

Carlisle Regional Health Status Assessment

A study commissioned by~

**Carlisle Area Health and Wellness Foundation
Carlisle Hospital and Health Services
Carlisle Partnership for a Healthy Community
Cumberland County Office of Aging & Community Services
Pennsylvania Department of Health
United Way of Carlisle and Cumberland County**

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“Health, love, wealth and time to enjoy them.”

Source Unknown.

Wouldn't it be wonderful if this wish could be granted to every man, woman and child?

While it may be beyond our limited human ability to ensure any of these, several organizations are committed to focusing their resources to impact on health. Beginning in 2001, the United Way of Carlisle and Cumberland County and the Carlisle Partnership for a Healthy Community met several times with the newly formed Carlisle Area Health and Wellness Foundation.

From this process came a decision to pool the resources of many organizations and collaborate on a community-wide health status assessment. Thanks to funding from the Pennsylvania Department of Health, County of Cumberland Office of Aging and Community Services, United Way of Carlisle and Cumberland County, and the Carlisle Area Health and Wellness Foundation, a comprehensive study was completed from January through May of 2002. The data collected and recommendations offered set the stage for health improvements for many years to come.

Special acknowledgement is extended to Michael Felix and Charles Wiltraut of Community Health Development Specialists and Daniel Callahan of Abacus Custom Research for their professional support and guidance. They made a daunting task manageable and even enjoyable.

This report is to be used widely for education, discussion or further research. Please contact the Carlisle Area Health and Wellness Foundation office at 960-9009 for additional copies or visit our website at www.carlislehealthfoundation.org. We welcome and encourage your participation with us to create an even healthier community as an employer, volunteer or provider of service.

We have a national heritage of health in our region to celebrate, treasure and maintain. Benjamin Rush, founder of Dickinson College, describes our area in a letter to Charles Nisbet on April 19, 1784.

“The town of Carlisle lies 120 miles to the westward of Philadelphia and about 18 miles from the river Susquehanna. It consists of about 300 houses, most of which are built of limestone. It lies in a healthy and fertile plain bounded on the north and south by two high mountains. Within a mile of the town there winds a small river called by the Indian name of Conodoguinet, which, after distributing fertility and wealth by watering meadows and turning a number of mills, empties into the Susquehanna.”

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Assessment Executive Summary

As you read this assessment report, with other assessment components woven in (secondary data and community discussion group findings), the reader will discover that, in general, the Carlisle region is healthier than the Commonwealth of Pennsylvania. In some instances this margin of healthier is wide and in others, narrower. The reader will also discover opportunities for health status and community improvement.

The findings - the numbers, percentages and narrative components of this report - will, no doubt, raise additional questions. In fact, this document, as well as the entire assessment process, was designed to engage Carlisle regional residents, health providers, and community leaders to critically think about health.

During a preliminary review of these assessment findings, an individual asked, “How healthy are we, and how healthy do we want to be?” The heart of this question is, if the Carlisle region is truly healthier than most of the Commonwealth of Pennsylvania, how does the Carlisle region make a good thing better?

A quick look at all three assessment components: (1) secondary data; (2) community discussion group process; and (3) the general population survey, the following issues were noted in all three or two out of the three components:

Issue	Secondary Data	Community Discussion Groups	General Population Survey
Cost as a barrier to access (insurance, doctor’s visits, and prescription medications)	X	X	X
Mental health services (needed)	X	X	X
Obesity/Weight	X	X	X
Health information and referral services (needed)		X	X
Services for children with emotional problems or delinquent behavior		X	X
Transportation		X	X
Home health services (needed)		X	X
Drug and Alcohol Abuse		X	X
Teen Pregnancy		X	X
Affordable Housing		X	X

Based on the assessment findings, the Carlisle Assessment co-sponsors could collaborate to find ways to apply/use these assessment findings, specifically to increase access to health care services, insurance coverage, related information and education, and enhanced relationships between local providers and resource holders at the local and state levels. Specifically:

1. Access to Services - to improve access to health and human services in the Carlisle region through a strategy of coordinating service delivery around the natural clusters of communities that exist within the Carlisle region. This could be accomplished through the assessment co-sponsors convening meetings with health and human service providers to plan, develop and implement an improved health care delivery system.
2. Access to Insurance Coverage - to improve access to coverage through improved access to existing federal and state medical assistance programs by the assessment co-sponsors brokering relationships with regional coverage coordinators and exploring private insurance strategies.
3. Education and Information - to improve access to and the dissemination and utilization of education programs, services and health information through the establishment of a Carlisle regional “clearinghouse” for dissemination of information and connecting rural and frontier areas. This could be accomplished through the assessment co-sponsors coordinating existing education and information providers with health and human service organizations in planning, developing and implementing a health education/information network.
4. Enhanced Relationships - to facilitate a better understanding of the health needs and interests of rural and frontier areas of the Carlisle Region among local and state policy makers and resource holders. This could be accomplished through meetings in the Carlisle region over the next year to increase awareness and build support for community needs with state partners, and to develop, with state partners, strategies for supporting communities in the Carlisle region regarding the financing and delivery of health care.

These recommendations can be implemented through continued support from the assessment co-sponsors, in particular the Carlisle Area Health and Wellness Foundation (CAHWF), which could serve as the regional health care leader that serves in multiple roles: convener, facilitator, broker, technical advisor, and funder.

For the Carlisle Area Health and Wellness Foundation, moving from information to implementation is no easy task. The following is offered for establishing focus areas:

- The success of the health improvement effort is largely a result of the successful balancing of success with significance.
- Establishing a focus area that is beyond the CAHWF’s ability to impact, regardless of its significance as a health problem or community issue, is self-defeating. Similarly, choosing an insignificant focus area, regardless of how “well” it can be done, jeopardizes the perceived value of CAHWF’s efforts.

- The following criteria are offered for CAHWF's consideration during the focus area establishment process:
 - Size of the problem
 - Seriousness of the problem
 - Effectiveness of interventions/available best health practices
 - Community/CAHWF values (how closely does the issue relate to the values [mission/vision] of the community or CAHWF)?

Given the above criteria, CAHWF could select from the following health improvement opportunity areas, based on the assessment findings: (1) Disease and Condition: including mental health, chronic disease management, and oral health; (2) Populations: at risk populations, the elderly, and working individuals and families; (3) Health System: access, capacity assessment (what do we currently have in the Carlisle region), and finance and delivery strategies; (4) Health Education and Promotion: instilling a sense of individual and shared responsibility for health; and (5) Health Policy and Advocacy: tort reform.

The Carlisle Regional Assessment Co-Sponsors could serve as the conveners to place on the table for community discussion: *the planning, development, implementation, and sustainability of an enhanced model of health care delivery for the Carlisle region*. This assessment report contains information that could serve as a facilitation tool to initiate and frame the strategy development dialogue.

Though many issues are present, Carlisle regional individuals and institutions have demonstrated their ability to collaborate to address broader community issues and needs. Through continued efforts, the community, its leaders and providers can, once again, come together to establish focus areas and ideas, and develop strategies to improve health services

General Population Survey Executive Summary

This report describes the results from a community health survey conducted in the Carlisle region from February through April 2002 by ABACUS Custom Research in conjunction with Community Health Development Specialists (CHDS), under a contract with the Carlisle Area Health & Wellness Foundation and with the support of the Carlisle Partnership for a Healthy Community, United Way of Carlisle and Cumberland County, County of Cumberland Office of Aging and Community Services and the Pennsylvania Department of Health.

The survey had an overall response rate of 42% (a combined rate of 59% cooperation to phone recruitment and 72% to the mail survey). One thousand five hundred and sixteen (1,516) persons from Adams, Cumberland, Franklin, and Perry County were included in the sample. Of these, 1444 were mailed and 72 were collected from agencies.

The data was analyzed to identify major findings in eight areas. Key findings in each of those areas are discussed in this report.

Demographics

Data was weighted to match the 2000 Census for sex and age distribution. Data matches the proportions of males and females in various age groups, not including those under 18 years of age. The mean income of respondents was \$48,516. Most (88.8%) were high school graduates. Almost all (94.6%) were white or Caucasian.

Health Status

Respondents were asked to rate their health as excellent, very good, good, fair, or poor. The overall responses to this question were as follows:

	Overall	Carlisle	Gardner/ Adams	West Cumberland	Perry County
Excellent	13.3	12.5	13.6	13.6	14.8
Very good	41.6	43.0	38.6	42.8	36.5
Good	34.8	33.5	39.8	34.7	36.5
Fair	9.2	10.1	6.4	7.9	9.9
Poor	1.2	0.9	1.7	1.0	2.3

Results for this question did not differ significantly by region. Respondents with lower incomes and lower levels of education were more likely to report lower health status than persons with higher incomes and/or higher levels of education.

Prevalence of Disease and Disability

The most frequently reported doctor-diagnosed conditions by Carlisle area respondents included arthritis or rheumatism (29.5%), high cholesterol (27.8%), hypertension (27.5%), depression (19.3%), sleep disorders (12.0%), and asthma (10.4%).

Self-reported conditions reported most frequently among residents include sciatica or chronic back problems (19.0%); toothache(s) or problems with teeth or gums (17.5%); and depression, anxiety, or other mental problems (16.0%).

Risks for Disease

More than one-half (55.7%) of respondents report having three or more lifestyle risk factors. Risk factors taken into account included seat belt use, level of exercise, smoking, alcohol use, body mass index, fruit/vegetable consumption, and helmet use for bicycling, skateboarding.

About two-fifths (38.6%) do not always wear their seat belt. The Healthy People 2010 goal is 8%.

Slightly less than one-half (47.6%) of respondents report getting sufficient exercise, with about one-quarter (26.0%) reporting that they get no vigorous exercise. This does not compare favorably to the National Health Survey™ finding, where only 14% of the population reported this level of inactivity.

Use of cigarettes is fairly consistent with national figures, although it is higher than that recommended by Healthy People 2010 (12%). Overall, about one in five (22.7%) smoke cigarettes, 5.1% chew tobacco or snuff, and 3.2% smoke cigars or pipes.

Nearly one in ten (9.1%) put themselves at risk by having 10 or more drinks per week. A similar percentage (8.4%) indicate that they drove after drinking 2 or more alcoholic drinks in the hour before they drove at least once in the past month.

About one-third (32.8%) of respondents were calculated to be in the BMI (Body Mass Index) range of “normal,” whereas 66.5% fell into the “overweight” (moderate to high risk) range. The Healthy People 2010 goal is for only 40% of the population to fall into this “overweight” range.

The majority of respondents could improve their health and weight problems by eating more fruits and vegetables. Only 22.4% overall are eating enough servings (defined as 5 or more) of fruits and vegetables (combined) each day.

More than one-quarter (28.4%) of respondents report *rarely* or *never* wearing a helmet when riding bicycles, skateboards, roller blades, snowboards, etc. This contributes to the high number of risk factors among those 18-34. Helmet use for children aged 4-12, while not contributing to the lifestyle risk factor computation, is also a cause for concern. Three-fifths (59.8%) of respondents with children in this age group reported that their children do not *always* wear helmets.

Opportunities for Prevention

Area residents are generally receiving regular preventive screening exams at rates near or above the national averages or Healthy People 2010 goals. Dental screening is an area that could be improved. Among screenings for which overall rates are acceptable, attention should still be paid to those without regular health providers and those without insurance, for whom much lower screening rates were reported.

Factors that Impact Access to and Quality of Primary Care

About two-thirds (63.2%) of residents rated their access to health care as *excellent* or *very good*. Access to hospital care was rated similarly (58.5% *excellent/very good*). Access to specialty care was rated slightly lower at 54.2%. All three of these responses are higher than National Health SurveyTM results (39.3% for health care, 49.0% for hospital care, and 38.8% for specialty care).

Access to hospital care was rated higher by Carlisle residents than by those in Perry County (61.7% vs. 52.4%). Those with poverty or low incomes were less likely to give *excellent* or *very good* ratings to all three access factors, as were those with Medicaid or with no insurance.

The majority (87.0%) of residents reported having a primary care provider (a person), and 94.8% reported having a regular place for health care. Those with a primary care provider gave a mean trust rating of 8.4 to their regular provider (on a scale of 1 to 10, where 1 = “Not at all” and 10 = “Completely”). Only 7.9% of respondents gave a mean trust rating of 5 or less to their regular health care provider.

Cost of care, particularly out-of-pocket expenses, was frequently reported by respondents as influencing their care-seeking behavior. About one-third (31.0%) reported *often* or *occasionally* delaying dental care because of the expense. A substantial, but smaller percentage (21.6%) of respondents reported delaying seeking medical care because of cost. About one in six respondents (17.1%) reported skipping medication or treatments because of cost. Those reporting fair or poor health were most likely to skip medications or treatments because they were too expensive (30.2%). Overall, one in ten (9.2%) reported being unable to have prescriptions filled within the past two years because they could not afford it. Again, those in fair or poor health were most likely not to fill prescriptions because of cost (21.5%).

Three-quarters (74.9%) of respondents reported having health insurance coverage from a commercial source. About one-fifth (20.6%) reported coverage by Medicare, and 3.0% had Medicaid coverage. Almost one in ten (8.7%) reported having no health insurance.

Almost one-fifth of residents experienced some type of problem in the past two years with limited access to certain doctors because of their insurance plan (18.9%) and delays in their care because the provider needed approval from their plan (15.9%). Those in poverty and those covered by Medicaid were most likely to report a big or small problem in both of these areas. About two-fifths of those in poverty experienced limited access to certain doctors (43.6%) and delays in care (37.9%), and about half of those covered by Medicaid experienced limited access (59.5%) and delays in care (48.0%) because of their insurance.

Uninsured residents were asked the reasons for their lack of coverage. The reason given most often was the inability to pay the premiums (65.3%). About one-third (34.7%) of uninsured respondents choose not

to/do not want health insurance. When asked to describe the duration of their lack of insurance, 28.3% of these uninsured respondents reported 1-12 months, and 71.7% reported thirteen months or longer.

Community Issues

The majority of residents did not overwhelmingly identify any community issues as *very serious* problems. When asked about the “seriousness” of nine different community issues, *illegal drug use* was identified most frequently as a *serious* or *very serious* problem (17.6%). Fewer mentioned *alcohol abuse* (12.6%) and *teen pregnancy* (10.9%). Other issues were identified as *serious/very serious* by less than 10% of respondents.

The various regions differed in their perception of health-related problems within their communities. Those in the Gardner/Adams region were less likely than those in the Carlisle and West Cumberland regions to identify health care issues as a *serious* or *very serious* problem. Residents of the Carlisle region were the most likely to identify mental health issues (other than domestic violence or child abuse) as *serious* or *very serious* problems.

Respondents were also asked to rate their community on various aspects of community life. Areas of concern identified most often included employment opportunities (32.0%), public transportation (27.7%), and recreation opportunities (20.9%).

Social Capital

The social capital -- the trust, networks, and involvement of community members necessary to organize and implement health improvement activities -- is available in the area. There are no significant barriers for residents to work together to solve problems. There is a strong spiritual component to community life that can be utilized to address issues that impact the health of residents. “Health improvement” also includes ideas and activities that help community members to work together, build trusting relationships, and accept both the responsibility and benefit of being involved in community activities.

Application

The data from this assessment can be used to set priorities, measure progress toward locally established goals and toward nationally established goals for health improvement, and to inform the community about the region’s health issues. A variety of methods and approaches have been used successfully to disseminate these kinds of findings, including “Health Summits,” publishing a summary of the survey results in local newspapers, and establishing a community health website to provide access to data, among others.

What Is In This Report And How It Can Be Used

This report describes the results of a community health assessment conducted in the Carlisle region from February through April 2002, by ABACUS Custom Research in conjunction with Community Health Development Specialists (CHDS), under a contract with the Carlisle Area Health & Wellness Foundation and with the support of the Carlisle Partnership for a Healthy Community, United Way of Carlisle and Cumberland County, County of Cumberland Office of Aging and Community Services and the Pennsylvania Department of Health.

This report is organized into sections, one for each of the eight concepts that define population health:

- *Demographics of a population* describe the “dimensions” of a population: its size, age, cultural and ethnic mix, income structure, employment levels, and educational attainment. The *social determinants of health* are the environmental, behavioral, cultural, and political factors that influence the health of populations; these determinants include the distribution of income in a population, housing available, and educational attainment.
- *Functional health status* is a measurement of an individual’s ability to function in everyday life, both mentally and physically.
- *Prevalence of disease* is the extent to which conditions such as hypertension, depression, or impaired physical abilities are found in the population.
- *Risk for disease and opportunities for prevention* are measures of the prevalence of health behaviors that put individuals at risk for disease (smoking, exercise habits, drinking habits, stress) and, additionally, the availability and use of activities designed to curb or detect the impact of these risks on health.
- *Factors influencing access to and quality of care* include those measures which indicate if and how individuals obtain a basic service: primary medical care. Insurance status, health manpower available in a community, organization of medical-care services, and provider characteristics are contributing factors.
- *Consumption of medical, health and human services* is an indication of resources needed and used by a population to address individual health challenges.
- *Community issues* are issues that a community feels are a challenge to the community as a whole. Understanding a population’s perceptions of key issues helps to clarify factors that influence the health of the community.
- *Social capital* is defined as the social networks, trust, civic involvement, and problem-solving potential and ability present in a population or community. Dimensions of social capital

include the perceived disparities in income or power in a community, perceptions of individual influence in a community, and religiosity.

The data collection methods (survey, community discussion groups/interviews, and analysis of secondary data) were designed to provide information in each one of these concept areas.

Community discussion groups, comprised of over nearly 200 residents attending over 40 meetings in various locations within the region were conducted in April 2002. The results from those discussions, the survey, and re-examination of existing (so-called “secondary”) data are the sources of information available to the Carlisle Area Health & Wellness Foundation from this project.

It is important to use available secondary data in a community as a complement to survey data that are collected. The National Health SurveyTM provides comparative statistics for the results obtained from the survey. The National Health SurveyTM (NHS) was conducted in 1995 by Felix, Burdine and Associates (FBA) using a similar methodology and questionnaire as the *Carlisle Area Health & Wellness Foundation Survey*. The NHS provides a national comparison figure for many of the questions asked in the survey that are not available through other sources. Where possible in this report, comparisons with the NHS will be given for the data gathered in Carlisle.

There are numerous benefits and potential uses of the community discussion group and community health survey databases:

- The information can be used by local hospitals and health care providers for internal strategic planning. Hospitals are challenged with understanding the health needs and access patterns of broad populations to prepare for how they might reach other communities in the region. This data can provide critical insights and help establish priorities.
- In accreditation processes for the hospital, such as for the Joint Commission for the Accreditation of Health Care Organizations (JCAHO), a compliance issue is “planning and assessing community needs.” The health status assessment conducted as part of this process can fulfill this compliance component.
- The results of this assessment can be used to set both process and outcome measures for the strategies developed to meet the health issues identified, specifically in the area of heart health, cancer prevention, and healthy habit behavior modification.
- The survey results can be used to compare local progress toward the Healthy People 2010 Objectives for the Nation in many of the objective areas chosen as part of that project.

Potential uses for the survey data and this report include the following:

- Use of the data to secure funds from the community by including information from this report into grant applications for federal, state, or philanthropic dollars.

- Use of the report to generate ideas for health improvement programs that focus on prevention or education.
- Use of the report to educate community members about health in the Carlisle area.

Demographics

The 1,516 respondents to the *Carlisle Area Health & Wellness Survey* help us understand more about the region, what its residents look like, how long they have lived in their community, the level of education they have achieved, their current level of employment, and other characteristics that help to paint a picture of the community as a whole. This section of the report describes the survey sample.

The following table contains percentages that describe the demographics of the four regions included in this study. This data was weighted to match the 2000 Census for sex, age, and county distribution. Data matches the proportions of males and females in various age groups, not including those under 18 years of age.

Why do we provide this comparison? Communities often have questions about how closely the sample of people from their community who answered the survey represent the entire community. Demographic comparisons such as from the Census or other state level sources help those who will use the data to form a judgment about its quality in this regard. The caveat in making these comparisons is that comparative figures have their own “biases” and limitations, as do the survey data.

Demographic Characteristics	2002 Respondents
% total population <100% of the federal poverty level	7.7%
Mean household income	\$48,516
High school graduates	88.8%
% of population that is not white	5.4%
% female (*weighted)	52.2%
% of population with children <17 in household	37.4%
% of population age 65+ (as a % of population age 18+)(*weighted)	19.1%

Almost one-half of survey respondents (44.8%) had incomes of less than \$40,000; one-third (34.3%) earned between \$40,000 and \$70,000; and one-fifth (21.0%) earned \$70,000 or more. About three-quarters (77.5%) were classified as “above low” income (earning above 185% of the poverty level), 14.8% were classified as “low” (earning between 100%-185% of the poverty level), and 7.7% were classified as

“poverty level,” using the 2001 HHS Poverty Guidelines found in the *Federal Register*. These guidelines take into account both income and household size.

The mean number of people living in respondent households was 2.8, with about half (50.8%) having one or two household members and half (49.2%) having 3 or more. Almost two-thirds (64.2%) were married, 16.0% were single, 8.8% were divorced/separated, 7.3% were widowed, and 3.7% were members of an unmarried couple.

About six in ten survey respondents (62.1%) were employed, either full-time (44.2%), part-time (11.1%), or self-employed (9.2%). About one-fifth (21.4%) were retired, 12.0% were full-time homemakers, 7.5% were students, 7.4% were laid off or unemployed, and 2.9% were disabled.

Almost all (97.7%) of survey respondents had resided in the area for four or more months out of the last 12 months. They lived at their current address for a mean of 13.6 years, with 34% living at their current address for less than five years and 66% living at their current address for 5 years or more.

Health Status

Health is an individual’s capacity, relative to his or her aspirations or potential, for living fully in the social, economic or political environment (FBA, 1994). This means that a person’s ability to function, his/her ability to live fully, within the context of their community’s cultural, social, and economic circumstances is the most important measure of health. This also means that to measure *health*, we must measure a person’s ability to function. This section of the report describes what we know about the functional health of survey respondents.

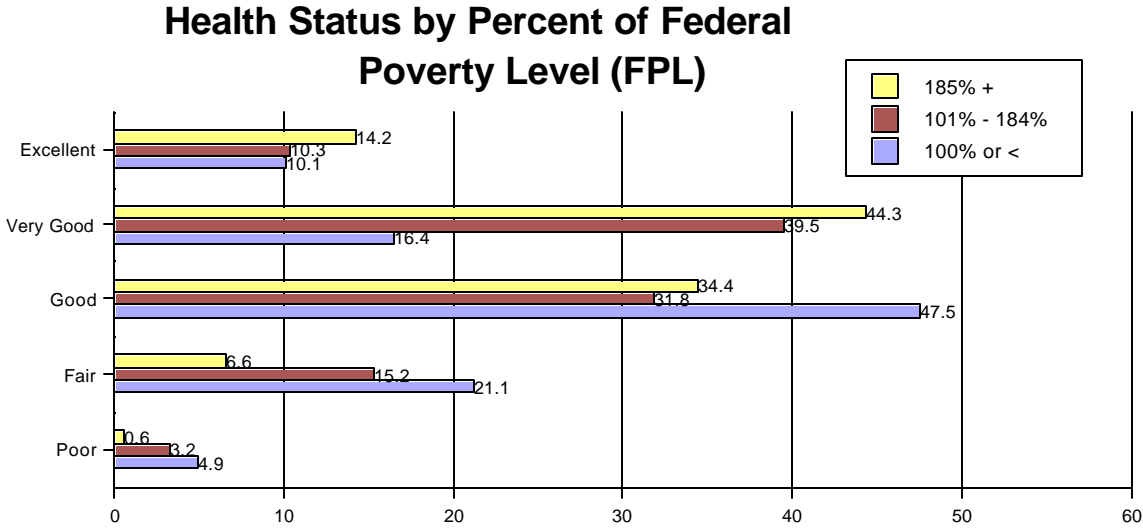
Included in the community health survey are a series of questions called the SF-12 (“Short-Form” 12). These questions have been developed and tested by researchers who seek to measure how people function mentally and physically, and how they feel about their overall level of health. The results of these questions will be discussed in this section as the first step to describing the health of the area.

Research, study, and practice also tell us that the income and education of a person influences his/her ability to function, more so than any medicines or medical services that are available in a community. Therefore, it is important to look at how people with different incomes or education levels describe their health and how they are feeling. Understanding differences in the ability to function because of these differences is the first step to understanding who is “healthy” and who is “unhealthy.”

Overall Health Status

The single best measure of health status in a population is the response to the question: “In general, would you say your health is . . .?” Respondents were asked to rate their health as excellent, very good, good, fair, or poor. The overall responses to this question were as follows: excellent (13.3%), very good (41.6%), good (34.8%), fair (9.2%), and poor (1.2%). The chart below illustrates the response to this question on the basis of household income. These results show that income has a relationship to how

people feel about their health. Persons with incomes above 185% of the federal poverty level were more likely than those with incomes at poverty level to report net excellent/very good health (58.4% vs. 26.5%).



In addition to overall health status, the SF-12 allows us to understand how people are currently functioning both mentally and physically. We learn this through questions about how much pain people experience, how difficult it is for them to fulfill their roles in life, and how their health has influenced their social lives and their emotions. The results of these questions, for example, tell us if people are functioning well in everyday life, or if they have difficulty functioning, either mentally or physically.

Findings from the SF-12 show the correlation between education and income and health status. Those with a lower level of education were more likely than their counterparts to report lower levels of physical health, and those with lower income levels were more likely than their counterparts to report lower levels of both physical and mental health.

These findings confirm that income and education relate to how people function, or how healthy they are. What does this mean for improving health in the Carlisle area? First, people with lower incomes and lower education should be a focus of health improvement strategies, as they are the groups with poor health. However, because of their comparatively lower level of mental and physical functioning, persons who have a lower level of education and income may require outreach to participate in activities or programs that improve their health.

Prevalence Of Disease

This section of the report describes the reported levels of chronic disease. Conditions such as heart disease and diabetes impact the ability of people to function physically and mentally. It is important to measure the amount (or prevalence) of disease and disability in a community for this reason.

Survey respondents indicated if they had ever been diagnosed by a clinician with any one of a list of chronic conditions. The most frequently reported doctor-diagnosed conditions included arthritis or rheumatism, high cholesterol, hypertension, depression, sleep disorders, and asthma.

Disease	Total	Carlisle	Gardner/ Adams	West Cumberland	Perry County	Nation*
Arthritis	29.5%	30.2%	31.9%	26.5%	31.4%	27%
High cholesterol	27.8%	28.7%	24.4%	27.2%	27.8%	21%
Hypertension	27.5%	25.4%	37.0%	29.3%	26.7%	28%
Depression	19.3%	18.4%	19.3%	21.3%	18.4%	20%
Sleep disorders	12.0%	12.4%	13.7%	11.1%	11.7%	NA
Asthma	10.4%	10.9%	13.9%	9.9%	8.5%	6%

* U.S. adult population estimates from Healthy People 2010
 Bold numbers indicate significant difference to national figures

Interpreting prevalence data can be challenging in part because of the relatively small number of “cases” even for the major chronic diseases. However, the incidence of high cholesterol and asthma is significantly higher among survey respondents than for the nation as a whole. Risk factor information presented in the next section suggests that efforts to reduce risks could substantially improve future prevalence rates.

The disease patterns found are not unusual, but high cholesterol as a chronic condition deserves attention, particularly among persons age 55 and over. Half (50.1%) of respondents 55 and over report being diagnosed with high cholesterol. This condition can also be influenced by community interventions, in addition to clinical interventions.

Conditions reported to affect less than 10% of the population included diabetes (7.9%), osteoporosis (6.9%), emphysema/chronic bronchitis (5.9%), angina (4.7%), cancer (4.6%), heart attack (3.8%), mental health problems other than depression (3.0%), congestive heart disease (2.8%), stroke (2.5%), alcohol or drug dependence (2.4%), and HIV/AIDS (0.2%).

The only significant difference by region was for hypertension. Residents of the Gardner/Adams region were more likely than those in Carlisle to report having been diagnosed with hypertension (37.0% vs. 25.4%).

There were other significant differences by subgroups. Females were more likely than males to report being diagnosed with arthritis or rheumatism, depression, osteoporosis, and stroke. Males were more likely to report heart attacks and alcohol or drug dependence. Non-married respondents were more likely than their counterparts to report being diagnosed with mental health problems other than depression and alcohol or drug dependence, while married respondents were more likely to report high cholesterol. Those in poverty were more likely than those with above low incomes to report depression, sleep disorders, and mental health problems other than depression.

As already stated, the incidence for asthma is higher than that of the nation as a whole. Although one in ten (10.4%) have been diagnosed with asthma at some time in their lives, only 4.4% are currently being treated for asthma. About three-quarters (76.8%) of respondents who have ever been diagnosed with asthma have not missed work or been unable to perform their regular daily activities within the past year. However, 12% have missed work five or more times. About one in seven survey respondents (15.1%) report at least one household adult with asthma, while 9.2% of those with children under 18 report at least one child aged 6-17 and 2.3% of those with children under 18 report at least one child under 6 years old with asthma.

A family history of diabetes was reported by about three-fifths of respondents (58.9%). Respondents under age 65 were most likely to report a family history of diabetes. Those who have diabetes (n=139) reported visiting a health professional for diabetes a mean of 3.7 times in the past year, with about one-third (30.7%) visiting 5 or more times. These respondents were checked a mean of 2.9 times for glycosylated hemoglobin, with over half (53.4%) being checked two or more times. Over half (53.1%) have been told either that diabetes has affected their eyes or that they have Retinopathy. Eight in ten (80.4%) are either taking diabetes pills (68.8%) or insulin (22.0%), with 19.6% saying they are now taking neither insulin nor diabetes pills. Diabetic respondents check their blood for glucose or sugar a mean of 7.4 times per week. About one in ten (9.3%) report having had sores or irritations on their feet that took more than four weeks to heal. About half (49.4%) have taken a course or class on how to manage diabetes themselves.

Self-reported conditions reported most frequently among residents include sciatica or chronic back problems (19.0%), toothache(s) or problems with teeth or gums (17.5%), and depression, anxiety, or other mental problems (16.0%). Respondents from the Gardner/Adams region were more likely than respondents from the other three regions to report trouble seeing with one or both eyes (even when wearing glasses) or blindness (30.3% vs. about 13% in the other three regions).

One-quarter of respondents attributed their sciatica or back problems to a job-related accident (26.7%) or some other type of accident (26.2%). A weight problem was mentioned by about one in ten (11.6%). Half (49.6%) gave other reasons, some of which included lifting/hard work (10.8%), arthritis (4.5%), exercise (3.6%), and pregnancy/childbirth (3.0%).

Risks For Disease

This section of the report describes behaviors (or “health risks”) that make people prone to disease or death. Health risks such as smoking or being overweight are an indicator of future health problems; for example, if there is a high proportion of obese individuals in a community, a higher rate of heart disease might be expected. Behaviors such as smoking or excessive drinking can be modified by health promotion or education programs, and a decrease in these risks can lead to a healthier population.

The prevalence of risk and health behaviors as reported by respondents are detailed in the following table. Health behaviors of respondents to the survey are compared to results from The National Health SurveyTM, where available.

Health Risk Behaviors	Carlisle Area Health Survey					Healthy People 2010	
	Total	Carlisle	Gard/ Adams	West Cumb	Perry County	Nation*	Goals
Current cigarette smokers	22.7%	23.8%	20.5%	19.7%	25.6%	24%	12%
Do not “always” wear seatbelt	38.6%	35.7%	43.0%	38.4%	45.3%	31%	8%
Do not “always” place child in car safety device	<4 yrs 8.9%	<4 yrs 12.9%	<4 yrs 0%	<4 yrs 6.5%	<4 yrs 3.9%	8%	8%
	4-12 yrs 15.1%	4-12 yrs 16.0%	4-12 yrs 12.9%	4-12 yrs 14.9%	4-12 yrs 16.1%		
Ten or more drinks per week	9.1%	9.0%	7.3%	8.9%	10.6%	16%	6%
Drive after drinking	8.4%	7.8%	7.9%	7.7%	11.6%	NA	NA
Exercise 3 or more times per week	47.6%	45.4%	38.9%	50.1%	52.8%	15%	30%
Eat 5+ fruits/vegetables per day (not potatoes)	22.4%	22.4%	30.7%	19.5%	23.8%	NA	NA
Wear helmet (bicycling, roller blading, etc.) rarely or never	28.4%	25.4%	23.3%	33.7%	29.4%	NA	NA
Overweight (moderate to high risk based on BMI)	66.5%	64.4%	65.3%	68.5%	69.2%	58%	40%

* U.S. adult population estimates from Healthy People 2010
 Bold numbers indicate significant difference to national figures

Respondents compare favorably to national estimates for exercise and smoking. Although smoking is consistent with national estimates, the incidence falls short of the Healthy People 2010 goal, as do the incidences for personal seat belt use and weight. Personal seat belt use and weight are problem areas, with those at risk significantly higher than both the 2010 goals and the national incidence.

More than one-half (55.7%) of respondents report having three or more lifestyle risk factors. These include seat belt use, level of exercise, smoking, alcohol use, fruit/vegetable consumption, body mass index, and helmet use while riding bicycles, roller blades, etc.

Six in ten (61.4%) report that they *always* wear their safety belt. However, this means that almost 40% do not always wear their seat belt. The Healthy People 2010 goal is 8%. The percentage of those not always wearing seatbelts is higher in Perry County than in Carlisle (45.3% vs. 35.7%).

Although seat belt use for children under 4 years old is meeting the Healthy People 2010 goal, seat belt use for children 4-12 years could be improved. One in seven (15.1%) of those with children in this age group report that their children do not *always* wear seat belts.

More than one-quarter (28.4%) of respondents report *rarely* or *never* wearing a helmet when riding bicycles, skateboards, roller blades, snowboards, etc. This contributes to the high number of risk factors among those 18-34. Almost half (46.5%) of those 18-34 indicated they *rarely* or *never* wear helmets when riding bicycles, skateboards, etc. Helmet use for children aged 4-12, while not contributing to the lifestyle risk factor computation, is also a cause for concern. Three-fifths (59.8%) of respondents with children in this age group reported that their children do not *always* wear helmets.

Slightly less than one-half (47.6%) of respondents report getting sufficient exercise. This finding compares favorably to the national estimate. However, slightly more than one-quarter (26.0%) of respondents report getting no exercise at all. This does not compare favorably to the National Health SurveyTM finding, where only 14% of the population reported this level of inactivity.

Residents of the Perry County region are more likely than residents of the Gardner/Adams region to get sufficient exercise (52.8% vs. 38.9%).

Use of cigarettes is fairly consistent with national figures, except in West Cumberland County, where the incidence is lower. Overall, about one in five (22.7%) smoke cigarettes, 5.1% chew tobacco or snuff, and 3.2% smoke cigars or pipes. Those aged 18-44 are more likely than older respondents to smoke cigarettes (35.3% of those 18-34 and 29.5% of those 35-44 vs. 16.9% of those 45-64 and 6.3% of those 65+). In addition, those with poverty level incomes are more likely than those with above low incomes to smoke cigarettes (40% vs. 20.8%).

About one-third (33.6%) of respondents report a household smoker; 27.8% report household smokers who smoke every day. Again, those in poverty are more likely than those with above low incomes to report that someone in their household smokes (46.2% vs. 32.9%).

Nearly one in ten (9.1%) put themselves at risk by having 10 or more drinks per week. A similar percentage (8.4%) indicate that they drove after drinking 2 or more alcoholic drinks in the hour before they drove at least once in the past month. The mean number of times drinking after driving is higher in Perry County than in Carlisle (0.4 vs. 0.2). Male respondents aged 18-34 report the highest mean number of alcoholic drinks per week. This same group of respondents also report driving after drinking more frequently.

The majority of respondents could improve their health and weight problems by eating more fruits and vegetables. Only 22.4% overall are eating enough (defined as 5 or more) servings of fruits and vegetables (combined) each day. In fact, almost two-fifths (38.2%) of respondents eat fewer than three servings of fruits and vegetables, and three-quarters (77.6%) eat fewer than the recommended five servings per day.

About one-third (32.8%) of respondents were calculated to be in the BMI (Body Mass Index) range of “normal.” Almost two-fifths (37.1%) were classified as “Overweight, moderate risk.” About one-quarter were classified as “Obese,” Class I (17.2%) and Class II (7.4%). Class III, Extreme Obesity, included 4.8% overall. Less than one percent of the population was classified as “Underweight.”

Another important finding from the survey is that health risks do not occur alone: *persons who report any one risk factor are more likely to also have multiple risks (three or more risk factors)*. For example, among those with three or more risk factors, the smoking rate is 35.1%, the proportion who “always” wear their seatbelt is only 48.5%, and the proportion reporting drinking ten or more drinks per week is 15.1%. Those with 3 or more risk factors also have a greater incidence of depression than those with 2 or less (21.8% vs. 16.1%). Interventions for any one health risk then, would achieve maximum benefit if that intervention has components that help people to simultaneously address their other health risks as well.

Opportunities For Prevention Of Disease

There are two ways to reduce disease in a population: reduce the behaviors or risks that can produce disease, as we have just discussed, and detect diseases earlier so that they can be treated or managed. This section describes survey results that show how health care providers and organizations in the area are working to decrease risks and to detect disease.

Decreasing Risk

Health care providers, particularly primary care providers, have the opportunity to counsel persons in the context of an office or clinic visit about their health risks and risk behaviors. Respondents were asked to indicate if they had initiated changes in their lifestyle (reducing risks) as the result of being advised to do so by a health care provider. The following table describes the level of this risk counseling:

Health Risk Area	Counseled By A Doctor, Nurse, Physician Assistant Or Nurse Practitioner
Diet	40.9%
Level of exercise	39.6%
Weight (underweight or overweight)	36.0%
Stress level	31.6%
Smoking/tobacco use	29.6%
Mental or emotional health	21.6%
Alcohol consumption	15.5%

Counseling concerning weight, mental or emotional health, and alcohol consumption are three areas that may be targeted for improvement, especially in light of other findings.

In order to change the prevalence of risk behaviors in the population, for example through interventions where clinicians advise their patients more frequently, the general “readiness” to change behaviors on the part of individuals with risk factors is an important piece of information. Respondents’ readiness to change is reflected in responses to the question: *What would you say if a health care provider told you to make lifestyle changes to improve your health?* Response options were as follows:

- I haven't thought about changing
- I plan to change in the next 6 months
- I plan to change this month
- I recently started doing this
- I need help maintaining changes I made in the last 6 months

This scale was modeled after studies which have developed indicators of stages of change, most notably the University of Rhode Island Change Assessment Scale (URICA).

The majority of survey respondents felt they could improve in the areas of regular exercise (71.6%), reaching or maintaining a healthy weight (61.7%), and eating well (53.3%). Less than one-half thought they could improve on handling stress (42.9%) and on quitting smoking (34.2%).

As shown on the following table, the greatest strides are being made in the areas of reaching a healthy weight, handling stress, and eating well. About two-fifths of those who feel they can improve in each of these areas indicated that they either recently started doing this or that they need help maintaining changes they made in the last 6 months. Fewer indicated this level of change in the areas of regular exercise (29.6%) and smoking (16.1%). Smokers were most likely to say they have not thought about changing (40.8%) or they plan to change in the next 6 months (38.3%).

Self-evaluation	Health Habits				
	Regular Exercise (n=1050)	Reaching A Healthy Weight (n=892)	Eating Well (n=783)	Handling Stress (n=616)	Quitting Smoking (n=314)
Base = Those Who Feel They Can Improve					
I have not thought about changing	22.5%	11.4%	20.9%	27.0%	40.8%
I plan to change in the next 6 months	31.0%	29.3%	23.4%	21.3%	38.3%
I plan to change this month	17.0%	14.3%	15.0%	9.8%	4.8%
I recently started doing this	22.3%	33.1%	31.6%	28.1%	7.6%
I need help maintaining changes I made in the last 6 months	7.3%	11.8%	9.0%	13.9%	8.5%

Respondents were also asked if they were currently trying to lose weight or maintain a recent weight loss. More than one-half (58.9%) said they were either trying to lose weight (48.8%) or maintain a recent loss (10.1%). Considering 66.5% were classified as overweight, this is a good start. Overall, 66.6% said they had undertaken a specific behavior in an effort to lose or maintain weight. About two-fifths said they were exercising (44.4%), eating less fat (42.6%), and/or eating fewer calories (40.7%). Those with higher levels of education and higher incomes were more likely than their counterparts to say they were exercising and

eating fewer calories. Consistent with other findings, those with 3 or more lifestyle risk factors were more likely than those with 0-2 risk factors to say they were doing *none of the above* (25.2% vs. 18.5%).

Screening as an Opportunity to Prevent Disease

Preventive screenings are those activities that can detect chronic conditions before they become a serious health problem. The most familiar screenings are those which detect heart disease and cancer, two chronic conditions prevalent in American adults. The United States Preventive Services Task Force recommends specific types of health screenings on the basis of age and gender; for example, men and women age 50 and over should have a colon-rectal cancer screening annually by either a fecal-occult blood test or a proctosigmoidoscopy.

In addition to these recommendations, Healthy People 2010 also establishes goals for preventive screening. For example, a goal is for 50% of persons who should have an annual colon-rectal cancer screening to have one.

Using these recommendations and guidelines, it is possible to determine who is not “up to date” on preventive screenings, and how well health providers and organizations in the area are doing in making progress toward goals set for the nation.

About two-thirds of respondents (65.2%) reported having a routine checkup by a doctor, nurse practitioner, or physician assistant in the past year. Those in excellent health were least likely to report having a routine checkup in the past year (59.7%). In addition, younger respondents, males, those without a regular health provider, and those without insurance were less likely than their counterparts to report having a “routine checkup” within the past year.

Blood Pressure Screening

Blood pressure screening is conducted to detect hypertension, a condition which is indicative of heart disease. It is recommended that individuals have their blood pressure checked every 1 or 2 years. About nine in ten respondents (93.1%) reported having a blood pressure check within the past two years. Younger respondents (18-44), males, persons who are uninsured, and those with no regular healthcare provider were less likely than their counterparts to be within recommended guidelines. Those living in Perry County were less likely than those in West Cumberland County to have had a blood pressure check within the last two years (89.1% vs. 95.4%).

High Cholesterol Screening

The recommended guidelines for cholesterol screening for the adult population are given by the United States Preventive Services Task Force as every two years. For the nation as a whole, Healthy People 2010 reports the 1998 baseline figure for cholesterol screening as 67% of adults having a cholesterol screening in the past five years. The Healthy People 2010 goal is for 80% of people aged 18 and over to have received a blood cholesterol screening within the past 5 years. Among survey respondents, 63.8% indicated that they have had a cholesterol screening within the past 2 years, and 76.5% within the past five years. Overall, respondents are meeting the Healthy People 2010 goal. However, those 18-34, those with no health insurance, those with 3+ risk factors, and those with no regular health care provider were more

likely than their counterparts not to be within recommended guidelines. Medicare respondents were more likely than those with other types of insurance to be within guidelines.

Dental Exam and/or Teeth Cleaning

An annual dental exam and teeth cleaning are recommended by preventive screening guidelines. The Healthy People 2010 goal is for 85% of all persons to have a yearly dental exam; the 1997 baseline estimate for the nation was 63% of adults receiving annual exams. About two-thirds (65.3%) of survey respondents have had a dental exam in the past year. This is short of the 85% recommended by Healthy People 2010. Persons with no health insurance were most likely to report having a dental exam more than five years ago (25.3%), as were persons with poverty/low incomes (16.1%) and those with no college education (11.9%).

Colon-Rectal Cancer Screening or Sigmoidoscopy/Colonoscopy/Protoscopy for Colon Cancer

The United States Preventive Services Task Force recommendation for colon-rectal cancer screening is an annual exam for persons aged 50 and above. The Healthy People 2010 goal for colon-rectal cancer screening is for 50% of people aged 50 and over to report having a screening within the past two years.

Two-fifths (41.9%) of respondents aged 50+ reported having either a blood stool test for colon cancer or a sigmoidoscopy, colonoscopy, or protoscopy within the past year. Almost two-thirds (62.0%) have had one or the other within the past two years. This exceeds the Healthy People 2010 goal. About one-fifth (18.5%) of persons age 50 and over have never had either of these colon cancer screenings, this population should be a focal point for screenings. Lower percentages of those 50+ having either test within the past two years were found among those in poverty (35.8%), those who do not have a regular health provider (45.2%), those without a chronic disease (43.9%), and those who are uninsured (28.3%). Females aged 50 or older were less likely than males of this age group to have had either test within the past two years (58.0% vs. 67%).

Diabetes Screening

Three-quarters (73.5%) of respondents aged 45+ are within recommended guidelines for diabetes screenings; they have had a blood sugar test for diabetes within the past three years. However, close to one-fifth (18.4%) of those aged 45+ have never had this screening. Again, among respondents age 45+, those without a regular health provider were most likely to report never having this screening (40.3%), as were those without insurance (49.2%), those with poverty level incomes (35.9%), and those who feel they are in excellent/very good health (24.6%).

Prostate Cancer Screening: PSA Blood Test or Digital Rectal Exam

Men can receive a prostate cancer screening by either a blood test or a physical exam. For men age 50 and over, 61.2% are within recommended guidelines, having had either a prostate specific antigen blood test or a digital rectal exam within the past year. Of men age 50 and over, 10.6% have never had either of these types of tests. The “never” rate was highest among men 50+ who do not have a regular health care provider (41.0%).

Pap Smear (Screening for Cervical Cancer)

The United States Preventive Services Task Force and the American Cancer Society recommend an annual Pap Smear as part of a pelvic examination for women age 18 and over. Healthy People 2010 goals are for 97% of all women to have received a Pap Smear at some time in their lives. The estimated national rate in 1997 was 77% for women to have received a Pap Smear in the past three years.

Among all women respondents, 68.2% have had a Pap Smear in the past year. A cumulative total of 87.9% of women have had a Pap Smear in the past three years. Although short of Task Force and American Cancer Society recommendations, these percentages are basically meeting the Healthy People 2010 goal for Pap Smears (97% at some time in their lives): 97.2% of women reported having a Pap Smear at some point in their lives (only 2.8% reported “never” having a Pap Smear).

Osteoporosis

Women aged 40 or more were considered to be within the recommended guidelines for osteoporosis if they had a bone scan screening within the past five years. Overall, about two-fifths (39%) of women in this age group were within these guidelines. Subgroups of women age 40+ less likely to be within guidelines included those with 3+ risk factors, those without a regular provider, those with children, those 40-64, and those without insurance.

Clinical Breast Exams and Mammograms

The American Cancer Society recommends that women age 50+ have a clinical breast exam and a mammogram every year. The Healthy People 2010 goal is for 70% of women age 50+ to have a mammogram within the past two years. The table below shows the area’s comparison with Healthy People 2010 standards:

Screening Type Received	Women 50+, Within The Past 2 Years	Healthy People 2010 Goal, Women 50+, Within The Past 2 Years
Breast exam by a health care professional	83.9%	NA
Mammogram	84.5%	70%

Women (18+) in poverty and low income groups were more likely than women with higher incomes to report never having a mammogram (59.2% and 43.0% vs. 31.6%). Women in the low income group were also more likely than those with higher incomes to report never having a breast exam by a health professional (9.2% vs. 3.1%). For this reason, the table below was constructed to illustrate the relationship between preventive screenings and income for women.

Screening Type Received “In The Past Year” By Women (18+)	Poverty (<100% FPL)	Low Income (100-185% FPL)	Above Low (>185% FPL)
Pap smear	60.3%	64.1%	*71.1%
Breast exam by a health care professional	58.5%	65.1%	75.8%
Mammogram	19.1%	37.0%	49.1%

*Significantly higher than low income/poverty groups combined; base size in individual groups too small for the difference to be significant

Bold numbers indicate significant difference

The relationship between income, insurance coverage, and the ability of persons to pay for preventive screenings is important to understand. About one-fifth of respondents with poverty and low income levels are uninsured (20.3%). This may help to explain the lower incidence of recommended screenings among those with poverty and low income levels.

In summary, residents are generally receiving regular preventive screening exams at rates near or above the national averages or Healthy People 2010 goals. Focused attention should be placed on dental screening.

Among screenings for which overall rates are acceptable, attention should still be paid to those without regular health providers and those without insurance, for whom much lower screening rates were reported.

Factors Influencing Access To And Quality Of Primary Care

The Bantam Medical Dictionary (1990) defines primary care as “health care rendered by the physician or other health professional who has first contact with a patient seeking medical treatment. The term is often applied to care provided by internists, pediatricians, and general practitioners or family practice physicians.”

The *Carlisle Area Health & Wellness Survey* includes questions about access to primary care because it is an important aspect of population health; primary care is the care that detects disease, provides preventive screenings, and, in some cases, allows individuals or families to develop a relationship with a health care provider that ensures coordinated and comprehensive health care.

Primary care may mean different things to different people based on their experiences and their perceptions. For that reason, this section of the report describes results of survey questions that ask about the following components of access to primary care:

- Regular providers and places for care;
- The characteristics of survey respondents= relationship with primary care providers;
- Community perceptions of access to primary care services;
- Experience of community members in the process of obtaining primary care; and
- Challenges people face in obtaining primary care services (such as cost or lack of insurance).

Analyzing these components also allows communities to pinpoint where challenges to accessing primary care might be: is it in the relationships that people have with their primary care providers? Is it because community members perceive that services are not available? With this knowledge, efforts to improve access to care can be better organized. The components of access to primary care will be discussed in turn in this section.

Regular Providers and Places for Care

The majority of residents (87.0%) reported having a primary care provider (a person), and 94.8% reported having a regular place for health care. The rates of those reporting no provider/no place were significantly higher among uninsured respondents (46.8%/ 23.9%), those aged 18-34 (23.6%/10.3%), non-married respondents (18.9%/9.0%), those in poverty (29.6%/7.5%), and those with low incomes (16.3%/10.3%).

Using results from the regular “place” for care, 94.8% is close to the Healthy People 2010 goal, which is to have 96% of persons aged 18 and over reporting a regular “source” of primary care. Certain population groups, however, such as the uninsured (76.1%), are much further from this goal.

When asked about specific places for outpatient care, respondents reported a private doctor’s office most frequently at 79.4%, with a community health clinic the second most frequented place at only 9.4%.

Emergency room care “in the past twelve months” was reported by 21.2% of survey respondents, with 0.6% reporting that the emergency room is the one place they usually go to for medical care. The rate of use within the past year was higher among those with poverty-level incomes (52.4%), those with Medicaid (49.1%), and non-married respondents (27.2%). Overall, about one in fourteen (6.8%) respondents reported 2 or more emergency room visits within the past year. This percentage was higher among those 18-34 (12.5%), non-married respondents (10.6%), those in poverty (22.1%), and those with Medicaid (30.3%).

Persons who used the emergency room within the past year were asked to indicate from several choices why they used the emergency room in the past year. Among those who indicated they used the emergency room for care, the most frequent response (40.1%) was “I was very sick.” The next most frequent response (39.0%) was “I had an injury.” About one-fifth (21.9%) reported that their doctor’s office was closed.

Only 1.5% were treated at a hospital or emergency room in the past two years as a result of a physical assault. Residents of the Perry County region were more likely than those of the West Cumberland region to need treatment because of a physical assault (3.4% vs. 0.4%).

Relationship with Primary Care Providers

The relationship between a primary care provider and a patient is important to understand; research has shown that if this relationship is a trusting one, patients have better health outcomes. One survey question asked respondents to rate how much they trust their primary care provider on a scale of 1-10 (where 1 = “Not at all” and 10 = “completely”). Those with a primary care provider gave a mean trust rating of 8.4 to their regular provider. Only 7.9% of respondents gave a mean trust rating of 5 or less to their regular health care provider. The scale was organized into three categories: 8-10 = High level of trust; 4-7 = Some trust; and 1-3 = Low level of trust. Overall, 77.7% of respondents have a high level of trust in their primary care provider. Older respondents generally gave higher trust ratings.

There are several survey questions that ask respondents with a primary care provider to rate aspects of how their primary care provider treats them on an interpersonal level. These aspects are as follows:

- Attention given to what (you) have to say;
- Advice and help given in making decisions about (your) care; and
- Amount of time (you) have with provider during visit.

Each of these questions was asked on a rating scale of 1 to 6, with 1 corresponding to “very poor” and 6 corresponding to “excellent.” The highest net excellent/very good ratings were for *their advice and help in making decisions about your care* and *their attention to what you say*. More than half also gave excellent or very good ratings to *hours when their office/clinic is open*, *amount of time you have with the provider when you go to the office or clinic*, and *length of time you wait between making an appointment and the day of visit*. Those with poverty level incomes, those with Medicaid, and those with no insurance were generally less likely to rate these factors high. Respondents from the Perry County region were less likely than those from Carlisle to rate four of these six aspects high and less likely than those from the Gardner/Adams region to rate two of the six aspects high. Results by region are shown in the following table.

Aspects Of Care: Health Provider Ratings	Net Excellent/Very Good				
	Total	Carlisle	Gard/ Adams	West Cumb	Perry County
Their advice and help in making decisions about your care	61.1%	61.3%	60.5%	63.2%	57.4%
Their attention to what you say	59.2%	60.6%	64.8%	60.2%	50.9%
Hours when their office/clinic is open	53.8%	58.4%	54.1%	50.5%	45.8%
Amount of time you have with the provider when you go to the office or clinic	52.8%	56.5%	49.1%	52.0%	44.8%
Length of time you wait between making an appointment and the day of visit	52.4%	55.9%	46.6%	52.1%	44.6%
Ability to speak to your provider or your place of care by phone when you have a question or need advice	44.7%	45.4%	54.2%	44.7%	39.0%

*Shaded areas show significant differences; numbers shaded darker are significantly higher than the lighter ones

Perceptions of Access to Primary Care

Perception is reality in many circumstances. When considering access to care, perceptions are especially important because these perceptions influence the choices individuals make about when, why, and even if they can access the services they need. The survey included questions about perceptions of access to health care, hospital care, and specialty care. Respondents rated their access on a six point scale, which ranged from 1 = “Very poor” to 6 = “Excellent.”

Respondents rated access to health services rather high. Overall, about two-thirds (63.2%) of residents rated their access to health care as *excellent* or *very good*. Access to hospital care was rated similarly (58.5% *excellent/very good*). Access to specialty care was rated slightly lower at 54.2%. All three of these responses are higher than National Health Survey™ results (39.3% for health care, 49.0% for hospital care, and 38.8% for specialty care).

Access to hospital care was rated higher by Carlisle residents than by those in Perry County (61.7% vs. 52.4%). Those with poverty or low incomes were less likely to give *excellent* or *very good* ratings to all three access factors, as were those with Medicaid or with no insurance.

Overall responses for those indicating *excellent* or *very good* are shown in the table below, along with selected categories of respondents with lower levels of excellent or very good ratings. These are populations that should be targeted for improved access.

Perceived Access To Care A “Excellent” or A “Very Good”	Total	Those W/O A Regular Provider	#H.S. Education	Poverty/ Low Income	Medicaid	Uninsured
Access to health care	63.2%	47.7%	56.5%	45.3%	34.0%	36.6%
Access to hospital care	58.5%	43.6%	53.1%	46.4%	38.3%	32.9%
Access to specialty care	54.2%	42.6%	50.5%	43.2%	38.3%	35.2%

Experience with the Process of Obtaining Primary Care

The April, 1997 “Issue Brief” from the Center for Studying Health System Change, a center conducting a large national study on health system change and how it influences the health of populations, recommended population-based surveys as a method of measuring access to health care and determining populations that are at greatest risk for lacking access to care:

Population-based surveys have advantages to measuring access . . . Population-based surveys use a broader set of measures that capture dimensions of access, including aspects of primary care, the process of care seeking, barriers to care and unmet health needs. With this information, researchers can make inferences about who is at greatest risk for lacking access to care by comparing vulnerable populations, such

as the uninsured, poor and low income persons and persons in poor health to the rest of the population.

The “process of care seeking” is the dimension of access discussed in this section. This process is very different for persons who do and do not have a primary care provider, and for that reason, only persons with a regular primary care provider were asked to rate the following aspects of accessing services:

Access Measure	Very Poor	Poor	Fair	Good	Very Good	Excellent
Hours open	0.4%	1.2%	9.8%	32.5%	36.4%	17.4%
Length of time between making an appointment and the visit	1.3%	3.6%	12.1%	29.0%	33.6%	18.8%
Ability to speak to provider by phone if have question/need advice	2.1%	7.1%	14.5%	24.3%	26.3%	18.4%

As the table illustrates, most respondents feel that their process for obtaining care is good, very good, or excellent. However, certain subgroups were less likely to give high ratings to these aspects of health care access. Younger respondents, those with Medicaid, those with no insurance, and those with poverty level incomes were less likely to rate these aspects high.

Challenges to Access

Cost

Community members often face financial challenges in obtaining primary care. To determine the challenge that out-of-pocket or other costs often present in seeking care, the *Carlisle Area Health & Wellness Survey* asked if respondents had delayed making a visit to a doctor or nurse, or if respondents “skipped” medications or treatments in the past two years because they were too expensive. About one-third (31.0%) reported *often* or *occasionally* delaying dental care because of the expense. A substantial, but smaller percentage (21.6%) of respondents reported delaying seeking care from their medical provider because of cost. About one in six respondents (17.1%) reported skipping medication or treatments because of cost. Less than one in ten (7.9%) delayed visiting a mental health care provider because of cost, and 3.4% were unable to visit their doctor or dentist due to transportation problems.

Again, certain subgroups were more likely to delay doctor visits or skip needed medications. Those categorized as having lower mental health scores were more likely than their counterparts to delay doctor and dentist visits (36.3% and 42.9%) and skip medications or treatments (33.8%) because they were too expensive. These respondents were also most likely to put off going to a mental health provider because of cost (27.2%). In addition, one-quarter (23.7%) of this subgroup has skipped meals or cut the size of meals due to cost, and one in ten (10.5%) have been unable to visit health care providers or obtain medicine because of transportation problems.

Other subgroups likely to delay treatments or doctors’ visits include those without a regular health care provider, those with 3 or more lifestyle risk factors, those in fair or poor health, those aged 18-44, those

with no college education, those with poverty/low income levels, and those with Medicaid or without insurance. In fact, almost two-thirds (63.9%) of those without insurance delayed visits to their health care provider because visits were too expensive. Almost one-half (44.9%) of those with poverty or low level incomes also delayed visits to their provider because of cost.

One in ten survey respondents (9.6%) indicated that they had cut the size of meals or skipped meals due to cost within the past two years. Those most likely to fall into this behavior pattern included those in fair/poor health (18.7%), those with lower mental health scores (23.7%), and those who perceived their access to healthcare as fair to very poor (27.8%). Other subgroups cutting meal size or skipping meals included those with 3+ risk factors, those with less than a college education, those in poverty, those with children in the household, and those with Medicaid or no insurance. Respondents age 18-44 were more likely than those 65+ to cut meal size or skip meals due to cost.

Overall, one in ten (9.2%) reported being unable to have prescriptions filled within the past two years because they could not afford it. Again, those in fair or poor health and those with lower mental health scores were more likely than their counterparts not to fill prescriptions because of cost (about 22%). This is especially relevant in light of the fact that almost three-fifths (57.9%) of respondents take at least one prescription medicine per week.

Other subgroups likely to be unable to pay for prescriptions include those with 3 or more lifestyle risk factors, those aged 35-44, females, those with a high school education or less, those with children in the household, those with poverty/low income levels, and those with Medicaid. Most of these same subgroups also reported higher likelihood of not being able to obtain health care or medicine because of transportation problems.

Although these rates are not unusual in similar community surveys, they illustrate another cost barrier for primary care services: even if an individual or family has insurance coverage, they may not seek care because of “out-of-pocket” expenses. The following table presents the findings for *often* or *occasionally* not seeking care by various insurance categories.

“Often” Or “Occasionally” Delay:	Commercial Insurance	Medicaid	Medicare	None (Uninsured)
Dental care	29.2%	42.8%	18.0%	69.5%
Medical care	18.5%	24.7%	13.0%	63.9%
Medications/treatments	15.0%	38.2%	12.7%	35.2%
Mental health care	7.6%	21.3%	3.8%	14.2%
Filling prescriptions	7.8%	41.4%	6.8%	14.6%

Bold numbers indicate significant difference

Additional information about health insurance coverages further illustrates types of services that are not covered by their insurance plans. These services probably require an out-of-pocket payment, which may

be a barrier to receiving services. It is also important to keep in mind that a “no” answer means that the insurance does not cover any part of these costs. A “yes” answer does not mean that the insurance covers the entire cost. It may cover only part of the cost.

“No, Insurance Does Not Cover At Least Part Of The Cost For”:	Commercial Insurance	Medicaid	Medicare
Prescription medicines	2.9%	9.6%	29.9%
Immunizations*	7.5%	8.0%	10.8%
Dental services	22.3%	19.5%	68.3%
Mental health services*	7.1%	5.8%	15.4%
Vision services	30.1%	18.3%	44.8%
Drug/alcohol detox or rehab services*	7.0%	4.0%	18.8%
Hearing services: exams/aids*	14.0%	7.6%	35.8%
Chiropractic care*	13.4%	11.1%	23.3%

*Overall, higher percentages said they did not know if these services were covered
 Bold numbers indicate significant difference

Respondents from the Gardner/Adams region were more likely than those from the Carlisle and West Cumberland regions to report some coverage of prescription medicines (95.8% vs. about 89%).

Health Plan Requirements

There has been much change in the insurance options available to persons in our country over the past several years. Although many persons may have insurance coverage of some kind, there are often other requirements that must be met in order to obtain health services. Almost one-fifth of residents with insurance experienced some type of problem in the past two years with limited access to certain doctors because of their insurance plan (18.9%) and delays in their care because the provider needed approval from their plan (15.9%).

The following table details for survey respondents what these requirements are for the different insurance coverages reported in the survey:

“Yes, This Has Been A Big/Small Problem In The Last Two Years”:	Commercial Insurance	Medicaid	Medicare
Limited access to certain doctors because of health insurance	20.7%	59.5%	6.5%
Delays in care because provider needed approval from health insurance	17.5%	48.0%	5.6%

Bold numbers indicate significant difference

Medicaid patients reported the most problems with limited access to doctors and delays in care because of needed approval due to insurance requirements. Other subgroups most likely to report a “big/small” problem with these insurance requirements in the past two years include those in poverty, those with children in the household, non-married respondents, those who rated their access to care fair to very poor, and those with lower mental health scores. Those from the Carlisle region were less likely than those from the other three regions to report a problem with limited access to doctors because of insurance.

Lack of Insurance

Three-quarters (74.9%) residents reported having health insurance coverage from a commercial source, either from an employer-sponsored health plan (63.7%); a plan purchased directly from an insurance company (6.0%); CHAMPUS, VA, TriCare; or other military insurance (3.1%); student health insurance (1.8%); or other commercial coverage (2.8%). About one-fifth (20.6%) reported coverage by Medicare, and 3.0% had Medicaid coverage. Less than 1% had some other type of insurance.

Currently, almost one in ten (8.7%) survey respondents are uninsured. Lack of insurance does not affect all persons equally; for example, 17.7% of respondents 18-34 years of age are uninsured, 14.8% of non-married respondents are uninsured, and 20.3% of respondents who are low income or in poverty are uninsured. Residents of Carlisle are less likely than residents of the other three regions to be uninsured (5.6% vs. 16.9% in the Gardner/Adams region, 9.7% in the West Cumberland region, and 12.2% in Perry County).

Uninsured residents were asked the reasons for their lack of coverage. The reason given most often by these respondents was the inability to pay the premiums (65.3%). Almost one-third (34.7%) of uninsured respondents said they chose not to have insurance. About one-fifth said their employer doesn't offer or stopped offering coverage (21.9%) or they lost their job or switched employers (21.7%). One in nine (11.8%) became ineligible because of age or leaving school. About one in ten said they did not know how to get it (9.7%), and less than one in ten gave the other reasons listed. When asked to describe the duration of their lack of insurance, 25.2% of these uninsured respondents reported 2-12 months, and 71.7% reported thirteen months or longer. Three percent (3.1%) lost their insurance within the last month.

To understand the relationship between access and health insurance, it is important to ask more than “Do you have health insurance?” The history or consistency of an individual's coverage is as important as their current insurance status. This history gives a community an indication of the stability of the insurance resources available to individuals and families. Approximately one-fifth (19.0%) of survey respondents overall indicated that over the past three years they have had some lapse in their insurance coverage (at least one month). About one in ten (8.8%) indicated this lapse had been for 13 months or longer.

Low income persons and those in poverty were most likely to experience a gap in their insurance coverage that lasted 13 months or longer. Other subgroups more likely than their counterparts to be without insurance for 13 months or longer include those aged 18-34, those with a high school education or less, non-married respondents, those with children in the household, those rating access to care very poor to fair, and those without a regular health care provider. In addition, those from the Gardner/Adams and West

Cumberland regions were more likely than those from Carlisle to experience a lapse in coverage that lasted 13 months or longer (19.9% and 11.3% vs. 5.6%).

Opportunities to increase access to care can be focused on particular populations to increase insurance enrollment/coverage and reduce out-of-pocket expenses which inhibit prompt seeking of care. The immediate cost of care for both insured and uninsured persons is the largest financial challenge to access. This is evident in the lack of insurance coverage for some basic primary care services, such as dental care. Policies that make it increasingly difficult for residents to pay for health services of any kind, such as changes in either private or public insurance programs, should be monitored by health providers. Regular discussions among local policy makers to keep abreast of these changes might be one approach to consider.

Consumption Of Health And Human Services

This section of the report describes the health and human services that have been consumed or needed by area respondents.

Sometimes, in order to function better, people “consume” medical or other health services. This is most obvious in trauma cases, for example, when hospital care must be “consumed” to bring someone back to health. Similarly, for families to function, they must sometimes “consume” resources such as counseling for children or services to help resolve domestic violence. These types of resources are often called “human services.” Understanding both the amount and type of health and human services consumed in a community is another key to understanding population health.

Hospital Stay-over

Almost one in ten respondents (8.7%) indicated that they had stayed in a hospital for one night or more in the past year (this proportion does not include women having babies). Overnight stays were most frequently reported by respondents over age 65, those in poverty, those who are Medicare insured, and those who have a chronic disease or are in fair to poor health. Perry County region respondents reported a higher number of hospital stays than respondents from Carlisle (14.6% vs. 7.0%).

Human Services

To determine the extent to which respondents perceive need for and actually use of a variety of other health and human services, respondents were asked to indicate whether they or any family member needed/used that particular service in the past year. The table below details the responses for reported need for services by survey respondents:

Human Service Needed (“Top 7”)	% Who Report “Need”*	Groups Most Likely To Report Need For This Service
Work-related or employment services	18.7%	Those aged 18-34, non-married respondents, those with poverty/low level incomes, those with lower mental health scores, those with Medicaid, those whose access to health care is fair/poor

Human Service Needed (“Top 7”)	% Who Report “Need”*	Groups Most Likely To Report Need For This Service
Information or referral services	17.7%	Those with poverty/low level incomes, those with lower physical and mental health scores, those with chronic diseases, those with Medicaid, non-married respondents, those whose access to health care is fair/poor
Financial assistance or welfare	14.5%	Those in less than excellent health, those with chronic diseases, those with lower physical and mental health scores, those 18-44, those with a high school education or less, non-married respondents, those with poverty/low incomes, those with Medicaid, those whose access to health care is fair/poor
Mental health services	11.7%	Those 18-44, those in fair/poor health, those with chronic diseases, those with lower mental health scores, non-married respondents, those with poverty/low incomes, those with children living in the household, those in West Cumberland vs. those in Carlisle
Services for the disabled or their families	6.9%	Those with a high school education or less, those with poverty/low incomes, those in fair/poor health, those with lower mental health scores, those with chronic diseases
Food, meal, and nutrition services	6.7%	Females, those with less than graduate level education, non-married respondents, those with poverty/low incomes, those with children in the household, those on Medicaid, those in fair/poor health, those with lower mental health scores, those whose access to health care is fair/poor
Childcare services	6.3%	Those with lower mental health scores, those whose access to health care is fair/poor, those age 18-44, females, those with a high school education or less, those with poverty/low incomes, those on Medicaid

*Includes both needed & used and needed but did not use

Results from the survey confirm that the most “vulnerable” of the population are persons with incomes less than 185% of the Federal Poverty Level, and the uninsured report needing and consuming health and human services in a greater proportion than community members with higher incomes.

Community Issues

As part of the process of understanding what influences the health of a community, it is important to understand the perceptions of that population about key “community” issues. This has value both in interpreting data and in planning subsequent interventions. Survey respondents were presented with a list of thirteen different community issues drawn from numerous other community studies and tailored to the local environment.

The majority of residents did not overwhelmingly identify any community issues as *very serious* problems. When asked about the “seriousness” of different community issues, *illegal drug use* was identified most frequently as a *serious* or *very serious* problem (17.6%). Fewer mentioned *alcohol abuse* (12.6%) and *teen pregnancy* (10.9%). Other issues were identified as *serious/very serious* by less than 10% of respondents.

The various regions differed in their perception of problems within their communities, as shown in the following table. For example, in the Gardner/Adams region, population growth was viewed as the most serious of the thirteen issues, with 18.6% of respondents identifying it as a *serious* or *very serious* problem.

Perry County residents were more likely than those in both Carlisle and West Cumberland to view population growth as a *serious* or *very serious* problem as well. Those in the Gardner/Adams region were less likely than those in the Carlisle and West Cumberland regions to identify health care issues as a *serious* or *very serious* problem. Residents of the Carlisle region were the most likely to identify mental health issues and violent crime (other than domestic violence or child abuse) as *serious* or *very serious* problems.

Carlisle residents were also more likely than those in the Gardner/Adams and Perry County regions to identify property crime as a *serious* or *very serious* problem, and more likely than those in the West Cumberland and Perry County regions to identify HIV/AIDS as a *serious* or *very serious* problem.

% Reporting “Very Serious” Or “Serious” For Their Community						
Community Issue	Total	Carlisle	Gard/Adams	West Cumb	Perry County	Those Most Likely To Perceive As Very Serious/Serious
Illegal drug use	17.6%	19.0%	11.9%	17.3%	16.1%	Those with chronic diseases, those in poverty
Alcohol abuse	12.6%	12.8%	8.5%	14.0%	11.3%	Non-married respondents, those with poverty/low incomes, those with lower mental health scores, those with no regular healthcare provider
Teen pregnancy	10.9%	10.9%	12.5%	10.1%	11.4%	Those <65, those with poverty/low incomes, those with children, those with Medicaid, those with lower mental health scores, those with 3+ risk factors, those without a regular healthcare provider
Population growth	9.8%	7.5%	18.6%	9.3%	13.9%	Males, those with lower mental health scores, those with chronic diseases, those 18-34 and 45-64, those in the Gardner/ Adams and Perry County regions
Health care issues	9.0%	11.1%	2.8%	7.7%	7.5%	Those with poverty/low incomes, those whose access to healthcare is fair to poor, those who live in the Carlisle and West Cumberland regions
Domestic violence/child abuse	7.2%	8.3%	1.0%	5.3%	9.9%	Those with lower mental scores, those with children, those in poverty, those on Medicaid, those in the Perry County, Carlisle, and West Cumberland regions
Poverty	6.2%	7.3%	1.3%	4.0%	9.2%	Those in poverty, those on Medicaid, those in the Perry County and Carlisle regions

% Reporting “Very Serious” Or “Serious” For Their Community						
Community Issue	Total	Carlisle	Gard/ Adams	West Cumb	Perry County	Those Most Likely To Perceive As Very Serious/Serious
Mental health issues	5.9%	8.6%	0.5%	4.9%	1.8%	Those with lower mental scores, those 18-34 and 45-64, those with Medicaid, non-married respondents, those in poverty
Services for disabled	4.5%	3.2%	1.1%	6.1%	6.8%	Those whose access to healthcare is fair to poor, those in the West Cumberland and Perry County regions
Violent crime - other than domestic/child abuse	4.2%	6.3%	1.0%	2.6%	2.3%	Those with Medicaid, non-married respondents, those in poverty, those in Carlisle

*Shaded areas show significant differences; numbers shaded darker are significantly higher than the lighter ones

Analysis examining other population groups’ perceptions can provide additional insights into these perceptions. All this information can be very useful in trying to set a public agenda for action.

Respondents were also asked to rate their community on various factors on a scale of 1 to 5, where 1 means “Source of great community pride” and 5 means “Source of great community concern.” Areas of concern identified most often included employment opportunities (32.0%), public transportation (27.7%), and recreation opportunities (20.9%).

% Reporting Source Of “Some” Or “Great” Community Concern						
Factor	Total	Carlisle	Gard/ Adams	West Cumb	Perry County	Those Most Likely To Perceive As Source Of Some Or Great Community Concern
Employment opportunities	32.0%	22.4%	41.3%	33.0%	54.0%	Those in Perry County vs. Carlisle and West Cumberland, females, those with poverty/low incomes
Public transportation	27.7%	29.6%	18.8%	26.3%	27.8%	Those aged 45-64 vs. those younger, those with 17+ years education, those with above low incomes, those without children, those in Carlisle vs. Gardner/Adams
Recreation opportunities	20.9%	16.0%	15.6%	22.6%	33.7%	Those 18-34 and 45-64 vs. those 65+, females, those with Medicaid, those in Perry County
Arts & cultural opportunities	18.7%	12.1%	16.8%	25.3%	26.6%	Those <65, those in West Cumberland and Perry County

% Reporting Source Of “Some” Or “Great” Community Concern						
Factor	Total	Carlisle	Gard/Adams	West Cumb	Perry County	Those Most Likely To Perceive As Source Of Some Or Great Community Concern
Affordable housing	18.3%	20.3%	22.2%	14.4%	17.8%	Those 45-64, females, those with poverty/low incomes, those on Medicaid, those in Carlisle vs. West Cumberland
Racial harmony	16.2%	17.7%	16.3%	14.1%	15.3%	Those 18-34 and 45-64 vs. 65+, those with 17+ years of education
Neighborhood safety	12.0%	13.2%	8.0%	10.9%	11.6%	Females, those with a high school education or less, those with poverty/low incomes
Environmental quality	11.8%	11.5%	13.2%	11.9%	11.7%	Those 45-64 vs. 65+
Public schools	11.5%	9.7%	6.2%	14.6%	13.3%	Females, those with children in the household, those in West Cumberland vs. Carlisle and Gardner/Adams

*Shaded areas show significant differences; numbers shaded darker are significantly higher than the lighter ones

Social Capital

This section of the report describes the social capital available in the area and how it might be applied for community health improvement.

Social capital is not a new idea, but a term that has come into use in recent years. By definition, social capital is the collective trust members of a community have for one another, their involvement in the community, the networks and social support they have available, and how the community works together to solve problems. What *is* new is the idea that not only is social capital related to a population’s health, but that for communities to improve their health status, there must be social capital available for that purpose.

This idea of social capital was explored in the survey by asking about civic involvement, trust, community members’ perceived influence over their environment, perceptions of disparity in power or income in the community, the social support available to community members, and the religiosity/spirituality of the community. The results to these social capital questions are as follows:

- 61.0% of respondents have voted in an election in the past 12 month
- 38.9% of respondents volunteer
- 19.2% of respondents have written or called a local, state or federal government official about an issue in their community

- 18.5% of respondents have attended a meeting of a school board, city council or other official government body
- 13.5% of respondents feel “like an outsider in my community” (net strongly agree/agree)
- 10.2% of respondents feel “There is nothing I can do to solve problems in my community when they happen”
- 47.2% agree that if there is a problem in the community, people who live there can work together to solve it
- 16.3% of respondents agree that people in the community are “only out for themselves”
- 13.0% of people agree with the statement: “I am afraid when I am out after dark in my community”
- 20.5% of people agree with the statement: “In my community, a small group of people have all the power”
- 56.6% of respondents have never been treated badly because of their age, race, religion or gender
- 79.9% of respondents have “very strong” or “somewhat strong” religious beliefs
- Respondents have lived at their current address for an average of 13.6 years
- 32.6% of respondents have provided care or assistance to a family member or friend who is elderly or has a long-term illness or disability within the past month

Scores for the region were generally high compared with other communities across the United States.

These findings tell us the following about the greater Carlisle area:

- There are no significant barriers for residents to work together to solve problems.
- Large numbers of the population currently serve as volunteers and are civically involved. However, one-quarter (27.3%) of the population is not civically involved in any way; in other words, they have neither voted, volunteered, written or called a government official about a community issue, nor attended any community meeting in the past 12 months.
- A good number of community members believe that problems can be solved by the community.
- There is a strong spiritual component to community life that can be utilized to address issues that impact the health of residents.

The social capital necessary to organize and implement health improvement activities is available in the Carlisle area. More importantly, “health improvement” also includes those ideas and activities that help community members to work together, build trusting relationships and accept both the responsibility and benefit of being involved in community activities.

Appendices

Appendix 1: 2000 Behavioral Health Risks Of Pennsylvania Adults

The following pages will provide a comparative look at the findings from the 2000 Behavioral Health Risks of Pennsylvania Adults and the 2002 Carlisle Regional Assessment.

Indicator	2000 Pennsylvania Behavioral Health Risk	2002 Carlisle Regional Assessment
<i>Fair or Poor Health Status By Income</i>		
<\$15,000	37%	27.5%*
\$15,000 to \$24,999	27%	18.6%*
\$25,000 to \$49,999	10%	9.6%*
Overall	14%	10.4%

Bold numbers indicate significant differences

*Percentages based on those earning <\$14,630; \$14,630 to \$23,690; and \$23,691 to \$49,999

Fewer Carlisle Regional Assessment respondents overall reported their health status as Fair or Poor, as compared to respondents in the 2000 Pennsylvania Assessment (10.4% vs. 14%). In addition, fewer of those in the two lowest income groups reported fair or poor health status. This could be translated to read that lower income individuals in the Carlisle region tend to be healthier when compared to the rest of the state.

Indicator	2000 Pennsylvania Behavioral Health Risk	2002 Carlisle Regional Assessment
<i>Health Care Access</i>		
Those 18-64 with No Health Insurance	11%	10.6%
18 to 29 Without Health Insurance	19%	20.6%
Had a Routine Check-up in the Last 12 months	74%	65.2%
Needed to See a Doctor But Did Not Because of Cost	8%	*21.6%

*Reported delaying seeking medical care because of cost

Bold numbers indicate significant differences

The percentage of respondents aged 18-64 not covered by health insurance in the Carlisle region is similar to the proportion not covered statewide.

Fewer Carlisle regional survey respondents reported a routine check-up as compared to the state (Carlisle Region 65.2% vs. PA 74%). Clearly, this represents an opportunity for improvement through various strategies including but not limited to health education and promotion. Additionally, nearly 22% of Carlisle region survey respondents reported delaying seeking medical care because of costs.

Indicator	2000 Pennsylvania Behavioral Health Risk	2002 Carlisle Regional Assessment
Doctor Diagnosed Conditions		
Asthma	9%	10.4%

The proportion of respondents in the Carlisle region reporting being diagnosed with asthma is similar to the proportion statewide.

Indicator	2000 Pennsylvania Behavioral Health Risk	2002 Carlisle Regional Assessment
Risk Factors		
Current Smokers	24%	22.7%
Overweight	58%	66.5%
Received Advice About Weight	16%	36.0%

Bold numbers indicate significant differences

More Carlisle regional survey respondents reported being overweight as compared to the state, and more Carlisle regional survey respondents reported being told about their weight than did Pennsylvanians, more than 2 to 1 (36% Carlisle compared to 16% Pennsylvania).

Indicator	2000 Pennsylvania Behavioral Health Risk	2002 Carlisle Regional Assessment
Positive Behaviors		
Regularly Engaged in Vigorous Activity	14%	47.6%
Eating Fruits and Vegetables 5 or More Times a Day	23%	22.4%

Bold numbers indicate significant differences

Respondents in the Carlisle region report engaging in vigorous exercise more frequently than those statewide.

Indicator	2000 Pennsylvania Behavioral Health Risk	2002 Carlisle Regional Assessment
Women's Health Screenings		
Age 40 and Older and Had a Clinical Breast Exam in Past Year	69%	73.5%
Age 40 and Older and Had a Mammogram in Past Year	64%	67.4%
Age 50+ and Had Both in Past 2 Years	71%	82.2%
Have Ever Had A Pap Test	94%	97.2%

While the percentage of women aged 40 and over in the Carlisle region reporting clinical breast exams and mammograms in the past year are similar to the percentages reported statewide, the proportion of women aged 50 and over who have had both a breast exam and mammogram in the past 2 years is higher in Carlisle than in the state as a whole. In addition, Carlisle is doing better than the state in the area of Pap testing.

Indicator	2000 Pennsylvania Behavioral Health Risk	2002 Carlisle Regional Assessment
<i>Men's Health Screenings</i>		
Age 50 and Older Who <i>Ever</i> Had a PSA blood test	74%	80.6%
Age 50 and Older Who <i>Ever</i> Had a Digital Rectal Exam	87%	74.2%
Age 50 and Older Who Had a Digital Rectal Exam in Past Year	69%	41.1%

Significantly more men age 50 and older in the Carlisle region reported ever having a Prostate Specific Antigen (PSA) blood test than did men 50 and older statewide. However, significantly more men in this age group statewide had digital rectal exams than those in the Carlisle region.

Appendix 2: Methodology for the Carlisle Area Health & Wellness Foundation Survey

Survey Development

The Carlisle Area Health & Wellness Foundation undertook a health assessment survey project in order to measure the health status of the community and to determine the accessibility and quality of the health care received. The survey questionnaire was modified from a base instrument used by Community Health Development Specialists in surveying over twenty different communities, as well as in conducting The National Health SurveyTM. Modifications were made to address local issues. The survey was typeset according to the model format.

Method

The method used to gather the survey data is a modified version of a protocol refined by ABACUS Custom Research, Inc. called a phone-mail method. Carlisle area residents were called by trained telephone interviewers from a random-digit dialing list of area residents; this list was produced and obtained from an outside vendor (Scientific Telephone Samples, Inc.). Interviewers made up to four attempts to reach each number. To address gender-based sampling bias (females in a household are much more likely to answer the telephone), interviewers asked to speak with the person over 18 years of age in the household with the next birthday. They captured names and addresses of those who were over 18 and agreed to participate.

The cooperation rate for the phone-recruiting phase was 59% [(Completes)/(Completes + refusals)]. An additional 8% agreed to the telephone screening but lived outside the target area.

The detailed dispositions follow:

Completes	2056
Refusals	1419
No answer	2208
Answering machine/Voice mail	935
Fax/Business	905
Not qualified/terminate/out of area	770
Caller ID machine	111
Disconnects	289
Busy	391
Callbacks	90
Deaf	137
Language	20

Each respondent was sent a personalized cover letter, a survey booklet, and a postage-paid return envelope. Respondents were given \$2 for their participation in the study and were asked to mail the questionnaire back to a post office box in Emmaus, Pennsylvania. Approximately two weeks after the first survey packet was sent, respondents who had not already responded were mailed a second survey packet reminding them to complete and return the survey if they had not already done so.

Sample

A net of 2,056 individuals agreed to participate and were mailed survey packets. There were 19 undeliverables; a total of 2,037 received questionnaires. 1,463 completed questionnaires were obtained from February 14 through April 11, 2002. The response rate for the mail phase was 72% (1463 received/2037 deliverables). The overall study cooperation rate was 42% (59% phone x 72% mail); in other words, completed questionnaires were obtained from 42% of the residents contacted.

Some of the questionnaires were dropped from the analysis, either because the residents lived outside of the area or because the questionnaires were not filled out completely. The data is based upon 1,444 usable, self-administered questionnaires from residents of Carlisle and the surrounding areas and 72 questionnaires from agencies who had distributed them to their clients over the past several months.

The completed questionnaires were subsequently coded, keypunched, and tabulated by ABACUS. Data was weighted to match the sex and age data from the 2000 Census.

Strengths and Limitations of the Survey Method

There are several strengths to the data collection method used for the *Carlisle Area Health & Wellness Foundation Survey*:

- The randomness of the household selection reduces some sources of bias in the data
- The recruiting phone calls, monetary incentive, and stamped return envelope encourage a high response rate to a mailed survey
- The information is confidential and anonymous
- Data obtained are specifically for the Carlisle area

There are limitations to this methodology as well. Persons without phones are not reached in the recruitment phase for the survey. It is our experience that typically 95-97% of any given population has phones. Respondents without a mailing address (homeless persons) are unable to participate in a mailed-survey methodology. Persons who cannot read English at the 7th to 8th grade level may be limited in their ability to understand and answer the survey. Persons who only speak or write a language other than English cannot respond to a survey written in English. Disabled persons who cannot answer the phone, cannot write, or cannot see are often missed in the recruitment and responding phase of the survey.

Analysis

The survey respondents were categorized in the following ways to conduct a preliminary analysis:

- | | | |
|---|---------------|--|
| X | Total | |
| X | Region | Carlisle, Gardner/Adams, West Cumberland, Perry County |
| X | Health Status | Self-reported health status, broken down in the following categories: excellent/very good, good, fair/poor |

X	<u>PCS</u> (Q1-Q9)	Physical health scores take into account respondents' ability to perform physical activities without limitations due to health problems, the degree of difficulty they have with work or other activities, their bodily pain, and their general health. Respondents were categorized as better, same, or worse based on the mean scores of the population sampled. Those scoring within 1 standard deviation of the mean were categorized as the same, those less than 1 standard deviation as worse, and those more than 1 standard deviation as better.
X	<u>MCS</u> (Q1-Q9)	Mental health scores take into account respondents' general levels of energy, the difficulty they have with work or daily activities due to emotional problems, the interference of emotional or physical problems with social activities, and the way they feel most of the time, from nervous and depressed to peaceful and happy. Again, respondents were categorized as better, same, or worse based on the mean scores of the population sampled. Those scoring within 1 standard deviation of the mean were categorized as the same, those less than 1 standard deviation as worse, and those more than 1 standard deviation as better.
X	Chronic Disease	Whether respondent has any one of the identified doctor-diagnosed chronic diseases in the survey
X	Lifestyle Risk	Whether respondent has 0-2 or three or more of the lifestyle/behavioral risks asked about in the survey
X	Access to Care	Self-reported rating of access to health care, broken down in the following categories: excellent/very good, good, fair/poor/very poor
X	Regular Provider	Respondents reporting that they do or do not have a regular health care provider
X	Age	18-34, 35-44, 45-64, and 65 and older
X	Gender	Males and females
X	Education	Persons with a high school diploma or less, persons with some college thru a college degree, and persons who attended college past their undergraduate degree
X	Marital Status	Non-married, married

X	Income	Total household income in 2001 before taxes is used in conjunction with household size to calculate persons with poverty level, low income (101-185% of the federal poverty level), and above low incomes (above 185% of the federal poverty level) (Taken from the <i>Federal Register</i> , February 2001)
X	Child <17 in HH	Those with children under 17 living in household, those without
X	Insurance Status	Employer/commercially insured, Medicaid insured, Medicare insured, uninsured

Statistical Tolerances of the Survey Data

All sample surveys are subject to sampling error, that is, the extent to which the results may differ from those that would be obtained if the entire population of Carlisle and the surrounding areas were surveyed. The size of such sampling error depends largely on the number of completed questionnaires.

For interpreting the percentages in this report, the following table may be used to determine the allowances that should be made for the sampling error of a percentage. The computed tolerances have taken into account the effect of the sample design. Tolerances indicate the range (plus or minus the figure shown) within which the results of repeated samplings in the same time period can be expected to vary 95% of the time, assuming the same sampling procedure, survey execution, and questionnaire were used.

**RECOMMENDED ALLOWANCE
FOR SAMPLING ERROR OF A PERCENTAGE**

In Percentage Points
(at 95 in 100 confidence level for a sample size of 1,516)

Percentages near 10 or 90	+/- 1.5
Percentages near 20 or 80	+/- 2.0
Percentages near 30 or 70	+/- 2.3
Percentages near 40 or 60	+/- 2.5
Percentages near 50.....	+/- 2.5

Appendix 5: Territory for Carlisle Regional Health Status Assessment

SERVICE AREA BY LOCAL MUNICIPALITY / ZIP / SCHOOL DISTRICT

() School District * Cross-Over Zip Codes

ADAMS COUNTY

<u>Townships</u>	<u>Boroughs</u>	<u>Zips</u>	<u>State Officials</u>
Huntington (BESSD)	Bendersville (UASP)	17337	Rep. Steve Nichol
Latimore (BESSD)	York Springs (BESD)	17372	Sen. Terry Punt
Menallen (UASD)		17304	
Tyrone (UASD)		17306	
		17324*	

CUMBERLAND COUNTY

<u>Townships</u>	<u>Boroughs</u>	<u>Zips</u>	<u>State Officials</u>
Cooke (BSSD)	Carlisle (CASD)	17013	Rep. Bruce Smith
Dickinson (CASD)	Mt. Holly Springs (CASD)	17007	Rep. Will Gabig
Hopewell (SASC)	Newburg (SASD)	17065	Rep. Jerry Nailor
Lower Frankford (BSSD)	Newville (BSSD)	17324*	Sen. Hal Mowery
Lower Mifflin (BSSD)	Shippensburg (SASD)	17081	
Middlesex (CVSD)		17241	
Monroe (CVSD)		17266	
North Middleton (CASD)		17240*	
North Newton (BSSD)		17257*	
Penn (BSSD)			
Shippensburg (SASD)			
Southampton (SASD)			
South Middleton (SMSD)			
South Newton (BSSD)			
Upper Frankford (BSSD)			
Upper Mifflin (BSSD)			
West Pennsboro (BSSD)			

FRANKLIN COUNTY

<u>Townships</u>	<u>Boroughs</u>	<u>Zips</u>	<u>State Officials</u>
Southampton (SASD)	Shippensburg (SASD)	17257* 17240*	Rep. Jeffrey Coy Sen. Terry Punt

PERRY COUNTY

<u>Townships</u>	<u>Boroughs</u>	<u>Zips</u>	<u>State Officials</u>
Carroll	Blain	17068	Rep. C. Alan Egolf
Centre	Bloomfield (New Bloomfield)	17071	Sen. Jake Cornman
Jackson	Landisburg	17006	
N. E. Madison (Sandy Hill)		17047	
Saville		17037	
S. W. Madison		17031	
Spring		17090	
Toboyne		17040	
Tyrone		17024	

All attend WPSD

Resource: Penn State Data Center: pasdc.hbg.psa.edu

Key to School Districts

BESSD	Bermudian Springs
BSSD	Big Spring
CASD	Carlisle Area

CVSD	Cumberland Valley
SASD	Shippensburg Area
SMSD	South Middleton
UASD	Upper Adams
WPSD	West Perry