Community Health Assessment
Delaware County
1998

Prepared by

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Section I: Populations at Risk

A. Demographic and Health Status Information

Delaware County is located on the eastern border of upstate New York=s Southern Tier Region and within the environmentally fragile area known as the Catskill/Delaware Watershed. The Watershed region encompasses the central and eastern portions of the county and includes roughly 65% of the land area of Delaware County and 11 of its 19 townships. It also represents 55% of the entire county population and most of its farmland. The western rim of the county, which includes the Town of Sidney, lies outside the Watershed and is where most of the county=s manufacturing businesses are located.

The county is the fourth largest of 62 counties in New York State with a total land area of 1,446 square miles.[1] In fact, the county borders 7 counties (Broome, Chenango, Green, Otsego, Schoharie, Sullivan and Ulster) and the State of Pennsylvania. It is also one of the most rural counties in the State, ranked number 5 out of 62 counties, with a population density of 32.6 persons per mile.[2] In 1990, the population of the county was 47,225 with 76.5% of the population living in rural places (less than 2,500 people). The county ranks 51st in population among the 62 counties in New York State. As such, county residents are dispersed over a land area greater than the size of the State of Rhode Island.

As Table 1 below shows, the population of Delaware County has remained relatively constant since 1950.

TABLE 1
Population of Delaware County, 1950-1995

Years	**1950**	**1960**	**1970**	**1980**	**1990**	**1995 est.**
Population	44,420	43,540	44,718	46,824	47,225	47,300
% Change		- 2.0	+ 3.0	+ 5.0	+ 1.0	+ .02

Source: 1990 Census of the Population. The 1995 population estimate was derived from Vital Statistics of New York State, 1995, published by the New York State Department of Health, Table 2, page 6.

[1] The Nelson A. Rockefeller Institute of Government, 1997 New York State Statistical Yearbook (Albany, NY: The Nelson A. Rockefeller Institute of Government, 1997), p. 7.

[2] Ibid.

In addition to population stability, the county has experienced only minimal change in its racial composition. Table 2 below shows the racial composition of the population from 1980 to 1990.

TABLE 2
Population by Race 1980 to 1990

Year	White	Black	American Indian/Eskimo	Asian	Other
1980	98.7%	.61	.19	.26	.26
1990	98.0%	1.01	.25	.39	.30

Source: U.S. Census of Population

Delaware County=s dispersed rural population is often found in isolated villages and towns, many of which can only be accessed by town and county roads. In fact, since 1980 U.S. Census Bureau reports and projections indicate a trend in the county=s population growth away from villages to the more rural areas of towns. Since 1980, 10 of the county=s 11 villages have lost population with the most significant losses occurring in the villages of Andes (-21.5%), Hobart (-18.6%), and Margaretville (-15.4%). The highest rates of population growth have occurred in the more rural towns of Davenport (+23.7%), Masonville (+17%), and Meredith (+10.1%). The trend toward greater rural dispersion will undoubtedly exacerbate the already difficult problem of delivering public health care services (especially emergency medical services) and public health education to rurally isolated residents.

Delaware County=s population is served by 14 school districts (some Davenport children attend the Oneonta City School District), two BOCES (Otsego Northern Catskills BOCES and Delaware-Chenango BOCES), and one two-year technical college (SUNY College of Technology at Delhi). The 13 school districts within the county are an integral part of the communities in which they are based. In a variety of ways schools contribute to building community pride, defining community identity, and evoking a sense of community. As a result, the Delaware County Public Health Department (DCPHD) views schools as valuable partners in their effort to implement collaborative strategies for the delivery of public health education and services.

Approximately 25.5% of county residents 18 years and older have less than a high school degree, 36.6% have a high school degree, and 38.0% have some college education and above. Towns with relatively high rates of educational attainment (i.e., high school degree and above) include Delhi (84.4%), Davenport (79.0%), Franklin (77.9%), Bovina (76.4%), and Roxbury (76.2%). The towns with the lowest rates of educational attainment include Hancock (64.8%), Tompkins (67.8%), Colchester (68.3%), Middletown (68.6%), and Kortright (68.6%).[3]

[3] 1990 U.S. Census Bureau.

Most of the county lacks access to an interstate highway, since Interstate 88 runs along the western border of Delaware County. However, Interstate 88 runs through the Town of Sidney and provides residents with easy access north to Oneonta and Albany and southwest to Binghamton. Many town roads are narrow and others are unpaved, two-lane roadways.

A county-wide public transportation system does not exist and only limited transportation services are provided by a few county agencies and community-based organizations -- but only to their clients. Thus, the Delaware County Department of Social Services (DSS) contracts with Delaware Opportunities, Inc. (a community action agency) to provide transportation services for low income clients. This service is specifically limited to helping clients keep medical and DSS appointments. The Veterans Administration operates a van service for veterans to visit Albany five days a week. In addition, the Office for the Aging operates a limited three day-a-week shuttle service to enable Kortright senior citizens to access the Independence bus at Stamford and it provides non-emergency medical transportation to help elderly residents keep medical appointments. Finally, the Delaware County ARC also provides bus transportation to its clients.

The lack of a county-wide public transportation system has made it difficult for many poor people who do not own an automobile to keep routine medical appointments with health care providers within the county. Also, the lack of public transportation makes it difficult for residents of many income levels to schedule treatment at major hospitals and specialized medical facilities -- all of which are located outside of Delaware County.

Most municipalities in the county have modest sized populations (under 2,500) with the largest being the Town of Sidney (6,667), followed by the Town of Walton (6,014), and the Town of Delhi (4,953). Long distances separate all of these municipalities, which makes it difficult to coordinate social, economic, and health care networks and linkages. In fact, due to its modest population base and low population density, most of the county=s businesses are subject to small scale market economies and this has limited the ability of businesses to be competitive and provide wages at levels that encourage population retention and growth. A similar situation applies to the delivery of health care services.

As the business strategies and economics of the health care industry changed in the 1990s, the small market share represented by Delaware County=s population made it very difficult to preserve the existence of full service rural hospitals, clinics, and community-based private practices. Since these economic dynamics are unlikely to change in the future, the infrastructure of the county=s health care facilities and primary care providers is likely to become more tenuous with each passing year.

One apparent consequence of the changing health care infrastructure in Delaware County has been the gradual development of health care service regions within the county, as well as increased reliance on health care facilities outside the county. While data which documents this development is lacking, an in-depth study of this development will be conducted in late 1998 by the Delaware County Rural HealthCare Alliance (of which DCPHD is a member). However, a considerable amount of anecdotal data has been collected about service regions from focus groups conducted as part of the APublic Health Priorities Initiative@ (May, 1998). Thus, there are

indications that some residents in the Towns of Masonville, Deposit, and Sidney, acquire a considerable amount of their health care services from The Hospital in Sidney, while some residents of the Towns of Franklin, Meredith, and Davenport find it convenient to use health care services in Oneonta. Other residents of towns in the county travel considerable distances to receive health care at hospitals in Walton (Delaware Valley Hospital), Margaretville (Margaretville Memorial Hospital), and Delhi (O=Connor Hospital).

The segmentation or regionalization of health care services impacting Delaware County is likely to continue unabated in the future. Thus, without significant economic and population growth in the future, it is likely that the health care infrastructure in the county will continue to change in response to the economics of the health care industry. As a result, many county residents will find it more difficult to access health care services.

As previously noted, since 1970, Delaware County=s population has remained steady with only incremental growth. Part of the reason for this trend has been a dramatic decline in the live birth rate, from 17.3 (per 1,000 population) in 1970 to 9.9 in 1995.[4] This compares with a state-wide birth rate of 14.7 in 1995. Table 3 below compares the birth rate and fertility rate for Delaware County with that of New York State and Rest of New York.[5]

TABLE 3
Live Birth and Fertility Rates for Delaware County, 1995

Geographic Area	Live Birth Rate	Fertility Rate
Delaware County	9.9	51.1
New York State	14.7	64.3
Rest of New York	13.3	60.5

Source: NYS Department of Health, Vital Statistics of New York State,1995, Table 8.
Note: Birth rate is live births per 1,000 population and fertility rate is live births per 1,000 female population 15-44.

Also, it seems likely that the slight population growth that has occurred over the past few decades can largely be attributed to the influx of nonresidents who have purchased second homes (or vacation residences). Most second-home settlement has been in the eastern and southeastern

[4] 1990 Census of Population and NYS Department of Health, Vital Statistics of New York State, Table 8, page 19.

[5] Rest of New York is defined as New York State exclusive of New York City.

sections of the county. As of 1997, over 50% of taxable land parcels in Delaware County were owned by nonresidents. In fact, in some townships, over 50% of the property parcels are owned by nonresidents (e.g., Town of Andes, 75% and Town of Bovina, 65%).[6] Also, many second homes have been constructed in rugged, rurally isolated areas where the natural beauty of the country has been a significant attraction.

The settlement pattern of nonresident home owners has created a number of significant challenges with regard to the provision of public health care services. First, in the short-term, because many second homes are located in isolated locations, it has made it difficult to provide health and human services (emergency or otherwise) to these residents. Second, in some cases, solid waste disposal and water quality have been problematic given this type of scattered rural residential development. Third, a long-term problem exists, since one survey of second home owners in Delaware County revealed that one third of them plan to eventually retire to their vacation homes.[7] This latter development will significantly increase the elderly population in the county and place extraordinary burdens on public health and human service organizations to provide services to this population.

One other source of population change in the county has been the significant increase in the population of Hispanic people in the Town of Middletown (particularly in the Village of Margaretville) and the growth of a Muslim community in the Township of Tompkins. Also, other more modest sources of ethnic diversity are emerging with the growth of a Buddhist Retreat Center in the Town of Tompkins and the influx of Chinese immigrants who have found work in many local restaurants.

In addition, the African-American population constitutes only about 1% of the total county population, the NYS Department of Education reports that 24% of all African-American children in the county attend school in Deposit, while 20% and 21% attend school in the Delhi and Sidney school districts respectively. While the exact rate of population growth and diversity due to these population changes is not precisely known, many government, community-based organizations and health care organizations anticipate the need to provide services for these residents. As an example of the impact of these population changes, consider that the NYS Department of Education reports that 43% of all Hispanic students in the county attend school in the Margaretville school district.

The changing ethnic and cultural environment in these communities has placed increased demands on DCPHD to provide public health information and services. In particular, information must be disseminated using language and appropriate narrative which in many cases can be

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[6] Barry P. Warren and Thomas A. Banks, A1988 Survey of Non-Resident Property Ownership in Delaware county,@ (Delhi, NY: SUNY College of Technology at Delhi, 1988), p. 4., and property parcel ownership reports of the Delaware County Planning Board.

[7] Ibid., p. 7.

understood in the resident=s native language. In addition, public health services must be provided in ways which are sensitive to the cultural and ethnic values of these ethnically and racially diverse populations.

In addition to incremental population growth, Delaware County is also experiencing higher rates of aging than that of New York State and the Rest of New York. Table 4 below compares the population profile of Delaware County with that of New York State and the Rest of New York for people aged 60 and over 65.

TABLE 4
Aging of Delaware County=s Population, 1980-1990

Municipality	Percent Over 60 yrs	Percent Over 65 yrs	% change in number of persons aged 60+ from 1980 to 1990	% change in number of persons aged 65+ from 1980 to 1990	% change in number of persons aged 75+ from 1980 to 1990
New York State	17.7	13.1	+ 6.2	+ 9.4	+ 16.9
Rest of New York	17.9	13.2	+ 12.1	+ 16.7	+ 21.9
Delaware County	21.6	16.4	+ 9.7	+ 12.9	+ 18.5

Source: 1990 Census of Population

Table 4 above shows that Delaware County has a larger proportion of its resident population aged 60+ and 65+ than that of New York State and the Rest of New York. It also shows that this population cohort has grown as a proportion of Delaware County=s total population at a faster rate since 1980 than that of New York State.

Another important component of the aging of the population, which has implications for the future health care condition of the population, is the distribution of gender. Table 5 below shows the gender distribution of the population from 1980 to 1990 for age groups 0-4 to 45-65.

TABLE 5
Gender Distribution of Population for Selected Age Groups, 1980-1990

Age Groups	1980 % Males	1980 % Females	1990 % Males	1990 % Females
0-4	51.7	48.3	51.7	48.3
5-19	52.4	47.6	52.9	47.1
20-34	49.8	50.2	50.3	49.7
35-44	49.3	50.7	49.7	50.3
45-64	47.8	52.2	48.8	51.2

Source: 1990 Census of Population.

Table 5 shows little fluctuation in the proportion of males and females from 1980 to 1990. However, significant changes emerge when gender proportions are compared in the 65+ age group and the 85+ age group. Table 6 below shows how the gender distribution has changed from 1980 to 1990.

TABLE 6
Gender Distribution of Population 1980-1990
For Age Groups 65+ and 85+

Age Group	1980 % Male	1980 % Female	Percent Difference	1990 % Male	1990 % Female	Percent Difference
65+	42.1	57.9	15.8	41.7	58.3	16.6
85+	30.7	69.3	38.6	26.8	73.2	46.4

Source: 1990 Census of Population.

Table 6 above shows that for both 1980 and 1990 a significant difference exists in the proportion of males and females within the county population. However, Table 6 also shows that this differential grew significantly over the decade of the 1980s. Although the results of the U.S. Census for the decade of the 1990s are not available, it is likely that this trend has continued as life expectancy has increased for males and females. The implication of these data for the future suggests that the health care delivery system in the county needs to anticipate increased demands by elderly females for health care education and services.

The geographic features of the aging of the population in the county are evident in an examination of the median age of the population of towns. Table 7 below provides a list of those towns which are above the median county age of 35.6 and those below.

TABLE 7
Median Age of Delaware County Population
by Towns Above and Below County Median Age, 1990

Town	Above Median Age (yrs) of 35.6
Andes	41.5
Colchester	41.3
Middletown	40.6
Bovina	39.8
Harpersfield	39.3
Roxbury	37.5
Hamden	37.1
Franklin	36.4
Hancock	36.2
Walton	35.9
	Below Median Age (yrs) of 35.6
Kortright	35.4
Sidney	35.3
Davenport	34.9
Tompkins	34.8
Stamford	34.5
Meredith	34.0
Masonville	33.5
Deposit	32.9
Delhi	24.4

Source: U.S. Census of Population.

Table 7 shows that most of the towns with populations above the county median age level of 35.6 years are located in the central and eastern sections of the county. The top five townships with the highest proportion of their population consisting of people aged 65+ are Colchester (21.2%), Middletown (19.9%), Andes (19.7%), Harpersfield (19.7%), Bovina (18.7%), and Roxbury (17.4%). It should also be noted that many of these towns have experienced an in-migration of second-home owners in the 1970s and 1980s and that many of these owners have decided to retire in these communities.

Like other population groups in Delaware County, the elderly are dispersed and many live in old housing stock located in isolated villages and outlaying areas of the county. Many live alone as younger family members have moved to acquire an education, or pursue better employment opportunities. Since many elderly live in sparsely populated areas, they lack the benefit of social interaction through organized senior citizen groups and this has exacerbated the problem of the social isolation of elderly people. Such isolation often causes feelings of depression, despair and ultimately the neglect of self-care essentials including nutritional eating habits.

This population trend has placed increased demands on county agencies and nonprofit organizations to deliver health and human services to this growing elderly population. Table 8 below shows that elderly isolation, increased infirmity, and dependence on the provision of nutritional meals are characteristics of the elderly population that will increasingly burden public health and human service agencies in the county.

TABLE 8
Elderly Need for Health and Human Services, 1992-1998

Service	1992-1993	1993-1994	1994-1995	1995-1996	1996-1997	1997-1998
Life Line	157	190	179	199	244	266
Home Delivery Meals	36,409	35,120	47,627	44,457	47,754	49,908
Congregate Meals	41,377	41,673	45,750	43,083	42,646	41,711

Source: Delaware County Office of the Aging, 1998

Table 8 shows that over the period 1991 to 1997, demand for Life Line services increased 41% and home delivery meals increased 38%. Congregate meals showed increased demand until 1994-1995 and then decreased thereafter. The relative decline in congregate meals is largely due to increased infirmity among the elderly, which in turn reflects the increased longevity of the population. Also, the Delaware County Office for the Aging reported in 1997 that the Life Line

program averaged 20 emergency calls per month, demonstrating that this service has become very important to the elderly.[8]

One recent impact on the health status of the elderly was the institution of the Medicare Interim Payment System (IPS) in 1998, which was a result of the Federal Balanced Budget Act. This system has imposed a change from a fee for service reimbursement to a flat rate aggregate reimbursement. However, this aggregate reimbursement is based on 1993 costs. As a result, the Delaware County Public Health Department=s Certified Home Health Care Agency is generating less revenue and will have to be subsidized at a higher rate by the county to maintain current service levels. This change is also impacting the elderly, since it has meant more stringent eligibility requirements for home health care services, fewer home visits, and a shorter duration time under which the elderly are eligible for home visits. These service reductions are especially problematic for a county which already has a dispersed elderly population and lacks a county-wide public transportation system.

The aging of Delaware County=s population has also been accompanied by a slight decline in the county=s most economically productive labor force -- the 21-64 age group. This group is critical to the county=s economy and provides the tax revenue to operate county government and health and human services. However, this age group has not changed as a proportion of the county=s population -- constituting 52.1% of the county population in 1950, while declining slightly to 51.9% in 1990.[9]

As a rural county lacking the benefit of numerous large business and industrial employers and suffering a declining agricultural economy, Delaware County residents face many employment and income challenges. As of 1990, approximately 12.8% of the county=s residents had incomes below 100% of poverty; however, it also had 33.4% of its population below 185% of poverty and 37% below 200% of poverty. This rate well exceeds that found in most rural counties in New York State and the Rest of New York. Table 9 below shows the poverty status of persons and families since 1970 in Delaware County.

[8] Delaware County Office for the Aging, Annual Report 1997, p. 3.

[9] 1990 Census of Population.

TABLE 9
Poverty Status of Persons & Families in Delaware County

Year	Persons	Children 18 and Under	Persons aged 65 and over	Families	Female Head of Family
1970	15.2	18.0	26.0	11.3	29.2
1980	14.1	17.3	13.3	10.1	26.9
1990	12.8	17.4	11.3	9.6	27.7

Source: INFO New York data base and derived from 1990 Census of Population.

Table 9 above indicates that the percentage of persons and families in poverty changed very little from 1980 to 1990. Only the percentage of persons aged 65 and over showed any significant decrease from 1980 to 1990 and this was likely due to increases in Social Security payments and Medicare benefits. Also, the 1992 NYS Kids= County Databook estimated that the number of children aged 18 and under in Delaware County in poverty grew to 23% by 1992 compared to an Upstate New York average rate of 16%.

In addition, the high poverty rate of female-headed households in the county has serious implications for the health of children. Households headed by females often face challenges in fulfilling basic economic, shelter, health and child development needs. In Delaware County the percentage of female-headed households with children under the age of 18, who are in poverty, is 41.2%, while female-headed households in poverty with children under age 5 is 58.7%. This is an important segment of the population which needs public health service support, particularly in the preventive health care areas of prenatal care, nutrition, and the related area of parenting skills.

The high poverty rates in Delaware County, particularly that of children, are of special concern to the Delaware County Public Health Department. Children in poverty are much more likely than children in higher income families to experience poor health, malnutrition, anemia, and to live in substandard housing. Substandard housing is typically old and often harbors the hazards of lead paint as well as other forms of indoor pollution.

The issue of lead poisoning in the county is highly related to the county=s aging housing stock and this factor makes lead poisoning a serious public health problem. It is recognized that lead-based paint is highly prevalent in homes constructed prior to 1960. In this regard, the 1990 Census shows that 66.4% of housing units in Delaware County were built before 1960. The towns with the highest percentage of pre-1960 housing units, and thus, with the potentially highest level of lead paint risk are Delhi (72%), Deposit (68%), Hancock (67%), Sidney (79%), Stamford

(70%), and Walton (68%).[10] In particular, it seems that families who live in farm houses may be at the highest risk of lead poisoning, since these houses are among the oldest in the county. In order to address this problem, information about lead paint poisoning will have to be disseminated throughout the county and testing of young children must be a priority -- particularly for the communities identified above.

The county=s Childhood Lead Poisoning Prevention Program (CLPPP) includes a wide variety of education, mitigation, and outreach efforts. In this regard, the DCPHD distributes lead poisoning information at childbirth fairs, health fairs, the Delaware County Fair, and in mailings to over 400 households with 2 year old children. In addition, under the CLPP the DCPHD has been conducting an average of 860 screenings each year from 1995 to 1997, as well as follow-up testing of children with elevated readings. The total number of screenings has declined somewhat due to a reduction in the number of clinics. Table 10 below shows the CLPPP=s level of program activity for the period 1995-1997.

TABLE 10
CLPPP Program Activity, 1995-1997

Activity	1995	1996	1997
# Public Health Dept. Clinics	91	91	65
# Tests Done at Clinics	288	255	184
# Tests by Primary Care Providers	704	548	606
<10 mcg/dl	925	718	750
Class I (10-14 mcg/dl)	44	52	33
Class II (15-19 mcg/dl)	10	16	5
Class III (20+ mcg/dl)	13	17	2

Source: Delaware County Department of Public Health 1996 Annual Report and 1997 Office records.

The importance of preventive health education to the health status of children is further demonstrated when it is considered that pediatric (age 0-17) ambulatory care sensitive admissions in the county constitute 10.8% of the total number of medical and surgical admissions compared with the Upstate New York average of 6.6%. This rate may be due to a number of factors, but it is often associated with conditions that could be prevented by better access to health care or

[10] 1990 Census of Population and Housing

preventive public health education.[11] Thus, the Delaware County Public Health Department recognizes the need to collaborate with other community-based organizations to provide more preventive public health education on such manageable outpatient medical conditions as ear infections, bacterial pneumonia, severe colds, and asthma.

In the area of immunization, the county has been generally effective in meeting the needs of school age children. Table 11 below shows the rate of immunization of children entering school by grade level.

TABLE 11
Percentage of Children Entering School Fully Immunized
by Grade Level, 1993-1994

Municipality	All Students	Pre-Kindergarten	Kindergarten	1-12
New York State	93	93	95	92
Rest of New York	94	92	96	95
Delaware County	93	89	97	93

Source: Maternal, Child and Adolescent Health Profile: New York State 1993 (1996), Table19, p. 21.

Table 11 above shows that Delaware County rates of immunization, with the exception of pre-kindergarten, are generally equal to that of the Rest of New York and New York State in all other grade levels. At the program level, in 1997, the Delaware County Public Health Department held 97 immunization clinics with 2,413 immunizations given to 1,724 residents. Although complete statistics are not available on the immunization status of children under age 3, data suggests that this group has suboptimal immunization levels or it may be that the lack of documentation is at fault. Whatever factors are at play here, the DCPHD is seriously concerned about the rate of immunization for this population.

Most of these children were immunized in school since the DCPHD remains the primary agent for immunizing this population. However, the DCPHD is faced with promoting the goal of all children to have a medical home, while also needing to extend its resources by providing free clinics. Thus, the DCPHD invests a great deal of time and effort in assisting primary health providers to expand their efforts in the area of preventive health care. In the area of immunizations the DCPHD functions in a myriad of ways including:

[11] Data from NY-Penn Health Systems Agency for 1992-1993 as reported in the APerinatal Needs Assessment,@ published by the Mothers & Babies Perinatal Network of South Central New York Inc. (August 1996), p. E-15.

(1) Attending training programs to keep current on immunization issues;
(2) Provides direct services at free clinics and keeps physicians informed of vaccines given;
(3) As a clearinghouse for information and services to health care providers, school nurses, community agencies, and parents on a daily basis regarding specific vaccine recommendations;
(4) Provides professional development education by means of in-service training, mailings, and promoting and facilitating CDC satellite teleconferences;
(5) Provides immunization record reviews in provider offices to assess immunization levels, facilitate the identification of children not up-to-date, and to suggest ways to improve/implement follow-up procedures;
(6) Promotes the medical home concept, as well as the importance of timely immunizations to families at every opportunity and assists them to overcome obstacles to receiving immunizations at their medical home;
(7) Partners with other agencies and community organizations to reduce vaccine preventable diseases;
(8) Assesses immunization levels of two year old children in Delaware County by reviewing the immunization records of children who attend WIC, free clinics, and visit participating physicians; and
(9) Plans strategies to improve immunization levels in children and adults.

As a result, the DCPHD has developed a pilot program named the Better Immunize Baby (BIB) program in conjunction with hospital and private providers. The goal of the program was to establish immunization records for enrolled babies which follows them despite changes in health care providers. Delaware Valley Hospital participated in BIB from February 1998 to June 1998 and a Public Health Nurse to visited postpartum mothers to provide them with immunization BIBS, as well as individual instruction on the importance of timely immunizations. As a follow-up, reminder call and/or home visits have been made when immunizations are not documented. The DCPHD views this type of program as a proactive method for insuring high rates of immunization of children in the county.

The Delaware County Public Health Department=s Early Intervention Program also serves the health needs of children by identifying and serving children under age 3 with disabilities. DCPHD staff conduct extensive case management for children and their families in collaboration with primary health providers, community organizations, and the Delaware County Department of Social Services (DSS). Also, the Infant Child Health Assessment Program (ICHAP) provides case management and in-home developmental screening to children under age 3. Table 12 below summaries the level of activity for the Early Intervention and ICHAP programs from 1995 to 1997.

TABLE 12
Early Intervention Program and Infant Child Early Intervention Program Service Activity, 1995-1997

	1995	1996	1997
Early Intervention Program	80	84	72
Infant Child Early Intervention Program (ICHAP)	113	132	104
Total Children	193	216	176

Source: Delaware County Public Health Department, 1996 Annual Report and Department records.

During the late 1990s, persons in poverty have been systematically moved off of welfare supports; however, the transition has typically been to jobs in the retail and service sectors where incomes are modest -- particularly in rural Delaware County. Also, many of these jobs are part-time and offer few or no benefits. As a result, reliance on health care and social service programs by these people has not changed significantly as they entered the class of the working poor. This is particularly true as it relates to the nutritional needs of children from poor families. Table 13 below shows that the number of children from Delaware County who are dependent on government sponsored nutritional programs exceeds the rate for the Rest of New York and is closer to the situation for New York State at-large.

TABLE 13
Participation in the WIC, SNAP, Food Stamp, and School Lunch Programs

Geographic Area	WIC and SNAP rate per 100 infants & Children (1993)	Food Stamps rate per 100 children (1993)	National School Lunch Program Percentage of Students Eligible (1998)
New York State	26.6	20.5	43.0
Rest of New York	19.6	12.5	28.0
Delaware County	28.2	14.1	39.0

Source: NYS Department of Health, Maternal, Child & Adolescent Health Profile: New York 1993, Table 12. The source for percent students eligible for school lunch program is from NYS Education Department, Child Nutrition Reimbursement Unit.

The economic needs of children in Delaware County can be specified to the school district

level by examining the proportion of children receiving free and reduced-price lunches. In 1998, the school districts having a proportion of free and reduced-price lunches higher than the county average of 41.0% were Andes (53.2%), Charlotte Valley (49.5%), Hancock (44.5%), Margaretville (45.4%), Sidney (41.8%), South Kortright (49.2%), Stamford (43.2%), and Walton (41.1%). Most of these districts are located in the central and western areas of Delaware County.

According to the Nutrition Consortium of New York State, those school districts where the proportion of free and reduced-price lunches is higher than 40% are classified as Asevere need@ districts from a nutritional standpoint. Based on this criterion, 8 out of the 12 school districts (or nearly 70%) in Delaware County can be classified as Asevere need@ districts.

Given the nutritional situation cited above, the DCPHD recognizes the need to intensify and expand efforts to provide nutritional information and education to families. The impact of this effort is two-fold. First, to help families adopt food purchasing and preparation practices which are cost-effective and healthy. Second, to develop healthy eating habits among young people as a means of reversing the county=s high rates of pathologies linked to poor nutrition (see Table 19 for the mortality rate for diseases of the heart in Delaware County).

In terms of maternal and child health, Table 14 below indicates (as previously noted) that Delaware County has a lower fertility rate than the Rest of New York and New York State. Also, the county has a lower rate of out of wedlock births than New York State and much lower rates of live births to teenagers, teenage pregnancies, and pre-teenage pregnancies than the Rest of New York and New York State.

TABLE 14
Births to All Women and Teens, 1995

	Delaware County Rate/Percent	**Rest of New York State Rate/Percent**	**New York State Rate/Percent**
All Live Births (Fertility Rate)	51.1	60.5	64.3
Out of Wedlock	28.8%	25.7%	38.0%
Teen Live Births (15-19)	29.5	32.9	43.6
Teenage Pregnancies (15-19)	49.1	61.5	90.1
Preteen Pregnancies	1.2	1.5	2.6

Source: NYS Dept. of Health, Vital Statistics of New York State, 1995. Note: Rates are per 1,000 population.

In terms of pregnancy outcomes, Table 15 below summarizes four measures of birth outcomes including low birth weight (<2500 grams), short gestation or preterm birth, early prenatal care, and late/no prenatal care.

TABLE 15
Pregnancy Outcomes Measures, 1995

	Delaware County Rate	Rest of New York Rate	New York State Rate
Low Birth W.T. (<2500 grams)	7.1	6.6	7.7
Short Gestation (<37 weeks)	10.2	9.6	10.8
Early Prenatal Care	77.1	78.1	69.4
Late/No Prenatal Care	4.2	4.5	7.2

Source: NYS Department of Health, Vital Statistics of New York State, 1995.
Note: Rates are per 1,000 population.

Table 15 above shows that Delaware County women have lower rates for low birth weight than that of New York State and had a lower rate for short gestation than for New York State as well. It is likely that one factor contributing to the moderately low birth weight rate in Delaware County is the fact that 25.1% of mothers reported that they smoked at some point during their pregnancy. However, the county has been making progress on this problem since this percentage has been declining significantly over the period 1990-1995, with 35% in 1990, 32.7% in 1991, 27.6% in 1992, 29.4% in 1993.[12] In addition, Table 15 shows that county rates for early prenatal care were equal to the Rest of New York and exceeded that of New York State, while the rate for late or no entry into prenatal care was below the rates for the Rest of New York and New York State. The data indicate that the NYSDOH Prenatal Care Assistance Program (PCAP) has improved the rate of early access to prenatal care.

With regard to infant and fetal related mortality, Delaware County rates are in most instances well below that of the Rest of New York and New York State for infant deaths, neonatal deaths, perinatal deaths, spontaneous fetal deaths, and spontaneous fetal deaths for 20+ weeks. Table 16 below provides a summary of this comparison.

[12] Mothers & Babies Perinatal Network of South Central New York Needs Assessment Study (1997), p. 27. The figure for 1994 was not available.

TABLE 16
Infant and Fetal Related Mortality, 1995

Type of Death	Delaware County Rate	Rest of New York State Rate	New York State Rate
Infant Deaths	4.3	6.7	7.6
Neonatal Deaths	4.3	4.8	5.4
Perinatal Deaths	6.4	10.0	13.0
Spontaneous Fetal Deaths	60.5	59.5	70.8
Spontaneous Fetal Deaths (20+weeks)	2.1	5.2	7.7

Source: NYS Department of Health, Vital Statistics of New York State, 1995.
Note: Rates are per 1,000 population.

It is also interesting to note that Delaware County=s infant mortality rate of 4.3 (see Table 16 above) is a significant improvement when it=s considered that the county=s 1988-1990 rate was 11.5 and the rate for 1991-1993 was 9.9.

The personal income situation of Delaware County is a critical factor shaping the health care access of its residents. When viewed in a comparative context, the personal income levels of Delaware County residents are far lower than that for New York State. For example, Table 17 below compares the median family income, median household income, and per capita income of Delaware County and New York State as of 1990.

TABLE 17
Income Differences Between New York State and Delaware County, 1990 and 1994

	Median Family Income (1994)	Median Household Income (1990)	Per Capita Personal Income (1994)
Delaware County	$ 31,700	$ 24,132	$ 15,705
New York State	$ 39,730	$ 32,965	$ 25,720
Difference	$ 8,030	$ 8,833	$ 10,015

Source: NYS Department of Economic Development, Bureau of Economic and Demographic Information, New York State 1991-1992 County Profiles, Table 5, p. 16; and 1997 New York State Statistical Yearbook, Table C-17, p. 96. Figures for 1994 are estimated by the NYS Department of Labor, Employment Review and Division of Research & Statistics.

As Table 17 shows, for all income measures, Delaware County ranks significantly below that of New York State. In fact, the county=s median family income is 25.0% less than the state average, the county=s median household income is 27% less than the state average, and the county=s per capita personal income is 38.9% below the state average. This significant differential is likely to continue to grow as Delaware County is forced to pursue limited economic development strategies according to the terms of the New York City Watershed Agreement of 1997.

The poverty and income levels presented in Table 9 and Table 17 above reflect to a large extent the low wage employment base of the county. Historically, Delaware County benefited from a unique combination of a vibrant dairy industry and thriving manufacturing sector. Since the late 1950s, the county has experienced a dramatic decline in its agricultural industry -- particularly the dairy industry. Specifically, the number of dairy farms, acres harvested, number of dairy cows, and number of farm workers, have all declined significantly.[13]

Delaware County has seen a decline in dairy farms from 560 in 1980 to 333 in 1990. By 1997 the number had declined to 237. Thus, the decline from 1980 to 1997 was approximately 323 farms or -58%.[14] When it is considered that agricultural economists estimate that every dairy farm represents the equivalent of five small business enterprises the magnitude of this decline on the county economy is more fully appreciated. In addition, many spouses of farmers who continue to farm or are in transition, have been forced to acquire jobs as a means of generating non-farm income to support their families. This has generated enormous stress and health related problems within farm families for many farmers, not the least by the fact that spouses are typically farm workers themselves. Thus, the decision to pursue off-farm work places a strain on the entire farm operation.

A recent article by Dr. John May, Director of the New York Center for Agricultural Medicine and Health (NYCAMH) at Bassett Healthcare, Inc. reported that studies of farmers in central New York found that Adistressed farmers and spouses commonly experience sleep disturbances, family conflict, and concentration problems. In recent focus group studies, farmers have identified occupational stress as a significant factor in the etiology of injuries. Yet another consequence of the stress process may be depression.@[15] The problems facing farm families in Delaware County have engaged the services of public health officials, mental health clinics, social service organizations (e.g., Cooperative Extension Service), and churches.

The nonagricultural employment base of the county has also experienced dramatic change since 1980. First, the manufacturing sector has declined, with the proportion of the workforce engaged in manufacturing declining from 39.5% in 1980 to 28.0% in 1996.[16] At the same time, employment

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[13] Economic Research Associates, AEconomic Adjustment Strategy for the Southern Tier Region of New York State: Delaware County Strategy,@ (August 1993), pp. 15-17.

[14] Cornell Cooperative Extension of Delaware County statistical report of June 1998.

[15] John J. May, MD, AThe Farm Partners Program: Addressing the Problem of Occupational Stress in Agriculture,@ Journal of Agromedicine, Vol. 5(2), 1988, p. 40.

[16] NYS Department of Labor.

(especially part-time employment) has significantly increased in the retail and service sectors, particularly in jobs related to tourism. Consider that from 1981 to 1996, the average total employment in the retail sector increased from 1,682 to 3,382 or a little over 100%. Over the same period, the average total employment in the service sector increased from 1,889 to 2,530 or 34%. More significantly, controlling for inflation over the period 1981 to 1994, the annual wage for retail workers actually decreased 4%, while service sector wages increased a modest 10.3%.

The income trade-off in this employment transition has been significant as modest paying jobs have replaced good paying, highly skilled jobs. This is particularly true of the retail and service sectors where the annual wage per worker in 1996 for retail workers was $14,924 and for service workers it was $15,964 -- both rank among the lowest wages of all the employment sectors. However, the annual wage per worker in 1996 for workers in manufacturing was $29,744.[17] Of course, the competition for manufacturing jobs is intense within New York State and the Northeastern United States and this creates serious challenges for Delaware County and other Upstate rural counties of New York to rebuild their manufacturing job base in the future.

The impact of these transformations on the county=s economic base are reflected in the relatively stagnant wage situation that has plagued the county over the last 18 years. For example, consider Table 18 below which shows the wage situation of Delaware County relative to other rural New York State counties of similar size during the period 1980 to 1990.

TABLE 18
Average Wage Per Worker Comparisons

County	Ave. Wage Per Worker, 1990	Change in Ave. Wage Per Worker 1980 to 1990	Percent change	Rank Among 62 NYS Counties in % Change
Delaware	$ 18,992	+ 6,786	+ 4.4	55
Chenango	$ 20,338	+ 8,550	+ 5.5	27
Essex	$ 18,728	+ 7,957	+ 5.5	24
Otsego	$ 18,171	+ 7,902	+ 5.7	20
Schoharie	$ 18,759	+ 8,184	+ 5.7	18
Green	$ 19,121	+ 8,359	+ 5.8	17

Source: New York State Department of Economic Development, Bureau of Economic and Demographic Information, New York State: 1991-92 County Profiles (Albany, 1992), Table 16, p. 50.

Table 18 shows that Delaware County experienced the lowest percent change (+4.4) in wage growth for workers than other rural counties of central New York from 1980 to 1990. Overall, Delaware County earned a rank of 55 out of the 62 counties of New York State in percent wage growth over the

[17] NYS Department of Labor, Insured Employment Series, 1995.

period 1980 to 1990. These wage trends have continued into the 1990s as the county continued to experience growth in retail and service sector jobs.

The decline in the wage base and quality of jobs in Delaware County, particularly during the decade of the 1990s, is due to many factors including global competition and technological changes (e.g., automation) in the process of manufacturing -- to cite just a few. However, one of the most significant factors was action taken by the U.S. Environmental Protection Agency in 1989 when it issued its surface water treatment rule to protect drinking water sources nationwide -- including the New York City water supply.[18] In 1990, the New York City Department of Environmental Protection released its draft Watershed Protection Plan.

Opposition to the Watershed Protection Plan by counties in the watershed region led to the formation of the Coalition of Watershed Towns in 1991. This development led to nearly six years of protracted conflict and intense negotiations between the Coalition and New York City. As a result, for six years, investment in economic development in the Watershed counties (especially in Delaware County) was Aput on hold@ as investors, entrepreneurs, and business owners waited for an agreement on a watershed plan. In January 1997 a AWatershed Protection Plan@ was agreed upon. This plan will allow for some forms of economic development activities within the Watershed as long as they are conducted in conformity with a set of strict Watershed regulations and rules.

The watershed problem seriously impacted Delaware County by essentially suspending economic development, preventing expansion of the tax base, delaying needed infrastructure improvements (e.g., waste water treatment facilities), and limiting employment opportunities. As a result, residents and families in Delaware County have had to face enormous social, economic, and health-related challenges with consequent service burdens being placed on the county=s DCPHD and social service agencies and organizations. In addition, the resolution of this problem will continue to directly impact and limit the economic future and quality of life of Delaware County residents for decades to come.

The demographic and economic factors cited above have had a significant impact on public health, particularly when one considers the high incidence of medical conditions associated with personal stress, economic dislocation, social isolation, and environmental conditions. Table 19 below shows that Delaware County residents have experienced relatively high rates of addiction and disease. This table compares a variety of community health indicators for Delaware County with those for New York State and the Rest of New York.

[18] The Catskill Center for Conservation & Development, Inc., ASummary Guide to the Terms of the Watershed Agreement,@ (Arkville, NY: The Catskill Center for Conservation and Development, Inc., 1997), p. 3.

TABLE 19
Community Health Indicators. 1995-1996

Health Indicators	Delaware County	Rest of New York	New York State
Diseases of the Heart (1995)* [Rate per 100,000]	397.5	321.6	344.0
Tobacco Use - Lung Cancer Mortality (1994-96)* [Rate per 100,000]	68.4	60.7	53.9
All Malignant Neoplasms (1995)* [Rate per 100,000]	243.1	221.6	209.6
Alcohol Related Motor Vehicle Accidents (1996)* [Rate per 100,000]	127.1	N/A	58.5
Suspected Child Abuse and Maltreatment of Children 0-17 yrs (1992) [Rate per 1,000]**	52.1	34.9	33.5
Death Rate (1995) [Rate per 1000]* **	10.5	8.9	9.1

*Source: NYS Department of Health, A1996 Community Health Indicators@ and NYS Department of Health, Vital Statistics of New York State, 1995."

**Source: NYS Department of Health, AData for 1996-97 Community Health Assessment,@ Table 7, p. 93.

***Source: NYS Department of Health, Vital Statistics of New York State, 1995, Table 36, p. 71.

Table 19 above also shows that Delaware County has a comparatively higher incidence of pathology requiring preventive health teaching, particularly with regard to the impact of poor nutrition, alcoholism, drug addiction, and tobacco addiction. Preventive health education is also needed in the area of parental training.

Another set of important community health indicators pertains to sexually transmitted diseases and HIV.

Table 20 below summarizes indicators related to these types of diseases.

TABLE 20
Sexually Transmitted Diseases,HIV, and Related Diseases 1995

	Delaware County Percent/Rate	Rest of New York Percent/Rate	New York State Percent/Rate
HIV+ Births (%)	.11% (1 case)	.07% (55 cases)	.51% (2,270 cases)
Syphilis Cases/100,000 (Primary & Secondary)	1.0	1.5	19.9
Gonorrhea Cases/100,000	18.8	34.1	183
AIDS Cases Morbidity/100,000	6.3	18.1	65.9
Pelvic Inflammatory Disease Hospitalizations/ 100,000	285	171	206

Source: NYS Office of Rural Health, ARural County Health Profile@ NYS Department of Health, ACounty Health Indicator Profiles (1995).

With regard to the STD and HIV measures, Delaware County rates are well below those of the Rest of New York and New York State. However, the county=s pelvic inflammatory disease (PID) hospitalization rate is very high. This high rate suggests the need for the Delaware County Public Health Department, health care providers, school districts, churches, and other community organizations to collaborate in public health campaigns regarding risks associated with sexually active behaviors.

Another indicator related to community health and safety is mortality and injuries related to motor vehicles. As noted previously, the county has many narrow roads in rurally isolated areas where driving speeds are often exceeded since traffic is light. Also, some roads are closed during winter months or become dangerous due to ice and snow -- but these roads are often the only link between towns and villages. The combination of road design, topography, alcohol use, and lack of driver caution has led to high rates of motor vehicle mortality and injury. In fact, for the period 1990-1992, Delaware County had the highest rate of hospitalization (117.2 per 100,000 population) due to motor vehicle crashes of all counties in New York. Table 21 below compares the county rate with that of New York State and the Rest of New York in terms of mortality for the entire population and for mortality and injuries to children.

TABLE 21
Motor Vehicle Mortality & Injuries, 1992
General Population and Children

Geographic Area	General Population Mortality (per 100,000 pop.)	Children Only Mortality & Injuries (per 1,000 children)
Delaware County	14.8 (491 injuries) (9 deaths)	12.7 (121 injuries) (1 death)
New York State	9.7	10.5
Rest of New York	11.2	11.1

Source: New York State Department of Vehicles, 1994.

Table 21 above shows the high motor vehicle mortality rate for Delaware County; however, it also indicates the vulnerability to children from vehicle deaths and injuries. These data indicate the need for a comprehensive campaign to promote vehicle safety precautions for children.

Alcohol and substance abuse are significant and growing problems in Delaware County. Table 22 below shows the total units of service for alcohol and substance abuse over the period 1995 to 1997 and the rate of increase over this period. A unit of service is defined as including one or more of the following: (1) an assessment visit, (2) clinic visit, (3) brief visit and (4) an off premise visit.

TABLE 22
Alcohol and Substance Abuse Units of Service, 1995-1997

	1995	1996	1997	Percent Change 1995-1997
Alcohol	4,446	5,132	5,572	25%
Substance Abuse	652	776	976	33%

Source: 1997 Annual Report of the Delaware County Department of Mental Health.

Alcoholism problems are treated by the Delaware County Alcoholism Clinic and 215 individuals were served by the clinic in 1997. Table 23 below provides a profile of the patients served by the Alcoholism Clinic in 1997.

TABLE 23
Profile of Alcoholism Clinic Patients Served, 1997

Gender	Number	Percent
Males	147	68
Females	68	32
Towns (10% & over)		
Delhi	34	16
Middletown	22	10
Sidney	28	13
Stamford	28	13
Walton	24	11
Age		
0-11	4	2
12-20	58	27
21-30	49	23
31-40	59	27
41-50	32	15
51-65	10	5
65+	3	1

Source: 1997 Annual Report of the Delaware County Department of Mental Health.
Note: All percents are based on 215 patients served.

Table 23 above shows that most patients of the Alcoholism Clinic were male, over 60% reside in one of five communities, and are aged 12-40 years old. In particular, the age profile shows an alarmingly high percentage of children aged 12-20 -- which accounts for nearly 30% of all patients receiving treatment at the clinic. A major factor contributing to this alarming statistic is the fact that SUNY College of Technology in Delhi is located in Delhi and thus a large student population is located there. However, the rate for youth (age 16-20) arrested for driving while intoxicated (DWI), as well as for associated consequences of DWI are high.

Table 24 below provides rates for youth consequences of alcohol use.

Table 24
Youth Alcohol Use Consequence, 1994

Alcohol Consequences	Delaware County (Rate per 10,000)	Rest of New York State (Rate per 10,000)
DWI Arrests	71.2	38.9
Intoxicated Youth in Auto Accidents	4.0	2.1
Probation Cases: Use at Offense	34.4	22.1
Probation Cases: Court Mandates	63.9	66.5
OASAS Alcohol Treatment	41.5	15.7

Source: Prevention Risk Indicator/Services Monitoring System (Prisms), County Risk Profile, 1995

Table 24 above shows that Delaware County=s rates for youth alcohol consequences are significantly higher than that of the Rest of New York State -- particularly with regard to DWI arrests. These statistics demonstrate the need for the DCPHD to work closely with school districts, county agencies, and community service organizations to launch an aggressive public health information program regarding alcohol abuse. These data also suggest that youth accessibility to alcohol products may be a problem which needs to be addressed as well.

Also, 21% or one-fifth of all patients referred to the Delaware County Alcoholism clinic were referred on the basis of being Adrinking drivers.@[19] In fact, the rate of adult DWI arrests in the county in 1994 was 92.7 (rate per 10,000), compared to 60.8 for the Rest of New York State.[20] This information, combined with the fact that Delaware County=s rate of alcohol-related motor vehicle accidents is over double the New York State rate (see Table 19, ACommunity Health Indicators@), confirms that alcohol abuse is a high priority public health issue in the county. As a result, preventive health education efforts to address alcoholism need to be conducted on a county-wide basis with additional focus on the residents of the five towns cited above.

[19] 1997 Annual Report of the Delaware County Department of Mental Health.

[20] Prevention Risk Indicator/Services Monitoring System (PRISMS), County Risk Profile, 1996.

As Table 22 (Alcohol and Substance Abuse Units of Service) above indicated, substance abuse is a growing problem in Delaware County. In 1997, 42 individuals were served at the Delaware County Substance Abuse Clinic. A profile of the patients served reveals that 90% are male and that nearly 75% of all patients originated from only 4 of the 19 townships in the county. The four townships and the percentage of patients from these communities are as follows: Franklin (10%), Kortright (29%), Masonville (21%), and Sidney (14%). The concentration of substance abuse cases in these four communities is a problem which will require intervention with preventive health education and special community programs. At present, the consequences of drug use among youth does not appear to be as severe as that of alcohol abuse. In 1994, the county rate for youth drug arrests was 59.8 (rate per 10,000), compared to 88.5 for the Rest of New York.[21] However, it is a problem which requires close monitoring since drug use among all age groups in society is on the rise and this pattern will incrementally impact the accessibility and use of drugs by youth in the county.

[21] Prevention Risk Indicator/Services Monitoring System (PRISMS), County Risk Profile, 1996.

The leading causes of death in Delaware County are summarized in Table 25 below.

TABLE 25
Leading Causes of Death

Cause of Death	Total Cases (1995)	Delaware County Rate (1995)	Rest of New York State (1995)	New York State (1995)
Total Deaths	498	1052.9	891.6	908.7
Diseases of the Heart	188	397.5	321.6	344.0
Malignant Neoplasm	115	243.1	221.6	209.6
Cerebrovascular Disease	35	74.0	54.0	44.0
AIDS	3	6.3	12.3	46.0
Pneumonia	21	44.4	36.5	36.0
Chronic Obstructive Pulmonary Disease	31	65.5	40.9	33.3
Total Accidents	14	29.6	26.2	23.8
Diabetes Mellitus	6	12.7	16.6	19.0
Homicide & Legal Intervention	0	0	3.6	8.5
Cirrhosis of Liver	2	4.2	4.2	8.6
Suicide	5	10.6	8.3	8.0
Septicemia	2	4.2	9.7	7.6

Note: Rates are per 1,000 population.
Source: NYS Department of Health, Vital Statistics of New York State, 1995, Table 53, p. 106.

The death rates presented in Table 25 above show that Delaware County has significantly higher rates of mortality for pathologies closely linked to the environment. For example, county death rates exceed both New York State and Rest of New York State rates for diseases of the heart, malignant neoplasms, pneumonia, chronic obstructive pulmonary disease, and total accidents. These pathologies are all linked to some degree to dietary practices, environmental, and geographic factors.

However, the county has lower rates of mortality for such diseases as AIDS, Diabetes Mellitus, Homicide and legal intervention, Cirrhosis of liver, and Septicaemia.

These data reflect the concerns expressed by participants of a telephone survey conducted by the Delaware County Public Health Department as part of its APublic Health Priorities Initiative@ project. The survey showed that the highest priority public health issue cited was Ahealth of the environment in which you live.@[22] Concern with Aheart disease and contributing conditions@ was also cited by participants of the survey as the fourth most important public health care issue.[23]

With regard to mortality rates for cancer deaths, Table 26a and Table 26b below show average rates for the period 1987 to 1991 for various types of cancer for males and females respectively.

[22] Delaware County Public Health Department, APublic Health Priorities Initiative,@ (May 1998). See the telephone survey report section of this study, page 15.

[23] Ibid.

TABLE 26a
Cancer Mortality Rates for Males
Average Annual Age-Adjusted Rates Per 100,000, 1990-1994

	Delaware County	Rest of New York	Symbol × Denotes Higher County Rate
Oral Cavity	5.0	4.0	×
Stomach	5.1	7.5	
Colon	23.9	21.8	×
Rectum	3.0	3.3	
Pancreas	8.5	10.7	
Lung/Bronchus	62.2	69.6	
Malig. Melanoma	3.2	3.2	
Prostate	30.8	25.3	×
Bladder	11.2	5.1	×
Kidney	3.0	5.1	
Brain & Nervous System	2.0	4.8	
Lymphoma	6.2	8.5	
Leukemia	11.5	8.0	×

Source: NYS Department of Health, New York State Cancer Registry, May 1998.

TABLE 26b
Cancer Mortality Rates for Females
Average Annual Age-Adjusted Rates Per 100,000, 1990-1994

	Delaware County	Rest of New York	Symbol × Denotes Higher County Rate
Oral Cavity	2.4	1.7	×
Stomach	1.7	3.0	
Colon	18.2	15.2	×
Rectum	1.9	1.9	
Pancreas	6.4	7.9	
Lung/Bronchus	34.2	35.5	
Malig. Melanoma	0.8	1.6	
Breast	27.4	29.5	
Uterus	2.0	3.7	
Cervix Uteri	2.1	2.5	
Brain & Nervous System	4.9	3.1	×
Ovary	8.5	8.9	
Bladder	1.1	2.2	
Kidney	2.5	2.3	×
Lymphoma	3.9	5.6	
Leukemia	7.5	4.9	×

Source: NYS Department of Health, New York State Cancer Registry, May 1998.

Table 26a above shows that males in Delaware County experience mortality rates which exceed those of the rest of New York State for cancers of the oral cavity, colon, prostate, bladder, and leukemia. Many of these cancers are strongly linked to unhealthy dietary practices (e.g., high fat intake) and various addictive behaviors (e.g., smoking). For females (see Table 26b above) the mortality rates for cancer of the oral cavity, colon, brain, kidney, and leukemia are higher than the rest of New York

State. These cancers are linked to unhealthy dietary practices, environmental factors, and other factors. In general, preventive education in the areas of dietary practices and addictions need to be expanded to meet the needs of both males and females.

The Delaware County Department of Mental Health provides an array of mental health services to adults, families, adolescents, and children residing within the county through its Mental Health Clinic. The clinic also operates satellite clinics in seven locations. In 1997, a total of 1,120 individuals received services at the mental health clinic. Table 27 below provides a profile of the patients served.

TABLE 27
Profile of Mental Health Case Load, 1997

	Number	Percent
Gender		
Males	505	45
Females	615	55
Towns (10% & over)		
Delhi	144	13
Sidney	181	16
Walton	271	24
Age		
0-12	145	13
13-18	136	12
19-30	194	17
31-64	559	50
65+	86	8

Source: 1997 Annual Report of the Delaware County Department of Mental Health.
Note: All percents are based on 1120 patients served.

Table 27 above shows that a majority of patients served were females, over 40% of the patient caseload originated in the townships of Delhi, Sidney, and Walton, and the majority of patients were aged 31-64.

Summary of Demographic Factors and the Health Status of Delaware County

The analysis in section 1 identifies the major demographic factors impacting the public health of residents of Delaware County. It also provides an overview of the county-s public health status which the Delaware Public Health Department is tracking and for which the Department is developing strategies to impact its limited resources in the most cost-effective way. A summary of the analysis in section 1 is provided below in terms of citing some of the key demographic trends impacting the health status of the county.

- The county population has remained relatively constant since 1950 and this has slowed economic growth and limited the capacity of the county to raise revenue from its tax base to invest in the public welfare.

- The racial composition of the county-s population has changed only slightly from 1980 to 1990, with the African-American population showing the largest percent change.

- The enormous geographic size of Delaware County, which is characterized by dispersed and isolated communities and households, raises many barriers to access to health care facilities. Residents requiring specialized medical services must travel long distances to facilities in other counties (e.g., Otsego County) and urban locations (e.g., Albany).

- The changing economics of the health care industry has caused a transition of the county health care system away from one characterized by rural hospitals and self-employed physicians, to one of rural hospitals affiliated with out-of-county hospital systems, clinics with limited hours, and a small number of self-employed physicians.

- From 1970 to 1995 the county experienced a declining birth rate -- from 17.3 to 9.9.

- The incremental growth in the county population has been due to the influx of second home owners, some of which have settled in the more remote and inaccessible areas of the county. In addition, studies indicate that many of these second home owners plan to retire in the county. These developments have raised new challenges to county agencies and health and human service organizations to provide emergency services and other health care services.

- A growing Hispanic population in the Town of Middletown and the establishment of a Muslim community in the Town of Tompkins has introduced a degree of ethnic and cultural diversity in the county. In addition, the African-American population has increased county-wide and particularly in the Towns of Delhi, Deposit, and Sidney. The DCPHD and community organizations must become better prepared to deal with the service needs of these groups, with special attention given to language and cultural sensitivities.

- The county has a higher percentage of persons aged 60+ than New York State and the Rest of New York and this population needs many services including transportation to medical facilities, nutrition counseling, home meals, and other health services. As this population grows, it will

place significant demand on the county=s public health care delivery system and social service organizations.

- Increased life expectancy, particularly among the 65+ age group, is creating a significant increase in the proportion of females. As a result, the county health care system will need to anticipate the health care education and services needed by a growing elderly female population.

- As of 1990, approximately 12.8% of county residents had incomes below 100% of poverty, 33.4% between 100% and 185% of poverty, and 37% between 101% and 200% of poverty -- these rates are well above those of other rural county=s in the region and the Rest of New York.

- The number of children aged 18 and under in poverty was 23% in 1992, compared to 16% for Upstate New York. More significantly, is the situation of children in households headed by females which are in poverty. These children often face difficulties in receiving basic health care. In Delaware County the percentage of female headed households with children under the age of 18, who are in poverty, is 41.2%, while female-headed households in poverty with children under age 5 is 58.7%. Also, nearly 41% of school students in the county are eligible for free or reduced price lunches.

- The issue of lead poisoning in the county is highly related to the county=s aging housing stock and this factor makes lead poisoning a serious public health problem. It is recognized that lead-based paint is highly prevalent in homes constructed prior to 1960. In this regard, the 1990 Census shows that 66.4% of housing units in Delaware County were built before 1960. The towns with the highest percentage of pre-1960 housing units, and thus, with the highest level of lead paint risk are Delhi (72%), Deposit (68%), Hancock (67%), Sidney (79%), Stamford (70%), and Walton (68%).

- The Delaware County Public Health Department has implemented a very aggressive and effective immunization program. In 1997, 1,724 residents received immunizations while visiting 97 clinics sponsored by the DCPHD.

- The proportion of children participating in the WIC, SNAP, Food Stamp, and National School Lunch Program, exceeds the proportion for the Rest of New York State. According to the Nutrition Consortium of New York State, those school districts with the proportion of free and reduced-price lunches higher than 40% are classified as Asevere need@ districts from a nutritional standpoint. Based on this criterion, 8 out of the 12 school districts (or nearly 70%) in Delaware County can be classified as Asevere need@ districts.

- In terms of maternal and child health, Delaware County has a lower fertility rate than the Rest of New York and New York State. Also, the county has a lower rate of out of wedlock births than New York State and has much lower rates of live births to teenagers, teenage pregnancies, and preteen pregnancies than the Rest of New York and New York State.

- With regard to infant and fetal related mortality, Delaware County rates are in most instances

well below that of the Rest of New York and New York State for infant deaths, neonatal deaths, perinatal deaths, spontaneous fetal deaths, and spontaneous fetal deaths for 20+ weeks.

- High levels of poverty in the county are accompanied by per capita income and median household incomes which are significantly lower than those of residents of New York State. For example, per capita personal income of Delaware County residents is 38.9% below the New York State average.

- From 1980 to 1997, Delaware County has experienced a 58% decline in the number of dairy farms and saw its manufacturing job base decline from 42.0% in 1980 to 28.0% in 1996. At the same time, the county experienced a significant increase in retail (+100%) and service sector (+34%) jobs. However many of these latter jobs are part-time and do not provide health care and dental care benefits -- thus limiting access to health care.

- Farm owners, their spouses, and children have experienced extraordinary stress and health related problems due to the loss of family farms and the difficulty of operating farms in today=s agricultural economy.

- According to estimates by the Mother=s & Babies Perinatal Network, approximately 17% of Delaware County=s population is not covered by health insurance.

- For many years, the Watershed issue created conditions which severely limited economic development, prevented expansion of the tax base, delayed needed infrastructure improvements, and limited employment growth. These conditions severely impacted the economic, health care, and social quality of life of over 50% of the county=s residents.

- The combination of road design, topography, alcohol abuse, and lack of driver caution has led to high rates of motor vehicle mortality and injury. In fact, for the period 1990-1992, Delaware County had the highest rate of hospitalization (117.2 per 100,000 population) due to motor vehicle crashes of all counties in New York State.

- The county has higher rates of heart disease, lung cancer, malignant neoplasms, alcohol related motor vehicle accidents, suspected child abuse and maltreatment of children (0-17) and death rate, compared with New York State and the Rest of New York. Many of these health problems are closely linked to economic dislocation, social isolation, personal stress, and environmental conditions -- all of which are rooted in the county=s stagnant economy.

- Units of service for alcohol abuse have increased by 25% from 1995 to 1997 and units of substance abuse have increased 33% over the same time period. Also, 21% of all patients referred to the county alcoholism clinic were designated as Adrinking drivers.@

- Delaware County has higher rates of mortality for pathologies linked to the environment than those for New York State and Rest of New York State. These pathologies include heart disease, malignant neoplasm, pneumonia, and total accidents.

- Cancer rates for males in the county are higher than that of the Rest of New York for oral cavity, colon, prostate, bladder, and leukemia. Cancer rates for females are higher than the Rest of New York for oral cavity, colon, brain & nervous system, kidney, and leukemia. Many of these cancers are strongly linked to unhealthy dietary practices (e.g., high fat intake) and addictive behaviors (e.g., smoking).

- A profile of the mental health case load in the county shows that 55% were females, over 40% of patients originated from three towns (Delhi, Sidney, and Walton), and the majority of patients were aged 31-64.

B. Access to Care

Due to dramatic economic changes in the health care industry, access to health care in Delaware County has been particularly impacted as in-county health care facilities have become gradually affiliated with larger health care systems. Specifically, A.O. Fox Hospital of Oneonta, Bassett Healthcare of Cooperstown, and United Health Services of Binghamton have developed affiliations with Delaware County hospitals and clinics. This trend has led to some service reductions and enhancements depending on the specific health care facility in question.

At present, most Delaware County townships residents lack access to health care facilities which provide continuously available specialized medical services -- unless they travel long distances. All four major medical facilities in Delaware County (Delaware Valley Hospital, Margaretville Hospital, O=Connor Hospital, and The Hospital) have some speciality clinics; however, other specialized care including tertiary care must be accessed outside of the county. As a result, residents must travel to Albany County, the Village of Cooperstown (Bassett Healthcare, Inc.), the City of Oneonta (A.O. Fox Hospital and Bassett Healthcare Inc.), Broome County, or to facilities in Pennsylvania, to acquire many specialized medical services. As of 1998, Delaware County had four hospitals, 18 health centers, and a limited number of private physicians.

Financial Barriers

A number of financial barriers exist in Delaware County which serve to limit access. The APublic Health Priorities Initiative@ (PHPI) project in Delaware County revealed a number of specific financial barriers to health care. This project included five focus group sessions, a telephone survey, and two mass distribution surveys which cumulatively involved 1,646 residents of Delaware County. First, participants in the PHPI noted that many working poor people (especially female-head of households) and their children lack health and dental insurance and when such plans are available to employees, they often provide limited service coverage and do not include dental and vision care. This issue was cited over and over again as the single most important barrier to access to health care in Delaware County.

As previously noted, Delaware County ranks well below state income levels as measured by median family income, median household income, and per capita income. The employment base of

the county has been significantly transformed since the late 1970s as the loss of manufacturing jobs have been replaced by retail and service sector jobs. These jobs pay among the lowest in the county and typically fail to offer health and dental benefits. In addition, many Delaware County residents hold seasonal or tourism based jobs -- most of which lack employer-based benefit plans. Thus, the transformation of the employment base of the county does not promise a Afree market@ economic solution to the health care access problem in the county. As a result, the number of working people without health insurance is likely to increase in the years to come.

A study of the extent to which employers provide health insurance benefit programs was conducted by the NYS Department of Health in 1995. This study revealed that 16.6% of payroll employees in Delaware County are not offered health insurance, while 14.5% was the average for rural counties in New York and 9.9% for non-rural counties. Thus, nearly one in every five Delaware County employees are employed by an employer who does not offer health or dental insurance. Also, it should be noted that the study did not take into account the issue of whether adequate insurance coverage is being offered to employees. It is very likely that some employees are underinsured.

In fact, considering further the issue of health insurance coverage, the Mothers and Babies Perinatal Network has estimated that as of 1995, 17% of Delaware County=s population was not covered by health insurance. This level is higher than surrounding counties including Otsego (14%) and Chenango (15%), as well as Upstate New York (10.5%).[24] This situation poses one of the most critical barriers to providing access to health and dental care. Given the stagnant economy of Delaware County in an era of national economic growth, combined with significant limitations which the Watershed Agreement has placed on future economic growth in the county, it seems likely that the health status of county residents is seriously at-risk unless the issue of health insurance is successfully addressed.

Also, children in economically disadvantaged households often lack health care insurance coverage. This problem is being addressed by the Child Health Plus program; however, the program needs to be more aggressively marketed to achieve enrollment levels which will have a significant impact. As of December 1996, 509 children were enrolled in the program. The number of enrollees increased to 564 in June 1997 and by April 1998, 728 were enrolled. This constitutes a 43% increase in enrollment. However, it is estimated that approximately 2,429 children in Delaware County are potentially eligible for the program. Thus, it seems likely that only about one-third of eligible children are enrolled at this time.[25]

The decline of agriculture in the county has left many farm owners, spouses, and their children facing extraordinary levels of financial debt and this has led to many personal problems which have restricted their access to health care. Farmers are classified as business owners or employers, thus they do not have health insurance unless they purchase it. This can be a very expensive expenditure. In fact, it is estimated that 30% of all farm families in Delaware County lack health and dental

[24] Source of uninsured rates is NYS DOH Bureau of Analysis and Program Evaluation, 1995.

[25] Enrollment figures provided by Mothers & Babies Perinatal Network, Binghamton, NY.

insurance.[26]

Second, the PHPI noted the lack of access to dental health care for working poor people and their children. Because the county lacks dental sealant programs in its schools, many children do not have access to early treatment or preventive dental care. In addition, children from high risk families do not receive adequate fluoride exposure or adhesive sealants.

A 1998 survey by the Delaware County Rural Health care Alliance found that of 19 elementary, middle school, and high schools in the County, 10 did not have a specific dental health curriculum, 9 had a general health curriculum with minor attention to dental health, and of these 9, only 4 provide a fluoride program. Nearly every school surveyed expressed an interest in developing a more formal dental health curriculum with instructional materials (e.g., videos), toothbrushes (for distribution), and fluoride rinses.[27] Also, it should be noted that as of 1998, only 3 Villages in Delaware County have fluoridated water systems including the Villages of Delhi, Stamford, and Sidney.

In addition, participants in the PHPI project noted the lack of access to affordable dental care. In order to address the dental health care problem, Delaware County needs to consider developing a dental care clinic; however, the geographical expanse of Delaware County may even require that more than one dental clinic be established.

Finally, a significant financial barrier to care for the elderly emerged in 1998. The barrier was the institution of the Interim Payment System (IPS) in 1997 as a result of the Federal Balanced Budget Act. This system has imposed a change from a fee for service reimbursement to a flat rate aggregate reimbursement. However, this aggregate reimbursement is based on 1993 costs. As a result, the Delaware County Public Health Department=s Certified Home Health Care Agency is generating less revenue and will have to be subsidized at a higher rate by the county to maintain current service levels. These changes have a serious potential of impacting the availability of home care services for the elderly in the future.

Medicaid Eligibility vs. Medicaid Enrollment vs. Access to Providers

One of the most serious health care problems is the fact that most dentists will not accept what they consider to be the inadequate rates of reimbursement for dental services. As a result, many economically disadvantaged people refrain from accessing preventive dental care and delay visiting a dental practitioner until their situation is an emergency. In addition, there is also a lack of mental health Medicaid providers in the county, since reimbursement rates are not considered adequate by the providers. This problem must be resolved if the needs of economically disadvantaged and mentally challenged people are to be adequately addressed.

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[26] Cooperative Extension Association of Delaware County. Discussion with Cooperative Extension Agent.

[27] Study conducted by Delaware County Rural Health care Alliance, 1997.

Structural Barriers

Currently, Delaware County has only two full service, inpatient care hospitals and relies on hospitals in neighboring counties and Pennsylvania to provide specialized medical. Table 28 below provides a general summary of where some patients go for health care and where they are often referred for specialized medical services.

TABLE 28
Geographical Structure of Health Care Services

Location of Residents	Initial Health Care Facility Contact	Point of Referral
Franklin, Meredith, Davenport, Delhi, Kortright, Harpersfield	O=Connor Hospital Delhi Clinics A.O. Fox Hospital Bassett Healthcare	A.O. Fox Hospital (Oneonta) Bassett Healthcare (Oneonta Clinic) Bassett Healthcare Hospital (Cooperstown)
Sidney, Masonville, Deposit	The Hospital (Sidney) Chenango Memorial Hospital (Norwich)	Bassett Healthcare
Hamden	O=Connor Hospital Delaware Valley Hospital	Bassett Health care Wilson Hospital (UHS-Binghamton)
Andes, Middletown	Margaretville Hospital Kingston Hospital Benedictine Hospital (Kingston)	Albany Medical Bassett Health care Delaware Valley Hospital
Stamford, Roxbury, Bovina	O=Connor Hospital Margaretville Hospital	Bassett Healthcare
Hancock	Delaware Valley Hospital Lourdes Hospital Wilson Hospital (UHS-Binghamton)	Not Applicable
Walton, Colchester, Tompkins	Delaware Valley Hospital	Wilson Hospital (UHS-Binghamton)

Source: Delaware County Public Health Department, 1998.

As Table 28 above indicates, residents of Delaware County must travel considerable distances to

reach their initial contact with the health care delivery system; however, they must travel even further if they require specialized medical services. Travel distance to reach specialized medical facilities outside the region is extensive with trips to Albany (A.O. Fox Hospital is affiliated with Albany Medical Center) and Binghamton (Delaware Valley Hospital is affiliated with United Health Systems) ranging from 1 2 hours to 2 2 hours depending on the weather and point of origination in Delaware County. Travel time to the City of Oneonta (A.O. Fox Hospital and Bassett Healthcare Clinic) or the Village of Cooperstown (Bassett Healthcare Hospital) can range from 35 minutes to 1 2 hours. Again, inclement weather can significantly increase these travel times.

The in-county hospitals are located in four townships with health centers located in seven other townships. Some of these health care centers are linked in various ways to health care systems operated by Bassett Healthcare Inc. and A.O. Fox Hospital, with primary care patients often being referred to these hospitals for specialized medical services. Other health care clinics are linked to Delaware Valley Hospital and Margaretville Memorial Hospital.

Many of the health centers in the county provide only limited services and many have limited hours of operation. In addition, there are approximately seven private practioners who are not affiliated with health care clinics in the county. These practioners are primarily located in the towns of Delhi, Sidney, Stamford, and Margaretville. A list of the health care facilities serving residents of Delaware County and their hours of operation are provided in Table 29.

TABLE 29: Health Care Facilities Serving Delaware County

Location	Facility	Hours of Operation
Walton	Delaware Valley Hospital	24 hour
	Bassett Healthcare of Walton	8:00am-5:00pm
	Delaware Valley Family Health Center	9:00am-5:00pm
	Planned Parenthood Association	8:30am-6:30pm (M-Th)
Margaretville	Margaretville Memorial Hospital	24 hour
	Family Health Centers of Margaretville Memorial Hospital	9:00am-4:00pm
Sidney	The Hospital	24 hour
	Gelder Medical Group	9:00am-5:00pm
	Primary Care Medical	9:00am-5:00pm
	Sidney Health & Wellness Center	9:00am-5:00pm
	Planned Parenthood Association	2:00pm-6:30pm (Th)
Delhi	O=Connor Hospital	24 hour
	Bassett Healthcare	9:00am-5:00pm (M-F) 8:00am-5:00pm (F)
Stamford	Bassett Healthcare	8:00am-6:00pm (M-Th) 8:00am-5:00pm (F)
	Stamford Family Practice	7:30am-5:30pm
Hancock	Delaware Valley Family Health Center	8:30am-5:30pm (M-F) 1:00pm-8:00pm (every other Wednesday)
Downsville	Delaware Valley Family Health Center	Part-time, varies
Deposit	Deposit Family Care Center	9:00am-4:00pm (MWF)

Note: Unless otherwise specified all times are based on Monday through Friday. Hours are subject to change.

Table 29 shows that most sites provide hours of operation on weekdays and occasional evenings. Also, with the exception of the hospitals in Walton, Delhi, Sidney, and Margaretville, all health care facilities are generally open only until 5:00pm, Monday through Friday.

Table 29 also shows that of the 19 townships in the county, 11 or 58% have a health care facility of some type. However, only four (Delhi, Margaretville, Sidney, and Walton) have a facility which provides 24 hours service. In addition, the locational pattern of the 24 hour service areas is concentrated in the eastern and central part of the county. Thus, residents of townships to the north and south have long distances to travel to access these facilities -- particularly in emergency situations.

This locational pattern disproportionately affects residents of all ages who reside in townships outside of the four townships cited above, particularly those who live in rurally isolated sections of the county, poor people who lack transportation, elderly who have mobility problems and cannot drive, and the chronically ill who need to frequently visit health care facilities. In fact, in 1997, the Delaware County Office for the Aging arranged transportation for 155 elderly people so they could make their medical appointments.[28] This situation is unlikely to change as long as the regionalization of the health care delivery system continues and the county lacks a public transportation system.

The county also has four nursing home facilities including Robinson Terrace in Stamford (87 beds), the Delaware County Countryside Care Center in Delhi (199 beds), the Mountainside Residential Care Center in Margaretville (80 beds), and The Hospital Nursing Care Facility in Sidney (40 beds).

The county also has 10 Level I Adult Homes and 6 Level II Adult Homes. Tables 30 and 31 below provides a list of the Level I and Level II Adult Homes and their locations.

[28] Delaware County Office for the Aging, Annual Report 1977, p. 5.

TABLE 30
Adult Home Facilities, Level I

Name of Adult Home	Location	Resident Capacity
Betty=s Family-Type Adult Home	Hamden	4
Bond Family-Type Adult Home	East Branch	4
The Cottage	Treadwell	4
Country Haven Retreat	Roxbury	4
Doyon Adult Home	Hancock	4
Lonesome Pine Family Home	Masonville	2
Merwin=s Family-Type Adult Home	East Branch	3
Riverview Home	Deposit	2
Skywold Manor Adult Home	Meredith	4
Wright=s Home for Adults	Margaretville	4

Source: Delaware County Public Health Department. Information as of March 1998.

TABLE 31
Adult Home Facilities, Level II

Name of Adult Home	Location	Resident Capacity
Hearthstone Home for Adults	Hobart	24
Kirkside Adult Home	Roxbury	21
Park Terrace Adult Home	Walton	23
Sara=s Senior Care at Sidney	Sidney	11
Sara=s Senior Care at South Kortright	South Kortright	23
Sara=s Senior Care at Stamford	Stamford	17

Source: Delaware County Public Health Department. Information as of March 1998.

Also, the county has 19 ambulatory care services squads and all are staffed by volunteers. Table 32 below provides a list of these squads and the communities where they are based.

TABLE 32
Ambulatory Care Services

Name of Squad	Location
Andes Emergency Squad	Andes
Bloomville Emergency Squad	Bloomville
Bovina Emergency Squad	Bovina
Delhi Emergency Squad	Delhi/Hamden
Downsville Emergency Squad	Downsville
East Branch	East Branch
Franklin Emergency Squad	Franklin
Grand Gorge Emergency Squad	Grand Gorge
Hancock Emergency Squad	Hancock
Hobart Emergency Squad	Hobart
Masonville Emergency Squad	Masonville
Meridale Emergency Squad	Meridale
Roxbury Emergency Squad	Roxbury
Sidney Center Emergency Squad	Sidney Center
Sidney Emergency Squad	Sidney
Stamford Emergency Squad	Stamford
Treadwell Emergency Squad	Treadwell
Trout Creek Emergency Squad	Sidney Center
Walton Emergency Squad	Walton

Source: Delaware County Public Health Department, 1998.

There are no paid ambulance services in the county, although the Town of Margaretville=s volunteer squad members are paid on a fee per call basis. If a town has no ambulance service they typically contract with other towns. Due to the rural topography and dispersed population, the response time for ambulatory care services has become a serious problem. This was an issue which was frequently raised by focus group participants of the APublic Health Priorities Initiative@ Project.

Given the extensive travel distance to medical facilities, it is difficult to recruit volunteers. For example, when the Town of Stamford had a hospital, volunteers missed up to an hour of work to complete a call. Now, volunteers must transport patients to more distant medical facilities which can cause a work-release period as long as 3 hours. Only two private medical transport companies, CMT (Cooperstown with branch in Hamden) and Circle of Life -TP of New York (South Kortright), operate in Delaware County.

A limited number of first response agencies are also available including the Arkville Volunteer Fire Department, the Margaretville Volunteer Fire Department, the Davenport Volunteer Fire Department, the Pindar=s Corners Volunteer Fire Department, the East Meredith Volunteer Fire Department, and the Margaretville Memorial Hospital Ambulance Services.

Both the ambulatory squads and first response agencies are operated by volunteers and it has become increasingly difficult for communities to keep these emergency medical services fully staffed and trained. The lack of volunteers is due to a number of factors including less people volunteering and reluctance of employers to allow employees to leave their worksite to attend to emergencies. This problem was cited by focus group participants of the county=s APublic Health Priorities Initiative@ in which participants noted that emergency response times have become longer. In order to maintain staffing levels, provide adequate training (which is costly), and improve emergency response times, additional resources and new operational strategies will be needed in the future. The DCPHD plans to work with local governments, county agencies and community organizations in the future to address this problem.

Another important structural barrier to health care in the county is the limited maternity services available within the county. Only Delaware Valley Hospital in Walton and The Hospital in Sidney provide maternity services with limited OB capacity. As a result, as of 1996, 37.7% of the 454 live births to Delaware County residents occurred in Otsego County hospitals, while 37.0% of births occurred in Delaware County and 16.3% in Broome County. The balance of births occurred in other counties in the region.[29]

[29] NYS Department of Health, Bureau of Biometrics, 1996.

Table 33 below provides a listing of the pregnancy care and PCAP providers serving Delaware County.

TABLE 33
Pregnancy Care and PCAP Providers

Delaware County Site	Affiliation	Site of Delivery
Bassett Healthcare Delhi	Bassett Healthcare Cooperstown, NY	Bassett Healthcare Cooperstown, NY
Delaware Valley Family Health Center - Walton Delaware Valley Family Health Center - Downsville Delaware Valley Family Health Center - Hancock Dr. Laura Chalfin, Delhi Medical Arts Bldg.	Delaware Valley Hospital Walton, NY	Delaware Valley Hospital Walton, NY
Stamford Family Practice	A.O. Fox Hospital Oneonta, NY	A.O. Fox Hospital Oneonta, NY
The Hospital Sidney, NY	The Hospital Sidney, NY	The Hospital Sidney, NY

Source: Health Mothers/Healthy Babies Coalition and The March of Dimes, 1997.

Also, the county has fewer primary care physicians than other rural and non-rural areas of the state. Table 34 below compares the Delaware County rate with other regions of the New York State.

TABLE 34
Availability of Primary Care Physicians

Geographical Area	Primary Care Physicians per 100,000 population (1995)
Delaware County	34.9
Rural New York	49.7
Urban New York	89.1

Source: NYS Education Department, Survey of Physicians, 1995
Note: Rural is defined as Upstate New York with the exception of 6 Upstate communities with major cities.

Currently, Delaware County has four federally designated, primary care, health professional

shortage areas (HPSAs) including the Delaware County portion of the Deposit HPSA, the Hobart/Stamford HPSA, the Margaretville/Andes HPSA, and the Hancock/Walton HPSA. These four HPSAs encompass 13 of the 19 townships in Delaware County and they collectively cover approximately 63% of the county population.

Finally, it should be noted that one of the most important structural barriers is the evolving configuration of the health care delivery system in the county. As previously noted in this community health assessment, the economics of the health care industry has caused a significant realignment of health care services -- particularly the consolidation of health care facilities in the county. As a result, small towns and villages throughout the county, which years ago had a medical doctor practicing and living in the community, now often have no health care professionals working or living locally. This development has reduced convenient access to health care professionals, but perhaps more important, current health care professionals lack an understanding and awareness of local public health problems, trends, and attitudes.

When health care professionals lived in or close to the communities they served, they came to know local families and became very knowledgeable about the communities they served. This situation has changed dramatically as health care professionals often act as circuit riders -- moving throughout the service region of the hospital system they work for to meet the specialized medical services of area clinics. In many instances, there is a frequent turnover of clinic personnel and it becomes difficult for residents to see the same doctor or physicians assistant on repeat visits.

Personal Barriers

A number of personal barriers exist for residents of Delaware County which serve to impede their access to health care. First, the long-term economic stagnation impacting the county has caused many young people to leave the county and this has left many elderly people without the support of their extended families. Also, many elderly residents are dispersed in rural isolated areas and because the county lacks a transportation system they are often unable to actively participate in senior citizen organizations. These organizations are important forums to share information and educate. As a result, some elderly are not exposed to preventive health care education and public health services, particularly as it concerns nutrition, keeping physically fit, making medical appointments, and developing social contacts to maintain a positive mental attitude about the aging experience.

The economic malaise present in Delaware County has significantly impacted the health condition of many residents by creating behaviors which impede access to public health care services and information. Increased economic dislocation and rising poverty has led to high levels of financial stress, social isolation, alcoholism, drug addiction, and tobacco addiction. Once acquired, many of these behaviors create lifestyles which are self-destructive and not attentive to good health practices. Ultimately, these lifestyles cause people to ignore or become cynical about public health care programs and services.

Also, the enormous geographical expanse of Delaware County together with its labyrinthine road structure creates extensive travel distances for all residents to reach health care facilities -- both inside and outside the county. In particular, the long distances to health care facilities are especially

burdensome to poor people, the elderly, the disabled, the chronically infirm, and others who may need specialized medical services. In fact, many poor people have old vehicles which are not safe or reliable for long distance travel and many even lack the funds to pay for gas.

In some areas of the county the combination of low income and long travel distances can constitute significant barriers to public health care services. For example, the Town of Sidney has the largest resident population and the highest proportion of economically disadvantaged residents. It is also located in the western part of the county and is far from the main offices of most county health and human service organizations. In recent years, the Delaware County Public Health Department and other human service organizations in the county have made efforts to create satellite offices in Sidney. Eventually the Health Department office was closed, but without any reduction in the provision of services. However, the public perception has persisted that service reductions did decrease because the office ceased to exist. For example, recent public focus group sessions conducted in Sidney reveal that residents believe there are gaps in health and human services because of the town=s geographic location and cited the need for social-psychological services, especially for the elderly, alcohol and drug abuse services, teen pregnancy prevention, and access to early prenatal care.[30]

In addition, the county currently lacks a coordinated county-wide public transportation system to meet the travel needs of residents. The Delaware County Office for the Aging operates a limited transportation service for the benefit of elderly people. The system is in operation for 3 days a week. It also provides non-emergency medical transportation for elderly -- primarily to medical appointments.

The increased cultural and ethnic diversity of Delaware County has also created some personal barriers to accessing health care. In the Town of Middletown, the population of Hispanic people has grown significantly and this population introduces verbal and written language challenges to a county which has never had to communicate in a bilingual fashion. Also, a Muslim community has been established in the Town of Tompkins and many Muslim cultural traditions will pose a challenge to the DCPHD in its efforts to provide preventive health care education and services. As a result, the health care delivery system will have to become more sensitive to the language and cultural values of these ethnically diverse populations.

Participants in the APublic Health Priorities Initiative@ focus groups revealed a pattern of misinformation or lack of information about public health care programs and services in the county. The low level of public knowledge is an important personal barrier to receiving public health care services and helpful counsel.

Finally, the rural culture and heritage of Delaware County has created a strong sense of personal independence and self-reliance. In this regard, many rural residents do not accept Ahand outs,@ public services, or charity. Instead, they will often rely on family and friends for assistance or delay health

[30] NY-PENN Health Systems Agency, AProvider Input Interim Report for the Rural Health Network of South Central New York,@ (February 1998), p. 10.

care until they face serious medical circumstances. Such residents are not often willing to access clinics, workshops, nor are they particularly receptive to preventive health care information provided by public health authorities. This cultural ideology is sufficiently operative on a scale which poses serious barriers to the goal of public health officials to raise the level of public health in the county.

A summary of the commonly-identified barriers to access to health and dental care, as well as the affected sub-groups in the population are presented in Table 35.

TABLE 35
Summary of Barriers to Health & Dental Care

Type of Barrier	Population Group Impacted	Nature of Problem
Financial	Poor People Children living in Female-head of Household	• Inadequate health insurance • No health insurance • No dental insurance • Lack of preventive dental care programs in schools • Lack of fluoridation systems in communities
	Farm Operators, Spouses, and Children	• Lack of health care insurance • Lack of dental care insurance
Structural	All residents (Especially rurally isolated, elderly without transportation, the infirm, and chronically ill.)	• Lack of specialized medical services • Lack of a primary health care hospital • Long travel distances to access health care • Limited hours of operation at health centers and clinics • Lack of county-wide transportation system • Too few primary care physicians
	Women	• Limited maternity care services in county
Personal	Elderly	• Loss of extended family • Social/Psychological stress

Type of Barrier	Population Group Impacted	Nature of Problem
Personal	Economically disadvantaged	• Financial stress • Social isolation • Alcoholism • Drug Addition • Tobacco Addition
	Farm Operators, Spouses, and Children	• Emotional stress • Family conflict • Depression
Personal	All Residents	• Long travel distances to access health care • □ Lack of a county-wide transportation system • □ Lack of information about public health programs and services • □ Rural culture and heritage of Delaware County
	Hispanic Population	¯ Language difficulties ¯ Cultural values
	Muslim Community	¯ Cultural values ¯ Community mores and practices

C. Behavioral Risk Factors

Narrative for this section will be prepared following completion of a NYS Department of Health telephone survey of residents of the State of New York and Delaware County.

D. The Local Health Care Environment

The local health care environment in Delaware County is greatly influenced by specific aspects of the physical, legal, social, and economic environment within the county. These factors shape the attitudes, behavior, and the risk of community residents for poor health. In most cases these factors

do not have a separate impact on the health status of Delaware County residents, but in fact are highly interrelated and combine to shape the county=s health status history and condition.

In terms of physical environment, the county is an expansive, isolated rural area dominated by an abundance of reservoirs which provide New York City with the vast majority of its drinking water. As such, approximately 65% of the county=s land area and roughly 55% of its population is within the Catskill/Delaware Watershed. This unique physical environment has served to shape the economy, health, and quality of life condition of Delaware County residents for decades and it promises to shape the future as well.

The Catskill/Delaware Watershed has seriously impacted Delaware County by essentially suspending economic development, preventing expansion of the tax base, delaying needed infrastructure improvements (e.g., waste water treatment facilities), and limiting employment opportunities. As a result, residents and families in Delaware County have had to face enormous social, economic, and health-related challenges with consequent service burdens being placed on the DCPHD and social service agencies and organizations. In addition, the resolution of this problem, as determined by the 1997 Watershed Agreement, will continue to directly impact the economic future and quality of life of Delaware County residents for decades to come. This is the case since the Watershed Agreement provides a set of rules and regulations protecting water quality and land use.

The Watershed situation has directly impacted the community=s risk for poor health for a number of reasons. First, it has delayed the maturing of the region=s economic system. Because of the fragile environmental ecosystem of the Watershed, there are numerous regulations which control economic development, infrastructure development, and land use. Second, the small business base of the Watershed region has remained largely self-contained and as a result the economic opportunities available to residents have been seriously restricted -- particularly during the six years of negotiations required to arrive at a Watershed Agreement.

This situation will continue into the future since current watershed rules and regulations will only support economic development that is compatible with protecting the water quality within the Watershed. As a result, the comprehensive economic development plan which will be issued by the Catskill Watershed Corporation in late 1998 will likely identify only a few limited avenues of economic development including small business development, tourism-based industries, dairy farming, alternative agriculture (e.g., fish-farming), and other businesses which have limited potential for pollution. However, most of these types of businesses are unlikely to transform health care access for Delaware County residents by employing large numbers of residents and providing high paying jobs with health and dental benefits.

Second, the Watershed situation has seriously restricted infrastructure development since the county tax base was prevented from expanding. As a result, major roadways could not be constructed to improve transportation, particularly from the eastern region of the county to its western region. The county transportation situation is exacerbated by the fact that the county lacks an interstate highway within its boundaries. Ultimately, residents must rely exclusively on private transportation to keep medical appointments and travel extraordinary distances to metropolitan areas where specialized medical services can be accessed.

Also, the lack of infrastructure development has meant that municipalities have been unable to invest in high cost fluoridated water treatment facilities to provide preventive dental care for residents. This is a serious problem when it is considered that many county residents lack dental insurance and that most dentists will not accept what they consider to be inadequate rates of reimbursement by Medicaid. Consequently, many poor people are denied access to preventive dental care and dental treatment. A behavioral implication of this situation is that many poor people frequently do not seek dental care until they face a very serious medical problem or emergency.

In 1998, the Delaware County Public Health Department, in conjunction with the Delaware County Rural Healthcare Alliance identified the need to begin a preventive dental care program in the county. This effort may possibly lead to the development of a county dental care clinic in the next few years. Also, other organizations are assisting the DCPHD to promote dental care. Cornell Cooperative Extension provides dental health education presentations to children=s clubs and groups (e.g., girl scout groups). School districts in Walton, Charlotte Valley, Sidney, Delhi, and Downsville have adopted dental education curriculums or have arranged for students to have their teeth examined and/or cleaned. There is strong support among school officials in nearly all the county=s school districts to incorporate dental health curriculum and nutrition into their overall academic program.

Third, as indicated above, the Watershed situation has severely limited the growth of the county=s overall tax base. As a result, this situation has limited the capacity of the county to generate sufficient public resources to resolve some of the long-standing quality of life needs which face residents of Delaware County.

Finally, the Watershed region and its associated environmental and economic problems, combined with changes in the economics of the health care industry, has made it very difficult for the county to recruit and retain health care professionals. This issue was noted by many participants of the county=s 1998 APublic Health Priorities Initiative@ project. While the region has natural beauty including green valleys and beautiful forest lands, it is not a region which offers the level of housing quality, arts and culture, shopping, and educational resources that many professional families desire.

This situation creates problems for patients who wish to develop a relationship with their health care provider and makes it difficult to develop a community of health care professionals who can become very knowledgeable about the health care problems of residents. A viable community of health care professionals can also serve as effective advocates for programs and services to meet the health care needs of the communities in which they live.

Given the county=s stagnant economic condition and stable population, the housing stock in the county is relatively old. In fact, over 66% of the housing was built before 1960. This is a problem when it is considered that most homes built before this date contain lead based paint. In order to raise awareness about this environmental issue the DCPHD has provided homeowners, contractors, and realtors with extensive information on safe renovation practices. Also, the DCPHD has been working with health care clinics and physicians to increase access to blood lead screening.

In addition, the DCPHD works closely with many county agencies and community organizations

to address the lead poisoning danger. The DCPHD provides WIC staff with in-service training for lead poison prevention. A major corporate work site (AT-A-Glance Corporation) hosted a health fair in 1997 which included lead poisoning prevention education. The Delaware County Fair, one of the largest county fairs in New York State, is also used as a site to distribute lead poisoning prevention information. In order to inform the hard-to-reach and high-risk groups, the DCPHD has provided in-service training to staff of the Delaware County=s Department of Social Services (DSS) to help case workers identify risks for lead poisoning. Also, Delaware Opportunities, Inc. provides lead poisoning prevention information through its Child and Family Development newsletter to day care providers.

The rural topography of the county is another aspect of the county=s physical environment which has directly impacted the community=s risk for poor health. The topography has led to the development of a road system which is often characterized by narrow, two-lane roads where speed limits are often ignored and hair-pin curves are more the norm than the exception. As a result, the county has a very high motor vehicle mortality rate and for children it has a very high motor vehicle mortality and injury rate. In both cases, the rates exceed that for New York State and the Rest of New York (see Table 21). A number of community organizations are working with the DCPHD to reduce injury due to motor vehicle accidents. Once again in 1997, the Delaware County Public Health Department received a NYSDOH grant and contracted with WIC to purchase child car seats to loan out to the public. In addition, the DCPHD coordinates its efforts with SADD and the county Stop DWI program to distribute information concerning alcohol and driving to young people. Also, in 1998, the DCPHD is planning to assign a representative to the Traffic Safety Board.

The combination of Delaware County=s great woodlands and the dispersion of residential dwellings across this rural environment has brought many residents in direct contact with animals which are often affected by rabies. In addition, there exists a large population of barn cats in the county which are not rabies immunized and are in frequent contact with wild animals, domestic animals, and humans. Many farmers find it very expensive and impractical to capture and immunize all these barn cats. As a result, the DCPHD has maintained a very aggressive rabies program and has a half-time staff member serving as the county rabies coordinator. Table 36 shows the program activity from 1993-97.

TABLE 36
Rabies Program Activity, 1993-1997

Program Activity	**1993**	**1994**	**1995**	**1996**	**1997**
Total Specimens Submitted	60	47	39	56	89
# Positive Specimens of those submitted	8	2	1	14	18
# Positive Human Contacts Requiring Rabies AShots@	38	9	12	20	21
# Human Pre-exposure individuals	10	6	7	19	13
# Dog and Cats Vaccinated	3,775	3,479	3,172	3,009	3,333

Source: Delaware County Public Health Department, 1998.

Table 36 shows that the rabies program has been very active over the period 1993-1997, with the number of specimens submitted reaching a five year high of 89 in 1997. In addition to these activities, the DCPHD hosted a rabies symposium presented by the New York State Department of Health and sponsored rabies clinics, a poster campaign, and provided in-service rabies training for on-call nursing supervisors. Also, a work site was used to present a rabies exhibit. It was hosted by a major employer -- the At-A-Glance Corporation in Sidney, NY.

Also, the fact that Delaware County covers a land area the size of the State of Rhode Island poses serious challenges to the DCPHD=s staff to provide optimal coverage to communities. DCPHD staff are assigned large service areas, many of which include 30 minutes to an hour of travel time to reach designated villages. Some of the more isolated villages require up to 90 minutes of travel time. As a result, this physical feature of the county greatly limits the capacity of the DCPHD to deliver public health care information, programs, and services. In winter months the DCPHD=s staff encounter even greater logistical challenges in meeting the needs of the public. These factors have made it difficult for the county to provide a strong and effective county-wide preventive health care education program.

Because the county=s population base is modest (47,300) and its population is dispersed in many towns and villages, the market for medical services is modest and services cannot be delivered in a cost-effective manner. As a result, the county has experienced the continued consolidation of health care facilities with a gradual emphasis on health centers and clinics -- many of which are operated by out-of-county hospital systems. This trend is likely to continue as the county=s population remains relatively unchanged into the future and the health care industry continues to be driven by the need to expand market share and other economic factors.

Also, because of the county=s modest and dispersed population base, it has been impossible to attract private sector operators who are willing to establish a county-wide transportation system. On the other hand, the county lacks the resources to fully subsidize and manage its own transportation system. As a result, with the exception of some elderly people who are able to use a limited transportation service sponsored and managed by the Delaware County Office for the Aging, residents must rely on private transportation. This situation creates serious logistical problems for the elderly, infirm, chronically ill, and poor people. Consequently, people frequently miss appointments and others will wait until their medical situation is serious before they make arrangements to visit a doctor.

Finally, the physical environment and topography have made agriculture a major county industry throughout its history, but it has also been an industry that has declined significantly in recent years. The decline of the dairy industry has placed enormous emotional and financial stress on farmers, their spouses, and children. For many farm families, farming is a way of life and the loss of their farm, or operating it at a financial loss year after year, can be devastating. From a public health standpoint, it is important to recognize that as many as 30% of farmers do not have health insurance.[31] In addition,

[31] Cooperative Extension Association of Delaware County. Discussion with Cooperative Extension Agent.

many are strongly independent and are unwilling to accept charity when they face serious personal problems. Fortunately, the county has two organizations which are able to assist farm families including Cornell Cooperative Extension and the New York Center for Agricultural Medicine and Health (NYCAMH). These organizations provide financial counseling, emotional counseling, agricultural production assistance, tractor safety, and testing for occupational lung disease, noise induced hearing loss, skin cancer, musculoskeletal problems, and vision problems.

Certain aspects of the social environment in Delaware County have a significant impact on attitudes, behavior, and community health risks. First, many county residents believe in a set of social and cultural values which embrace the principals of self-reliance, independence, and an unwillingness to accept charity. These attitudes and beliefs cause many residents to refrain from accessing public health information, programs, and services. This is also true of their attitudes regarding social services (e.g., Food Stamps). There is particular concern by residents when income means tests are used or other financial eligibility standards are employed. In many respects, there is also a mistrust of government and a sense that each person should accept personal responsibility for their own situation.

Second, residents of many individual towns and villages have a sense of community; however, it is questionable whether this is true of the county at-large. Unlike smaller counties in Upstate New York, Delaware County covers such a broad expanse of territory that it lacks sufficient media coverage to effectively link communities across the county into a Asense of the county@ or Acounty community.@

Delaware County has 12 small, community-based newspapers and each has a distribution area that is limited. Most of these newspapers are based in communities in the most populous communities in eastern and south eastern areas of the county. The same may be said of the 7 radio stations which serve the county. Of these 7 stations, 2 are based in Oneonta (in Otsego County). Also, the county lacks its own television station and relies on network news from stations located in Albany, Utica, and Binghamton. Some areas of the county receive information from stations based in the Hudson Region. As a result, it is very difficult for the DCPHD to communicate public health messages and preventive health care information to county residents -- particularly when a sustained media campaign is needed.

Recognizing these factors, the DCPHD has developed a strong network of community organizations and county agencies to promote the distribution of preventive health information and health education programs. The DCPHD works closely with the Rural Healthcare Alliance, a community based coalition of organizations with representatives from the Delaware County Mental Health Department, Delaware County Public Health Department, Delaware County Office for the Aging, NYS Office of Rural Health, Delaware County Long Term Home Health Care Program, the Delaware County Department of Social Services (DSS), LARC of Sidney, Inc., Margaretville Memorial Hospital, Delaware Valley Hospital, The Sidney Hospital, Bassett Healthcare O=Connor Division, Cornell Cooperative Extension, the Delaware Opportunities, Inc., and the Mothers & Babies Perinatal Network. This organization has as its mission the goal of Aexpanding and integrating public and preventive health services into community based primary care systems.@ The DCPHD also coordinates the distribution of public health information with WIC, the Delaware-Otsego-Schoharie Perinatal Network, Heartworks, Human Services Emergency Team, American Cancer Society,

Delaware Academy Student Health (DASH), and the Community Care Givers Alliance.

The social environment of Delaware County is often an isolated one for elderly and teenagers. With small isolated villages and towns dispersed through an expansive region, many elderly have been left to grow old without the emotional support of their extended family. In addition, there is a lack of strong senior citizen organizations which can promote social interaction, communicate preventive health care information (e.g., nutrition), and monitor the physical and emotional health of the elderly. To address this problem, the DCPHD and the Delaware County Office for the Aging work closely together to help meet the needs of the elderly.

The DCPHD provides home visitation, nutrition counseling, and public health nurses visit senior citizen meetings to present preventive health care information and answer questions. The Delaware County Office for the Aging sponsors the Lifeline Program, provides non-emergency medical transportation, health and wellness activities, provides expanded in-home services for the elderly (EISEP Program), and in 1997 delivered meals to approximately 200 homebound seniors.

In most communities within the county, teenagers have few social events and activities in which they can participate. It is also difficult for many young people to find employment -- especially during the winter months. As a consequence, many teenagers are idle and frequently adopt behaviors which include the use of alcohol, drugs, and tobacco. In most towns, what few opportunities teenagers have for recreation and entertainment are organized by local churches.

Regarding the legal environment and its impact on the health care condition of residents, a number of issues are relevant. First, the only agency which assists poor people in their efforts to deal with the resolution of financial and access issues associated with health care and other problems is the Legal Aid Society of Mid-New York, Inc. The Legal Aid Society reports that the vast majority of its litigation work on behalf of poor people in Delaware County concerns outstanding debts for health care services. The primarily cause of the debt problems is the lack of health insurance coverage of poor people. The debt situation no doubt reflects the fact that the New York State Department of Health estimates that 17% of Delaware County residents lack health insurance -- a figure which exceeds the national rate of 16%.[32]

The magnitude of the impact of the lack of health insurance is revealed in recent reports of the cost of uncompensated health care in 1997 by two major hospitals which provide health care services to Delaware County residents. These hospitals also operate rural hospitals, health centers, and clinics in counties throughout central New York. A.O. Fox Hospital (City of Oneonta) reported charity care costs in 1997 in the amount of $188,000 and bad debt at $1,970,000 for a total of approximately $2.0 million. Bassett Healthcare, Inc. (Cooperstown), reported charity care costs in 1997 in the amount of $650,000 and bad debt of $4,700,000 for a total of approximately $5.3 million.[33]

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[32] Robert Pear, AAmericans Lacking Health Insurance Put At 16 Percent,@ New York Times, September 26, 1998, p. 1.

[33] Jeremy Boyer, AHospitals Worry About Future of Charity Care,@ The Daily Star, July 20, 1998, p. 1.

More specific to Delaware County, three hospitals operating in the county also reported substantial charity care costs including Delaware Valley Hospital in Walton ($60,000), Margaretville Memorial Hospital in Margaretville ($100,000), and The Hospital in Sidney ($110,000). As small hospitals, these totals are significant and underscore the impact of uninsured and underinsured residents in Delaware County.[34]

Also, the Legal Aid Society has a contract with the Delaware County Office for the Aging to provide elderly people with legal counseling to help them prepare health care proxies.

Only a few organizations in the county advocate on behalf of the health care needs of poor people. Delaware Opportunities, Inc. is a community action agency in the county which advocates for poor people and elderly people who are economically disadvantaged. This agency advocates and promotes programs which focus on such health issues as nutrition, teenage pregnancy and parenting, child safety, respite care, WIC, senior meals, and hunger. Also, the Delaware County Office for the Aging advocates for the needs of the elderly.

The Planned Parenthood Association of Delaware & Otsego Counties, Inc. advocates for poor women in the areas of contraception and reproductive health, screening for sexually transmitted diseases, treatment of sexually transmitted diseases, and counseling. These services are provided on a sliding fee basis. In addition, Planned Parenthood provides free pap tests and arranges for free mammograms for un- and under-insured women who meet eligibility guidelines. Yet, it should be noted that there is no anonymous testing site for HIV in Delaware County. Confidential testing is conducted through physician offices and the Planned Parenthood Association; however, those seeking anonymous testing must travel to Albany, Binghamton, Cortland, Kingston, Syracuse, or Utica. While the anonymous testing is free of charge, HIV testing requires two medical appointments for pre- and post-test counseling and the extensive travel required for these appointments is a financial burden for un- and under-insured persons.

Second, due to limited county resources it has not been possible for local law enforcement departments to increase manpower and create specially trained teams to conduct aggressive monitoring and interdiction of illegal alcohol and drug use. Most current law enforcement efforts in this regard are reactive and limited in scope.

Finally, in the Village of Margaretville, which is located in the Town of Middletown, the population of Hispanic people has risen significantly. There is some evidence that a number of people settling in the area of the Village of Margaretville are illegal immigrants. As a result, it is typical of illegal immigrants to avoid accessing health care facilities even though they face serious medical conditions. It is likely that a rising number of such situations are occurring in this area of the county.

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[34] Ibid., p. 2.

Section 2: Local Health Unity Capacity Profile

Section 2.1a: Organization

The Delaware County Public Health Department is divided into five components including (1) Public Health Services, (2) the Certified Home Health Agency, (3) the Long Term home Health Care Program, (4) Children Services, and (5) Emergency Medical Services (i.e., training, coordination, and equipment procurement). The entire DCPHD receives policy direction and administrative oversight from the Health Committee which consists of five members of the Delaware County Board of Supervisors.

The Public Health Services component is managed by the Director of Patient Services/Director of Public Health and includes the following programmatic areas: Community Health Assessment and Municipal Public Health Services Plan, Family Health, Disease Control, and Health Education. The Family Health Program and Disease Control areas are supervised on a day-to-day basis by a Supervising Public Health Nurse. The Family Health program area includes dental health education, child health, lead poisoning prevention, maternal and perinatal care, family planning, nutrition, and injury prevention and control. The Disease Control program area includes sexually transmitted diseases, tuberculosis, communicable diseases, immunization, chronic diseases, HIV, and rabies.

In terms of the Certified Home Health Agency organization, day-to-day supervision of the agency is conducted by a Supervising Public Health Nurse under the overall management of the Director of Patient Services. The agency conducts all home visiting professional services including nursing services, para-professional and support services, and home health aide services. In addition, the agency provides other professional services including physical therapy, speech language pathology, respiratory therapy, occupational therapy, nutrition, audiology, and medical social work.

The Long Term Home Health Care Program (LTHHCP) receives day-to-day supervision by the Director of the LTHHCP under the overall management of the Director of Patient Services. The program provides the following services including nursing services, physical therapy, occupational therapy, speech therapy, respiratory therapy, medical social work, nutrition services, audiology, medical supplies and equipment, home health aide services, personal care aide services, homemaker services, and housekeeper services.

The Emergency Medical Services is coordinated through the Emergency Management Office. The coordination of training efforts and equipment procurement is a shared responsibility of the Emergency Management Office and the DCPHD.

The Children Services area is supervised on a day-to-day basis by a Supervising Public Health Nurse. The Children Services area includes infant/children health assessment (ICHAP), early intervention services (EI), and the physically handicapped childrens services program (PHCP). Beginning in October 1998, this area will be expanded to include children with special health care needs (e.g., CSHCN).

Most serious laboratory testing, which primarily involves testing for lead and rabies, is done on a contractual basis with the State Laboratory and other private laboratories. Environmental health services are conducted by the New York State Department of Health district office in Oneonta.

In summary, the entire DCPHD receives policy direction and administrative oversight from the Health Committee which consists of five members of the Delaware County Board of Supervisors. The DCPHD is managed by a Director of Patient Services/Public Health and programmatic areas of the DCPHD are supervised by four full-time Public Health Nurses.

Section 2.1b: Staffing and Skill Level

The Delaware County Public Health Department has 41 full- and part-time employees. Of these 41 employees, 17 are registered nurses, 5 supervising public health nurses, 2 public health nurses, 9 home health aides, and 8 administrative services staff.

Section 2.1c: Adequacy and Deployment of Resources

In preparation for the community health assessment, the DCPHD conducted a series of focus group meetings with DCPHD staff covering all functions to assess staff views regarding workload and productivity. The protocol of the focus group process was the convening of two groups of staff members and to have them respond to seven questions. The focus group process yielded responses and recommendations for action in the areas of communication, flexibility, and improved teamwork to help the DCPHD adapt to change.

Staff members noted that the increased demand for record keeping and case documentation, as well as the changing focus of the health care field to one more dominated by economic factors (e.g., impact of Balanced Budget Act and growth of managed care system), has increased the stress level of staff members. It is expected that efforts to improve intra-office communication and teamwork will help the DCPHD to better adapt to the many significant changes impacting the health care field.

In addition, the DCPHD will consider incorporating e-mail capability and voice mail systems into its office operations in the coming year. In the short term, the use of e-mail should help to channel inter-departmental information and messages more efficiently. In the long term, an e-mail system will help DCPHD staff respond to public users -- which by all current indications will become a rapidly growing proportion of the public in the near future. A voice mail system will help to channel public inquires in an efficient manner and significantly reduce what is currently a serious problem of phone interruptions to staff. In addition, the consolidation of DCPHD=s two county health offices into one new office in 1999 will create a more efficient office layout, improve acoustics, and provide access to two photocopiers located away from staff offices.

The DCPHD will consider creating a communications book with copies of all office memoranda. In addition, the idea of regularly scheduled integrated staff meetings will be explored. This approach will help to increase department-wide information sharing, team-building, and communication. Also, the DCPHD will contact agencies and organizations in the region to present a time management/organizational skills workshop for staff. In particular, DCPHD will work with the

Nonprofit Leadership Forum and the Clark Learning Institute, local organizations which provide professional development workshops for nonprofit organizations, to develop workshops designed to enhance the operational efficiency of the DCPHD.

In order to better assess the DCPHD=s organizational structure, staff responsibilities, and workload distribution, the DCPHD plans to use the APEX PH, organizational capacity assessment model, or another appropriate model in the near future.

Summary

In general, the DCPHD staff includes a versatile, well trained, and dedicated staff. These are attributes which have allowed the DCPHD to respond to growing demands for services and programs with minimal increase in DCPHD personnel and budget. The staff is dominated by nursing professionals and would likely benefit from collaboration with business and economic planning professionals.

In the future, the DCPHD will continue to face budgetary constraints which will impact current staffing levels. However, contracting for services may be an option to address such issues as assessment, planning, engaging a dental hygienist to conduct dental education, and to obtain expertise to increase the capacity and scope of future departmental endeavors.

In many respects, staff capacity, resource deployment, communication, and productivity will be greatly enhanced in 1998 when the DCPHD=s two offices (in Delhi and Hamden) are merged into a new single office. This new office will include a configuration of offices which will increase staff interaction, resource sharing, and enhanced computerization. This action will serve to streamline operations and provide a comfortable and efficiently designed space for the conduct of DCPHD business.

Section 2.1d: Expertise and Technical Capacity to Perform a Community Health Assessment

Given the prevailing staffing levels, types of professional expertise, and workload of the DCPHD, it has not been feasible to develop a comprehensive data collection, storage, and statistical analysis capacity within the DCPHD sufficient to perform a community health assessment. As a result, annual efforts to complete a community health assessment typically begin with the need to assign staff already burdened by heavy workloads with additional tasks associated with the community health assessment. Data collection efforts are undertaken by updating previously compiled non-computerized data records and analysis is typically data specific and descriptive. In the current year, the DCPHD hired a consultant to complete the community health assessment. However, lacking a computerized database and quantitative-based program assessment records, the consultant faced a similar challenge of collecting and analyzing demographic and health care data.

In order to enhance the DCPHD=s capacity to perform a high quality CHA, the DCPHD would need to employ a professional with good analytical, statistical, data base management, and program

assessment skills. This staff member would be charged with the responsibility for completing and updating the annual CHA, developing an in-house computerized data base, and collecting and organizing demographic, needs assessment and program evaluation data.

In summary, the DCPHD has access to a wide variety of quantitative and qualitative data ranging from demographic information to needs assessment studies which are conducted by various county agencies and community organizations. However, this data has not been collected and organized in a fashion which would help the DCPHD to acquire a complete understanding of the health care status of residents of the county.

Section 3: Problems & Issues in the Community

Section 3a: Profile of Community Resources

The following community resources are available to help meet the health-related needs of Delaware County:

Alcoholics Anonymous and Al-Anon - a nonprofit organization which promotes access to support groups and education about alcoholism.

Alzheimer=s Association of Sullivan-Delaware Chapter (Monticello) - a nonprofit organization which provides support groups and public health information about the disease to individuals and families. The Association has one support group in Delaware County located at the Mountainside Residential Care Center in Margaretville.

American Cancer Society (Sidney) - a nonprofit organization which provides information and referral, operates a loan closet, provides limited transportation using volunteers, or financial reimbursement for transportation, limited financial assistance, and rehabilitation services.

American Red Cross - Delaware County Chapter (Hobart) - a nonprofit organization which provides civil or natural disaster assistance to families and individuals including food, clothing and shelter. Also, it manages Project Share which is funded by the New York Electric & Gas Corporation. This program provides assistance to elderly people aged 60 and over and disabled people with funds in case of electric shutoff or fuel shutoff. The Chapter also provides classes in first aid, CPR, babysitting training, swimming, lifeguard training, power mower safety, and water safety. The Chapter also coordinates the schedule of a bloodmobile.

American Diabetes Association of Central New York (Utica) - a nonprofit organization which provides resource materials for diabetes teaching.

American Lung Association of Mid-New York (New York Mills) - a nonprofit organization which provides education and information about asthma, COPD, and other pulmonary diseases, smoking cessation information, and Camp Super Kids (a summer education camp for children with asthma). The Association also provides education about indoor air quality including radon information.

A.O. Fox Memorial Hospital (Oneonta) - a 128 certified acute care bed, voluntary, not-for-profit Hospital with a 131 bed nursing facility and 7 physician practices in Otsego and Delaware Counties. Specialized departments include an Adolescent Psychiatric Unit, 24-hour Emergency Room, Pediatrics Unit, Surgical Suites, and the FoxCare Center. Fox Hospital provides complete mental health services (adolescent as well as adult care) including in-patient and out-patient follow-up. The FoxCare Center is a 100,000 sq. ft. state-of-the-art wellness and fitness facility and includes child and adolescent health care, Internal Medicine and Oncology, Women=s Wellness, and a fitness center. In 1998, Fox Hospital became affiliated with Albany Medical Center.

Bassett Healtcare (Cooperstown) - a network of physicians, providers, hospitals, and 20 community health centers located in nine counties in central New York. Bassett Healthcare is based at The Mary Imogene Bassett Hospital in Cooperstown, NY which is a 180-bed, acute care inpatient teaching facility. This facility provides 24-hour emergency and trauma care, comprehensive cancer care, as well as a wide range of medical and surgical specialities. It provides primary care services (internal medicine, family medicine, pediatrics, and obstetrics), as well as medical and surgical specialty care including cancer care, trauma care and dialysis. The Cooperstown campus also has the Bassett Clinic, an outpatient primary and speciality care center. Bassett Healthcare is affiliated with O=Connor Hospital in Delhi and manages outpatient centers in Delhi, Stamford, and Walton. Examples of programs that serve Delaware County with Bassett Health care support include a school-based health care program and NYCAMH.

Carousel Children=s Services (Hamden) - a nonprofit organization which assists young children (birth to age 5) with developmental skills. The organization specializes in child development, Attention Deficit Disorder, Autism, mental retardation, Cerebral Palsy, Spina Bifida, and physical handicaps.

Catholic Charities of Delaware & Otsego Counties (Oneonta) - a nonprofit organization which provides dispute resolution for low income people regarding medical bills. Also, it operates the Community Maternity Services Program which helps teenagers and young families with pregnancy issues ranging from pre-natal to post-natal health care. In addition, counseling services are provided to teenagers, parents, and couples on a wide variety of health and human services concerns. It also provides home health aide services through Inter-County Homecare.

Catskill Rural AIDS Services (Oneonta) - a volunteer organization which provides advocacy, education, and support services for AIDS clients and their families.

Catskill Area Hospice Inc. (Oneonta) - a nonprofit organization with an office in Delhi. The organization provides in-home palliative care using RNs and LPNs, social workers, home health aids, and volunteers. Assistance is provided to uninsured and insured patients who have received a medically certified terminal diagnosis. The organization has a Special Needs Fund to help meet the needs of uninsured patients.

Community Care Givers Alliance (Delhi) - an informal network of home care providers including DSS (lead agency), DCPHD, Hospice, and others who provide services to each other and promote improvements in the health care delivery system.

Cooperative Extension Association of Delaware County (Hamden) - a nonprofit agency operated by Cornell University which provides nutrition education programs (e.g., meal preparation education) and technical (e.g., agricultural production), budgeting, and counseling support programs for families. Cooperative Extension is the lead agency for the Delaware County Rural Healthcare Alliance which is a collaborative effort of leading health care and health care-related agencies and organizations in Delaware County.

Delaware Academy School Health or DASH (Delhi) - a school-based health center established in conjunction with Bassett Health care=s health center in Delhi and operated out of Delaware Academy Central School. The program provides primary care to children and teens.

Delaware County AIDS Task Force (Delhi) - see Catskill Rural AIDS Services.

Delaware County Cancer Coalition (Hamden) - a grass-roots level advocacy group with the mission of educating health care providers and residents about cancer and current cancer screening guidelines. The Coalition promotes such programs as early detection for breast cancer, a breast and cervical cancer media campaign, an education and screening program at employer work sites, community screening (no charge), and leadership development to encourage volunteers to plan for the health care needs of their communities. Examples of recent Coalition activities include the Quilt for Breast Heath, Health Care Provider Education, Pick-Me-Up Binder, Tell A Friend Program, Tobacco Awareness School Program, Satellite Training Programs, and Work site and Community Cancer Screenings. This Coalition primarily targets its efforts in Northern Delaware County.

Delaware County Chamber of Commerce (Delhi) - a not-for-profit organization which provides health care insurance to its membership of small businesses. The Chamber has also collaborated with the DCPHD and local businesses to promote the HeartWorks program.

Delaware County Council on Alcoholism (Delhi) - a nonprofit organization which provides prevention education to individuals, community organizations, businesses, and schools. The Council provides the Driving Rehabilitation Course for those arrested for DWI and a course titled AFreedoms and Responsibilities@ for youth who have been incarcerated. In addition, the Council provides information and referral service for those dealing with alcohol and drug abuse problems.

Delaware County Council of Churches - a coalition of churches in Delaware County which provides support for the county food bank network and provides emergency food assistance.

Delaware County Department of Social Services - a county agency which works closely with the Delaware County Public Health Department to coordinate services and case management referrals for its clients. The department funds and manages the Teen Age Services Program (TASA), which coordinates medical and counseling services for pregnant teenagers, parenting teenagers, and young people considered to be at-risk for pregnancy. Also, the department contracts with Delaware Opportunities, Inc. to provide transportation for its clients to appointments at medical and mental health facilities.

Delaware County Disabilities Council (Walton) - a network of organizations serving the needs of children with disabilities (birth to adulthood) and seeks to strengthen its member organizations capacity to improve effectiveness and enhance the delivery of services to the disabled.

Delaware County Emergency Squads (throughout Delaware County) - Volunteer emergency medical squads are located in Andes, Bloomville, Bovina, Delhi/Hamden, Downsville, East Branch, Franklin, Grand Gorge, Hancock, Hobart, Masonville, Meridale, Roxbury, Sidney, Sidney Center, Stamford, Treadwell, Trout Creek, and Walton.

Delaware County Mental Health Clinic (Walton) - a county agency which serves as the outpatient mental health clinic and alcoholism clinic for the Delaware County. The agency conducts evaluation, diagnosis, and treatment to adults, adolescents, children, and families for mental health. The agency provides group therapy, family therapy, case management, psychiatric services, crisis intervention, and psychological services.

Delaware County Office for the Aging (Delhi) - a county agency which provides a number of health-related services to improve the quality of life of elderly citizens. The agency provides the following health-related services including Lifeline, transportation to medical appointments, health and wellness programs, expanded in-home services for the elderly (EISEP), senior dining program (e.g., home delivered and congregate meals). The Office coordinates fall influenza immunization clinics for the elderly.

Delaware Opportunities, Inc. (Delhi) - a private nonprofit agency which provides a number of health-related services to low income people. Some of the services include advocacy, car seat loaner project (DORITE), community food and nutrition, emergency food bank network, Project Head Start (child development program including nutritious meals for children and nutrition education for families), Safe Against Violence (SAV) program, respite care, senior meals, case management for pregnant teens (TASA), transportation for individuals on Medicaid for health related appointments and for elderly people to medical appointments, and WIC.

Delaware-Otsego-Schoharie Perinatal Network (Oneonta) - a multi-agency network which works collaboratively to improve prenatal care, childbirth education, labor, delivery, infant care and parenting skills in the region. The Network focuses on the needs of young families with children and addresses such issues as health care, addictions, nutrition, and breast feeding.

Delaware Valley Hospital (Walton) - a not-for-profit, 42 bed hospital which has a corporate alignment with United Health Services of Binghamton, but has retained its own identity as a subsidiary of United Health Services. The hospital is a full service hospital with primary and secondary care including special care units and inpatient surgery. It offers secondary specialty clinics in the areas of urology, orthopedics, neurology, cardiac, and podiatry, as well as a 24-hour emergency department, a medical/surgical patient wing, special care unit, maternity department, and an alcoholism rehabilitation unit. In addition, the hospital operates health centers in the towns of Downsville, Hancock, Roscoe, and Walton.

Delaware Valley Stroke Support Group (Walton) - a community organization which provides education about strokes and support groups.

Emergency Food Bank Network - a network of organizations and churches which serves towns in Delaware County and provides food on an emergency basis.

Family Service Association (Oneonta) - a nonprofit organization which assists low income people and families in acquiring medical devices, paying for prescriptions for medicine, and provision of food.

Healthy Living Partnership (Binghamton) - a partnership of health care organizations with the Broome County Department of Health as the lead agency and including the Delaware County Department of Public Health. The Partnership is funded by a NYSDOH grant and it is designed to locate health care providers to provide mammography and breast exam services to eligible women with reimbursement by the Partnership.

LEAF Council on Alcohol and Addictions, Inc. (Hartwick) - a nonprofit organization which provides information and education services regarding alcohol abuse and addictions to individuals, families, organizations, and schools.

LARC (Sidney) - a nonprofit licensed home care agency which provides home health aide services to Delaware, Otsego, Chenango, and Broome Counties. It also operates an adult day care center in Sidney. The Agency sponsors a care givers support group which meets monthly.

Legal Aid Society of Mid-New York, Inc. (Oneonta) - a nonprofit organization which provides litigation services to low income people regarding clarification and payment of medical bills.

Local Early Intervention Coordinating Council (Delhi) - an advisory council which serves the needs of children with disabilities (birth to 3 years of age). The Council works to promote awareness, education, and monitors the capacity of agencies and organizations to provide needed services.

Margaretville Memorial Hospital (Margaretville) - a not-for-profit hospital with 22 acute care beds, a Coronary Care Unit, and a Swing-Bed program for patients recovering from illnesses that require rehabilitative services. The hospital provides complete surgical services covering many types of procedures including ambulatory surgery and laparoscopic procedures. Also, the hospital offers an Emergency Room with 24-hour coverage, as well as a 24-hour, highly trained ambulance squad. Other services offered by the hospital include ambulatory electro- cardiograms, respiratory therapy, physical, occupational, and speech rehabilitation services, as well as routine diagnostic fluoroscopy, mammography, ultrasound and full-time CT Scanner services.

Mothers & Babies Perinatal Network of South Central New York, Inc. (Binghamton) - a not-for-profit, community based organization which seeks to improve birth outcomes through community education, promoting collaboration among groups to identify gaps in service delivery and developing solutions.

Narcotics Anonymous (Sidney) - a nonprofit organization which promotes access to support groups and provides education about addiction.

New York Center for Agricultural Medicine and Health (Cooperstown) - a program of Bassett Healthcare which operates a farmer=s clinic in Cooperstown. It provides screening and treatment services pertaining to occupational lung disease, noise-induced hearing loss, skin cancer, musculoskeletal problems and vision care. NYCAMH also manages the Farm Partners Project which addresses the emotional stress experienced by farmers and farm families through contact with farmers, assessing farm family needs, counseling, and, if necessary, making referrals to the appropriate mental health or community service organization(s).

O=Connor Hospital (Delhi) - a not-for-profit hospital with 21 acute care beds plus extended care Aswing@ beds for patients transitioning from acute care to home care or awaiting nursing home placement. The hospital also offers 24-hour comprehensive emergency services. It also provides radiology services (CT scan, mammography, ultrasound, fluoroscopy and x-ray), physical therapy, cardiopulmonary diagnosis and treatment, and Asame day@ ambulatory surgery. The Hospital also provides secondary specialty clinics in OBGYN, Urology, Podiatry, and Mental Health. O=Connor hospital is affiliated with Bassett Healthcare.

Ostomy Club, Delaware County Chapter (Walton) - a community organization which provides a newsletter of information and education and organizes support groups.

Planned Parenthood Association of Delaware & Otsego Counties, Inc. (Oneonta) - a nonprofit organization with one health center in Otsego County (Oneonta) and three health centers in Delaware County including Hancock, Sidney, and Walton. The Association advocates for low income women in the areas of contraception and reproductive health, and provides a variety of services including GYN, testing and treatment of sexually transmitted diseases, HIV testing, family planning, free pap tests and arranges for free mammograms for un- and under-insured women. A sliding scale fee system, Medicaid reimbursement, and insurance is used to pay for services. In addition, the Association manages the Community Based Adolescent Pregnancy Prevention Program for the Sidney School District.

Salvation Army (Oneonta) - a nonprofit, religious sponsored organization which provides clothing and food to low income individuals and families.

Safe Against Violence Hotline (SAV) - a hotline service for responding to domestic violence and rape crises. The hotline provides counseling support groups, medical and legal advocacy information, day care, emergency food and clothing, transportation, and anonymous shelter.
The SAV program is managed by Delaware Opportunities, Inc.

Southern Tier AIDS Task Force (Binghamton) - a nonprofit organization which provides AIDS counseling, advocacy, case management, and education.

Students Against Drunk Drivers - SADD - SADD units are located throughout Delaware County and are groups organized by school students which advocate against driving while intoxicated.

Taking Off Pounds Sensibly-TOPS (Delhi) - a weight loss support group which promotes Heart Health education, nutrition education and increased physical activity.

The Hospital (Sidney) - a not-for-profit hospital with 47 acute care and 40 nursing home beds. It is a full service hospital with primary and secondary care including special care units and inpatient surgery. The Hospital offers a wide variety of services including: a VA outpatient clinic, a 40 bed nursing home, obstetrical services, cardiology clinic, 24-hour emergency medical services, physical therapy program, ambulatory diagnostic and treatment services.

The Visiting Nurse Service of At-Home Care, Inc. (Oneonta) - a nonprofit organization, certified home health agency sponsored by Bassett Healthcare, Fox Hospital, and Catholic Charities of the Albany Dioceses. The Service provides at-home acute care nursing based on direct referrals from hospitals, private doctors, health clinics, families, and HMOs. People of all income levels can use this service provided they are homebound and payment is possible using many health care plans.

Treadwell Community Improvement Club (Treadwell) - a community group which provides emergency medical aids on a loaner program basis.

United Way of Delaware and Otsego Counties (Oneonta) - a nonprofit agency which provides funding support to organizations which provide health care and health care-related services to residents of Delaware County. United Way provides funds to: Catholic Charities of Delaware and Otsego Counties, Catskill Area Hospice, Delaware Opportunities, Inc., Family Services Assoc., LEAF Council on Alcohol & Addictions, Inc., Legal Aid Society of Mid-New York, Inc., and Salvation Army.

Section 3a1: Collaboration to Improve the Health Status of the Community

The DCPHD and Cornell Cooperative Extension of Delaware County began the Delaware County Rural Healthcare Alliance in 1996 and which has evolved into a multi-agency network. The Alliance expanded its efforts in 1998 in response to the report of the New York State Rural Health Council titled ARural Health in New York State.@ This report recognized the unique conditions which make it difficult for rural communities like Delaware County to respond to the rapidly changing health care environment. In particular, the report noted that Acommunities which work collaboratively to shape the change process and which maintain their focus on building a stable, quality healthcare delivery system will emerge stronger in the new environment.@

Recognizing the need to develop a network of collaborating organizations which serve the health and health care related needs of Delaware County residents, the Public Health Nursing Service and Cornell Cooperative Extension have worked to expanded the Alliance membership to include the following agencies and community organizations: Delaware County Mental Health Department, Delaware County Public Health Department, Delaware County Office for the Aging, NYS Office of Rural Health, Delaware County Long Term Home Health Care Program, the Delaware County Department of Social Services (DSS), LARC of Sidney, Inc., Margaretville Memorial Hospital,

Delaware Valley Hospital, The Sidney Hospital, Bassett Healthcare O=Connor Division, Cornell Cooperative Extension, the Delaware Opportunities, Inc., and the Mothers & Babies Perinatal Network.

Since its inception, this inter-agency group has developed a strong sense of unity and professional collegiality which has enabled it to create an effective organizational presence in the county. The Alliance membership is expected to grow in 1999 as additional members are recruited from the following types of organizations: Hospice, Delaware County Planning Department, one or more School Districts, one or more county residents, one or more businesses/Chamber of Commerce, and one or more hospital board members. When the membership goals are completed, the Alliance will represent the full range of the health care delivery system from provider to consumer.

The goals of the Delaware County Rural Healthcare Alliance are as follows:

- Maximize the capacity of the Delaware County health care delivery system to provide the best health care for its residents through the establishment of a formal county health network of providers, consumers, businesses, and other interested parties.
- Expand and integrate public and preventive health services into community based primary care systems.
- Develop Managed Care capacities.
- Recruit and retain qualified health care professionals.
- Develop innovative finance strategies for supporting rural health care network operations.

Section 3a2: Collaborative Efforts Currently Underway

All four hospitals in Delaware County including Delaware Valley Hospital (Walton), Margaretville Memorial Hospital (Margaretville), O=Connor Hospital (Delhi), and The Sidney Hospital (Sidney), serve on the Delaware County Rural Healthcare Alliance and work closely with DCPHD. Through this formal relationship and other programmatic activities in which they collaborate, the DCPHD has been able to have input into the development of the hospital community service plans.

The DCPHD works with many health care organizations to assist them in needs assessment efforts by serving on advisory boards and providing statistical information and comment. In addition, the DCPHD completed its APublic Health Priorities Initiative@ Project in May of 1998. This project incorporated a telephone survey of Delaware County residents, a mass distribution survey through the print media, and a focus group process with population groups including the elderly, law enforcement officers, clergy, educators, and representatives of community organizations. This project benefited from collaborative efforts between DCPHD and the Delaware Office for the Aging, senior citizen organizations, churches, law enforcement agencies, school districts, and health and human service agencies.

In addition, DCPHD is actively engaged in an effort by the Delaware County Rural Health care Alliance to develop a county-wide composite needs assessment. Recognizing that many health and health care-related agencies and organizations are currently conducting needs assessments, the Alliance issued a response for proposals in May 1998 to develop a multi-agency client specific assessment tool. This approach will reduce redundancy of effort, reduce assessment costs, improve planning efforts, and create a strong collaborative relationship among health and health care-related agencies and organizations.

Under the auspices of the Delaware County Rural Health care Alliance, DCPHD plans to engage in a number of collaborative planning efforts over the course of the next few years. Some of these planning activities include the development of a coordinated community health plan, a mental health HPSA plan, a dental HPSA plan, a county-wide medical HPSA, and development of a composite county-wide health plan. In addition, a comprehensive community-based program will be planned to focus on prevention of tobacco use. Since the Rural Health care Alliance has been able to cultivate the key organizations engaged in the county health care delivery system, it has proved to be an excellent vehicle for pursuing collaborative planning efforts.

The DCPHD also worked through the Delaware County Rural Health care Alliance to survey all school districts in the county to assess the status of their dental education curriculums and to collect additional information for the purpose of planning a dental health curriculum for all school districts. This was a significant planning effort since the county has only three municipal fluoride treatment facilities, a dental health clinic, and a coordinated public health education program targeted to preventive dental health care.

The DCPHD is also actively involved with APartners for Children,@ which is a collaborative effort involving the Delhi Central School District, Delaware County Department of Social Services, the DCPHD, Carousel Childrens Services, Delaware Opportunities, Inc., Cornell Cooperative Extension of Delaware County, and various pre-school providers. This goal of this collaboration is to assist in strengthening the learning which occurs in the time from birth to age five by improving school readiness and success for all children in the Delhi Central School District. The following are the key objectives of the collaboration: (1) increase the number of children ready to learn when entering school with a focus on early literacy development, (2) increase the educational performance of all children especially in the language arts, and (3) increase the number of children in safe, stable, and nurturing home and community environments. This collaboration effort also focuses on the closely related issues of health insurance, dental and medical care, immunization, lead status, physical and emotional growth and development.

Finally, DCPHD collaborated with the Otsego County Public Health Department and the Schoharie County Public Health Department to conduct the APublic Health Priorities Initiative@ Study. As a follow up to the project, the directors of the three public health departments are meeting on a regular basis to identify and plan for a set of collaborative projects. After collaborating in completing this comprehensive needs assessment, it will now be possible to collaborate in the implementation of strategies designed to address some of these shared needs. The selection of projects and implementation strategies will be decided in late 1998 and collaborative efforts will begin in the spring of 1999.

Section 3a3: Assessment of Public Health Care Services

It is generally recognized that community organizations which provide services to help meet the health-related needs of Delaware County residents work in a very collaborative and effective way. This may be due to the fact that while the county is geographically large, it has a small population and community service professionals are well acquainted with each other. The existence of the Delaware County Rural Health Care Alliance is an excellent example of how well community service organizations and county agencies network. However, three additional reasons may account for the high level of collaboration.

First, community organizations and county agencies have adopted a strong commitment to providing quality services to residents. This has often required a high degree of coordination to reduce bureaucracy and significant commitment to overcome the logistical challenges (e.g., travel distances) of providing needed health services. As a result, it is typical for urgent referrals to receive immediate attention and paperwork for clients to be processed without delay. Second, the geographically extensive size of the county has led health and human service organizations to be sensitive to the distance and transportation problems facing clients. In this way, many organizations are willing to Ago to the client@ to help facilitate access to services. Finally, professionals working in the county=s community organizations have strong professional commitments to their individual professions and the community. As a result, they are willing to work long hours, be accessible, and work collaboratively to insure that client needs are met.

Most health-related services are not easily accessible by clients because community organizations do not have the resources to establish numerous satellite offices. As a result, community organizations are typically based in the higher populated towns including Delhi, Sidney, and Walton. This places pressures on rurally isolated, elderly, and chronically ill clients to secure transportation to these locations. However, as noted above, most organizations will make every effort to visit clients or make arrangements to accommodate clients so they can receive services. In addition, community organizations make every effort to use job site health fairs, schools, the Delaware County Fair, clinics, the media, and village and town social events to distribute information about health-related services and to interact with residents.

Nearly all health-related services offered by community organizations are provided either free of charge or with a sliding-fee schedule. However, acceptability of these services is often below expectations because of some of the personal beliefs of residents including reluctance to accept charity, the social stigma of accessing services which run the risk of revealing one=s personal or family situation, and general reluctance to share personal and financial information.
Most organizations are open during the week, all day, and some provide evening and weekend coverage through on-call staff and answering machines.

Section 3a4: Significant Outreach/Public Health Education Efforts

A number of important on-going outreach and public health education efforts are currently underway in Delaware County. With regard to high-risk populations, the Delaware County Public Health Department and the Office for the Aging (OFA) have developed a series of messages on

chronic disease and nutrition which are distributed in OFA=s newsletter to elderly people throughout the county. To address the problem of adolescent pregnancy (ages 10-14), a community-based Adolescent Pregnancy Prevention Program was initiated in Sidney with Planned Parenthood as the lead agency in collaboration with the Mothers & Babies Perinatal Network of South Central New York, Inc. and the DCPHD.

In order to help low income families in injury reduction, the Delaware County Public Health Department has developed a program with Delaware Opportunities, Inc., to provide infant care seats on a loan basis. The DCPHD contributes regularly to the WIC Newsletter which is distributed to 1000 low income residents to provide injury control information and tips.

In terms of the general population, the DCPHD works closely with local community-based Afield days@ and health fairs to distribute information about the threat of rabies in the county. Local businesses have also hosted rabies exhibits at their work sites to distribute information about rabies. The Delaware County Fair, which is one of the largest in Upstate New York, has provided exhibit space for the DCPHD each year to distribute information, show videos, and display lively exhibits on such topics as rabies, dental health, alcohol abuse, injury control, tobacco use, and lead poisoning. Each year, the county fair exhibit attracts a very large audience (e.g., 62,000 in 1998).

The DCPHD contributed lead and immunization information to Delaware Opportunities Child and Family Development Newsletter which was distributed to 120 family day care providers and day care centers throughout the county. Lead and immunization information is also provided to all new family day care providers.

In 1997, a community-based diabetic grant was awarded to Delaware Valley Hospital, DCPHD, and the Delaware County Office for the Aging. The purpose of the grant was to increase community awareness of diabetes risk factors, to emphasize the importance of early detection, provide random glucose screening, and to provide nutrition information for local supermarket shoppers. The target group for this program is persons aged 55 and over in the townships of Colchester, Hamden, and Walton. Screenings were conducted at six events including local banks and community health fairs. Thus, far the grant has screened 134 people, with follow-up advisement for 15 people.

In order to address work site health and environmental behaviors, DCPHD joined Bassett Healthcare (lead agency), the Delhi Chamber of Commerce, and the American Heart Association in a coalition to launch a NYSDOH grant funded program in 1997 called HeartWorks. The target population for the DCPHD program were employees of Delaware County government. The HeartWorks coalition presented a series of lunchtime presentations on such topics as breast cancer, osteoporosis, decreasing dietary fat intake, the importance of physical exercise, exercising with free weights, herbs for wellness, and parenting skills. In addition, a six week walking program was developed which engaged 72 county employees to walk 1,179 miles. In addition, a weight loss club was established called TOPS (Take Off Pounds Sensibly) which is a weekly support group. The coalition also conducted a smoking cessation class and engaged 179 employees from 12 businesses to walk 5,810 miles.

In addition, the DCPHD in collaboration with Bassett Healthcare, the Delaware County Chamber

of Commerce, a newsletter called AHeartWorks@ was distributed to 600 county employees. The newsletter contained nutritional information including recipes and educational articles.

In an effort to address the issue of exercise and good health habits, the Delaware County Public Health Department collaborated in a program called HeartWorks Plus with the Delaware Valley Hospital (lead agency) and the Delaware County Chamber of Commerce to develop assessments in each town of existing exercise facilities and the presence of healthy heart menus in local restaurants. The effort is designed to promote attention to good nutrition and physical exercise. In the event that communities lack adequate physical education facilities, efforts will be made to help them plan walking trails and other Ahands on@ exercise facilities.

In collaboration with businesses and local communities, the DCPHD has been able to conduct numerous immunization clinics at work sites and at community health fairs. In addition, these same locations have also been used to conduct health fairs on such topics as bike safety and sun screen practices.

Finally, in 1998 in partnership with the Rural Health Network of Delaware, Otsego, Montgomery, and Schoharie Counties (RHEN-DOMS), a dental hygienist conducted dental health education in day care centers, schools, and nursery schools. This program was significant since it helped address a deficiency in the county which is the lack of a preventive dental care program. The success of this program has led many school districts to express interest in adding to the dental health care curriculum in their academic programs.

Section 3a5: Summary of Available Clinic Facilities and Private Provider Resources For Medicaid Recipients

With regard to available clinic facilities and private provider resources for Medicaid recipients, Delaware County has adequate facilities and resources to meet primary and specialty health care needs. However, the county has no dental clinic and very limited private provider resources for adult Medicaid recipients. In addition, Medicaid recipients can go to the county Mental Health Clinic; however, there are limited private provider resources for mental health services.

Section 3B. Profile of Unmet Need for Services

In order to address the health care needs of at-risk groups in Delaware County it will be necessary in future years for the DCPHD and community organizations to collaborate closely in needs assessment, the development of strategic initiatives, resource development (e.g., grants), resource sharing, and program evaluation.

For the general population, efforts are needed to develop a county-wide transportation system or some variation which will provide improved transportation for economically disadvantaged, disabled, elderly, and the chronically ill. Focus group participants of the 1998 Delaware County APublic Health Priorities Initiative@ project identified four actions which could be employed to improve access to transportation. First, participants suggested that senior citizens and volunteers be mobilized to create

a volunteer-based system to transport elderly and ill people to medical appointments.[35] Second, it was suggested that Delaware County establish incentives to attract health care providers that will locate in more towns and villages within the county. Third, that health care professionals be encouraged to make house visits whenever possible. Finally, participants argued that Delaware County should work with businesses and private foundations to explore the feasibility of purchasing a mobile health clinic and dental clinic which could be dispatched to sparsely populated and remote areas of the county.

In addition, a public health education initiative is needed which will engage the media, schools, businesses, health and human service organizations, SUNY Delhi, service clubs, Chambers of Commerce, and other community organizations. It is critically important that a strong network of these organizations be formed to facilitate a number of public health education programs which will focus on the issues including smoking cessation, substance abuse, nutrition, physical fitness, child health, preventive dental health care, injury prevention, and family health. One of the major obstacles to implementing public health education campaigns in Delaware County is the lack of a single county-wide media source. It may be that future campaigns will need to rely on newsletters which can be sent to individual homes combined with information sharing at sites where people typically gather and interact -- particularly work sites.The issue of family health education and the need for parenting skills training must also be improved throughout the county. In this regard, participants of the Delaware County APublic Health Priorities Initiative@ project advocated for expansion of the Parent Aid Program at Delaware Opportunities, Inc. and that high schools incorporate the subject of parenting and interpersonal relations in their K-12 curriculum. It was also suggested that a formal conference be convened of health care professionals, clergy, social workers, and public health officials from all over Delaware County to devise strategies to help improve family health.[36]

Services to meet the needs of substance abusers can be improved in a number of respects. First, as noted above, the county needs to launch an aggressive public health education campaign to inform the public of how pervasive and damaging the substance abuse problem is in the county. Second, the county needs to attract a more diversified health care system by attracting private providers, as well as increasing the number of substance abuse clinics and counselors. Third, future efforts to address substance abuse will need to be more comprehensive than present approaches by including all major segments of the community -- particularly businesses. Finally, a comprehensive approach would also include the participation of churches and facilitating access to spiritual counseling. Perhaps the most serious difficulty that will be encountered in addressing the county=s substance abuse problem is the need for elected officials, community leaders, school officials, and citizens to acknowledge that there is a serious problem. Once this issue is overcome, then the county will be able to mount a coordinated and successful effort.

Services to meet the needs of the elderly are currently shared by a number of county agencies and community organizations; however, future efforts to improve services to this at-risk group can be improved by the development of a more comprehensive needs assessment. For example, participants of the APublic Health Priorities Initiative@ project suggested that an assessment of the in-home social

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[35] Delaware County APublic Health Priorities Initiative@ (1998), p. 13.

[36] Ibid., p. 17.

and health care needs of elderly people be conducted. This survey of residents would be designed to enhance understanding of such issues as the magnitude and scope of the isolation of the elderly, the reasons why elderly become isolated, and what are their most important social and health care needs.[37] A particular focus of the needs assessment should be within the Watershed Region of the County where population is more dispersed and communities are more isolated.

Participants of the APublic Health Priorities Initiative@ project suggested a number of strategies and services to address the problem of the social isolation of the elderly. First, it was suggested the importance of providing services which will improve the effectiveness of senior citizen organizations. In this regard, an important service would be to offer a leadership skills training program for elderly people to help them better manage and expand the membership of their organizations. Second, churches were cited as an excellent resource to network with the elderly. A clergy led network could be organized to insure that clergy and lay volunteers Astay in touch@ with isolated elderly people. Both house visits and phone-call chains were cited as effective methods for this purpose. Finally technology was cited as an important resource for overcoming geographical isolation. For example, it was suggested that the Delaware County Office for the Aging=s ALife Line@ service program should be expanded and that other technologies be tested to determine if they are cost effective.

Services to help elderly people with chronic disease management also need to be enhanced by increasing the number of home care aides which conduct home health care visits. This level of demand for this service is likely to grow well into the future as the elderly population in the county continues to increase as a proportion of the total population (see Table 4). For some of these additions and changes in services for the elderly the major problem that might be encountered in providing them would be lack of funding.

Residents who are economically disadvantaged constitute one of the most vulnerable at-risk populations in the county. The most significant problem they face with regard to services is lack of access to health and dental care. As noted previously, approximately 17% of county residents lack health insurance. Future efforts to improve access to health care services for this population will have to include a more aggressive promotion of enrollment in the Child Health Plus program, since it is estimated that just over one-third of eligible children in the county are enrolled. However, any effort to increase enrollment and facilitate distribution of paperwork for the Child Health Plus program will depend on volunteer efforts by health care professionals and community organizations. At present, the system lacks a built-in marketing and customer assistance component that is typical of traditional insurance programs.

Participants of the APublic Health Priorities Initiative@ also suggested that services for economically disadvantaged people could be enhanced by having the county simplify its eligibility rules and reduce the paperwork required to access health care programs. In addition, it was suggested that the county should appoint an ombudsman to help people access programs and to apply for Child

[37] Ibid., p. 14

Health Plus. Finally, participants noted that physicians and other health care professionals should be encouraged to perform Apro bono@ medical care in clinics set up by the county. These actions, however incremental they may seem, would likely have a significant impact on economically disadvantaged people in a rural place like Delaware County.

Efforts to improve and/or change services to assist access to health care for the economically disadvantaged are likely to encounter a number of fiscal, legal, cultural, and political problems. First, the county lacks resources to allocate staff to facilitate access to the health care system (e.g., ombudsman). Second, physicians, medical professionals, and dentists are likely to resist house visits, Apro bono@ medical service, and work in clinics, because of the many changes in the health care industry. Health care professionals have very heavy caseloads and lack the flexibility and discretion to control their medical services when compared to private practice physicians in decades past. In addition, many physicians do not live in the communities they serve and thus often lack a strong sense of commitment to specific communities. Third, economically disadvantaged people need health insurance and without a national or statewide program to make such insurance affordable, it is unlikely that dramatic change in access can occur.

Also, efforts are needed to address the fact that dentists in the county will not accept what they consider to be the inadequate rates of reimbursement for dental services. Until this issue can be successfully addressed the DCPHD, county agencies, schools, and health care-related community organizations will need to promote preventive dental care information, programs and curricula in the schools. Also, the DCPHD will need to collaborate with other community organizations and businesses to establish one or more dental clinics. As of 1998, there were no dental clinics in Delaware County. The strategy of using mobile units holds considerable promise; however, such units are costly and will require a highly successful grantsmanship effort to purchase them.

Services for farm operators and their families can be improved in the future through the creation of a stronger collaborative relationship between DCPHD, Cornell Cooperative Extension of Delaware County, and the New York Center for Agricultural Medicine and Health. Working together these groups could provide a comprehensive approach to meeting the emotional, financial, psychological, and health care needs of farm families. In particular, DCPHD could allocate target home health care visits to farm families to help assess in-home problems and provide health care counseling. The major problem that would be encountered in providing this comprehensive service would be the need for DCPHD to have additional fiscal resources to increase staff caseload while maintaining service to other population groups. Until recently, the DCPHD=s Certified Home Health Agency was operating with sufficient fiscal resources; however, it is anticipated that in 1998 it will operate at a deficit. This development is due to a change from fee for service to an interim payment system.

In 1999 provisions of the public health law pertaining to HIV partner notification as a local initiative will impact the financial and staff resources of county government and the DCPHD. This provision provides no financial resources which can be targeted to conduct this program. As a result, the DCPHD will find it necessary to reallocate staff resources to implement this program, with the anticipated need for additional financial support from county government. A needed change to this program would be to provide public health departments with additional funds to implement this program.

Section 4: Local Health Priorities

A number of local health priorities have been addressed by collaborative efforts between the DCPHD and other community-based organizations and health care providers. These efforts are summarized below:

Dental Health Care

The availability of preventive dental health care is a public health area that has emerged as a critical problem in Delaware County in recent years. The Delaware County Rural Healthcare Alliance identified this is a priority concern based on needs assessment reports of Alliance member organizations. The DCPHD worked with the Delaware County Rural Healthcare Alliance, public schools, Headstart, and other pre-schools in the county to conduct an in-depth survey of the status of dental health education programs in 30 schools. The survey results have made it possible to develop a Preventive Dental Health Care Program for school age children which will incorporate all public schools and most pre-schools in Delaware County.

In 1998-99, the Alliance will coordinate with schools on a specific dental health curriculum. In addition, the Alliance has pursued two other important dental health initiatives including submission of an application for a dental HPSA and a donation of a dental health resources library to a pilot school and where its usage will be evaluated. The strategy employed in the dental health care initiative was to engage schools in a needs assessment and then proceed to develop a dental health curriculum which will have the support and commitment of school officials. Significant progress has been made on a number of aspects of this important health care area.

Also, in 1998 the DCPHD received assistance through a grant to the Rural Health Education Network of Delaware, Otsego, Montgomery and Schoharie Counties (RHEN-DOMS) to contract with a dental hygienist to provide dental health education to preschool and elementary children. Through this grant the DCPHD worked closely with schools in Delaware County to implement dental health education programs, purchase toothbrushes, toothpaste, and teaching tools including puppets and big teeth displays -- to cite just a few.

Improvement of Health Behaviors

For a number of years, Delaware County has experienced excessively high levels of mortality due to diseases of the heart and poor health behaviors in general have been closely linked to this disease. In order to address this relatively intractable public health care problem a program called HeartWorks was developed and implemented over the period 1996-1998. A number of organizations collaborated to implement this program including Bassett Healthcare (lead agency), the Delhi Chamber of Commerce, the American Heart Association - MidState Region, DCPHD, the Delaware County Department of Social Services and the Delaware County Personnel Department.

The HeartWorks program included a number of interrelated health behaviors improvement programs including a walking program, boardroom lunch sessions, health & fitness day, lunch bunch,

smoking cessation and dieting. The DCPHD targeted the 600 employees of Delaware County government and hundreds of these employees participated in one or more of the HeartWorks programs cited above. HeartWorks programs focused on such health topics as women=s health (heart disease, osteoporosis, exercise, breast self-exams, stress busters, and weight loss), parenting, rabies, herbs for wellness, lyme disease, lead poisoning, smoking cessation, and weight loss reduction .

The strategy of the HeartWorks program was to deliver public health education and interactive learning experiences where people work, particularly during lunch time breaks. Since the program was established in 1996, 16 businesses and over 3,000 employees have participated. In addition, the program has led to many important achievements including the establishment of wellness committees in six businesses, the addition of healthy low fat and reduced calorie food choices in company vending machines, and high participation in the local Heart Walk/Run and other walking events. Also, HeartWorks has had a significant impact on employees of Delaware County government through a series of programs including health walks, the TOPS program (Take Off Pounds Sensibly), and numerous lunch time workshop programs. In general, the HeartWorks program has been very successful.

In 1998, following the successful conclusion of HeartWorks, another health behaviors improvement program called HeartWorks Plus was developed and implemented by a coalition of groups including the Delaware Valley Hospital (lead agency), DCPHD, and the Delaware County Chamber of Commerce. The HeartWorks Plus program has focused on the overall community environment which impacts health care behaviors. Thus, a major initiative of the program has been to conduct a survey of towns to assess the status of exercise facilities (e.g., bike paths, hiking trails, walking paths, etc.). In addition, the Coalition has surveyed restaurants in each town to determine if they offer a healthy heart menu. The results of the survey data will be used to develop a work plan for enhancing the availability of Ahands-on@ exercise facilities in each town. Generally, the strategy of the HeartWorks Plus program has been to examine health behaviors in the context of the entire community -- particularly with respect to physical exercise and food choices in local restaurants.

Cancer Education and Screening

The Delaware County Cancer Coalition is an organization dedicated to promoting cancer education and community screenings by contacting adult residents where they work, learn, and participate in community events. The Coalition consists of the following organizations: Delaware County Cooperative Extension (lead agency), American Cancer Society, Community Volunteers (e.g, representatives of granges and churches), DCPHD, Healthy Living Partnership, and Northern Appalachian Leadership Initiative on Cancer (NALIC). The Coalition was formed in response to the excessively high rates of mortality due to cancer and the need to provide the public with cancer education and community/worksite screenings.

The Coalition organizes various programs at any given time. Recently, a program called ATell a Friend@ was developed in which 15 women are educated in the facts of early detection for breast cancer and are then asked to reach an additional 5 women. This was the first program of its kind in New York State and has been adopted by many other NYS counties. The Coalition has also been involved in leadership development. In the process of reaching out to various sectors of the

community and building partnerships, the Coalition has recruited local volunteers to assist in the planning of programs. These volunteers have gained important leadership skills which they have used to help plan for the health care needs of their communities.

In 1998, the Coalition is focusing on the distribution of cancer screening guidelines to health care providers and patients. The methods of conveying these guidelines includes wall flyers for exam rooms, information packets for health care providers, and a breast and cervical media campaign. Community screenings for men and women in the Village of Stamford and communities in Northern Delaware County are also being held. The Coalition operates its community screenings by Apiggy-backing@ on community events at no charge to local residents. Some of the cancer screenings have also been held at work sites throughout the county. Because of the Coalition=s grassroots identity and its skill in partnering with local health care providers, this has been one of the Coalitions most successful efforts. Also, in 1998, the Coalition began working with school students to help them design and present a tobacco awareness program.

As a means of promoting awareness of breast cancer, the Delaware County Cancer Coalition and Cornell Cooperative Extension of Delaware County are working together to educate the public on breast cancer awareness through the Quilted Project for Breast Health. The project was organized by Cornell Cooperative Extension of Delaware County and several dedicated Coalition volunteers. As part of this project, a packet was developed for quilters including fact sheets, cancer screening guidelines, and fabric for quilted projects. Also, several presentations were made to quilt groups which included videos on Breast Self-Exams and the use of pesticides around the home. Seven quilt groups participated in the program and approximately 40 quilters received packets by mail. By July of 1998, 50 quilted projects had been completed. In 1998, the quilted projects made their debut at the Delaware County Fair and have since been presented at the NALIC Summit conference in Pennsylvania. A video has been produced about the Quilt Project for Breast Health and it will be sent along with other project materials to other NALIC Coalitions and contacts throughout the United States. The quilted project display and video will be used in the future by the Coalition and DCPHD to educate women on the risks and prevention of breast cancer.

The strategy followed by the Delaware County Cancer Coalition is a multi-faceted approach targeted to individuals, work sites, and the community at-large. In this respect, the specific approaches are peer-to-peer sharing of health information, visiting work sites and communities to conduct screenings and workshops on breast health, and engaging the community through media campaigns to learn more about cancer detection. This proactive, community based strategy has proven very successful.

Awareness of Diabetes Risk Factors

In August of 1997, a community-based diabetic grant was awarded to a coalition of organizations including the Delaware Valley Hospital, the DCPHD, and the Delaware County Office for the Aging. The grant was desired because these organizations recognized that many elderly patients lacked appropriate levels of awareness and understanding of diabetes risk factors. The purpose of the grant is to increase community awareness of diabetes risk factors, to emphasize the

importance of early detection, provide random glucose screening, and to provide nutrition education for local supermarket shoppers. The target age group for this grant are the people aged 55 and older. The geographic focus is the townships of Colchester, Delhi, Hamden, and Walton.

During the period September 1997 to June 30, 1998, the coalition of organizations implementing the grant were able to screen 134 elderly persons and to provide follow-up assistance to 15 people. In addition, Delaware Valley Hospital was able to establish a diabetic support group which was trained to identify healthy foods, read product labels, and participate in grocery store tours. The strategy of the organizations implementing the grant has been to conduct screenings at local banks and health fairs -- two ideal locations for reaching residents of small rural towns.

Improve Childhood Immunization Levels

The DCPHD partnered with Delaware Valley Hospital to receive a grant from the Mothers and Babies Perinatal Network of South Central New York, Inc. to create the Better Immunize Baby (BIB) program. The program was established in response to concerns by DCPHD that children are not fully immunized by age two (see Table 11). The BIB program is designed to improve childhood immunization levels by networking with hospitals, private health care providers, and mothers. Under the terms of the program, a Public Health Nurse is given permission to visit postpartum mothers and to provide immunization bibs and individual instruction as to the importance of timely immunizations. In 1998, the program contacted 27 mothers and they agreed to allow DCPHD to chart the immunization status of their infants for an indefinite period of time. Participating private health care providers have given DCPHD access to the immunization records of BIB program enrolled babies. As a result, reminder calls and/or home visits are being made to parents when scheduled immunizations are not documented. This program uses a highly individualized strategy to insure compliance; however, it may prove to be one of the most successful methods for improving immunization levels in the county.

Section 5: Opportunities for Action

A number of opportunities exist to alleviate the public health care problems facing citizens of Delaware County which the DCPHD can pursue independently or in collaboration with other community-based organizations. In addition, some issues must be addressed which are appropriate to entities other than DCPHD.

The following are opportunities for action by the DCPHD:

<u>Maximize Enrollment of Children in Child Health Plus</u>

Recognizing that lack of access to health care is one of the most significant problems facing

Delaware County residents and that this fiscal barrier is particularly detrimental to children, the DCPHD could implement strategies to maximize the number of children covered under the Child Health Plus (CHP) program. The geographical size of the county and the need to disseminate information about the CHP program are integral factors in any successful strategy to maximize CHP enrollment by eligible families. As a result, the DCPHD can set up multiple locations where registration is scheduled at times convenient to the public. These registration locations can be in conjunction with health fairs, immunization clinics, WIC clinics, or at on-site events scheduled in partnership with schools, community organizations, or businesses.

The effective dissemination of CHP information is also an important factor in maximizing CHP enrollment. As a result, the DCPHD may seek to invite representatives of the CHP insurance companies to provide DCPHD staff with an information workshop to help staff become throughly familiar with all aspects of CHP. In addition, DCPHD staff can then schedule workshops with leaders of community-based organizations, businesses, schools, health care providers and media organizations to Aget the word out@ about CHP. The DCPHD can also adopt another proactive approach to CHP information by distributing it to families of newborns as part of its routine mailings to this target group.

Finally, the DCPHD can develop a more comprehensive data base system for collecting and evaluating CHP enrollment information. This systematic approach will enable the DCPHD to monitor the success of its enrollment strategies and create benchmarks for future efforts.

Expand Use of Slide Show Technology and Teaching Aids for Public Health Education

The experience of the DCPHD staff at public health fairs and clinics is that public health information is most effectively disseminated using audio-visual techniques which focus on people and their experiences. This approach is also cost effective in that the audio-visual products can be used over and over again at various events for long periods of time. For future public health education outreach efforts the DCPHD would like to develop a set of slide show productions. These slide shows would address such issues as recognizing lead hazards, bike safety, car seat safety, proper nutrition, preventing common injuries, and many other relevant public health topics.

The slide show products would also be valuable in conjunction with the DCPHD staff=s presentations to the county=s 19 senior citizen club meetings.

Also, the DCPHD would like to purchase tobacco education visuals such as stained tobacco teeth, baby bottles full of cigarettes, and other highly visual teaching aids which have proven to be highly effective in capturing the attention of young people. These teaching aids would be shared with school districts throughout Delaware County.

Expand Use of Health Fairs, Community, and Special Outreach Efforts

Public participation at health fairs and community events in Delaware County is excellent and DCPHD would expand its use of these outreach opportunities. As a result, the DCPHD will continue

to develop its network of health fairs with an increased use of audio-visual products (as described above) and educational tools such as the acrylic food pyramid, and fat, salt, and sugar tubes. In addition, DCPHD will promote healthy lifestyle messages and information at special community events such as the Antique Car Show, Zucchini Festival, and the Delaware County Craft Fair, to site just a few. At these special community events the DCPHD will conduct fat analysis screening, blood pressure screening, and developmental screening.

The DCPHD would also like to expand its small group presentations to Delaware County employees. Currently, the DCPHD conducts short 30-50 minute lunch time presentations on health issues. In the future, it would be helpful to have special lunch time presentations to groups of men which would focus on mens= health issues. In particular, the DCPHD would use these sessions to address the subjects of healthy lifestyles and preventive health care practices as a means of reducing heart disease, stroke, cancer, and the use of drugs, alcohol, and tobacco.

In the future, the DCPHD would like to develop more special outreach efforts, particularly at events where the DCPHD can use the 6 special topic displays that it creates for use at the Delaware County Fair. The displays would be used to raise awareness about healthly lifestyles as a means of addressing the issues of heart disease, cancer, diabetes, and alcohol and substance abuse. These creative displays can be used throughout the year at many smaller special outreach events. At present, the DCPHD uses these displays and other teaching aids at community sites such as libraries and food stores. However, other sites which experience significant public traffic could be used including churches, convenience stores, medical facilities, automobile dealerships, in public buildings (especially motor vehicle offices), and schools, to cite just a few.

The following are opportunities for action by the DCPHD in partnership with other organizations:

Conduct Health Care Survey of Delaware County Residents

The APublic Health Priorities Initiative@ Project, as well as other studies conducted by DCPHD, NYSDOH, and other organizations, have demonstrated repeatedly that lack of access to health and dental care is a critical problem facing residents of Delaware County. However, a key issue in the access to health and dental care problem is the status of insurance coverage. Accurate information regarding the extent of insurance coverage and if people are underinsured is not currently available to the DCPHD.[38] As a result, the DCPHD would like to partner with community-based organizations, schools, health care providers, and the NYSDOH to conduct a statistically valid survey of households in Delaware County. This survey will enable DCPHD to assess the magnitude of the insurance coverage problem, determine the quality of current insurance coverage, and identify other factors which may contribute to lack of insurance coverage or underinsured coverage.

The proposed survey would also help the DCPHD to determine the potential CHP enrollment target for the county and to establish a range of health care benchmarks based on other questions

[38] Estimates do exist; however, they do not address the issue of underinsurement.

which could be included in the survey protocol.

Develop a Preventive Dental Health Care Program for Youth

The DCPHD plans to work closely with the Delaware County Rural HealthCare Alliance to develop and implement a Preventive Dental Health Program for youth based on a county-wide needs assessment which the Alliance completed in 1998. Currently, many school districts lack formal dental health education programs as part of their curriculum and a model program is needed which could be adopted by interested schools.

Acquire Approval for a Dental and Mental Health HPSA

In addition, DCPHD seeks to work with the Delaware County Rural Healthcare Alliance to create a Dental HPSA as a means of enhancing the recruitment and retention of qualified dental health professionals and to increase in-county dental health services. In addition, the DCPHD will also work with the Alliance and Delaware County Mental Health Department to establish a Mental Health HPSA.

Promote Anti-Smoking Education

The DCPHD would also like to collaborate with schools and the Delaware County Rural Healthcare Alliance to develop, or possibly purchase, an up-to-date multimedia presentation on smoking for instruction to children. A similar presentation is available for use with the topic of drug abuse.

Promote Automobile Injury Prevention

The DCPHD is seriously concerned about the high motor vehicle mortality and injury rates for adults and particularly for children in Delaware County. As a result, the DCPHD plans to send a representative to the Delaware County Traffic Safety Board and to work with schools, parent associations, Delaware Opportunities, service organizations, and the Tri County Motor Club (AAA), to promote injury prevention.

Promote Diseases and Mortality due to Heart Disease

The HeartWorks program (all phases) has been very successful in Delaware County and constitutes an effective preventative health care program for encouraging healthy heart behaviors. The DCPHD plans to continue to develop this program by collaborating with restaurants, general businesses, community based organizations, local governments, and media organizations to promote good nutrition, physical exercise, and the development of facilities in communities which support physical exercise activities.

In conjunction with this effort, the DCPHD would like to partner with the Delaware County Mental Health Department to develop a public health education program to promote stress awareness,

recognition, and stress reduction.

Professional Development and Training

Given the workload of DCPHD staff and the costs associated with sending staff to professional development conferences, the DCPHD intends to explore ways to use technology to increase the learning and training opportunities available to staff. In this regard, telemedicine, the INTERNET, and teleconferences are available technologies which could be incorporated into the DCPHD. By late 1998, DCPHD will be fully operational in its new consolidated office facility and this will physically unify all staff within one office. As a result, it will be much easier to provide professional development and training opportunities to staff members.

In order to access these communication technologies, the DCPHD will seek to partner with SUNY College of Technology at Delhi, NYSDOH, and the Otsego Northern Catskills BOCES. These organizations have access to both interactive communications technology (PictureTel), telecommunications resources, and teleconference programs which DCPHD can access in a cost-effective manner. In particular, SUNY Delhi and ONC BOCES have collaborated on the development of a regional telecommunications system which serves Delaware, Otsego, Chenango, and Schoharie Counties and which DCPHD could access. Cornell Cooperative Extension of Delaware County currently is a partner with the DCPHD for teleconferences.

The following opportunity for action would help to improve access to health care delivery system, but must be accomplished by organizations other than DCPHD:

Improve Public Transportation System in the County

Currently, public transportation in Delaware County is fragmented and depends on various organizations to provide bus transportation for their own clients whether they be the elderly, economically disadvantaged, veterans, Head Start students, etc. However, a comprehensive county-wide transportation would significantly improve access to health care for many poor people (who lack automobiles), infirm people, isolated residents, handicapped, and others who simply lack transportation and need to visit a medical clinic or hospital. Such a system would also enable persons to more conveniently meet the needs of business with multiple shifts and increase traffic to service, retail, and tourism locations across the county. As a result, a county-wide transportation system would have to incorporate a comprehensive approach which would benefit commerce as well as the health care needs of residents.

The development of a county-wide transportation system will require a major public/private collaborative effort involving county government, the business sector, community-based organizations, health care providers, school districts, and the residential population. This type of transportation system would likely require a combination of public funding, private sector contributions, and passenger fees.

Respond to the Special Needs of the Watershed Region

As noted previously, the Watershed region encompasses the central and eastern portions of the county and includes roughly 65% of the land area of Delaware County and 11 of its 19 townships. It also represents 55% of the entire county population. The Watershed Agreement will place significant limitations on the future of economic development and the quality of life of Delaware County residents.

In some respects, the Watershed situation creates two Delaware Counties, one outside the Watershed and one inside with many unique environmental features. In this regard, the DCPHD will need to respond to the many public health care needs of Watershed residents and seek to anticipate the future health care needs of these residents. Some of these needs are typical of rural areas and others are unique and include an aggressive rabies program, travel distances to health care facilities (particularly emergency services), isolation of elderly and chronically ill people, and poverty which stems from the Watershed=s geographic and economic situation, to cite just a few.

Recognizing this unique situation, the DCPHD will make every effort to work with community-based organizations, county agencies, private foundations, and the Watershed Development Corporation to identify funding opportunities and create collaborative networks to provide public health care services to the Watershed region.

Section 6: Report on Statewide Performance Measures

The DCPHD will respond to these measures once they are provided by the NYS DOH**.** As of the date of submission of this report, these measures were not made available.

Section 7: Community Report Card

The DCPHD plans to prepare a Community Report Card in 1999 and at that time will prepare a distribution plan for this document.