

Watauga County Community Health Assessment

**Report to Stakeholders
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Purpose of the Community Health Assessment

- Describe the health status of the community.
- Create a report that will serve as a resource for the County Health Department, Healthy Carolinians of Watauga County, and other community organizations.
- Provide direction for the planning of disease prevention and health promotion services and activities.



Three Contributing Viewpoints

Secondary Data	Citizen Opinion and Data	Leader Opinion
<ul style="list-style-type: none">-Demographic-Socioeconomic-Health-Environmental	Community survey (n=194)	Interviews by invitation (n=xx)



We Take Special Notice When...

- Watauga County statistics deviate from North Carolina statistics.
- Trend data show significant changes over time.
- There are significant age, gender, or racial disparities.



Definitions and Symbols

- **Arrows**

- Arrow up (▲) indicates an increase; two arrows indicates a doubling; three arrows a tripling, etc.
- Arrow down (▼) indicates a decrease; two arrows indicates a halving; three arrows a reduction to one-third, etc.

- **Color**

- **Red** indicates a “worse than” or negative difference
- **Green** indicates a “better than” or positive difference
- **Blue** indicates a likely unstable rate or difference based on a small number of events; figures in blue should be used with great caution.



Demographic and Socioeconomic Data



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Population Characteristics

- Watauga County population is growing gradually
- Watauga County will remain ~60% rural (NC overall is 40% rural but becoming more urban in character.)

1980	1990	2000	2007 (Est.)	2010 (Proj.)
31,666	36,952	42,693	43,304	43,976



Population Growth

- Rate of county growth will slow and continue to lag behind the state growth rate

Percent Population Growth		
Decade	Watauga	NC
1970 - 1980	35.3	15.6
1980 - 1990	16.7	12.8
1990 - 2000	15.5	21.3
2000 - 2010	3.0	16.2
2010 - 2020	3.6	13.1
2020 - 2030	2.0	12.9



“Younger” Population

- 2000 Median age = 29.9 (NC=35.3)

Percent of Total Population (2000)		
Age Group	Watauga	NC
0-4 Years	3.9	6.7
5-19	21.4	21.5
20-24	18.8	7.2
25-34	11.0	15.1
35-44	12.4	16.0
45-54	12.8	13.5
55-64	8.7	9.0
65 and over	11.0	12.0



Minority Population 2000

- Watauga Minority Population = 3.5%
 - African American = 1.6%
 - Hispanic Origin (any race) = 1.5%
 - Native American = 0.3%
 - Asian = 0.6 %
 - Other = 0.5%
- NC Minority Population = 27.9%



Economy

- 2004 Per Capita Personal Income
 - \$26,033 in Watauga
 - \$4,520 **below** NC average
- 2004 Median Household Income
 - \$34,165 in Watauga
 - \$6,698 **below** NC average



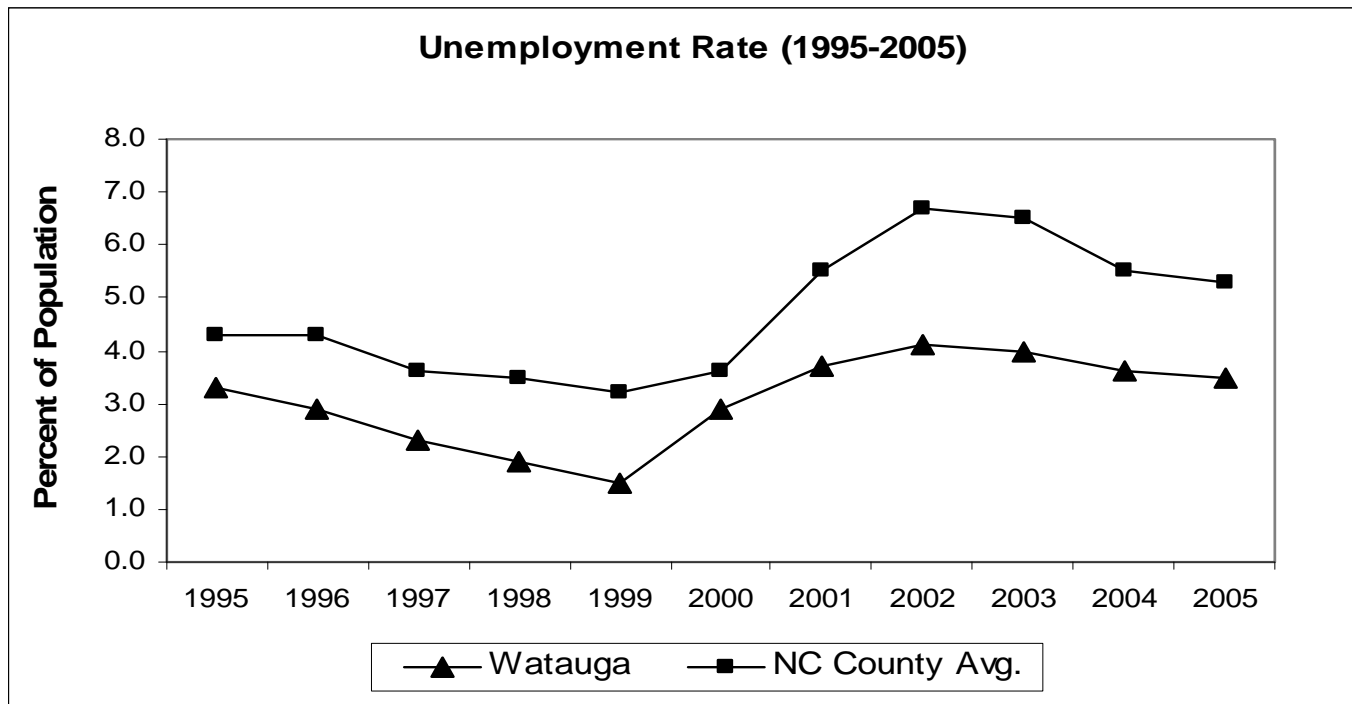
Employment

- Employment growth in Watauga County lags slightly behind employment growth in NC as a whole
 - Watauga Net Change 2002-2006 = +6.2%
 - NC Net Change 2002-2006 = +7.2%
- Local Employment (September 2005)
 - Educational Services = 18.0%
 - Retail Trade = 15.7%
 - Accommodation/Food Services = 15.4%
 - Health Care/Social Assistance = 14.5%



Unemployment

- **Business Closings and Layoffs 2002-2007**
 - 23 closings, mostly small businesses, affecting 292 people
 - 1 layoff affecting 34 people



Poverty

- The poverty rate in Watauga County has been decreasing but has remained consistently above the NC rate since 1980. However, the gap appears to be closing.

Annual Poverty Rate (1980-2004)

County	1980	1990	2000	2004
Watauga	22.7	21.5	17.9	14.7
NC County Average	14.8	13.0	12.3	13.8



Poverty and Age

- In Watauga County in 2003:
 - **14.7%** of persons of all ages were in poverty (NC=13.4%)
 - **15.9%** of all persons under age 18 were in poverty (NC=19.1%)



Poverty and Race

- As of the 2000 Census in Watauga County:
 - **17.9%** of the **total** population was in poverty (NC=12.3%)
 - **17.5%** of the **white** population was in poverty (NC=8.5%)
 - **25.5%** of the **black** population was in poverty (NC=22.9%)



Children and Families

In Watauga County in 2000:

- 19.7% of population was < 18 years of age
- 1,672 family homes (17.8%) were headed by a single parent (NC = 32.3%)
- Between 1990 and 2000:
 - Percent households with a single parent head of household ▲ 36% (NC ▲ 21%)
 - Percent households with single male parent head of household ▲ 64% (NC ▲ 65%)



Child Care

- Number of Watauga County children in regulated child care ▲ 73% between 2001 and 2005 (NC ▲ 23%)
- Percentage of Watauga County children in regulated child care receiving a subsidy ▼ 32% during the same interval (NC ▼ 14%).
- In 2005, there were 22 Watauga County children eligible for and requesting a child care subsidy who did not receive one.



Education

- Compared to the NC county average, Watauga County has:
 - 5% *more* high school graduates (2000)
 - 48% *more* college graduates (2000)
 - 31% *lower* HS drop-out rate (SY2005)
 - 9% *higher* average SAT score (2005)
 - *higher* proficiency among 3rd and 8th graders on EOG math and reading tests (SY2005)



Crime and Safety

- Compared to the average NC county, Watauga County had *lower* rates for **index** (-39%) **violent** (-76%) and **property** (-35%) crime in 2005.
- The most common **property crime** in Watauga County in 2005 was *larceny* (theft of property without the use of force)
- The most common **violent crime** in 2005 was *aggravated assault* (purposeful use of force, often involving a weapon, to inflict bodily harm)



Crime and Safety

- Of 11,910 **registered sex offenders** in NC in 2007, 25 live in Watauga County.
- **34 clandestine drug lab** busts have taken place in the county since 2002.
- As of 2004 there were **no reports of gangs** in the county
- **1 domestic violence-related homicide** was reported between 2002 and 2007
- In 2006, **147 *ex parte* orders** and **53 protective orders** were issued in connection with domestic violence complaints (▼ from 144/63 in 2005)



Juvenile Crime

- Between 2005 and 2006 the *number* of complaints of **undisciplined** youth (ages 6-17) in Watauga County ▲ 22%, and the *rate* ▲ 18%.

Undisciplined refers to disobedience beyond disciplinary control of parent/guardian (e.g., truancy, vagrancy, running away from home for more than 24 hours).

- Over the same period the *number* of complaints of **delinquent** youth in the county ▼ 12%, and the *rate* ▼ 15%.

Delinquency refers to acts committed by youths that would be crimes if committed by an adult.



Abuse and Neglect

- **Child Abuse and Neglect:**

Watauga County Complaints Substantiated

	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Number	47	70	63	68	60
Rate per 1,000 children	7 (NC=16)				7 (NC=10)



Health Care Practitioners

- 2005 ratios of persons to licensed, active providers are **lower** in Watauga County than NC averages for all categories of providers except nurses:
 - **967 persons: 1** primary care MD (NC = 1,056:1)
 - **734 persons: 1** physician extender (NC = 749:1)
 - **114 persons: 1** registered nurse (NC = 109)
 - **1,789 persons: 1** dentist (NC = 2,302:1)



Health Insurance

- Watauga County population without health insurance (2005):
 - Overall **18.6%** (NC = 17.2%)
 - Under 18 = **9.9%** (NC = 11.3%)
 - 18-64 = **20.9%** (NC = 19.5%)
- Overall percent uninsured in Watauga County ▲ 6% between 2002 and 2003, ▼ 0.5% between 2003 and 2004, and ▼ 12% between 2004 and 2005.



Health Statistics



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Maternal and Child Health

- **Watauga County Pregnancy and Birth Rates per 1,000 females (2003-2005)**
 - Overall (ages 15-44) Pregnancy Rate = **42.7** (NC = 81.5)
 - Overall Birth Rate = **32.4** (NC = 65.8)
 - Teen (ages 15-19) Pregnancy Rate = **17.3** (NC = 61.7)
 - Overall Teen Pregnancy Rate (2005) = **13.3** (NC = 61.7)
 - White Teen Pregnancy Rate (2005) = **13.1** (NC = 50.9)
 - Minority Teen Pregnancy Rate (2005) = **8.9 (n=1)** (NC = 82.3)
 - Teen Birth Rate = **10.6** (NC = 46.6)



Pregnancy Risk Factors

- **High Parity Births (2001-2005)**
 - Watauga mothers <30 = **13.2%** (NC = 18.3%)
 - Watauga mothers ≥30 = **20.6%** (NC = 18.7%)
- **Short Interval Births (2001-2005)**
 - Watauga mothers = **11.4%** (NC = 12.2%)
- **Late/No Prenatal Care (2003-2005)**
 - Watauga Overall = **10.7%** (NC = 15.9%)
 - Watauga Teens = **30.2%** (NC = 28.9%)
- **Smoking During Pregnancy (2003-2005)**
 - Watauga Overall = **12.5%** (NC = 12.4%)
 - Watauga Teens = **26.7%** (NC = 16.4%)



Birth Outcomes

2001-2005

- **Low Birth Weight** (<5.5 pounds)
 - Watauga Whites = 7.4% (NC = 7.4%)
 - Watauga Minorities = 5.1% (n=2) (NC = 13.4%)
- **Very Low Birth Weight** (<3.3 pounds)
 - Watauga Total = 1.1% (NC = 1.9%)
 - Watauga Minorities = 0% (NC = 3.6%)
- **Infant Mortality** (per 1,000 live births)
 - Watauga Whites = 8.8 (NC = 6.1)
 - Watauga Minorities = 0 (NC = 14.7)



Leading Causes of Death

Age-Adjusted Rates (2001-2005)	No. of Deaths	Watauga County Mortality Rate	Rate Difference from NC
1. Heart disease	396	206.7	-9%
2. Cancer (all kinds)	333	170.7	-14%
3. Stroke	97	52.3	-19%
4. Chronic lower respiratory disease	91	47.8	+2%
5. Pneumonia and influenza	52	27.5	+18%
6. Unintentional non-motor vehicle injury	46	23.7	-9%
7. Alzheimer's disease	35	18.5	-32%
8. Kidney disease	31	16.4	-8%
9. Unintentional motor vehicle injury	29	15.1	-22%
10. Suicide	29	15.1	+30%
11. Diabetes	26	13.4	-51%
12. Septicemia	21	11.1	-23%
13. Chronic liver disease and cirrhosis	15	7.3	-17%
14. Homicide	6	3.2	-56%
15. HIV/AIDS	2	1.1	-79%



Gender Disparities in Mortality

Leading Causes of Death Age-Adjusted Rates, 2001-2005	No.	Watauga Rate for Males	Rate Diff. from Females
1. Suicide	22	22.8	+3.1X
2. Pneumonia/influenza	28	42.6	+2.1X
3. Lung cancer	51	56.3	+93%
4. Unintentional non-motor vehicle injury	29	31.2	+88%
5. Unintentional motor-vehicle injury	19	19.2	+78%
6. Heart disease	196	252.8	+51%
7. Total Cancer	180	210.4	+50%
8. Kidney disease	15	20.5	+44%
9. Chronic liver disease and cirrhosis	8	8.4	+33%
10. Stroke	41	61.3	+31%
11. Chronic lower respiratory disease	43	57.5	+31%
12. Colorectal cancer	13	15.3	+7%
13. Alzheimer's disease	11	15.9	-22%
14. Diabetes	9	11.5	-28%
15. Septicemia	8	9.2	-30%



Racial Disparities in Mortality

- Because the minority population in Watauga County is small, annual minority mortality figures for all specific conditions are too low to yield meaningful comparative rates.
- For all causes of death, the 2001-2005 age-adjusted total mortality rate for minorities was **32% lower** than the comparable rate for whites.



Mortality Trends 1979-2005

Leading Causes of Death in Watauga County	Overall Trend Direction
1. Heart disease	▼
2. Cancer (all kinds)	---
3. Stroke	---
4. Chronic lower respiratory disease	▲▲
5. Pneumonia and influenza	---
6. Unintentional non-motor vehicle injury	▼
7. Alzheimer's disease	n/a
8. Kidney disease	▲▲
9. Unintentional motor vehicle injury	▼
10. Suicide	▼
11. Diabetes	---
12. Septicemia	▲▲
13. Chronic liver disease and cirrhosis	▼
14. Homicide	---
15. HIV/AIDS	▲



Cancer Incidence Trends 1995-2005

Cancer Mortality Trends 1979-2005

Leading Causes of Cancer Deaths in Watauga County		Overall Trend Direction
Breast Cancer	Incidence	▲
	Mortality	▲
Colorectal Cancer	Incidence	▼
	Mortality	▼
Lung Cancer	Incidence	▼
	Mortality	▼
Prostate Cancer	Incidence	▼
	Mortality	---



Sexually Transmitted Disease

- **In 2001-2005 Watauga County incidence rates were *significantly lower* than NC rates for:**
 - Gonorrhea
 - Syphilis
 - Chlamydia
 - HIV/AIDS



Mental Health

- Number of Watauga County residents served by the local MH/DD/SAS Area Program/Local Management Entity:
 - FY 2003 – 1,654
 - FY 2004 – 1,736
 - FY 2005 – 1,789
 - FY 2006 – 1,360



Obesity in Adults

- According to *calculation* based on the 2006 Watauga County Region (Watauga, Alleghany, Ashe, Avery and Wilkes) Behavioral Risk Factor Surveillance System (BRFSS) survey:
 - **25%** of adults were obese (NC = 27%)
 - **40%** of adults were overweight (NC = 36%)
- 2007 CHA Community Survey self-reported overweight/obesity in Watauga County: 21%
- Nationally, 65% of adults are overweight or obese



Obesity in Children

- According to 2006 NC Nutrition and Physical Activity Surveillance System (NC-NPASS) data, the proportion of **overweight** children in Watauga County:
 - 2-4 year olds = **12.8%** (NC = 15.2%)
 - 5-11 year olds = **25.6%** (NC = 25.2%)
 - 12-18 year olds = **21.8%** (NC = 29.5%)
- Proportion of children in Watauga County **at risk of becoming overweight**:
 - 2-4 year olds = **12.8%** (NC = 15.7%)
 - 5-11 year olds = **17.9%** (NC = 16.8%)
 - 12-18 year olds = **13.9%** (NC = 17.3%)



Community Health Survey



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Survey Participants

194 Respondents

- **Demographics of survey respondents**
 - 40% worked or attended school elsewhere
 - 10% < age 26; 25% ≥ age 65
 - 55% female
 - 1% Black, 1% Hispanic/Latino
0% Native American, 0% Asian
 - 8% did not graduate from high school
 - 45% had a college or graduate degree
 - 56% worked full- or part-time
 - 5% were unemployed
 - 7% were homemakers
 - 29% were retired



Survey Participants

194 Respondents

- **Socio-economic characteristics**

- **Income**

- 24% had household income < \$20,000
 - 35% had household income between \$20,000 and \$50,000
 - 41% had household income \$50,000 or greater

- **Family**

- 27% supported only themselves on their income
 - 43% supported 2 people
 - 25% supported 3-4 people
 - 5% supported \geq 5 people



Survey Participants

194 Respondents

- **Health care coverage**

- 29% had insurance paid by their employer
- 13% had insurance paid by spouse's employer
- 29% had insurance purchased by self
- 6% had Medicaid
- 26% had Medicare
- 3% had VA benefits

- 19% lacked health insurance coverage at some point during the past 12 months



Social Service Access

- **Problems accessing social services**
 - When asked about their problems in accessing an array of social services, 81-98% of survey respondents reported they did not need the referenced services.
 - Another 2-18% reported accessing the services they needed with no problems.
 - Only ~1% of the respondents reported having difficulty accessing the referenced services when they needed them.



Health Service Access

- **Where respondents go when they are sick or need health advice**
 - 81% to a doctor's office
 - 4% to hospital emergency department
 - 3% to health department
 - 12% to "Other" (e.g., workplace, herbalist, student health services, urgent care center)



Health Service Access

- **Where respondents get most of their health-related information:**
 - 56% from doctor, nurse or pharmacist
 - 15% from the Internet
 - 9% from newspaper, magazines or TV
 - 8% from friends and family
 - 3% from the health department
 - 2% from school
 - 1% from the hospital
 - <1% from help lines
 - 6% from “Other” (library, work, insurer)



Medical Service Access

- **Problems accessing health services**
 - When asked about their problems in accessing an array of health services, 74-98% of survey respondents reported they did not need the referenced services.
 - Another 2-28% reported accessing the services they needed with no problems.
 - Only ~1% of the respondents reported having difficulty accessing the referenced services when they needed them.



Medical Care Access

- **Problem accessing medical care**
 - **93% had *not* had a problem recently**
 - **6% *did* have a problem (n=12)**
 - Lack of health insurance: 25% (n=3)
 - Insurance didn't cover needed service: 25% (n=3)
 - Couldn't get an appointment: 17% (n=2)
 - Personal share of cost was too high: 8% (n=1)
 - Other: 17% (n=2)



Medical Care Access

- **Last routine medical checkup**
 - Within the past year: 75%
 - 1-2 years ago: 13%
 - 3-5 years ago: 7%
 - Five or more years ago: 5%
 - Have never had a checkup: <1%



Dental Care Access

- **Problem accessing dental care**
 - **91% had *not* had a problem recently**
 - **8% *did* have a problem (n=15)**
 - Didn't have dental insurance: 60% (n=9)
 - Couldn't afford the cost: 53% (n=8)
 - Couldn't get an appointment: 7% (n=1)
 - Other: 7% (n=1)



Dental Care Access

- **Last routine dental checkup**
 - Within the past year: 67%
 - 1-2 years ago: 13%
 - 3-5 years ago: 7%
 - Five or more years ago: 12%
 - Have never had a checkup: 1%



Prescription Drug Access

- **Problem getting R_x filled**
 - **89% had *not* had a problem recently**
 - **10% did have a problem (n=20)**
 - Insurance didn't cover needed R_x: 50% (n=10)
 - Didn't have health insurance: 30% (n=6)
 - Personal share of cost too high: 25% (n=5)
 - Problem with Medicare Part D: 5% (n=1)
 - Other: 10% (2) (e.g., prior approval issue)



Personal Health Behaviors

- **Self-Rated Personal Health**
 - Very healthy: 26%
 - Healthy: 50%
 - Somewhat healthy: 20%
 - Unhealthy: 2%
 - Very unhealthy : 2%



Personal Health Behaviors

- **Exercise (in past 4 weeks)**
 - Did exercise in past 4 weeks: 82%
 - Did not exercise in past 4 weeks: 18% (n=35)
 - Job is physical or hard labor: 40%
 - I'm too tired to exercise: 29%
 - I'm physically disabled: 20%
 - I don't have enough time to exercise: 14%
 - I don't like to exercise: 11%
 - Exercise is not important to me: 3%
 - Other: 9%
 - Exercise frequency in past 30 days
 - 7 or fewer times: 24%
 - 8-21 times: 44%
 - More than 21 times: 32%



Personal Health Behaviors

- **Nutrition – Servings per week**
 - **Vegetables**
 - None: 0%
 - 1-7: 44%
 - 8-14: 28%
 - 15 or more: 28%
 - **Fruit**
 - None: 4%
 - 1-7: 54%
 - 8-14: 22%
 - 15 or more: 20%



Personal Health Behaviors

- **Alcohol consumption (in past 30 days)**
 - None: 49%
 - Potential binge drinkers: 7%
- **Tobacco use**
 - Never smoked: 56%
 - Used to smoke but have quit: 26%
 - Smoke occasionally: 3%
 - Smoke 1 pack or less/day: 12%
 - Smoke more than 1 pack/day: 3%



Personal Health Behaviors

- **Exposure to second-hand smoke**
 - **Exposed: 62%**
 - In restaurants: 31%
 - At home: 13%
 - At work: 9%
 - At school: 7%
 - In hospitals: 1%
 - Other: 12% (e.g., bars, friends' homes, stores)
 - **Support tobacco-free environments**
 - Yes: 88%
 - No: 10%
 - Don't know: 2%



Personal Health Behaviors

- **Prostate Exams (Age > 40)**
 - Get an annual prostate exam: 55%
- **Mammograms (Age > 40)**
 - Get an annual mammogram: 82%
- **Pap Tests (Age > 21)**
 - Get a Pap test at least every other year: 78%
- **Colon Cancer Screenings (Age > 50)**
 - Ever had a colon cancer screening: 61%



Personal Health

- **Personal Health Diagnoses**

Asthma: 12%

Depression: 14%

Diabetes: 9%

High blood pressure: 32%

High cholesterol: 29%

Obesity/overweight: 21%

Osteoporosis: 11%



Quality of Life in Watauga County

- **A good health care system**
 - Agree or strongly agree: 88%
- **A good place to raise children**
 - Agree or strongly agree: 95%
- **A good place to grow old**
 - Agree or strongly agree: 90%
- **Plenty of economic opportunity**
 - Disagree or strongly disagree: 60%



Quality of Life in Watauga County

- **A safe place to live**
 - Agree or strongly agree: 97%
- **Plenty of support for people in times of stress or need**
 - Agree or strongly agree: 91%



“Most Important” Health Problems

1. Cancer (62%)	12. Dental health
2. Heart disease (62%)	13. Communicable disease
3. Obesity (53%)	14. STDs
4. Problems of aging (47%)	15. Injuries
5. Diabetes (37%)	16. Gun-related injuries
6. Mental health (35%)	17. Kidney disease
7. Motor vehicle accidents (32%)	18. HIV/AIDS
8. Lung disease	19. Liver disease
9. Asthma	20. Birth defects
10. Teen pregnancy	21. Infant death
11. Stroke	22. Other (allergies, Parkinson’s, etc.)



“Most Important” Unhealthy Behaviors

1. Alcohol abuse (72%)	9. Not getting preventive DDS care
2. Drug abuse (71%)	10. Not using seat belts
3. Smoking/tobacco use (71%)	11. Violent behavior
4. Reckless/drunk driving (46%)	12. Not using child safety seats
5. Lack of exercise (45%)	13. Not getting immunizations
6. Poor eating habits (42%)	14. Not getting prenatal care
7. Not getting preventive MD care (38%)	15. Suicide
8. Having unsafe sex	



Comparing Data and Opinion

Health Problems (via Mortality Data)	Health Problems (via Community Survey Opinion)
1. Heart disease	1. Cancer
2. Cancer (all kinds)	2. Heart disease
3. Stroke	3. Obesity
4. Chronic lower respiratory disease	4. Problems of aging
5. Pneumonia and influenza	5. Diabetes
6. Unintentional non-motor vehicle injury	6. Mental health
7. Alzheimer's disease	7. Motor vehicle accidents
8. Kidney disease	8. Lung disease
9. Unintentional motor vehicle injury	9. Asthma
10. Suicide	10. Teen pregnancy
11. Diabetes	11. Stroke
12. Septicemia	12. Dental health



Linking Behavior to Health

Health Problems (via Community Survey Opinion)	Unhealthy Behavior (via Community Survey Opinion)
1. Cancer	1. Alcohol abuse
2. Heart disease	2. Drug abuse
3. Obesity	3. Smoking/tobacco use
4. Problems of aging	4. Reckless/drunk driving
5. Diabetes	5. Lack of exercise
6. Mental health	6. Poor eating habits
7. Motor vehicle accidents	7. Not getting preventive MD care
8. Lung disease	8. Having unsafe sex
9. Asthma	9. Not getting preventive DDS care
10. Teen pregnancy	10. Not using seat belts
11. Stroke	11. Violent behavior
12. Dental health	12. Not using child safety seats



“Most Important Community Issues”

1. Neglect and abuse (61%)	13. Homelessness
2. Affordability of health services (54%)	14. Lack of recreational facilities
3. Unaffordable housing (49%)	15. Violent crime
4. Lack of health insurance (42%)	16. Availability of healthy food choices
5. Dropping out of school (34%)	17. Lack of health care providers
6. Unemployment	18. Disaster preparedness
7. Unsafe/un-maintained roads	19. Few culturally appropriate services
8. Animal control	20. Racism
9. Pollution	21. Bioterrorism
10. Lack of transportation options	22. Other: Underemployment, sewage
11. Availability of child care	dumping, illegal trash disposal, no
12. Low income/poverty	landfill, pesticides, traffic



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