

Tioga County Community Health Assessment 1999 - 2004

POPULATIONS AT RISK

Demographic and Health Status Information:

Tioga County is centrally located in the Southern Tier of Upstate New York. Broome County on the east, Chemung County on the west, Tompkins and Cortland counties on the north, and Bradford County, Pennsylvania on the south border it. It is characterized as a rural county, having 52,337 residents. There are 25,622 males and 26,715 females in the county. According to the 1990 census 98.4% of the population is Caucasian, and 0.4% is African-American. The population is distributed throughout the 9 townships of the county and 75% of the population lives outside the village boundaries.

SOUTHERN TIER HOME BUILDERS (1994)

TOTAL POPULATION	52337
Age:	
0 to 19	30.9%
20 to 29	13.2%
30 to 39	17.1%
40 to 49	13.5%
50 to 64	14.4%
65 to 74	6.4%
75 and Older	4.5%
<i>Median Age:</i>	33

Income Levels (1995, NY-PENN):

(1991) Personal Income Per Capita	\$15,462
Median Household Income	\$31,497
Families in Affluence	18.5%

According to the NYSDOH Office of Rural Health the risk of payroll employees not being offered insurance is 14.8 % in Tioga County. This compares with the rural average of 14.5 %. The non-rural average is 9.9 %. There are 24,100 employed residents in the county according to the 1996 Business Fact Book. Tioga County has an unemployment rate of 4.7%.

1990 CENSUS PERCENTAGE OF POPULATION BELOW 100% POVERTY

POPULATION TYPE	TOTAL POPULATION	NUMBER BELOW POVERTY	PERCENTAGE BELOW POVERTY
All persons below poverty level	51,751	4,823	9.32%
All persons 18 +	37,820	2,952	7.92%
All persons 65 +	5,467	636	11.63%
All families w/related children under 5 yrs. old	2,963	444	14.98%
Female householder w/related children under 5yrs.	377	192	50.93%

Of those residents 18 years and older, slightly more than 7,500 (14%) did not receive a high school diploma. 14,500 did graduate from high school, and 41% of this group attended a post-

secondary school. Nearly 9,600 Tioga County residents hold associate, bachelor, graduate or professional degrees.

EDUCATIONAL ATTAINMENT	Elementary (0-8 yrs)	High School (1 to 4 yrs) No Diploma	High School Diploma	Some College No Degree	Associate Degree	Bachelor Degree	Graduate of Professional Degree
Tioga County	2115	5403	14493	5963	3330	3972	2311
Barton	441	1300	2811	872	421	407	338
Waverly Village	319	639	1385	505	233	280	241
Berkshire Town	57	169	371	120	75	68	47
Candor Town	255	631	1644	508	209	281	154
Candor Village	33	81	280	100	27	44	41
Newark Valley Town	185	355	1216	406	282	251	159
Newark Valley Village	37	74	289	134	83	90	65
Nichols Town	77	196	900	245	152	211	33
Nichols Village	25	49	172	65	26	65	6
Owego Town	719	1729	4995	2742	1708	2306	1312
Apalachin CDP	39	143	396	99	108	70	17
Owego Village	254	519	1209	501	236	422	183
Richford Town	89	200	309	126	38	20	11
Spencer Town	113	343	747	387	191	175	125
Spencer Village	21	83	231	120	42	40	44
Tioga Town	179	480	1500	557	254	253	132

*Note: Source: 1990 Census of Population & Housing, U.S. Bureau of the Census
All Village totals are included in the respective Town totals. A150:EDUCATON.WK1*

According to the 1990 Census, there are 20,254 housing units in Tioga County. 1,416 (7%) are vacant, of which 279 are for occasional use. Of the 18,838 housing units that are occupied, 78.8% are owner occupied and 21.2 % are renter occupied. There are 50 citizens living in community residences. There are 10 short-term housing units and the battered shelter houses 6 individuals. There are 21 boarding homes.

TIOGA COUNTY MORTALITY AND MOBILITY

Tioga County mortality adjusted rates (per 100,000), for the period of 1994-1996, indicated higher than New York State (NYS) adjusted rates for:

- *COPD in Tioga County was 58.7% compared to the NYS rate of 32.9%.
- *Cerebrovascular Disease in Tioga County was 51.0% compared to the NYS rate of 43.3%.
- *Colorectal Cancer in Tioga County was 21.3% compared to the NYS rate of 19.4%.
- *Unintentional Injury in Tioga County was 26.6% compared to the NYS rate of 23.3%.
- *Motor Vehicle deaths in Tioga County were 11.4% compared to the NYS rate of 6.9%.

Tioga County cases and incidence rates, adjusted rates (per 100,000), for the period of 1994-1996, indicated higher than NYS adjusted rates for :

- *Lung and Bronchus cancer in Tioga County was 59.4% compared to the NYS rate 56.9%.

Continued surveillance is needed in all areas of mortality and morbidity.

Access to Medical Care:

According to Healthier Tioga County: Setting Priorities (1998), with a census of 52,000 Miller, Farmer & Clark (1994) would classify Tioga County as a category 13 on the Seventeen-Category Residence Classification system. Category 13 indicates the county is a non-metropolitan county where the largest place in the county has a population of between 2,500 and 9,999. Tioga is 1 of 3 counties in New York State without a hospital or major medical facility within its borders, however, the neighboring counties have sophisticated health care delivery systems including several inpatient facilities. The residents of Tioga County rely on these surrounding health care systems to meet their needs for not only inpatient but also specialty services. This arrangement is feasible and economical for Tioga County since areas of specialization are difficult to maintain and expensive for areas with small or geographically diverse populations. Nonetheless, it is often difficult for the citizens to access these specialists. This problem is compounded when the patient or family member is on Medicaid and there are not Medicaid providers available or if transportation is an issue.,

The county is primarily served by hospitals located in Broome, Tompkins, Chemung and Cortland counties and Sayre, PA. In addition, Guthrie Clinic in Sayre, PA serves Tioga County residents. The Tioga County Health Department conducts well-child clinics twice per month at sites located in Owego and Waverly.

In Tioga County the ratio of primary care providers to population numbers is 35.5:100,000, which is less than the rest of rural New York State, as well as the urban areas in the state. This ratio is also below the ideal provider/population ratio goal of 1:2,500 established in 1995. The number of full-time primary care providers in 1995 was 13.5. There are 12 primary care provider offices in Tioga County. There is one office in Candor and two offices in Owego which have evening hours, four days per week. One office in Waverly has evening hours one day per week. One office in Owego has Saturday morning hours two Saturdays per month. In addition, residents of Tioga County also access primary care in neighboring counties and Pennsylvania. Other sources of health care include: Tioga Opportunities Program (TOP), family health services and Tioga County Health Department Well Child and Immunization clinics.

According to the results of a consumer survey conducted by NY-PENN this year, 33% of total responses to the question, "What would make your health services easier/better?" indicated that a directory of available services and assistance with contacting those services would be beneficial. Also, in compiling the survey results, comments are outlined that were in response to improving access. (See attached) (59% of the respondents reside in Tioga County).

502 residents in Broome and Tioga Counties responded to the survey conducted by NY-PENN. The area of the survey dealing with health services utilization revealed the following information:

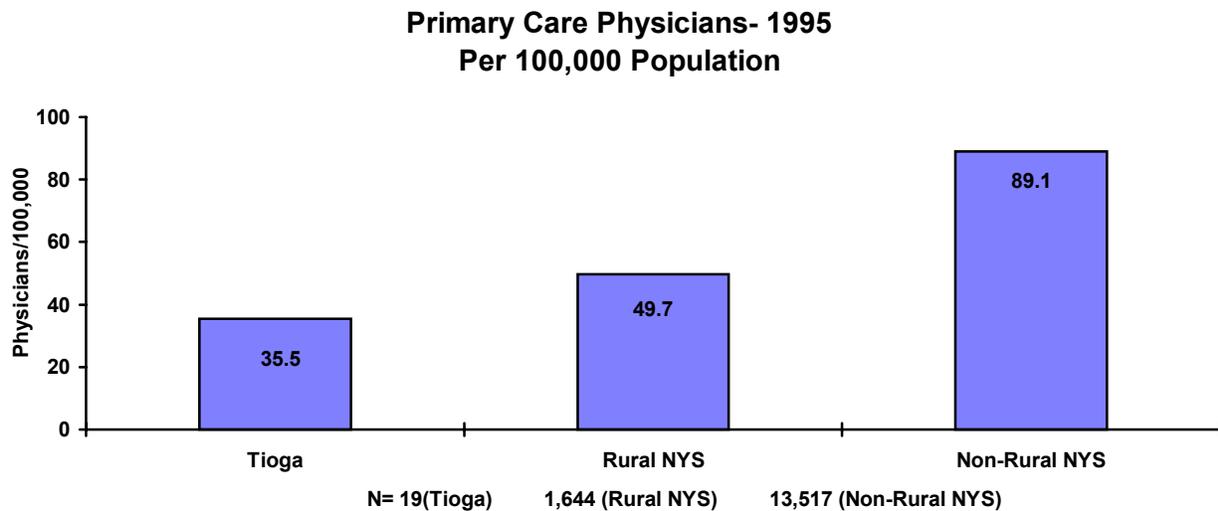
- 13% of all respondents go to walk-in clinics for care because they do not have a primary care provider.
- 50% visit their primary care provider 1-2 times a year.
- 30% visit their primary care provider 3-5 times a year.
- 68% had visited a dentist within the past year.
- 77% indicated they do see a provider for vision checks. Although respondents in Tioga County for the following areas, with the percentages, indicated they did not have an eye doctor: Candor, Spencer, Willseyville (24%); Waverly, Lockwood, Barton (26%); and Berkshire, Newark Valley, Richford (25%).

One of the questions asked of consumers was, "Have you had a hard time getting the health care you need?" For a variety of reasons which will be discussed as identified barriers in the next sections, 34% responded yes, a rather high percentage. In Owego, Newark Valley, Berkshire

and Richford an increased percentage of respondents, vs. other areas responding, noted the need for help for someone with drug/alcohol problems.

Financial Barriers - according to the recent NY-PENN survey, consumers indicated a need for more affordable health care. Of the 502 respondents, 23 % indicated financial difficulties in accessing care, primarily because of the lack of insurance and the money needed for co-payments. In Tioga County the percentages of individuals without health insurance were notable in the following areas: Waverly, Lockwood, Barton (13%); Berkshire, Newark Valley, Richford (11%); and Candor, Spencer, Willseyville (10%). According to the NYSDOH Office of Rural Health the risk of payroll employees not being offered insurance is 14.8 % in Tioga County. This compares with the rural average of 14.5 %. The non-rural average is 9.9 %. United Health Services (UHS) utilizes a sliding fee scale in its primary care clinics. The sliding fee scale provides for fee reductions from the standard charges for all services provided by the primary care clinics to those who qualify. Lourdes Center for Family Health offers healthcare on a sliding fee scale and another major primary care provider does not utilize sliding fee scales.

The percentages of children without health insurance in the areas of Nichols, Tioga Center, Smithboro, Waverly, Lockwood and Barton ranged from 27-29%.



Access To Dental Care:

There are no dental clinics and only 12 private providers in Tioga County. There is a dental shortage with the dentist to patient ratio being 1:5094. The majority of dental offices are located in the Villages of Owego and Waverly. 5 dentists are located in the Village of Owego. Only the village portions of 3 townships have dental offices. 6 townships and 3 villages have no dental offices. Some areas of the county, such as Newark Valley, Spencer, Richford, Berkshire, Tioga Center, and Nichols have no dental providers. Access to dental services for those patients who are uninsured, under insured and unable to pay for services does not exist. Dental offices are unwilling to establish payment plans for new patients. Patients with Medicaid have very limited access. Only 1 office accepts new Medicaid patients, 2 offices see a limited number of already established patients and 9 offices do not accept/see patients on Medicaid. The Tioga County Health Department provides the following dental services:

1. School based Fluoride Program
2. Dental Screenings, Referral, Fluoride and Education Programs at Child Health Clinics
3. Oral Health Education
4. School based Dental Sealant Program

During the 1997-1998 school year, the Tioga County Health Department provided restorative and preventive dental services to low income children in Tioga County schools. Funding for this program was provided for the pilot year by a grant obtained from the NYSDOH Office of Managed Care.

The statistical findings of this program are indicated on the chart below. These statistics were obtained by performing 267 Dental Screenings for Medicaid eligible, under insured, and uninsured children. An average of 73% had untreated dental decay and 22% had decay severe enough to cause pain or abscess. This program did not perform dental screenings for the adult population and therefore does not assess the needs of the low income, uninsured, under insured and Medicaid eligible adult population in Tioga County.

MOBILE DENTAL CLINIC STATISTICS: 1997/1998 SCHOOL YEAR

	Headstart	Owego Apalachin Elementary School	Owego Apalachin Middle School	Waverly Lincoln St. School	Waverly Elm St. School	Waverly Kinder Campus
Grade	Pre-School	K-5	6-8	K-6	1-6	K
Medicaid Recipient	32%	38%	26%	35%	33%	22%
Untreated Decay Rate	63%	78%	80%	67%	71%	72%
Rampant Decay	27%	25%	25%	26%	21%	17%

The Chart below shows the comparison of Tioga County to the Healthy People Year 2000 Dental Goals.

HEALTHY PEOPLE YEAR 2000 GOALS VS. TIOGA COUNTY 1997

Criteria	Healthy People 2000 Goals	NYS Screenings High, Medium, Low Socioeconomic Levels	Tioga County Screenings Low Socioeconomic Levels
Percent of children age 6-8 free of caries	65%	41%	27%
Percent of children 6-8 with untreated caries	20%	43%	73%
Percent of children age 8 having dental sealants on at least one tooth	50%	23%	NA
MEAN number of treated and untreated surfaces per child (DMFS)	NA	4.71	NA
MEAN number of untreated surfaces per child	NA	2.71	NA

Behavioral Risk Factors:

In Tioga County there were 21 cases of AIDS and 16 of those cases have died, as of December 1997. The National average indicates that 1 in 250 people may be infected with the HIV virus. These figures can be used in Tioga County to reflect that there may be approximately 200 cases of HIV positive people.

Smoking rates among pregnant women in New York State is substantially higher than the Healthy Priorities 2000 objective of 10%. In 1993, more than 19% of pregnant women in New York State reported smoking.

According to Mothers and Babies Perinatal Network, a 5 year average for 1992-1996 (Blackman, 1998, Personal Communication) reveals that non-smoking women experienced 6.2% low birthweight births and 1.2% very low birthweight births. For the same period, women who smoked during pregnancy experienced 12.5 % low birthweight births and 2.3% very low birthweight births. In 1995, Tioga County had 632 births: 0.8% were very low birth weight <1500 grams, 5.1% were low birthweight between 1500-2499 grams and 5.9% were low birthweight <2500 grams. The remaining 595 infants born to Tioga County residents weighed over 2500 grams.

According to the 1995 Tioga County Profile NYSDOH, the number of teenage pregnancies between 15-19 years of age was 93 and the number of teenage live births between 15-19 years was 62. There were 632 live births during this period.

**TIOGA COUNTY TEEN PREGNANCIES AND RATES BY MINOR CIVIL DIVISION
1993-1995**

Minor Civil Division	Total Pregnancies 1993-95			Pregnancy Rates per 1,000 population 1993-95			
	10-14	15-17	18-19	10-14	15-17	18-19	15-19
Town Not Stated	0	0	1	INCLUDED IN COUNTY RATE			
Waverly Village	*	23	38	4.5	117.4	452.6	217.9
Candor Village	0	*	8	0.0	17.2	408.3	115.9
Newark Valley Village	0	5	7	0.0	86.1	416.8	160.3
Nichols Village	*	*	*	9.9	124.0	71.5	104.8
Owego Village	0	16	28	0.0	80.7	298.6	150.6
Spencer Village	0	*	10	0.0	62.0	+	229.0
Barton Town	*	17	21	1.9	86.8	272.8	139.2
Berkshire Town	0	6	12	0.0	63.6	659.6	159.9
Candor Town	0	4	7	0.0	16.1	96.2	34.2
Newark Valley Town	0	4	12	0.0	21.8	219.9	67.1
Nichols Town	*	*	*	4.7	29.5	153.1	49.5
Owego Town	0	19	33	0.0	11.7	34.4	20.1
Richford Town	0	0	8	0.0	0.0	439.7	120.2
Spencer Town	0	*	6	0.0	17.2	142.9	50.6
Tioga Town	*	*	7	3.4	14.3	86.2	34.3
Tioga County	7	109	202	1.1	32.0	127.8	62.4
SCNY Region	75	1,076	1,982	1.5	37.6	63.7	51.2
Upstate NY	1,665	25,829	40,681	1.6	41.3	96.0	63.4

* Number is suppressed, as there were fewer than four (4) pregnancies for the three-year period; only rate may be reported. The number is included in the total.

+ Low population, resulting in invalid rate at MCD level.

In 1994, the prevalence of cigarette smoking among adults in New York State was 21%. In 1993, 31,600 New Yorkers died of tobacco associated conditions, accounting for 19% of all deaths. Tobacco causes 30% of all cancer deaths; 82% of all deaths from pulmonary disease and 21% of all deaths from chronic heart disease. Half of all 15 year old smokers will still be smoking 20 years from now, based on historical experience. Half of those smoking at age 35 will die of tobacco related disease; losing an average 15 years of life expectancy.

Youth Risk Behaviors in NYS:

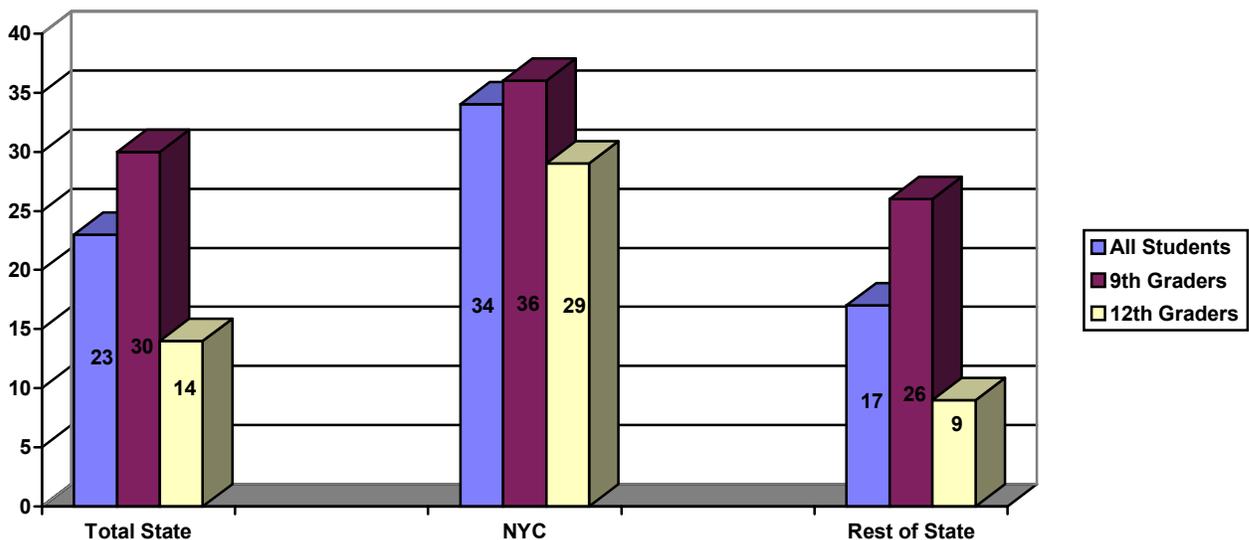
In the spring of 1997, a total of 3,741 students in 92 public high schools in New York State (including New York City) participated in the 1997 Youth Risk Behavior Survey (YRBS.) The survey results can be used to make important inferences concerning the health risk behaviors of all New York's public high school students in grades 9-12 (1997, YRBS).

The YRBS focuses on prioritizing health risk behaviors established during adolescence that result in the most mortality and morbidity during both adolescent and adulthood. These include behaviors that result in: (1) unintentional injuries; (2) alcohol and other drug use; (3) intentional injuries; (4) tobacco use; (5) unintended pregnancies and HIV or other STD's; (6) dietary behaviors; (7) decreased physical activity.

1. Unintentional Injuries:

- Motor Vehicle Use - Motor vehicle crashes are one of the leading causes of death among youth. Use of seat belts can substantially reduce the risk of death or injury for youth. Seat belt use is estimated to reduce motor vehicle fatalities from 40% to 50% and serious injuries from 45% to 55%. Increasing the use of automobile safety restraint systems including seat belts to 85% could save an estimated 10,000 lives per year.
- In the 1997 YRBS:
 - a. 23% of all students reported never or rarely wearing a seat belt when riding in a car driven by someone else. The percentage of students in New York City (NYC) (34%) reporting this behavior was considerably higher than outside NYC (18%).
 - b. The results also differed among grade levels ranging from 30% of 9th graders to 14% of 12th graders reporting never or rarely wearing a seat belt.
 - c. The difference outside of NYC between 9th graders (26%) and 12th graders (9%) was greater than in NYC.
 - d. Motor vehicle crash injuries, approximately half of which involve alcohol, are the leading cause of death among youth aged 15-24 in the United States. Alcohol-related traffic crashes cause serious injury and permanent disability and are the leading cause of spinal cord injury among adolescents and young adults

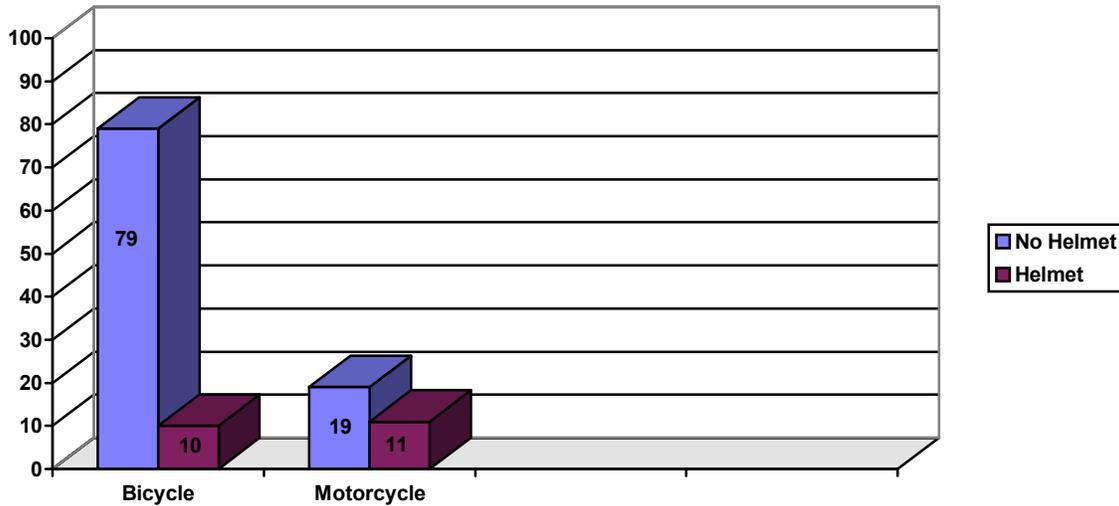
Percent of Students Who Never/Rarely Wear Seat Belts



- Motorcycle and Bicycle Safety - Head injury is the leading cause of death in motorcycle and bicycle crashes. Unhelmeted motorcyclists are two times more likely to incur a fatal head injury and three times more likely to incur a non-fatal head injury than helmeted riders are. The risk of head injury for unhelmeted bicyclists is more than 6 ½ times greater than for helmeted riders. Results from the 1997 YRBS show that: Of those students who rode a bicycle (78%) or motorcycle (17%) during the past 12 months, 88% of students riding bicycles and

24% of students riding motorcycles reported that they never or rarely wear a helmet.

Percent of Students Riding Bicycles & Motorcycles Who Rarely or Never Wear A Helmet



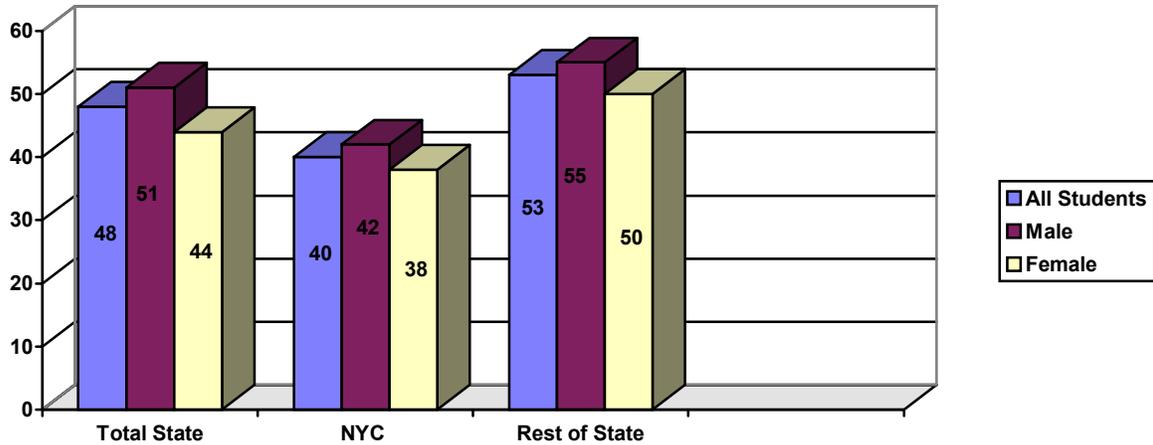
- According to the 1997 YRBS, over the past 30 days:
 - a. 29% of all students reported that they rode in a car or other vehicle driven by someone who had been drinking alcohol. The percentage outside of NYC (32%) was higher than in NYC (23%).
 - b. 8% of all students reported that they drove a car or other vehicle when they were drinking alcohol. The percentage of males was more than double the percentage of females.
 - c. For both behaviors, the highest percentage was recorded at 12th grade, with 33% of 12th graders reporting that they rode in a car driven by someone who had been drinking alcohol, and 15% indicating that they had driven a car or other vehicle when they had been drinking alcohol.

2. Alcohol and Other Drug Use:

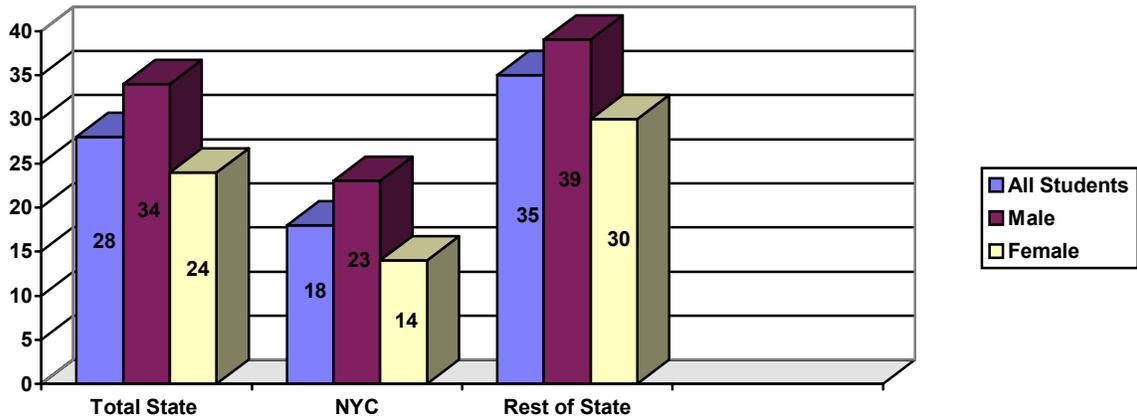
- Alcohol is a major contributing factor in approximately half of all homicides, suicides and motor vehicle crashes, which are the leading causes of death and disability among young people. Heavy drinking among youth has been linked conclusively to physical fights, destroyed property, academic and job problems and trouble with law enforcement authorities.
- The 1997 YRBS results show:
 - a. 31% of all students had their first drink of alcohol (other than a few sips) before age 13.
 - b. 77% of all students have had at least one drink of alcohol on one or more days during their life, with 48% of students having at least one drink on one or more of the past 30 days.
 - c. 6% of all students had at least one drink of alcohol on school property in the past 30 days.

- d. Alcohol use reported by students outside of NYC (53%) is greater than reported by students in NYC (40%). Similar reporting occurs across gender and grade level.
- e. Significant increases occur between the 9th and 12th grades, with 40% of 9th graders and 60% of 12th graders having at least one drink of alcohol on one or more of the past 30 days.
- f. Older students in 12th grade (37%) reported having five or more drinks in a row, on one or more of the past 30 days, while (21%) of 9th graders reported the same behavior.

Percent of Students Who Had at Least One (1) Drink of Alcohol on One or More of the Past 30 days

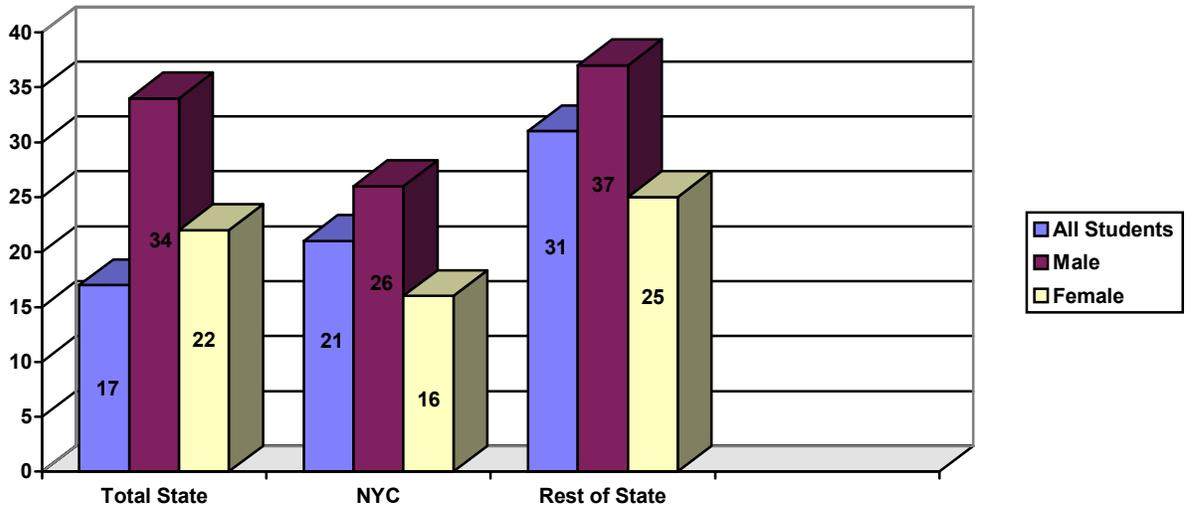


Percent of Students Who Had Five (5) or More Drinks in a Row in the Past 30 Days



- Other Drug Use - In addition to morbidity and mortality due to injury, drug abuse is related to early unwanted pregnancy, school failure, delinquency and transmission of sexually transmitted diseases (STD's), including HIV infection. Drug use among high school students and other young adults is still a major issue for New York State's youth.

Percent of Students Who Had Someone Offer, Sell or Give Them an Illegal Drug on School Property

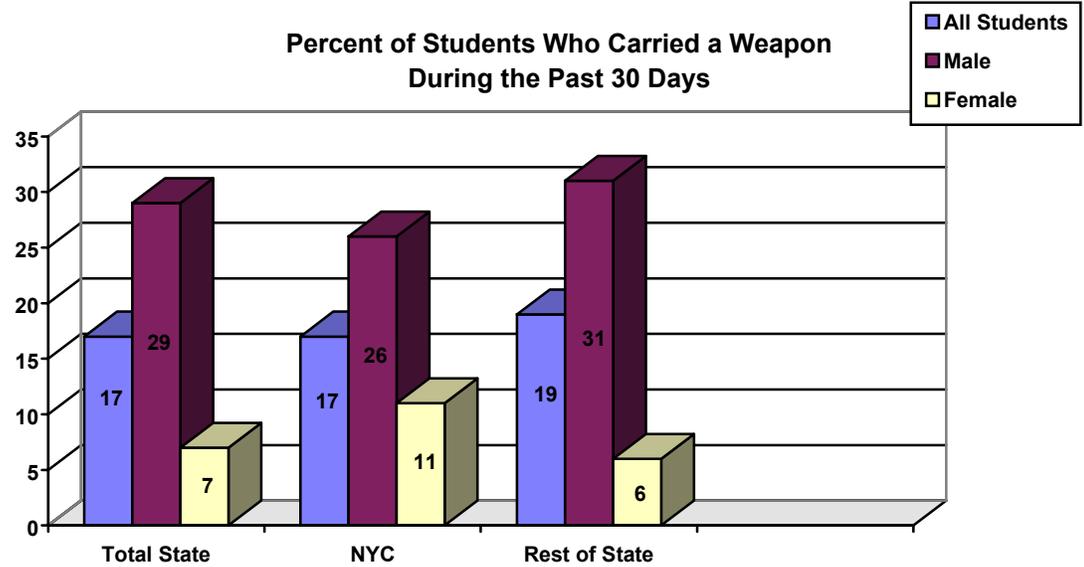


- Reporting Behaviors by students in the 1997 YRBS indicates that:
 - a. 41% of all students have used marijuana one or more times during their life and 23% have used marijuana during the past 30 days.
 - b. 8% of all students used marijuana on school property one or more times in the past 30 days. Marijuana use rose from 30% for students in 9th grade to 53% for students in 12th grade for lifetime use.
 - c. 6% of students have used cocaine one or more times in their life while 17% sniffed glue, breathed contents of aerosol spray cans, or inhaled paints or sprays to get high.
 - d. 14% of students reported that they used any other type of illegal drug, such as LSD, PCP or speed.
 - e. 27% of all students had someone offer, sell or give them an illegal drug on school property over the past 12 months.

3. Intentional Injuries:

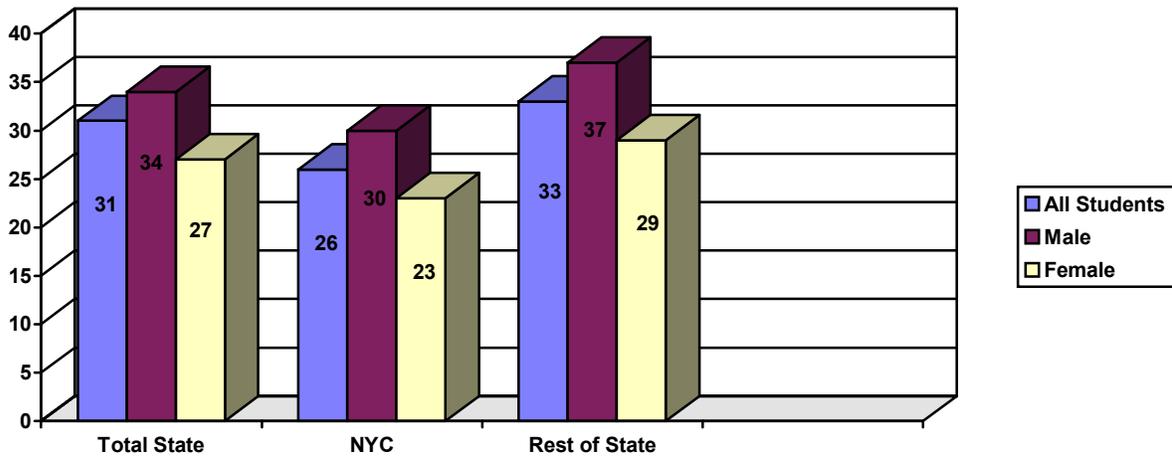
- **Weapon Use** - Approximately 9 out of 10 homicide victims in the United States are killed with a weapon of some type, such as a gun, knife or club. Homicide is the second leading cause of death among all youth aged 15-24. During adolescence, homicide rates increase 15 times, from negligible rate of 0.9 per 100,000 at age 10 to 13.9 per 100,000 by age 20.
- The 1997 YRBS results show that students in New York State exhibit behaviors that can result in death or injury to themselves or others:
 - a. 18% of students reported that they carried a weapon, such as a gun, knife or club, on one or more of the past 30 days. Younger students and males were more likely to carry weapons.
 - b. 9% of students reported that they carried a weapon on school property on one or more of the past 30 days.
 - c. 7% of all students had been threatened or injured with a weapon on school property one or more times during the past 30 days.

d. 5% of students reported that they did not go to school on one or more of the past 30 days because they felt unsafe at school or on their way to or from school.



- Property Damage - Almost one-third (31%) responded that they had property (such as a car, clothing or books) stolen or deliberately damaged on school property one or more times during the past 12 months.

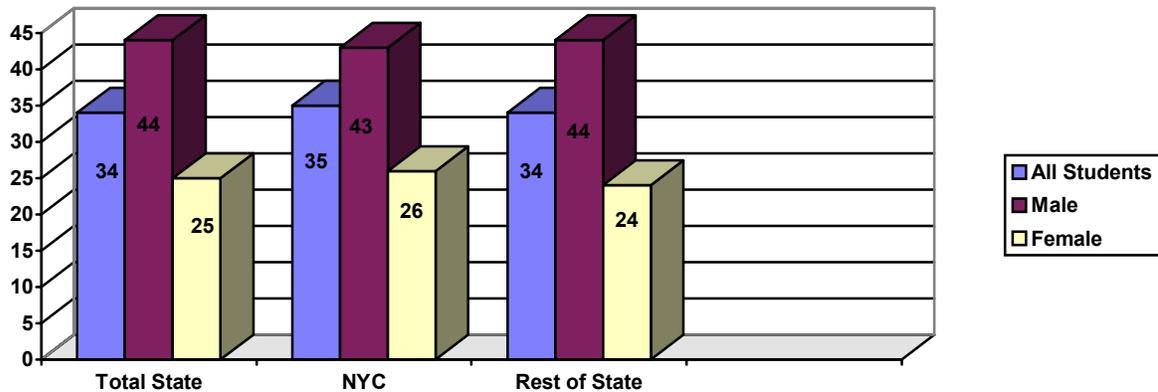
Percent of Students Who Had Property Stolen or Damaged On School Property



- Other Violent Behaviors - Non-fatal violence, such as fighting, often precedes fatal violence among young persons. The 1997 YRBS measured the frequency and severity of physical fights and identified persons with whom students fought:
 - a. 34% of students reported that they were in a physical fight one or more times during the past 12 months.
 - b. 14% of students, including 20% of male students and 8% of female students, indicated that the fights took place on school property.

c. 26% of the students, including 36% of male students and 16% of female students, reported that they fought with a friend or someone they knew the last time they were in a physical fight.

Percent of Students Who Were in a Physical Fight



- Suicide - Suicide is the third leading cause of death among youth aged 15-24. The rate has tripled since 1950.
 - a. 20% of students seriously considered attempting suicide during the past 12 months.
 - b. 15% of students made a plan about how they would attempt suicide.
 - c. 8% of students actually attempted suicide one or more times during the past 12 months with a higher percentage of females (10%) than males (6%) reporting such attempts.

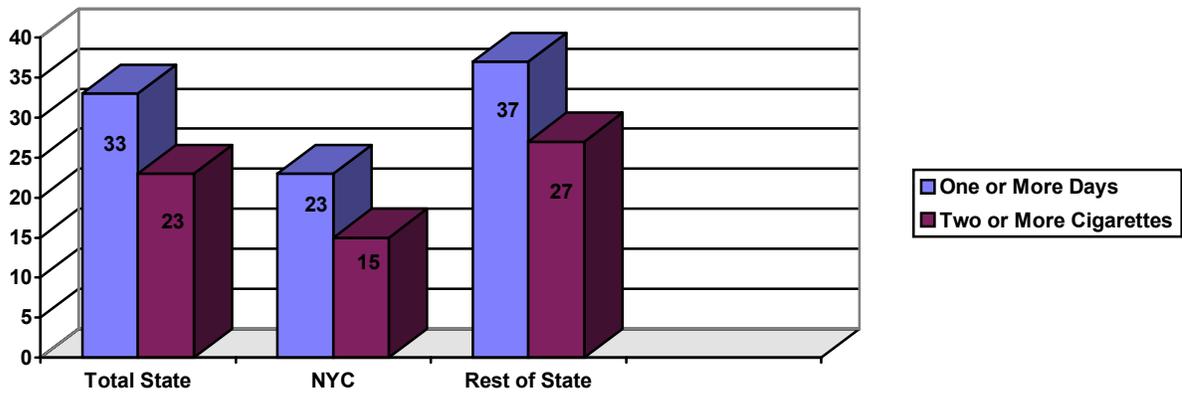
4. Tobacco Use:

- Tobacco use is considered the chief preventable cause of death in the United States. Over one million teenagers begin smoking each year. Smoking causes heart disease; cancers of the lung, larynx, mouth, esophagus and bladder; stroke; and chronic obstructive pulmonary disease. In addition, smoking is related to poor academic performance and the use of alcohol and other drugs. Results from the 1997 YRBS show that a significant number of students have tried and continue to use, tobacco products.
- Cigarettes -
 - a. One in three (33%) of students smoked cigarettes on one or more of the past 30 days, with 18% reporting smoking on school property.
 - b. 23% of students reported smoking two or more cigarettes per day on the days they smoked.
 - c. 68% of students have tried cigarette smoking and 23% smoked their first whole cigarette before age 13.
 - d. 13% of students purchased their own cigarettes at a store or gas station and 11% were not asked proof of age.
 - e. A higher percentage of students outside of NYC smoked cigarettes on one or more of the past 30 days. 23% of NYC students reported smoking cigarettes on

one or more of the last 30 days compared to 38% of the students in the rest of the state.

f. Students in the rest of the state (27%) reported that they smoked two or more cigarettes on days they smoked, while (15%) of NYC students reported the same behavior.

Percent of Students Who Smoked One or More Days (Past 30 Days) or Who Smoked Two or More Cigarettes on the Days They Smoked

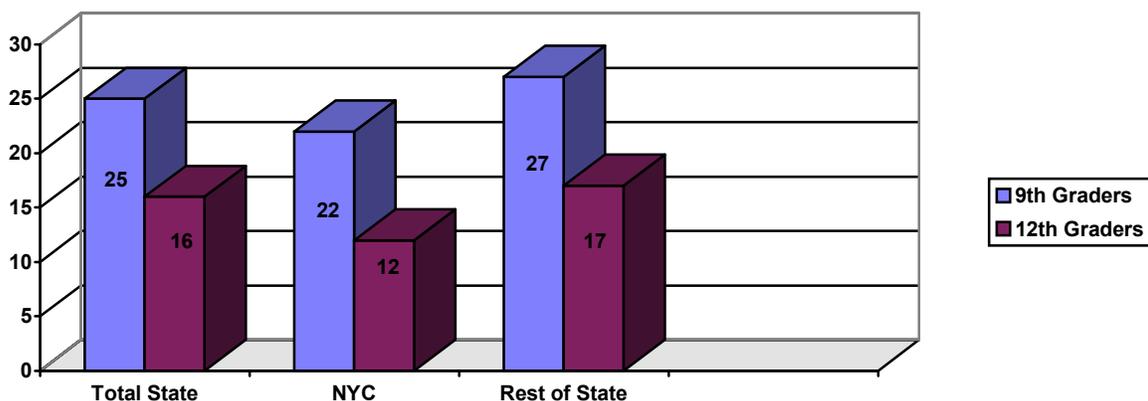


g. Significant increases occurred between 9th and 12th grades in the percentage of students (9th graders: 26%; 12th graders: 42%) who smoked on one or more of the past 30 days. A higher percentage of younger students in 9th grade (25%) smoked a whole cigarette for the first time before age 13 than 12th grade students (16%).

h. 34% of all students who smoke cigarettes have tried to quit one or more times.

i. Differences in smoking behaviors of male and female students were small or non-existent.

Percent of Students Who Smoked Whole Cigarettes Before Age 13



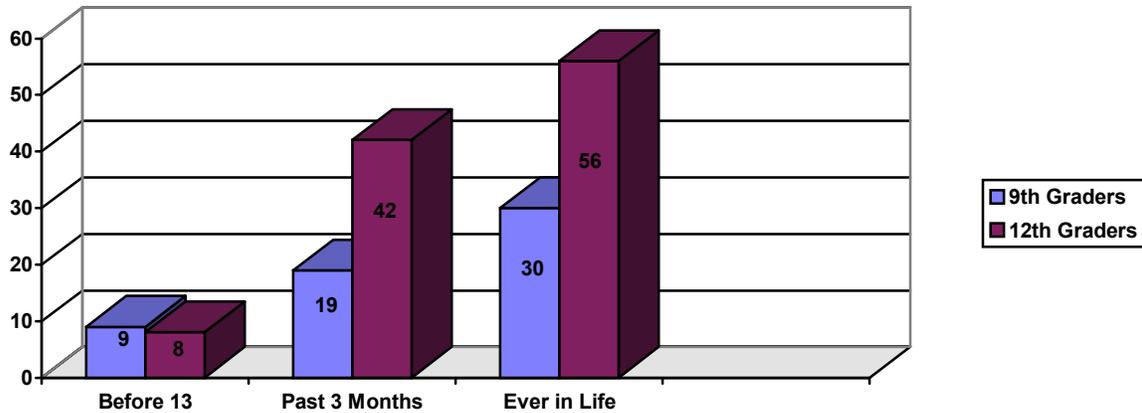
- Chewing Tobacco or Snuff - Use of Chewing tobacco or snuff is more prevalent among males than females.

- a. 9% of males used chewing tobacco or snuff on one or more of the past 30 days, while only 1% of females reported the behavior.
- b. Students outside of NYC reported greater use (7%) than NYC (2%).
- c. Among males, only 3% of NYC male students reported this behavior, while 13% of male students in the rest of the state reported this behavior.

5. Sexual Behaviors Resulting in HIV Infection, Other Sexually Transmitted Diseases and Unintended Pregnancies:

- Sexual Intercourse -
 - a. 7% of students had sexual intercourse for the first time before age 13.
 - b. 41% of students reported that they had sexual intercourse during their life. There was an increase from 9th grade (30%) to 12th grade (56%).
 - c. 29% of students reported that they had sexual intercourse during the past three months with an increase occurring between 9th grade (19%) and 12th grade (43%).
 - d. 13% of students reported that they had sexual intercourse with four or more people during their life.

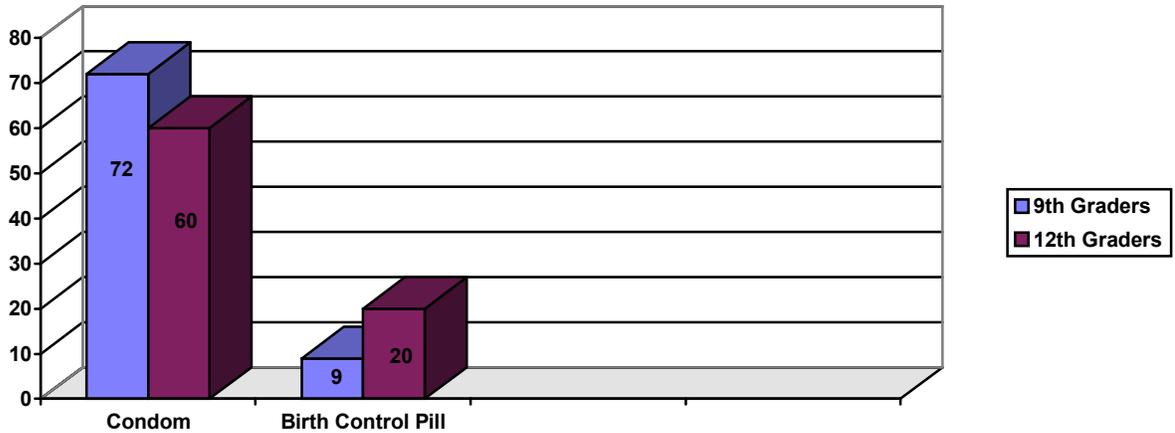
Percent of Students Who Had Sexual Intercourse



- Alcohol or Other Drug Use and Sexual Behavior - Alcohol or other drug use may serve as a predisposing factor for initiation of sexual activity and unprotected sexual intercourse. The 1997 YRBS results indicate that:
 - a. 11% of students drank alcohol or used other drugs before they had sexual intercourse the last time. This percentage increased significantly from 9th grade (8%) to 12th grade (16%).
- More than 1,000,000 teenage girls in the United States become pregnant each year. One-third of all unintended pregnancies occurs among teenagers and 75% of teenage pregnancies occur among adolescents who are not using contraception. The YRBS results show:
 - a. Use of condoms was highest among 9th graders (74%) and lowest among 12th graders (61%), while use of birth control pills increased from 9% in 9th graders to 20% in 12th graders.

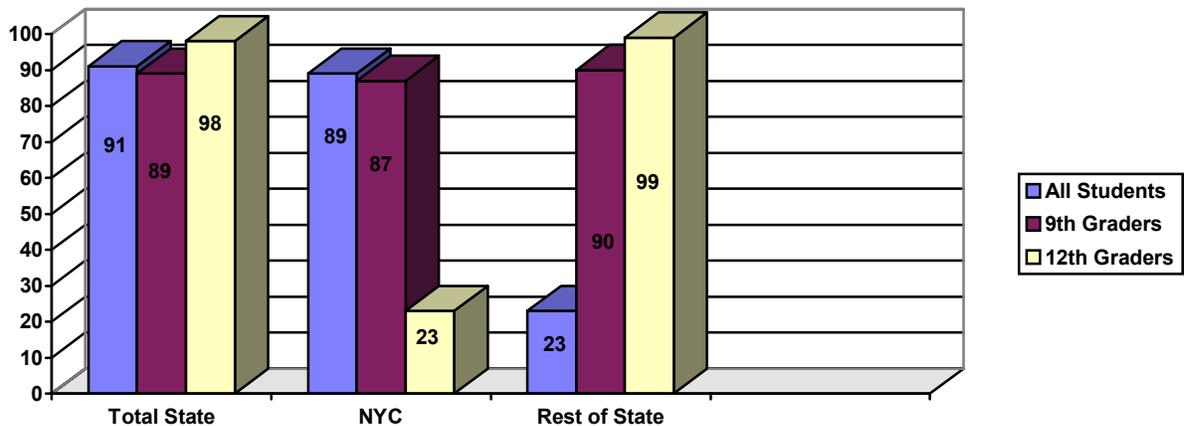
b. 68% of students (73% of male students and 62% of female students) used a condom during their last sexual intercourse, while 13% of students (10% of male students and 17% of female students) reported use of birth control pills.

Percent of Students Who Used Contraception During Last Sexual Intercourse



- AIDS Education - AIDS is the seventh leading cause of years of potential life lost before age 65 in the United States and is the sixth leading cause of death for youth aged 15-24. Of the 12 million new cases of STD's per year, 86% are among people aged 15-29. The 1997 YRBS results show that:
 - 92% of students indicated they were taught about AIDS or HIV infection in school, with an increase noted between 9th grade (88%) and 12th grade (97%).
 - 64% of students reported having talked about AIDS or HIV infection with their parents or other adults in their family.

Percent of Students Taught About AIDS/HIV Infection in School



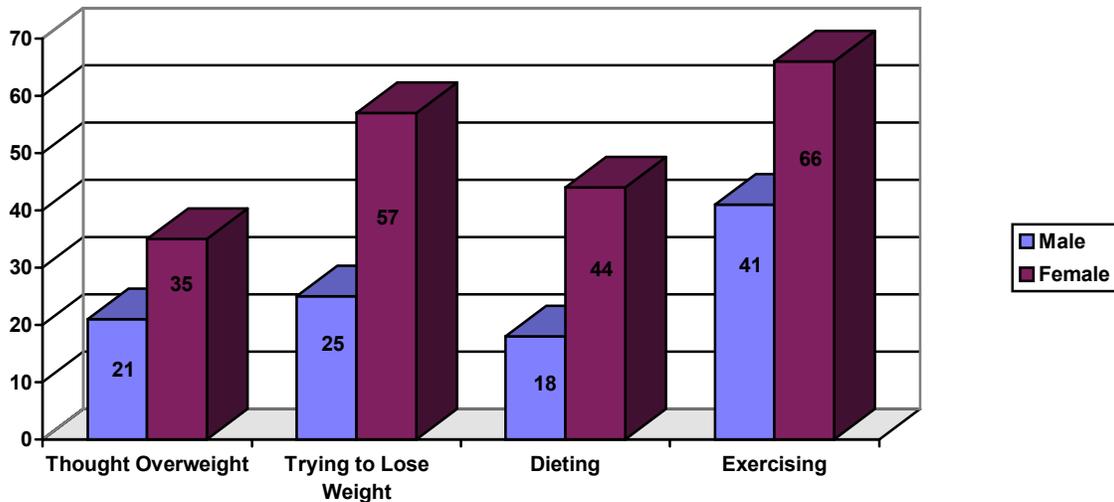
6. Dietary Behaviors:

- Adolescents are concerned about obesity. Obesity and extreme obesity appear to be increasing by as much as 39% and 64%, respectively, among adolescent's aged 12-17. Obesity acquired during childhood or adolescence may persist into

adulthood, increasing later risk for chronic conditions such as diabetes, heart disease and high blood pressure.

- Obesity in adolescents has been related to depression, problems in family relations and poor school performance. Overemphasis on thinness during adolescence may contribute to eating disorders, such as anorexia nervosa and bulimia. Adolescent females represent a high-risk population for the development of these two health problems. The 1997 YRBS results show that:
 - a. 28% of students, including 35% of female students and 21% of male students, described themselves as slightly or very overweight.
 - b. A significantly higher percentage of female students (57%) than male students (25%) were trying to lose weight or keep from gaining weight during the past 30 days. Higher percentages of female students participated in dieting, exercising, taking diet pills and vomiting or taking laxatives to lose weight or keep from gaining weight.

Percent of Students Reporting Various Dietary Behaviors



- Healthy Foods - Because lifetime dietary patterns are established during youth, adolescents should be encouraged to choose nutritious foods and to develop healthy eating habits. The 1997 YRBS results indicated:
 - a. 73% of students reported that they drank fruit juices one or more times the previous day while 65% ate fruit, 51% ate cooked vegetables and 38% ate green salad.
 - b. 61% of students, however, also reported they ate cookies, doughnuts, pie or cake the previous day; 51% ate french fries or potato chips; and 38% ate hamburger, hot dogs or sausage.

7. Physical Activity:

- Regular activity increases life expectancy and is associated with good mental health and self-esteem. Additionally, regular physical activity can assist in the prevention and management of coronary heart disease, hypertension, diabetes and obesity. School related physical education programs and activities can have a

significant positive effect on the health-related fitness of children and youth. The 1997 YRBS data indicate that on 3 or more of the past 7 days:

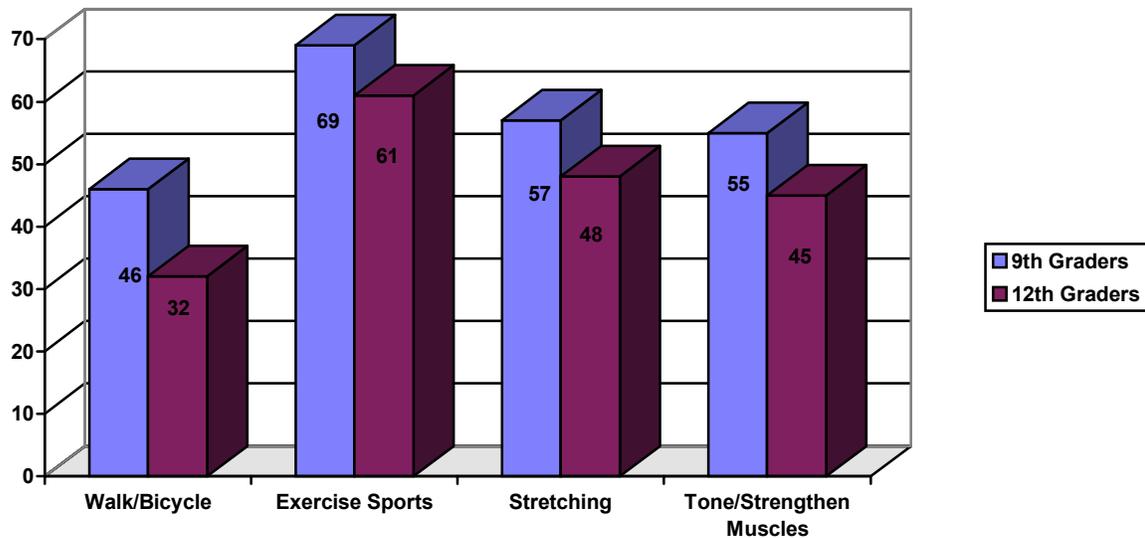
a. 41% of students walked or bicycled for 30 minutes or more at a time with a considerably higher percentage of NYC students (49%) reporting this behavior compared to the rest of the state (36%).

b. 66% of students, including 75% of male students and 57% of female students, exercised or participated in sports activities that made them sweat or breathe hard.

c. 52% of students did stretching exercises and the same percentage did exercises to strengthen or tone their muscles.

- In addition, 92% of students attended physical education class on one or more days during an average school week; 48% played on one or more sports teams run by their school; and 38% played on teams run by other organizations. However, in all categories of physical activity, participation declined between 9th and 12th grades.

Percent of Students Reporting Participation in Physical Activities



The Local Health Care Environment:

Tioga County 's EMS is volunteer in nature. Out of county EMS response is used to augment the county system.

Tioga Opportunities Program reports families and individuals served by the Food Pantry and free meal sites have increased. In 1997, 11,812 individuals were served by the Food Pantry (Adults 52%, Children 41% and Elderly 7%) and 6,525 individuals were served at the free meal sites throughout the county (Adults 80%, Children 17%, and Elderly 3%). It is reported that in 1994 there were 95 households per month served by the food pantry. In 1995, the food pantry served 100

households per month. In 1997, 215 households per month required the services of the food pantries, this was a dramatic increase from previous years. Standardized reporting was implemented to assess future needs more accurately. (Baburchak, 1998, Personal Communication)

In 1997 there were 78 drug and narcotic offenses.

According to A New Hope Center (1997), Tioga Counties Domestic Violence Program, in 1997 there were 841 families who received assistance for domestic violence, rape, child abuse, bias incidents, assaults, kidnapping, stalking, incest, and other crimes. A New Hope Center (1997), provided 381 units of service for emergency assistance (such as financial assistance, transportation, food and housing).

State of New York
 Division of Criminal Justice Services
 Uniform Crime Reporting
January 1994 – December 1994
Domestic Violence Victim Data

OFFENSE	WIFE BY HUSBAN D	HUSBAND BY WIFE	CHILD BY PARENT	PARENT BY CHILD	OTHER		COMMON LAW		TOTAL
					FAMILY RLTNSHP		WIFE BY HUSBAN D	HUSBAN D BY WIFE	
AGGRAVATED ASSAULT	4	0	0	2	0		1	-	7
SIMPLE ASSAULT	17	2	1	6	1		4	2	33
SEX OFFENSES	2	-	2	-	3		-	-	7
OTHER OFFENSES	28	1	5	3	5		3	2	47
VIOL. OF PROTECTIVE ORDER	16	0	0		2		0	0	18
TOTAL	67	3	8	11	11		8	4	112

State of New York
 Division of Criminal Justice Services
 Uniform Crime Reporting
January 1997 – December 1997
Domestic Violence Victim Data

OFFENSE	WIFE BY HUSBAN D	HUSBAND BY WIFE	CHILD BY PARENT	PARENT BY CHILD	OTHER		COMMON LAW		TOTAL
					FAMILY RLTNSHP		WIFE BY HUSBAN D	HUSBAN D BY WIFE	
AGGRAVATED ASSAULT	2	0	3	2	2		0	0	9
SIMPLE ASSAULT	36	5	10	14	14		2	1	82
SEX OFFENSES	0	0	13	0	7		0	0	20
OTHER OFFENSES	27	3	9	9	16		17	2	83
VIOL. OF PROTECTIVE ORDER	4	1	1	1	1		1	0	9
TOTAL	69	9	36	26	40		20	3	203

According to Maureen Hawley (Personal Communication, 1998), Director of Tioga County Youth Bureau: As reflected in Dr. Fahs “Healthier Tioga” report, open gym nights in all communities in Tioga County would be beneficial. While these are offered occasionally, many youth and adults have expressed a need for more of these. Many schools may have weekend hours

that might accommodate this. Additionally, these types of nights can be used as a fund-raiser for clubs or organizations. The problems organizers face is the ability to staff these nights with volunteers and if needed - fees for staffing and use of the buildings.

1997 YOUTH BUREAU FUNDED RECREATION PROGRAMS

Recreation Program	# of Youth Served	# of Youth in this Geographic Area *
Waverly Recreation	1220	2704
Candor Youth Commission	1250**	1808
Newark Valley Summer Recreation	197	2319
Nichols Summer Recreation	70	829
Town of Owego Summer Recreation	295	5307
Owego Little League	260	1358
Spencer Summer Cohesion	200	894
Tioga County Boy's Club Teener League	40	N/A
Tioga Center Schools Summer Recreation	40	1549

**Based on 1990 census*

***This is not an unduplicated count. The Candor Youth Commission sponsors many activities and this is a cumulative number of participation in the program.*

Obesity among youth is a concern that has been expressed by gym teachers. They feel this is increasing. Communities may assist by providing a comprehensive listing of recreational activities for youth and insuring youth are encouraged to participate. Those youth that are not connected to any healthy activities would be of greatest concern. The Youth Bureau is currently compiling a listing of activities for youth in each community (for summer and all year) and it is hoped this will be completed by 1999. Ensuring the information reaches those most in need would be important.

According to Maureen Hawley "Smoking and drinking among middle and high school students remains a problem. "In youth focus groups I have attended, it is very common to hear youth speak of the very common occurrence of weekend drinking by a significant number of youth." The impression they give is that it is not simply one group of youth, but rather the majority of youth who participate. Certainly this is not a new occurrence, but continued attention to this is needed to keep the concerns in the forefront. Perhaps youth, the Health Department, ADS, Police Departments, STOP DWI, TCCASA, and the Youth Bureau could meet periodically to make sure enough emphasis is placed on this issue."

Hawley states "The biggest unmet need in regards to health related concerns is the lack of statistical data accessible to all."

There are six public school districts in Tioga County. There is one parochial school and three private schools. Occupational education is provided through the Board of Cooperative Educational Services (BOCES). Tioga County participates in three regional BOCES programs, making public secondary occupational education accessible to every part of the county. BOCES programs include agriculture, health occupations, home economics, business and office skills, trade and technical courses and industrial and service training. There are seven colleges and universities located in adjacent counties, providing undergraduate, graduate and postgraduate educational opportunities.

TIOGA COUNTY, NY SCHOOL DISTRICTS

TIOGA COUNTY, NY DISTRICTS	TOTAL STUDENT POPULATION	AVERAGE ELEMENTARY SCHOOL POPULATION	STUDENT/TEACHER RATIO
Candor	1087	561	14
Newark Valley	1688	518	14
Owego-Apalachin	2723	627	14
Spencer VanEtten	1167	328	14
Tioga	1323	262	15
Waverly	2112	352	16

The following worksites have established “Worksite Wellness Programs”:
Luprino Foods, Hancor Corp., Ben Weitsman & Son Scrap Metal, Candor High School and Tioga County Public Sector.

Potable water is plentiful and pure (Tioga Tomorrow 1995). Wells can be successfully drilled virtually anywhere in the County, but really productive aquifers (those that can deliver hundreds of thousands of gallons of water per day) lie in the Susquehanna River Valley and the valleys of larger creeks. Municipal water systems include the Villages of Owego, Waverly, Newark Valley, Candor, Nichols and parts of the Town of Tioga.

Water fluoridation is available in less than 8% of the total county population. No naturally occurring fluoride exists in any county water supplies. Fluoride is available in the water in only 1 subdivision in Tioga County

Only the Village of Owego, parts of the Town of Owego and the Village of Waverly have municipal sewage treatment plants (Tioga Tomorrow 1995). The remainder of the county relies on private septic systems.

There are 4 daily newspapers that serve Tioga County residents, 4 weekly newspapers, 11 local radio stations and 6 local television stations.

Cellular telephone service is available. Local companies offer pagers and other related communication systems. There are 19,896 residential telephone customers, as of May 31, 1998. There is no ability to determine how many families have multiple residential phone lines.

Laws and Regulations:

Rabies:

The Tioga County Health Department continues to apply both local and state guidelines or regulations in an effort to prevent human exposure to rabies. Providers of care school, veterinarians, community organizations and others have all contributed to protecting the public against rabies. Educational programs in the community continue in an effort to heighten awareness and reduce exposures. State programs and efforts have been initiated on an experimental basis to control rabies. Tioga County supports these efforts since the incidence of rabies in the animal population has spread from county to county.

Lead Poisoning:

The adoption of the amendment of Part 67 of Title 10 NYCRR relative to lead screening and follow-up in December of 1993, has played an important role in decreasing the risk of lead poisoning in children age six months to six years in Tioga County.

The local health unit (LHU) targeted toward primary care providers (PCP) and the community have achieved this accomplishment through educational efforts at large. Since the inception of this legislation, there has been a gradual shift of screening of this population from the public to the private sector, which was one of the intents of this amendment. Clearly this legislation

has had a positive impact on the health of children in our community in prompting primary and secondary prevention measure.

Smoking Policies:

There is no local smoking/tobacco law. Tioga County adheres to the NYS Public Health Law and the education law, in relation to curtailing exposure to tobacco smoke.

Compliance checks are done to monitor that cigarettes are not available to youth under the age of 18. The Environmental Health Department of the LHU does enforcement of NYS smoking laws. Tobacco enforcement and compliance checks reinforce tobacco laws to ensure that youth do not have access to tobacco products from vendors.

LOCAL HEALTH UNIT CAPACITY PROFILE:

Tioga County Health Department consists of multiple staffing disciplines (see attached organizational chart). Several of these personnel have been employed by the Health Department over 20 years and therefore, provide the county with many collective years of varied experience. This wealth, in addition to, the dedication and expertise of newer employees gives the Health Department a staff who provides excellent quality care. Several staff have on their own obtained credentials in their areas of expertise in infection control. Staffing needs are evaluated on an ongoing basis and adjusted as needed. When need for moderate disaster or outbreak coverage arises, these situations can be managed with existing staff. In the event of large outbreaks or occurrences, assistance from other counties, community based organizations and NYSDOH is requested.

The LHU offers a variety of programs and services such as:

CERTIFIED HOME HEALTH AGENCY, HOME HEALTH CARE:

The Tioga County Health Department is certified by the New York State Department of Health to provide a variety of services for those with temporary illnesses or chronic health conditions. Our Home Care Staff is prepared to bring quality care into the home on an intermittent basis (continuous 24-hour care is not available). Agency personnel work directly under the orders of physicians and are skilled in assisting you and your family in a variety of ways.

LONG TERM CARE:

Long Term Home Health Care Program provides health related and skilled level of care to frail elderly, disabled, and chronically ill persons living at home and is jointly sponsored by Tioga County Department of Social Services through Tioga Allied Services Assessment Program (TASAP).

Services available include skilled nursing, home health aides, personal care aides, medical social services, physical therapy, occupational therapy, speech therapy, respiratory therapy, nutrition counseling, housekeeping, Meals On Wheels, day care, transportation, and personal emergency response system.

PRIMARY AND PREVENTIVE HOME VISITS:

Public Health Nurses may visit expectant mothers, new babies, and new parents just home from the hospital. Nurses are always available by phone to answer questions or concerns about pregnancy or children.

LEAD PROGRAM:

The Lead Program in Tioga County is targeted for children between the ages of 6 months and 72 months. Our goal is to educate the public and eliminate lead poisoning.

BEREAVED SUPPORT:

The purpose of the Bereaved (Parents/Family Members) Support Group is to promote and aid parents in the positive resolution of the grief experienced upon the death of their (child/loved one) and to foster the physical and emotional health of (bereaved parents/families).

INFANT CHILD HEALTH ASSESSMENT PROGRAM:

Infant Child Health Assessment Program (ICHAP) is a statewide program to assure that a child (birth to three years of age) will receive the help needed for the best growth and development in the early years.

EARLY INTERVENTION:

The Early Intervention Program is a federally mandated program that provides services for children ages birth to 3 years with a developmental delay, disability, or condition.

IMMUNIZATION CLINICS:

The Immunization Clinic is a service that provides protection for infants and children against diphtheria, tetanus, pertussis, rubella, mumps, measles, polio, haemophilus influenza type b disease (Hib) and hepatitis B. Some adult immunizations are also offered. Tuberculosis screening is also offered. The clinic is available to county residents of all ages.

CHILD HEALTH:

The Child Health Conference (CHC) program provides preventive health care for children age 2 months through 12 years. All children living in Tioga County are welcome to attend clinics.

EDUCATION:

The Public Education Outreach Program is committed to identifying health concerns that need to be addressed in Tioga County. Education is used to heighten public awareness of the need to reduce the occurrence of preventable conditions.

DENTAL SERVICES:

1. Dental Sealant Program

The Tioga County Health Department offers a free Dental Sealant Program to all children attending county schools in grades two and six.

2. Fluoride Program

Tioga County elementary and middle schools and Child Health Clinics participate in fluoride tablet or fluoride rinse programs.

3. Dental Health Education

Dental Health Education by a Registered Dental Hygienist is available to pre-school, public, private, home schools, open houses, health fairs, parent meetings, school board meetings and Child Health Clinics.

WORLD TRAVEL COMMUNICABLE DISEASE:

Communicable Diseases: Under New York State Law, 64 diseases are reportable to the Tioga County Health Department by physicians, nurses, and medical laboratories. It is the responsibility of the Health Department to try to determine the source of the disease, if anyone else has symptoms, and who may have been exposed or is in the process of developing the disease. This is accomplished by interviewing those involved. Education regarding the disease, its cause, how it is transmitted, how long before symptoms may start, and how to prevent further transmission is provided on an individual basis. This program is also responsible for the management and control of disease outbreaks. The Tioga County Health Department can provide the traveler with information regarding vaccination needs and current disease outbreaks.

RESPIRATORY CLINIC:

The Respiratory Clinic has been providing care and treatment for tuberculosis since 1975.

SEXUALLY TRANSMITTED DISEASE CLINIC (HIV/AIDS):

A specially trained HIV test counselor is available via phone call to arrange an appointment for HIV Antibody testing or to answer any questions you may have about HIV infection or AIDS.

HIV ANTIBODY COUNSELING AND TESTING SERVICE:

Confidential HIV antibody counseling and testing is provided by appointment only with one of our specially prepared HIV test counselors.

SEXUALLY TRANSMITTED DISEASE (STD) CLINICS:

The STD clinic can provide screening, diagnosis, treatment and follow-up. Services are free, by appointment only, and completely confidential.

ENVIRONMENTAL HEALTH:

The primary objective of the department is to promote and protect public health as it relates to the living environment within Tioga County. This department is comprised of distinct program elements under the umbrella of 5 major program areas. These programs are:

1. Public Water Supply
 - a. Community Systems
 - b. Non-Community Systems
 - c. Bottled & Bulk Water
2. Environmental Radiation
 - a. Environmental Radiation Protection
 - b. Other Radiation Protection
3. Community Sanitation & Food Protection
 - a. State & Local Institutions
 - b. Food Service Establishments
 - c. Children's Camps
 - d. Hotels & Motels
 - e. Campsites & Parks
 - f. Swimming Pools

- g. Bathing Beaches
- h. Mobile Home Parks
- i. Individual Sewage Disposal
- j. Individual Water Supply
- k. Realty Subdivision
- l. Residential Housings
- m. Nuisances
- n. Lead Poisoning
- 4. Environmental/Occupational Health
 - a. Chemical Emergencies
 - b. Hazardous Waste Disposal
 - c. Indoor Air
 - d. Occupational Health
 - e. Environmental Health Assessment
- 5. Miscellaneous
 - a. Rabies Investigation
 - b. Smoking Restrictions

SERVICES PROVIDED BY THE CERTIFIED HOME HEALTH AGENCY INCLUDE:

- **Skilled Nursing:**
Upon admission, a Registered Nurse will be assigned to manage individuals care, under the direction of their physician. The nurse will assess individuals physical condition and perform health teaching. Technical care such as intravenous (IV) therapy, blood draws, and other procedures are also available. The nurse can make appropriate referrals to other community agencies. A nurse is available on call 24 hours a day.
- **Home Health Aide:**
An Aide may provide services to assist individuals with bath, personal grooming, exercises, etc. under physician's orders and with supervision of a nurse or therapist.
- **Occupational Therapy:**
An Occupational Therapist may develop a program that may help individuals to regain their independence of daily living in the areas of eating, bathing, dressing, and improving upper extremity function.
- **Speech Therapy:**
A Speech Therapist may assist individuals with regaining the ability to communicate or swallow.
- **Physical Therapy:**
A Physical Therapist may assist individuals to restore muscle function by therapeutic exercise, massage, heat/cold, etc.

- **Medical Social Services:**
A Medical Social Worker may assist individuals with any emotional or social difficulties impacting on individual health.
- **Respiratory Therapy:**
A Respiratory Therapist may provide evaluations and facilitate improvements in lung function through the use of exercises, medications, oxygen, and other respiratory equipment.
- **Registered Dietician:**
A Dietician may instruct individuals regarding a therapeutic diet, provide suggestions on meal preparation, or teach how to include nutritional needs in the family diet.

Due to the diverse experience of staff, a joint effort was developed for performing the Community Health Assessment. The bulk of the assessment was performed by Health Education, with in-put from sections of Administration, Disease Control, Dental, Primary and Preventive Staff, Lead, and Immunization Coordinator. Data was collected from within the department, other county and community agencies, HIN, RHN, and the Community Health Priority Assessment performed jointly by Tioga County Health Department and Dr. Pam Stewart-Fahs.

The Tioga County Health Department will have a new Director of Public Health in the near future. It is planned that an assessment of the Health Department will be done using APEXPH or another assessment tool.

Programs offered by NYSDOH to provide ongoing instruction in the process of Community Assessment and health monitoring/surveillance would greatly benefit the Tioga County Health Department and the community at large.

PROBLEMS AND ISSUES IN THE COMMUNITY

Profile Of Community Resources:

Tioga County Health Department: The Tioga County Health Department is a vital part of the State's public health infrastructure, and serves on the front line of the total public health effort for county residents. Local efforts focus on the identification and surveillance of health threats, community health protection and promotion; screening and prevention services and outreach services to provide needed access. Special mandated training and services were also provided to support the infrastructure of all county departments and other public entities. The Tioga County Health Department works collaboratively with multiple agencies to meet the health-related needs of the community.

Tioga County Department of Mental Hygiene: The New York State Mental Hygiene Law establishes Community Services Boards in every county. In non-charter counties (Tioga) the Board is a policy making one. As such, the Community Services Board participates in and approves the plans which are submitted to each of the Mental Hygiene Agencies (Office of Mental Health, Office of Mental Retardation/Developmental Disabilities, Office of Alcoholism and Substance Abuse) on a yearly basis. The Board determines priorities for State Aid funding and recommends priorities for local funding to the County Legislature. It oversees the activities of both the County Department of Mental Hygiene and its contract agencies. The Mission of the Community Services Board is to assure that the citizens of Tioga County have affordable access to those services and

supports which are necessary to assist them to be productive, healthy, caring and contributing members of this community. Service recipients and other interested parties should play an integral part in the planning, development and monitoring of the service system. The Department cooperatively plans with the following programs:

- A New Hope Center
- Binghamton Psychiatric Center
- Broome Developmental Disabilities Services Organization
- Elmira Psychiatric Center
- Finger Lakes Parent Network
- Glove House
- Rehabilitation Services, Inc.
- St. Joseph's Hospital
- Tioga County Council on Alcoholism and Substance Abuse
- Tioga County School Districts
- United Health Services

Tioga County Department of Social Services: The mission of the Tioga County Department of Social Services is to promote self-sufficiency and protect citizens by providing financial and social services to eligible Tioga County residents. This is accomplished through program development, application of the law and encouragement of responsibility in an empathetic, timely, and customer focused manner. The Department directly impacts the health of Tioga County residents by administering the following programs:

- The Medicaid program to individuals and families, insures that all eligible persons have access to medical care.
- The Food Stamp program to individuals and families, insures that all-eligible persons can supplement their monthly food needs.
- The Long-Term Care programs, through the TASAP office, insures that individuals are allowed to receive the appropriate level of long term care services.
- The Cash Assistance and Child Support programs, insures that all-eligible persons have access to financial support in order to maintain a healthy living environment.
- All Adult and Children's protective services, insures that persons are not allowed to remain in physically and mentally harmful situations.

Family Resource Center: Cornell Cooperative Extension is working collaboratively with area churches, Area Council on Alcohol and Substance Abuse, Head Start, Mothers and Babies Perinatal Network, Special Children's Center, Teen and Family Outreach, The Employment Center, Tioga County Department of Social Services, Tioga County Health Department, Tioga Opportunities Program, Waverly Business Administration, and Waverly School District. Family Resource Center offers a free drop in program for families of young children age 0-5yrs. The center provides multiple opportunities for parents and children using developmentally age appropriate resources.

WIC provides breastfeeding training, counseling, nutrition assessments, nutrition education, postpartum care to women and children birth through 5 years, and vouchers for food for pregnant women who meet federal income and medical guidelines. WIC is a member of the Tioga Nutrition Team.

Head Start: A part of the Tioga Opportunity Program, works with income eligible or disabled 3 and 4 year old children and their families. The Head Start Nutrition Coordinator is a member of the Tioga Nutrition Team.

Injury Advocacy Council: Guthrie Healthcare Systems, Tioga County Legislature, Tioga County Health Department, Emergency Medical System representatives and schools work collaboratively to increase awareness of injury as a public health problem. This collaborative effort will result in a development of a Resource Center to distribute information on injury specific areas and advocate to decrease mortality and morbidity through injury prevention education.

Healthy Living Partnership: This is a multi-county partnership which includes Guthrie Clinic, American Cancer Society, Broome County Health Department, Guthrie Health Services, Lourdes, Tioga County Health Department, United Health Services, YWCA, TOP, and Planned Parenthood to improve the health of individuals through education and outreach, focusing on early detection of breast, cervical, prostate and colorectal cancer for eligible residents.

Rural Health Network: The Rural Health Network is a not-for-profit corporation organized pursuant to the laws of the State of New York, to promote universal access to health care services, provide a system through which consumers and providers of health and human services can work together to enhance service planning and assessment, implementation and evaluation, and to improve the health of the residents and communities within the south central region. In order for the Network to address the needs of the community, individual participation will be actively sought. This will be accomplished by inviting any individual, organization - private or governmental, which provides services to, has an impact on, or is interested in the provision of health care to the population of rural Broome, Delaware or Tioga counties to attend the annual meeting, serve on standing committees, and provide information useful in accomplishing Network goals.

Decker School of Nursing: an integral part of the mission of Binghamton University is to provide service to the community. The Decker School of Nursing fulfills this mission in part by being involved with communities to develop and implement projects and research to improve the quality of life of community residents. In addition, the Decker School of Nursing works with community agencies to provide students with appropriate and challenging educational experiences. Partnerships between the Decker School of Nursing and county health departments are important components of undergraduate and graduate nursing educational programs.

Domestic Violence Community Response Network: was formed as a response to increased acts of domestic violence and deaths of women perpetrated by their partners. A New Hope Center in conjunction with the District Attorney's Office, Tioga County Department of Social Services, Tioga County Department of Mental Hygiene, Tioga County Health Department, Tioga County Sheriff's Department, Owego Police Department, New York State Police Department, Waverly Police Department and Tioga County Legislature ensure consistent response to domestic abuse.

Southern Tier Worksite Employees Engaged in Prevention (SWEEP): is a collaborative effort of multiple worksites in Broome and Tioga Counties, (ACS, and AHA, American Lung Assoc., Broome County Health Department, Tioga County Health Department, and various support agencies and worksite representatives), to increase wellness of employees through worksite, environment and policy change.

Tioga County Employee Wellness Program: promotes physical activity, healthy food choices, and education and information on health related topics. This group is comprised of CSEA, Department Heads, Department Employee Representatives, Tioga County Legislature, Tioga County Personnel, and Tioga County Health Education Program.

Broome Tioga Tobacco Free Coalition: A group comprised of the American Cancer Society, Broome County Health Department, hospital representatives, Opportunities for Broome Program, Tioga County Health Department, and Tioga County Youth who are committed to promoting and advocating for a tobacco-free lifestyle and environment in Tioga County and Broome County.

Tioga Nutrition Team: was formed to promote and encourage the healthful food choices of families and children within the county through education and advocacy via schools, homes, community organizations, and the media. Tioga Nutrition Team partners include Cornell Cooperative Extension, Tioga County Health Department, Head Start, TOP Food Bank, Tioga County School Districts, and WIC.

Healthy HEART (Heart Education And Resource Team): is a coalition comprised of the ACS, AHA, Broome County Health Department, Tioga County Health Department, Tioga County Chamber of Commerce, Tioga County Youth Bureau, and United Health Services to promote a community based healthy heart lifestyle. This group plans to identify populations and develop a plan with those populations to promote lifestyle changes through nutrition or physical fitness.

5-A-Day Program In Area Schools: Is a 3 year, New York State Grant Funded initiative targeting the Waverly area to positively address needs of 2,000 students and 400 WIC clients. This is a collaborative approach with WHS, WIC, OAHs, Cornell Cooperative Extension, Tioga County/Waverly worksites, Waverly Business Association, the school district and community. Better nutrition will be provided by: checking availability and usage of fresh fruits and vegetables in schools and with WIC clients; increasing the number of students using free breakfast program; provide education and support to WIC clients to sample and prepare fruits and vegetables; empower students to be active in promotion of better food choices; and evaluate potential for farmers market in Waverly.

American Cancer Society: Free programs and educational materials (speaker, films, and brochures) are available upon request to the public and medical professionals. They offer periodic screening programs conducted for oral cancer, Pap test and breast exams. Patient services include short-term financial aid, loaned wheelchairs, walkers and other equipment, transportation and support groups.

American Heart Association: Provides public/professionals with education and community service programs to reduce death/disability due to cardiovascular disease and stroke. Programs address major risk factors in areas of nutrition, high blood pressure, and smoking. CPR and related education on early warning signs is also available. Worksite Wellness Program assistance is available at employer's request.

American Red Cross: A humanitarian organization led by volunteers that provides relief to victims of disasters and helps people prevent, prepare for and respond to emergencies.

Rotary International Community Head Lice Program: The Owego Rotary in collaboration with Tioga County Health Department, selected the public health issue of head lice as a community health project. The goal is to not only reduce the incidence, prevalence and transmission of head lice, but also to reduce the stigma associated with lice that causes pain and harm to affected children and families. Age appropriate, consistent education material and training are provided to schools participating in the evaluation/education process.

First Call For Help: is sponsored by Catholic Charities of the Southern Tier, Children and Youth Organization in Tioga County and New York State Division for Youth. It links callers with appropriate services using a computerized database of information, national directories and other resources. They develop brochures and human service directories and provide information to the community on service requests and areas of unmet needs. They participate on community coalitions to address various areas of concern.

The Farm Land Protection Board: A collective body (non-programmatic) that is necessary to facilitate funding for Land Protection Plan. Its major role is to review Agricultural District Activities on an 8-year cycle.

Health Care Systems: The Local Health Unit (LHU) regularly collaborates with the three leading healthcare systems, each of which is outside of the county boundaries with one housed in Pennsylvania. Each hospital has provided the LHU with a copy of their Community Service Plan (CSP).

The assessment, "Tioga County Setting Priorities 1998" included input from representatives from each hospital.

Tioga County Health Department was recruited and participated in the assessment done for the Pennsylvania Hospital, Guthrie Healthcare Systems (GHS), during their community outreach program that was developed to determine the best way to utilize their community health monies. (They consider Waverly, NY as part of their local community because of its proximity and are very involved in Tioga County because approximately 55% of our residents seek services there.) Training for a Health Educator was subsidized by GHS, in community assets mapping and concurrent educational training, provided by Volunteer Hospitals of America, was attended as their guest. Multiple services based on community need are included in the 1996 Community Value Report.

The Injury Advocacy Council has been initiated, jointly with LHU as a result of a need identified through ongoing collaboration with the Guthrie Trauma Center Coordinator and Director of GHS.

GHS funding was also acquired by the LHU to subsidize scholarships for local front line family workers to receive NYS Family Development Training and Credentialing and to support research by SUNY Decker School of Nursing to acquire baseline information to track the progress and results in families receiving Family Development Trainee services.

Other hospital collaboration has occurred regularly with United Health Services (UHS). Many services have been instituted in Tioga County, based on information from the Community Service Report, April 1998. Joint application for funding for bi-county initiatives, with UHS being the lead agency receiving the funding, has resulted in an expanded worksite healthy heart program that includes seven worksites in Tioga County. Collaboratively, newsletters, quarterly promotions and contests related to nutrition, tobacco issues, fitness and stress reduction, community forums and

on-going worksite teams have continued past the funding period. Change of the worksite environment and policies that promote heart health continue to be the focus.

Other projects with UHS include NYS Healthy Heart Communities funding. A five-year initiative to promote community responsibility, input and participation in healthy heart behavior promotion has been initiated. A community survey in Tioga County, (individual surveys and focus groups) was conducted using a tool provided by the NYS Bureau of Chronic Disease and was facilitated in conjunction with Tioga County Youth Bureau. A resource of services available for nutrition and fitness also was completed. The outcome resulted in consensus to initially provide a media intense campaign to increase awareness of the issues and opportunities for communities related to fitness nutrition, and to provide direct community support for projects that address fitness and nutrition issues.

Joint programs with Broome County Health Department as lead agency are currently being conducted in Tioga County. Diabetes community intervention in the low income, elderly population

in Waverly and active involvement in the “Healthy Living Partnership” has resulted in joint education and outreach for Tioga County residents related to preventive diabetes and cancer initiatives.

(Mammography, fecal occult screening and prostate cancer education and detection.) The outreach worker is housed in the LHU.

The third hospital provider, Lourdes Hospital, has had the Planning Director personally participating in our assessment process. He also has taken the lead in the Northern Tioga Project that resulted in clinic services in a previously underserved area of Northern Tioga, and is participating with the Rural Health Network team to work on transportation issues that are barriers to access care in rural areas. Multiple services based on community need are included in the 1998 Community Benefit Plan. The provision of data and input continues to be supportive to our needs.

Public Health Education/Outreach Efforts:

Working closely with the NYSDOH to assess and track the immunization levels of the 2 year old population, the Tioga County Health Department has initiated a strong pro-active outreach program. By monitoring the immunization levels of the families with young children enrolled in the Department of Social Services, the Health Department has been able to determine a baseline for this portion of the counties population. An extensive survey provided data to support the fact that at risk Social Service clients are also at risk health care recipients. The percentage age of completely immunized 2 year olds is in the 61-65% range, which are approximately 10% lower than the county average. Pockets of need were identified throughout the county as targets for added outreach awareness efforts. Survey data is to be shared with all providers so that new protocols can be developed to increase immunization levels. A follow up survey being conducted by NY-PENN, will highlight those clients who feel they know little or nothing about immunizations in general. Increased educational outreach contacts will be established in those areas. Continued contacts through schools, preschools, and day care facilities will be necessary to maintain progress in preventing early childhood disease. Essential Public Health functions such as established immunization clinics, for which fees are on a sliding fee scale, will be necessary to ensure proper immunizations. Equally important is the involvement of the primary care providers. An immunization records assessment was conducted at all primary provider offices, which covered the general population. The national goal for the year 2000 is 90% complete immunization coverage for two year olds. Through extensive outreach, results went from 58 % in 1994 to 72% in 1997 and as high as 90% for some private practices in 1998. Better tracking methods to reduce drop out rates

are necessary. Insistence on up to date immunization records in all patient files will help alleviate the recurrence of missed opportunities for immunizations. Recognizing a unique situation in which clients cross state lines for pediatric well childcare; a coalition is being established with the Pennsylvania providers. A hospital based initiative to address the immunization issue starting at birth, with tracking through age two.

Public Health Education efforts have focused on collaboration, working toward a common goal to reduce the risks for chronic and/or preventable diseases, such as heart disease, diabetes, and cancer and decrease intentional and unintentional injury. Through collaboration with area agencies, community needs are identified, existing health promotion projects are enhanced, and support, education, training and resources are provided to meet identified needs. Due to the lack of such programs, Tioga County Health Department has implemented Smoking Cessation programs, through this process

Profile of Unmet Need for Services

Respiratory Clinic: Respiratory Clinic is currently in a state of change having recently lost our pulmonologist to Upstate Medical Center in Syracuse. This presents an excellent opportunity to review the program and make improvements.

An identified problem for clients is the lack of a provider site in the western half of Tioga County for blood work and chest x-rays. The current contractual providers for both are located in the eastern part of the county and do not have satellite facilities in the western part of the county. For some clients, the problem has been one of transportation, a frequently identified problem. For other clients, the problem has been one of the amounts of time away from work. Round trip travel time is 1 hour in addition to the time required for blood draw and/or chest x-ray. The ideal solution to this problem is to negotiate a contractual agreement with the primary health care provider group in that area for these services. It is our intent to pursue this option in the near future. Failing to achieve this, the next best option would be to secure a site where staff could go on a weekly basis to draw blood work and then deliver it to the current contract laboratory for testing. Having blood work done is more problematic than chest x-rays due to the greater frequency for blood work. Therefore, having a site where blood could be drawn would provide a solution to a major portion of the problem.

The already identified problem of client time away from work has also been an issue with regard to Clinic appointments and has been a source of some noncompliance. Currently, Respiratory Clinic is held between 1:00 and 3:00 PM on the fourth Tuesday of the month. Under consideration is a change in Clinic hours to 4:00 to 6:00 PM. The determination as to the schedule for Clinic will be made with the new pulmonologist.

It is anticipated that the change in pulmonologist will mean that we will no longer have access to our previous clinic site in the western portion of the county. We plan to assess need and feasibility of contracting for a site where clinic can be held periodically. The possibility of acquiring use of space for a clinic site in conjunction with an agreement for laboratory and x-ray services will be explored. The present plan is to hold Clinic at the Tioga County Health Department in the Disease Control Division offices for most of our clients. However, arrangements will need to be made for a location to see known infectious TB patients and those clients that meet criteria for classification as a suspect case. Previously, the plan was to see these patients in the Bronchoscopy suite of the facility with which our pulmonologist was associated. It is our plan to seek a similar arrangement through our new pulmonologist for appropriate negative pressure facilities in which to see these patients.

Communicable Disease Exclusive of STD: Over the past two years the problem of symptomatic individuals unable to afford the cost of diagnostic testing has been identified. This has been due to the individual either being uninsured or under insured. Under insured being defined as having a deductible so high that the insurance would pay little or none of the cost of testing or treatment. When this has happened, Tioga County Health Department has utilized NYS Wadsworth Laboratory to provide for the testing and its Medical Director as the ordering physician for any subsequent treatment if there was no primary health care provider.

The report “Healthier Tioga County - Setting Priorities” noted that there are families who have health insurance for their children through New York’s Child Health Program but do not have health insurance for adult family members. The instances noted above while infrequent may be an indication of a population with unmet needs. For many of the communicable diseases that we routinely track, good hygiene practices alone will prevent secondary spread. Therefore, the lack of unusually high numbers for these diseases does not rule out the presence of undetected cases.

The need for health care for low-income adults has also been identified in a neighboring county and is being met by a private sector free clinic staffed by volunteers. Exploration should be given to developing a similar type of clinic in Tioga County, perhaps with the collaboration of the public and private sectors.

STD/HIV: Tioga County Health Department currently contracts with three provider offices to provide STD clinic services. Two of the offices are in Owego and the third is located in Candor, NY. This leaves up to a 30-minute trip for residents in the western portion of the county (Waverly/Barton area) to access services. Provider offices in the western portion of the county are currently being approached regarding the feasibility of providing STD services for the county. The majority of county residents utilizing STD services are in the 16 to 25 year old range. Many are still living at home and transportation to an “out of town” site is a barrier. Confidentiality regarding individual need for STD services becomes problematic when the individual must approach a parent or other adult for transportation needs. The barriers to access, if not removed, will only increase the incidence of sexually transmitted diseases and raise the possibility of infection with human immunodeficiency virus.

In addition, only one of the current STD provider sites includes HIV testing as a component of the STD visit. The presence of a STD should signal the possibility of HIV infection. While patients are counseled on the need and benefits of HIV testing, the individual is then referred to the Tioga County Health Department for the actual testing procedure. This necessitates a second clinic visit and often a second blood draw session. This undoubtedly serves as a barrier to testing for some individuals.

While the STD providers have evening appointment hours available, the HIV testing program does not. This is a barrier to many young working adults since they are not always able to take time off from work to access medical care let alone an “optional” diagnostic procedure. The feasibility of offering evening and/or Saturday access to services, perhaps in conjunction with “off-site” HIV testing services will be studied.

Because of the high incidence of HIV infection among teenagers, risk behavior surveillance of adolescents/adults needs to be done. For example: in 1997 1 out of every 4 reports of HIV infection occurred in a person under 22 years of age and AIDS related illnesses are the 6th leading cause of death in the U.S. among persons ages 15-24. To emphasize the importance of risk behavior surveillance adolescents are particularly at risk for STD/HIV infection because of their perception and behaviors. Behaviors that have been identified as risky in this population are the lack of use of protection during sexual intercourse and experimentation with drugs. Adolescents perceive themselves as invulnerable to disease and that there is a need to establish their sexual identity.

Currently, partner notification for gonorrhea, syphilis, and HIV are referred to the state personnel in the Syracuse region. If, with the new legislation regarding HIV name reporting scheduled to go into effect in January 1999, partner notification becomes the local department's responsibility, more personnel with experience and training will need to be employed.

Need For Regulatory Change: One area of concern which may lead to regulatory change in the future, is the frequent occurrence of head lice in school age children. There needs to be continued and increased collaboration between the Department of Health and the Department of Education to manage issues related to control of head lice in both the school and home settings.

Another area of concern is the continued availability of Kwell (lindane) by prescription for the treatment of head lice. This product has been found to have the potential to be extremely neurotoxic. The continued development and availability of pediculocides that are both safe and affordable is an imperative if we are to maximize the ongoing efforts in the control of head lice.

Local Health Priorities

The Tioga County Health Department in a pro-active approach to identify, assess and prioritize community health needs collaborated on 3 separate initiatives in 1997 through March of 1998. The study "Healthier Tioga County: setting priorities" was facilitated by Pam Stewart Fahs, RN, D.S.N. (Fall/97 to March/98) as part of a Health Department initiative. The Health Department and Dr. Fahs approached this study using 3 focuses: professional community, lay community and Health Department employees.

There were 2 other studies performed by NY-PENN Health Systems for the Rural Health Network of South Central New York. One report was consumer focused and one report was provider focused. Access, delivery and need were part of the study focus. The Health Department collaborated and participated in these studies. An additional survey was conducted by our community action agency. A discussion of these studies findings and appropriate recommendations will be addressed in this section.

I. HEALTHIER TIOGA COUNTY: SETTING PRIORITIES

The following information was obtained from Dr. Pam Stewart Fahs.

Access to Health Care:

Focus group members generally responded in a positive manner, believing that the primary clinic in the area offered excellent care and that there were a variety of types of primary care providers available. Access to specialty care and dental care was a concern that surfaced in the focus groups.

Education: Focus groups voiced the opinion that education at the high school level was available if the student desired to pursue an education. Focus groups universally agreed that school was accessible to those young women who were pregnant or had small children. Some felt it was an "excuse" to drop out, while others felt that parenting and going to school was overwhelming for some adolescents. Some focus group members felt that allowing students to take the GED test while still age eligible for high school made "dropping out" more attractive. The professional forum expressed concern that the drop out rates were higher in some "hot spots" and reported that in some areas, dropping out had been a problem for several years. According to the NY-PENN information (NYPHSA, 1997), 4 out of the 6 high school systems in Tioga County have drop out rates (defined as a percentage of grades 9 - 12 enrollees) above the average rate of 2.2 for the rural upstate New

York areas. Drop out rates were highest for Owego-Apalachin, Spencer Van Etten, Tioga and Waverly school districts for 1993 (NYPHSA, 1995). The NYSDOE has estimated that over 30,000 adolescents in grades 9 - 12 drop out of high school each academic year and do not enroll in another program (HYSOASAS, 1996).

Health Education is often seen as a crucial part of developing a healthier community. The 1996-1997 Community Health Assessment (NYPHSA, 1996) reports on the number of teachers in Tioga County trained in the "Growing Healthy" program. NYPHSA (1995) documented that 3 Tioga County school districts had adopted "Growing Healthy" for grade school, and stated an objective for the curriculum to be in all grade schools in the county by 1997. Telephone calls to school districts by Dr. Fahs indicated that each district was implementing some type of "program" that met the state-mandated requirements. Measures of effectiveness of these programs specific to the children of Tioga County are not available from any one source.

Healthy Births: The focus groups felt strongly that programs like PCAP, WIC and the local providers were very effective in establishing an environment for healthy births. The Infant Mortality Rate for Tioga County 1993-1995 (NYS DOH, 1997) was 6.5/1,000 live births. This is a decrease from the 1990-1992 period (NYPHSA, 1995) when the rate was 9.8. Tioga County is currently meeting the objective stated in the Healthy People 2000 (USDHHS, 1990) of no more than 7 deaths per 1,000 live births. According to Mothers and Babies Perinatal Network, a five year average for 1992-1996 reveals that non-smoking women experienced 6.2% low birthweight births and 1.2% very low birthweight births. For the same period, women who smoked during pregnancy experienced 12.5 % low birthweight births and 2.3% very low birthweight births. Currently, the Tioga County pregnancy rate is 62.4% for 15-19 year olds per 1000 population (New York State DOH, 1997).

WIC is reporting under-utilization of services. In 1997, WIC served 1,343 families (2,449 unduplicated individuals). The average number participating each month during fiscal 1997 was 1,465; however, the average number picking up vouchers each month was only 1,380.

Mental Health: The participants of the focus groups either did not know the extent of the mental health services or believed the main function to be in the area of substance abuse. According to the New York State Office of Alcoholism and Substance Abuse Services, they estimated the number of "problem drinkers" in Tioga County to be 3,495 for 1995. During 1995 there were 3,259 out patient visits for alcoholism treatment; this met approximately 27.1% of the estimated need. An estimated 5.8 - 7.3 % of the adolescent population in Tioga County were problem drinkers. The estimated number of regular and heavy drug users in Tioga County among the adult population is about 900. There are no crisis centers, detoxification or in-patient rehab beds in the county. In 1996, the Alcohol & Drug Units of Service Comparison graph shows 5,745 units of service compared to 5,663 units of service in 1994. An individual may have multiple units of service.

Nutrition: The only original priority area of nutrition discussed (NYSPHC, 1996) was the issue of obesity. The professional forum participants were very concerned about the issue of an adequate food supply for all citizens of the county. According to Tioga County Department of Social Services, 3,059 individuals were receiving food stamps as of February 28, 1998.

Physical Activity: The general consensus was that physical activity was usually available in some form but not easily accessible. Tioga County students are involved in physical education classes an average of 2.5 days per week, ranging from 30 to 90 minute periods. Extracurricular school sports also offer the students physical exercise. Some schools open their doors to the public for activities such as, indoor walking and strength training with weights. The Tioga County Youth Bureau indicates that each region does provide a summer recreation program for youth's ages 5 - 15.

Safe and Healthy Work Environment: Many Tioga County residents work outside of the county. Of those working in the county, employment areas include manufacturing, agriculture and service jobs. The majority of family farms in upstate New York are dairy farms. There are

approximately 560 farms of all types in Tioga County. In New York State for 1996, 5 children lost their lives in farm accidents. There were 16 total farm fatalities reported in New York State for 1996-1997. During the same period, according to the Farm Injury Surveillance Program for New York State, 23 children under the age of 17 years old (16 under the age of 5) were reported to have suffered injuries. This injury data is not comprehensive of Tioga County. Unfortunately there is little surveillance of farm injuries in Tioga County. Another concern stems from the fact that one major hospital system where citizens of Tioga County seek medical emergency and hospital care is located in Pennsylvania and injuries and admissions through this system are not reported to New York State. This hospital is working with the Tioga County Health Department to address issues of reporting whether admissions are for farm-related injuries or other types of disease or disability. The following worksites have established Worksite Wellness Programs: Luprino Foods, Hancor Corp., Ben Weitsman & Son Scrap Metal, Candor High School, and the Tioga County Public Sector.

Sexual Activity: Focus group members overwhelmingly thought that teen pregnancy is a major problem in this county. Current statistical data, available through 1995, does not support this perception. There were a reported 29 abortions for women from the under 15 age range through age 19. The decrease in the number of teen pregnancies in Tioga County is mirroring the national trend. Abortion and birth rates are indicative of a national drop in the teen pregnancy rate (National Center for Health Statistics, 1996). There were 17.6 % repeat pregnancies among teens in Tioga County in 1995 however; this rate is much better than the pregnancy rate in Tompkins County and only slightly worse than Broome County.

Safe sexual practices among teens have not shown much improvement over the last few years on the national level. There is no information available about sexual activity among teens in Tioga County other than the pregnancy rate. Focus group members reported misconceptions and disagreements regarding safe sex and the teaching of safe sex concepts to adolescents exist within the county.

Substance Abuse and Other Drugs: According to the New York State Office of Alcoholism and Substance Abuse Services the estimated number of “problem drinkers” in Tioga County was 3,495 for 1995. During 1995 there were 3,259 outpatient visits for alcoholism treatment and this met approximately 27.1% of the estimated need. There is an estimated 5.8 - 7.3 % “problem drinkers” in the adolescent population of Tioga County. The estimated number of regular and heavy drug users in Tioga County among adults is about 900. There are no crisis centers, detoxification or in-patient rehab beds in the county for these problems. In 1996 the Alcohol & Drug Units of Service Comparison graph shows 5,745 units of service compared to 5,663 units of service in 1994 (an individual may have multiple units of service.)

The New York State Office of Alcoholism and Substance Abuse Services (1996) released a report on the alcohol and other drug use findings from a state wide survey grades 5-12 conducted in 1994. Again, findings of this study are released in terms of the “Southern Tier”. 2,128 youths in the region completed questionnaires during this survey out of a sample of 27,828 students in the state. Each region had schools invited to participate. There is no way to tell from the report if any school district in Tioga County participated in the survey. The major substances used in “lifetime” by 7th-12th graders in non-metropolitan counties of New York were alcohol (79%), cigarettes (57%), marijuana (34%), inhalants (28%), analgesics (24%), chewing tobacco (29%) and stimulants (22%). Percentage of use in the categories of alcohol, cigarettes, inhalants, analgesics, chewing tobacco and stimulants were higher in non-metropolitan counties than in the metropolitan counties in the survey. Not surprisingly, the incidence of use for alcohol and cigarette use increased with age and grade level (NYSOASAS, 1996). 47% of the adolescents in grades 11-12 reported having used marijuana in their lifetimes compared with only 3% for grades 5-6. At the same time only 6% of

grades 11-12 reported lifetime use of cocaine and 4% reported use of crack. In the 1994 survey female and male adolescents were equally likely to have used alcohol (78%). This state level survey corresponds with the national surveys that have measured self-report of alcohol, drug and tobacco use. In the Youth Risk Behavior Surveillance Surveys of 1991 and 1993 the rate of those adolescents who had used alcohol in their lifetimes remained constant at about 80. The number of “heavy drinkers” at the national level, defined as those having 5 or more drinks on one occasion, was 30% moving closer to the established objective of 28% (USDHHS, 1991). However, in the New York State Survey “heavy use” of alcohol defined as “5 or more drinks of beer or wine/wine cooler or liquor at one time at least once a week” actually increased to 12% of those completing the survey (NYSOASAS, 1991, p.8). It should be noted that the differences in definition of “heavy substance use” is great between the national and state level, New York States definition of heavy use is much more restrictive and thus would yield a much lower percentage than the national objective. In the New York State data, substance use has generally increased in all grade levels between 1990 and 1994 (NYSOASAS, 1991) with alcohol and marijuana being two of the leading substances of choice. According to a 1997 CASA National Survey, 35% of teens say that drugs are the most important problem they face.

In addition, this survey noted that the characteristics of the school rival and the characteristics of the family as indicators of teen substance abuse risk.

Tobacco Use: The prevalence of smoking among members of the focus group was significant. Smoking, particularly among youths, has been identified as a major concern in Tioga County. This concern mirrors the national situation, as well as, opinions of adolescents in Tioga County. In 1993 25 % of all adolescents surveyed in the YRBSS identified themselves as regular smokers.

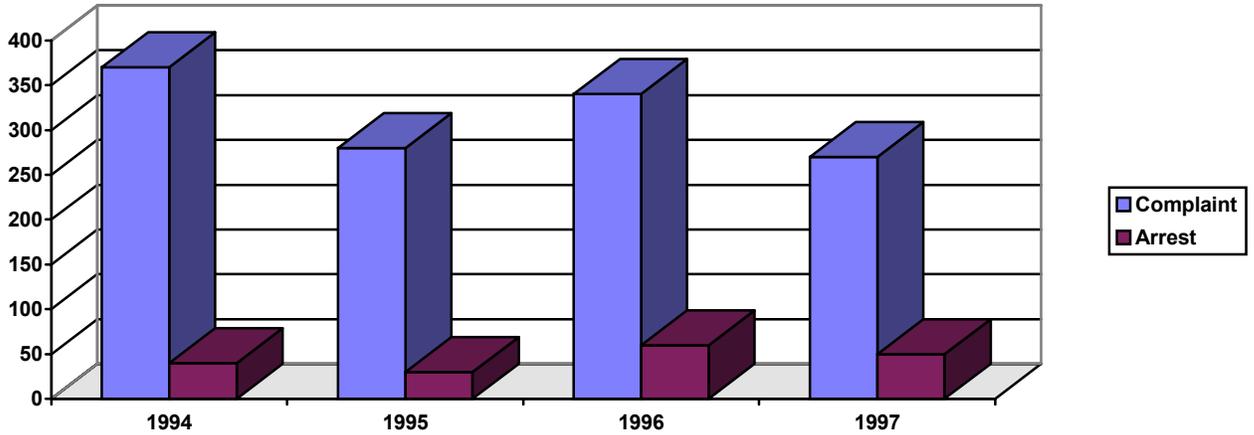
Unintentional Injury: Much has been done with legislation in the past few years to increase compliance to measures that decrease death and injury from “unintentional injuries”. For example, New York State has seatbelt and bicycle helmet laws, which may explain the relatively low rate of unintentional injury in Tioga County.

DEATHS DUE TO INJURY, LEADING ETIOLOGY BY AGE, NYS 1990-1992

Age in Years	Total # of Deaths	Etiology	Percent of Total in Category
Under 1	210	Homicide	40%
1-4	466	Fire/Flame	27%
5-9	277	Pedestrian	24.5%
10-14	382	Motor Vehicle Crash	21.2%
15-24	5,235	Homicide	47.3%
25-44	9,469	Homicide	37.6%
45-64	4,299	Suicide	26.5%
Over 65	5,564	Falls	29%

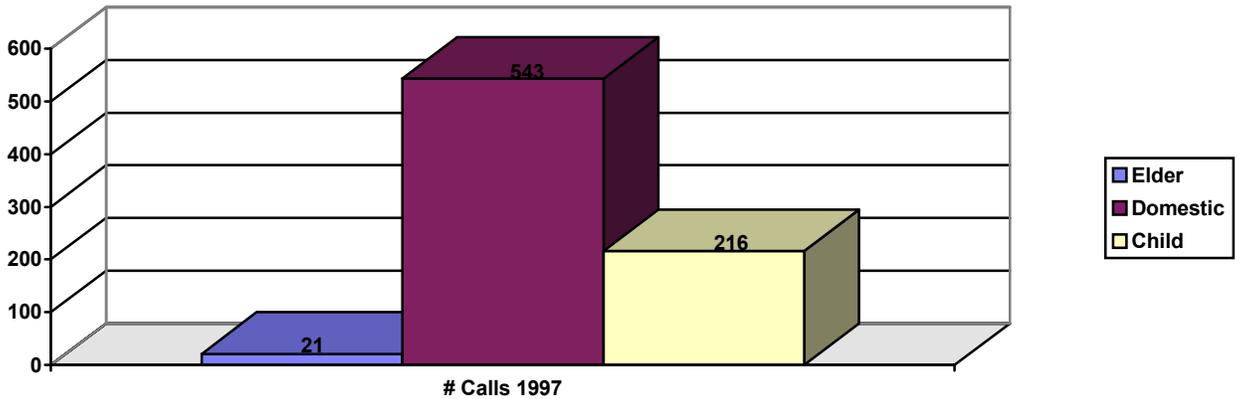
Violent and Abusive Behavior: The area of violence received a lot of attention in the initial professional forum as well as the majority of the focus groups. A New Hope Center serves the needs of victims of domestic violence. The agency serves many functions including working with victims of rape, domestic violence, date abuse, bias crimes, incest, child abuse and elder abuse. The center offers services including a 24 hour hot line, domestic violence shelter for women and children, assistance with court preparation and appearance, support, counseling and referrals. The 1997, New Hope Center calls logged can be seen in the following graph:

COMPLAINTS & ARRESTS FOR DOMESTIC VIOLENCE



Source: Tioga County Sheriff's Department

1997 CALLS LOGGED FROM A NEW HOPE CENTER



Source: A New Hope Center

Child Abuse is a mandated reportable incident in New York State. The Tioga County Department of Social Services has seen a decline in the number of reports of child abuse, from 763 in 1995 to 735 in 1997.

**CHILD PROTECTIVE SERVICES UNIT
CHILDREN PLACED IN CARE TCDSS, 1998**

1992	7
1993	11
1994	7
1995	8
1996	6

Homicides: The issue of homicides generated a great deal of discussion under the topic area of “Violence”. Tioga County had 4 homicides in 1997 when the normal rate is 0 or 1 per year. An article on this sudden rise in the number of homicides in the county was reported in the press around the time several early focus groups were being held. The media attention generated the following comment in one group.

“I don’t know, it was just something I saw in the paper the other night. We have the same number of homicides as Binghamton. We are nothing compared to Broome County (referring to size), so, I just thought, that I was just like, hmm something’s not right.”

Many focus group members believed the homicides to be linked to domestic violence and/or substance abuse. Although the homicide data for 1997 was hopefully reflecting an unusual number of deaths from violence, a more frightening picture comes when one views the increase in “aggravated assaults” noted by NY-PENN in a 1997 document. The crime rate trends per 100,000 population for aggravated assaults in Tioga County went from 137 in 1984 to 217 in 1994 (NYPHSA, 1997).

SUMMARY OF FINDINGS FROM HEALTHIER TIOGA COUNTY: SETTING PRIORITIES (Dr. Pam Stewart-Fahs):

Access to Health Care: Access to primary care providers by residents of Tioga County appears to be a strength as identified by the participants of the focus groups, this conclusion is supported by the FTE information regarding physicians, particularly primary care providers, nurse practitioners, physician assistants, and nurse midwives. Specialty care, while available in surrounding New York counties and across the southern border in Pennsylvania, is more difficult to access. For instance, when contacted about practitioner and FTE hours, representatives at clinic sites identified only one pediatrician practicing three days one week and two days next week in one northern Tioga County practice site. There was also information on one podiatrist practicing limited hours in the county. The issue of specialty services would not be as high a priority if transportation were more readily available. Cost of the public transportation system, particularly for the working poor may be an issue. The cost of transportation is lessened for families with small children accompanied by a paying adult. The system does have reasonable prices especially if one is traveling within one zone. Also, effort is made to increase the ease of use by allowing the individual to “flag” down a transit bus from a point other than the normal bus stop.

The major system limitation seems to be the very limited pick up and drop off times. It is also unclear if providers and clients are aware of the ability to use Dial-a-ride particularly with Medicaid recipients. Certainly, participants in the focus groups were often not aware that Medicaid recipients could access the Dial-a-ride system. The situation of the mother trying to get her high risk infant to the pediatrician may not have been solved, even if the provider reportedly had no phone and thus may have had difficulty accessing the Dial-a-ride system given the requirement to phone for an appointment 24 hours in advance but no longer than two weeks ahead and confirm the appointment no later than 5 p.m. the day prior to the appointment. Information on how Medicaid clients access the system was too limited to draw conclusions regarding the effect on accessibility for these patients for either medical or dental care.

The transportation issue spoken of by providers and citizens alike is a priority issue, but one that is not easily amendable to resolution. The Rural Health Network of Southern Central New

York (NYPHSA, 1998, p.3) elicited some possible solutions for the transportation issue from providers during recent focus groups. These suggestions warrant further exploration. At least one major health care system in the adjoining areas indicated to me that they would be willing to come to the table with some suggestions for increasing transportation to the facility. I would suggest that this issue be addressed by bringing all the major health care systems together for discussions on how access to specialty care can be increased for the residents of the county.

Possible solutions put forth by the professional forum participants included bringing specialist in for clinic hours as well as using mobile services. The county should explore ways of increasing access to the public transportation system. Information about the availability of transportation services particularly for Medicaid recipients should be readily available to riders and providers of health care. A less structured system for participating in the Dial-a-ride system particularly for those who do not have phones would increase the usability of the system and ultimately increase access to health care.

Solutions such as encouraging merchants to offer convenience services to clients, for example delivery of prescriptions or groceries to the home would solve some of the isolation issue. These types of services often will be helpful in keeping elderly in their own homes or allowing independent living for those with mobility limitations.

Access to general dentistry as well as specialized dental care is a problem for the residents of Tioga County. The Rural Health Network also identified the issue of dental care in Tioga County as a service gap within the county (NYPHSA, 1998). There are no dentists practicing in northern Tioga County, indeed the majority of dentists are located in the county seat, Owego. Dental caries for children are much higher than the national objective for Healthy Community 2000. Some children are being screened and treated through a new innovative program that brings the treatment to the school setting, however the need is much greater than this program is currently able to meet. Medicaid dental care is very limited and transportation issues compound this problem. Although the Dial-a-ride system should be meeting this need for the Medicaid population, focus group participants did not feel the need for transportation to dental care was being met.

Efforts should be made to increase the number of dentist who practice in Tioga County particularly the under-served areas. In addition, the screening and treatment program for children needs to be expanded or alternatively new creative solutions can be piloted. For instance, one wonders if the dentist in the county would be willing to rotate volunteer staffing of school screenings and treatment programs. Is there a possibility of bringing Medicaid dental treatment into the county? Would dentist in the county be willing to accept Medicaid payments if there was a rotating system so that one dental practice was not overwhelmed with Medicaid clients? Again I would recommend that the major players in this issue come to the table together to discuss the issue and work on solutions what will move Tioga County toward oral health for all members of the community.

Issues of appropriate use of the EMS system arose in the focus groups, some members were clearly having difficulty deciding how to best use the system. Others felt there were abuses by citizens, particularly if the individuals did not have adequate transportation to seek health care from more appropriate sources. Education of appropriate use of the system and increase transportation for routine health care could reduce some of the burden on the EMS system. Participants overwhelmingly expressed their acceptance and gratefulness for the 911 system in place. Emergency response time at an average of 11.4 minutes in Tioga County is greater than the New York State recommendation of 10 minutes. The issue of response time however is compounded by the fact that there is no emergency department located within Tioga County thus transport out of county often is needed after the initial response. The people of Tioga County are concerned about the response time as well as the time it takes to transport once a unit responds to the scene

particularly in the more rural locations. Suggestions for improvement in the system have included a sharing of resources, more enticement for volunteers and possible combinations of paid/volunteer staff, training and equipping other public personnel such as police officers to be first responders. The county does highly value their volunteer EMS service and realize that paid systems significantly add to cost of the system.

The desire for walk-in emergent care was identified during the focus groups. The trend toward walk-in care is a new one and does fill a need (Stutzman, 1998). This type of facility is seen primarily as a convenience and currently is only available in the surrounding counties.

Education: Participants generally felt that education in Tioga County was available and accessible. Issues of high school drop out did arise in the groups. Whatever the reason, the adolescent group reported that drop out rates were of concern in their schools. Two individuals from different school districts reported losing several senior class members this year.

Sikorski (1996) noted that nationally over 12.5% of older teens and young adults are reported in demographic studies as being “high school drop outs”. While the issues of under-achievement and school drop out are very complex there are some patterns regarding risk and successful programs noted in the literature. Sikorski, (1996) associate’s higher incidences of drop out rates with social issues such as poverty and race. One northern Tioga County woman summed up what many had said regarding their perception of the social economic situation in the county with the following statement: “Poverty may be our big issue and isolation”.

Issues of persistent rural poverty described by Duncan (1996) including situations where individuals are known not only for their own behaviors but also for what their parents and grandparents accomplished or did not accomplish. Duncan although not directly linking rural poverty to a specific behavior such as dropping out of high school, hypothesizes that those communities where poverty and rural isolation limits upward mobility generation after generation perpetuate the problems of poverty. In addressing the issue of persistent drop out rates in Tioga County, school administrator in these “hot spots” may consider analyzing inter-generational patterns in the problem.

Health Education: Health education may be perceived as an endeavor where children and adolescents are taught basic healthy living concepts while in school. Some national curriculums, such as Growing Healthy are comprehensive in nature and readily guide educators in implementation. These curriculums are preventative in nature and have been validated through implementation and research around the country. This facilitator was unable to ascertain the extent of actual implementation of health curriculums in the school districts. Focus group participants generally had perceptions of some health education and sex education occurring in the schools but even those that had recently graduated were hard pressed to give specific examples. Programs that are in place at the lower level grades are often not followed up on as the students become adolescents and are most vulnerable for risk taking behaviors. Information available for this category of education was contradictory thus making analysis difficult. Specific recommendations regarding education are provided under each priority area such as Tobacco; Alcohol, Drug and Substance Abuse; and Sexual Activity, however, implementation of a national curriculum that is age and developmentally appropriate for children and adolescents would be desirable in reducing risk taking behaviors in all areas. In addition, routine surveillance of risk behaviors and protective factors of children and adolescents within Tioga County would be helpful particularly in the area of assessing progress in making Tioga County a healthier place to live. To this end, I recommend the local school districts implement the TAP assessment surveys. These surveys can be tailored to meet the specific needs of the population. Alternatively, other surveys are available such as the Youth Risk Behavior Surveillance Survey on the national level.

Healthy Births: There is not enough information to rank the area of healthy births as a top priority, however, it is an area that was assessed to be an emerging priority and needs extremely close surveillance given the extreme rise in low birth weight babies in the county for 1995 (NYSDOH, 1997). The health indicators such as infant mortality and no or late prenatal care have not shown a problem in the area of healthy births but should be monitored to see if these parameters change in the near future. The issue of low birth weight babies besides being a top public health indicator has many ramifications including cost. Although it is easy to identify and discuss cost of care at birth and in the immediate future of these children it is often more difficult to ascertain the cost in terms of future health care and need for intervention services. Lewit, Baker, Corman, & Shiano, (1995) did an extensive study to analyze these cost. They point out that low birth weight babies are 50% more likely compared with their peers to be enrolled in some type of special education program between the ages of 6 and 15 years. These children often have difficulty in school with about 31% of them repeating a grade by their sophomore year in high school as compared to 26% peers who were of a normal weight at birth.

The other issue that surfaced in this area is one of use of available resources by pregnant Women. WIC data indicates that not all women who are enrolled are being served, since there is a portion of the population who are eligible but who are not picking up their WIC vouchers. The Under-utilization of services by some women can result in outcomes that affect healthy births Such as the mother's failure to gain the minimum recommended amount of weight during pregnancy and thus increasing the risk of a low birth weight baby. In addition the utilization rate affects the issue of nutrition that will be addressed later in the report. Lack of transportation during WIC clinic hours is hypothesized to be a factor for women and children living in the more rural areas of the county. A pattern analysis of location and or living situations of those eligible but not accessing benefits during the clinics could add insight into this issue. If transportation is an issue for these women, a more mobile WIC clinic such as a van could provide outreach services in the more rural areas of the county.

Mental Health: The Department of Mental Hygiene is poised to have a significant effect on the health of the people of Tioga County. Two of the identified priority areas could be improved through the auspices of this Tioga County Department and it's contracting agencies. Namely the areas of "substance abuse and violence" often are covered under programs run by this department. These are areas where improvement is not easily gained but where strides in treatment have indicated the hallmarks of successful programs. The 1996 annual report was provided to me on request, through the Tioga County Department of Mental Hygiene (TCDMH). The tone of the report is very positive. A list of programs, through which the department provides direct services are listed on page 4 of the report, followed by a list of programs where the department is a contract manger or planning partner. The report discusses the recognition the school based program received in a Rural Education and Mental Hygiene study. This program was recognized as an innovative practice model and indeed taking services to rural populations is an idea that has surfaced in the current study from focus group participants and professional forum participants alike. These types of programs should increase access to services. Issues that were found to affect the agencies associated with the Tioga County Department of Mental Hygiene such as Accord and A New Hope Center are addressed in other portions of this report (Violence Information).

The 1996 annual report (TCDMH) indicated that the department was \$100,000 under budget due in part from a savings of over \$60,000 dollars during the fiscal year due to the holding of a part-time psychologist and almost "all budgeted over-time was unused due to budget constraints". Spending tax dollars wisely is a concern of many human service agencies and one that reflects very real concerns among taxpayers. However, services provided by the county through its various departments can be instrumental in solving problems early and thus saving large amounts of

taxpayer monies that research has shown will occur if preventive and early intervention is not available. The issue of adequate personnel to deal with the school referrals is not addressed in the 1996 report and the 1997 report was not yet available when requested. At least one situation surfaced in a focus group for the current fiscal year, where adequate staffing was an issue. An inquiry was made regarding staffing issues and acceptance of school referrals by the Department of Mental Hygiene. The staffing issues that were occurring early in 1998 for the region in question have reportedly been resolved.

The numbers of school referrals received by the department are addressed in the 1996 annual report. A more complete picture of services could be obtained if future reports addressed the ability to accept referrals as well as case dispositions when referrals surpassed capacity. This information needs to be monitored as the success of the school-based program is evaluated. In addition, the question needs to be raised regarding adequate funding to address the needs of the people of the county if budget constraints limit staffing. Alternative solutions for covering fluctuation in staffing patterns to assure capacity to meet needs of the residents should be addressed. Although not a solution to coverage in the absence of employees extension of PE classes of course, are not the only way for children to receive physical activity. School sports seems to be another source of activity for many children and adolescents in Tioga County however, this revenue does not serve all children equally. The Tioga County Youth Bureau works with several communities and funds many recreational programs (See Appendix E). Some children are unable to participate because of the parent's inability to pay the associated cost. In addition, older adolescents in the summer seem to be largely left out of the organized activities. This issue is further discussed in the Teen Activity Need section of this report. Although there are some opportunities for physical activity in Tioga County this area emerges as a priority area because of the limits to service to the entire community and the importance of this area for disease prevention and health promotion. Although formalized programs are not essential for an individual to participate in physical activity they do increase the access and the likelihood of participation. A neighboring county, Broome, has seen a marked increase in physical activity among older adults with the formation of the "Mall Walkers" and the activities associated with that program through a regional health care facility. Although no "malls" exist in Tioga County, the possibilities for formalized activity programs that take advantage of the beautiful Vistas and open areas that abound in the county could do much for increasing the physical activity level of the citizens of Tioga County.

Safe And Healthy Work Environment: Far from the ideal view often held about farms and farm families, each of the respondents who were involved in farming portrayed farming as stressful, undervalued and dangerous. The concept of health has been defined in the rural literature as the ability to work (Lee, cited in Weinert & Long, 1994). Injury in the farm family has consequences often far reaching in addition to the actual injury. Many farmers will seek care only when life or limb is in danger. Issues of prevention for farm workers is one that has received little attention in New York State and needs to be addressed where agriculture is part of the community such as Tioga County. A major barrier to health care in this population is the lack of or affordability of health insurance by farmers and farm workers who are often self-employed. Another issue is the need for health screening programs that are accessible to farm workers such as hearing and skin cancer screenings. Ideally these programs could be taken to the farmer through the use of mobile units and or locations at centers where the farm community could be more easily accessed such as the Grange, farm supply and feed stores, county farms, farmer's markets etc.

Sexual Activity: Teen pregnancy incidence shows a clear decline over the past five years. Unfortunately, the public is not aware of this reduction in a major adolescent health issue. These types of public health successes should be announced to the media with much fanfare to point out the positive trends in health behaviors in this time of negative media focus on these types of issues.

Although the death rate from HIV is relatively low, in Tioga County, one only has to listen to the news to realize that HIV and the issues that go with this disease are not problems of urban areas alone. In a recent incident in a rural upstate New York area multiple teens were found to be trading sex for drugs with an individual who was HIV positive.

Of concern in this area of sexual activity and several other "risk behavior areas" is the lack of information available particularly about the youth of the county. Without surveillance information specific to Tioga County particularly in reference to the adolescent population it is very difficult to know what areas need attention and what is successful in the area of decreasing adolescent risk behaviors, preventing injury and illness and promoting a more healthy lifestyle. There are several survey type surveillance programs such as TAP and the YRBSS.

The major concern of course, particularly for school districts, is that a negative picture will emerge from the data. This type of concern can be handled in a number of ways. First, when the surveillance program is planned, representatives from each school need to be involved. Secondly, when the tool is being developed, questions regarding positive or protective factors in addition to risk factors can also offer a great deal of information and can provide the community with a focus of what is working to encourage positive behaviors among youth. When data analysis is complete it is customary for each school district to receive their own raw data to assist in planning. However, the analyzed data can be release by population aggregate, such as all the kids of a certain age in the county or by region such as rural and suburban school districts. This strategy takes the focus off individual school districts but at the same time allows planning, program development, and intervention and most importantly outcome measures that have a basis in the reality

of what adolescents are experiencing vs. the educated guesses that now guide much program development for this population. I strongly recommend the consideration of a youth risk behavior surveillance in Tioga County.

Tobacco Use: Tobacco use is a priority area of concern in Tioga County. Since surveillance data regarding adolescent smoking in Tioga County is unavailable the focus group comments and survey data from the region as well as the national trends must be considered in prioritizing this issue. The increasing prevalence among adolescents has ramifications for many health outcome indicators for the people of Tioga County.

Smoking by adults also surfaced as somewhat of an issue among the focus groups in this study, however in almost every case the discussion of the issue quickly moved to underage smoking, and access of underage smokers to tobacco, who was supplying and how to stop the flow. The literature indicates clear patterns of where adolescents get tobacco, as well as alcohol. However, "Lock Out" programs have been of limited success. These programs do show success in the younger age groups particularly in girls around age 15. However, overall they have not been shown effective in restricting access to tobacco products. If used they need to be used in conjunction with other strategies not alone. Another common misconception is that information about a behavior and its outcome can change behavior. This has not been borne out in the literature, indeed the risk behavior research clearly shows a pattern that education alone does not change behavior and that successful programs usually have components of one to one contact such as peer counseling, role-modeling, negotiating barriers etc.

The area of tobacco use is one that has many adverse effects on the health of the individual and is an indicator of the health of the community. Thus the program plan, seen in Appendix F, was developed to focus intervention on an area that is amendable to prevention and where change can have a drastic effect on the health of the community. The program plan was developed by Margaret Young, R.N., B. S., who is completing her Master of Science Degree in Nursing at the Decker School of Nursing, Binghamton University. Margaret is in the Community Health Program with a

focus on the role of Nurse Practitioner. The plan was developed in consultation with myself as project facilitator.

Unintentional Injury: Death by all accidental causes in Tioga County has occurred at a rate of 24.3 per 100,000 for the years 1993-1995 (NYSDOH, 1997). A problem in assessment of issues in this area concerns reporting problems. Since individuals being treated or hospitalized for "injury" in Tioga County may be seeking health care outside of the state of New York, not all incidents are being reported through the state surveillance system. Attempt to get information from the hospital system in Pennsylvania where Tioga County residents are sometimes treated was successful. Unfortunately I was unable to access comparable information from either the hospital systems in New York State nor from the State Injury Data Collection Bureau that would allow a compiling of a complete picture of injury in Tioga County.

Communities can decrease the risk of injury and death to residents by focusing on programs of prevention. Candor's experience and that of the other communities participating in the national Partners in Rural Traffic Safety Program in fall 1997 indicated that a community can be very successful in increasing compliance with occupant safety devices through intense community action and awareness (Candor Partners in Rural Traffic Safety, 1997).

Violent And Abusive Behavior: Violence and abuse are issues of public health, not just issue of law enforcement. The increase in the number of homicides in the county has the attention of the residents. However, the underlying factors in those homicides of alcohol use, lack of anger control, violence among peers and family members all point to other issues that effect the health of the community. These homicides rather than being the problem, may indeed be symptoms of deeper and more far reaching public health problems in Tioga County. Particularly striking were the number of youths in the adolescent focus group who had experience with, witnessed and or knew friends who were experiencing violence in their lives and relationships.

Teaching and encouraging anger management, making effective parenting a priority, and working on underlying issues such as substance abuse are needed within the community to decrease the epidemic of violence being experienced not only in Tioga but in the nation as a whole. Accord is a program currently operating in Tioga County that has received some attention by the citizens as being effective in anger management. This program may be an excellent place to start in addressing the issues of violence in the community. A New Hope Center, another agency that has made inroads in addressing violence in the community and needs to be utilized as a resource for the community as the issue of violence is addressed. The health department can also play a big role in the issue of decreasing violence in the community as it implements programs and works with other agencies on this issue. I would strongly suggest that effective programs such as "Second Step" be examined by agencies for implementation in the community Grossman et al. (1997) reports on the effectiveness of "Second Step" in a prevention curriculum among elementary school children noting that there was a significant decrease in physical aggression and an increase in the neutral/pro-social behaviors. A neighboring county has implemented the "Second Step" program in the Head Start Program with success. It is time to teach our youth to deal with issues in a nonviolent manner. Effective programs to decrease violence and increase social behaviors need to be undertaken in Tioga County.

Issues Outside The Twelve Identified Priority Areas: Transportation has been thoroughly discussed in the "Access to Health Care" conclusions. This area has emerged as the number one priority for the residents of Tioga County in both focus groups and among professional forum participants. Transportation is an issue that crosses many agencies and organizations. It is one that limits access to effective health care but also has ramifications for the meeting of basic needs. As Tioga County continues to work on the issue of economic development, the issue of effective, "user friendly" public transportation is one that needs to be addressed.

Information, is an issue that also emerged outside and encompassed the twelve identified priority areas. Tioga County has several programs that are there to meet the needs of the residents of the county but if the residents are not aware of the existence or how to access these programs, they can not be considered successful. Programs that based on this analysis, obviously have a need to increase awareness of their existence are A New Hope Center and the First Call For Help. Both of these programs offer essential services and are to be applauded for the work they have done within the county. However, they have a public relations problem in that many residents either do not know of their existence or are not aware of how to access the services being offered. Other services available to the residents by the various county agencies could also benefit from increased public awareness of what is available and how to access the information.

Of particular interest to the public in the focus groups was the idea of the “clearing house” for information. Since this service exists in the form of First Call for Help, my suggestion is to increase awareness of the service available.

Providers in Tioga County also feel the need for a “clearing house”, but the need is different from those of the general citizen. The report (NYPHSA, 1998) for the Rural Health Network of South Central New York on the issue of a “clearing house” for providers has some excellent provider generated ideas for increasing communication and allowing for the provision of consistent, safe care (NYPHSA, 1998). The recommendations coming out of those provider focus groups warrant further investigation.

II. PROVIDER INPUT INTERIM REPORT FOR THE RURAL HEALTH NETWORK OF SOUTH CENTRAL NEW YORK:

The next report contains the findings of the health care provider focus groups held throughout the Rural Health Network’s service area. The Rural Health Network of south central NY contracted NY-PENN Health Systems Agency to conduct both provider and consumer focus groups and a consumer survey. In Tioga County, Owego and Waverly were chosen.

1. **METHODOLOGY:** To recruit participants, NY-PENN made telephone calls to likely interested persons. The Rural Health Network was introduced and invitations were extended to provider focus groups sessions. Phone calls were followed with a fax (also in appendix) identifying location, time and date of the focus group session closest to them. The following three questions targeted the two hour discussions at each provider focus group:

- What are the top three unmet health needs of residents in your community?
- What are the best opportunities to address these unmet needs?
- What is the best way to educate the community about using services and how to stay healthy?

2. **SUMMARY OF AREA SPECIFIC FINDINGS:** Provider focus groups were conducted for service areas throughout the Rural Health Network’s Region. Each focus group location - Owego and Waverly had unique needs for their service area. A summary of these area specific needs are outlined below by the Rural Health Network’s work priorities:

- a. Access to Care
- b. Service Gaps
- c. Coordination of Provider Services
- d. Professional Education and Training
- e. Consumer Education
- f. Public Policy Issues

a. Access to Care:

Access to health care services, either transportation or financial access, was discussed as a major barrier to care by all focus group sessions. To address access issues the Rural Health Network needs to consider the following unique situations:

- Tioga County has a transportation system that is not meeting its current need
- Service areas will need transportation outside county boundaries for health services
- Waverly agreed the transportation system needs to be sensitive to the needs of the elderly
- Waverly reported volunteer transportation systems were needed. Successful volunteer programs could be used as models as well as seeking creative solutions from local business and industry.
- Owego service area was concerned about the under-served and working poor populations access to care.

b. Service Gaps:

Health service gaps common to all focus groups are home care aids, respite, dental, vision, and hearing services. Prescription services were also confirmed, as an immediate service need. Health service gaps unique to the service area were revealed through the focus groups.

- Owego service area identified obtaining dollars to support community agencies that provide non-traditional services and cash for clients who “fall through the cracks”. They spent a large amount of time discussing the need for creative ways to address their service needs.
- Mission in Motion - mobile van servicing Tioga could be expanded from prevention services to include routine dental services.
- Waverly service area identified a need for more person to person services such as home visitation programs. Waverly operates through a people network and participants commented on the importance of knowing the right people to get health services lined-up.
- Waverly service area needs 24-hour health care services and suggested staggering hours among providers.

c. Coordination of Provider Services:

The majority of focus groups identified the importance of a “clearing house” for the coordination of provider services, client information exchange and follow-up services. The “clearing house” concept builds on the First Call For Help services. Service coordination does have the following area distinctions:

- The Owego focus group is interested in having a list of rates paid to providers for services by insurance companies, Medicaid, and Medicare. Network needs to be sensitive to confidentiality issues associated with computerized provider access to client information.
- Client-based case conferences, attended by providers and clients, is a recognized need of the Owego focus group. Suggestion for two meeting days a month for all community project meetings to better utilize staff time of providers.
- Owego would like all providers to come together and develop a team approach. Including database for sharing new and used resources, such as computers, copiers and the like.
- Tracking of clients who re-access services to measure if clients are learning skills to overcome the need for services is an identified need of the Owego focus group.

- The Waverly focus group reported the importance of follow-up services in coordination of care.
- Waverly indicated the need for coordination of elderly services including health care treatments and the inclusion of behavioral and mental health services.
- Owego focus groups both reported the importance of a family approach to health and healthy communities.

d. Professional Education and Training:

All focus groups concluded a need for a directory of health services available, as well as a reliable system for updates. Several focus groups revealed issues specific to their service area:

- The Owego focus group requests a team approach to wellness education with agreed upon outcomes. Building upon common philosophy of client/patient self-sufficiency and teaching skills to decrease dependency on agency services.
- Trained and designated information persons at each service provider is a concern of the Waverly focus group. Since this service area is highly dependent on their person to person networking, ensuring the correct information about an agency is conveyed is of great importance.

e. Consumer Education:

Many suggestions were made by the focus group participants regarding educating consumers. Reaching the consumer may vary from service area to service area. The following suggestions are area specific.

- Owego focus group indicated a need to empower communities to take charge of solving their own issues and benefiting from the greater commitment to the solution. The residents in this service area need to be educated about health issues and develop their own solutions.
- A community coordinator is needed in the Waverly area to contact providers and ensure coordination of services. Again, the person to person contact is important.
- Owego focus groups also concentrated on family health. Activities that attract families should be targeted for wellness education/prevention to address poor diet, substance abuse and obesity in children.

f. Public Policy Issues:

Public policy issues will continue to affect all health service areas, especially as communities move forward in developing creative solutions to address rural health care needs. Reimbursement and regulation issues for non-traditional services may prevent communities from implementing creative solutions. The RHN of SCNY could provide a forum and communication link to assist in modifying public policy.

SUMMARY OF FINDINGS

The provider focus group findings are presented as they relate to the Rural Health Network of south central NY's work plan. Findings that were particular to a service area are outlined in section I. **Summary of Area Specific Findings** and a breakdown of each focus group session is presented in section II. **Focus Group Details.**

The provider focus group findings are integrated into the following work priorities for the Rural Health Network:

- a. Access to Care
- b. Service Gaps
- c. Coordination of Provider Services
- d. Professional Education and Training
- e. Consumer Education
- f. Public Policy Issues

Each of the following work priority sections defines the area of need and outlines solutions the Rural Health Network can utilize to address the need.

a. Access To Care:

Access to health care services was an identified unmet need in all the focus group sessions. There are two major barriers to accessing health services, financial and transportation. Affordability of health services has received considerable debate over the past several years that ended without a national health care coverage plan. Cost of health care services is an issue to accessing services often compounded for people who are underinsured or uninsured. Some rural residents must choose between health services and pharmaceuticals or putting food on the table for the family.

Transportation is also a barrier to health care. Rural residents rarely have the luxury of a comprehensive public transportation system. The geography is too great and the riders too few to financially support public transit. Participants agreed government funding was not a realistic approach for solutions.

The Rural Health Network can achieve its objective to improve access to health care through reducing barriers by implementing the following practical solutions identified by focus group participants.

Access Solutions for Financial Barriers:

- Encourage each doctor and practitioner to accept their fair share of Medicaid patients and pro bono cases. All providers need to agree to accept the same number or percentage of these cases. This will allow for a fair and equal share approach to ensuring access. Providers should include doctors, practitioners, dentists, and vision and hearing specialists. Incentives can be used, such as paying for equipment costs and office set-ups, in conjunction with a contract. The contracts could require the doctor or practitioner to commit to a specified number of years of service in the community and a percentage of practice reserved for pro bono and Medicaid patients.
- Collect data on rates the providers are paid for services from various insurers. These acceptable rates could be made available to health care service coordinators. The payment rate data could include accepted insurance payment rates and those providers willing to accept Medicaid, self-pay, and pro bono cases. The service providers should include primary care doctors and practitioners, dentists, vision, and hearing health professionals.

Access Solutions for Transportation Barriers:

- Establish transportation programs that utilize volunteers to transport patients and clients. Riders may be willing to pay for mileage and gas costs. Deposit's small volunteer transportation system can be used as a successful model to replicate. Explore other successful transportation systems as models to implement throughout the rural counties such as Endless Mountains.
- Gather support from business and industry as they benefit from a healthier work force. Look to business and industry to start transportation businesses or solutions for transportation issues building on the current system.

- Encourage providers to eliminate the need for travel by bringing the services to the client. Build on successful programs such as the all script, (mail order, non-profit, QA, pharmaceutical program based on a cash payment - prescription drugs are mailed to the patients' home), Lourdes' mobile van, telemedicine programs, and health visitor program (trained volunteers go to clients' home for evaluation).

b. Service Gaps:

Service gaps were identified throughout the Network's Region by focus group participants. Focus group discussions centered mainly on services that were currently unavailable in their communities. These needed services are outlined below. Comments were made regarding the methods of bringing new services into a community. New services need to be offered in unserved areas and care should be taken to educate other health service providers as to what the new services will be offered, and how the services will complement not compete with existing service providers.

The focus groups classified the following health services as pressing health care needs in their communities: home care aids; respite care services for the elderly, chronically ill, and handicapped children; dental services (specifically for children, students, farmers, and elderly); vision and hearing specialists; mental health services with at-home services for the elderly; home visitor programs for prevention and follow-up services, and behavioral health services.

Serving as a forum for the identification of needs requiring new services and the development of strategies for reducing service gaps is a goal the Rural Health Network can achieve by considering the solutions below.

Service Gap Solutions:

- Develop and use incentives, such as grants to attract health care professionals into rural communities (concentrate on advance practice). Recruitment must portray realistic lifestyle in rural areas including poor roads, rough winters, and fewer cultural activities. Recruitment must also build on assets of a family values environment, safe communities, and an ability to practice as they prefer (either private practice or employed by a larger institution to ensure a safety net for Medicaid Managed Care and liability issues). New York State has moneys available for building awareness about health services needed.
- Write grants to obtain flexible funds for innovative solutions addressing lack of services. The funds could also support community agencies whose purpose includes providing money for services and needs that are not traditionally offered through county services. Focus should be on clients who fall between the cracks.
- Encourage health care providers to become involved in identifying service gaps and communicating about what would improve health care in their community. Also encourage local providers to become involved in educating young rural residents on career opportunities in health care professions. People who grow up in rural areas are more likely to return to a rural area to live and practice.
- Establish a “clearing house” for service information. The “clearing house” could monitor and document calls requesting services. If an unavailable service is requested enough, the “clearing house” can bring public attention to the issue and assist in coordinating providers to address the service gap.

c. Coordination of Provider Services:

Coordination and cooperation among health care service providers is vital to the health of a community and its residents. Coordination of care is needed for both the consumers benefit and

the providers benefit. The concept of a central mechanism to facilitate the coordination by maintaining information on what services are available, by whom, at what times, locations, contact persons, and phone numbers was consistently recognized at focus group sessions, as well as the need for a commitment to keep the information timely and accurate. Coordination of services and care was emphasized for the aging population, again at nearly every focus group session.

Solutions that address coordination of provider services are listed below. The solutions can help the Rural Health Network reach its goal of facilitating the coordination and development of protocols for referral and sharing of client information among providers, reducing duplication of services, and ensuring client needs are being met in a collaborative and cooperative fashion:

Provider Service Coordination Solutions:

- Establish a central “clearing house”. The “clearing house” could maintain a computerized database of client information obtained from a central intake form and a list of agencies providing services to the client. The information could be accessible to all providers with sensitivity to confidentiality issues. This data can eliminate duplication of services among agencies and the timely process of identifying what agencies are providing what services to the client. The “clearing house” could also coordinate the sharing of new and used resources. Providers could benefit from sharing resources or donating resources no longer in use. For example computers, overhead projectors, phone Systems and copiers no longer used or available for sharing. Also sharing human resources, such as administrative assistants can be helpful to the employer and employee.
- Encourage coordination by looking to existing community experts. Senior centers, Office for the Aging, Meals on Wheels, and LARC of Sidney can assist in reaching elderly for services or can serve as models on how to coordinate services. Providers could offer related services at these community sites. Health care providers can better utilize community organizations that are successfully reaching residents by building on established relationships and coordinating activities.
- Encourage integration of assessment and early intervention for behavioral health problems in primary care practices in the community, as a means to reduce stigma, improve access, and coordinate care. Establish outpatient mental health and substance abuse counseling services closer to client's community.
- Encourage client-based case conferences among health care service providers (including primary care) on a regular basis to discuss needs and progress of clients. Need to build commitment from providers and clients to attend.

d. Professional Education and Training:

Professional education and training is needed throughout the Rural Health Network's region health care providers need education on services currently offered in their community service gaps, complementary service needs, and how services the provider currently offer could be adjusted to become even more beneficial to consumers. Providers also need to be trained in making referrals to services offered through county social service programs, churches, private non-profits, and the like.

Expanding opportunities for professional education and training is an objective of the Rural Health Network. The focus group participant's ideas on educating providers are described in the solutions below:

Provider Education and Training Solutions:

- Facilitate information exchange among providers at community sessions. Providers need to be educated about who is doing what, and participate in identifying new

services being brought into the community. This will lessen practices that compete for patients in a small service area and encourage complementary services or new services. Larger hospitals must participate in the communication of what services they intend to offer at each location. The exchange will develop an environment of cooperation and improve service options for residents. Include all providers from hospitals, private practice, no profit, county, churches, community leaders, and the like.

- A centralized information “clearing house” offering a directory with service description numbers, address, and contact person, for all surrounding counties. The directory should be organized by service and be user friendly. A “clearing house” should have an 800 number providing information from the directory - need to be able to speak with a person. The First Call For Help programs in Broome and Tioga offer these services. A First Call for Help could be established for Delaware County. The “clearing house” concept discussed at focus groups expands on the First Call For Help programs by maintaining a database of client information accessible by providers, follow-up phone calls to ensure the person or provider connects with the services they need, and tracking service gaps. The Rural Health Network could encourage the First Call For Help programs to provide follow-up and tracking services. There may also be a role for the Rural Health Network in developing a computer network for providers to exchange information on clients and education about the First Call For Help services.
- The Rural Health Network could serve as a source of reliable data to keep providers informed and to educate them about the population they serve. Need accurate data on immunizations, teen pregnancies, prenatal care, and the like. Important to have a main source of data with one set of numbers.
- Build a common philosophy of promoting consumer self-sufficiency among health service providers and educators. Teach consumers skills for self-sufficiency and self-esteem to lead to a decrease in dependency on agencies.
- Designated and trained information persons at each service provider. Contact persons, at each provider location, need to be educated and trained in services their agency offers, convey accurate information to phone inquiries, and be helpful.
- A team approach to wellness education. Community providers could become a team with agreed upon health outcomes for rural residents. Consistent training of educators and providers on how to address the agreed upon outcomes, so rural residents receive the same message from all service providers.

e. Consumer Education:

Consumer education on services available, how to access services, and staying healthy will impact consumer and community health. The focus groups agreed education was key to improving access to services and staying healthy. Focus group participants identified the following solutions for educating consumers:

Consumer Education Solutions:

- Centralized information “clearing house” was again identified, see the second bullet under PROVIDER EDUCATION AND TRAINING SOLUTIONS. Again, awareness building of First Call For Help's services and establishing a First Call for Help in Delaware County will impact consumer and provider education of services available.
- Utilize traditional media such as the newspaper, pennysavers, local news, and local radio. Place regular brief notices in the traditional media with a "did you know . . ." type of format or create a weekly health column in the paper. Conduct Public Service

Announcements on preview channel, and television spots with community service education. Look to college students to produce spots.

- All other education about prevention and services available must be a hands-on interactive approach. Go to consumers where they feel safe, they trust their peers, and there is a good turnout such as schools, grocery stores, churches, libraries, primary care providers, health fairs, county fairs, fundraising dinners at fire stations and in-service education at employers during lunch hours for convenience to employees. There must be food and incentives for going (free gifts). Flyers work well for information handouts - people can take the message with them and hang it up in their home. Young people need faster messages to hold their attention.
- Managed care and HMO providers could get involved in wellness education efforts while benefiting from cost savings of preventative care strategies and ear interventions/treatments.

f. Public Policy Issues

The Rural Health Network of south central NY can provide information to the public and advocate regarding community specific needs according to the New York State Public Health priorities. Rural Health Network can also serve as an advocate to New York State regarding public policy issues and regulatory constraints impacting health care access. The public policy solutions discussed at focus group sessions centered on the RHN of SCNY and facilitate discussion with New York State regarding reimbursement issues for creative solution increase health care access in rural areas.

III. CONSUMER SURVEY:

In this third report, the Interim Board for the Rural Health Network of south central NY contracted with NY-PENN Health Systems Agency to research creative methods for health care systems to better serve rural residents. The Rural Health Network's ultimate goal is to promote universal access to health care services and to provide a system, through which consumers and providers of health and human services, can work together to enhance service assessment, planning, implementation and evaluation. This Network's service area covers Tioga County, rural portions of Broome County and Delaware County. The following information relates specifically to Tioga County.

1. METHODOLOGY: NY-PENN Health Systems Agency developed a survey instrument designed to obtain information from rural residents. Consumer and provider Board members of the Rural Health Network provided input in the development of the survey. The survey was designed to collect information on the following topics:

- ✓ Health Care Services
- ✓ New Services Needed
- ✓ Any Difficulties in Obtaining Health Care Services
- ✓ Ways to Improve Health Services
- ✓ General Health Status
- ✓ Health Insurance Coverage
- ✓ Methods to Educate Consumers
- ✓ Domestic Violence and Drug/Alcohol Issues

The survey was targeted for residents of Tioga County:

- A greater percentage of respondents in Apalachin and Nichols, Tioga Center and Smithboro rated their health services as “Very Good” (33% and 35% respectively for the two zip code groupings).
 - ~ A higher percentage of respondents rating their health care services as “Bad” live in Waverly, Lockwood and Barton (12%) and Candor, Spencer and Willseyville (18%).
 - ~ Respondents from Apalachin, Waverly, Lockwood and Barton have a lesser sense of community with 21% of respondents indicating they did not care about or feel a part of their community.
 - ~ When asked what health services they were interested in, dental service was overwhelmingly the top response among rural residents.
- Nearly all the zip code groupings identified poor economy, pollution, community activities (especially for youth), and the need for more community and property pride.
 - ~ Three zip code groupings had higher percentages of respondents ranking their health as “Very Good” - Owego (31%); and Apalachin (27%).
 - ~ More Candor, Spencer and Willseyville respondents ranked their health as “Bad” (10%) than any other zip code group.
 - ~ Three zip code groups were also highly interested in obtaining healthy living information through the media: Apalachin; and Candor, Spencer and Willseyville.
 - ~ Higher percentages of respondents who felt unsafe were from the zip code group of Candor, Spencer and Willseyville (17%).
 - ~ Nichols, Tioga Center and Smithboro reported the lowest percentage (2%) of respondents feeling unsafe.
 - ~ Regular eye care is an issue for some rural residents. (28%) of respondents from Candor, (27%) from Waverly and (25%) from Berkshire indicated they were without an eye doctor.
 - ~ Waverly, Lockwood and Barton reported a higher percentage (14%) who had seen a dentist in the last 3-5 years.
 - ~ Respondents without health insurance by zip code group: Waverly, Lockwood and Barton (13%), Berkshire, Newark Valley and Richford (11%) and Candor, Spencer and Willseyville (10%).
 - ~ Respondents’ children without health insurance by zip code group: Nichols, Tioga and Smithboro (29%) and Waverly, Lockwood and Barton (27%).
 - ~ The majority (60%) of respondents who indicated their children did not have health insurance were married and (25%) were divorced or separated.

SUMMARY OF CONSUMER SURVEY RESULTS:

A. Health Care Services: The Consumer Survey asked rural residents about their health care services to determine:

- ✓ The best method for educating the community about health issues
- ✓ Specific illnesses/conditions and health services of interest to rural residents
- ✓ How rural health services could be improved

1. COMMUNITY HEALTH EDUCATION: To assist providers in educating the community about health issues, rural residents were asked, “What is the best way for you to find out about an illness/condition or health service you need?” The survey respondents reported the best way was talking face-to-face with their doctor/nurse practitioner. A significant 33% of respondents

preferred conversations with their provider. Written information available at the doctor/nurse practitioner office, grocery store, library, church and the like was the next best method, followed closely by a Medical Guidebook (book about symptoms, disease, home remedies, when to see the doctor, etc.)

2. SPECIFIC ILLNESSES AND HEALTH SERVICES OF INTEREST: To assist the direction of community education, rural residents were asked what illnesses/conditions they would like to learn more about. Heart disease/stroke was the most cited response, followed by diabetes, cholesterol, and cancer. This finding was consistent across all age groups; however, person aged 25-44 had a greater interest in cancer and persons 45-64 reported higher interest in diabetes and cholesterol than the overall survey respondents. Rural residents were also asked what health services they were interested in. Dental service was overwhelmingly the top response. Eye care, hearing, immunizations, and preventive health were revealed as health services of interest to rural respondents.

3. IMPROVING RURAL HEALTH SERVICES: The majority, 70%, of survey respondents ranked their health care services as good and another 23% ranked their health care services as very good. However, questions designed to acquire ideas to improve health services generated an enormous number of comments and suggestions. Most comments pertained specifically to the doctor/nurse practitioner office environment.

Personalized and Convenient Services: The survey focused on ambulatory health care services provided by physicians and nurse practitioners. Consumers throughout the region repeatedly stated that one of their greatest concerns about services is the need for more personalized care: consumers need practitioners to take more time to really listen to their concerns and to answer their questions. Long waiting times coupled with rushed visits are a particular concern, as are lack of weekend and evening office hours.

Survey respondents revealed the following ways to make their health services easier or better: Weekend and evening service hours, someone to answer medical questions, better listening and communication skills of practitioners, ability to phone a health professional to determine if a visit is necessary, more time for the doctor/nurse practitioner to explain things, and someone to answer insurance questions. Working age adults were more interested in weekend and evening hours, while those over age 65 were more interested in the ability to phone a health professional to determine if a visit was necessary.

The survey also identified difficulties rural residents may have in obtaining health care. Respondents (152 or 32%) have indicated they did have a hard time getting the health care they needed, also reported that the problem was due to difficulties at the doctor/nurse practitioner office (40%). These difficulties included getting an appointment quickly, office hours and getting time off of work to go to the health care provider, long waiting times and paperwork.

The survey explored what should be done to improve health care services in the community. As noted, the majority of respondents commented on the need for more personalized convenient services, and greater diversity of services available at doctor/nurse practitioner offices (such as: mental health, health prevention and education programs).

Affordability: consumers also cited a need for more affordable health care and for health insurance and services for the uninsured and underinsured. 23% of respondents cited financial difficulties, mainly lack of health insurance and money for co-payments.

B. Healthy Communities: To enhance the health of communities throughout the Rural Health Network's service region, the survey explored resident's feelings in connection to the community and their thoughts on what hinders and what could improve their community's health.

1. FACTOR IMPEDING COMMUNITY HEALTH: The majority of survey respondents reported they care about or feel a part of the community they live in. This community connection adds to a person's sense of belonging and purpose resulting in higher quality of life and health.

Mainstream responses to what prevented their community from being the best and most healthy place to live were lack of community activities, environmental pollutants, the current economy and more accessible and affordable health care services.

Community activities focused on organized family and youth activities. Specifically identified were sports, social programs, a recreation park, community activity center, community pool, and entertainment.

Reducing environmental pollutants was of high importance to achieving optimal community health. Pollutants described included: the lack of or deteriorated condition of sewer and water facilities; air, water, and ground pollutants; car pollution and road dust; chemicals sprayed on roads; noise pollution; garbage on roadsides; pollutants from businesses, and garbage burning. Pollution comments extended to property of residents described as run-down houses, junk everywhere and overgrown yards.

The current economy was described as a considerable-contributing factor to community health. Most of the comments centered on increased rates of poverty, lack of high paying jobs, lower paying jobs with long exhausting hours, unemployment, limited education, and general lack of opportunities.

Lack of accessible and affordable health care services added to preventing the community from being the best and most healthy place to live. Comments regarding health care services included: travel distance to services, limited office hours, limited access for uninsured or Medicaid persons, lack of organized exercise programs, lack of source for motivation to live healthier lifestyles and the need for health education.

Comments were also made regarding the need for community leaders to have vision as well as attitudes of community residents. Remarks were made specifically on the residents' lack of interest in contributing as a community member, lack of pride in themselves, their property and the general community. Residents were occasionally described as unfriendly.

Solutions to Improve Community Health: Insightful suggestions were given to fix and improve the factors that prevented the community from finding the best and most healthy place to live. To achieve healthier communities the following should be initiated: Family and youth organized community activities, clean-up properties and community, enforce tougher laws and zoning, attract new businesses, educate the public about their responsibilities for health, seek out leaders with vision, develop long range plans with community input, attract physicians and health professionals, obtain financial support through grants and identify and utilize available assets for community use (i.e. people and buildings).

The survey participants also suggested types of people who should assist in accomplishing the aforementioned solutions. Respondents indicated all members of the community need to be involved, specially identified were: business managers, Chamber of Commerce, health care industry, government leaders, law enforcement, neighbors, churches and clergy, press and schools.

C. Health of Rural Residents:

To provide the Rural Health Network with information on health of rural residents, the survey included questions regarding:

- General health status
- Encouraging healthy lifestyles
- Domestic violence
- Drug and alcohol abuse

- Health Insurance coverage
- Dental and eye care
- Regularity and continuity of care

1. GENERAL HEALTH STATUS: The majority of respondents ranked their general health as Good (71%) followed by Very Good (22%). Only 7% of survey respondents ranked their health as Bad or Very Bad. Persons aged 25-44 were more likely to rank their health as Very Good, while persons 75 or older were more likely to rank their health as Bad.

2. ENCOURAGING HEALTHY LIFESTYLES: Five main suggestions were given for the survey question, “What can health care workers do to help participants feel better and more healthy?” The prevailing suggestions included: good communication with providers, more time to explain things and listen to patients, prevention services, nutrition and diet services and discussion/education of patient’s responsibility for health.

Rural residents were asked, “What is the easiest way for you to learn about living a healthy life?” The number one response was talking face-to-face with the doctor/nurse practitioner. The second choice was written information available at the doctor/nurse practitioner office, grocery store, library, church and the like. This preference of learning about health issues through face-to-face conversations and written information available throughout the community is consistent throughout the survey results.

Survey respondents revealed there are three main healthy living topics of interest to rural residents:

- ✓ Diet, weight loss and nutrition;
- ✓ Physical fitness;
- ✓ Reducing stress.

Other healthy living topics identified were healthy lifestyles, vitamins, complementary therapies, new medicines, mental health, smoking cessation, child health care and rearing, motivational programs and living with/managing pain.

3. DOMESTIC VIOLENCE AND DRUG/ALCOHOL ABUSE: Domestic violence and substance abuse can be uncomfortable subjects for survey participants to respond to. When asked, “Have you ever felt unsafe or feared the safety of your children in your home?” 46 respondents answered yes. Only half of these respondents were able to find the help they needed. When asked, “Have you ever needed help for someone with a drug or alcohol problems?” 88 respondents answered yes. Over half (60%) of respondents were able to find the help they needed.

Whether seeking help for domestic violence or substance abuse issues, the survey respondent is most likely between 25-44 years of age and married. (20%) of respondents, who indicated they needed help for someone with a drug/alcohol problem, also reported they felt unsafe or feared the safety of their children in their home.

4. HEALTH SERVICES UTILIZATION: Although dental care and eye care services accounted for a significant number of survey comments, 68% of respondents indicated they had visited the dentist within the past year and 77% of respondents stated they have an eye doctor to check their vision.

The preponderance of respondents, 91%, reported having health care insurance for themselves and 89% reported having health insurance for their children. The majority of insurance is purchased through the respondents’ employer or through a spouse (or ex-spouse). The Child Health Plus program covered 11% of the survey respondents’ children and Medicaid covered 4%. Medicaid provided medical coverage for 5% of the adult respondents and 19% were covered through Medicare.

Those respondents without a doctor/nurse practitioner (62 or 13%) go to walk-in clinics (49%), whatever doctor will see them (21%), or the emergency room (17%). Half of the survey respondents visit the doctor/nurse practitioner 1 to 2 times per year. Another large percentage (30%) of respondents visit their provider 3 to 5 times per year. Approximately 8% to 9% visit the doctor/nurse practitioner 6 to 10 times a year or not at all. Findings on doctor/nurse practitioner visits were consistent between adults and children with the exception of a smaller percent of children (5% vs. 9% of adults) do not see the doctor/nurse practitioner at all throughout the year. The majority (85%) of respondents and their children see the same doctor/nurse practitioner at each visit. Fifteen percent (71 adults and 32 children) reported not having continuity of providers from visit to visit. Fifty-six percent (40 adults) who indicated they did not see the same provider from visit to visit, also reported having a hard time getting the health care they need.

Survey participants were provided with open space at the end of the questionnaire for suggestions and ideas on improving health. Although the comments were diverse, three topics generated the most interest. Comments regarding insurance issues (23%), health care costs (17%), and access to care (16%) were the most common. Also of interest were healthy eating, age-specific health issues, fitness centers, physician/nurse practitioner offices, smoking, drug and alcohol, gender-based health issues, volunteerism and mental health issues.

In addition to the studies, which have been conducted, Head Start also did a survey of their clients and health and human service agencies.

Four sources were contacted to receive family/community needs data for Head Start. The sources were: Tioga County Head Start families who were asked to supply data on many areas of common needs of their families through a survey. 40 of 140 parents responded. Tioga County Head Start Component Advisory Committees, the advisory committees were asked to give input into areas of community needs. Tioga County Human Service Agencies were contacted to identify what they saw as their client's major needs. Healthier Tioga County the second professional forum summary of information shared there.

The results of that survey are as follows:

- **Health:**

- Parent Questionnaires: 31% no insurance for parent
- 75% no dental or eye insurance for parent
- 63% no dental or eye insurance for child
- 56% find difficulty getting dental care for parent
- 63% find difficulty getting dental care for child
- 50% find difficulty getting eye care for child
- 31% find difficulty getting health care because insurance doesn't cover it or doctor doesn't take their insurance
- 63% find difficulty getting dental care because insurance doesn't cover it or doctor doesn't take their insurance
- 25% said the biggest health concern is finding insurance

25% said the biggest health concern is finding providers who accept Medicaid.

Community Human Service Agencies: listing top 4 needs experienced by their clients:

75% listed lack of dentist who will

30% listed access to medical help and costs

Advisory Committee: Health - Dental care for Medicare clients, accessibility to services

Healthier Tioga County: Public often uninformed of services available

Medicaid dental services

Access to specialty care

Emergency response time

- **Nutrition:**

Parent Questionnaires: 94% used food stamps/WIC

56% felt there was a need for food programs to address the needs of those in a transition situation

Community Human Service Agencies: 20% listed food and nutritional needs

Advisory Committee: Social Services felt a need for nutrition education

Identified Priority Areas for Improving Community Health in Tioga County

Based on consumer and provider focus groups and chronic disease data the following priority areas of opportunity for improving community health, listed in Communities Working Together, were identified in Tioga County. Specific behavioral risks, related to each of these priorities, will be discussed in the report card section of this report.

**Access to and Delivery of Health Care*

**Health Education*

**Intentional Injury*

**Nutrition*

**Physical Activity*

**Substance Abuse and other drugs*

**Tobacco Use*

**Unintentional Injury*

OPPORTUNITIES FOR ACTION:

Opportunities that the LHU can pursue to alleviate the priority public health problems are:

Access To and Delivery of Health Care significantly influences the risk for early detection and intervention in many health risk issues. In relationship to the risk of dental disease, the LHU can pursue the continued development of the proposed local Dental Coalition. Logical contacts for coalition building and future planning efforts would include representation from local, state and national dental organizations, (American Dental Assoc., American Dental Hygienist Association), local Dental Care Providers, Insurance Providers, Head Start, day care providers, Hospitals, Eastman Dental School, and the Rural Health Network which is currently in place to focus on access to health care issues.

STD/HIV issues related to access to delivery (adequate, convenient screening, educational counseling and follow-up care, and increased awareness and utilization of existing locations and services) can also be pursued with support and collaboration of recognized and established community based organizations like Tioga County Youth Bureau, Children and Youth organization, Southern Tier Aids Program, schools, local providers, colleges and universities and our community action agency (TOP).

Health Education: The LHU should be involved in the development of a team approach to comprehensive health education program that will encompass each identified risk. Lung disease and COPD and Cerebrovascular disease are directly related to the use of tobacco products. The LHU, with support from NYS ASSIST funding, law enforcement agencies, and the Broome/Tioga Tobacco Free Coalition will continue to implement compliance checks to reduce the sale of tobacco to children. Current education and media efforts should be intensified and coordinated to increase public awareness of the long term health risks of tobacco use, of community responsibility to affect change when noncompliance is detected, of the clean air laws for worksites, school, food and other establishments, and of existing resources for tobacco use prevention and cessation programs. In “Healthier Tioga County: setting priorities,” Margaret Young developed in consultation with Dr. Pamela Fahs a plan to prevent and reduce tobacco use among the youth of Tioga County. This could be utilized by an expansion of coalition membership to prepare and implement a comprehensive Tioga County specific program plan could include the addition of school nurses or health education representatives, dental professionals (to address cigarette and smokeless tobacco issues specific to oral cancer and decay), medical providers, teens, hospitals, colleges and the media. Close collaboration with the existing “Worksite Healthy Heart Team” and “Community HEART” program will prevent duplication of effort and promote consistent messages related to the risks of tobacco use and their relationship to **cardiovascular disease** as well.

Other concerns related to the issue of **cardiovascular disease**, include education and interventions to promote increased physical activity and the increased consumption of low fat, high fiber foods. These interventions would positively address the incidence of other issues of significance such as obesity, diabetes and cancer.

Replication and continuation of grant funded programs such as the “Sample 5 A DAY Program” in Waverly High School, “The Worksite Healthy Heart Team”, the “Community Heart Coalition”, and “The Broome/Tioga Community Based Diabetes Project” should be pursued. Future planning to assure community assimilation and integration of the principals of each of these projects is needed. Collaboration, cooperation and coordination between the current partners, with the addition of community leaders, media reps, insurance providers, primary care providers, and with coordination by the LHU, seems the best approach at this time.

Unintentional Injury: injury and death due to **motor vehicle crashes** has been identified as a priority issue. Injury control initiatives in Tioga County are in the infancy stages when considered in relationship to long term outcomes and true collaborative efforts. Utilization of grant funding to initiate sustained child passenger seat loan program, a limited bicycle helmet safety program that includes distribution of material and publication of news releases has been successful. The incidence of motor vehicle crashes has not been measurably impacted by public health outreach efforts alone. The “Communities Working Together Award” winning project in the Candor Community demonstrated that a motivated community can influence behavior (increase the use of seat belts in their community) by developing and implementing a personalized one month community campaign. The process, coordinated by the LHU and SUNY University Decker School of Nursing, could be replicated to address other identified risks in target communities. A plan for how to do this, where to start the next campaign, and what specific risk factor(s) to be addressed needs to be initiated. As “The Injury Advocacy Council” (IAC) develops, resources are identified

and cataloged and injury specific collaboration is promoted, the community intervention process can be reintroduced as indicated. It appears that the efforts of the IAC need to be supported by the LHU, community involvement increased to include the media, traffic safety board members and local law enforcement agencies, and that this document should be provided as a tool for future planning to decrease motor vehicle injury in Tioga County.

Intentional Injury: Another issue to be addressed, intentional injury (suicide, abusive behavior, assault, and domestic violence) envelops a broader scope of planning. The existing Domestic Violence Community Response Network currently works to resolve issues after the violence occurs. The need for a plan to address concerns of the general community regarding assault and suicide prevention could be introduced to this group for guidance and input in the planning process.

Alcohol and Other Drugs: The separation of alcohol and other drug issues from the other identified priorities is impossible. Smoking, has long been discussed as the gateway to drug use and has been connected to the initial experimentation with drugs. The incidence of intentional injuries, like violent and abusive behavior, assault and suicide, and unintentional injury, like drowning, burns by fire, poisoning, traffic crashes, falls and pedestrian injuries, are influenced by the consumption of alcohol or the use of other drugs. Unsafe and unprotected sexual activity has been reported to increase under the influence, thus increasing the risk of STD, HIV, teen pregnancy etc. Dental decay and oral cancer are affected by the use of tobacco products. Poor nutrition often accompanies alcohol or drug use, and that can contribute to heart disease and cancer. As a priority, issues of drug and alcohol use are obvious areas of concern to be considered for integration into each connecting council, coalition and related program. The role of the LHU is to support existing education and intervention efforts through mental health and Tioga County Council on Alcohol and Substance Abuse, and include in our municipal health services plan a strategy to enhance the awareness of existing services and the relationship of drugs and alcohol use to other public health issues.

Other: Other areas for the LHU and communities to consider are the need for accurate local statistics, tracking mechanisms, and consistent empowering approaches to the way agency personnel work with families. The lack in Tioga County specifically, youth risk behavior information, has been a prohibitor in this assessment process. The Rural Health Network has indicated some interest in encouraging a survey, such as the Teen Assessment Program (TAP), that has been successfully implemented in adjoining counties. As a member of the Rural Health Network, the LHU will participate in and endorse those efforts.

A central data collection and resource “clearing house”, Pennsylvania Hospital Provider Injury and Morbidity Data Retrieval System for Tioga County Residents, and an integrated Empowering Families approach to the way services are delivered to our residents are strategic ways to build a healthier community. Each of the previously mentioned teams would have important input into the way change could occur to facilitate these adjustments. These needs could be discussed with existing partners of the LHU, and a planning process could be implemented. Consideration should be made to assure efficient use of time and the need to create minimal new meetings.

Currently, this LHU is in the position of seeking a new Director of Public Health. The need to assess the local health unit capacity profile of staff and program resources available for public health activity is identified as a very timely and important task that is proposed for consideration in conjunction with the transition and within the context of the focus of the new administration.

COMMUNITY REPORT CARD:

As we consider how to measure the effectiveness of any programs planned as a result of this Community Health Assessment for Tioga County, it is important to be specific about what public health risks have been identified and who is most at risk. A “community diagnosis” has been developed that will be used to guide the determination and selection of our objectives for proposed programs and program change. It will also be the basis for which to measure long-term change in the health status of our residents related to the Priority Areas of Opportunity for Improving the health of Our Communities.

Described here are specific risks related to Tioga County residents’ behaviors that may influence their health status. It is anticipated that with identification of the behaviors that negatively influence health, a plan can be developed and implemented that will improve the health of the community.

Community Diagnoses

Risk of Cerebrovascular Disease

Among Tioga County Residents

Related to:

- a. obesity and extreme obesity- in NYS 28.4% of adult’s aged 18 and older were overweight in 1997 compared to 27.6% in 1994.
- b. these appear to be increasing by as much as 39% and 64% respectively among adolescents age 12-17.
- c. 28% of students surveyed in the YRBS, 1997, described themselves as slightly or very overweight.
- d. decreased physical activity - prevalence of sedentary lifestyle among adults, 18 years and older in NYS rose from 59.1% in 1996 to 61% in 1997.
- e. regular and sustained activity - among adults aged 18 years and older in NYS dropped from 20% in 1996 to 19% in 1997.
- f. smoking - among adults aged 18 years and older the prevalence of smoking in NYS in 1994 was 21%.
- g. Tobacco causes 30 % of all cancer deaths, 82% of deaths from pulmonary disease, and 21% of deaths from chronic heart disease.

As demonstrated in county death rate due to cerebrovascular disease of 52 (adjusted rate) compared to the state rate of 43.3 (adjusted rate) per 100,000 residents, for the period of 1994-1996.

Risk of COPD

Among residents of Tioga County.

Related to:

- a. smoking - 68% of students have tried cigarette smoking and 23% smoked their first whole cigarette before age 13.
- b. Half of all 15 year old smokers will still be smoking 20 years from now, based on historical experience.
- c. The prevalence of smoking, among adults, in NYS in 1994 was 21%.
- d. In 1993, 31,600 New York State residents died of tobacco related conditions, accounting for 19% of all deaths.

- e. Half of those smoking at age 35 will die of tobacco caused disease, losing on average 15 years of life expectancy.

As demonstrated in the county death rate due to COPD of 58.7 (adjusted rate) compared to the state rate of 32.9 (adjusted rate) per 100,000 residents, for the period of 1994-1996.

Risk Of Colorectal Cancer Deaths

Among Tioga County residents

Related to:

- a. overweight - the prevalence of overweight individuals aged 18 and older in NYS has risen from 19% in 1987 to 27% in 1994.
28% of students surveyed in the YRBS (1997) described themselves as slightly or very overweight.
- b. Hyperlipidemia - In overweight adults, 38% of women and 32% of men have high cholesterol compared to 25 and 22 percent among non overweight men and women, respectively.
- c. Nutrition - only 25.4% of adults in NYS aged 18 years and older consumed five or more servings of fruits and vegetables in 1996. People with low fruit and vegetable intakes have twice the risk of certain forms of cancer than people eating at least the recommended five servings a day.

As demonstrated in the colorectal cancer death rate in the county is 21.3 (adjusted rate) compared to the state rate of 19.4 (adjusted rate) per 100,000 residents, for the period 1992 - 1996.

Risk of unintentional injury death

Among Tioga County residents

Related to:

- a. Helmet use - According to the YRBS (1997), of those students who rode a bicycle (78%) or motorcycle (17%) during the past 12 months, 88% of students riding bicycles and 24% of students riding motorcycles reported that they never or rarely wear a helmet.
- b. Unintentional injury is the leading cause of death for children in NYS ages 1-9, and the second leading cause among the 10-24 year old age group.

As demonstrated in the unintentional injury death rate in the county is 26.6 (adjusted rate) compared to the state rate of 23.3 (adjusted rate) per 100,000 residents, for the period 1994 - 1996.

Risk of motor vehicle death

Among residents of Tioga County

Related to:

- a. Motor vehicle crashes are the number one cause of injury death in Tioga County.
- b. Traffic related injuries accounted for 20 % of all injury hospitalizations and nearly 40 % of all injury deaths.
- c. Alcohol use : The YRBS (1997) results show over the past 30 days;
- d. 29% of all students reported that they rode in a car or another vehicle driven by someone who had been drinking alcohol. The percentage outside of NYC (32%) was higher than in NYC (23%).

- e. 8% of all students reported that they drove a car or other vehicle when they were drinking alcohol. The percentage of males was more than double the percentage of females.
- f. For both behaviors, the highest percentage was recorded at 12th grade, with 33% of the 12th graders reporting that they rode in a car with someone who had been drinking alcohol, and 15% indicating that they had driven a car or other vehicle when they had been drinking alcohol.

As demonstrated in the motor vehicle death rate in the county is 11.4 (adjusted rate) compared to the state rate of 6.9 (adjusted rate) per 100,000 residents, for the period 1994 - 1996.

Risk of Lung and Bronchus Cancer

Among residents of Tioga County

Related to:

Tobacco Use:

- a. 68% of students have tried cigarette smoking and 23% smoked their first whole cigarette before age 13, according to YRBS 1997.
- b. 33% of students smoked cigarettes on 1 or more of the past 30 days with 18% reporting smoking on school property.
- c. 27% of students, outside of NYC reported that they smoked two or more cigarettes on days they smoked.
- d. Half of all 15 year old smokers will still be smoking 20 years from now, based on historical experience.
- e. Half of those smoking at age 35 will die of tobacco caused disease, losing on average 15 years of life expectancy.
- f. Causes 30% of all cancer deaths, 82% of deaths from pulmonary disease, and 21% of deaths from chronic heart disease.

As demonstrated in the incidence of lung and bronchus cancer in the county 59.4 (adjusted rate) compared to NYS rate of 56.9 (adjusted rate) per 100,000 residents for the period 1990-1994.

Risk of Dental Disease

Among school-aged children in Tioga County

Related to:

- a. Water fluoridation is available in less than 8% of the total county population.
- b. Lack of transportation – The majority of dental offices are located in the villages of Owego and Waverly. Six townships and three villages have no dental offices.
- c. Lack of dental insurance – 267 dental screenings performed for low income children in Tioga County schools during 1997 showed 73% having untreated dental decay and 22% having rampant decay. The percentage of the population under 185% poverty level uninsured for medical care in NYS rose from 10.8% in 1992 to 15.1% in 1996.
- d. Lack of providers – There are no dental clinics and only 12 private providers in Tioga County. 11 providers do not accept new Medicaid patients. The dentist to patient ratio in Tioga County is 1:5094.

As demonstrated in 73% of 267 school-aged children screened in Tioga County in 1997-1998 was identified with untreated dental decay ; 22% of these 267 children were identified with rampant decay.

The risk was also demonstrated in the county rate of oral and pharyngeal cancer of 9.0 (adjusted rate) compared to the Albany county rate of 8.6 (adjusted rate), a county five and a half times the size of Tioga County.

Risk of Intentional Injury

Among female adults

Related to:

- a. In 1997 A New Hope Center received 543 calls to a 24-hour crisis line related to domestic abuse.
- b. Crime rate trends per 100,000 for aggravated assaults in Tioga County went from 137 in 1984 to 217 in 1994.
- c. Simple assault of wife by husband has increased from 16 in 1990 to 45 in 1996 for Tioga County.

As demonstrated in an increase in domestic violence cases reported in the county in 1994 (112) to 1996 (211).

Risk of STD/HIV

Among Adolescent Population

Related to:

- a. 41% of students reported that they had sexual intercourse during their life. There was an increase from 9th grade (30%) to 12th grade (56%).
- b. 13% of students reported that they had sexual intercourse with 4 or more people during their life.
- c. Alcohol or other drug use may serve as a predisposing factor for initiation of sexual activity and unprotected sexual intercourse. 11% of students drank alcohol or used drugs after they had sexual intercourse the last time.
- d. 77% of all students have had at least one drink of alcohol on one or more days during their life, with 48% of students having at least one drink on one or more of the past 30 days.
- e. Older students in 12th grade (37%) reported having 5 or more drinks in a row, on one or more of the past 30 days, while (21%) of 9th graders reported the same behavior.
- f) 41% of all students have used marijuana one or more times during their life and 23% have used marijuana during the past 30 days.
- g) 14% of students reported that they used any other type of illegal drug, such as LSD, PCP or speed.

The local health unit does not have statistical evidence of this as yet, but because of the related factors and behaviors/perceptions associated with this population, it is a need that must be addressed. Compounding the presence of these factors and behaviors / perceptions is the knowledge that we may not know the extent to which HIV and/or STD exist, because HIV and the most common STD are not reportable. There has also been an identified lack of HIV counseling services, which are both accessible and available to the community.

The Tioga County Health Department has completed a lengthy and extensive community assessment process that has enabled us to substantiate some current programs, and to identify modifications needed and opportunities to expand and develop new partnerships that will help Tioga County have a healthier community. It is with eager anticipation that we look forward to the building of collaborative plans that can be implemented and result in measurable outcomes to reduce the health risks and improve the healthy behaviors of our residents.

An extensive list (approximately 125) of community collaborators and partners has been compiled for distribution of this document. They include, but are not limited to, hospitals, agencies, service providers, libraries, schools and advisory boards. A press release will offer this document to other interested individuals or groups as well.

REFERENCES

1. A New Hope Center. (1997). 1997 Annual Report. Owego, N.Y.: A New Hope Center.
2. American Association for World Health. (1998). HIV/AIDS and Young People. Available (On-line): www.aawhworldhealth.org.
3. Fahs, P.S. (1997). Healthier Tioga County: setting priorities. Binghamton, N.Y.: Binghamton University, Decker School of Nursing.
4. Guthrie Healthcare System. (1996). Creating a healthy community together, 1996 community value report. Sayre, P.A.: Guthrie Healthcare System.
5. Lourdes Hospital. (1998). Community benefit plan annual implementation report. Binghamton, N.Y.: Lourdes Hospital.
6. New York State Department of Health [NYSDOH]. Behavioral Risk Factor Surveillance System. (1996). Available (On-line): Health Information Network (HIN).
7. New York State Department of Health [NYSDOH]. Behavioral Risk Factor Surveillance System. (1997). Available (On-line): Health Information Network (HIN).
8. New York State Department of Health [NYSDOH]. Bureau of Biometrics. (1997). 1995 Profile of Tioga County. Albany, N.Y.: New York State Department of Health. Bureau of Biometrics.
9. New York State Department of Health [NYSDOH]. Bureau of Injury Prevention. (1997). Injury in Tioga County. Albany, N.Y.: New York State Department of Health. Bureau of Injury Prevention.
10. New York State Department of Health [NYSDOH]. Bureau of Injury Prevention. (1997). Leading causes of injury death 1990-1995, Tioga County. Albany, N.Y.: New York State Department of Health. Bureau of Injury Prevention.
11. New York State Department of Health [NYSDOH]. Office of Rural Health. (1998). Tioga County demographics, health indicators, county/rural/non-rural comparisons. Albany, N.Y.: New York State Department of Health. Office of Rural Health.
12. New York State Department of Health [NYSDOH]. (1990-94) or (1990-1994). Vital Statistics. Available (On-line): Health Information Network (HIN).
13. New York State Department of Health [NYSDOH]. (1996) or (1997). Vital Statistics. Available (On-line): Health Information Network (HIN).
14. New York State Division of Criminal Justice Services. Uniform Crime Reporting System. (1998). Domestic violence reported in Tioga County 1990-1996. Albany, N.Y.: New York State Division of Criminal Justice Services. Uniform Crime Reporting.

15. New York State Public Health Council [NYSPHC]. (1996). Communities working together for a healthier New York: opportunities to improve the health of New Yorkers. Albany, N.Y.: New York State Public Health Council [NYSPHC].
16. NY-PENN Health Systems. (1998). Consumer survey interim report: Rural Health Network of south central New York. Binghamton, N.Y.: NY-PENN Health Systems.
17. NY-PENN Health Systems. (1998). County profiles. Binghamton, N.Y.: NY-PENN Health Systems.
18. NY-PENN Health Systems. (1998). Provider input interim report for the Rural Health Network of south central New York. Binghamton, N.Y.: NY-PENN Health Systems.
19. The University of the State of New York. State Education Department. (1997). Youth risk behaviors in New York State in their own words: 1997 survey results. Albany, N.Y.: The University of the State of New York. State Education Department.
20. Tioga County Planning and Development. (1995). Tioga Tomorrow: the people's comprehensive plan for economic and social development in Tioga County. Owego, N.Y.: Tioga County Planning and Development.
21. Tioga Opportunities Program. (1997). 1997 Annual report. Owego, N.Y.: Tioga Opportunities Program.
22. United Health Services. (1998). Community service report. Binghamton, N.Y.: United Health Services.
23. U.S. Department of Commerce Economics and Statistics Administration. Bureau of the Census. (1990). 1990 Census of population and housing. Summary population and housing characteristics. New York; Washington, D.C.: United States Department of Commerce Economics and Statistics Administration.