. medicaid |___|(59)

d. medicare |___|(60)

e. private insurance |___|(61)

f. personal savings |___|(62)

g. other (specify:_____) |___|(63)

HYPERTENSION

Now I'd like to ask you a few questions about a health problem called high blood pressure.

016. About how long has it been since you had your blood pressure checked? |___|___|___|(64-66)

[PLEASE CONVERT ANSWER INTO MONTHS. NEVER HAD BLOOD PRESSURE PRESSURE CHECKED - RECORD 000, LESS THAN ONE MONTH - RECORD 001,
DON'T KNOW/NOT SURE - RECORD 888, AND REFUSED - RECORD 999]

017. Have you ever been told by a doctor, nurse, or other health professional that you had high blood pressure? |___|(67)

1 = yes
2 = no (GO TO Q022)
3 = only when pregnant, now blood pressure is OK
8 = don't know/not sure
9 = refused

018. Is any high blood pressure medicine currently being prescribed to you? |___|(68)

1 = yes
2 = no (GO TO Q021)
8 = don't know/not sure
9 = refused

019. Are you now taking medicine for high blood pressure? |___|(69)

[IF RESPONSE IS YES, PROBE AS TO WHETHER "ALL OR MOST OF THE TIME" OR "ONLY OCCASIONALLY". IF ANSWER IS SIMPLY "YES", USE "YES, ALL OR MOST OF THE TIME".]

1 = yes, all or most of the time (GO TO Q021)
2 = yes, occasionally
3 = no
8 = don't know/not sure
9 = refused

020. Which of the following statements best explains why you are not taking your blood pressure medicine (regularly)? |___|(70)

[READ RESPONSES]

[ADD "REGULARLY" TO THE QUESTION IF PARTICIPANT ANSWERED "YES, OCCASIONALLY TO Q019]

1 = I forget to take it
2 = I don't feel good when I take my medicine
3 = I don't feel the need to take it
4 = I don't like to swallow pills
5 = The doctor told me not to take it
6 = other (specify:_____)
8 = don't know/not sure
9 = refused

021. Are you doing any of the following to help control your high blood pressure?

1 = yes 2 = no 8 = don't know/not sure 9 = refused

a. Watching your weight? |___|(71)

b. Following an exercise program? |___|(72)

c. Following a low salt diet? |___|(73)

CHOLESTEROL

022. About how long has it been since you had your blood cholesterol checked? |__|__|__| (74-76)

[PLEASE CONVERT ANSWER INTO MONTHS. NEVER HAD CHOLESTEROL CHECKED - RECORD 000, LESS THAN ONE MONTH - RECORD 001, DON'T KNOW/NOT SURE - RECORD 888, AND REFUSED - RECORD 999]

023. Have you ever been told by a doctor, nurse, or other health professional that your blood cholesterol is high? |__| (77)

1 = yes
2 = no (GO TO Q027)
8 = don't know/not sure
9 = refused

024. Are you now under the advice of a doctor to reduce your blood cholesterol or blood fat level? |__| (78)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

025. Is any medication to lower your blood cholesterol currently being prescribed to you? |__| (79)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

026. Has the doctor, nutritionist or other health care worker ever given you information to help you reduce the fat or cholesterol in your diet? |__| (80)

1 = yes
2 = no
8 = don't know/not sure

9 = refused

DIABETES

027. Have you ever been told by a doctor or other health professional that you have diabetes? ___ (81)

1 = yes
2 = no (GO TO Q031)
3 = only during pregnancy (GO TO Q031)
8 = don't know/not sure
9 = refused

028. Are you currently taking insulin? ___ (82)

1 = yes, most of the time
2 = yes, some of the time
3 = no
8 = don't know/not sure
9 = refused

029. Are you now taking diabetes pills (i.e., oral hypoglycemic agents) to lower your blood sugar? ___ (83)

1 = yes, most of the time
2 = yes, some of the time
3 = no
8 = don't know/not sure
9 = refused

030. Has a doctor or other health professional ever given you a diet or instructions about which foods a person with diabetes should eat? ___ (84)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

ALCOHOL

The next four questions are about the use of wine, beer, or liquor, including all kinds of alcoholic beverages. This topic makes some people uncomfortable, but we are asking these questions about alcohol, because we think alcohol consumption may be related to heart disease.

031. How often do you drink alcohol? FREQUENCY|___|___| per|___|(85-87)

1=day 2=week 3=month 4=year

[DOES NOT DRINK ALCOHOL AT ALL - RECORD 000, DON'T KNOW/NOT SURE - RECORD 888, AND REFUSED - RECORD 999; THEN GO TO Q035]

032. Which alcoholic beverage do you usually drink? |___|(88)

[READ RESPONSES]

1 = beer
2 = wine
3 = hard liquor (i.e., shots, mixed drinks, cocktails)
4 = "home brew"
5 = other _____
8 = don't know/not sure
9 = refused

033. When you drink alcoholic beverages, do you usually drink enough to: |___|(89)

[READ RESPONSES]

1 = feel high or feel good
2 = be drunk
3 = not remember or black out
4 = not as much as any of these
8 = don't know/not sure
9 = refused

034. How many days during the past month did you have 5 or more drinks on a single day? |___|___|(90-91)

00 = never
88 = don't know/not sure
99 = refused

WEIGHT HISTORY

Please answer the following questions about your weight.

035. How do you feel about your weight? Do you consider yourself to be: ___ (92)

[READ RESPONSES]

1 = too thin
2 = just right
3 = too heavy
8 = don't know/not sure
9 = refused

036. Are you doing any of the following activities to control your weight?

1 = yes 2 = no 8 = don't know/not sure 9 = refused

a. dieting ___ (93)

b. exercising regularly ___ (94)

c. other _____ ___ (95)

CIGARETTE SMOKING

Now I would like to ask you a few questions about tobacco products.

037. Have you smoked at least 100 cigarettes during your entire life? ___ (96)

[100 CIGARETTES = 5 PACKS]

1 = yes
2 = no (GO TO Q042)
8 = don't know/not sure (GO TO Q042)
9 = refused

038. Do you smoke cigarettes now? ___ (97)

1 = yes

2 = no (GO TO Q042)
9 = refused

039. On the average, how many cigarettes do you usually smoke a day? |__|__| (98-99)

[20 CIGARETTES = 1 PACK]

[INDICATE THE NUMBER OF CIGARETTES SMOKED DAILY] **OR**:

01 = less than one cigarette per day
66 = smoke on weekends only
77 = don't smoke regularly
88 = don't know/not sure
99 = refused

040. Have you quit smoking for 1 week or more sometime during the past year? |__| (100)

1 = yes
2 = no (GO TO Q042)
9 = refused

041. How many times within the past year have you quit for 1 week or longer? |__|__| (101-102)

88 = don't know/not sure
99 = refused

SMOKING - PIPES, CIGARS, AND SMOKELESS TOBACCO

Now I would like to ask you a question about the use of pipes, cigars, or smokeless tobacco.

042. Do you currently use any of the following tobacco products?

1 = yes 2 = no 8 = don't know/not sure 9 = refused

a. smoke a pipe ___ (103)

b. smoke cigars ___ (104)

c. use chewing tobacco ___ (105)

CURRENT USERS OF TOBACCO ONLY (Q043):

043. Please tell me which of the following statements best represents your feelings about quitting use of tobacco products. ___ (106)

[READ RESPONSES OR USE **RESPONSE CARD**]

1 = I am ready to join a quit program

2 = I intend to join a quit program within the next 4 months

3 = I would like to know more about how I could quit using tobacco products

4 = I would like to know about the benefit of quitting use of tobacco products

5 = I am not interested in quitting my use of tobacco products

8 = don't know/not sure

9 = refused

Now I'd like to ask you some questions about your personal background.

EDUCATION

I'd like to ask you about your level of education.

044. What is the highest grade or year of school you have completed? |__|__|(107-108)

[READ RESPONSES ONLY IF NECESSARY]

01 = Eighth grade or less
02 = Some high school
03 = High school graduate or GED certificate
04 = Some technical school
05 = Technical school graduate
06 = Some college
07 = College graduate
08 = Post Grad or Professional Degree
88 = don't know/not sure
99 = refused

EMPLOYMENT

And now I'd like to ask you about your employment status.

045. Are you currently employed - that is, working for pay? |__|(109)

1 = yes, outside the home (GO TO Q046)
2 = yes, inside the home (GO TO Q046)
3 = no (GO TO Q050)
9 = refused

FOR EMPLOYED PEOPLE ONLY (Q046 - Q049):

046. Is your employment: |__|(110)

1 = full time
2 = part time
3 = more than one job
4 = other
8 = don't know/not sure
9 = refused

047. How much personal satisfaction would you say you get from your main job? |___|(111)

[READ RESPONSES 1-4]

1 = great deal
2 = some
3 = very little
4 = none
8 = don't know/not sure
9 = refused

048. What kinds of business or industry do you currently work in? Please describe the activity at the location where you are employed (e.g., gaming, casino, logging, retail sales, etc.).

Type of Industry: _____

Sector: 1 = government 2 = private 3 = self employed |___|(112)

Status: 1 = full time 2 = part time 3 = seasonal |___|(113)

Type of Industry: _____

Sector: 1 = government 2 = private 3 = self employed |___|(114)

Status: 1 = full time 2 = part time 3 = seasonal |___|(115)

[NOT APPLICABLE - RECORD 7, DON'T KNOW/NOT SURE - RECORD 8, AND REFUSED - RECORD 9]

049. Please describe the kind of work that you do (e.g., registered nurse, cashier, supervisor, etc.).

[PROBE FOR JOB TITLE AND BRIEF DESCRIPTION]

Job Title: _____

Job Description: _____

Job Title: _____

Job Description: _____

UNEMPLOYED PEOPLE ONLY (Q050):

050. Which of the following statements best describes your reason for being out of work? |__|__| (116-117)

[READ RESPONSES 1 - 8 OR USE RESPONSE CARD]

01 = retired (GO TO Q051)

02 = currently disabled, but previously employed (GO TO Q051)
03 = currently disabled, never employed

04 = between jobs (have job waiting, maternity leave, it is not the season for work, changing jobs, etc.) (GO TO Q051)

05 = there are no jobs available that I have been trained for
06 = there are no available jobs of interest to me

07 = currently a homemaker (if previously employed, GO TO Q051)

08 = full-time student

77 = other (specify: _____)
88 = don't know/not sure
99 = refused

PREVIOUSLY EMPLOYED PEOPLE ONLY (Q051):

051. What type of work did you do when you were employed?

_____

_____

FAMILY INCOME

052. How hard is it for you (and your family) to pay for the very basics like

food, medical care, and heating? Would you say it is: |___|(118)

[READ RESPONSES]

1 = very hard
2 = hard
3 = somewhat hard
4 = not very hard
8 = don't know/not sure
9 = refused

053. How many people live in your household, including yourself? |___|___|(119-120)

88 = don't know/not sure
99 = refused

054. Which of the categories on the card best describes your annual household income from all sources? |___|(121)

[USE **INCOME RESPONSE CARD**]

1 = less than 5,000
2 = 5,001 to 10,000
3 = 10,001 to 15,000
4 = 15,001 to 20,00
5 = 20,001 to 25,000
6 = 25,001 to 30,000
7 = over 30,000
8 = don't know/not sure
9 = refused

[READ THE RESPONSES]

055. In general, do you feel satisfied with your life? |___|(122)

1 = always
2 = most of the time
3 = sometimes
4 = never
8 = don't know/not sure
9 = refused

In the next questions, I'm going to describe some problems which people face now and then. These are problems which usually require help from somebody, and I'll be asking you how often you feel you'd be able to get different kinds of help.

056. In the past month, have you felt so sad, discouraged, hopeless, or had so many problems that you wondered if anything was worthwhile? |___|(123)

food, medical care, and heating? Would you say it is: |___|(118)

[READ RESPONSES]

1 = very hard
2 = hard
3 = somewhat hard
4 = not very hard
8 = don't know/not sure
9 = refused

053. How many people live in your household, including yourself? |___|___|(119-120)

88 = don't know/not sure
99 = refused

054. Which of the categories on the card best describes your annual household income from all sources? |___|(121)

[USE **INCOME RESPONSE CARD**]

1 = less than 5,000
2 = 5,001 to 10,000
3 = 10,001 to 15,000
4 = 15,001 to 20,00
5 = 20,001 to 25,000
6 = 25,001 to 30,000
7 = over 30,000
8 = don't know/not sure
9 = refused

[READ THE RESPONSES]

055. In general, do you feel satisfied with your life? |___|(122)

1 = always
2 = most of the time
3 = sometimes
4 = never
8 = don't know/not sure
9 = refused

In the next questions, I'm going to describe some problems which people face now and then. These are problems which usually require help from somebody, and I'll be asking you how often you feel you'd be able to get different kinds of help.

056. In the past month, have you felt so sad, discouraged, hopeless, or had so many problems that you wondered if anything was worthwhile? |___|(123)

1 = extremely so - to the point that I have just about given up
2 = very much so
3 = quite a bit
4 = some - enough to bother me
5 = a little bit
6 = not at all
8 = don't know/not sure
9 = refused

057. If you need help around the house (that is, with cleaning or making small repairs) could you get someone to help without pay? |___|(124)

1 = always
2 = most of the time
3 = sometimes
4 = never
8 = don't know/not sure
9 = refused

058. If you would like advice about an important personal matter, is there someone you can talk with? |___|(125)

1 = always
2 = most of the time
3 = sometimes
4 = never
8 = don't know/not sure
9 = refused

059. During the past 2 weeks, would you say that you experienced a lot of stress, a moderate amount of stress, relatively little stress or almost no stress at all. |___|(126)

1 = a lot
2 = moderate
3 = relatively little
4 = almost none
5 = don't know what stress is
9 = refused

060. In general, do you think you have had a fair opportunity to achieve your goals, or have you been held back in life? |___|(127)

1 = have had fair opportunity
2 = have been held back
8 = don't know/not sure
9 = refused

061. Is religion or spirituality important in your life? |___|(128)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

Now I'd like to ask you a few questions about the way you've felt or behaved during the past week.

062. After each statement, please tell me which of these responses is most appropriate for your feelings during the past week.

[USE **CES-D RESPONSE CARD**, ASK PARTICIPANT TO EITHER READ THE RESPONSE OR TO TELL YOU THE NUMBER OF THE RESPONSE]

1 = rarely or none of the time (less than one day)
2 = some or little of the time (1-2 days)
3 = occasionally or a moderate amount of time (3-4 days)
4 = most or all of the time (5-7 days)
8 = don't know/not sure
9 = refused

a. I was bothered by things that don't usually bother me. |___|(129)

b. I did not feel like eating; my appetite was poor. |___|(130)

c. I felt that I could not shake the blues even with help from my family or friends. |___|(131)

d. I felt that I was just as good as other people. |___|(132)

e. I had trouble keeping my mind on what I was doing. |___|(133)

f. I felt depressed. |___|(134)

g. I felt that everything I did was an effort. |___|(135)

h. I felt hopeful about the future. |___|(136)

i. I thought my life had been a failure. |___|(137)

j. I felt fearful. |___|(138)

k. My sleep was restless. |___|(139)

l. I was happy. |___|(140)

m. I talked less than usual. |___|(141)

n. I felt lonely. |___|(142)

o. People were unfriendly. |___|(143)

p. I enjoyed life. |___|(144)

q. I had crying spells. |___|(145)

r. I felt sad. |___|(146)

s. I felt that people disliked me. |___|(147)

t. I could not "get going". |___|(148)

063. Have you felt depressed or sad much of the time in the past year? |___|(149)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

When I read each of the following statements, please tell me whether you think the statement is true or false as it applies to you:

064. I have often had to take orders from someone who did not know as much as I do. |___|(150)

1 = true
2 = false

8 = don't know/not sure
9 = refused

065. I feel that I have often been put down for no reason at all. |___|(151)

1 = true
2 = false
8 = don't know/not sure
9 = refused

066. I have at times had to be rough with people who were rude or annoying. |___|(152)

1 = true
2 = false
8 = don't know/not sure
9 = refused

067. When someone does me wrong, I feel I should get back if I can, just for the principle of the thing. |___|(153)

1 = true
2 = false
8 = don't know/not sure
9 = refused

PHYSICAL ACTIVITY

Now I'm going to ask you some questions about how physically active you are. I'll be asking questions about activities that you do in your free time, that you do at work, and that you do around the house.

[FOR HOURS, MINUTES, AND ACTIVITIES, USE THE FOLLOWING CODES: DON'T KNOW/NOT SURE - RECORD 88 AND REFUSED - RECORD 99. FOR FREQUENCY AND TIME INTERVAL, USE THE FOLLOWING CODES: DON'T KNOW/NOT SURE - RECORD 888 AND REFUSED - RECORD 999.]

OCCUPATIONAL PHYSICAL ACTIVITY

EMPLOYED PEOPLE ONLY (Q068 - Q070):

[IF UNEMPLOYED, GO TO Q071]

068. How many hours do you work during a typical week? HRS|__|__|(154-155)

069. On a typical day at work, how much time do you spend walking?

[DO NOT INCLUDE TIME SPENT GOING TO AND FROM WORK, LIFTING OR CARTING MODERATELY HEAVY OBJECTS, OR VERY HEAVY OBJECTS.]

HRS|__|__|: MINS|__|__|(156-159)

070. On a typical day at work, approximately how much time do you spend actually lifting or carrying moderate to heavy objects (15 lbs. or more) or doing activities of similar effort?

HRS|__|__|: MINS|__|__|(160-163)

TRANSPORTATION TO AND FROM WORK, SCHOOL, AND SHOPPING

071. Going to and from work, school, and shopping, how much time do you spend walking or bicycling each day?

[DO NOT INCLUDE HIKING OR WALKING FOR SPORT, EXERCISE, OR PLEASURE.]

HRS|__|__|: MINS|__|__|(164-167)

HOUSEWORK

072. On the average, how much time do you spend every week doing moderately vigorous or very vigorous chores at home such as sweeping, vacuuming, scrubbing floors, etc.?

HRS|__|__|: MINS|__|__|(168-171)

LEISURE TIME SPORT, SPORT TRAINING, OR EXERCISE

073. During the past 12 months did you play any sports or do any exercises such as running, gardening, wood chopping, etc. for exercise or pleasure at least 12 times? |___|(172)

1 = yes
2 = no (GO TO Q083)
8 = don't know/not sure
9 = refused

074. What sport or activity did you do most frequently? |___|___|(173-174)

[USE **PHYSICAL ACTIVITY RESPONSE CARD**]

00 = no sport or exercise
01 = aerobic exercises
02 = baseball/softball
03 = basketball
04 = bowling
05 = gymnastics
06 = bicycling
07 = Indian dancing
08 = non-Indian dancing (disco/rock & roll)
09 = fishing
10 = gardening
11 = hiking with pack
12 = horseback riding
13 = hunting
14 = jogging/running
15 = maple syruping
16 = martial arts (judo/karate/tai chi)
17 = mowing the lawn
18 = rowing
19 = football
20 = ricing
21 = roller blading
22 = ice fishing
23 = ice skating/rollerskating/hockey
24 = cross-country skiing
25 = downhill skiing
26 = snow-shocing
27 = soccer
28 = swimming
29 = table tennis
30 = tennis
31 = volleyball
32 = walking
33 = weight lifting/body building
34 = wood chopping
35 = other, specify:
_____

075. During the past year, how many months did you do this sport or activity? MONTHS|___|___|(175-176)

076. How many times per week or per month did you take part in this activity?

FREQUENCY|___|___| per|___|(177-179)

1=week 2=month

077. When you did this sport or activity, how much time did you usually spend for each session?

HRS|___|___|: MINS|___|___|(180-183)

078. During the past 12 months, did you play any other sport, or do any **other** exercises at least 12 times? |___|(184)

1 = yes
2 = no (GO TO Q083)
8 = don't know/not sure
9 = refused

079. What sport or exercise was it? |___|___|(185-186)

[USE **PHYSICAL ACTIVITY RESPONSE CARD**]

00 = no sport or exercise
01 = aerobic exercises
02 = baseball/softball
03 = basketball
04 = bowling
05 = gymnastics
06 = bicycling
07 = Indian dancing
08 = non-Indian dancing (disco/rock & roll)
09 = fishing
10 = gardening
11 = hiking with pack
12 = horseback riding
13 = hunting
14 = jogging/running
15 = maple syruping
16 = martial arts (judo/karate/tai chi)
17 = mowing the lawn
18 = rowing
19 = football
20 = ricing
21 = roller blading
22 = ice fishing
23 = ice skating/rollerskating/hockey
24 = cross-country skiing
25 = downhill skiing
26 = snow-shoeing
27 = soccer
28 = swimming
29 = table tennis
30 = tennis
31 = volleyball
32 = walking
33 = weight lifting/body building
34 = wood chopping
35 = other, specify:

_____

080. During the past year, how many months did you do this sport or activity? MONTHS|___|___|(187-188)

081. How many times per week or per month did you take part in this activity?

FREQUENCY|___|___| per|___|(189-191)

1=week 2=month

082. When you did this sport or activity, how much time did you usually spend for each session?

HRS|___|___|: MINS|___|___|(192-195)

SUMMARY QUESTION ABOUT VIGOROUS PHYSICAL ACTIVITY

083. Which of the following four activity classes best describes your present activity outside of your job? |___|(196)

[PLEASE CONSIDER TRANSPORTATION TO AND FROM WORK, SPORTING, ACTIVITY, AND OTHER PHYSICAL EFFORT DURING YOUR LEISURE TIME, LIKE GARDENING OR DANCING]

[READ RESPONSES]

1 = no physical activity weekly
2 = only light physical activity in most weeks
3 = vigorous physical activity at least 20 minutes once or twice weekly
4 = vigorous physical activity at least 20 minutes three or more times per week
8 = don't know/not sure
9 = refused

WOMEN ONLY (Q084 - Q095):

[FOR MEN, PLEASE SKIP TO Q096]

REPRODUCTION AND HORMONE USE

Many studies show that women have less heart disease than men. Therefore, we are going to ask you some questions that apply only to women. Your answers may help us understand why women appear to be protected from heart disease.

084. How many times have you been pregnant? |__|__| (197-198)

88 = don't know/not sure
99 = refused

085. Are you pregnant now? |__| (199)

1 = yes (GO TO Q096)
2 = no
8 = don't know/not sure
9 = refused

086. Have your menstrual cycles stopped completely for more than 12 months? |__| (200)

1 = yes
2 = no (GO TO Q093)
8 = don't know/not sure
9 = refused

POST MENOPAUSAL WOMEN ONLY (Q087- Q092):

087. How old were you when they stopped completely? |__|__| (201-202)

[INDICATE THE AGE IN YEARS]

88 = don't know/not sure
99 = refused

088. Did menopause occur naturally for you, or did you have an operation? |___|(203)

1 = natural (GO TO Q091)
2 = surgical operation
8 = don't know/not sure
9 = refused

089. Was your uterus removed (i.e., did you have a hysterectomy)? |___|(204)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

090. Were either of your ovaries removed? |___|(205)

1 = yes, both
2 = yes, one
3 = no, none
8 = don't know/not sure
9 = refused

Sometimes, after menopause or after a hysterectomy, a woman may take hormone pills.

091. Are you currently taking post-menopausal or post-hysterectomy hormone pills, for any reason? |___|(206)

1 = yes
2 = no (GO TO Q096)
8 = don't know/not sure
9 = refused

092. How LONG have you been taking them? duration|___|___| |___|(207-209)

888 = don't know/not sure
999 = refused

1=months
2=years

PRE-MENOPAUSAL WOMEN ONLY (Q093 - Q095)

093. Do you have the new contraceptive implant in your arm (Norplant)? |___|(210)

1 = yes (GO TO Q096)
2 = no
3 = don't know/not sure
9 = refused

094. Are you currently using birth control pills or hormones for any other reasons? |___|(211)

1 = yes
2 = no (GO TO Q096)
8 = don't know/not sure
9 = refused

095. How LONG have you been using them without interruption? duration|___|___| |___|(212-214)

1=months
2=years

HPDP KNOWLEDGE QUESTIONS

I'm going to read a list of things which may or may not affect a person's chances of getting heart disease. After I read each one, tell me if you think it definitely increases, probably increases, probably does not or definitely does not increase a person's chances of getting heart disease.

[USE **HPDP RESPONSE CARD**]

1 = definitely increases
2 = probably increases
3 = probably does not increase
4 = definitely does not increase
8 = don't know/not sure
9 = refused

096. Cigarette smoking? |__|(215)

097. Worry/anxiety/stress? |__|(216)

098. High blood pressure? |__|(217)

099. Diabetes? |__|(218)

100. Being very overweight? |__|(219)

101. Eating a diet high in animal fat? |__|(220)

102. Family history of heart disease? |__|(221)

103. High cholesterol? |__|(222)

104. How much control do you think you have over your future health? |__|(223)

1 = a lot
2 = some
3 = hardly any

4 = none
8 = don't know/not sure
9 = refused

ROSE QUESTIONNAIRE: ANGINA AND INTERMITTENT CLAUDICATION

SECTION A: Chest Pain on Effort

105. Have you ever had any pain or discomfort in your chest? |___|(224)

1 = yes
2 = no (GO TO Q113)
8 = don't know/not sure
9 = refused

106. Do you get it when you walk uphill, upstairs or hurry? |___|(225)

1 = yes
2 = no
3 = never hurries or walks uphill or up stairs
8 = don't know/not sure
9 = refused

107. Do you get it when you walk at an ordinary pace on the level? |___|(226)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

108. What do you do if you get it while you are walking? |___|(227)

[RECORD "STOP OR SLOW DOWN" IF SUBJECT CARRIES ON AFTER TAKING NITROGLYCERINE]

1 = stop or slow down
2 = carry on
8 = don't know/not sure
9 = refused

109. If you stand still, what happens to it? |___|(228)

1 = relieved

2 = not relieved (GO TO Q111)
8 = don't know/not sure
9 = refused

110. How soon? |___|(229)

1 = 10 minutes or less
2 = more than 10 minutes
8 = don't know/not sure
9 = refused

111. Will you show me where the pain occurs?

[RECORD ALL AREAS MENTIONED. USE THE DIAGRAM BELOW TO SHOW THE LOCATION IF PARTICIPANT CANNOT TELL EXACTLY. YES - RECORD 1, NO - RECORD 2, NOT APPLICABLE - RECORD 7, DON'T KNOW/NOT SURE - RECORD 8, AND REFUSED - RECORD 9.]

A. Sternum (upper or middle) |___|(230)

B. Sternum (lower) |___|(231)

C. Left anterior chest |___|(232)

D. Left arm |___|(233)

E. Other: _____ |___|(234)

112. Do you feel it anywhere else? |___|(235)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

If YES, record additional information below:

_____

SECTION B: Possible Infarction

113. Have you ever had a severe pain across the front of your chest lasting for half an hour or more? |___|(236)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

SECTION C: Intermittent Claudication

114. Do you get pain in either leg on walking? |___|(237)

1 = yes
2 = no (GO TO Q123)
8 = don't know/not sure
9 = refused

115. Does this pain ever begin when you are standing still or sitting? |___|(238)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

116. In what part of your leg did you feel it? |___|(239)

1 = pain, includes calf/calves
2 = pain, does not include calf/calves (GO TO Q118)

8 = don't know/not sure
9 = refused

117. If calves not mentioned, ask "Anywhere else?" and specify location:

_____

118. Do you get it if you walk uphill or hurry? |__|(240)

1 = yes
2 = no
3 = never hurries or walks uphill
8 = don't know/not sure
9 = refused

119. Do you get it if you walk at an ordinary pace on the level? |__|(241)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

120. Does the pain ever disappear while you are walking? |__|(242)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

121. What do you do if you get it when you are walking? |__|(243)

1 = stop
2 = slow down
3 = continue at same pace
8 = don't know/not sure
9 = refused

122. What happens to it if you stand still? |___|(244)

1 = usually continues more than 10 minutes
2 = usually disappears in 10 minutes or less
8 = don't know/not sure
9 = refused

MEDICATIONS

Before we go on to the next part of this survey. I would like to talk with you about any medications that you are currently taking.

123. Are you taking any medications now? |___|(245)

1 = yes
2 = no (GO TO Q125)
8 = don't know/not sure
9 = refused

124. **Could you please show me the medicine you brought with you.**

[RECORD EACH OF THE MEDICATIONS]

	Commercial	Generic
Name of Medication	_____	_____
Name of Medication	_____	_____
Name of Medication	_____	_____
Name of Medication	_____	_____
Name of Medication	_____	_____
Name of Medication	_____	_____
Name of Medication	_____	_____
Name of Medication	_____	_____
Name of Medication	_____	_____
Name of Medication	_____	_____

FOOD HABITS

Now I am going to ask a few questions about foods you eat <u>weekly</u>. Think in terms of <u>usual times or servings per week</u>.

[PLEASE USE THE FOLLOWING CODES FOR QUESTIONS (Q125-Q139)]

44 = EATS AT LEAST ONCE A MONTH BUT NOT EVERY WEEK
55 = EATS AT LEAST ONCE A YEAR BUT NOT EVERY MONTH
77 = NEVER EATS OR HAS NOT EATEN IN PAST YEAR
88 = DON'T KNOW/NOT SURE
99 = REFUSED

125. How many times a week do you eat **fast food meals**? |__|__| (246-247)

126. In the future, would you like more **information** about the **nutritional** value of foods you eat in restaurants? |__| (248)

[INCLUDES FAST FOOD RESTAURANTS]

1 = yes
2 = no
7 = does not eat at restaurants
8 = don't know/not sure
9 = refused

127. How many 3 ounce portions of **beef or pork** do you eat per week? |__|__| (249-250)

[INCLUDES BACON, HAMBURGER, STEAK, BRATWURST, AND HOT DOGS]

128. Of the **beef and pork** you eat, how often is it **fried**? |__| (251)

1 = almost all the time (75-100%)
2 = half the time (35-74%)
3 = sometimes (20-34%)
4 = rarely or never (0-19%)
7 = does not eat beef, pork, or sausages
8 = don't know/not sure
9 = refused

129. When you eat meat do you <u>usually</u> eat the **visible fat** on the meat? |__| (252)

1 = yes

2 = no
7 = does not eat meat
8 = don't know/not sure
9 = refused

130. How many 3 ounce portions of **chicken or turkey** do you eat per week? |__|__| (253-254)

131. Of the **chicken** you eat, how often is it **fried**? |__| (255)

1 = almost all the time (75-100%)
2 = half the time (35-74%)
3 = sometimes (20-34%)
4 = rarely or never (0-19%)
7 = does not eat chicken
8 = don't know/not sure
9 = refused

132. When you eat chicken or turkey, do you usually eat the **skin**? |__| (256)

1 = yes
2 = no
7 = does not eat chicken or turkey
8 = don't know/not sure
9 = refused

133. How many times a week do you eat **fish**? |__|__| (257-258)

[INCLUDES FISH STICKS, CANNED TUNA/SALMON, AND FISH SANDWICHES]

134. Of the **fish** you eat, how often is it **fried**? |__| (259)

[INCLUDES FISH STICKS AND FISH FILLET SANDWICHES]

1 = almost all the time (75-100%)
2 = half the time (35-74%)
3 = sometimes (20-34%)
4 = rarely or never (0-19%)
7 = does not eat fish

8 = don't know/not sure
9 = refused

135. How many servings of **oatmeal or oat foods** do you eat per week? |__|__| (260-261)

[INCLUDES MUFFINS, BREAD, CEREAL, AND COOKIES MADE FROM OATS]

136. How many 1/2 cup servings of **dried beans** do you eat per week? |__|__| (262-263)

[INCLUDES CANNED KIDNEY BEANS, PORK AND BEANS, BAKED BEANS, REFRIED BEANS, SPLIT PEAS, AND ANY DRIED BEANS THAT WERE SOAKED IN WATER BEFORE COOKING]

137. How many **months** of the year do you eat **wild game**? |__|__| (264-265)

138. During that time, how many 3 ounce portions of **wild game** do you eat per month? |__|__| (266-267)

139. During that time, how many 3 ounce portions of **venison sausage** do you eat per month? |__|__| (268-269)

Now I am going to ask how often you eat certain foods per day. If you don't eat these foods every day, please let me know.

[FOR THE FOLLOWING QUESTIONS REGARDING DAILY FOOD HABITS, ESTIMATE THE FREQUENCY OF FOOD CONSUMPTION IN THE FIRST TWO COLUMNS AND THEN INDICATE THE APPROPRIATE TIME INTERVAL IN THE LAST COLUMN: DAILY - RECORD 1, WEEKLY - RECORD 2, MONTHLY - RECORD 3, DOES NOT EAT/NOT APPLICABLE - RECORD 777, DON'T KNOW/NOT SURE - RECORD 888, AND REFUSED - RECORD 999]

140. About how many 1 oz. servings (1 slice) of **cheese** do you eat per day? |__|__| per|__| (270-272)

[INCLUDES ANY KIND]

141. Of the **cheese** you eat, how often is it the kind that is labeled "**low fat**" or "reduced calorie" or "lite"? |__| (273)

1 = almost all the time (75-100%)
2 = half the time (35-74%)
3 = sometimes (20-34%)
4 = rarely or never (0-19%)
7 = does not eat cheese
8 = don't know/not sure
9 = refused

142. About how many **eggs** per day do you eat? |__|__| per|__| (274-276)

[INCLUDES THOSE USED IN COOKING]

143. About how many 1/2 cup servings of **rice, noodles, macaroni, potatoes, and cereal,** do you eat per day? |__|__| per|__| (277-279)

144. About how many slices or servings of **bread** do you eat per day? |__|__| per|__| (280-282)

[INCLUDES SLICED BREAD, MUFFINS, BISCUITS, BAGELS, FRYBREAD, HAMBURGER BUNS, HOT DOG BUNS, SANDWICHES, PANCAKES, AND WAFFLES]

145. About how many bowls of **salads** (green or vegetable) do you eat per day? |__|__| per|__| (283-285)

Now I am going to ask how often you eat certain foods per day. If you don't eat these foods every day, please let me know.

[FOR THE FOLLOWING QUESTIONS REGARDING DAILY FOOD HABITS, ESTIMATE THE FREQUENCY OF FOOD CONSUMPTION IN THE FIRST TWO COLUMNS AND THEN INDICATE THE APPROPRIATE TIME INTERVAL IN THE LAST COLUMN: DAILY - RECORD 1, WEEKLY - RECORD 2, MONTHLY - RECORD 3, DOES NOT EAT/NOT APPLICABLE - RECORD 777, DON'T KNOW/NOT SURE - RECORD 888, AND REFUSED - RECORD 999]

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[INCLUDES THOSE USED IN COOKING]

143. About how many 1/2 cup servings of **rice, noodles, macaroni, potatoes, and cereal,** do you eat per day? |__|__| per|__| (277-279)

144. About how many slices or servings of **bread** do you eat per day? |__|__| per|__| (280-282)

[INCLUDES SLICED BREAD, MUFFINS, BISCUITS, BAGELS, FRYBREAD, HAMBURGER BUNS, HOT DOG BUNS, SANDWICHES, PANCAKES, AND WAFFLES]

145. About how many bowls of **salads** (green or vegetable) do you eat per day? |__|__| per|__| (283-285)

[USE FOOD MODEL BOWL]

146. Not counting salad or potatoes, about how many 1/2 cup servings of **vegetables** do you eat per day? |___|___| per|___| (286-288)

147. How many 1/2 cup servings of **fruit or vegetable juice** do you usually drink per day? |___|___| per|___| (289-291)

148. Not counting juices, how many servings of **fruits** do you usually eat per day? |___|___| per|___| (292-294)

149. How many 1 cup servings of **milk** do you usually drink per day? |___|___| per|___| (295-297)

[INCLUDES MILK ON CEREAL IF YOU EAT OR DRINK ALL THE MILK]

150. Is that usually? |___| (298)

[INDICATE ONE]

1 = skim milk
2 = low fat 1%
3 = low fat 2%
4 = whole milk
7 = does not drink milk
8 = don't know/not sure
9 = refused

151. How many servings of **desserts** per day or week do you eat? |___|___| per|___| (299-301)

[INCLUDES PIES, CAKES, DOUGHNUTS, SWEET ROLLS, ICE CREAM, COOKIES, AND CANDY BARS]

152. How many servings of **salty snacks** per day or week do you eat? |___|___| per|___| (302-304)

[INCLUDES CHIPS, SNACK CRACKERS, NUTS, AND BUTTERED POPCORN, AND PRETZELS]

Now I am going to ask you about specific kinds of fats. If you do not eat this food every day, please tell me the number of times per week or per month that you estimate you eat this food.

153. On the average about how many servings per day do you eat of **1 tsp of butter, margarine, or real mayonnaise?** |__|__| per|__| (305-307)

154. On the average, about how many servings per day do you eat of **2 tsp regular salad** dressing (any kind)? |__|__| per|__| (308-310)

155. On the average, about how may servings per day do you eat of **2 Tbsp sour cream?** |__|__| per|__| (311-313)

156. On the average, about how many servings per day do you eat of **2 Tbsp gravy?** |__|__| per|__| (314-316)

157. On the average, about how many servings per day do you use **1 Tbsp coffee creamer?** |__|__| per|__| (317-319)

158. Of butter or margarine, what type do you most usually use? |__| (320)

1 = usually butter
2 = usually squeeze margarine
3 = usually tub margarine
4 = usually stick margarine
7 = never eat/don't use either one
8 = don't know/not sure
9 = refused

159. What kind of fat is most usually added to cooked vegetables in your home? |__| (321)

[INCLUDES BEFORE, DURING, OR AFTER COOKING

BUT NOT WHEN FRYING]

1 = any liquid cooking oil (vegetable oils)
2 = margarine (stick or solid)
3 = vegetable shortening (solid)
4 = lard, meat drippings, or butter (animal fats)
7 = does not add fat to cooked vegetables
8 = don't know/not sure
9 = refused

160. What kind of fat is <u>most usually</u> used in your home for **frying vegetables like potatoes?** ___ (322)

[INDICATE ONE]

1 = liquid cooking oil (vegetable oil)
2 = margarine (stick or solid)
3 = vegetable shortening (solid)
4 = lard, meat drippings, or butter (animal fats)
7 = does not fry vegetables or potatoes/uses non-stick spray (PAM)
8 = don't know/not sure
9 = refused

161. What kind of fat is <u>most usually</u> used in your home for **frying meat?** ___ (323)

[INDICATE ONE]

1 = liquid cooking oil (vegetable oil)
2 = margarine (stick or solid)
3 = vegetable shortening (solid)
4 = lard, meat drippings, or butter (animal fats)
7 = does not fry meat/uses non-stick spray (PAM)
8 = don't know/not sure
9 = refused

162. Do you usually **add salt** at the table? ___ (324)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

163. Do you (or the person who prepares your food) usually **skim the fat** from meat juices before adding them to hot dish, stews, soups, and gravy? |___|(325)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

PROGRAM AWARENESS AND PARTICIPATION

The last part of this interview asks whether you have taken part in specific heart disease programs in your community and asks your opinion about whether or not you were influenced by these programs during the PAST YEAR. This does not include programs you have seen on television but programs or classes that you have observed or attended in your community.

164. During the **PAST YEAR** have you been aware of any **organized program** in (NAME OF COMMUNITY) to help people cut down their risk of heart disease or diabetes? ___ (326)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

165. In the **PAST YEAR** have you taken part in any of the following:

1 = yes
2 = no
8 = don't know/not sure
9 = refused

a. classes, lectures, or cooking **demonstrations** about the relationship of **diet** or particular food habits to **heart disease**, blood pressure, weight, cholesterol, or diabetes? ___ (327)

b. **programs**, classes, or contests to help you **lose weight**? (like Weight Watchers or aerobics) ___ (328)

c. programs, lectures, classes, or demonstrations about **lowering blood pressure**? ___ (329)

d. programs or classes involving **exercise or physical activity** (includes aerobics, Walkathons, Races, and Runs)? ___ (330)

e. classes, **programs**, or contests designed to help people **stop smoking**? ___ (331)

166. During the **PAST YEAR**, have you found that **restaurants** were providing more **nutrition information** about the food they sell? ___ (332)

1 = yes (GO TO Q167)
2 = no (GO TO Q168)
8 = don't know/not sure
9 = refused

167. Has this **influenced** your food **choices** in that restaurant? ___ (333)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

168. During the **PAST YEAR,** have you found that local **grocery stores** were providing more **nutrition information** about the food they sell? ___ (334)

1 = yes (GO TO Q169)
2 = no (GO TO Q170)
8 = don't know/not sure
9 = refused

169. Has this information **influenced** the kinds of **choices** you made when grocery shopping? ___ (335)

1 = yes
2 = no
8 = don't know/not sure
9 = refused

170. During the **PAST YEAR,** have **school children** in your household brought home any **materials**, pamphlets, or assignments about heart disease, blood pressure, diabetes, cholesterol, exercise, or diet? ___ (336)

1 = yes

2 = no
3 = don't have school children in household
8 = don't know/not sure
9 = refused

FINISH Time (military time) HOUR|__|__|: MINUTE|__|__| (337-340)

INTERVIEWER REMARKS

Participant's cooperation was: |___|(341)

1 = very good
2 = good
3 = fair
4 = poor

The quality of the interview is: |___|(342)

1 = high quality
2 = generally reliable
3 = questionable
4 = unsatisfactory

[IF CODE IS QUESTIONABLE (3) OR UNSATISFACTORY (4), CODE UP TO THREE REASONS USING THE CODES BELOW. ZERO-FILL ANY UNUSED BOXES.]

Reason for questionable or unsatisfactory information:

A|__|__| B|__|__| C|__|__|(343-348)

Main reason for unsatisfactory or questionable quality of information was because the respondent: D|__|__|(349-350)

not applicable	00
did not want to be more specific	01
did not understand or speak English well	02
was bored or uninterested	03
was upset, depressed or angry	04
had poor hearing or speech	05
was confused or distracted by frequent interruption	06
was inhibited by others around him/her	07
was embarrassed by the subject matter	08
was emotionally unstable	09
was physically ill	10
other (specify: _____)	11

COMMENTS:

CORE DATA	Numbers	Columns
1. MONICA Collaborating Center	|_|_|	1-2
2. MONICA Reporting Unit	|_|_|	3-4
3. Serial number	|_|_|_|_|_|	5-10
4. Number of the MONICA Population Survey	|_|	11
5. Date of examination (day, month, year)	|_|_| (day) |_|_| (mos) |_|_| (yr)	12-17
6. Date of birth (day, month, year)	|_|_| (day) |_|_| (mos) |_|_| (yr)	18-23
7. Name (for local use only) _____		

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No Caption Available.

8. Please indicate the category that best describes your current situation. (Select only **ONE**. If two or more apply, select the best one.): [_] 24

1 student - go to question 9
2 homemaker - go to question 9
3 retired - go to question 9
4 disabled - go to question 9
5 unemployed - skip to question 17
6 employed - skip to question 10
7 other - go to question 9

9. Are you also employed? [_] 25

1 yes - go to question 10
2 no - skip to question 17

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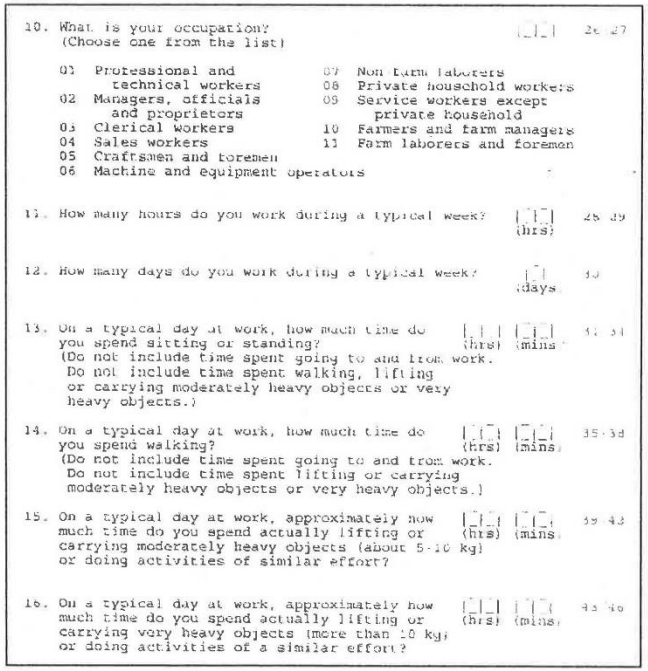
No Caption Available.



10. What is your occupation? (Choose one from the list) |_|_| 26 27

01 Professional and technical workers
02 Managers, officials and proprietors
03 Clerical workers
04 Sales workers
05 Craftsmen and foremen
06 Machine and equipment operators
07 Non farm laborers
08 Private household workers
09 Service workers except private household
10 Farmers and farm managers
11 Farm laborers and foreman

11. How many hours do you work during a typical week? |_|_| (hrs) 28 29

12. How many days do you work during a typical week? |_| (days) 30

13. On a typical day at work, how much time do you spend sitting or standing? (Do not include time spent going to and from work. Do not include time spent walking, lifting or carrying moderately heavy objects or very heavy objects.) |_|_| (hrs) |_|_| (mins) 31 34

14. On a typical day at work, how much time do you spend walking? (Do not include time spent going to and from work. Do not include time spent lifting or carrying moderately heavy objects or very heavy objects.) |_|_| (hrs) |_|_| (mins) 35 38

15. On a typical day at work, approximately how much time do you spend actually lifting or carrying moderately heavy objects (about 5-10 kg) or doing activities of similar effort? |_|_| (hrs) |_|_| (mins) 39 42

16. On a typical day at work, approximately how much time do you spend actually lifting or carrying very heavy objects (more than 10 kg) or doing activities of a similar effort? |_|_| (hrs) |_|_| (mins) 43 46

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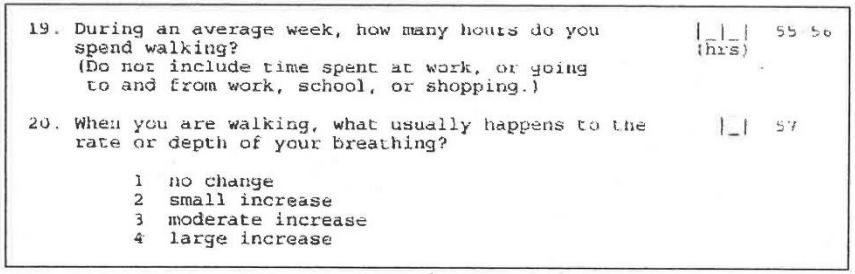

19. During an average week, how many hours do you spend walking? (Do not include time spent at work, or going to and from work, school, or shopping.) |_|_| (hrs) S5 S6

20. When you are walking, what usually happens to the rate or depth of your breathing? |_| S7

1 no change
2 small increase
3 moderate increase
4 large increase

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No Caption Available.

21. On the average, how much time do you spend every day doing moderately vigorous or very vigorous chores at home such as sweeping, vacuuming, washing clothes, scrubbing floors, etc.? |_|_| (hrs) |_|_| (mins) 58-61

22. When you do these chores, what usually happens to the rate or depth of your breathing? |_| 62

1 no change
2 small increase
3 moderate increase
4 large increase

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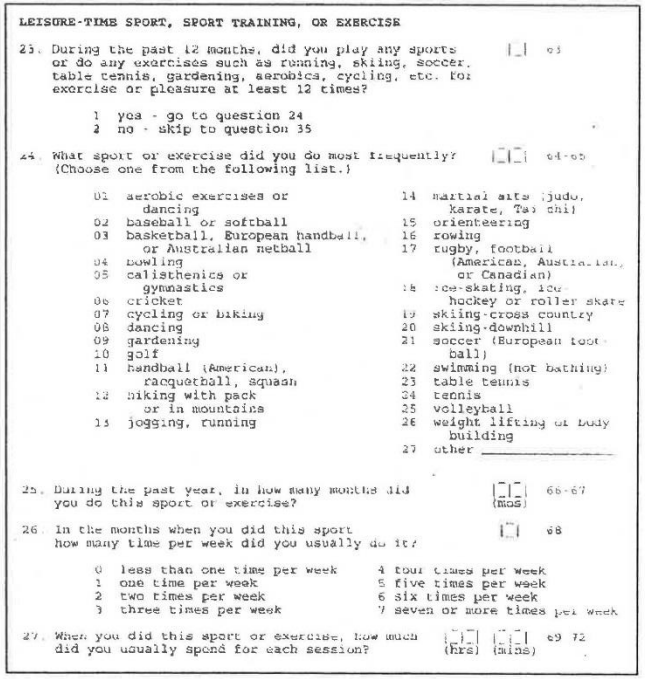
No Caption Available.



LEISURE-TIME SPORT, SPORT TRAINING, OR EXERCISE

23. During the past 12 months, did you play any sports or do any exercises such as running, skiing, soccer, table tennis, gardening, aerobics, cycling, etc. for exercise or pleasure at least 12 times? |_| 63

1 yes - go to question 24
2 no - skip to question 35

24. What sport or exercise did you do most frequently? (Choose one from the following list.) |_|_| 64-65

01 aerobic exercises or dancing
02 baseball or softball
03 basketball, European handball, or Australian netball
04 bowling
05 calisthenics or gymnastics
06 cricket
07 cycling or biking
08 dancing
09 gardening
10 golf
11 handball (American), racquetball, squash
12 hiking with pack or in mountains
13 jogging, running
14 martial arts (judo, karate, Tai chi)
15 orienteering
16 rowing
17 rugby, football (American, Australian, or Canadian)
18 ice-skating, ice hockey or roller skate
19 skiing-cross country
20 skiing-downhill
21 soccer (European foot-ball)
22 swimming (not bathing)
23 table tennis
24 tennis
25 volleyball
26 weight lifting or body building
27 other _____

25. During the past year, in how many months did you do this sport or exercise? |_|_| (mos) 66-67

26. In the months when you did this sport how many time per week did you usually do it? |_| 68

0 less than one time per week
1 one time per week
2 two times per week
3 three times per week
4 four times per week
5 five times per week
6 six times per week
7 seven or more times per week

27. When you did this sport or exercise, how much did you usually spend for each session? |_|_| (hrs) |_|_| (mins) 69 72

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No Caption Available.

33. When you did this sport or exercise, how much time did you usually spend for each session? |_|_| (hrs) |_|_| (mins) 80-83

34. When you did this sport or exercise, what usually happened to the rate or depth of your breathing? |_| 84

1 no change - skip to question 38
2 small increase - skip to question 38
3 moderate increase - skip to question 38
4 large increase - skip to question 38

35. PRIOR to the past 12 months, did you play any sports or do any exercises such as running, skiing, soccer, table tennis, gardening, aerobics, or cycling for exercise or pleasure at least 12 times in one year? |_| 85

1 yes - go to question 36
2 no - skip to question 38

36. What was the most recent sport that you did on a regular basis prior to this past year? (Choose ONE from the following list.) |_|_| 86-87

01 aerobic exercises or dancing
02 baseball or softball
03 basketball, European handball, or Australian netball
04 bowling
05 calisthenics or gymnastics
06 cricket
07 cycling or biking
08 dancing
09 gardening
10 golf
11 handball (American), racquetball, squash
12 hiking with pack or in mountains
13 jogging, running
14 martial arts (judo, karate, Tai chi)
15 orienteering
16 rowing
17 rugby, football (American, Australian, or Canadian)
18 ice-skating, ice-hockey or roller skate
19 skiing-cross country
20 skiing-downhill
21 soccer (European football)
22 swimming (not bathing)
23 table tennis
24 tennis
25 volleyball
26 weight lifting or body building
27 other _____

37. How many years ago did you stop doing this sport? |_|_| (yrs) 88-89

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No Caption Available.

38. Which of the following four activity classes best describes your present activity outside of your job? Please consider transportation to and from work, sporting activity and other physical effort during your leisure time, like gardening or dancing. |_| 90

1 No weekly physical activity.

2 Only light physical activity in most weeks.

3 Vigorous physical activity at least 20 minutes once or twice a week. (Vigorous activity causes shortness of breath, a rapid heart rate, and sweating.)

4 Vigorous physical activity for at least 20 minutes three or more times per week.

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No Caption Available.

BIOGRAPHY OF THE AUTHOR

Michael Best was born in Calais, Maine, and graduated from Calais High School. Michael graduated from the University of Maine at Presque Isle in May of 2010 with a B.S. in Physical Education and a concentration in Fitness and Wellness. He has interned across the State of Maine at various Hospitals, working each time in Phase II Cardiac Rehabilitation. He was also employed at the Bangor Y as a Cancer Exercise Specialist, Exercise Physiologist, and Personal Trainer until recently. Michael is a member of the American College of Sports Medicine. He is a candidate for the Master of Science degree in Kinesiology and Physical Education from The University of Maine in August, 2015.