

1990

# Oneida nation of New York: health needs assessment 1990

Oneida Indian Nation of New York

Indian Health Service, Nashville Area Office

Centers for Disease Control

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## Recommended Citation

Edwards S. Blair G. Warren CW. Stupp PW. Friedman JS. Oneida nation of New York: health needs assessment, 1990. Indian Health Service, Staff Office of Planning, Evaluation, and Research, Rockville, MD 20857 (E-111). 1990

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**ONEIDA INDIAN NATION  
OF NEW YORK**



**HEALTH NEEDS ASSESSMENT  
1990**



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## ACKNOWLEDGEMENTS

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This project was made possible by the following individuals and organizations:

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Mr. Richard Chrisjohn, Nation Representative, ONNY

Mr. James C. Meredith, Area Director, Nashville Area IHS

Mr. William Dew, Associate Director of Office of Tribal Affairs, Nashville Area Office, IHS

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Support staffs from the Nashville Area IHS and the Division of Reproductive Health, CDC

The Indian Health Service Evaluation and Legislation Branch for the financial support to the project.

All Oneida Nation members who were kind enough to participate in the survey.

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## EXECUTIVE SUMMARY

Between now and the year 2000, health improvements for American Indians will depend, to a substantial degree, on changes in individual behavior. The Indian Health Service (IHS), in collaboration with Indian tribes, has given high priority to developing health promotion and disease prevention programs (HP/DP) that would encourage such changes. In order to develop the most appropriate strategies for achieving HP/DP objectives, the IHS realizes that it is necessary to have information on the current prevalence of behaviors that increase risks to health. The best means available to collect such information on health risk behavior, and develop the necessary database, is through population-based studies.

In developing an appropriate methodology for obtaining the needed baseline prevalence data, IHS recognized two problems had to be addressed. (1) Since only an estimated 25 percent of all American Indians in the United States live on reservations, a study design must be developed to collect prevalence data for both on-and-off reservation Indians. (2) Since a large proportion of all American Indian households do not have telephones, a face-to-face survey design would have to be considered. A series of surveys have therefore been carried out in the northwestern states of Montana, Washington and Wyoming that included both on-and-off reservation Indians and a face-to-face survey design. The target population for these studies was American Indian men and women 15 years of age and older.

This study, carried out by the Nashville Area Office of the IHS is a continuation in the series of studies begun in the Northwest, since there is almost no behavioral risk factor data available on the Indian tribes of the northeast and none on the Oneida Nation of New York. The Oneida Nation Health Needs Assessment (ONHNA) was, therefore, carried out among enrolled members of the Oneida Nation, 18 years of age and older who lived in the 6 counties contiguous to the Oneida Nation lands. It provided information on an array of behavioral risk factors, including hypertension, exercise, smoking, and alcohol consumption, as well as health needs data on cholesterol, diabetes, stress and AIDS. Additional information was collected on health care utilization and maternal-infant health and family planning issues among Oneida members. The objectives of this study were:

- To collect population-based prevalence data related to behavioral risks and reproductive health for American Indian males and females.
- To identify subgroups (sex, age, education) in special need of HP/DP programs. And,
- To collect baseline prevalence data which can be used to identify and follow trends and evaluate interventions.

A summary of the results of the study follow.

### Motor Vehicle-Seat Belt Usage

Seat belt use by Oneida members was slightly lower than for all New Yorkers. Female New Yorkers use seat belts to a greater extent than males (53 vs. 63 percent), and this was true as well among Oneida members.

Seat belt non-use was highest for young Oneida members as well as for young New Yorkers. Seat belt non-use was particularly high (64 percent) for male Oneida members who had driven during the past month when they had too much to drink.

Seat belt non-use by Oneida members was much lower than for any of the other Indian groups who have been studied (Figure A).

### Motor Vehicle Accidents

Sixteen percent of Oneida males and 5 percent of Oneida females were involved in a motor vehicle accident in the past year, with relatively high rates among younger and less educated males.

### High Blood Pressure

Sixty percent of Oneida males and 78 percent of Oneida females reported that they had their blood pressure taken in the past year.

Reported high blood pressure was similar for Oneidas and the general population in New York.

### Exercise

Both male and female Oneida members were much less likely to lead sedentary lifestyles than the general population in New York (Figure B).

The probability of leading a sedentary lifestyle, generally, increases with age for all of the American Indian groups, which is also the case for the New York population, but to a lesser extent.

### Overweight

Male and female Oneida members were substantially more likely to be overweight according to the body-mass index criterion than the general population in New York. The prevalence of being overweight among male Oneida members with high blood pressure, however, was similar to the prevalence for the general New York male population (Figure C).

### Cigarette Smoking and Chewing Tobacco

The percentage of Oneida members who currently smoke is high -- over 40 percent of both males and females (Figure D). By



contrast, in New York about 25 percent of the population currently smokes. Smoking rates are generally lowest among the youngest and the oldest persons of each sex both among Oneida members and among all New Yorkers.

Oneida members had higher rates of having ever smoked than did all New Yorkers, and for Oneidas, only 38 percent of both males and females who have ever smoked have quit smoking. In the general New York population, 54 percent of males and 46 percent of females have quit. Thus the higher smoking prevalence among Oneida members was due to both a higher rate of ever having smoked and lower rate of quitting.

Use of smokeless tobacco is relatively high among male Oneida members (17 percent); there is no smokeless tobacco use among Oneida women (Figure E). American Indian males in all the other groups surveyed use smokeless tobacco to a much greater extent than Oneida males. Smokeless tobacco use in all groups was concentrated at the youngest age groups, in contrast to smoking, which is less prevalent in the younger age groups.

#### Alcohol Consumption

Acute heavy drinking among Oneida males and females is very high compared to the population in New York in general (Figure F). Fifty-seven percent of Oneida males and 32 percent of Oneida females are classified as acute heavy drinkers.

Oneida males are less likely to be binge drinkers (20 percent) than males at Blackfeet (42 percent), at Fort Peck (33 percent), or in Great Falls (26 percent) (Figure G). Among American Indian females, those at Oneida were the least likely to be binge drinkers. Seventeen percent of Oneida males and 5 percent of Oneida females were classified as chronic drinkers (Figure H).

Sixteen percent of Oneida males have driven at least once in the past month when they had too much to drink. This compares to 3 percent for all males in New York (Figure I).

#### Health Needs

Questions on general health services received by the Oneidas showed a number of areas of concern (Figure J). Only 58 percent of the males and 45 percent of the females had ever had their cholesterol checked. Six percent of males and 12 percent of females self-reported that they had diabetes, but only slightly over one-half had ever been tested. Only 15 percent of males and 31 percent of females over age 50 had a flu shot during the past year. Further, for those over age 40, only 30 percent of males and 26 percent of females had ever had a rectal exam and 32 percent of the females had never had a mammogram. On a positive note, over 90 percent of the women had had a Pap test. Also, 85 percent of males and 79 percent of females had ever had a routine physical exam.

### Depression/Abuse

Seventeen percent of Oneida males and 37 percent of Oneida females had felt depressed or "downhearted" during the past month. Also, 12 percent of males and 27 percent of females reported that they had been abused as a child (the specific form of this abuse was not collected). Two percent of males and 9 percent of females reported that they had been victims of a crime during the past year.

### Fertility and Breastfeeding

The completed fertility (2.1 children) of Oneida women in this study (mean number of children ever born to 35-44 year old women) is slightly lower than that of all U.S. women, as measured in the 1980 Census (2.6 children on average), and is much lower than other Indians and blacks (more than 3 children on average).

Females at Oneida and in Great Falls and on the Fort Peck Reservation were much more likely than those on the Blackfeet Reservation to drink during pregnancy (Figure K). Oneida and Blackfeet females were less likely to smoke during pregnancy than Great Falls and Fort Peck women. Nearly 60 percent of females in Great Falls and 50 percent at Fort Peck smoked cigarettes during their last pregnancy. In contrast, at Oneida and on the Blackfeet Reservation, approximately one-third of the females smoked cigarettes during their last pregnancy.

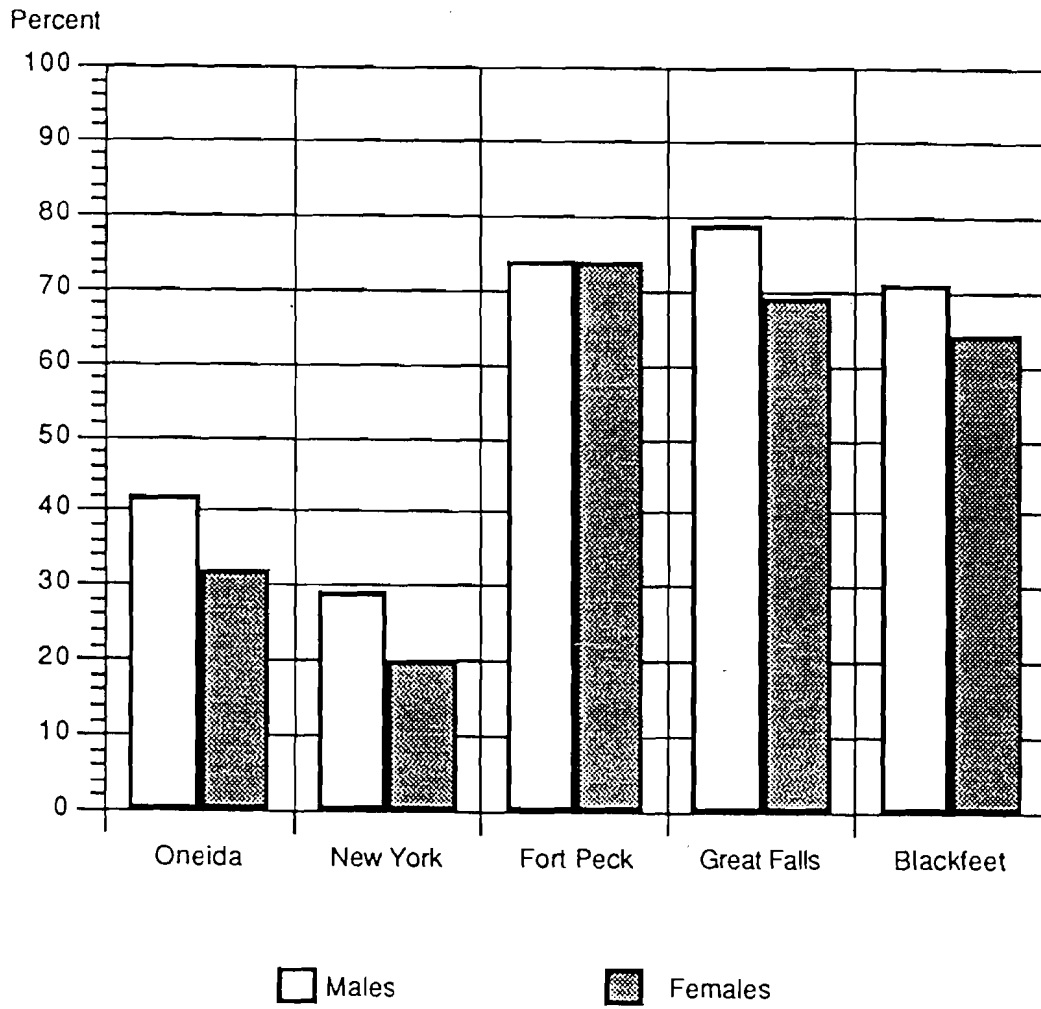
### Contraceptive Use

Current contraceptive use was somewhat lower among Oneida members (60 percent) than both in the U.S. as a whole (74 percent) and New York state (72 percent) (Figure L).

Female sterilization is the most prevalent contraceptive method used by Oneida members (nearly 22 percent of married women), as it is among the general U.S. population.

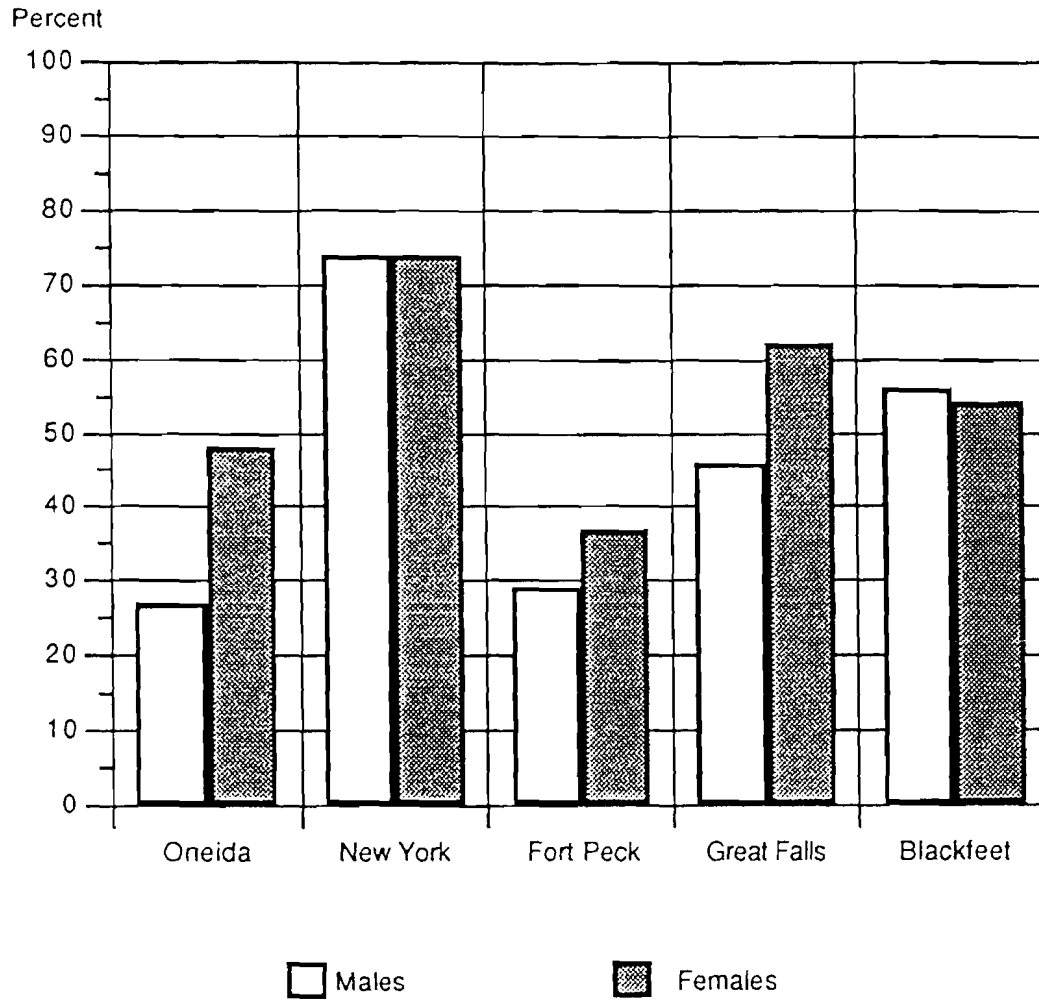
FIGURE A

Seat Belt Non-Use



*FIGURE B*

**Sedentary Lifestyle**



*FIGURE C*  
Overweight

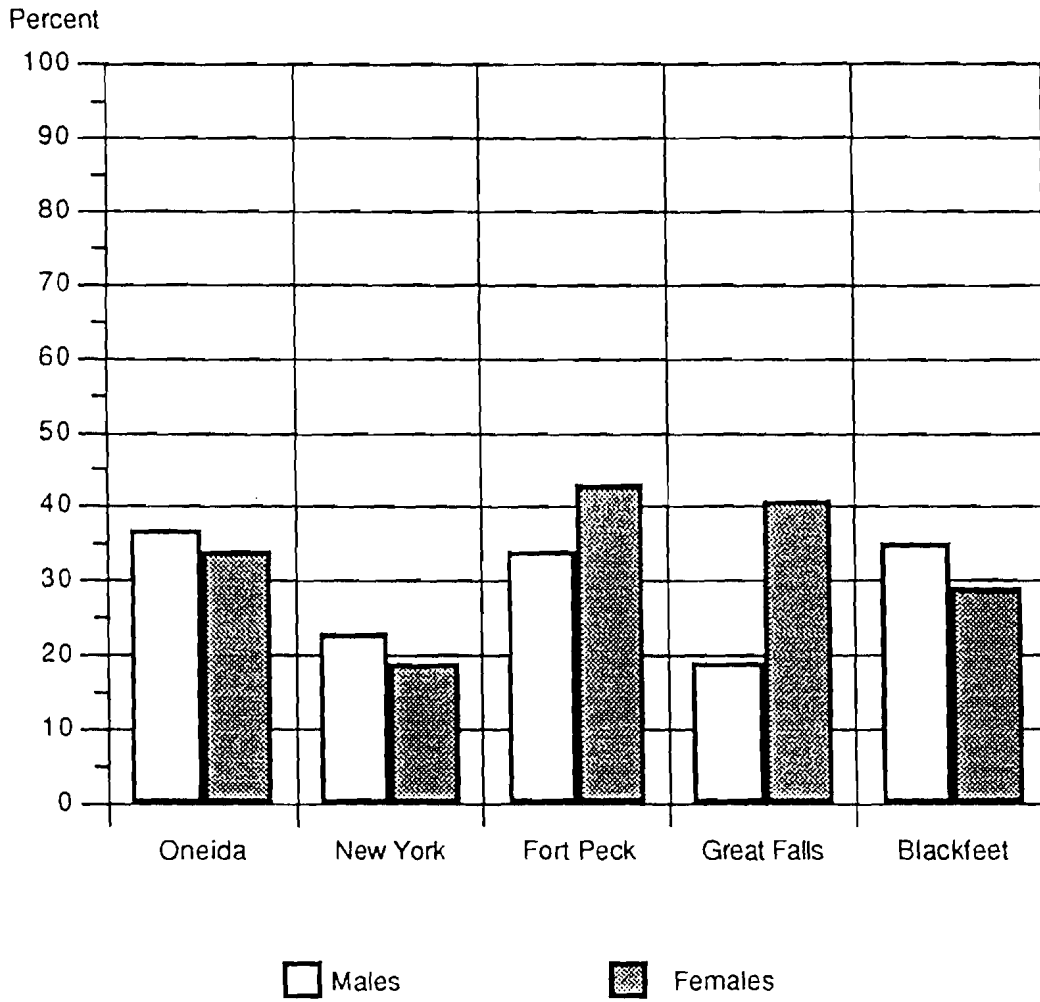


FIGURE D

Current Use Cigarettes

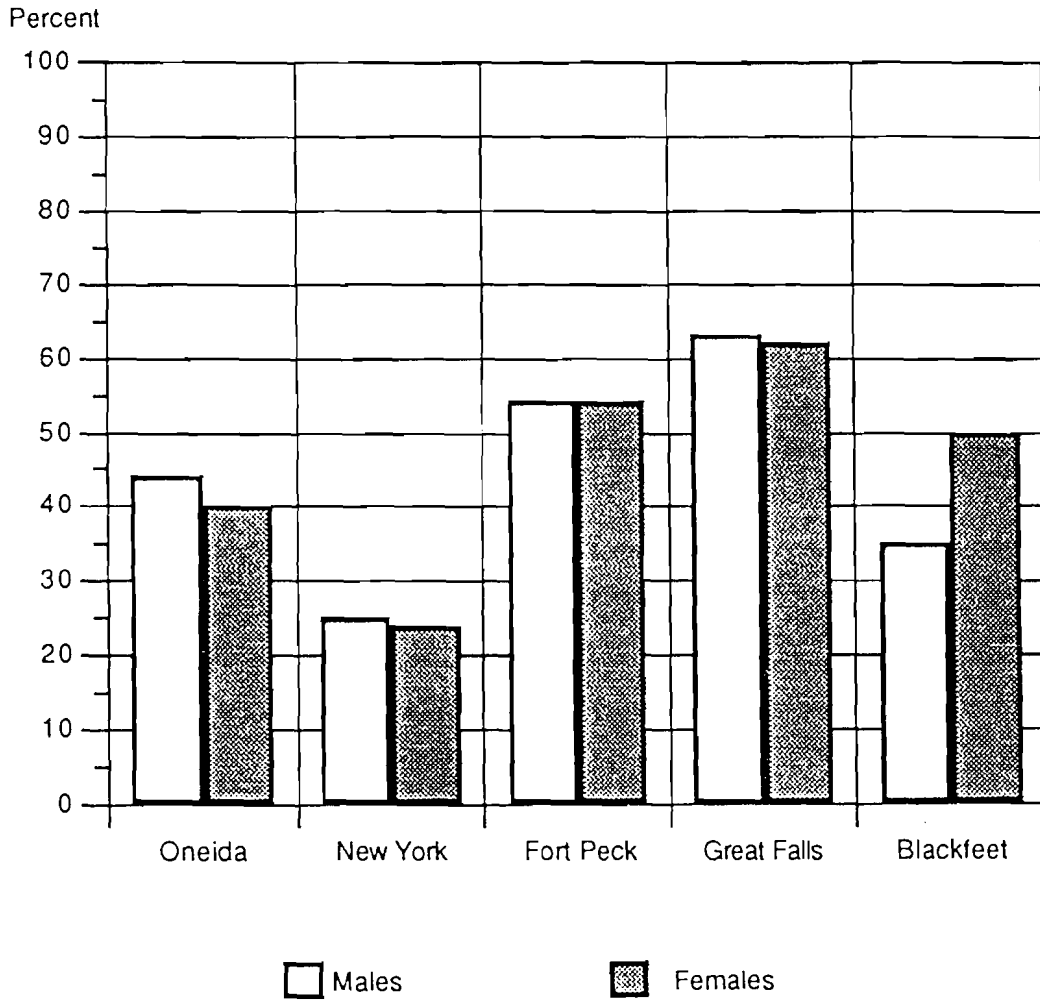




FIGURE E

Current Use Smokeless Tobacco

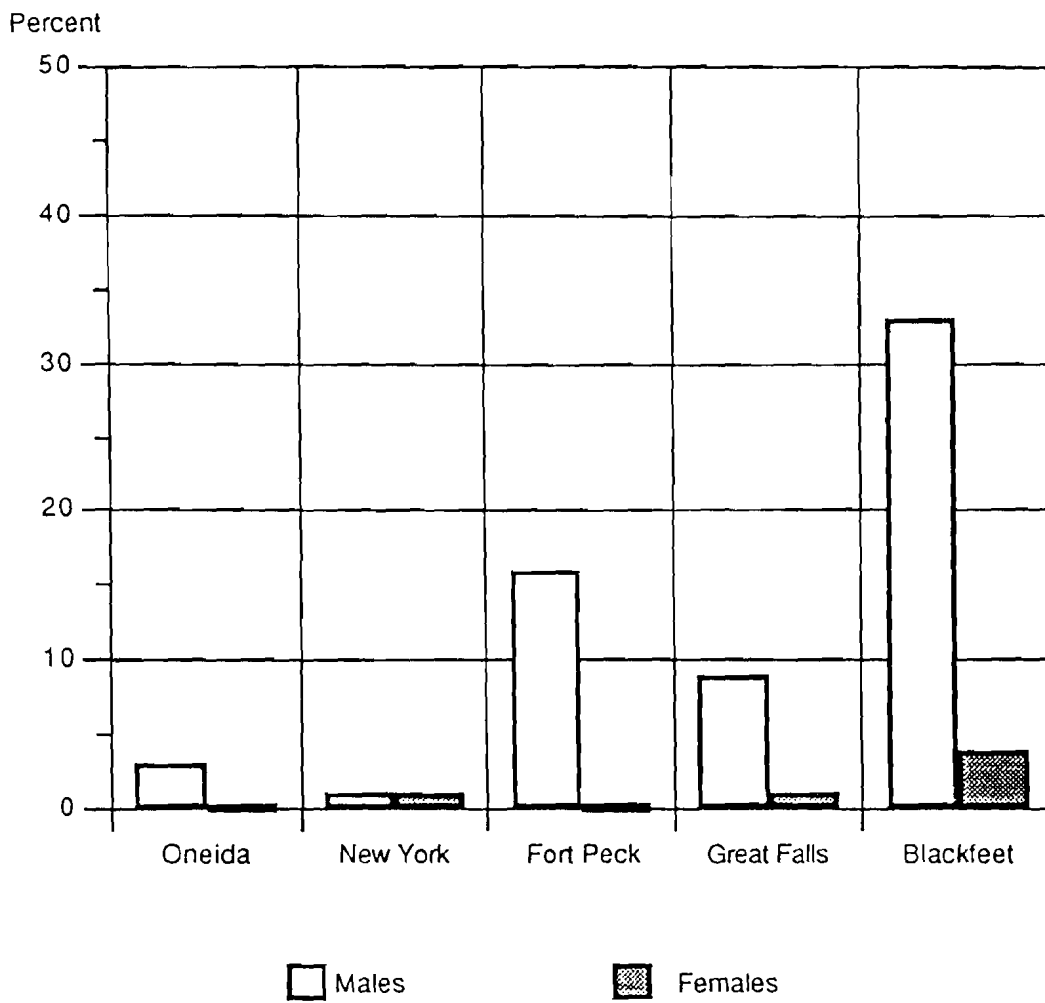
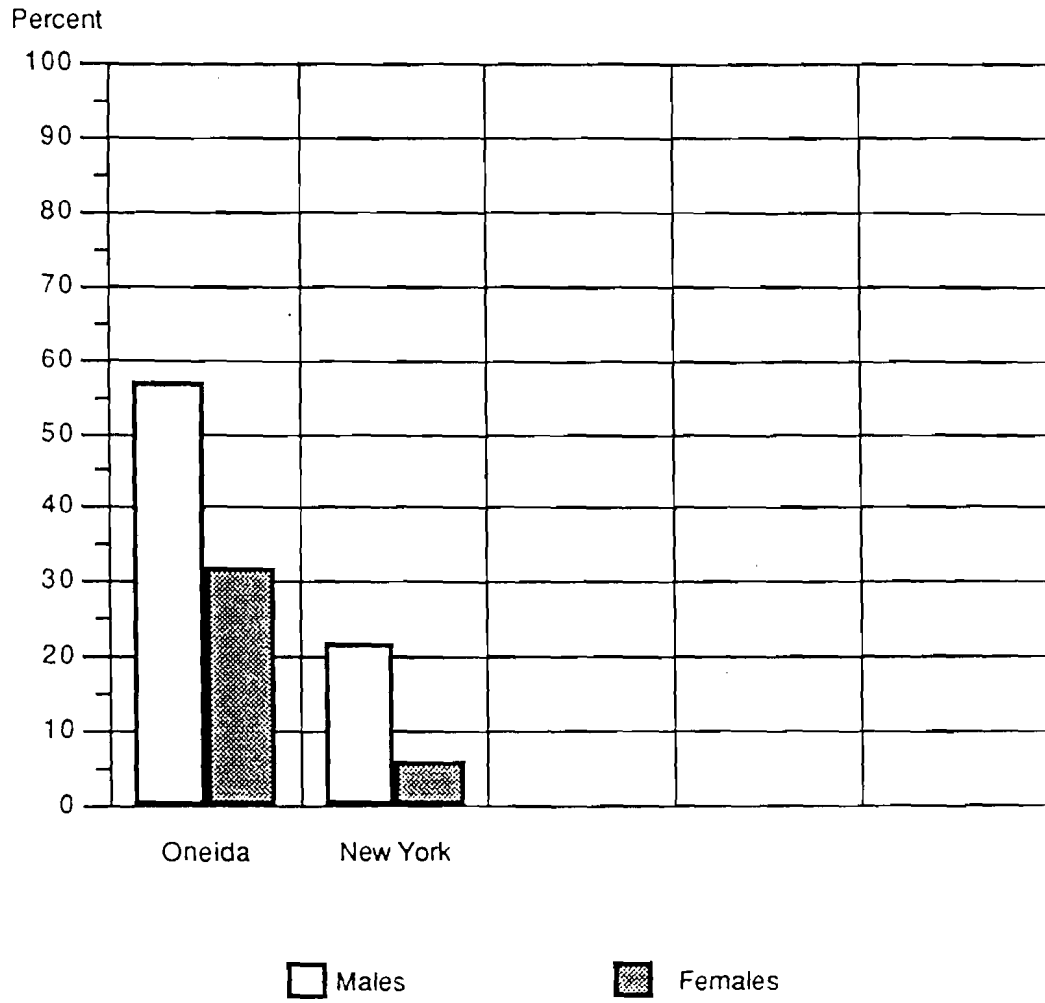
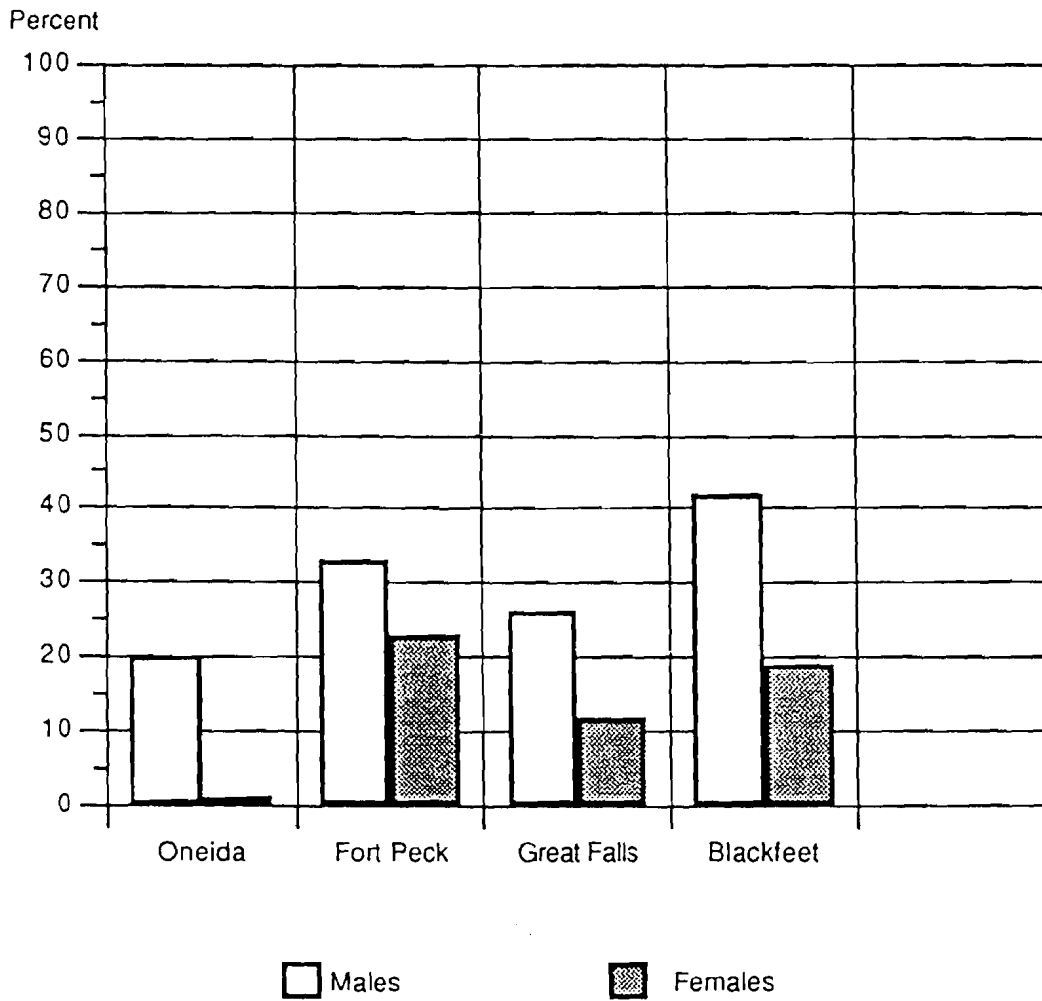


FIGURE F

Acute Drinkers



**FIGURE G**  
**Binge Drinkers**



*FIGURE H*

**Chronic Drinkers**

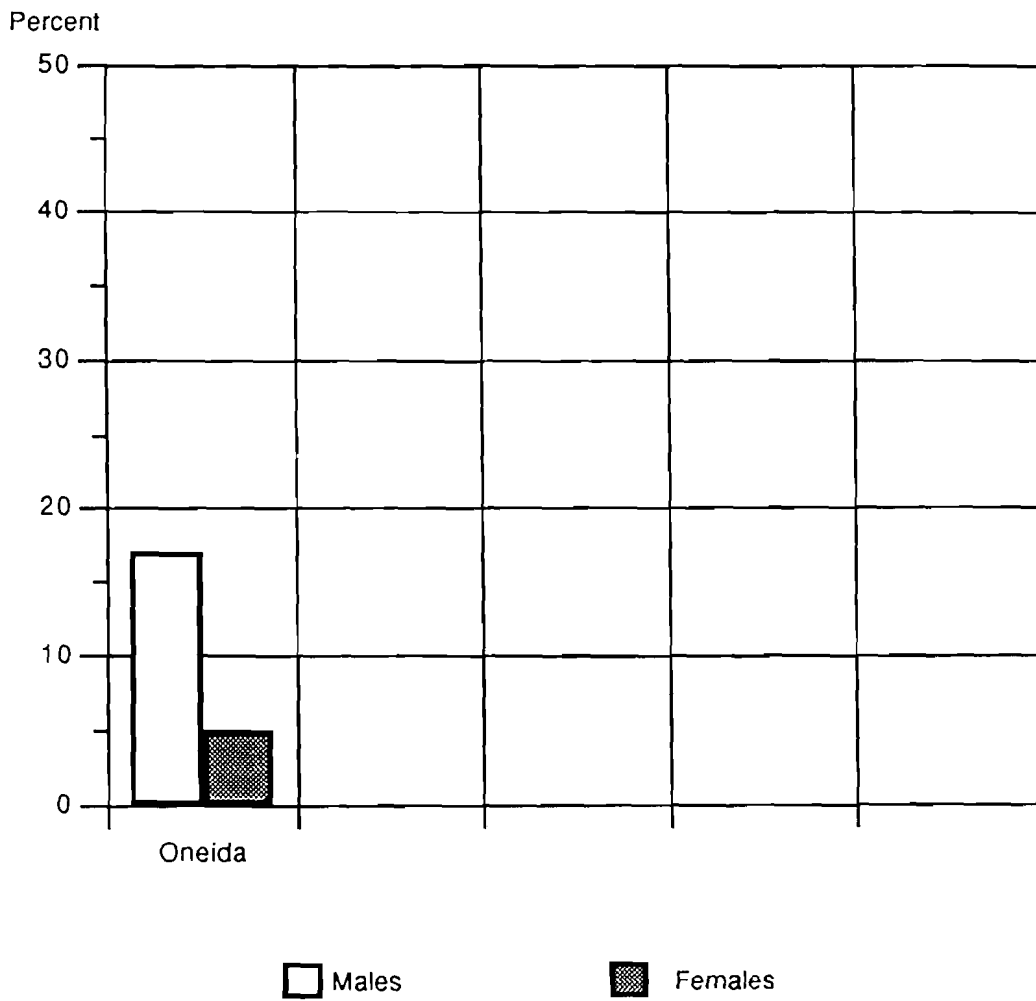
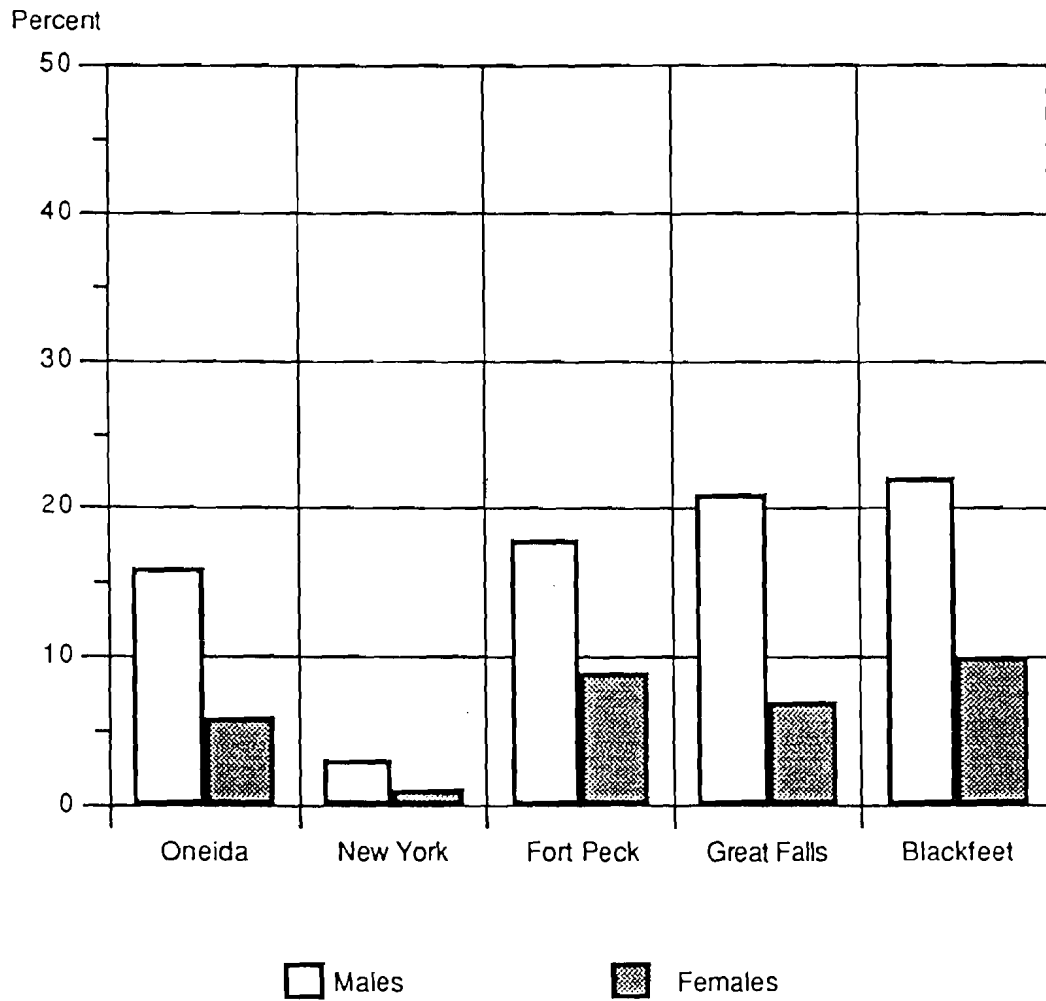


FIGURE I

Driving and Drinking



**FIGURE J**  
**General Health**

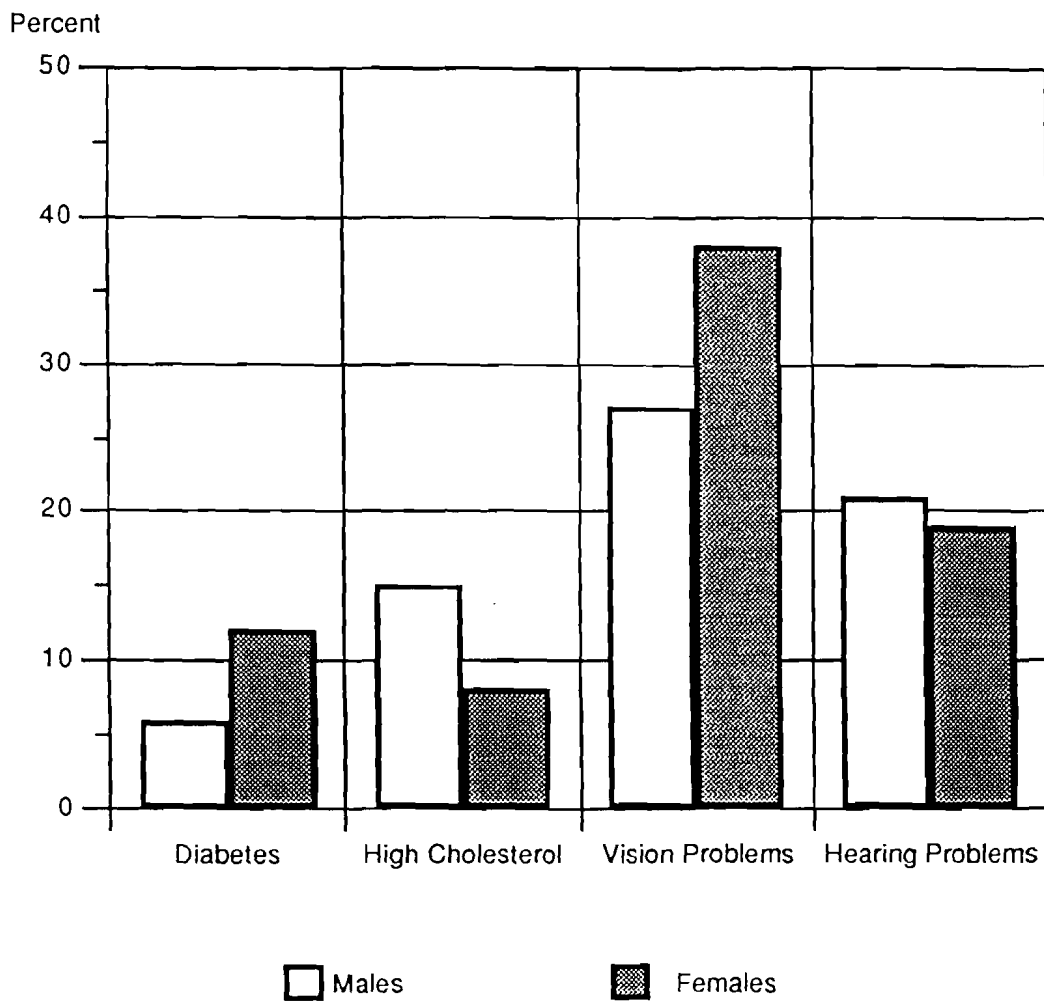
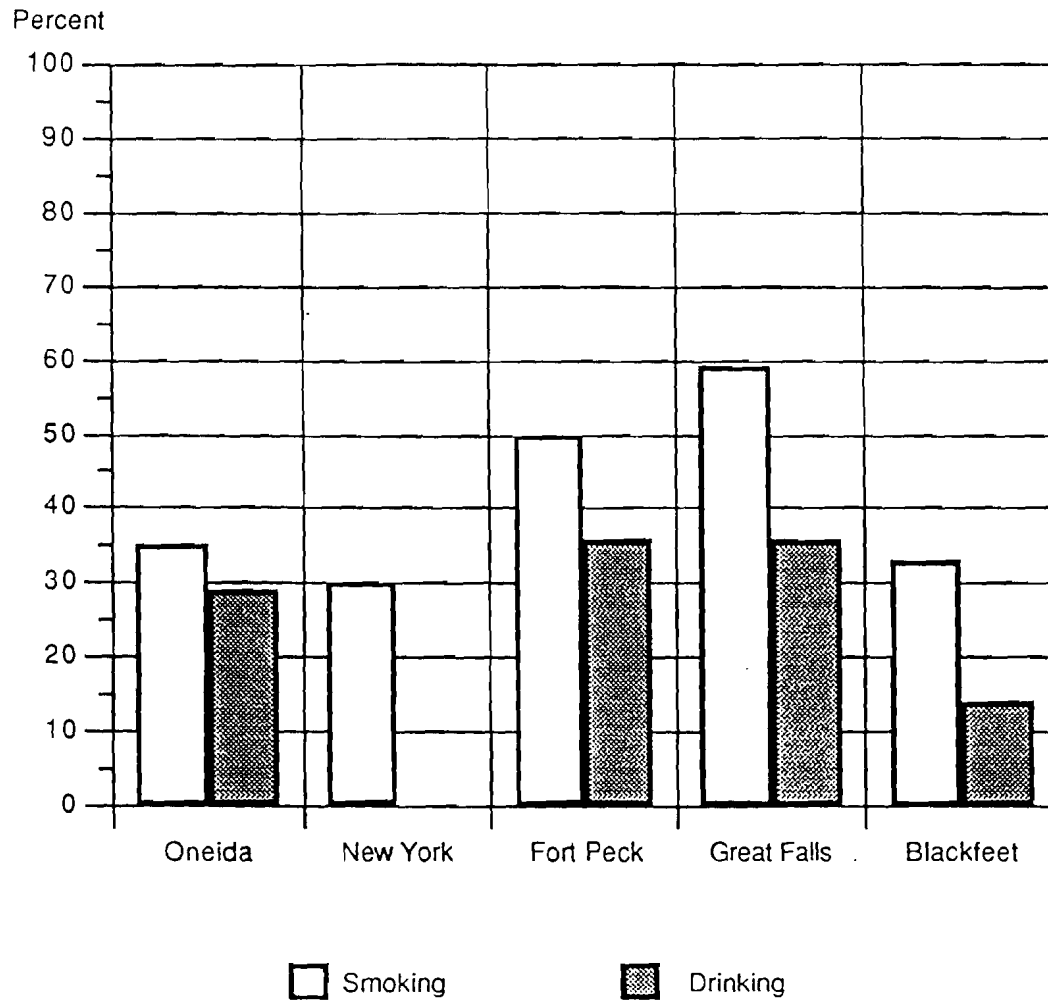


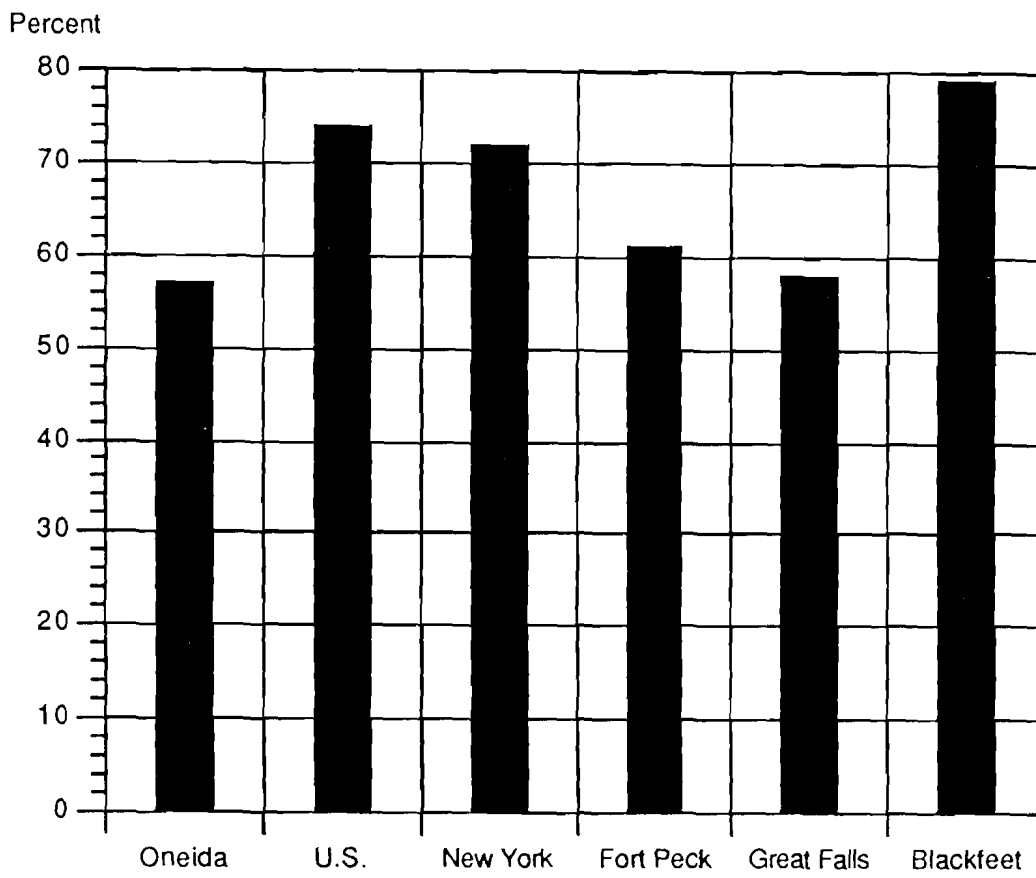
FIGURE K

Smoking and Drinking During Last Pregnancy



**FIGURE L**

**Current Contraceptive Use**





## I. INTRODUCTION

Despite great improvements in recent decades, the overall health status of American Indian people continues to lag behind that of Americans in general (Rhoades et al., 1987). In 1980, life expectancy at birth was still about 3 years shorter for Indians than for the U.S. white population. After infancy and before old age, years during which a large proportion of deaths are largely preventable, the disparity between Indian and white mortality rates is especially high. The ratio of Indian to white mortality rates from ages 15 to 44, for example, is almost 2:1 (IHS, 1989). American Indians are much more likely to die from alcoholism, diabetes, injuries, and homicide than are others in the general U.S. population. This suggests that the Indian-Non Indian mortality differences stem from disparities in causes of death which could be reduced through behavioral changes.

Health improvements among American Indian people depend, to a substantial degree, on changes in individual and community behavior, rather than changes in medical services. Recognizing this, the U.S. Indian Health Service (IHS), in collaboration with Indian tribes, has given high priority to the development of Health Promotion/Disease Prevention (HP/DP) activities (Rhoades, 1987). Optimal development, implementation, and evaluation of HP/DP programs and activities requires the availability of data regarding the prevalence of various health risk behaviors and health conditions. However, these data do not exist for the vast majority of American Indian populations. The availability of

such information would allow measurement of the magnitude of some largely preventable problems and the prevalence of behaviors which can jeopardize health. Thus, such data could be used to help to guide program development strategies. They would also constitute baseline data, so that progress in reducing health risk behaviors could be measured. Because Indians constitute such a small proportion of the overall population of almost every state, statewide health surveys have not included enough Indian people to provide useful results.

In 1987, leaders of two American Indian organizations in Montana, the Blackfeet Tribal Health Department and the Native American Center, Inc. of Great Falls, requested assistance in determining the prevalence of various behavioral risks in their populations. As a result, these organizations, along with the Billings Area IHS Office and the Division of Reproductive Health at the Centers for Disease Control, collaborated in the design and implementation of the 1987 Montana American Indian Health Risk Assessment (MAIHRA) (IHS, 1988). This survey was intended to help those involved in planning and providing health care to develop recommendations and health care strategies.

In addition, since American Indian populations differ from each other substantially, the MAIHRA was designed to serve as a pilot for future surveys, to determine the feasibility of collecting

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behavioral risk factor information for both on- and off-reservation American Indians by means of household interviews.

Since the 1987 MAIHRA methodology was successful (response rate: 71 percent males, 81 percent females), the leaders of the Fort Peck Reservation Tribal Health Department and the Billings Area Office of IHS, proposed a similar study be conducted in 1989 for on-reservation Indians on the Fort Peck Assiniboine and Sioux Reservation. The target population for this study was men and women 15 years of age and older living on the reservation. The 1989 Fort Peck Tribal Health Risk Assessment (FPTHRA) provided information on an array of behavioral risk factors, including hypertension, diet, diabetes, exercise, smoking, alcohol and drug consumption, stress and safety, as well as maternal-infant and family planning issues. As with the earlier MAIHRA, the Fort Peck study was also very successful.

Based on the usefulness of these earlier studies, the Health Director and Nation Representatives of the Oneida Nation of New York (ONNY) recognized the need for baseline health data in the establishment of a quality health delivery system. The ONNY is entering into a more comprehensive arrangement with the Indian Health Service in which the IHS will soon be providing both financial and technical assistance as the Nation implements a health care delivery system. However, presently, there is little behavioral risk factor data available on Indian tribes of the

northeast and none on the Oneida Nation of New York, therefore, the Oneida Nation chose to conduct a survey which would provide information to meet their basic program development needs.

The goals of the 1990 Oneida Nation Health Needs Assessment (ONHNA) are as follows: 1) to collect behavioral risk factor and reproductive health information for adult Oneida Nation members, age 18 plus, living on and near the Oneida Nation lands, 2) to assess the current basic health needs of the ONNY, 3) to document the medical providers and hospitals which are currently being utilized by the Nation members, and 4) to develop recommendations for use by health planners from this baseline behavioral risk and reproductive health information.

## II. METHODOLOGY

### A. Study Design

The 1990 Oneida Nation Health Needs Assessment study population included males and females, 18 years of age and older, who were enrolled members of the Oneida Nation and lived in the 6 counties (Oneida, Onondaga, Madison, Herkimer, Chenango and Cortland) contiguous to the Oneida Nation lands. A complete census was attempted with respondents identified from the Nation Enrollment List. All of those on the enrollment list with current addresses located in the six county area were included. The Nation Enrollment List was the most appropriate means for identifying the Oneida population living in the area. The decision to interview persons age 18 and over was made to avoid any possible legal problems interviewing minors which would have required parental consent.

As in the 1987 MAIHRA and the 1989 FPTHRA, face-to-face household interviewing was done rather than using the telephone or mailout methodology. Survey results showed that over 80 percent of the respondents have telephones which was higher than expected, or found in previous Native American surveys (Table 2-1). The Health Director served as the local coordinator of the study.

All interviewers were enrolled Oneida Nation members. Interviews were conducted by interviewers of the same sex as the respondent.

All interviewers participated in 1 week of training prior to the start of the fieldwork. Fieldwork began on April 2, 1990 and ended on September 13, 1990. Table 2-2 shows the number of completed interviews: male = 81, female = 130. The individual completion rates were 54 percent for males and 69 percent for females. The refusal rate was 12 percent for males and 13 percent for females.

A few problems occurred during the fieldwork which affected the completion rates: (1) In general, the population included in this survey is very mobile, consequently a relatively high percent are temporarily absent. In an attempt to overcome this problem, the fieldwork was expanded to 25 weeks, thus improving the opportunity for finding the temporarily absent. (2) As is often the case, the Nation Enrollment List contained a certain amount of incorrect addresses and the names of deceased persons. (3) In addition, some of the selected respondents maintained mailing addresses with relatives in the area while they actually lived away from the local area. (4) The management of interviewers had a major impact on the results and failure to complete the survey in the established time frame. For most of the fieldwork period, only two male and three female interviewers worked on a part time basis, which reduced the number of complete

interviews in each group. In spite of the problems encountered, sufficient data were obtained to allow profiling of the Oneida community health risk factors and development of baseline data that can be used to plan and prioritize preventive health interventions and activities.

## B. Data Collection

Four types of data were collected: behavioral risk factors, health needs, reproductive health, and health care utilization. A brief description of the content of each follows.

1. Behavioral Health Risk Factors--In 1981, the Centers for Disease Control began to assist state health departments in collecting data useful to the states for planning, implementing and evaluating disease prevention programs. These Behavioral Risk Factor Surveys (BRFS) were designed to permit states to collect information regarding the prevalence of self-reported health behaviors using relatively low cost telephone survey methodology. The behaviors surveyed related to the 10 leading causes of death in the United States and include the following: seat belt usage, high blood pressure, physical exercise, diet, cigarette smoking, smokeless tobacco usage, and alcohol consumption.

The 1987 MAIHRA survey, the 1989 FPTHRA survey and the present study, used the BRFS questionnaire as a core for developing the

behavioral risk questions. The alcohol consumption questions were modified in an effort to better collect data specific to alcohol related problems among American Indians. Use of the modified questionnaire in the MAIHRA and FPTHRA proved to evaluate better the specific health risk behaviors related to Indians by focusing on local tribal practices. Since the MAIHRA questionnaire did not address the area of diabetes or nutrition, the questionnaire for the 1989 FPTHRA and the 1990 ONHNA were further modified to include questions related to diabetes, medication compliance, nutrition, cancer tests, and safety.

The definitions used in this study to define the population "at risk" for each health risk behavior follow:

<u>Behavioral Risk Factor</u>	<u>"At Risk"</u>
Seat Belt Nonuse	Persons reporting "sometimes", "seldom" or "never" use of a seat belt.
High Blood Pressure	Persons who have been told more than once that they have high blood pressure.
Sedentary Lifestyle	Person reporting less than 20 minutes of leisure time physical activity at least 3 times per week.
Overweight	Overweight was defined using the Body Mass Index (BMI = Weight (Kg)/Height (M) <sup>2</sup> ). Overweight for men was defined as a BMI $\geq$ 27.8, and overweight for women, as a BMI $\geq$ 27.3.



Current Smoker	Person answers positively to the question, "Do you smoke now?"
Current User of Chewing Tobacco	Person answers positively to the question, "Do you use chewing tobacco or snuff now?"
Acute Heavy Drinking	Persons reported having 5 or more drinks on at least one occasion during the past month
Binge Drinking	Persons who had a drink in the past month and who when drinking usually drink enough to "be drunk" or "not remember, blackout".
Chronic Drinking	Persons having an average of two or more alcoholic drinks per day.
Drinking and Driving	Persons who report that they have driven after having had perhaps too much to drink one or more times in the past month.

2. Health Needs--This section will serve as an important portion of the foundation on which the Oneida Nation will build their health program. Numerous questions were covered to provide a baseline of health information. The majority of these questions dealt with the prevalence of current diseases and/or health problems among the Oneidas, and with whether the Oneidas had had routine screening tests such as cholesterol, diabetes, and hypertension. Also, whether they had had eye, pap smear, breast, and rectal exams. Other areas covered included health education and knowledge of health issues, such as AIDS.

3. Reproductive Health Factors--In 1975, the Centers for Disease Control began using household surveys known as Contraceptive Prevalence Surveys to collect baseline data on a variety of fertility and family planning issues. The 1990 ONHRA used the core fertility, family planning and maternal-child health questions from the Contraceptive Prevalence Survey to cover such topics as: fertility, current use of contraceptive methods; and general maternal-child health conditions (i.e., use of prenatal care and well-baby care).

4. Health Care Utilization--The Oneida Nation is in an enviable position to implement a strategically planned health program based on the findings of this study. The Oneida Nation will be able to put in place health provider contracts with physicians, dentists, pediatricians, and hospitals which will provide quality health care for a more reasonable cost. This will assist the Nation to utilize efficiently the funding for the health program. Through the use of the automated Contract Health program, the reports and document commitment register can be generated automatically and provide an invaluable source of information to the Health Director in the management of the program.

### C. Characteristics of the Population

General socio-economic characteristics of the population are shown in Table 2-1. Sixty-nine percent of the males and 75 percent of the females were over age 30. Over 65 percent of the male and 58 percent of the female Oneidas were either married or living with someone. Only 17 percent of the males and 10 percent of the females had never been married. Approximately 40 percent of both males and females have not completed high school. Twenty-five percent of the females had completed some schooling beyond high school compared to only 9 percent of the males. Over three-fourths of the males were employed compared to 56 percent of the females.

## III. FINDINGS

### A. Behavioral Risk Factors

Two comparisons will be made for each risk factor, where appropriate:

1. Age groups 18 and over--Comparisons will be made between the Oneida Nation and data from the 1988 New York State Behavioral Risk Factor Survey (NYBRFS). It should be noted that the 1988 New York BRFS was a telephone survey conducted throughout the year, the sample for which is drawn from all

adults age 18 and older. However, the BRFSS was not adjusted to take into account telephone noncoverage in New York. Therefore, the State totals may be misleading if the behavioral risk factors are different in households with and without telephones. The extent of this problem is unknown.

2. Age groups 18-49--Comparisons will be made for American Indians using data from the Oneida Nation, the 1990 FPTHRA and the 1987 MAIHRA.

1. Motor Vehicle--Seat Belt Usage

Motor vehicle accidents are the second leading cause of death among all American Indians, but the leading cause of death among American Indians age 15 to 44 years (IHS, 1989). A number of studies, as well as state vital statistics, have shown that the use of seat belts in automobiles reduces the risk of injury or death in traffic accidents (Goldbaum et al., 1984).

Given the potential for reduction in death and injury, it is encouraging that 58 percent of the males and 68 percent of the females in the Oneida Nation aged 18 and over use seat belts "always or nearly always" (Table 3-1). Only 6 percent of the males and 5 percent of the females reported never using seat belts.

Comparing Oneida Nation Indians with all residents of New York shows that use for the Oneidas is only slightly lower than for all New York (Table 3-1). Seventy to 77 percent of NYBRFS respondents of both sexes used seat belts "always" or "nearly always" and only 5 to 10 percent "never".

Results in Table 3-2 compare the American Indian groups, ages 18-44. Seat belt use is much higher among the Oneida males and females than for any of the Plains Indian groups. Nearly 60 percent of the Oneida males "always" or "nearly always" use compared to approximately one-fourth of the Fort Peck and Blackfeet males. Oneida females were, also, much more likely to "always" or "nearly always" use seat belts (67 percent) than Blackfeet, Fort Peck or Great Falls females (25-35 percent).

Those who self-reported that they use seat belts sometimes, seldom or never were defined as the group at increased risk because of seat belt nonuse. As Table 3-3 shows, seat belt nonuse was higher for both male and female Oneidas than for the general population in New York for every category examined. Seat belt nonuse was very high for male and female Oneidas age 18-24 years (64 percent of males and 47 percent of females). Since drivers in this age group, particularly young men, have relatively high rates of motor vehicle accidents, as well as morbidity and mortality because of them, it is all the more important that they use seat belts. The relationship between

seat belt nonuse and education is opposite for the Oneida males and males in New York. Oneida males with at least a high school education are less likely to use seat belts than the less educated, whereas in New York the reverse is true. For Oneida females and females in New York, seat belt use increases with education. Two alarming findings showed that for Oneida males 64 percent who had driven in the past month when they had had too much to drink and 46 percent who were involved in a motor vehicle accident in the past year, do not use seat belts.

Results in Table 3-4 compare seat belt nonuse among the American Indians. Nonuse was lower for the Oneidas (male and female) than for all other Indian groups. For all males and females, seat belt nonuse is high in the youngest age group (15 to 24 years), especially on the Fort Peck and Blackfeet Reservations. For the Oneida and at Fort Peck, the less educated are the least likely to use seat belts, while there was no consistent relationship between schooling and seat belt nonuse for either Great Falls or the Blackfeet Reservation. For all of the groups, those who had driven in the past month when they had too much to drink were most likely not to use seat belts.

Results in Table 3-5 show that 16 percent of Oneida males and 5 percent of Oneida females were involved in a motor vehicle accident during the past year. One-third of the males age 18-24 and 22 percent of males with less than 12 years of schooling had

been involved in an accident. Both males and females who are not likely to use seat belts had higher rates of motor vehicle accidents than those most likely to use seat belts.

## 2. High Blood Pressure

Among all American Indians in 1983 and 1985 (as among all Americans), "diseases of the heart" were the leading cause of death (IHS, 1989). Heart disease is the fifth leading cause of death for American Indians age 15 to 24 years and the fourth leading cause for the age group 25 to 44 years. It is the leading cause of death for the American Indian population that is 45 years of age and older. High blood pressure (hypertension) is a condition which greatly increases the risk of strokes and coronary heart disease and contributes to diseases of the kidneys and eyes. Hypertension may begin early in life and the risk progressively increases with age. Although most cases of hypertension have no specific known causes, factors which play a role in this disease are excessive sodium in the diet, stress, hereditary predisposition, and imbalance of the essential body minerals; calcium, magnesium, and potassium. Because the symptoms of this disease are often not apparent to the victim, it is essential that people have their blood pressure checked routinely.

The data in Table 3-6 show that the majority of Oneida Nation members have had their blood pressure checked in the past year; including 85 percent of females over 50 years of age. For females, the more educated are more likely to have had their blood pressure checked, whereas for males the reverse is true.

In this survey current hypertensives were defined as those individuals who have been told on more than one occasion that their blood pressure was high.

Following this definition, 13 percent of Oneida females and 15 percent of Oneida males were identified as being current hypertensives, compared to similar proportions of 18 percent of females and 12 percent of males respectively, for the general population of New York (Table 3-7).

As expected, the prevalence of reported hypertension increased with age for the Oneidas and in the general New York population. Hypertension was, in general, slightly higher among the more educated Oneida males; however, for Oneida females there was no difference in hypertension between education groups. In New York both the less educated males and females had higher levels of hypertension than the higher educated.

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The prevalence of reported hypertension is lower for American Indians in the Oneida Nation, on the Fort Peck Reservation and in Great Falls than for those on the Blackfeet Reservation (Table 3-8). For all four American Indian populations, reported hypertension increases with age. For the Oneidas, unlike the other 3 American Indian groups, the male rate is higher than the female.

Among those age 15-49 who have been told more than once that they have high blood pressure, over 80 percent of males in the Oneida Nation, and on the Fort Peck and Blackfeet Reservations have exercised during the past month (Table 3-9). In contrast, only two-thirds of the Oneida females reported that they exercised during the past month. Only 57 percent of the Oneida males were overweight which is much less than for males on the Blackfeet and Fort Peck Reservations (Table 3-9). Oneida females were slightly more likely to be overweight than Blackfeet females; and much less likely to be overweight than Fort Peck females.

### 3. Exercise

Moderate exercise performed on a regular basis is a positive lifestyle behavior which can prevent or improve health risks related to obesity, coronary disease, hypertension, diabetes, musculoskeletal problems, respiratory diseases, stress, depression, and anxiety (PHS, 1980). Exercise is especially

important to the aging population particularly because it can enable elderly persons to move about as they wish and retain an independent lifestyle to a very old age.

Respondents were asked the frequency of leisure time and work related exercise to identify the proportion of the population classified as sedentary. Those respondents who reported physical activity less than at least three times per week were considered to be sedentary and, accordingly, at increased risk for adverse health effects.

Results in Table 3-10 show that members of the Oneida Nation were much less likely to lead a sedentary lifestyle than was the general New York population. Fifty-four percent of males and 65 percent of females at Oneida led a sedentary lifestyle, whereas for all New York, 74 percent of males and females were sedentary.

Leading a sedentary lifestyle increased with age for both Oneidas and to a lesser extent for the general New York population (Table 3-10). For the Oneidas and the general population of New York, there is no clear association between sedentary lifestyle and education.

Leading a sedentary lifestyle is more likely among Oneida, Fort Peck and Great Falls males and females than American Indians on

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the Blackfeet Reservation (Table 3-11). For each sex, this pattern holds within each age and education category.

#### 4. Diet/Overweight

The excessive consumption of food or lack of a nutritionally-balanced diet may lead to increased incidence of or susceptibility to chronic disease, communicable disease, or disability. Obesity affects approximately 34 million adults ages 20 to 74 years in the general U.S. population, with the highest rates observed among the poor and minority groups (PHS, 1988). Obesity has been shown to increase the risk of certain chronic diseases such as heart disease, adult-onset diabetes, high blood pressure and possibly some types of cancer. A disproportionate burden of diet-related disease is borne by subgroups in the general U.S. population. For example, some groups of Native Americans exhibit the highest rates of diabetes in the world (PHS, 1988).

Overweight, in this survey, was defined using the Body-Mass Index criteria (CDC, 1988). Both Oneida males and females were much more likely to be overweight than the general population in New York (Table 3-14). Also, Oneida males and men in the general population of New York have a greater tendency to be overweight than women. Over one-third of the Oneida males and females were overweight compared to only 23 percent of males and 19 percent of females in New York. As expected, the proportion of the

population that is overweight is highest for both males and females age 50 and over. The relationship between being overweight and education is not clear for Oneida men and women and those in the general New York population. About twice as many Indians of both sexes who have high blood pressure are also overweight, as compared to those whose blood pressure is normal (Table 3-14).

The percentage of Oneida males who are overweight is similar to that of Blackfeet and Fort Peck males (slightly over one-third), which is nearly double that of males in Great Falls (Table 3-15). For Oneida females, the percentage overweight is similar to that of Blackfeet females (approximately 30 percent), whereas in Fort Peck and Great Falls over 40 percent of the females are overweight.

##### 5. Tobacco Use

Cigarette smoking is the number one cause of preventable death in the United States (CDC, 1986). Smoking increases the rate of premature death due to coronary disease, cancer, and strokes. In addition, studies have shown that passive smoking may place non-smokers at higher risk for Sudden Infant Death Syndrome (SIDS) (Haglund et al., 1990) and bladder cancer (Maclure et al., 1990).

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More than 70 percent of Oneida men and 65 percent of Oneida women have smoked at least 100 cigarettes in their lifetime compared to 53 percent of men and only 45 percent of women in the general New York population (Table 3-16). In the general New York population, the proportion of young people who have ever smoked is dramatically lower than in older age groups; only 30 percent of males and 32 percent of females age 18-24 have ever smoked. This suggests that the prevalence of smoking in New York is decreasing, as it is in the United States in general. This does not seem to be true for the Oneidas, where 58 percent of the males and 65 percent of females 18-24 years old have ever smoked.

For the male and female Oneidas, the proportion of respondents who have ever smoked decreases as education level increases, whereas in New York the opposite pattern is found (Table 3-16).

The percentage of Oneida males who have ever smoked is similar to that of males at Fort Peck and in Great Falls (Table 3-17). In contrast, on the Blackfeet Reservation, males are much less likely to have ever smoked. Most of this difference is due to younger Blackfeet males not having smoked. Oneida and Blackfeet females are less likely to have ever smoked than Fort Peck and Great Falls females. By age 35-49, the percentage of Blackfeet males reporting that they have ever smoked is similar to the other American Indian males. However, even at the oldest age

group, Oneida and Blackfeet females are less likely than the other American Indian females to have ever smoked.

The percentage currently smoking is high among Oneidas, with more than forty percent of both men and women reporting that they currently smoke (Table 3-18). This is almost double the proportion of the general New York population who currently smoke. In the U.S. in 1986, about 30 percent of white males and 25 percent of white females age 17 to 44 were currently smoking (CDC, 1987).

For both male and female Oneidas, smoking is less prevalent for those with more than a high school education (Table 3-18). In the general New York population, there is no clear relationship between education and smoking for either males or females.

Oneida males have similar levels of current smoking to American Indians on the Fort Peck Reservation (Table 3-19). In Great Falls, smoking is higher than for the Oneidas, whereas Blackfeet males are less likely to be currently smoking than Oneida males. Oneida females have similar levels of current smoking to females on the Blackfeet and Fort Peck Reservations, and slightly lower rates than those in Great Falls. For almost all of the American Indian groups, age does not have a consistent relationship to smoking for either males or females. However, for almost all

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groups the less educated are more likely to currently smoke than the higher educated.

What percent of the population, who have ever smoked, have quit? Among Oneidas, 38 percent of both males and females have quit (Table 3-20). Quitting is higher for males (54 percent) and females (46 percent) in New York. For both male and female Oneidas and for the general New York population, quitting increases with age and for Oneidas, quitting is much higher for those with greater than high school education.

The quit ratio is similar for the Oneida males and females and those on the Blackfeet and Fort Peck Reservations (Table 3-21). Both males and females in Great Falls were less likely to quit than the other American Indian groups.

Another measure of quitting (or at least the desire to quit) is the percent of current smokers who have attempted to quit smoking for 1 week or more in the past year. Fifty-three percent of Oneida males and 46 percent of Oneida females have attempted to quit compared to only 30 percent of males and 25 percent of females in New York (Table 3-22). No consistent relationship was found between age and the attempt to quit. However, for Oneida males, nearly three-fourths of those with less than high school education are most likely to have attempted to quit. Attempts to

quit were similar among male and female Oneidas and those on the Blackfeet Reservation (Table 3-23).

Long-term use of smokeless tobacco (i.e., chewing tobacco or snuff) may be associated with an increased risk of oral cancer and with periodontal disease (PHS, 1986; CDC, 1988). Since smokeless tobacco contains nicotine, it may also help promote tobacco addiction among young users.

Seventeen percent of Oneida males have ever used smokeless tobacco, which is double the percent ever used by all males in New York (Table 3-24). No Oneida females and only 2 percent of females in the general New York population have ever used smokeless tobacco. Use of smokeless tobacco among males appears to be a recent behavior. For both Oneida males and for all males in New York, ever use of smokeless tobacco appears to decrease as age increases. One-fourth of Oneida males age 15-24 have ever used smokeless tobacco.

The proportion of American Indian males having ever used smokeless tobacco on the Blackfeet Reservation (70 percent) or in Great Falls (60 percent) or on the Fort Peck Reservation (33 percent) is much higher than for Oneida males (20 percent) (Table 3-25). For all of the American Indian male populations, ever use of smokeless tobacco is highest for the 15-24 age group, especially for the Blackfeet, 84 percent; Great Falls, 73



percent; and Fort Peck 55 percent groups. Also, for all of the male American Indian groups, ever use is highest among the less educated.

Current use of smokeless tobacco is low for Oneida males (3 percent), but the rate is higher than for all males in New York (1 percent) (Table 3-26). Current use is highest for Oneida males with high school complete or higher education. Current use of smokeless tobacco for American Indian males is highest for the Blackfeet (33 percent), followed by Fort Peck (16 percent), Great Falls (9 percent), and Oneida (3 percent) (Table 3-27). Over one-half of American Indian males age 15-24 on the Blackfeet Reservation currently use smokeless tobacco compared to 32 percent at Fort Peck and 19 percent in Great Falls. No Oneida males in the study age 18-24 currently use smokeless tobacco.

Results in Tables 3-28 and 3-29 show the combined current use of smokeless tobacco and cigarette smoking. Oneida males and females age 18 and over are much more likely than the general New York population to be currently using tobacco products. Over 40 percent of the Oneida males and females currently smoke, whereas only one-fourth of the males and females in New York currently smoke (Table 3-28).

Overall use of tobacco products for American Indians age 15-49 is similar for Oneida males and males at Fort Peck and on the

Blackfeet Reservation (between 50-60 percent use something) (Table 3-29). Also, tobacco use is similar for Oneida females and American Indian females on the Fort Peck and Blackfeet Reservations where nearly one-half use something. Use of only smokeless tobacco is very high (28 percent) for Blackfeet males, while Oneida and Fort Peck males are more likely to only smoke. Use of tobacco products (mainly smoking) is higher for Great Falls males and females than for any of the other American Indian groups.

#### 6. Alcohol Consumption

Alcoholism is a disease that continues to incapacitate and kill Indians at rates far above those for the non-Indian population. As a disease it is considered to be a treatable entity (IHS, 1985).

Alcohol abuse is the primary risk factor associated with motor vehicle and non-motor vehicle accidents and subsequent injury, disability, and death. Also, alcohol abuse tends to depress the nervous system and can harm the liver and other organs of the body. The excessive use of alcohol also has been known to cause cancer of the oral cavity, esophagus, and pharynx. Besides the physical effects, the influence of alcohol on the nervous system can lead to psychological and social effects which, in turn, can

increase risk of injury or death (especially by accidents, fires, or violence) to oneself, family members, or others.

One of the many intents of this survey was to identify prevalence and extent of alcohol use by the Oneidas. As indicated by Tables 3-30 through 3-37, this is a health risk area that demands attention if the community is to alleviate needless illnesses, injuries and death.

The proportion of persons who had consumed any alcoholic beverages during the past month was similar for Oneida males (68 percent) and all males in New York (66 percent) (Table 3-30). The percentage was slightly higher for Oneida females (56 percent) compared to all females in New York (44 percent). The proportion who consumed alcohol in the past month was generally higher for the younger age groups (less than age 35) than the older ages for both the Oneidas and the general New York males and females. For Oneida females and for males in New York, alcohol consumption was higher for the more educated, whereas for Oneida males the less educated had slightly higher alcohol consumption levels.

In comparison to other American Indian groups surveyed, the consumption of alcohol was similar (over 70 percent) for males at Oneida and at Fort Peck, Great Falls, and on the Blackfeet Reservation (Table 3-31). Oneida and Great Falls females were

slightly more likely to consume alcohol than females at Fort Peck and on the Blackfeet Reservation.

For males at Oneida as well as at Fort Peck and Great Falls, alcohol consumption tended to be greater for those who had less education, whereas alcohol consumption on the Blackfeet Reservation was highest for the more educated (Table 3-31).

Beer was reported to be the usual type of alcoholic beverage of choice consumed by all of the American Indian groups surveyed, followed by liquor (especially females at Oneida and in Great Falls), then wine (especially Oneida females) (Table 3-32).

The age at which drinking began for American Indians is shown in Table 3-33. American Indian males in Great Falls start drinking very young, with over one-half having their first drink before age 15. Males and females at Oneida and on the Fort Peck and Blackfeet Reservations tend to wait until between ages 15 to 18 (50 to 69 percent in each group).

Any respondent who reported having five or more drinks on at least one occasion during the past month was defined as being at risk of being an acute heavy drinker. Fifty-seven percent of Oneida males and 32 percent of Oneida females fell into this category (Table 3-34). Acute drinking for the general population in New York was much lower (22 percent male, 6 percent female).

Acute drinking was very high for young (age 18-24) Oneida males (75 percent) and females (47 percent).

Another way of looking at the prevalence of acute alcohol consumption is to examine the usual state of individuals after they have been drinking. In the 1989 FPTHRA and the 1987 MAIHRA, a respondent was defined as being a "binge" drinker if, when drinking, he/she usually drank enough to "get drunk" or "blackout/not remember." Oneida males are less likely to be binge drinkers (20 percent) than males at Blackfeet (42 percent), at Fort Peck (33 percent), or in Great Falls (26 percent) (Table 3-35). Among American Indian females, those at Oneida were the least likely to be binge drinkers followed by those at Great Falls, those on the Blackfeet Reservation, then those at Fort Peck. For every American Indian group except Great Falls males, the less educated are more apt to be binge drinkers.

This study also allowed estimation of proportions at risk for chronic alcohol use, defined as having an average of two or more alcoholic drinks per day (Table 3-35A). Seventeen percent of Oneida males and 5 percent of Oneida females were classified as chronic drinkers. Males age 25-34 years had the highest prevalence of chronic drinking (31 percent).

The likelihood of driving and drinking during the past month is shown in Table 3-36. Sixteen percent of Oneida males had driven

at least once during the past month when they may have had too much to drink. This compares to only 6 percent for Oneida females, 3 percent for males in the general New York population, and only 1 percent of females in New York. Driving and drinking is a serious problem for Oneida males less than age 35 (17-20 percent) and Oneida females age 25-34 (13 percent). For both Oneida males and females, driving and drinking was most prevalent for the more educated. Also, a much higher percent of those who seldom wore seat belts reported that they drive and drink than those who usually wear seat belts. The driving and drinking problem was similar for all of the American Indian groups studied (Table 3-37). Nearly one-fifth of the males had driven when they had had perhaps too much to drink, whereas 10 percent or less of the females had similar behavior.

#### 7. Drug Use

All four American Indian studies included a set of questions on whether the respondents had used any of a specified list of drugs during the past year (Table 3-38). Reported use of marijuana was high for males, ranging from near one-half in Great Falls, to one-third at Fort Peck, and one-fourth at Oneida and on the Blackfeet Reservation. Approximately one-fifth of the American Indian females in each location also reported they had used marijuana during the past year. Use of diet pills or other stimulants was also reasonably high for males and females at Fort

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Peck (15 percent and 12 percent, respectively), and for females in Great Falls and at Oneida. Females in Great Falls reported moderately high use of valium (16 percent) but at Oneida and on the Fort Peck and Blackfeet Reservations use of valium was very low. Reported use of cocaine by males was higher in Great Falls (9 percent) and on the Blackfeet Reservation (7 percent) than at Fort Peck (4 percent) or at Oneida (2 percent).

## B. Health Needs

### 1. Cholesterol

Every year over 1.5 million people are affected by heart attacks and strokes in the United States. More than half of these die or sustain long-term disabilities from coronary heart disease (arteriosclerosis) and cerebrovascular disease. These are progressive diseases of the pulmonary and circulatory systems which most likely begin in early life but may remain hidden until middle or later life. There are a number of both controllable and uncontrollable risk factors that have been associated with these progressive diseases such as family history, gender, age, cigarette smoking, diet, high blood pressure, high cholesterol and obesity. Clinical evidence has shown that increased levels of low density lipoprotein or LDL-cholesterol are causally related to an increased risk of heart disease, and risk of heart disease rises progressively with cholesterol level, particularly

when cholesterol levels rise above 200 mg/dl. There is also substantial clinical evidence that lowering total LDL-cholesterol levels will reduce the incidence of heart disease (HHS, 1989).

Diseases of the heart were the leading cause of death and accounted for 23 percent of the male and 24 percent of the female deaths of American Indians and Alaska Natives 45 years of age and older between 1984 and 1986 (IHS, 1989).

Table 3-39 shows that only 23 percent of Oneida males and 45 percent of Oneida females had their cholesterol checked within the past two years. In contrast, 45 percent of males and 59 percent of females at Fort Peck had been checked. (The cholesterol question was not asked in the MAIHRA). Nearly 60 percent of the Oneida males and 45 percent of the females had never been checked. Table 3-40 further indicates that 43 percent of the Oneida males and 16 percent of the Oneida females reported that they were told that their cholesterol was too high the last time it was checked. The Oneida male rate is much higher than for Fort Peck males.

## 2. Diabetes

Diabetes is one of the leading health problems in the United States affecting more than 5.5 million people. It continues, along with other chronic diseases, to be a major public health

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problem for American Indians. Diabetes is generally characterized as existing in two major forms: (a) insulin-dependent (Type I), and (b) noninsulin-dependent (Type II). Native Americans have a high prevalence of Type II or noninsulin dependent diabetes mellitus and a low prevalence of Type I or insulin-dependent diabetes. In addition to the threat to health posed by the disease itself, diabetes usually results in chronic complications that have a variety of effects on other health functions, such as kidneys, heart, circulatory system, eyes, and nerves. Diabetics are more than twice as likely as nondiabetics to have coronary heart disease and stroke, indicate almost a forty times higher amputation rate, represent nearly 20 percent of all end-stage renal disease patients entering renal dialysis programs, and contribute to one of the major groups of the blind in the adult population (HHS, 1981). These complications of diabetes characterized by older age of onset of end-stage renal disease for American Indians, markedly contributes to the increasing service needs (Newman et al., 1990). In 1986, the Indian death rate from diabetes mellitus (20.6 per 100,000) was more than twice that of the U.S. all races rate of 9.6. In 1986, diabetes mellitus was the second leading cause of outpatient services at Fort Peck and accounted for five percent of the 67,000 total diagnoses (IHS, 1988). The age-adjusted diabetes mellitus death rate for American Indians and Alaska Natives has varied within a range of 19.0 to 23.0 deaths per 100,000 population, since 1974 (IHS, 1989).

Risk factors that have been associated with Type II diabetes include familial history of the disease, obesity, age, environment, and psychological and behavioral factors.

Fifty-five percent of the Oneida male and 58 percent of the Oneida female respondents indicated they had been tested for diabetes (Table 3-41). The Oneida male rate was similar to that of Fort Peck males, whereas a much higher percent of Fort Peck females had been tested than Oneida females. As expected, testing becomes more prevalent as age increases at Oneida and Fort Peck for both males and females.

Six percent of the Oneida males and 12 percent of the Oneida females reported that they had diabetes (Table 3-41A). For both males and females, diabetes increased with age and by age 50 and over one-fifth of males and one-fourth of females had diabetes. Oneida respondents were also asked if any of their family members had ever had diabetes (Table 3-41A). Nearly one-half of both the males and females reported that at least 1 of their family members had diabetes.

### 3. Vaccinations

Seventy-three percent of the Oneida males and 50 percent of the females reported that they had a tetanus shot in the last ten years, whereas, at Fort Peck 84 percent of the males and 81

percent of the females had a tetanus shot in the last ten years (Table 3-42). There was no clear relationship between age or education and having had a tetanus shot for either the Oneidas or at Fort Peck. Seven percent of the males and 12 percent of the females at Oneida had a flu shot in the past year (Table 3-43). For those age 50 and over, 15 percent of the males and 31 percent of the females had a flu shot.

#### 4. Cancer Screening

Cancer is a large group of diseases characterized by uncontrollable growth and spread of abnormal cells. If the spread is not controlled or checked, it results in death. Cancer strikes at any age but occurs more frequently with advancing age. However, many cancers can be cured if detected and treated early, and many others can be prevented by life-style changes, especially avoidance of tobacco.

Cancer was the third leading cause of death among American Indian and Alaska Native men, and the second leading cause of death of American Indian and Alaska Native women from 1984 - 1986, preceded only by diseases of the heart and accidents. In 1986, the age-adjusted cancer death rate for this population increased 27 percent from its low in 1979 of 65.8 deaths per 100,000 population. The age-specific cancer death rate from 1984 to 1986 for Indian males was higher for all age groups except the 25

through 44 years old, in comparison to Indian females. The rates for both males and females increased with age (IHS, 1989).

Colon and rectum cancer is second only to lung cancer in deaths caused by cancer in the United States (ACS, 1990). Personal or family history of cancer or polyps of the colon or rectum; inflammatory bowel disease, are risk identifiers. High fat and/or low-fiber diet may be a significant causal factor. Detection of this cancer is made through digital rectal examination, stool blood slide test, and proctosigmoidoscopy.

Fifty-one percent of the Oneida females who are 40 years of age and older reported that they had a rectal examination within the past two years (Table 3-44). This included 50 percent of the 40 to 49 year olds and 51 percent of those 50 years of age and older. The at risk group is the 26 percent of all females responding that they had never had a rectal exam. Twenty-eight percent of the women 50+ reported that they had never had a rectal exam.

Incidence of rectal exam is of special interest for males because it also involves an examination for any prostrate problems. Prostrate cancer is the second most common cancer in men, after skin cancer, and will be developed by approximately one of every eleven men. Risk increases with age through advanced age; over

80 percent of all rectal cancers are diagnosed in men over the age of 65.

Table 3-45 shows that 48 percent of the Oneida male respondents who are 40 years of age and older reported that they had received a rectal examination within the past two years. This includes 62 percent within the 40 to 49 age group and 40 percent for the 50 and older age group. The at risk group is the 30 percent of Oneida males responding that they had never had a rectal exam.

The American Cancer Society estimates that approximately one of every ten women will develop breast cancer at some time. This type of cancer rarely occurs in men. Breast cancer was the second major cause of cancer related death in women in 1990. Risk factors associated with breast cancer include age over 50, personal or family history of breast cancer, never having children, and having the first childbirth after age 30.

The American Cancer Society recommends a breast examination by a physician every three years for women age 20 to 40, annually for those over 40. In addition, a baseline mammogram for women 35 to 39, a mammogram every one to two years for women age 40 to 49, and on an annual basis for women 50 years of age and older is recommended.

Table 3-46 shows that of the Oneida females age 18 and over, 28 percent reported that they performed breast self-examinations on a monthly basis; 14 percent performed self-examinations every few months. The prevalence of breast self-examination on a monthly basis increased with age, up to age 49. Level of education did not appear to have any bearing on the frequency of self-exam; however, 55 percent of those who never examined their breasts were the least educated. The group that is at risk is the 59 percent who rarely or never perform breast self-examination.

Sixty-nine percent of the Oneida females age 18 and over indicated that they have had a breast examination from a clinician within the past year (Table 3-47). The 18 to 24 age group had the highest percentage (82 percent) reporting a clinician examination of their breast in the past year. After age 24 and before age 35 clinician breast exam decreased measurably (18-24 years 82 percent, 25-34 years 73 percent). However, after age thirty-five, there was an increase in respondents who had a clinician breast examination within the past year. The group most at risk are those respondents who have not had a clinician's breast exam for three years or longer, or never (24 percent). The largest group included "at risk" are those who are in the 50 and over age group.

Forty-six percent of the females 40 years of age and older reported having a mammogram within the past year, and 56 percent

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within the past two years (Table 3-48). This included 56 percent and 72 percent respectively in age group 40-49; and, 41 percent and 49 percent respectively in age group 50 and over. The "at risk" group are those who have never had a mammogram (32 percent). Forty-one percent of Oneida women age 50 and over have never had a mammogram.

The American Cancer Society predicts that in the general population of the United States there will be approximately 47,000 new cases of uterine cancer, which includes cancer of either or both the cervix and the body of the uterus, usually the lining or endometrium (ACS, 1990). Although the incidence of cervical cancer has decreased for the female population that is younger than age 50, incidence rates have increased slightly in women over age 50. While cervical cancer is most common among low socioeconomic populations, endometrial cancer is more commonly diagnosed in the age group who is 50 years of age and older.

Early detection of cervical cancer has been effectively accomplished through use of the Pap test; however, use of this test in detecting endometrial cancer has been shown to be only partially effective.

In addition to uterine cancer, women are at risk for ovarian cancer, which is estimated to affect one of every 70 women

sometime during their life. While ovarian cancer is second highest in the incidence of gynecological cancers, more deaths than any other cancer of the female reproductive system are attributed to it.

Pelvic examination performed on a regular basis is the primary diagnostic tool for ovarian cancer. The American Cancer Society recommends that women over 40 years of age should have a cancer related checkup annually. The Pap test is ineffective in detecting ovarian cancer.

Ninety-two percent of all Oneida women who are 18 years of age and older have had a Pap test. This includes 88 percent of those age 18-24, and 90 percent or more of those over age 25 (Table 3-49). The percent of Oneida women who had ever had a Pap test was only slightly lower than that of Fort Peck women. Eighty-two percent of the Oneida respondents reported that they had their last Pap test within the past three years (Table 3-50).

##### 5. Mental Health and Safety

In contrast to the voluminous body of knowledge about mental health and its interaction with other health problems in the American culture, relatively little is known about the manifestation and response of mental health to other health problems in the American Indian population. To investigate the



prevalence of possible community oriented disorders and their interrelationship to other health and safety issues, respondents were asked questions concerning: personal feelings of depression, presence of stress, satisfaction with the community, problems within the community, and gun safety. The following are the results of those questions.

Seventeen percent of the Oneida males and 37 percent of the Oneida females indicated that they felt depressed during the past month (Table 3-51). This includes responses of "most of the time" and "some of the time." These rates compare to 15 percent for males and 29 percent for females at Fort Peck. Female depression exceeded that of males at Oneida for each age group. Education appears to have no definite relationship to the female responses because both the more educated and the least educated indicated high prevalence of having been depressed during the past month.

Interpersonal violence is sometimes considered a barometer of social tension, i.e., stress. Results in Table 3-52 indicate that 11 percent of Oneida males and 9 percent of Oneida females reported that they were currently having problems with their spouse. This compares to 6 percent of both males and females at Fort Peck. Over 40 percent of Oneida and Fort Peck females reported that they had ever been abused, compared to 19 percent of Oneida males and 14 percent of Fort Peck males.

Questions on abuse and child abuse were general, not specific to type of abuse. Twelve percent of the Oneida males and 27 percent of the Oneida females indicated that they were abused as children. Reported child abuse by the Oneidas was similar to that of Fort Peck males (11 percent) but lower for Fort Peck females (17 percent).

Three percent of both Oneida and Fort Peck females reported that they had considered suicide in the past two months.

Respondents were also asked their perception of the major problems in their community. Table 3-53 shows that Oneida males reported three situations to be very big problems in the community; lack of paved streets (27 percent), streets need repair (27 percent) and loose animals (14 percent). The Oneida females reported that lack of paved streets (23 percent), streets need repair (18 percent), loose animals (15 percent) and rundown houses (12 percent) were very big problems in the community.

Six percent of Oneida males and females felt that domestic abuse was a very big problem. Fourteen percent of the males and 15 percent of the females felt that it was a small problem.

Two percent of the Oneida males and 9 percent of the females indicated that they had been victims of a crime in the past year (Table 3-54). This compares to 14 percent of males and 16

percent of females at Fort Peck. There is no clear relationship between victimization and age, education or marital status for males or females at Oneida.

Firearms play an important role in many types of injuries including interpersonal or domestic violence, suicide, and unintentional injuries, including hunting accidents and residential injuries, especially to children and adolescents handling guns without appropriate supervision or training (Manson and Dinges, 1988).

Sixty percent of the Oneida males and 38 percent of females reported having one or more guns in their home (Table 3-55). The Oneida female rate is similar to that at Fort Peck, but the Oneida male rate is much higher than the 35 percent for Fort Peck males. At Oneida, there is no clear relationship between having a gun and age, education or marital status for either males or females.

While firearm safety courses seek to teach individuals how to safely handle, use, maintain, and store firearms, there is no current literature available to show the effects of these courses on firearm injury rates. However, as adverse as the impact may seem, 71 percent of the Oneida males and 14 percent of the females who kept guns in their homes reported that they had taken a gun safety course (Table 3-56).

## 6. General Health Conditions

The 1990 ONHRA included a few new questions which focused on specific health conditions of the respondents. Results in Table 3-57 show past health conditions for the respondents and their family members. Both Oneida males and females reported high levels of high blood pressure, allergies/Asthma and Arthritis. Males were more likely than females to report having Angina, whereas females were more likely than males to report having Diabetes. Six percent of the females reported that they had cancer; however, no male reported having that condition. Between 7-9 percent of the females and males reported being disabled or handicapped.

In terms of their family members, both males and females reported high levels of high blood pressure, and Diabetes (Table 3-57). Females also reported high levels of allergies/Asthma, cancer and Arthritis. In addition, males reported high levels of heart disease and heart failure/heart attack.

Results in Table 3-58 show that 38 percent of Oneida females and 27 percent of Oneida males currently have eye or vision problems. Eye problems appear most prevalent for both young (age 18-24) and old (age 50+) males and females.

Approximately one-fifth of Oneida males and females currently have hearing difficulties (Table 3-59). For both males and females the difficulty increases with age, affecting over one-fourth of the males by age 35 and over 30 percent of the females after age 50.

Results in Table 3-60 show that 69 percent of the Oneida females and 41 percent of the males received prescribed medication during the past year. For males, over one-half over age 50 and the less educated took prescribed medication in the past year. For females, the more educated were more likely than the less educated to take medication.

#### 7. Knowledge of AIDS

AIDS is an infectious disease that has rapidly spread across the United States in the past ten years.

To date, all but a small minority of AIDS patients are homosexual and bisexual men or intravenous drug users. The AIDS virus often attacks the central nervous system, causing symptoms ranging from forgetfulness to profound dementia. The course of the disease is marked by a series of life-threatening episodes, such as infection with pneumonia. In addition, the accompanying physical weakness and pain diminish the patient's ability to cope with psychological and social stress. Seventy percent of all people

with AIDS die within two years of diagnosis. There is no cure for the devastating disease and treatments for AIDS related diseases may cause additional adverse effects and symptoms. The Centers for Disease Control (CDC) projected that by 1991 there would be a cumulative total of 270,000 reported AIDS cases in the United States. Of those, 145,000 would require medical care in 1991 and 54,000 will die in 1991, bringing the total death toll from AIDS to 179,000. The May 1990 IHS AIDS Prevention Activity Status Report indicated that 147 individuals infected with HIV had utilized IHS resources during the past three years. This included 48 AIDS cases and 99 individuals with HIV-infection that had not progressed to AIDS. CDC projected that there would be 63 reported Indian AIDS patients in 1989 and 9 new cases reported in 1990.

To assess the knowledge of AIDS of Oneida males and females, a series of questions were asked about their sexual behavior, drug use, and knowledge of how AIDS may be transmitted.

Knowledge of how AIDS may be transmitted is high for both Oneida males and females and is similar to that found for Fort Peck males and females (Table 3-61 and 3-62). Over 90 percent of males and females at Oneida accurately know that AIDS may be transmitted by such high risk behavior as: sharing needles for drug use with someone with AIDS, having sexual intercourse with

someone with AIDS, and that a pregnant woman with AIDS can give AIDS to her baby.

### C. Reproductive Health

In this section, reproductive health data from the 1990 ONHNA will be compared, where possible, to data from the 1989 FPTHRA, 1987 MAIHRA and national U.S. data collected in the 1988 National Survey of Family Growth (NSFG) and the 1989 New York State Survey. The 1988 NSFG was a representative study of females 15 to 44 years of age residing in the United States (excluding Alaska, Hawaii, and women in institutions). In the 1988 NSFG, race and ethnicity were self-reported and only 238 of the 8450 interviewed females identified themselves as American Indians, Alaskans, or Aleuts as a first response to the question, "Which group best describes your racial background?" Further, these women were not representative of any tribe or geographic area of the country. Consequently, only very limited national data exist which include reproductive health information for American Indians. The results presented in this section are restricted to men and women 18 to 44 years of age, so national comparisons can be made.

## 1. Fertility

Only limited fertility data are available for American Indians in the U.S., most coming from the decennial census. Using data on average number of children ever born for women age 35 to 44 years (a measure of completed fertility), the 1980 Census shows that American Indians had higher fertility than whites or Blacks in the U.S. (Table 3-63). Results from the 1987 MAIHRA show Blackfeet women 35 to 44 years of age have 3.4 children ever born, on average, which is similar to that of all American Indians found in the 1980 Census. In contrast, American Indian women age 35 to 44 at Fort Peck report only 2.8 children ever born, on average, which is lower than Blacks in the U.S. The average number of children ever born for the Oneidas (2.1) is even lower (lower than that reported for whites in 1980). It shall be noted, however, that the Oneida estimates may be affected by underreporting. The average number of children ever born at Oneida for women 25-34 (2.3) is higher than that of Oneida women 35-44 (2.1). In general, this type of pattern is indicative of older women (i.e., age 35-44) failing to report children who have died or those who have moved away from home.

Statistics on behavior potentially affecting the health of American Indian mothers and their babies during their last pregnancy are shown in Table 3-64. The practices include whether the woman consumed alcohol or smoked cigarettes. Females at



Oneida and in Great Falls and on the Fort Peck Reservation were much more likely than those on the Blackfeet Reservation to drink during pregnancy (29-36 percent, compared to 14 percent). Oneida and Blackfeet females were less likely to smoke during pregnancy than Great Falls and Fort Peck women. Nearly 60 percent of females in Great Falls and 50 percent at Fort Peck smoked cigarettes during their last pregnancy. In contrast, at Oneida and on the Blackfeet Reservation, approximately one-third of the females smoked cigarettes during their last pregnancy.

## 2. Contraceptive Use

Table 3-65 shows prevalence of contraceptive use for currently married American Indian females 18 to 44 years of age.

Contraceptive use on the Blackfeet Reservation is very high (79 percent) compared to Fort Peck (61 percent), Great Falls (58 percent) and Oneida (57 percent). The methods of contraception being used by the groups is similar with female sterilization the most prevalent method used, followed by the pill and condoms.

Several points can be made when contraceptive use of the Oneidas is compared to that of the U.S. total population and other American Indian groups (Table 3-65). First, total use is similar among Oneida females, American Indian females in Fort Peck and Great Falls (57-61 percent). Use is much higher in New York State (72 percent) and in the total U.S. (74 percent) and for

Blackfeet (79 percent). Second, female sterilization is the most prevalent method used by all groups, yet use is higher among the American Indians in Montana (over 30 percent) than for Oneidas (22 percent). Third, 12 percent of currently married females in the U.S. and 10 percent in New York State reported their husbands are sterilized; yet only 2 percent of the Oneida females reported their husbands were sterilized and no male sterilization was reported by either the Blackfeet or Great Falls females. Fourth, condom use was the second most prevalent method used by the Oneidas, followed by the pill. For the 3 other American Indian groups the pill was by far the second most prevalent method used.

### 3. Maternal-Child Health

The next few tables cover a number of topics related to maternal-child health care. Table 3-66 shows use of prenatal care for women who gave birth in the past 5 years. In all of the American Indian populations, over 90 percent of the women had prenatal care. At Oneida, and on the Fort Peck and Blackfeet Reservations, this was true for each education category, whereas in Great Falls, those women with less than high school education are not as likely as the more highly educated to have received care. Only 56 percent of the Oneida women began prenatal care during their first trimester (Table 3-67). In contrast, over 70 percent of the women in the other American Indian populations began prenatal care during their first trimester. As with

prenatal care, well-baby care is nearly universal for all of the American Indian populations studied (Table 3-68).

#### D. Health Care Utilization

Three topics will be covered in this section: (1) health care received, (2) source of health care, and (3) dental care. Most of these topics were first introduced in the 1990 ONHRA so comparisons are not available.

##### 1. Health Care Received

Eighty-five percent of the males and 79 percent of the females at Oneida had ever had a routine physical examination (Table 3-69). For both males and females, the least likely to have had a physical are those aged 25-34. For males, 100 percent of those age 50+ had ever had a physical. Higher educated males were more likely than the less educated to have had a physical, whereas for females, there was no difference by education.

Respondents were asked to identify each type of health service some member of their household used during the past year (Table 3-70). Forty to 50 percent of the males stated each type of service. In contrast, for females 78 percent used the pharmacy, 68 percent visited a doctor, and about one-half either visited a dentist or clinic.

Respondents were, also, asked if they had ever had the following tests: vision, hearing, T.B. skin test, or stool test for blood. For males, 94 percent had a vision test, 80 percent a hearing test, 69 percent a T.B. test and 29 percent a stool test (Table 3-71). For each test, males age 40 and over were more likely to have been tested than younger males. Higher educated males were more likely to be tested than less educated males for vision, hearing and T.B., whereas the reverse was found for the stool test.

Females, generally, had similar patterns to those of males in terms of having been tested: 94 percent had a vision test, 67 percent a hearing test, 66 percent T.B. and 41 percent the stool test (Table 3-72). Females over age 40 were more likely than the younger females to have had the vision or stool test, whereas the reverse was found for the hearing and T.B. tests. More educated females were more likely than the less educated to have been tested.

## 2. Source of Health Care

Sixty-nine percent of the Oneida males and 71 percent of the Oneida females go to a private physician when they are ill (Table 3-73). The most likely second source for care is the public health center. On the Fort Peck and Blackfeet Reservations, as expected, over 90 percent of the males and females indicated that