



health baseline

union county



The Union County Alliance
A Coalition for Action

The Union County Health Assessment

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and Julane W. Miller-Armbrister
for their Tireless Dedication, Strategic Vision and Leadership*

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Table of Contents

Topic	Pages
Executive Summary	1-2
Study Description	3-8
Findings: Key Informant Survey	9-13
Findings: Health Resources Directory	14-15
Findings: The Household Survey	16-35
State and National Health Statistics	36-42
Issues and Recommendations	43-46
Appendix 1: Response Patterns of Eastern/ Western County Residents	47-54
Appendix 2: Response Patterns by Age Cohort	55-63
Appendix 3: Response Patterns of Ethnic/ Racial Subgroups	64-71

Executive Summary

The Union County Health Assessment was conducted under the auspices of the Union County Alliance and was carried out by staff members of the Gateway Institute at Kean University. The objectives of the assessment were to identify health services that are available within Union County, and to describe the health and health related behaviors of county residents. The broader goals of the assessment were to provide the data necessary to support rational health service planning, and ultimately, improve the health of county residents.

In order to achieve these objectives a multifaceted data gathering method, assessing both service supply and health status, was implemented. A county health services inventory was conducted and the results were used to create a Health Services Resource Directory. In all, 120 health services agencies have been identified and listed in the Directory, which currently has 500 separate listings in thirty-four categorical areas.

In order to assess the current health and health habits of county residents, three data gathering methods were utilized. First, a survey of 40 key health services professionals, administrators, advocates and consumers was conducted. Their opinions regarding the health status of county residents and county health service needs were analyzed and then repeated themes among their answers were identified. Second, interviews of a random sample of approximately 1,500 Union County households were conducted. This survey gathered answers to 204 health related questions. Responses to these questions were entered into a health status database, which was then analyzed to identify significant patterns of health, illness and health behaviors. Third, the patterns identified in the household survey were then contrasted with recent state and federal health statistics to determine the extent of agreement between the findings of this study and broader research efforts.

Analysis of the findings of the key informant survey and the household interviews reveal that many of the same issues were identified in each. Among the key health issues identified in Union County are the following:

- The research indicates a widespread lack of participation in important health habits such as smoking cessation, exercise, weight control and routine diagnostic testing among county residents.
- There is and will be an increasing need to provide community support services for the frail elderly and disabled residents of the county. Currently, more than 10% of county residents are reported to have difficulty in carrying out one or more daily activities independently.
- Mental illness and substance abuse are among the most frequently reported health problems in Union County but have lower rates of health service intervention than other illnesses.

- There are few low cost dental programs in the county and these have lengthy waiting lists.
- Non-urgent medical transportation is limited. Particular concern about the lack of out-of-county medical transportation was noted.
- There are reported shortages of many types of health services personnel in the county. Particularly severe shortages exist in community nursing personnel and in minority health care workers.
- The most frequently experienced illnesses in the county are hypertension, asthma, arthritis, deafness (full or partial), menstrual problems, frequent headaches, anxiety, bladder trouble, repeated back, neck or spine dysfunction, frequent indigestion, migraine headaches, uterine/ovarian cysts and tumors, depression, and diabetes.
- Hearing deficits and visual impairments are among the most frequent health problems experienced by county residents but screening programs and low cost health services for these problems are quite limited.
- County residents and key informants are concerned about the inadequacy of health care insurances. Concerns are expressed regarding both the number of residents who are uninsured, and those who are underinsured. Additionally, insurance company procedures have been identified by many respondents as barriers to adequate health care for county residents.
- The necessity of providing culturally appropriate care for minority residents was also a common theme in the surveys. Language barriers and cultural differences were identified as barriers to adequate health care for the county's culturally diverse population.

These key issues, which were expressed by key informants and identified in the household interviews, were validated by a review of pertinent state and national health statistics. There was close correspondence between local findings and the statistical results generated by state and federal research efforts. This statistical agreement increases the degree of assurance with which the assessment findings can be viewed.

The assessment concludes with a series of recommendations for local action. Although most recommended actions do not involve extensive capital investment, they do require the cooperation of many organizations and the coordination of their efforts. The challenge that health care providers, advocates and consumers now face is to implement an action agenda that will result in measurable improvement in the health of county residents.

Description of the Study

Background

The Union County Health Assessment was initiated as a project of the Union County Alliance. The Alliance is a consortium of government, business, educational, religious, labor and human service organizations committed to the economic development of the County as well as to the enhancement of the quality of life of county residents. In 1995, the Alliance developed a strategic plan that outlined eight strategic goals, which it considered vital to the county's continuing development. Among these goals was the following:

"Improve health care in Union County by promoting good health behavior among County residents and providing a high-quality, cost-effective and accessible health care system; a full assessment of health care organizations, the compilation of a directory of County health services, and improve the coordination of services by County health care providers."

The Health Assessment that was initiated in 2000 was designed as the initial step in the fulfillment of this goal. Through the assessment process the Alliance and its Health Taskforce intended to obtain the broad array of information regarding health care needs, health care service supply, and distribution of service supply that is an essential prerequisite to the development of a coherent system of health care services within Union County.

The Alliance, through the leadership of its Health Taskforce, approached the Gateway Institute for Regional Development at Kean University, and a design for the assessment was developed. With the unanimous approval of the Board of the Alliance, the 18-month project was initiated in July 2000. The project has had broad financial support from both state and county government, the health services industry, the pharmaceutical industry, the educational establishment and human service organizations. Its progress was overseen the by the members of the Alliance's Health Task Force and subcommittees of that body. The broad participation in these groups by relevant constituencies provided the input and oversight needed to assure that the assessment would be effective in identifying local health care issues, and addressing them in its data gathering and analytic processes.

The report that follows is the culmination of the assessment process. It is divided into sections describing the methodology used to gather the data, the findings of the several data gathering procedures, the implications of these findings for County residents and service providers, and a series of recommendations for future action.

Methodology

The goals of the Union County Health Assessment were:

- To develop a database regarding the current experience of health, illness and health risk factors within the County population
- To complete an inventory of health care services provided within the county
- To analyze the distribution of health care services within the County
- To provide consumers and professionals with health service and health status databases, which were accessible by computer in homes and offices.
- To develop a set of recommendations for the further elaboration of the health service system currently functioning within the County.

In order to achieve these goals, several distinct data gathering and data analysis methods were used. Among these were:

- A household survey of a randomly selected sample of County residents was conducted
- A survey of a group of key informants was conducted
- A comparison of county, state and national health statistics was carried out
- A directory of health care services within the county was developed
- GIS mapping of the location of the identified services was completed
- A web site presenting service supply data was designed

Each of these project components was carried out utilizing a different methodology. The methods used to complete each component will now be presented.

The Household Survey

In order to gather information regarding the current patterns of health and illness within the county's population, as well as its patterns of health promotion and health risk behaviors, a household survey was designed and implemented. The survey instrument consisted of 203 forced choice questions, and one question that allowed narrative response. The instrument used specific items taken from the National Health Interview Survey as well as individual items that were of specific interest to the survey's advisory group. The instrument was pre-tested on a randomly selected group of county residents before it was administered to a large sample of county residents.

In order to assure that the responses on the survey could be assumed to represent the experience of all county residents, a random sample of all county residences was drawn using county tax records as the basis for the sampling. In order to assure adequate

inclusion of renters as well as property owners, an additional sample was drawn from telephone records of county residences. The samples were computer-generated in order to avoid the contamination of human error in the selection process.

The selected sample households each received a letter from the Union County Freeholders, the Union County Alliance and the United Way asking for their cooperation in this community-planning endeavor. The letter was sent to approximately 12,000 Union County households. This correspondence was followed by an intensive period of telephone interviewing, in which fifteen interviewers gathered data regarding approximately 1,500 Union County households. This data, because of the sampling method used and the number of interviews conducted, can be assumed to represent the experiences and opinions of the people of Union County.

The interview data was entered into a computerized database, and was analyzed using a customized variant of the Statistical Package for the Social Sciences, software designed for use in the analysis of community research data. Both frequency counts of specific answer patterns, and analyses of possible relationships between the survey responses and the demographic characteristics of the household members were completed. The results of all of the frequency analyses and of cross tabulations of demographics and response patterns, which were found to be significant at the .05 level, are presented in this document. Those patterns found significant at the .05 level are not likely to have occurred by chance, and may represent actual patterns of relationship between questionnaire responses and personal characteristics, such as age, gender or place of residence.

The Key Informant Survey

A second method of data collection that was utilized in this assessment was a key informant survey. The goal of this element of the study was to obtain the opinions and experiences of a group of county officials, health services providers, advocates and consumers regarding the major health problems and health services issues that were facing the county during the current period.

The Health Assessment Subcommittee of the Health Task Force of the Union County Alliance selected survey respondents. Each of the respondents was selected because of their specialized knowledge of the health problems and health services needs of the residents of Union County. Individuals were nominated for interview by specific Task Force members and then were voted into the interview group by consensus of the Task Force members. In all, 40 respondents were selected for interview. The actual completion rate for such interviews was 98%.

Members of the assessment team's professional staff conducted in-person interviews during the spring of 2001. Each respondent was asked a series of ten open-ended questions, designed to elicit detailed information regarding health problems and health service issues within the county. These responses were then submitted to a theme analysis, in which repeated themes enunciated by respondents were identified and

classified. Issues and concerns noted by the majority of the respondents were considered as common themes for the purpose of this analysis. In all 400 individual responses were obtained and analyzed. The themes identified in this analysis are presented in the following section of this report.

To the extent that the issues noted by the key informants were consistent with the data obtained in the household interviews, the researcher's confidence in the validity of the findings of each method would be enhanced. As a review of the findings of both methods indicate, in this study the findings of the two data collection methods were completely consistent, providing a coherent picture of the most important health care concerns of the people of Union County, their health service providers and their community advocates.

Comparison of Health Status Statistics

As a final method of analyzing health status among county residents, a detailed comparison of recent statistics describing the incidence and prevalence of illness was conducted. Statistical data describing the extent of health risk behaviors and health promotion behaviors was also reviewed. This analysis utilized multiple sources of statistical data, including data maintained by the N.J. Department of Health, the U.S. Department of Health and Human Services, private health advocacy organizations and local health planning bodies.

Attempts were made to obtain the most recent and relevant statistical data and contrast it with the findings of the Union County Health Assessment. No statistical data that was more than three years old was included in the profile that was generated. In all, 25 health and illness issues were scrutinized. Among these were incidence and/or prevalence of heart attack, diabetes, certain forms of cancer, stroke, hypertension, low birth weight, HIV infection, asthma, various forms of drug addiction, depression and certain health screenings.

Caution must be exercised in the analysis of this data. Although it is suggestive of certain similarities and differences between study findings and previously recorded statistics, it must be remembered that the data was not gathered during the same time periods. Also, different methodologies were utilized to obtain the data, which would in itself lead to variations in findings. Nevertheless, as a perusal of this analysis indicates, there is remarkable similarity between recorded state and national health statistics and the findings of the current study. This concurrence enhances the researchers' confidence in the validity of the findings of the current research.

Health Resources Inventory

In order to develop a series of recommendations based upon the health status assessment, it was first necessary to have a health services supply inventory for the county. It was therefore determined that an inventory of health service supply would be completed, and that it would be used for two purposes. The first was as a prerequisite to

reasonable health service planning. There has to be an adequate understanding of what services already exist and where they are offered, before new or augmented services are developed. Second, the Union County Alliance, as part of its Mission to improve life in Union County, had determined that it would make this data available to consumers in the form of a computerized health services directory, which would be available to all. This directory would list health services located within Union County, and would provide links to the websites of specific agencies for additional information.

In order to prepare this database, graduate students of Kean University under the direction of study personnel, designed and implemented an agency questionnaire that gathered basic information regarding agency services and location. Each entry was then classified into one of 36 distinct categories of health services, using a categorization scheme recommended by the American Public Health Association. More than 500 individual entries have been recorded in the 36 service categories. This list, consistently revised annually, will form the basis of the Union County Health Directory website.

Consumers will be able to access computerized agency lists simply by clicking on the appropriate service category in the Table of Contents. Individual lists can be printed for the consumer's use. The websites of individual agencies, which are noted in the Directory can be accessed simply by clicking on the website address. E-mail addresses are also listed and can be accessed from the website. In order to provide access to the Directory to the maximum number of county residents, bound copies will be available in each of the county's municipal libraries.

Along with the computerized listing of community health agencies, geographic mapping of the services was completed. Each GIS map displays the locations of the services in a particular service category, superimposed over geographic and population density maps of the County. Using this visual tool, it is now possible to see where necessary health services are located, and to identify whether their locations are consistent with meeting access needs of the population. The Directory and the Maps will be accessible on line or at any municipal library in the county.

Summary

As the foregoing discussion indicates, a multifaceted approach was utilized to conduct the Union County Health Assessment. The use of multiple methods of data collection, including household interviews, key informant interviews and analysis of secondary statistical data, allowed the research team to increase the confidence with which the study's results and recommendations are presented. The development of the health resource inventory provides service supply data, which is essential to developing proposed strategies for addressing issues discerned in the assessment process. Having described the methodology that was utilized to collect and analyze the data, the following sections of this report will present and analyze the major findings.

Study Findings: Key Informant Interviews

Introduction

Forty individuals were interviewed as part of the key informant element of the health assessment process. Each of the respondents was asked a series of ten open-ended questions, designed to elicit comprehensive information regarding health care issues within Union County. Table A provides a visual summary of the patterns that were discerned when these responses were analyzed. In the following narrative, details of the response patterns identified in answers to each question will be offered.

What are the health concerns most frequently discussed with you?

Six responses appeared as common themes offered in answers to this query. These were cancer, mental health, substance abuse, lack of insurance, the high cost of care, and lack of medical transportation. Although less prominent as themes, the issues of asthma, diabetes, coronary illness, AIDs, and lack of knowledge of available medical services were also frequently mentioned.

What in your opinion are the most serious health problems facing county residents?

The responses to this question indicated a high degree of agreement between the opinions of the key informants themselves, and the issues brought to them by county residents. The same set of themes was discerned in answer to both questions. The respondents noted cancer, heart disease, asthma, mental health, substance abuse and lack of transportation as key health problems in Union County. The key informants, however, were particularly concerned regarding a lack of awareness of available services, and lack of adequate insurance coverage among county residents.

Are there barriers to accessing health care services among county residents? If so, please describe them.

The forty respondents repeatedly mentioned several barriers to access. Primary among these was the lack of adequate non-urgent transportation for health care services. Additionally, the common themes of lack of insurance and language barriers were observed in the responses. Managed care contracts were specifically noted by a majority of the group as a limiting element in assuring adequate access to necessary health care services. Finally, the respondents also identified lack of understanding of cultural and ethnic differences as barriers to the provision of adequate health care in the county.

Are there gaps in the health care services that are available to county residents?

The issue most frequently mentioned in response to this question was the critical shortage of certain types of health care personnel. The majority of the respondents noted a concern regarding a lack of nursing personnel. Particular concern was mentioned regarding a lack of trained personnel to work with functionally impaired elderly in their homes. Secondary themes noted in response to this question included lack of transportation, lack of insurance coverage, lack of low cost dental care and lack of information and referral services. A final reiterated theme was lack of adequate detoxification programs, and lack of mental health services.

In your opinion are there problems in the quality of health care services that are currently available to county residents?

The majority of the respondents, more than 80%, did not identify any problems with the quality of health care services being provided to county residents. A minority did note, however, that the quality of health care was seriously diminished for those who lacked insurance. Additionally, some concerns were noted regarding the perceived lack of integration of mental health services and of their general availability.

In your opinion are the health care needs of minority groups being adequately addressed by the health care programs in the county?

The concern most frequently noted by the respondents was an under-utilization of community-based screening and prevention services by minority populations. Respondents indicated that they believed this under utilization was based upon a lack of awareness of the availability of such services. This comment was consistent with the general theme identified in many of the responses to all of the survey questions; i.e. that there is a lack of knowledge of available community health resources among county residents. Additionally, respondents identified that minority health care was hampered by the lack of bilingual health care workers, and lack of health care worker education regarding cultural issues related to the patient's acceptance of health care services.

In your opinion what are the most important actions that can be taken by county government to improve the health status of county residents?

The majority of the respondents indicated that their vision of the county government's role in maintaining the health of county residents was predominantly that of an advocate for state and federal legislation, and public funding necessary to support the development of adequate health services within the County. They also responded that the county government should take action to promote health education programming and utilization of prevention services among county residents.

In your opinion, what are the most important actions that can be taken by health care providers to improve the health status of county residents?

Respondents to this question were uniform in their opinion that health service providers need to expand their efforts in the areas of education, outreach and screening for the communities they serve. Additionally, there was a repeated theme regarding the necessity of improving the coordination among providers in order to assure adequate continuity of health care services to county residents.

In your opinion what are the most important things county residents can do to improve their health status?

The responses to this question were consistent with answers to the two queries that preceded it. Key informants indicated that county residents should be encouraged to develop an awareness of available health services and take personal initiative in utilizing them. Particular emphasis was placed on the desirability of increased participation in health screening programs. Respondents also recommended the development of healthy lifestyles that include exercise, healthy diet and regular check-ups.

**Table A:
Key Informant Response Pattern**

Theme	Mentioned	Not Mentioned
Lack of insurance	76%	24%
High cost of care	72%	28%
Lack of transportation	68%	32%
Lack of awareness of available services	68%	32%
Lack of participation in health promotion activities	64%	36%
Cancer	64%	36%
Heart Disease	64%	36%
Asthma	60%	40%
Lack of certain mental health services	56%	44%
Substance abuse	56%	44%
Health manpower shortage	56%	44%
Lack of coordination among providers	50%	50%

Additional comments by respondents:

When provided with the opportunity to make additional comments key informants provided responses that indicated concern regarding the acceptance of a broader definition of health and health care services within the County. Specific comments included concern that traditional health care providers be trained to identify and deal with addiction and mental health issues, and that the needs of the functionally impaired for community support services must be included in any county health planning. Additionally, strong feeling was expressed that local government, employers and providers must coordinate their health promotion activities, if the maximum health benefit to the population is to be achieved.

Study Findings: Health Resources Directory

Background

In order to use the results of health assessment for health planning, it is necessary to have an adequate understanding of existing health care services, as well as an understanding of local health problems. It was therefore determined that a survey of all known existing health services agencies and organizations would be conducted, and that the survey results would be released as part of the Union County Health Assessment. Additionally, it was the intention of the Health Services Task Force to establish, based upon the health resource data that was gathered, a computerized health information service for county residents. This service would provide data regarding the location, services and means of communicating with all health services organizations in Union County. It would also have the capacity to directly connect consumers to agency websites and e-mail boxes for additional information.

Method

In order to compile the health services directory, a categorization of possible services was developed, following guidelines for such categorizations established by the American Public Health Association. This scheme involves dividing health services into a total of thirty-four separate categories that identify different health service needs. Health services agencies were identified using several sources. These were community service directories, telephone books, on-line lists of licensed health service facilities and consultation with health services agencies themselves. The resulting directory currently has more than 500 entries divided among the thirty- four categorical lists. The unduplicated number of Union County health services agencies that has been identified to date is 118.

As a final effort to assure the accuracy of the individual listings, each agency was asked to complete a verification form which identified the lists within which the agency would be included. These forms also asked for confirmation of the agency name, address(es), phone number(s), fax number, e-mail address and website address. These forms were collected either by returned fax or phone conversation with an agency representative. The final lists were then compiled and are now published. They will be available at municipal libraries throughout the county and online.

Availability of Information

The Health Services Directory, including both categorical service lists and accompanying GIS maps, will be available to consumers and professionals through the municipal library system. Additionally, the Union County Alliance, the County of Union and Kean University will make the information available online at a website, which will be annually updated and which will allow users to link directly from the website to the web pages of agencies in which they have an interest. Using this method, it is hoped that the greatest number of county residents will have access to current, valid information regarding the health services that are available to them within Union County.

Study Findings: The Household Survey

Background

During the spring and summer of 2001, a telephone survey of randomly selected households throughout Union County was conducted. The survey respondents were advised by letter that their household had been selected for inclusion in the survey before the survey process was initiated. The interviews were conducted by graduate students from Kean University, using a 204-item questionnaire that utilized both queries from the National Health Interview Survey and specific questions framed to address local interests. The instrument was divided into several different categories representing separate health care issues. These categories were physical illnesses and disorders (subcategorized by organ system), mental health issues, substance use, diet and weight, functional independence, exercise, participation in health screening, use of health care services, and patterns of sexual activity. Households from every community in Union County were surveyed during the interview process. The number of interviews conducted in each community was grossly proportional to the percentage of the county population that resided in it. In all, approximately 260,000 responses to specific questions were received from the respondent households.

The data was then entered into a computerized database and analyzed using a customized software program. This report first identifies the demographic profile of the respondents, and then presents the patterns of response to the questions within each category of the questionnaire. Finally, the ten most frequently noted health problems and the key life style issues that were identified in the analysis are described.

Profile of the Sample Group

The sample group was 47% male and 53% female. The mean age of all individuals in the sample group was 37.4 years. The median family size was three individuals. Forty eight percent of the group was married, 38% were single, 5.5% were divorced, 2% were separated and 6% were widowed. Twelve percent of the respondents were enrolled in Medicare, 3% were Medicaid recipients, 22% reported traditional Blue Cross coverage, 9% had commercial indemnity coverage, 45% were reported to be HMO participants, 4% had diverse other forms of health insurance and 4% were described as uninsured. Seven percent of the sample group had advanced degrees, 20% were college graduates, 12% had some post secondary education, and 21% were high school graduates. Seven percent in the sample group were seventy one years of age or older; 8.6% were ages 61 through 70; 14.6% were ages 51 through 60; 15% were ages 41 through fifty; 18.5% were ages 31 through 40; 12.9% were ages 18 through thirty; 9% were ages 11 through 17 and 14% were less than 11 years of age. The median age of all respondents was 36 years.

This profile is quite consistent with the Union County demographic profile presented in the 2000 national census, which reports that 24.9% of Union County residents are under 18, 13.8% are age 65 and older, and 61.3% are ages 18 through 64. The median age in Union County, according to the 2000 federal census, was 36.8. This age breakdown is almost identical to that in the current survey. The Census summary for the county reports

that there were 92.7 males for every 100 females in the county. This is very consistent with the gender composition of the sample group, in which there were 47 men and 53 women in every 100 subjects. The demographic profile of the sample group, and demographic profiles of Union County, New Jersey and the nation, reported in the 2000 census are presented in Table B. Review of this table indicates a close match in the demographic characteristics of the four groups. This similarity adds to the probability that the study population can be considered representative of the general population of Union County.

**TABLE B:
Comparison of
National*, State*, County* and Assessment
Demographic Profiles**

Characteristic	National	State	County	County ** Assessment
Median Age	35.3	36.7	36.7	36
Male/Female Ratio	96.3/100	94.5/100	92.7/100	89/100
Mean Household Size	2.59	2.68	2.8	2.7
Ethnic/Racial Background:				
White	75.1%	66%	58.5%	61%
Black	12.5%	13.6%	20.7%	17.9%
Hispanic	12.5%	13.3%	19.7%	13.7%
Asian	3.6%	5.7%	3.8%	3.0%

* **Source: 2000 Federal Census**

** 4% of survey respondents refused to report race or ethnicity

Patterns of Response To Specific Questions

The questionnaire began with a series of 89 questions assessing the frequency of specific physical health problems within the sample. The questions were grouped by organ system (i.e. cardiovascular, pulmonary, etc.) The findings will be reported using the same system of categorization.

Cardiovascular Issues

The primary cardiovascular complaint reported by respondents was hypertension. In all, 12.5% of the people in the survey group were reported to be hypertensive. In addition, 2% of the group was reported to be experiencing various types of heart disease, and 1.5% of the sample was reported to have experienced a heart attack. Vascular disorders were less frequently reported than those related to the heart itself. The most frequently reported vascular disorder was varicose veins, reported for 3.4% of the study group. Recent stroke (within the last 12 months) was reported for .8% of the respondent group. No other vascular illness was reported by more than .5% of those surveyed. Table C presents the frequency pattern of responses to all questions in this category.

**TABLE C:
Cardiovascular Conditions
(Frequency)**

Condition	Percentage of Sample Reporting Condition	Estimated # of County Residents Effected
	%	#
Rheumatic Fever	.0	0
Rheumatic Heart Disease	.2	1,000
Hardening of the Arteries	1.2	6,000
Congenital Heart Disease	.3	1,500
Coronary Heart Disease	1.8	9,000
Heart Attack	1.4	7,000
Hypertension	12.5	62,500
Stroke	.8	4,000
Brain Hemorrhage	.3	1,500
Angina Pectoris	1.2	6,000
Damaged Heart Valve	.5	2,500
Tachycardia	1.3	6,500
Heart Murmur	1.5	7,500
Aneurysm	.3	1,500
Blood Clots	.6	3,000
Varicose Veins	3.4	17,000
Phlebitis/Thrombophlebitis	.3	1,500
Other Heart Circulation Problems	.3	1,500

Respiratory Conditions

The most frequently reported respiratory condition was asthma. Nine percent of those surveyed reported having a diagnosis of asthma. Additionally, 8.5% of the study population was reported to have had bronchitis in the past twelve months. One percent of the group was reported to have current tumors of the throat or lung, and .6% was reported as having emphysema. Tuberculosis was reported for .3% of the study group. Table D presents the frequency pattern of responses to all questions in this category.

**TABLE D:
Respiratory Conditions
(Frequency)**

Condition	Percentage of Sample Reporting Condition	Estimated # of County Residents Effected
	%	#
Asthma	9	45,000
Bronchitis	8.5	42,500
Pneumonia	2.4	12,000
Tumor/Growth of Throat	.4	2,000
Tumor/Growth of Lung	.3	1,500
Lung Cancer	.3	1,500
Emphysema	.6	3,000
Tuberculosis	.3	1,500
Work related	.7	3,500
Other	.7	3,500

Digestive Disorders

The most frequently reported digestive disorders were the mild complaints of frequent indigestion (4%) and frequent constipation (1.9%). More serious digestive illnesses such as hernia (2.2%), gallstones (1.2%) and ulcers (1.7%) were also noted. All other digestive disorders were reported among less than 1% of the respondents. When, however, the colonic illnesses of enteritis, diverticulitis, colitis and spastic colon are considered as a group more than 2.5% of the study group members had experienced such illnesses in the last twelve months. Table E presents the frequency pattern of responses to all questions in this category

**TABLE E:
Digestive Disorders
(Frequency)**

Condition	Percentage of Sample Reporting Condition	Estimated # of County Residents Effected
	%	#
Gall Stones	1.2	6,000
Cirrhosis of the Liver	.1	500
Fatty Liver	.1	500
Hepatitis	.3	1,500
Yellow Jaundice	.1	500
Ulcer	1.7	8,500
Hernia/Rupture	2.2	11,000
Disease of the Esophagus	.4	2,000
Frequent Indigestion	4.0	20,000
Enteritis	.3	1,500
Diverticulitis	.8	4,000
Colitis	.8	4,000
Frequent Constipation	1.9	9,500
Stomach Cancer	.7	3,500
Other	.6	3,000

Glandular Disorders

The most frequently reported glandular disorder was diabetes. Of those surveyed, 3.6% indicated that they or a family member had a diagnosis of diabetes. Women were twice as likely as men to have diabetes. Fully 5% of females were reported to be diabetic. Prostate cancer was reported for 1.8% of the men in the study population, and nonmalignant prostate disease was indicated among 1.9% of the men in the group. Thyroid disease was reported among 1.1% of those included in the survey. Women were significantly more likely than men to have thyroid disease. Table F presents the frequency pattern of responses to all questions in this category.

Diseases of the Nervous System

The most frequently reported disorders of the nervous system were the related issues of frequent headaches and migraines. Frequent headaches were reported among 5.9% of the study population, while migraines were reported among 3.3% of the study group. Women were significantly more likely than men to have migraine and frequent headaches. Indeed, 75% of such reports were among females. All other neurological illnesses and disorders were reported for less than 1% of the study group. Table F presents the frequency pattern of responses to all questions in this category.

Genito-Urinary Disorders

The most frequently reported disorders of the genito-urinary system were nonmalignant bladder disorder, reported among 3.9% of all respondents, and menstrual problems, which were experienced by 6% of the females in the study group. Nonspecific bladder disorder was significantly more frequent among female than male respondents. Breast cancer was found only among female respondents, with 1% of the females reporting a diagnosis of breast cancer. Cysts, tumors or other diseases of the ovaries or uterus were experienced by 4% of the females studied. Nonspecific illnesses ("other") of the female reproductive system were noted among 2.9% of the women studied. Table F presents the frequency pattern of responses to all questions in this category.

**TABLE F:
Disorders of the Glandular, Blood, Nervous, and Genito-Urinary Systems
(Frequency)**

Condition	Percentage of Sample Reporting Condition	Estimated # of County Residents Effected
	%	#
Goiter/Thyroid	1.1	5,500
Diabetes	3.6	18,000
Anemia	3.1	15,500
Epilepsy	.3	1,500
Seizures/Convulsions/ Blackouts	.1	500
Multiple Sclerosis	.1	500
Migraine	3.3	16,500
Frequent Headaches	5.9	29,500
Neuralgia/Neuritis	.2	1,000
Kidney Stones	.9	4,500
Kidney Disease	.4	2,000
Bladder Trouble	3.9	19,500
Disease of Genital Organs	.4	2,000
Breast Cancer	1.0	5,000
Prostrate Cancer	1.8	9,000
Other Prostrate Trouble	1.9	9,500
Menstruation Problems	6.9	34,500
Uterine/Ovarian Cyst/Tumor	4.1	20,500
Other Uterine/Ovarian Disease	1.0	5,000
Other Female Problems	2.9	14,500

Sight and Hearing

Five and one half percent of those studied experienced hearing problems; 3.8% of all respondents were reported to have hearing problems, and 1.7% were reported to be deaf. Visual problems were reported by 4.7% of the sample group, but only .5% were reported to be blind. The most frequent vision problem that was noted was cataracts;

1.8% of the respondents had been treated for, or currently had, cataracts. Table G presents the frequency pattern of responses to all questions in this category.

**TABLE G:
Hearing and Vision
(Frequency)**

Condition	Percentage of Sample Reporting Condition	Estimated # of County Residents Effected
	%	#
Deafness	1.7	8,500
Trouble Hearing	3.8	19,000
Blindness	.4	2,000
Cataracts	1.8	9,000
Glaucoma	.2	1,000
Detached Retina	.3	1,500
Other Vision Problem	2.0	1,000

Conditions of the Muscles, Bones and Skin

Arthritis was the most frequently noted disorder of the muscular-skeletal system. It was also one of the ten most frequently noted illnesses in the study. In all, 6.9% of study respondents were reported to have arthritis. Repeated and chronic pain of the back, neck and spine was reported among 3.9% of those in the sample. Growths, tumors and cancer of the skin was reported for 2.2% of the group; of these, the condition was clearly malignant in 50% of the cases. Problems with the feet, which required medical attention, were described among 2.6% of the study group. Table H presents the frequency pattern of responses to all questions in this category.

**TABLE H:
Conditions of the Bones, Muscles, and Skin
(Frequency)**

Condition	Percentage of Sample Reporting Condition	Estimated # of County Residents Effected
	%	#
Paralysis	.8	4,000
Arthritis/Rheumatism	6.9	34,500
Gout	.9	4,500
Bone Cyst/Spur	.6	3,000
Slipped/Ruptured Disc	1.3	6,500
Neck/Back/Spine	3.9	19,500
Muscles/Tendons	1.0	500
Skin Cancer	1.1	5,500
Skin Growth/Tumor	1.1	5,500
Skin Ulcer	.3	1,500
Feet	2.6	13,000

Dietary Habits

The members of the study group were asked if their family members paid attention to certain aspects of their diet such as fat, cholesterol and calories. The responses to each of these separate queries were quite similar. In each case, approximately half of those in the study did pay attention to these dietary issues, while the other half of the study population did not pay attention to such concerns. Responses to these queries were found to be significantly related to gender, marital status, education and insurance status. Women, individuals who were married or widowed, those with a college education and people covered by Medicare, were significantly more likely than others to be concerned about these issues. When asked to report whether family members were 20 or more pounds above their desired weight, 22.9% of the group was described as being 20 or more pounds over a goal weight. This report was significantly related to education, with educated groups, individuals with some college and beyond, being significantly more likely to report being 20 pounds over a desired weight. Table I presents the frequency pattern of responses to all questions in this category.

**TABLE I:
Dietary Habits
(Frequency)**

	Percentage of Sample Reporting Condition	Estimated # of County Residents Effected
	%	#
Attention to Cholesterol	46.8	234,000
Attention to Fat	48.3	241,500
Attention to Calories	42.1	210,500
More than 20 Lbs Overweight	22.9	114,500

Respondents were then asked a series of more detailed questions regarding the foods their family members included in their diet. Answers to these questions indicate that butter, salt, sugar and red meat are usual elements of the daily diet of the majority of county residents. On the other hand, the majority of those in the study eat fried food less than weekly and drink alcoholic beverages only occasionally (less than weekly). Men were significantly more likely than women to regularly include alcoholic beverages in the diet. Two thirds of those studied were reported to eat fruits and non-starchy vegetables every day.

Exercise

Respondents were asked a series of thirteen questions designed to assess the types and frequency of exercise in which they and their family members participated. The responses to these questions indicated that individuals of all ages were quite sedentary. The majority of respondents indicated that their family members did not engage in any regular exercise at all. Although this pattern was most prominent among the elderly, it was found that the majority of individuals in all age categories did not engage in regular exercise. Walking was the single most frequent form of exercise noted by the respondents. Still, only forty percent of all individuals were reported to walk as a form of exercise. Women were significantly more likely than men to use walking and aerobic exercise as a form of exercise. Conversely, men were significantly more likely to jog or run for exercise. It was reported that eighty five percent of the group never engaged in aerobic exercise. Eighty percent never rode stationary or other bicycle. Eighty five percent never jogged or ran for exercise. Eighty eight percent never lifted weights. Eighty five percent denied any participation in team sports. Ninety one percent never played tennis. Eighty seven percent never went bowling and ninety percent never played golf. Other sports had even lower rates of participation. It was reported that approximately 85% of those in the study group did not regularly engage in any form of exercise. Table J presents the frequency pattern of responses to all questions in this category.

**TABLE J:
Health Promotion/ Exercise
(Frequency)**

	Daily %	3-6 Times weekly %	1-2 Times Weekly %	Less Than Weekly %	Not At All %
Aerobic	2.8	5.5	3.8	2.7	85.2
Ride Bicycle	2.6	5.7	6.3	5.7	79.7
Jog/Run	2.2	5.6	3.4	2.9	85.8
Swim/Water	1.1	1.6	2.6	7.6	87.1
Walk for Exercise	7.5	11.7	11.2	8.6	61.1
Lift Weights	.7	3.4	4.4	2.6	89.0
Team Sports	.8	6.4	4.1	3.7	85.0
Tennis	.0	1.3	1.9	5.4	91.4
Bowling	.0	1.2	.7	10.9	87.2
Golf	.1	1.1	1.0	7.3	90.5
Handball/Racquet Ball	.1	.9	.6	2.4	96.1
Snowboarding	.0	1.0	.2	4.4	94.5
Other	.5	1.1	2.3	1.0	95.1

Use of Drugs and Alcohol

The respondents were asked a series of nine questions, designed to elicit information regarding use of both prescription and illicit drugs among family members. Responses revealed that approximately 5% currently used marijuana, while 3.1% currently used cocaine. Three percent currently used sedatives, and 3.5% were currently taking antidepressants. Current heroin use was indicated for 2.6% of the study sample, and use of club drugs was noted for 2.5% of the respondent group. Ten percent of the study reported alcohol use daily or several times a week and 2.4% were openly reported to have problem drinking patterns. When asked if they or any family member had ever been told they should cut down their use of a substance, 1.1% of the respondents indicated that they or a family member had been so advised. Men were significantly more likely to have been given this advice than women. When asked if they or a family member had ever been arrested as a result of alcohol or drug use, 1% of the respondents answered affirmatively. Men were reported to have substance related arrests significantly more frequently than women. When asked if anyone in the family had a pattern of drug or alcohol use that was considered a problem by other family members, 2.4% reported that there was such a problem; this report was also made significantly more often about males than about females. Table K presents the frequency pattern of responses to questions in this category.

**TABLE K:
Substance Use
(Frequency)**

	Daily	3-6 times Weekly	1-2 Times Weekly	Less Than Weekly	Not At All
	%	%	%	%	%
Pain Killers	2.4	4.1	5.3	27.2	61.0
Anti-depressant	.5	1.4	.2	1.4	96.5
Sedatives	.2	1.3	.3	1.3	97.0
Cocaine	.5	1.4	.1	1.1	96.9
Heroin	.3	1.3	.2	.8	97.4
Marijuana	.9	1.4	.2	2.0	95.5
Hallucinogens	.1	1.3	.1	.9	97.6
Club Drugs	.0	.4	1.1	1.5	97.5
Other Drugs	2.0	1.3	.1	.9	95.6

Activities of Daily Living

Respondents were asked a series of seventeen questions, designed to assess the extent to which they and their family members were able to independently carry out routine activities of daily living. When children under five years of age are excluded from the analysis it appears that approximately 12% of the study group was reported to have difficulty walking limited distances (3 blocks) or climbing 10 steps. Fourteen percent were reported to have some difficulty in stooping, kneeling and bending; similarly, 14% could not stand on their feet for two hours. Six to seven percent of the group cannot take a bath, get dressed or carry out usual household chores without difficulty. Independent participation in social activities such as visiting friends, going to a movie or attending a sporting event was difficult for approximately 6% of the study group. Table L presents the frequency pattern of responses to all questions in this category.

**TABLE L:
Activities of Daily Living
(Frequency)**

	Not Difficult %	Slightly Difficult %	Somewhat Difficult %	Very Difficult %	Impossible %
Walk a Quarter mile: 3 city blocks	88.1	5.1	3.8	1.5	1.5
Walk 10 steps without resting	89.1	5.5	2.7	1.3	1.3
Stand or be on feet for 2 hours	85.6	6.4	4.5	1.4	2.0
Sit for 2 hours	92.9	3.7	1.9	.3	1.2
Stoop, Bend, or Kneel	86.6	7.2	3.4	1.3	1.4
Reach up over your head	94.4	3.4	.8	.4	.9
Take a bath	92.9	3.4	.14	.3	2.0
Get Dressed	94.4	2.4	1.3	.2	1.6
Eat a Meal	96.3	1.9	.4	.1	1.3
Unassisted Carryout	91.2	3.7	1.6	.6	2.9
Household Chores					
Go Shopping	92.2	2.6	1.4	.3	3.5
Go out to a Movie	94.3	2.2	.5	.0	3.0
Go to Sporting Events	93.9	2.1	1.0	.0	3.0
Visit Friends	94.7	2.4	.7	.0	2.3
Attend Meetings	93.8	2.3	1.1	.2	3.0
Read	93.7	2.3	1.1	.2	2.8
Watch TV	96.8	1.9	.3	.0	1.0

Mental Health Problems and Treatment

Respondents were asked two separate series of questions, designed to assess both recent mental health and recent history of mental health treatment of themselves, and family members in the household. The first series of seven questions explored recent mood and perceptions. It should be noted that all data was gathered prior to the September 11 terrorist attack. It was reported that six percent of the group had experienced feelings of anxiety in the past thirty days; the majority of these feelings were described as severe or moderate. Approximately 4% of the study group felt hopeless, worthless, that everything was an effort or so sad nothing could cheer them during the preceding thirty days. Of those who were reported to have such feelings, the majority were described as being severely or moderately affected. Additionally, 1.2% of the respondents reported that they or other family members had felt in danger from domestic

violence during the preceding thirty-day period. Table M presents the frequency pattern of responses to all questions in this category.

TABLE M
Mental Health Distress in the Past 30 Days
(Frequency)

	A Lot %	Some %	A Little %
Feeling Worthless	.2 (1,000)	2.0 (10,000)	.9 (4,500)
Feeling Hopeless	.5 (2,500)	2.4 (12,000)	1.3 (6,500)
Feeling Anxious	.7 (3,500)	4.2 (21,000)	1.3 (6,500)
Feeling so sad nothing cheers you up	.3 (1,500)	2.7 (13,500)	1.1 (5,500)
Feeling Restless	.4 (2,000)	1.7 (8,500)	.8 (4,000)
Feeling that everything is an effort	.5 (2,500)	2.6 (13,000)	1.4 (7,000)
Fear violence from family members	.0	.8 (4,000)	.4 (2,000)

Respondents were then asked to report twelve-month histories of mental health treatment for themselves and family members. It was reported that three percent of the group had been diagnosed with, and treated for, depression during the past twelve months. Women were significantly more likely than men to be reported as having had such treatment. Approximately 2.5% of the study group had been diagnosed and treated for anxiety during the preceding year. Again, women were significantly more likely than men to receive this type of treatment. All other diagnoses, including an "other diagnosis" category, were reported by very small numbers of respondents, in all cases less than .5%. Table N presents the frequency pattern of responses to all questions in this category.

**TABLE N:
Treatment for Mental Health Conditions
(Frequency)**

Condition	Percentage of Sample Reporting Treatment	Estimated # of County Residents Effected
	%	#
Depression this Year	3.0	15,000
Anxiety this Year	2.3	11,500
Eating Disorder this Year	.1	500
Bipolar this Year	.2	1,000
Schizophrenia this Year	.1	500
Borderline Personality	.0	0
Alzheimers this Year	.1	500
Other Mental Health Problems this Year	.3	1,500

Participation in Health Screenings

Respondents were asked whether they and family members had participated in a series of health screenings during the past twelve months. Eleven routine screenings were included in this series of questions. These were blood pressure, cholesterol, diabetes, breast examination, mammogram (women over 40), glaucoma, tuberculosis, lead poisoning screening, colon cancer, prostate function (men over 40), and pap smear. Responses to these questions indicate that only 35% of the population had had their blood cholesterol checked in the past year, and only 60% had had a blood pressure reading during that period. Having these two examinations was significantly related to gender, marital status and insurance coverage, with older, married women being more likely than other respondents to have had these screenings. Among the men, only 25% had had a prostate examination in the past year. Among the women, approximately half (50%) had had a pap smear and a breast examination within the past year but only 33% had had a mammogram. Women with college educations were significantly more likely than other groups to have had these screenings. Twenty percent of all respondents reported having had a blood test for diabetes, and only 10% reported any type of test to detect colon cancer; men were significantly more likely than women to have had this screening. Tuberculosis screening was reported by 7% of the study group. Table O presents the frequency pattern of responses to all questions in this category.

**TABLE O:
Health Screening
(Frequency)**

	YES
	%
Blood Cholesterol	34.4
Prostrate	25.0
Blood Pressure	59.9
Pap Smear	51.4
Mammogram	33.2
Breast Exam	55.2
Diabetes	20.9
Glaucoma	20.5
Colon Cancer	9.6
Tuberculosis	6.9

Smoking

When questioned regarding their smoking habits, 15.5% of the respondents indicated that they or family members were current smokers. Men were significantly more likely than women to be current smokers; 19.2% of the men were reported to have a current smoking habit contrasted to 12.3% of the females. Eighty percent of the current smokers were reported to smoke every day, and the modal number of cigarettes reported smoked daily was 20. Of those who do not currently smoke, 25% were indicated to have been indicated smokers at one time. Again, men were significantly more likely to have ever smoked in the past. College graduates and those with advanced degrees, were significantly less likely to have ever smoked than those with high school educations or less. Older nonsmokers, particularly those over 60, were significantly more likely to have had earlier smoking habits. The majority of those who no longer smoke had stopped smoking more than two years ago. When asked about the use of other tobacco products, the responses indicated minimal use of cigars, chewing tobacco and pipes among the members of the study group.

**TABLE P:
Current Smoking
(Frequency)**

SMOKES	%	# of Residents
Every day	13.1	65,500
Some days	2.4	12,000
Not at all	84.5	422,500

Birth Weight

There were nineteen infants under one year of age in the sample group. Of this number, 22% were 4.5 lbs. or less at birth. Thirty three percent weighed less than 6 lbs., and 66% weighed 6.4 lbs or more. Although the report of low birth weight is substantial, the small number of individuals in the newborn group (under 1 year) makes it impossible to draw any conclusions regarding the scope of the low birth weight problem in the general population.

**TABLE Q:
Birth Weights
(Frequency)**

Pounds	%	Cumulative %
2.00	11.1	11.1
4.50	11.1	22.2
4.75	11.1	33.3
6.40	11.1	44.4
6.50	11.1	55.5
7.00	11.1	66.7
7.40	11.1	77.8
7.50	22.2	100.0
Total	100.0	

Sexual Activity and STDs

Approximately 68% of those in the study group were reported to be sexually active. Seventy two percent of males, age 11 and over, were reported to be sexually active while 64% of females, age 11 and older, were reported to be sexually active. Sexual activity was significantly related to age; the lowest activity was in the 11 to 17 age group in which 7.3% were reported to be sexually active. Reports of sexual activity increased with age, reaching its maximum in the 31 to 40 age group, in which 93% were reported to be sexually active. Reports of sexual activity then began a linear decline in older groups, reaching a minimum of 29% in the 81-90 age group. Sexual activity was also significantly related to larger family size; this is consistent with the greater activity noted in the 31 to 40 age group because there is significantly greater probability of marriage and children in this group. Among the sexually active group, it was indicated that 92% had had only one sexual partner in the past twelve months. Men were twice as likely to have had multiple sexual partners than women. Having multiple partners was significantly more likely in the 18 to 30 age group, in which 25% were reported to have had multiple sexual partners. Approximately 1% of the study group had been treated for a sexually transmitted disease in the past twelve months (excluding HIV disease). Ten percent of the study group had been tested for HIV in the past twelve months. Individuals between 19 and 40 were significantly more likely to have been tested than those in other age groups; approximately 20% of the people in these age groups had been tested. Additionally, those with college educations and those with advanced degrees were significantly more

likely to have had an HIV test. Only .3% of the sample had been diagnosed with HIV disease.

**TABLE R:
Sexual Activity and STDs
(Frequency)**

	Percentage of Sample Reporting	Estimated # of County Residents Effected
	%	#
Sexually Active	59	295,000
Multiple Partners	7.2	36,000
Diagnosed with STD (non HIV)	.6	3,000
Tested for HIV	10	50,000
Diagnosed with HIV	.3	1,500

The Most Frequently Reported Illnesses

After analyzing the frequency of various illnesses and disorders by body system, an analysis of the frequency of all illnesses without consideration of body system was conducted. The results of this analysis indicate that the illnesses or disorders most frequently reported by the respondents in this survey were:

**TABLE S:
Illnesses Most Frequently Reported by Study Participants
(Frequency)**

Illness/Condition	Percentage of Sample Reporting Condition	Estimated # of County Residents Effected
	%	#
Hypertension	12.5	62,500
Asthma	9	45,000
Migraine/Severe Headaches	7.2	36,000
Arthritis	6.9	34,500
Bronchitis	6.5	32,500
Hearing Deficit & Deafness	5.5	27,500
Anxiety/Depression	5	25,000
Blindness/Visual Impairment	4.6	23,000
Disorders of Back, Neck, Spine	3.9	19,500
Nonmalignant Bladder Disorder	3.9	19,500
Diabetes	3.6	18,000

Key findings Regarding Life Style and Health Promotion

This study revealed patterns of activity, diet, personal habits and health service participation that are clearly related to attaining and maintaining health. The key findings regarding these issues are as follows:

- The majority of those studied, in all demographic categories, were reported to have a very sedentary lifestyle, devoid of any form of regular exercise.
- Only half of the sample group was reported to have any concern regarding the content of their diet, although one in every four members of the study group was reported to be 20 pounds or more over their desired weight.
- Fifteen percent of those studied were current smokers, and the majority of these were daily smokers of at least a package of cigarettes a day.
- Lack of independence in activities of daily living, particularly in those activities requiring independent ability to leave the home or to ambulate within the home was reported for 5 –15% of all individuals, depending upon the particular query.
- A significant percentage of the infants in the study, 22%, had birth weights which placed them in the low birth weight category. This is significantly higher than the 8.5% low birth weight births reported for the county in state and federal reports
- Only a minority of study group members had had routine health screenings in the past twelve months. The single exception to this was blood pressure screening, which had been received by 60% of the study group.
- Reports of multiple sexual partners were quite limited but were significantly higher in the 18 to 30 age group, in which one in four study group members was reported to have had multiple sexual partners in the preceding year.
- Reports of HIV testing were significantly lower than national reports collected by the Center for Disease Control. In this survey, only 10% of the study group was reported to have had an HIV test; in contrast, 30-40% of respondents indicate that they have had such tests on national surveys.
- Reports of moderate and severe anxiety and depression (pre September 11) were made for 5% of the study group. If extrapolated to the entire county population, this would result in an estimate of 25,000 individuals in the county who were currently experiencing moderate to severe symptoms of depression or anxiety. Reports of mental health treatment for these issues were significantly lower than reports of symptoms.
- Reports of problematic substance use were received for 2.5% of the study group. If extrapolated to the entire county population this would result in an estimate of approximately 12,500 individuals in the county whose use of substances is considered dysfunctional by their families.
- Reports of concern regarding lack of health insurance coverage of required services (11%), and concerns regarding local air quality (5%), were noted by respondents who were offered the opportunity to make narrative comment.

Subjective Health Rating

At the end of the survey, respondents were asked to rate the health status of all family members in the households. Sixty eight percent of the subjects were reported to be in excellent or very good health. Ninety four percent were reported to be in at least average health. Only 6% of the survey subjects were reported to be in below average or poor health. Clearly, study respondents indicated a general perception of good health within their families.

TABLE T:
Subjective Health Rating Among Study Participants
(Frequency)

Rating	Percentage of Sample Reporting Condition	Estimated # of County Residents Effected
	%	#
Excellent	35	175,000
Very Good	33	165,000
Average	26	130,000
Below Average	3.2	16,000
Poor	2.8	14,000

Study Findings in the Context of State and National Health Statistics

INTRODUCTION

In order to have a thorough understanding of the implications of the findings of this study it is necessary to consider the results in the broader context of state and national health statistics. Are the people of Union County similar to residents of New Jersey and citizens of the United States? Are their reports of health and health habits similar to those of state and national populations? In order to address these questions health statistics compiled by state and federal agencies have been reviewed and contrasted with the findings of the county health assessment. In this section those contrasts will be presented and conclusions will be drawn regarding the importance of the differences and similarities among the various sets of health statistics.

Sources which were used in this analysis include the federal Census for 2000, the state's Healthy New Jersey 2010 health plan, the federal government's Healthy People 2010 health plan, statistics from the Behavioral Risk Surveillance System conducted by the federal Center for Disease Control, statistics provided by the state Center for Health Statistics and results of the 2000 National Health Interview Survey. No data that was gathered prior to 1998 was used in the analysis. It should be noted that although the contrasts that will be presented are suggestive of patterns of similarity and difference between populations no definitive conclusions can be reached because of differences in research methods which were used to develop the statistics. Nonetheless, the patterns that appear in the data strengthen the probability of the validity of the current findings and suggest those issues on which there is general agreement among health planners.

ISSUE 1: DEMOGRAPHICS

A review of national, state and county demographic profiles reveals a close correspondence among the characteristics of the populations. When median age is considered, for example, the three groups are in close accord with a county assessment median age of 37, a state median age of 36.7 and a national median age of 35.3. Although our state has a higher median age than the nation, the study participants are almost identically aged with the residents of New Jersey. The ratio of males to females was lower in New Jersey and in Union County assessment than it was nationally, perhaps as a result of the fact that local and state populations are slightly older than the national population. Nationally there were 96.3 males for every 100 females while in New Jersey there were 94 males for every 100 females. In the county health assessment there were 89 males for every 100 females studied. National average household size in 2000 was 2.59 people while in New Jersey, average household size was 2.68. These averages are consistent with the average household size in the assessment sample, which was 2.7 people.

When ethnic and racial composition is considered the assessment group was also very similar to the state population identified in the 2000 Census. In the Census, the state's white population was recorded at 66% of the total while the Hispanic population accounted for 13.3% of the total. Thirteen and six tenths percent (13.6%) identified themselves as black while 5.7% described themselves as Asian. The group studied in this

assessment was 61% white, 13.7% Hispanic, 17.9% black, 3% Asian and 3.3% mixed or other. These local and state ethnic/racial distributions were very similar to that reported for the nation as a whole in the 2000 Census. Nationally, 69% of the population is reported to be non-Hispanic white, while 12.3% is identified as black, 3.6% are Asian and 12.5% self reports as Hispanic.

As the forgoing narrative illustrates, the survey group was quite demographically similar to the state and national populations recorded in the 2000 Census. This similarity increases the assurance with which survey findings can be believed to accurately represent the experiences and opinions of county residents.

**TABLE B:
Comparison of
National*, State*, County* and Assessment
Demographic Profiles**

Characteristic	National	State	County	County ** Assessment
Median Age	35.3	36.7	36.7	36
Male/Female Ratio	96.3/100	94.5/100	92.7/100	89/100
Mean Household Size	2.59	2.68	2.8	2.7
Ethnic/Racial Background:				
White	75.1%	66%	58.5%	61%
Black	12.5%	13.6%	20.7%	17.9%
Hispanic	12.5%	13.3%	19.7%	13.7%
Asian	3.6%	5.7%	3.8%	3.0%

* **Source: 2000 Federal Census**

** 4% of survey respondents refused to report race or ethnicity

ISSUE 2: CARDIOVASCULAR DISEASE

In this survey, 1.4% of the respondents noted that they had had a myocardial infarction or heart attack. In all, 4.6% noted that they had some form of non-vascular cardiac disease. This response pattern is consistent with the results of the most recent National Health Interview Survey, in which 4.4% of the national sample indicated that they had some form of coronary disease. The small difference in rates is possibly attributable to the fact that the county's population is slightly older than the national population.

ISSUE 3: CANCER

The national Program of Cancer Registries forecasted that 41,200 new cancer cases would be diagnosed in New Jersey in 2001. Of these, 6,700 breast cancer cases were anticipated, 6,200 cases of prostate cancer, 5,000 cases of lung cancer and 4,500 new cases of colorectal cancer.

These statewide estimates are somewhat lower than the findings of the current study regarding diagnosis of cancer. Lung cancer was reported by .3% of the group; breast cancer by .5% of the women, prostate cancer by 1.8% of the men and colon cancer by .2% of all respondents. The rates in the study would, however, be expected to be higher than calendar year, since the assessment addressed recent experience of, rather than diagnosis of, cancer.

ISSUE 4: ASTHMA

According to data gathered by the National Center for Chronic Disease Prevention in 2000, 8.7% of the total population of New Jersey reported a diagnosis of asthma. This is consistent with the findings of this study, in which 9% of the study group reported a diagnosis of asthma. Although reports of asthma were widespread, the experience of hospitalization or emergency situations related to the illness was quite minimal, falling significantly below national reports of the need for such levels of care to treat the disease.

ISSUE 5: DIABETES

The National Health Interview Survey reports 40 cases of diabetes for every 1,000 people in the national population. This means that 4% of the population has a diagnosis of diabetes. This statistic is very consistent with the findings of this survey, in which 3.6% of the study group reported that they were diabetic. The goal of the national health plan, Healthy People 2010, is to reduce this number to 25 people per 1,000 or 2.5% of the population by the year 2010.

ISSUE 6: HYPERTENSION

The National Center for Chronic Disease Prevention reports that 23.5% of the people in New Jersey had a diagnosis of hypertension at some time in their lives. Additionally, the National Health Interview Survey reports that 13% of those surveyed nationally indicated that they were currently hypertensive. These findings are consistent with the findings of the county health assessment, in which 12.5% of the group was reported to have been hypertensive within the preceding twelve months.

ISSUE 7: LOW BIRTH WEIGHT

Healthy People 2010 reports that, nationally, 7.6% of all newborns are low birth weight infants, and that an additional 1.4% are classified as very low birth weight infants. These rates are significantly lower than the reported rates in this survey, in which 22% of the babies were reported to have been born at weights below the cutoff for low, and very low, birth weight. The very small number of infants in the study group does, however, make it impossible to assess the validity of this finding without additional research.

ISSUE 8: SMOKING

The National Center for Chronic Disease Prevention reports that 21% of all New Jersey residents were smokers in the year 2000. This habit was found to be related to gender and age with males and those under 65 more likely to be actively smoking. This report is consistent with the findings of the county health assessment, in which 15.5% of the subjects were reported to be current smokers. The smoking habit was also found to be related to age and gender in the current study. A national goal for smoking reduction has been set in Healthy People 2010. This goal is to reduce smoking behavior by 50% by the year 2010. In Union County, this would mean reducing the number of smokers from approximately 80,000 people to 40,000 people during this period.

ISSUE 9: WEIGHT

Healthy People 2010 reports that 23% of all Americans were obese in 2000, and sets a goal of reducing this percentage to 15% by the year 2010. The National Health Interview Survey for 2001 found that 22.4% of all adults surveyed were obese. These findings are consistent with the findings of the county health assessment, in which 22.9% of the group was reported to be at least 20 pounds over a goal weight. As in the national study, the survey found that women were more likely to be overweight than men, and that black respondents were more likely to be overweight than members of other ethnic/racial groups.

ISSUE 10: EXERCISE

The National Center for Chronic Disease Prevention and Health Promotion reports that in the year 2000, only 15% of those 18 and older engaged in moderate physical activity, defined as activity for 30 minutes for 5 days each week. According to the Center the highest risk of death and disability in each age and gender group is among those who do not regularly exercise for at least 2.5 hours each week. Additionally, the National Health Interview Survey for 2000 found that only 16.1% of adult respondents regularly engaged in light or moderate physical activity. These findings are consistent with the findings of the county health assessment, in which only 15% of those studied were reported to engage in any form of regular exercise.

ISSUE 11: ARTHRITIS

The New Jersey Behavioral Risk Factor Surveillance System reports that 27.7% of New Jersey adults indicate diagnosis of some form of arthritis. These reports are greatest among whites (29%) and least among Hispanics (19.2%) and increase in linear fashion with age. Twenty seven percent of those with arthritis reported some limitation in activity attributed to the condition. These findings are inconsistent with the results of the household survey in this assessment in which only 9.8% of adults over 18 are reported to have this diagnosis. The reasons for the disparity are not clear and would require further study.

ISSUE 12: USE OF ALCOHOL AND OTHER SUBSTANCES

According to the New Jersey Behavioral Risk Factor Surveillance System 65.6% of all New Jersey residents indicate only occasional use of alcohol, 1-5 times monthly. This finding is consistent with the county health assessment in which 58% of those surveyed had a reported pattern of occasional alcohol consumption. The National Health Interview Survey for 2000 indicates that 8.7% of American adults reported drinking patterns, which met the survey's definition of excessive alcohol consumption (5 or more drinks on one occasion 12 or more times a year). This finding is also consistent with the county assessment in which 10.1% of those studied were reported to use alcohol daily or several times a week and 2.4% were openly reported to have problem drinking patterns.

ISSUE 13: MENTAL HEALTH

The New Jersey Behavioral Risk Factor Surveillance System reports that 32.7% of the state's residents report recent episodes of mental health problems. Twelve percent indicated that they had consistent mental health problems (the majority of the time) in the recent past. Half of this number indicated that their mental health problems were moderate to severe, approximately 6% of the respondents. This finding is consistent with the county health assessment in which 4-6% of respondents were reported to have moderate to severe feelings of anxiety and depression in the past month. Equally consistent with the county health assessment's findings were the national reports of mental health treatment. The National Health Interview Survey reports that only 47% of those with moderate or severe mental health problems are receiving any form of treatment. This report is completely consistent with local findings in which only half of those reported to have current moderate or severe mental illness were also reported to be in treatment.

ISSUE 14: DIET AND NUTRITION

Statistics reported by the state's Behavioral Health Risk Factor Surveillance System indicate that almost all (97%) of New Jersey residents eat fruits and vegetables daily. The majority of these, however, do not eat the three or more servings of fruits and vegetables that are recommended, and the majority of respondents, particularly in the younger age groups, have diets that emphasize potatoes rather than non-starchy vegetables. This finding is consistent with that of the county health assessment, in which it was reported that only 66% of the respondents ate non-starchy vegetables and fruits daily.

Additionally, the national health plan, Healthy People 2010, reports that 74% of the people in the nation have a diet in which more than 10% of daily calories come from saturated fat. This finding is consistent with the finding of the county assessment, in which the majority of those studied were reported to use saturated fat (butter) on a daily basis.

ISSUE 15: ACTIVITIES OF DAILY LIVING

The National Health Interview Survey for 2000 reports that 11% of the national population has some difficulty in carrying out activities of daily living that require gross motor skills. This finding is consistent with the finding of the current survey, in which 12-14% of the study group was reported to have difficulty independently carrying out such functions. Additionally, the National Health Interview Survey notes that 4-5% of all adult Americans have difficulty with personal care activities such as bathing, dressing, and eating. This finding is also consistent with the finding of the county health assessment, that 5-6% of those in the study group had difficulty in independently carrying out personal care activities.

ISSUE 16: DIAGNOSTIC TESTING

The Behavioral Risk Factor Surveillance System reports that 90% of the residents of New Jersey had had their blood pressure checked in the past twelve months. Local findings contrast unfavorably with this state statistic. In the current survey, only 60% of the study group had had an annual blood pressure reading. Fifty-five percent of national respondents had had their blood cholesterol analyzed in the past twelve months; locally, only 35% of the study group had had an annual analysis of their blood cholesterol. Among women, nationally 75.6% of those over 40 had had an annual mammogram; in the current survey, only 33% of the target group had had this test in the past twelve months. Among men over forty, only 25% of those in the county assessment had had an annual prostate examination; nationally, this rate was 36%. In the National Health Interview survey, 35% of the adults had had a colon cancer screening in the past year; in the local survey only 10% reported having had this screening. Nationally, only two thirds of those with diabetes have been diagnosed as having the disease through a blood test; locally, only 20% of the study group had had an annual blood test to check for diabetes. These differences between national, state and local reports of preventive and diagnostic testing are the largest disparities identified between local health habits. and those reported by the broader state and national populations.

ASSESSMENT OF CONCURRENCE OF ALL STATISTICS

As the sixteen analyses presented above have revealed, there was strong concurrence among national, state and local health statistics in most categories. The populations, their experience of illness, and their health habits were very similar. Clear exceptions to this statistical agreement were found in the categories of birth weight, arthritis, and participation in diagnostic testing. These issues require additional analysis, in order to determine the actual extent and possible causes of the differences observed. In general, however, the concurrence of these statistical findings reinforces the probability that the current assessment validly describes the health and health habits of the residents of Union County.

Issues and Recommendations

ISSUES and RECOMMENDATIONS

Based upon analysis of the data gathered in the Union County Health Assessment the following issues have been identified and are presented for the consideration of the Board of the Union County Alliance, local health service providers and agencies of local government. The major issues that have been identified through the assessment are listed below in three related sets. The first set of issues describes specific health status concerns that have been identified; the second lists issues related to healthy lifestyle that have emerged from the data and the third enumerates issues related to administration of health services which have been discerned. Each issue is accompanied by one or more recommendations for future action. These recommendations are not intended to be prescriptive or all-inclusive. Instead they are intended to provide direction for discussion, elaboration and action by concerned members of the county community.

Summary of Issues and Recommendations:

A. Health Status Issues and Recommendations

ISSUE	RECOMMENDATIONS
1. Current hypertension is reported by 12% of those studied	1a. Provide countywide, coordinated program of blood pressure screening 1b. Encourage schools, work sites and churches to participate in a countywide effort to increase hypertension screening
2. 9% of the respondents report diagnosis of asthma	2a. Assess the need for specific services for this population
3. The majority of those experiencing mental/emotional distress are not in treatment	3a. Identify the causes of the low participation rates and develop a plan increase participation in mental health treatment 3b. Seek funding for mental health treatment services for the uninsured segment of the population 3c. Obtain funding for enhanced outreach and education programming.
4. Substantial numbers of county residents report consistent use of drugs and/or alcohol	4a. Correlate the findings of this assessment with the county's Gaps Assessment and develop an action plan based on both documents
5. Hearing and visual deficits are widely reported and service availability reports are limited	5a. Assess the adequacy of services currently available to address these health issues

6. 3.6% of county residents studied report that they are diabetic yet reports of participation in diabetes screening are limited.	6a. Coordinate and expand current screening programs for diabetes
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B. Lifestyle Issues and Recommendations

ISSUE	RECOMMENDATIONS
7. Underutilization of health screenings is widely reported	7a. Screening programs at work sites 7b. Screening programs at schools 7c. Countywide coordination of free and low cost screenings
8. Lack of regular physical activity is reported by 85% of the respondents	8a. Funding and administration of free physical activity and exercise programs at county parks and municipal recreation centers
9. 15.5% report that they are current smokers	9a. Funding of smoking cessation programs in all municipalities 9b. Establishment of a 5 year smoking reduction goal for the county
10. 21% of the population reports being 20 lbs. or more over a goal weight	10a. Fund weight reduction programs in all municipalities
11. 5-14% of county residents report difficulty in carrying out activities of daily living independently	11a. Develop a forecast for required community support services for the functionally impaired population for the next five years

C. Access Issues and Recommendations

ISSUE	RECOMMENDATIONS
12. 5.5% of the respondents do not have health insurance	12a. Stimulate the development of free and low cost primary care, dental care and specialty care. 12b. Develop a county wide communication plan to stimulate participation in NJ Family Care.
13. There is a lack of free and low cost dental care	13a. Seek funding for low cost dental services in the eastern section of the county
14. A shortage of nursing personnel exists, particularly in community nursing and of bilingual health care workers	14a. Encourage local secondary schools and colleges to emphasize health professions education
15. Non urgent medical transportation is reported insufficient to meet current and projected need	15a. Seek funding to expand the county-wide non-urgent medical transportation system
16. Lack of knowledge of available services is consistently reported as a barrier to health care	16a. Implement an online health service directory on the county website 16b. Widely distribute the directory and advertise its online availability
17. There is variability in health status and health care need based upon age, ethnicity/race and area of residence within the county (see appendices)	17a. Plan type and placement of health service programs based upon specific needs of subgroup

Appendix 1: Response Patterns of Eastern and Western County Residents

An Analysis of Household Survey Responses from Residents of Eastern and Western Union County

In order to determine if response patterns to the household interviews differed by location of residence an analysis which separated responses by geographic location of residence was conducted. Responses from residents of the eastern corridor communities within the county were compared to the responses of other county residents in this analysis. For the purpose of the analysis eastern Union County was defined as Elizabeth, Hillside, Linden, Rahway, Roselle, Roselle Park, and Union Township. Western Union County was defined as all other communities in the County. By dividing the communities in this manner it was possible to develop two population groups of comparable size that could then be contrasted to each other to determine the existence and extent of significant differences in reported health and health behaviors between them.

Eastern Union County	Western Union County
Elizabeth	Berkeley Heights
Hillside	Clark
Linden	Cranford
Rahway	Fanwood
Roselle	Garwood
Roselle Park	Kenilworth
Union Township	Mountainside
	New Providence
	Plainfield
	Scotch Plains
	Springfield
	Summit
	Westfield
	Winfield Park

This analysis has three components. First, a demographic profile of each of the two groups of county residents will be presented. Then a description of the health status responses of each group will be offered. Finally, an assessment will be made of statistically significant differences in health status between the two groups. These statistically significant differences represent those differences unlikely to have occurred by chance.

Demographic Description of the Two Groups

The respondents who resided in the eastern corridor communities with Union County had a median family size of three people. Forty eight percent of the sample was male and 52% was female. The median age was 41. Fifty percent were married, 34.7% were

single, 7.8% were widowed, 6.3% were divorced and 1.1% were separated. Twenty six percent of the group were college graduates; 6.3% also had advanced degrees. Fifty percent of the group was white, 21% were African American, 21.23% were Hispanic, 3.4% were Asian and 2.8% reported mixed ethnic/racial background. Fourteen and one half percent were Medicare participants, 41.5% had HMO coverage, 26% reported Blue Cross or commercial indemnity coverage, 4% were Medicaid recipients, and 8.6% reported other forms of health insurance and 5.5% reported that they were uninsured. The median household income was in the \$50,000-\$60,000 range.

Respondents in the western communities of the county had a median family size of three people. Forty six percent of the group was male and 54% was female. The median age was 35. Forty seven percent were married, 42% were single, 5% were divorced, 5% were widowed and 1.2% were separated. Thirty five and one half percent were college graduates; additionally, 8.7% of the group had achieved an advanced degree. Sixty four percent of the group was white, 26.5% was African American, 6.3% was Hispanic, 1.9% was Asian and 1% reported mixed ethnic/racial background. Eight and one half percent reported that they were Medicare participants, 48% were HMO participants, 37% reported traditional Blue Cross or commercial indemnity coverage, 1.7% reported other forms of health insurance, 1.8% were Medicaid recipients and 3.5% reported that they had no health insurance. The median household income was in the \$60,000-\$75,000 range. Table 1A presents the demographic profiles of the eastern and western county residents.

**Table1A:
Demographic Comparison of Union County Residents:
Eastern Corridor vs. Western Community**

Variable	Eastern Corridor	Western Communities
Median Family Size	3	3
Gender: Male	48%	46%
Female	52%	54%
Median Age	41	35
Marital Status:		
Married	50%	47%
Single	34.7%	42%
Widowed	7.8%	5%
Divorced	6.3%	5%
Separated	1.1%	1.2%
Education:		
College graduate	26%	35.5%
Advanced degree	6.3%	8.7%
Ethnicity/Race:		
White	50%	64%
African American	21%	26.5%
Hispanic	21.23%	6.3%
Asian	3.4%	1.9%
Mixed	2.8%	1%
Insurance Breakdown:		
Medicare	14.5%	8.5%
HMO	41.5%	48%
Blue Cross	26%	37%
Medicaid	4%	1.8%
Other	8.6%	1.7%
Uninsured	5.5%	3.5%
Median Household Income	\$50,000-\$60,000	\$60,000-\$75,000

Based upon the foregoing description, the demographic differences between the two groups are clear. The eastern corridor resident group is reported to be older, less affluent, more ethnically and racially diverse, less well educated, and more likely to be uninsured than residents of western Union County. The demographic differences observed between the two groups can be expected to have influence upon the health problems group members experience and the types of health services needed.

Patterns of Illness and Health Habits among Residents of Eastern and Western Union County

Respondents were asked whether they had experienced eighty-nine separate physical illnesses/conditions in the past twelve months. Residents of the eastern corridor communities indicated that the most frequent illnesses among them were hypertension

(9.5%), arthritis (9.6%), deafness, full or partial (7.9%), menstrual problems (7%), frequent head ache (6.8%), bladder trouble (5%), repeated back, neck or spine dysfunction (5%), current symptoms of anxiety (4.4%), migraine headache (4.4%), ovarian/uterine cysts and tumors (4%) and diabetes (4%).

When these same questions were posed to residents of the western communities in Union County the most frequently reported illnesses were hypertension (14.8%), arthritis (7%), menstrual problems (6.8%), anxiety (6.1%), frequent headache (5.1%), frequent indigestion (5%), deafness, full and partial (4.4%), uterine/ovarian cysts and tumors (4.4%), depression (4.2%), and diabetes (3.6%). The fact that reports of hypertension were 50% higher in western communities may indicate increased incidence of coronary disease and the possible need for additional services in this area.

**Table 1B:
Most Frequent Reported Illnesses:
Eastern Corridor vs. Western Communities**

Illness	Eastern Corridor	Western Communities
Hypertension	9.5%	14.8%
Arthritis	9.6%	7%
Deafness, full or partial	7.9%	4.4%
Menstrual Problems	7%	6.8%
Frequent Headaches	6.8%	5.1%
Anxiety	4.4%	6.1%
Bladder Trouble	5%	-
Repeated Back, Neck, or Spine Dysfunction	5%	-
Frequent Indigestion	-	5%
Migraine Headaches	4.4%	-
Uterine/Ovarian Cysts and Tumors	4%	4.4%
Depression	-	4.2%
Diabetes	4%	3.6%

Residents of eastern corridor communities did not report recommended levels of participation in health screening. Only 56% reported blood pressure screening in the past twelve months and only 18% had been tested for diabetes. Other rates of participation were even lower, ranging from 50% for an annual breast examination to 11.6% for any form of colon cancer screening. Residents of western communities had similarly inadequate participation in screenings, although their rates of participation were generally greater than those of eastern corridor residents. Sixty three percent of western residents had had an annual blood pressure screening; sixty percent had had an annual breast examination and 23% had been tested for diabetes. Only 8% had been tested for colon cancer in the past twelve months.

Use of drugs was reported more frequently by residents of eastern corridor communities. In eastern corridor communities 4-5% of the residents admitted to some use of

marijuana, sedatives, barbiturates, hallucinogens, cocaine, heroin and club drugs. In the western municipalities this range of reported drug use was 1.3-3.7%. Alcohol use was more frequently reported by residents of western Union County. Fifty percent of respondents from eastern corridor communities reported regular use of alcoholic beverages contrasted with 60% of the residents of western communities.

In terms of dietary preferences the two groups were quite different. For example the Eastern County group reported that 59% didn't include alcohol in their diet at all, while only 52% of those residing in eastern Union County gave this report. Those in the eastern county reported less use of red meat, salt and sugar than those residing in the western sections of the county. Conversely, those residing in the west reported a more frequent incorporation of non-starchy vegetables and less frequent use of fried food and butter than those residing in the eastern corridor.

With regard to sexual activity those residing in the west were more likely to be sexually active (56.5% vs. 62%) and more likely to report multiple sexual partners. Those residing in the eastern corridor were more likely to report testing for HIV disease and the three reported cases of HIV were all among eastern corridor residents.

Significant Variations in Response Patterns: Eastern vs. Western Union County

The following analysis presents a summary of the differences in response patterns between the eastern and western groups of respondents that could not have occurred by chance. These represent actual variations between the two groups.

Demographically, the two groups reported several significant differences. Educationally, the residents of eastern Union County were significantly less likely to report having completed college or having advanced degrees than residents of western Union County. Eastern corridor residents were significantly more likely to be divorced or widowed than residents of western communities and less likely to report single marital status. The eastern corridor residents were significantly more likely to participate in Medicare than those residing in the western communities and significantly less likely to have commercial indemnity insurance coverage. Those residing in eastern Union County were significantly more likely to be Medicaid and public assistance recipients. Fully four times as many eastern residents reported receiving public assistance as residents of western communities. Lack of health insurance was also significantly related to location of residence. Eastern corridor residents were significantly more likely to report being uninsured as those in the western communities of the County. Five and one half percent (5.5%) of those residing in the eastern corridor reported being uninsured, contrasted with 3.5% of the residents of the western section of the County.

There were several significant differences in reported health status between the two groups. Diagnosis of asthma was more likely in the eastern corridor communities. Also, reports of asthma attacks and of emergency room treatment of such attacks, was significantly more likely among residents of eastern Union County. Eastern corridor

respondents were also more likely to report concern regarding air quality when given the opportunity to make narrative comment at the conclusion of the interview. Diagnosis of hypertension was significantly more likely among residents of western Union County as was the report of frequent indigestion. Hernia repair was significantly more often reported by eastern corridor residents.

Dietary patterns also varied by location of residence. Residents of eastern Union County were significantly more likely to report diets that frequently included red meat, butter, salt and sugar than residents of western communities. They were also significantly less likely to include non-starchy vegetables in their diet. Residents of western Union County were significantly more likely to report the daily or frequent inclusion of alcoholic beverages in their diet.

Reports of preventive testing also varied significantly by location of residence. The eastern corridor residents reported significantly reduced levels of blood pressure screening, which may be related to the lower rate of diagnosis of hypertension in this group. Significantly fewer eastern corridor residents also reported getting pap smears, breast examinations, diabetes screening and tuberculosis testing. Conversely, residents of western communities were significantly less likely than eastern corridor residents to report glaucoma screening and screening for colon cancer. Hearing tests were reported significantly more frequently among eastern corridor residents than those residing in western Union County.

Participation in physical activity also varied significantly between the two groups. Analysis of responses to each of the twelve questions in the series designed to assess extent of physical activity (exercise) engaged in by respondents revealed that eastern Union County residents were less likely to engage in each of the forms of exercise noted. Western residents were more likely to jog, walk, ride bicycle, swim, play tennis etc. for exercise than those who reside in eastern Union County.

In terms of activity of daily living independence there was a significant difference in the extent to which the two groups (with children less than age 5 removed from the analysis) reported independence in gross motor skill activities, such as walking three blocks. In response to these questions less independence was reported by eastern corridor residents; this difference, however, reached a statistically significant proportion only when questions regarding ambulation and getting from home to other locations were answered.

Responses regarding extent of drug use were not significantly related to the residence of the respondent with the single exception of the use of painkillers. In response to this question, residents of the eastern corridor were significantly more likely to report that they used such pharmaceuticals; in fact they were 50% more likely to answer this question affirmatively than residents of the western communities.

Residents of eastern Union County were significantly more likely to report that they feared violence in their households, specifically violence initiated by family members.

While only .4 % of western Union County residents reported this concern it was noted by 1.4% of the respondents in eastern Union County.

Many of the reported differences in health status and health behaviors between the two geographically determined groups may be the result of differences in aggregate income. The educational status differences that have been reported are often indicative of income differentials between populations; similarly the significant difference in numbers of Medicaid and public assistance recipients suggests that an income difference between the two groups is present. The 2000 census data regarding income by municipality has not yet been released. The 1990 municipal income data revealed that there were large household income differences among the communities, which have been defined as eastern and western Union County in this report. Eastern Union County households, as a group, reported significantly lower household incomes than households in western Union County. Other demographic differences such as education and ethnicity may also be related to the observed differences in health status and health behaviors. Further evaluation of these possible etiological factors would be necessary to determine their actual relationship to the observed contrasts in health status between residents of eastern and western Union County.

Appendix 2: Response Patterns by Age Cohort

Union County Health Assessment Response Patterns by Age

In an effort to determine the effect of age upon reported health status an analysis of response patterns to the household survey by age cohort was conducted. For the purpose of this analysis four age groups were established. These were all respondents 0 through 17, residents 18-31, residents 32-61 and all residents 62 years of age or older. These groups were developed in an attempt to approximate the minor, young adult, adult, and senior adult age groups. Groups of smaller age span were considered but rejected because of the statistical necessity of maintaining minimum sample size in each group. The results of this analysis indicate that there is wide variability in the experience of health, illness and lifestyle among the age cohorts.

The 0 through 17 Age Group

In the 0-17 age group 50.6% were male and 49% were female. Ninety nine percent were reported to be single and 73% were less than 13. Fifty five percent were white, 27% were African American, 12% were Hispanic and 3.4% were Asian. The remainder reported mixed ethnic/racial backgrounds. One out of every 25 children in the county, 4%, were reported to be Medicaid or Medicare recipients. Fifty percent of the children were enrolled in HMOs and 36% were reported to have commercial indemnity or traditional Blue Cross health insurance. 2.5% of the children, one out of every forty in the county, were reported to be uninsured. The modal family size for families with children was four people; this was also the mean family size for families with members under the age of 17. It was reported that 12.5% of the children spoke a language other than English in their households as the primary means of communication. Table 12A presents the demographic profile for this and other age cohorts.

When prevalence of physical illness is analyzed for this age group the most frequently occurring illnesses that are identified are heart murmur (1.1%), hernia (2.7%), paralysis (1.1%), menstrual problems (4.7%), bladder trouble (1.5%), asthma (10.9%), epilepsy (1%), diabetes (1%), frequent constipation (1.9%), and spastic colon (1%).

**Table 2A:
Prevalence of Illness: 0-17 Age Group**

Illness	Prevalence
Asthma	10.9%
Menstrual Problems	4.7%
Hernia	2.7%
Frequent Constipation	1.9%
Bladder Trouble	1.5%
Paralysis	1.1%
Heart Murmur	1.1%
Epilepsy	1%
Diabetes	1%
Spastic Colon	1%

In order to conduct a meaningful assessment of activity of daily living independence all children under age 5 were eliminated from the analysis. For those respondents between the age of 5 and the age of 17 almost complete activity of daily living independence was noted. Approximately two percent of respondents in this age cohort were reported to have difficulty in independently carrying out activities requiring gross motor skills such as walking, bending and stooping. In all other activity areas almost complete independence was noted.

When queried about mental health issues it was reported that members of this age cohort experienced little observed mental distress. Less than 1% of individuals in this age cohort were reported to experience feelings indicative of anxiety or depression. This is, however, a third party report and may not reflect the actual extent of psychological distress in this group.

An analysis of drug and alcohol use by members of this age group reveals that 21% are reported to be consistent users of pain killing medication while 3.1% are reported to regularly smoke marijuana. Approximately three percent are reported to use sedatives, cocaine and/or antidepressants. Additionally, approximately 3% are reported to use heroin while 4% are reported to use ecstasy and other club drugs.

Reports of sexual activity among the members of this age group were quite limited and must be considered an under report of the actual experience of the group. Three and one half percent were reported to be sexually active and 2% were reported to have had multiple sexual partners in the last twelve months. No cases of sexually transmitted disease were reported. Only 2% were reported to have been tested for HIV and none were reported to have been diagnosed with HIV disease.

The 18 through 31 Age Group

In the 18-31 age group 50.5% were female and 49.5% were male. Fifty seven percent were reported to be single, 39.5% were married, 2% were divorced and 1.6% were separated. Thirty percent were less than 25 and 55% of the group less than thirty. Five percent of the group had not completed high school; undoubtedly, however, some of the 18 and 19 year olds were still completing secondary school. Four and three tenths percent of the respondents in this age group were Medicaid recipients. Forty three percent were reported to be covered by HMOs and 33.7% reported traditional Blue Cross or commercial indemnity insurance. The mean household income in this group was in the \$50,000 to \$60,000 range. The ethnic/racial composition of the group was 48.8% white, 33.6% African American, 12.1% Hispanic and 2.3% Asian. Two percent of those in this age group were reported to be of mixed racial/ethnic background. Modal family size was 3 and mean family size in this age group was 2.8. Table 2B presents the demographic profile for this and other age cohorts.

When an analysis of the prevalence of physical illness within this group was conducted ten illnesses that occurred most frequently among members of this age cohort were identified. These illnesses are gall stones (1.7%), heart murmur (1.7%), growths and tumors of the skin (1.7%), repeated problems of back, neck and spine (1.7%), anemia (6.4%), frequent head aches (8.1%), migraine head aches (5.2%), menstrual problems (8.6%), uterine/ovarian cysts and tumors (4.8%), varicose veins (2.3%), and unspecified vision problems (1.7%).

**Table 2B:
Prevalence of Illness: 18-34 Age Group**

Illness	Prevalence
Menstrual Problems	8.6%
Frequent Head Aches	8.1%
Anemia	6.4%
Migraine Head Aches	5.2%
Uterine/Ovarian Cysts and Tumors	4.8%
Varicose Veins	2.3%
Gall Stones	1.7%
Growths/Tumors of the Skin	1.7%
Heart Murmurs	1.7%
Repeated Problems of Back, Neck, Spine	1.7%
Unspecified Vision Problems	1.7%

An analysis of activity of daily living independence for this group revealed virtually complete independence in all of the seventeen activity areas, which were assessed. Less than 1% of the respondents had difficulty in activities requiring gross motor skills such as walking, bending, and stooping. No other daily activities were noted as difficult by this group.

Approximately 5% of the individuals in this age cohort were reported to have experienced recent feelings of depression or anxiety. Of this number only half, 2.5% of the total age cohort, indicated that they were currently receiving mental health treatment.

An analysis of the use of drugs and alcohol reveals that 35% of the members of this group regularly use pain-killing medication while 2.3% report the use of either sedatives or antidepressants. Six percent report use of cocaine while 3.5% rare reported to use heroin. Additionally 3% are reported to use hallucinogens and 2.5% are reported to use ecstasy and other club drugs. The drug most frequently chosen by members of this group was marijuana. Fully 10% of the members of this age cohort are reported to smoke marijuana on a regular, recurring basis. Thirty three percent of the members of this group reported the consistent (weekly or more) consumption of alcoholic beverages; of this alcohol consuming subgroup 45% reported that alcohol was consumed several times each week.

Eighty five percent of the members of this age cohort indicated that they were sexually active. Twenty one percent had had multiple sexual partners in the past twelve months. Only 1% had been diagnosed with a sexually transmitted disease and none had been diagnosed with HIV disease. Nineteen percent of the group had been tested for HIV.

The 36 through 61 Age Group

In the 36 through 61 age group 48.4% were male and 51.6% were female. Of these individuals 75.9% were married, 10.9% were reported to be single, 9.8% were divorced, 2.6% were widowed and 1.2% were reported to be separated. Twenty five percent of the cohort were 40 or less; 40% were less than 45; 60% were less than fifty and 80% were 55 or less. Approximately five percent indicated that they had not completed high school, 32% reported high school graduation, 18% reported some post secondary education and 45% reported being college graduates. Of the college graduates, 12% indicated they also had an advanced degree. One percent were Medicaid recipients and 1% received Medicare coverage. The remaining members of this age group were covered by HMOs (55.6%), traditional Blue Cross and commercial indemnity (37%), other insurances (2.2%) or had no insurance (3.2%). The modal family size was 2 and the mean family size for this age group was 3. Sixty percent of this age cohort was white, 21.3% was African American, 15.1% was Hispanic, 2.8% was Asian and 1% reported that they were of mixed ethnic/racial background. Median family income was in the \$60,000 to \$75,000 range. Table 2C presents the demographic profile for this and other age cohorts.

When prevalence of illness is analyzed for this age cohort the most frequently reported illnesses are frequent indigestion (5.2%), ulcers (2.1%), frequent headaches (7.4%), migraine headaches (4%), repeated problems of back, neck and spine (4%), arthritis (4.7%), hypertension (12.5%), varicose veins (4%), diabetes (4%), menstrual problems (8.7%), and ovarian/uterine cysts and tumors (6.3%).

**Table 2C:
Prevalence of Illness: 36-61 Age Group**

Illness	Prevalence
Hypertension	12.5%
Menstrual Problems	8.7%
Frequent Head Aches	7.4%
Ovarian/Uterine Cysts and Tumors	6.3%
Frequent Indigestion	5.2%
Arthritis	4.7%
Diabetes	4%
Migraine Head Aches	4%
Repeated Back, Neck and Spine	4%
Varicose Veins	4%
Ulcers	2.1%

When questioned regarding activity of daily living independence responses from this age cohort indicate minimal difficulty in carrying out all of the seventeen individual activities without any assistance. Approximately 1% of the respondents noted difficulty in carrying out activities that required major motor skills; in all other ADL areas this group reported complete independence.

Analysis of mental health issues among this age cohort revealed that approximately 4% reported current feelings of depression and approximately 6% reported current experience of anxiety. Only half of those reporting anxiety also reported mental health treatment; among those reporting depression in this age group almost 80% reported being in treatment.

An analysis of drug and alcohol use within this group reveals that 44% regularly use painkillers, while 4% are consistently taking antidepressant medication. Three percent reported the consistent use of sedatives. Four percent are regular users of marijuana and 2.7% report consistent use of cocaine. Two and one half percent reported that they used heroin and 2% reported the use of hallucinogens. Thirty two percent of people in this group reported the consistent (weekly or more) consumption of alcoholic beverages; of this number 40% used alcohol several times a week.

Eighty six percent of the members of this age cohort reported that they were sexually active. Five percent reported that they had had multiple sexual partners in the past twelve months. One percent had been diagnosed with a sexually transmitted disease in the past twelve months and thirteen percent had been tested for HIV. Only three individuals reported that they had been diagnosed with HIV disease.

The 62 and Older Age Group

In the 62 and older age group 43.6% were males and 56.4% were females. Of these individuals 54.2% were reported to be married, 3.9% single, 6.1% were reported to be divorced, 33.5% were widowed and 2.2% were separated. Fifty percent were age seventy or less; seventy percent were age 75 or less; and 85% were age eighty or less. Conversely, ten percent of the sample was 83 or more years of age. Ten percent had not completed high school while 15% were college graduates. The modal level of educational achievement was high school graduation which was achieved by 60% of the people in this group. Seventy one percent of the group reported Medicare coverage and 5.6% reported being Medicaid recipients. Nine percent reported traditional Blue Cross or indemnity insurance while 10.2% noted they participated in HMOs. None reported being uninsured. Sixty nine percent of these respondents were white, 14% were African American, 13.4% were Hispanic 1.1% were Asian and 1.7% reported mixed ethnic/racial background. The modal family size for this age cohort was 2 and the mean family size was also 2. Table 2D presents the demographic profile for this and other age cohorts.

When prevalence of illness is analyzed for this age cohort the most frequently experienced illnesses are identified as coronary heart disease (9.6%), hypertension (42%), arthritis (30.7%), repeated back, neck or spine disorder (11.2%), diabetes (9.6%), bladder trouble (19.3%), frequent indigestion (8.4%), cataracts (8.9%), deafness (8.9%) and hearing impairment (21.8%).

**Table 2D:
Prevalence of Illness: 62 and Older Age Group**

Illness	Prevalence
Hypertension	42%
Arthritis	30.7%
Hearing Impairment	21.8%
Bladder Trouble	19.3%
Repeated Back, Neck or Spine Disorder	11.2%
Coronary Heart Disease	9.6%
Diabetes	9.6%
Cataracts	8.9%
Deafness	8.9%
Frequent Indigestion	8.4%

An analysis of activity of daily living independence among the members of this group reveals that a significant percentage had difficulty with all major motor activities such as walking, climbing, bending and stooping. When questioned about these skills 12-17% of the 62 and over population reported difficulty in independently carrying out activities requiring these skills. Although fewer seniors reported difficulty in basic self care functions such as eating, dressing and washing there were significant numbers of senior respondents who could not carry out such activities without difficulty (8.9% to 5% on individual questions). Nine percent indicated they had difficulty carrying out household chores and 6% indicated they had difficulty doing necessary shopping.

An analysis of mental health issues among the members of this age cohort reveals that 5% of the group reported current depression while 8.5% reported current feelings of anxiety. Four percent reported current treatment for depression while less than half of those reporting current anxiety also report that they are receiving any intervention for the problem.

Use of drugs and alcohol among the members of this age cohort was also assessed. Findings of this analysis reveal that half of the group regularly uses painkillers, while 3% report consistent use of antidepressants, sedatives and cocaine. Three percent also reported the consistent (weekly or more than weekly) use of marijuana. Fourteen percent of this group reported consistent use of alcoholic beverages; half of those who reported drinking alcohol do so at least three times a week.

Thirty percent of this group reported that they were sexually active. Only 1% reported that they had multiple sexual partners in the last twelve months. Similarly, only 1% reported diagnosis of a sexually transmitted disease in the past twelve months. Three and one half percent of this group had been tested for HIV but none had been diagnosed with HIV disease.

**Table 2E:
Demographic Comparison Among Age Groups**

Variable	0-17 Age Group	18-31 Age Group	36-61 Age Group	62 and Older Age Group
Gender: Male	50.6%%	39.5%	48.4%	43.6%
Female	49%%	50.5%	51.6%	56.4%
Marital Status:				
Married	-	39.5%	75.9%	54.2%
Single	99%	57%	10.9%	3.9%
Widowed	-	-	2.6%	33.5%
Divorced	-	2%	9.8%	6.1%
Separated	-	1.6%	1.2%	2.2%
Insurance Breakdown:				
Medicare	1%	-	1%	71%
HMO	50%	43%	55.6%	10.2%
Blue Cross	36%	33.7%	37%	9%
Medicaid	1%	4.3%	1%	5.6%
Other	-	-	-	-
Uninsured	2.5%	-	3.2%	-

Appendix 3: Response Patterns of Ethnic/ Racial Subgroups

Union County Health Assessment Household Survey Response Patterns: Analysis of Ethnic/Racial subgroup Responses

The following analysis was completed in order to assess specific patterns of health and illness among different racial and ethnic groups within Union County. For the purpose of this analysis the population was divided into white, African American and Hispanic subsets. Other ethnic/racial groups such as Asian or mixed were too small to be appropriately analyzed in this way and respondents declaring themselves as Asian or of mixed ethnic/racial background are excluded from the following report.

Description of Responses from White Respondents

58.5% of all respondents reported that they were white. The median family size among whites was 3 people. The median age in this group was 41. Forty nine percent were male and 51% were female. Fifty four percent of the whites were married, 33.5% were single, 6.8% were widowed, 4.9% were divorced and .4% were separated. Thirty nine percent of the white respondents had completed college; additionally, 8.8% of this group reported achievement of advanced degrees. Median household income was in the \$60,000-\$75,000 range. Only 1.3% of the white group reported that they did not have health insurance. Fifteen percent reported that they participated in Medicare, 1% reported that they were Medicaid recipients, 41% reported traditional Blue Cross or commercial health insurance, 40% participated in HMOs and 1.5% reported other forms of coverage. Table 3A presents the demographic profile for this group and other racial/ethnic groups.

When questioned regarding their experience of illness in the past twelve months the most frequently reported illnesses among the members of this group were hypertension (11.2%), arthritis (8.4%), recent anxiety (8.2%), deafness-full or partial (7.1%), diabetes (5.4%), menstrual problems (5.2%), recent depression(5%), repeated disorder of back, neck or spine (3.8%), frequent headaches (3.6%), and frequent indigestion (3.2%).

**Table 3A:
Most Frequently Reported Illnesses: White Respondents**

Illness	Prevalence
Hypertension	11.2%
Arthritis	8.4%
Anxiety	8.2%
Deafness, full or partial	7.1%
Diabetes	5.4%
Menstrual Problems	5.2%
Depression	5%
Repeated Disorder of Back, Neck or Spine	3.8%
Frequent Headaches	3.6%
Frequent Indigestion	3.2%

Participation in health screenings, although not at recommended levels, was the greatest of the three ethnic/racial groups studied. Participation rates ranged from 64.4% for hypertension screening, to 2.7% screening of children for lead poisoning. Only 27% of this group had been screened for diabetes in the past year and only 12.4% had had any type of screening for colon cancer. Only 28% of the white men over forty had had a prostate examination in the last year and only 36.6% of the women had had a mammogram. Only 7.5% of the white group had been tested for HIV and only 3.9% reported having multiple sexual partners in the past twelve months. Reports of STDs in this group were negligible, .2%.

Reports of drug use among this group indicated that 55% used painkillers, 3.3% took antidepressants, 3.3% smoked marijuana, and 2.5% admitted to use of cocaine, heroin, sedatives, hallucinogens or club drugs. Fifty percent of the white group reported alcohol ingestion; 7.5% reported that they used alcohol daily or several times a week.

When asked about the content of their diets the white group reported that 92% of them regularly ate red meat, 85% used butter regularly, 68% included salt in their regular diet, 80% regularly used sugar, and 30% regularly ate fried food. Ninety nine percent indicated that they also included non-starchy vegetable and fruit in their customary diet.

Approximately 12% of white respondents reported difficulty in carrying out activities of daily living, particularly those that required gross motor skills such as walking, climbing or bending. Four to five percent of the whites over the age of five had difficulty feeding themselves, bathing or dressing.

Response Patterns in the African American Group

20.7% of all respondents reported that they were African American. The median family size among members of this group is three. The median age was 33. Forty percent of the group was male and sixty percent was female. Thirty one percent were married, 53% were single, 6.6% were divorced, 5.5% were widowed and 3.1% were separated. Eighteen percent were college graduates; additionally, 5.2% had also achieved an advanced degree. Median household income among the members of this group was in the \$40,000-\$50,000 range. Ten percent of the African American group reported that they did not have health insurance. Three percent reported that they were Medicare participants and 5.5% stated that they received Medicaid. Fifty two percent were HMO participants and 22% reported having traditional Blue Cross or commercial indemnity coverage. Six and one half percent reported that they had other forms of health insurance. Table 3B presents the demographic profile for this group, contrasted with the profile of other racial/ethnic groups.

The most frequently reported medical condition was hypertension. Seventeen percent of the respondents indicated that they had been hypertensive in the last twelve months, as contrasted with 11.2% of Caucasian respondents. Twelve percent noted menstrual problems and 11.8% indicated that they had frequent headaches. Ovarian/uterine cysts and tumors were noted by 8%. Seven percent said that they had anemia. Six and one half percent of the group said that they suffered from frequent indigestion and 6% said they were diabetic. Recent anxiety was noted by 4.8% of the respondents. Arthritis was reported by 4.4% and repeated disorder of back, neck or spine was mentioned by 4%.

Table 3B:
Most Frequently Reported Illnesses: African American Respondents

Illness	Prevalence
Hypertension	17%
Menstrual Problems	12%
Frequent Headaches	11.8%
Ovarian/Uterine Cysts and Tumors	8%
Frequent Indigestion	6.5%
Diabetes	6%
Anxiety	4.8%
Arthritis	4.4%
Repeated Disorder of Back, Neck or Spine	4%

Participation in health screenings was below recommended minimums. The greatest degree of compliance with recommended screening regimens was in screening for hypertension. Fifty nine percent of the group had had an annual blood pressure reading. Fifty six percent of the women had received a pap smear and 52% an annual breast examination. Only 30% of the women had received a mammogram in the past year. Participation in all other recommended screenings was below the 30% level. Only 14% had been tested for diabetes in the past twelve months and only 6.9% had been tested for colon cancer.

African American respondents reported less difficulty in carrying out activities of daily living independently than other ethnic groups. This may be related to the lower median age in this respondent group. The only activity set in which this group reported more difficulty than other groups was the set which measured independence in getting from the home to other locations such as shopping, attending meetings and visiting friends.

Multiple sexual partners within the last twelve months were noted by 15% of the group and testing for HIV was reported by 18% of these respondents. Diagnosis of HIV or of STDs was quite limited, less than 1%.

Use of painkillers is reported by 33% of the group. Seven percent reported that they smoked marijuana. Three and one half percent noted the use of cocaine. Less than 1% reported the use of heroin, sedatives, antidepressants, hallucinogens or club drugs. Fifty percent indicated that alcohol was never ingested, but thirty percent of the respondents reported that they drank alcoholic beverages several times a week or daily.

When asked about the content of their diet 98% noted regular use of butter and 86% reported regular use of red meat. Eighty seven percent reported the regular inclusion of fried food in their diet, 90% regularly ingested sugar and 81% used table salt. All respondents reported regular inclusion of non-starchy vegetables and fruits in their diet.

Response Patterns in the Hispanic Group

Approximately 19.7% of all respondents reported that they were Hispanic. The median family size in this group was three people. The median age was 41. Forty eight percent of the Hispanic group was male and 52% was female. Fifty five percent of the group was married, 30.5% reported they were single, 7.1% was divorced, 6.5% was widowed and .6% were separated. Twelve percent were college graduates; additionally, 2.6% of the Hispanic group reported that they had achieved an advanced degree. The median household income was in the \$40,000-\$50,000 range. Six and one half percent of the group reported that they did not have health insurance. Twelve percent noted that they participated in Medicare and 5.3% indicated that they were Medicaid recipients. Fifty percent were HMO participants and 14% reported traditional Blue Cross or commercial indemnity coverage. Eleven percent reported other forms of health insurance. Table 3C presents the demographic profile of this and other racial/ethnic groups.

When questioned regarding experience of illness in the past twelve months the most frequently reported illnesses were hypertension (7.2%), arthritis (6.5%), Deafness- full or partial (5.2%), frequent headache (4.5%), migraine headache (4%), prostate disease (4.2%), diabetes (4%), and repeated disorder of back, neck and spine (4%). No other illness was reported by more than 3% of the population.

**Table 3C:
Most Frequently Reported Illnesses: Hispanic Respondents**

Illness	Prevalence
Hypertension	7.2%
Arthritis	6.5%
Deafness, full or partial	5.2%
Frequent Headache	4.5%
Prostate Disease	4.2%
Migraine Headache	4%
Diabetes	4%
Repeated Disorder of Back, Neck or Spine	4%
No other illness	3%

Participation in health screening was quite limited in the Hispanic group. Forty five percent reported having a blood pressure reading in the past twelve months. Forty four percent of the women had had an annual breast examination and 37% of the women had received a pap smear. Twenty six percent of the women had had a mammogram in the past twelve months. Twenty six percent of the group had had their blood cholesterol level measured. Only 11.7% had been tested for diabetes and only 8.7% of the men had had a prostate examination. Five and one half percent of the group had been tested for HIV disease. Only 2.6% of this group had had any screening for colon cancer in the past year.

When asked about activity of daily living independence the members of the Hispanic group noted that 12% of them had some difficulty in gross motor activities such as walking, climbing or bending. Members of this group reported that 96% of those over five years of age could bathe, dress and eat independently. Ninety seven percent noted no difficulty in independently carrying out activities that required mobility outside of the home such as shopping or visiting friends.

Twenty percent of the Hispanic group said they regularly used painkillers. Eight percent reported smoking marijuana and seven percent reported the use of cocaine. Eight percent reported the use of antidepressants and nine percent noted the use of sedatives.

Heroin and hallucinogen use were noted by 7% of the Hispanic group. Thirty nine percent of the group indicated that they never drank alcoholic beverages; 25% indicated the ingestion of alcohol daily or several times a week.

When asked about the content of their diet 88% of the Hispanic group noted inclusion of red meat, 91% reported the regular inclusion of fried food in their diet and 92% reported regular use of butter. Seventy six percent of the group regularly uses table salt and 94% regularly include sugar in their diet. Ninety nine percent responded that their usual diet includes non-starchy vegetables and fruits.

Differences in Response Patterns Among Ethnic/Racial Groups

Based upon the answers provided by respondents certain differences among the three ethnic/racial groups are suggested. Both African American and Hispanic groups reported significantly lower household income than the white group. The white group reported higher levels of educational attainment and greater participation in traditional indemnity health insurance. African American and Hispanic groups were more likely to report that they were uninsured and more likely to be Medicaid recipients.

When health status responses among the three groups are reviewed certain illnesses were common experiences to all three groups. These common illnesses were hypertension, diabetes, frequent headaches, asthma, arthritis and disorders of neck, back or spine. Other common illnesses were more frequently reported by members of specific ethnic/racial groups. For example disease of ovaries/uterus was more frequently reported by African American women than women from white or Hispanic groups and prostate disease was more frequently reported by Hispanic men than white or African American men. White respondents were more likely to report anxiety and depression than members of other groups.

When health habits of the two groups are reviewed significant differences are observed in the extent to which members of the three groups report participation in health screenings. While all three groups reported participation below recommended levels, the reported lack of participation was particularly pronounced among members of the Hispanic group. African Americans were more likely to report HIV screening than the other two groups.

When use of drugs and alcohol responses are reviewed some group differences are observed. Whites and African Americans were less likely to report the use of drugs but more likely to report the ingestion of alcohol than members of the Hispanic group.

**Table 3D:
Demographic Comparison of White, African American and Hispanic Residents
of Union County**

Variable	White	African American	Hispanic
Median Family Size	3	3	3
Gender: Male	49%	40%	48%
Female	51%	60%	52%
Median Age	41	33	41
Marital Status:			
Married	54%	31%	55%
Single	33.5%	53%	30.5%
Widowed	6.8%	5.5%	6.5%
Divorced	4.9%	6.6%	7.1%
Separated	.4%	3.1%	.6%
Education:			
College graduate	39%	18%	12%
Advanced degree	8.8%	5.2%	2.6%
Insurance Breakdown:			
Medicare	15%	3%	12%
HMO	40%	52%	50%
Blue Cross	41%	22%	14%
Medicaid	1%	5.5%	5.3%
Other	1.5%	6.5%	11%
Uninsured	1.3%	10%	6.5%
Median Household Income	\$60,000-\$75,000	\$40,000-\$50,000	\$40,000-\$50,000

These differences in responses patterns among white, African American and Hispanic respondents may represent actual differences in their health status and habits. Caution must be used in interpreting this data, however, because some of these differing responses may be affected by cultural prohibitions regarding health status reports or misinterpretation of questions based upon cultural mores. The extent of such possible contamination cannot be assessed in the current research.

