



2006 State of the County Health Report

Overview

The intent of this document is to provide an overview of the health of Union County and the residents. The document will provide information on areas that are impacting health.

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2006 has been a year of change and growth at the Union County Health Department. In February, the Board of Health hired Jenny Kirksey as the new Director. The Union County Health Department has a staff of 111 serving a population of 163 thousand (and an estimated additional 20 thousand undocumented residences). The department has two divisions; Environmental Health and Personal Health.

Union County, 2006

Many things in a community impact the health and well-being of the residents. The community itself plays a role in determining the quality of life enjoyed by the citizens. Union County has a diverse population both geographically and economically. The western area of the County has been experiencing unprecedented growth, while the eastern portion of the County remains rural and predominantly agricultural. The city of Monroe is in the middle of the County and contains the majority of the County's industry and is the County Seat.

The County has a relatively young population, with many young families with school age children. The County schools are also experiencing tremendous growth and are enduring the growing pains of becoming one of the largest school systems in the state. There are 40 County schools operational in 2006 with five new schools scheduled to open in 2007.

The residents of Union County are living in very different economic realms, despite the median household income of over \$56 thousand dollars a year. The upper income levels of the residents living on the western side of the County skew the overall economic indicator for income levels of Union County residents as a whole.

Eastern Union County and the City of Monroe have large minority and elderly populations, with significantly lower median household incomes than western Union County residents. The majority of western Union County residents commute into Charlotte for employment, while many residents on the eastern side of the County work in local business, industry, or in local agriculture.

The County and City of Monroe have on-going economic development efforts to create new, high wage employment opportunities for citizens. Monroe has a designated development zone on the eastern side of the city. The Development Zone is based upon census block groups that are considered to be living in poverty, (Monroe Development Zone is 20.02% impoverished citizens). It is an economic development tool to assist communities in North Carolina in attracting manufacturing jobs that pay a living wage in areas where people are living in poverty.

Union County has seen a significant increase in the Hispanic population. The Hispanics have been attracted to the employment opportunities that have resulted from the residential construction going on in the County. The County has several other industries that hire large Hispanic workforces such as: poultry processing, cabinet and door manufacturing, carpentry millwork and landscaping. One third of all births in Union County are Hispanic. Union County Schools now have 3,669 Hispanic students, representing 10.66% of the total school enrollment. It is difficult to obtain accurate population numbers for adult Hispanics. The 2005 US Census Bureau American Community Survey estimates an adult Hispanic population in Union County of 14,322. The Hispanic community relies on the County Health Department and local emergency rooms for the majority of their healthcare needs. With growing patient numbers, and the complexity of health issues per patient, the county will continue to feel the impact of the growing Hispanic population.

The United Way Latino Coalition works on connecting the Hispanic community to service providers. The coalition has workshops to provide education on topics relevant to living in the United States. They also offer cultural dialogues for health and human service providers.

Environmental health has been impacted tremendously by the residential growth, as the county infrastructure has become overburdened. The schools are overcrowded in many areas, the roads are congested and the county Public Works Department has reached discharge capacity levels at two of the wastewater treatment facilities. The number of professional healthcare workers is low for a county of this size in all categories.

In an effort to manage growth and discourage sprawl, the 2006 Board of County Commissioners adopted the Adequate Public Facilities Ordinance, or APFO. The APFO is meant to manage new growth so that it does not outpace the ability of service providers to accommodate the development at established levels of service standards. It should protect existing residents from seeing a reduction in the level of services they are receiving and guarantee that new residents receive all necessary public facilities and services.

Union County 2006	
•	643 Square Miles, 14 Municipalities
•	Estimated Population 162,929
•	County growth, 31.6% since 2000 Census
•	Fastest growing County in the Carolinas
•	16th fastest growing County in the nation.
•	Average age 33.8
•	Average Family Size 3.22
•	Median Income \$56, 587

Health Professionals in Union County vs. State (2005, per 10,000 population)		
	Union County	NC
Dentists	2.2	4.4
Physicians	7.6	20.7
Primary Care Physicians	4.6	8.8
Pharmacists	5.0	8.4
Registered Nurses	45.3	92.1
Nurse Practitioners	0.89	2.82
Certified Nurse Midwives	0.13	0.23
Physicians Assistants	1.08	3.09

Union County Health Department

The Health Department experienced change, growth, and recognition in 2006. New Leadership was announced in February when Jenny Kirksey was named Health Department Director. The Health Department has a staff of 111 divided among two divisions, Environmental Health and Personal Health where health services are provided to the public and Department Administrative offices are housed. The annual budget for FY 2005 – 2006 was \$6,415,877, of that budget, 79% was expended on personnel. The health service programs offered at the department are: Maternal Health Clinic, Family Planning Clinic, Dental Health Clinic, Breast and Cervical Cancer Control, Immunization Clinic, Communicable Disease, and Child Health Clinic. The Women Infants and Children Program (WIC) is also housed at the Health Department.

FY 2005 –2006 in Review

- Staff of 111
- Jenny Kirksey named Health Department Director
- 13,085 Patients seen (non duplicated)
- 29,779 Patient Visits
- Hispanic patient count increases in all programs
- Fulltime Dentist Hired
- Healthy Carolinians Coordinator Hired
- Health Educators work in grant programs
- Staff Participates Emergency Pandemic Flu Exercise CIPHER

Health Department Programs Clients Served Annually

- Family Planning 1,775
- Maternal Health 973
- Child Health 2,148
- Child Immunizations 3,580
- Child Service Coordination 150 (Avg. monthly case load)
- Breast & Cervical Cancer Control 150
- Communicable Disease 1,199
- Dental Clinic 1,012
- Oral Health Section 8,349 (children impacted)
- Women Infant Children 3,438 (WIC) Avg monthly case load
- Health Promotions, on-going programs

The Health Department has felt the impact of the influx of Hispanic people into the County. An estimated 20% of the Union County population is Hispanic. The Hispanic community relies on the County Health Department and local emergency rooms for their healthcare needs. Four Health Department clinic programs have more than 50% Hispanic patient enrollment and the WIC Program has 45% Hispanic client base. With such a large Hispanic patient base, and the impact of the language barrier, Union County has hired seven bilingual interpreters at an average cost to the county of \$33,355.21. With the growing Hispanic patient numbers, complexity of health issues per patient, the need for interpreters and the no-pay, low-pay factor, the county will have to continue to deal with rising budgetary figures in order to keep up with the patient growth and demand for services.

One initiative that the County is focusing energies on is the preventative programs to reduce costs, as they tend to be much more cost effective than intervention programs. The Health Promotions section of the Health Department has hired an additional fulltime employee, a Coordinator for the Healthy Carolinians Program. In addition the County has one Health Educator position funded by the County and two funded through grants, (the March of Dimes

Folic Acid Now and *Smoke-Free Babies* grants, the Duke Endowment *Healthy Kids* grant and the Susan G. Komen *ABC Project* - About Breast Cancer.)

A new grant was awarded to Health Promotions in 2006 for two part-time positions as Parenting Educators and will be in effect in 2007. The position was made possible through monies from Union County's Partnership for Children which was awarded an increase in state funding. The Parenting Educator will provide education to low-income parents and guardians of children birth to five years old (not yet in school). The bilingual program will target Health Department clients. The goals for the program are to create an increased level of knowledge on parenting, the demonstration of positive parenting practices from participants and to develop a network of peer-mentor parents within a peer support group.

In October 2006, the Health Promotion division of the Health Department partnered with the NC Cooperative Extension Service and the Union County Partnership for Children to co-host a program, *Protecting Families: A Collective Response*. The event was attended by seventy-five people representing 24 local agencies. The speaker was Dr. Karen DeBord, Professor and Child Development Expert from NC State University. The event theme was preventative measures taken today will promote better overall community health and will save the county money in the future. Dr. DeBord emphasized the importance of the community agencies being partners in working on solutions for community health issues.

The Health Department looks for ways to work with outside agencies to resolve healthcare issues for residents. As air quality in the Charlotte region continues to be problematic for people with asthma, understanding asthma will be key in living with it. Union County families with school age children impacted by asthma had the opportunity to sign up through the County Health Department for Project on Trac. Project on TRAC (Taking Responsibility for Asthma Control) is an asthma education research program funded by the Public Health Service. Eligible families were required to attend three asthma learning sessions, keep 2 minute asthma diaries at home and visit UNC Charlotte for personal asthma sessions designed for the family being treated. This program teaches families about asthma triggers and warning signs, and about asthma medications and the right way to use them. It also allows families to share success stories and barriers to asthma control with other families. The desired outcome for the participants includes a reduction in asthma related school absences, reduction in sleep disruptions due to asthma and the ability to more effectively manage asthma symptoms. This opportunity provided families with access to an entire team of asthma professionals. It is partnerships and programs such as these that will improve the quality of life enjoyed by county residents.

The Bilingual Health Check Coordination Program had an award winning year in 2006. The Program won the Glaxo Kline Smith award and five thousand dollars. The award is designed to showcase exceptional and innovative programs that improve the lives of children. The program is funded through Smart Start and is a collaborative effort between the Partnership for Children, Health Department, Department of Social Services and the Latino Outreach Coalition. The program focuses efforts on bilingual staffing to respond to the ever increasing Latino families need for Medicaid for young children, and has also educated families about the importance of well child check ups.

As the Health Department moves forward the mission remains the same, to serve the citizens of Union County in the prevention of disease, promotion of health, the protection of our community's health.

Citizen Health / Children

Child Population / Health Indicators

- 42,676 Population 3 years and over, enrolled in school
- Families make up 76% of Union County Households
- 9,032 children enrolled in Medicaid (2004)
- 2000 to 2004, 4% increase in children on food stamps (4,705)
- 13% children (under 18yrs) living below the poverty level
- 8% of all births in Union County are low birth weight babies, under 2500 grams
- 2005 Infant Mortality Rate of 6.1 (per 1,000 live births)
- 30% school age children on free or reduced lunch
- 17.4% Children 2 -4 yrs old At-Risk to be Overweight
- 14.9% Children 2 - 4 yrs old / Overweight
- 17.4% Children 5-11 yrs old / At Risk to be Overweight
- 19.3% Children 5-11 yrs old / Overweight
- Since 2002, number of child sexual assault victims increased an alarming 1,248%
- 2001-2005 Infant Mortality Rate, 6.7 / NC Rate 8.5 (per 1,000 live births)
- 2001-2005 Postneonatal Death Rate, 2.3 / NC Rate 2.6 (per 1,000 live births)
- 2001-2005 Neonatal Death Rate, 4.4 / NC Rate 5.9 (per 1,000 live births)
- 2001-2005 Fetal Death Rate, 6.0 / NC Rate 7.1 (per 1,000 live births)

In a County made up of young families, and a school system consuming 59% of the total County budget in 2005 / 2006, children's health and well-being will be a key consideration for Union County. The Health Department has programs designed to bolster the health of our youngest residents, even before they are born. The Maternal Health Clinic assists mothers-to-be with prenatal care in efforts to reduce the occurrence of infant mortality, low birth weight babies, babies exposed to smoking during pregnancy. Healthy lifestyle choices are encouraged: prenatal vitamin usage, healthy eating and good exercise habits. The Union County infant mortality rate of six per 1,000 live births was lower than the 2005 State rate of nine. The County rate of 8% for low birth weight (under 2,500 grams) is lower than the State rate of 9%. The Maternal Health Clinic had an unduplicated enrollment of 973 in 2005 and a patient visit count of 9,099 in the same time span. In 2004, 3% of women in Union County received either no prenatal care or very late prenatal care.

Once babies are born, many are brought to the Health Department to be seen in the Child Health Clinic, or to receive immunizations. In 2005, the Child Health Clinic served 2,148 children, and 3,580 immunizations were given.

Good nutrition is key to the growth and development of children. The Health Department addresses nutritional needs through the Women Infant Children (WIC) Program. In 2005, the WIC program had an average monthly caseload of 3,438 cases. Without WIC some low-income families would be unable to meet basic nutritional needs for their families. In 2005 within the County schools, 30% of the student population was enrolled in the free and reduced lunch program. The Department of Social Services also addresses nutritional needs through the food stamp program.

The nutritional value in what children eat is visible in the obesity issues presently facing children. In 2005, 15.6% of the children seen at the Health Department between the ages of 2 and 18 were overweight. WIC Nutritionists address healthy eating habits with their clients.

The Department of Social Services is charged with the difficult task of child protective services. In 2005, Union County had 53 children in foster care, representing an increase of 16 children since 2004. Although the number of children in foster care increased, the foster care backlog (children in care for more than one year) decreased by 18%. The Multiple Response System (MRS) was fully implemented as an alternative response to protecting children.

In 2005, the Department of Social Services took 1,464 reports of potential child abuse and neglect, substantiating 18% of the cases and treating 384 children.

United Family Services is a strong voice in the community for children. The mission of United Family Services is to inspire individuals, families and communities to find solutions that create a better future. United Family Services offers numerous programs aimed at working toward solutions to problems facing local families, including counseling for mental health and emotional wellness and crisis intervention for victims and their families impacted by sexual assault and child abuse. A new facility was recently opened by United Family Services, called the Tree House. The Tree House is a child advocacy center that provides counseling, advocacy, court education, medical exams and forensic interviews for children and teen victims of sexual assault and abuse. The majority of the clients seen by United Family Services are under 18 years of age, (73%). Since 2002 the number of child sexual assault victims has risen an alarming 1,248%, with a 1,668% increase in demand for counseling services. The Tree House offers all services on a sliding fee scale or free of charge.

The Union County Health Department works closely with the Union County Partnership for Children. It is through the Partnership for Children that Smart Start monies and programs are administered. Presently several programs are being housed and administered within the Health Department, but receive their funding through Smart Start. In 2006 Smart Start received a 30% increase in Smart Start state funding. The Smart Start programs are aimed at impacting the health and well-being of children between the ages of birth and five that are not yet in school. This increase in Smart Start dollars allowed the creation of four new programs.

Smart Start Smiles which is designed to reduce dental disease among young children through education screenings, referrals, preventive care and restorative care. Funding was also received to hire a dental hygienist to screen children in WIC and Child Health for referrals to the dentist.

Smart Start Parent Education Program will be underway in 2007 and be administered at the County Health Department by a bilingual health educator.

Smart Start Exceptional Children's Support Program will identify children eligible for special education by supplying auditory and vision screening equipment. Trained staff will screen referred children, which will expedite the necessary intervention services.

Smart Start Pre-Kindergarten Classroom will provide quality, developmentally appropriate educational equipment and supplies to pre-kindergarten classrooms in public schools and in child care centers with Title I or More at Four Classrooms.

In addition, funds will be used for training innovative center activities, cultural awareness for all pre-kindergarten teachers and memberships to the Smart Start Resource Center.

Citizen Health / Adolescents

Union County Adolescent Population 2005

- 11,516 Estimated Population 15-19 yrs old
- 7,155 Middle School Students
- 8,822 High School Students
- 1,498 High School Graduates
- 83% of graduates plan to attend college
- 2005 Scholarship monies awarded \$14.7 million
- 2.37% drop out rate (grades 7-12)
(2003 – 2004 rate)

Adolescent Health Indicators

- 10.3% of Union County Children (ages 0-17) uninsured
(representing 4,369 children)
- Children 12–18 yrs old, 19% At Risk to be Over Weight
- Children 12-18 yrs old, 23.8% Over Weight
- 2005 Teen Pregnancy Rate 56.8 / NC Rate 61.7
(ages 15–19, per 1,000 population)
- 2005 Teen Pregnancy Rate Minorities 108.4 / NC Rate
82.3 (ages 15-19, per 1,000 population)
- 2005 Teen Abortion Rate 10.2
(below the state rate of 14.3)
- 788 Teen Driver Motor Vehicle Crashes (2004)
- 5 Teen Driver Crashes Resulting in Fatalities (2004)

Union County has exceeded the state rate for obesity among the adolescent population seen at the County Health Department. The County is 3.5% over the state rate for obesity among adolescents. The state of NC has made obesity in children and adolescents a NC 2010 Health Objective, with a goal of reducing the percent of children seen in the health department clinics and WIC programs who are overweight. The target for all age groups of children and adolescents is 10%. This would be a significant reduction. The state average for 12 to 18 year olds is presently 20.3%.

The NC Department of Cooperative Extension Service through 4-H does offer a youth obesity program in Union County. In keeping with the mission of 4-H, the program is meant to empower youth to voluntarily help themselves.

Union County Public Schools Drug and School Safety Department surveyed Union County Middle and High School students through a countywide random sampling of 7th, 9th and 11th graders to determine the smoking, alcohol and drug use on a local level within the student population. Based upon their responses, 28.6% of the students admitted to smoking. Among middle school students, having other smokers, either a parent or sibling, significantly increased their likelihood of smoking. Alcohol use was even more common, at 37.5 % admitting to using alcohol. Drug use was the lowest, at 23.6%.

The county teen pregnancy rate has declined overall dropping to 56.8 in 2005 from 57.1 in 2004. However, the minority teen pregnancy rate has been above the state average for several years. In 2005, the state rate for minority pregnancies was 82.3, versus the Union County rate for minority pregnancies of 108.4 (15-19 year olds, based upon a population of 1,000), which was an increase from a 2004 rate of 97.5.

Citizen Health / Adults

2005 Adult Statistics / Health Indicators

- **101,695 Adult Population 25 years and older**
- **Married Couple Families make up 62% of Union County Households**
- **Average Family Size 3.22**
- **8.3% of Families with incomes below the poverty level**
- **13,043 Elderly Population 65 years and older**
- **16.8% of Elderly people over the age of 65 with incomes below the poverty level**
- **16.4% of Union County Adult Population (ages 18-64) uninsured**
- **32% of Families with a Female as Head of Household (no husband present) have incomes below poverty level**
- **2005 Pregnancy Rate (ages 15-44) 87.3 / 2005 NC Pregnancy Rate 82.2 (per 1,000 population)**
- **2005 Fertility Rate (ages 15-44) 76.1 / 2005 NC Fertility Rate 66.8 (per 1,000 population)**

Union County continued to experience record setting growth this year. With married couple families making up 62% of Union County households growth issues will be a factor. An immediate impact is the inability of the healthcare professional numbers to keep pace with the population growth. This issue is one of the NC 2010 Health Objectives, specifically to increase the number of primary care physicians per 100,000 population state wide.

The County has large numbers of uninsured residents. According to the Cecil G. Sheps Center for Health Services 2004 Uninsured in NC Report, Union County has 23,036 residents between the ages of 0 and 64 that are uninsured. The report breaks down ages even further, with 4,369 children between zero and seventeen years of age uninsured and finally, 18,667 adults between eighteen and sixty-four uninsured. Union County is not alone in this issue. The United States Bureau of the Census, in 2004, stated that 45.8 million U.S. Residents lacked health insurance for the entire year. They approximated that 1.3 million of those U.S. residents were living in North Carolina. This issue has received a lot of interest at the national level, and has become an important issue within the state of North Carolina. The percent of North Carolina residents that lacked insurance for a full year has risen from 15.3% in 2000 to 17.5% in 2004. Dealing with healthcare and medical services for the uninsured population will need to be addressed at the local level as well.

Presently the Union County Health Department provides indigent care services, as well as CMC Union, through the Franklin Street Clinic. Given the numbers of uninsured in the report, the County lacks sufficient care for this population.

2005 Mortality Rates (Age Adjusted per 100,000)	Union County 2000-2004	Union County 2001-2005	NC 2001-2005
Heart Disease	239.4	226.9	226.8
Cerebrovascular Disease	61.1	60.4	64.7
Diabetes	23.6	25.4	27.6
All Cancers	186.5	187.3	197.7
Cancer of Trachea, Bronchus & Lung	56.1	59.1	59.9
Breast Cancer	25.2	24.1	26.0
Cancer of Colon, Rectum, Anus	17.4	16.8	18.6
Cancer of Prostate	28.1	23	29.9
Septicemia	13.4	11.9	14.5
Nephritis, Nephrotic Syndrome, Nephrosis	20.4	19.7	17.9
Pneumonia & Influenza	18.9	17	23.3
Chronic Lower Respiratory Diseases	42.2	42.4	46.9
Chronic Liver Diseases	6.1	6.7	8.8
Alzheimer's Disease	44.6	50.5	27.1
Motor Vehicle Injuries	21.8	20.6	19.3
Suicide Rate	9.6	8.5	11.6
Homicide Rate	3.5	3.7	7.2
All Other Unintentional Injuries	17.2	18.8	26.0

Union County is virtually breaking even on lowering mortality rates and increasing rates. The rates have decreased the most for Heart Disease, Prostate Cancer, Pneumonia and Influenza. The largest increases are with Alzheimer's, Diabetes and unintentional injuries. The Alzheimer's rate went up considerably, going from 44.6 (2000-2004), up to 50.5 (2000-2005).

An estimated 13,043 people in Union County are over the age of 65, and 16.8% have incomes below poverty level. In 2006 a Certificate of Need (CON) was issued by the state for 100 additional Nursing Home Beds in Union County. Department of Social Services (DSS) Protective Services for adults took 101 reports of possible abuse or neglect, five were substantiated, and ten were confirmed mistreatment. These numbers, along with an escalating Alzheimer's rate, may bring elderly issues into a more prevalent role for the county in the future.

The County DSS offers many programs to assist adults. DSS expanded In-Home Services 43% to serve more disabled and elderly. A Simplified Nutritional Assistance Program was initiated. A Special Assistance program for cash supplements / medical assistance to help with expenses of low-income residents in Adult Care is in place. Community Alternative Program (CAP-DA) for Disabled Adults provided an alternative to nursing homes for 119 clients in 2005. DSS Adult Placement assisted in placing 362 people into Adult Care Facilities and 341 into nursing homes.

Adult Health Indicators / Communicable Disease

Number of Cases	2003	2004	2000-2004 Total
Campylobacter	24	14	94
E. Coli	2	4	21
Hepatitis A	4	1	12
Hepatitis B	5	3	13
Hepatitis B Carrier	10	14	39
Hepatitis C	0	0	1
Lyme Disease	4	3	9
Meningococcal	1	1	5
Meningitis Pneumococcal	0	2	5
Rocky Mountain Spotted Fever	1	11	22
Rubella	0	0	8
Salmonellosis	29	44	173
Shigellosis	58	2	84
Whooping Cough	13	4	26

Health Indicators / Sexually Transmitted Diseases

Number of Cases	2003	2004	2005
HIV Disease	14	8	7
AIDS	7	7	6
Chlamydia	154	204	353
Syphilis	1	3	4
Gonorrhea	125	144	197

Dental Health

The Union County Health Department operates a Dental Clinic for children on Medicaid, NC Health Choice and private pay. The program offers preventative services such as basic annual examine, bitewing x-rays and sealants. They also perform dental treatment procedures such as extractions, crowns, and fillings. 2006 was the first year that the county had a fulltime dentist on staff. The hiring of Dr. Crowe has allowed for an increase in the number of patients seen at the clinic.

The Union County Dental clinic started seeing adult patients in September 2006. The adult patients are required to pay 100% of the cost for services.

The Oral Health Section of North Carolina has a fulltime dental hygienist that works in the Union County elementary schools screening and providing referral services for children in need of dental care. In 2006 this program screened 4,927 elementary students and made 553 referrals for follow up care. A local elementary school that has a large student population coming from low-income families provided 214 sealants on permanent molars for 126 children. The Oral Health Section impacted the dental health of a total of 8,349 children in Union County.

Through Smart Start Smiles, the Union County Health Department is working to reduce dental disease among young children through education, screenings, referrals, preventative and restorative care.

The Dental Clinic was awarded a grant to provide dental services to uninsured children under the age of five and uninsured pregnant women. The services can be for preventative care, exams, x-rays or dental procedures.

In 2006 the Health Department applied for and received grant funding for a needed physical expansion of the dental clinic. With increased patient counts and the addition of an adult patient load, the limited existing space was no longer sufficient. The panoramic x-ray machine will be relocated from a patient operatory and into a private alcove. This will allow patients receiving these x-rays to move through the clinic without waiting for other patient procedures to be completed, effectively maximizing staff time and clinic space. A lab will be created for the staff to construct removable dentures and partials for adult patients. This service was not previously being provided. A dark room will be added so that sterilization will not be interrupted in order to develop x-rays. All additions will provide better clinic flow allowing for higher patient volume and more expedient care.

FY 2005 – 2006 Union County Dental Health Clinic

- **Dr. Candace Crowe was hired as County's first fulltime dentist**
- **Patient Count 968 (unduplicated)**
- **Visit Count 2,830**
- **Largest age group seen; 6 to 9 years old, (934 visits)**
- **Limited Adult Visits (19 yrs and over) started in Oct 2006**
- **Children's Medicaid Patient Count, 681**
- **NC Health Choice Patient Count, 202**

Mental Health

Barriers Impacting Mental Health Clients

- **Stigma Associated with Diagnosis**
- **Lack of Public Transportation in County to get to appointments**
- **Lack of Bilingual Therapists**
- **Regaining Independence due to Mental Illness**

Access to Mental Health Services is a constantly changing situation with the implementation of legislative reform still very much in flux. Despite on-going uncertainty, various groups in Union County are working to try and improve mental health service delivery to the community. Union County is in the LME or Local Management Entity for PBH (Piedmont Behavioral Health). Union County residents using Medicaid and seeking mental health services are restricted to the service area provider list of their LME or may face higher costs if they receive treatment outside the LME network. Local agencies offering Mental Health Services include: Daymark, United Family Services, Excel Personal Development and Positive Impact, along with several private providers.

Daymark sees a large number of children in the five to six year old range for Attention Deficit Hyperactivity Disorder. In this program the child receives counseling and parenting classes are encouraged for the parents or guardian. The adult population Daymark treats is most frequently dealing with depression, anxiety and addiction. They have very few clients over retirement age.

Services available in Union County include: Out Patient Services, In-home services, Emergency Services, which encompasses suicidal and homicidal clients and substance abuse crisis. Mental health service referrals come from the public schools, the County Health Department, Department of Social Services and doctors' offices. IOP, or Intensive Outpatient Treatment is considered the best practice for most mental health substance abuse issues. Local agencies providing treatment for indigent and low-income clients include: Daymark, United Family Services and Excel Personal Development.

An issue facing mental health clients is their struggle for independent living, that typically results from having a low-income or living on disability. These circumstances make finding affordable housing a problem. Union County does have several group homes for care. Union County does not offer a Supported Living Home for adult mental health clients. Supported Living Homes promote independent living for the client, while they can still access support when needed. Disability can cover the costs for care in this environment. An adult facility that teaches life skills and socialization skills to mental health clients in a daytime setting is the Union House. This facility is meant for chronically ill mental health clients.

Union County also has access to the emergency services provided by Crisis Recovery Center in Kannapolis. Local agencies in Union County can refer clients that are deemed to be in a mental health crisis or substance abuse crisis to this facility for assistance and treatment.

Emergency Services & Safety Matters

2005 Emergency Stats / Injury Indicators

- 312,000 911 calls received
- 197,000 dispatched calls
- 8.5 minutes, average response time Union EMS
- 3,364 Motor Vehicle Crashes
- 28 Crashes Resulting in Fatalities
- 203 Crashes Involving Alcohol

With the growth that has been occurring in Union County, the need to upgrade and improve the infrastructure of the emergency response system became apparent.

The current radio system is out dated and uses antiquated equipment, not allowing necessary radio coverage for mission critical communications. The present CAD (computer-aided-dispatch) system does not support unit recommendations and is cumbersome to use, which slows the dispatch process. The present 911 Emergency Operations Center is located in close proximity to railroad tracks that often have rail cars transporting large amounts of hazardous materials. All of these factors working together were cause for a CIP (capital improvement project) to make the necessary upgrades and changes to better serve and protect the community in emergency situations.

In 2006, a proposal was reviewed for a new Emergency Operations Center,(EOC) and Emergency Communications Center/E911, and the actual 911 Computer Aided Dispatch, Records Management System, (CAD/RMS) used by dispatchers. The plan calls for upgrades to the physical E911Center and related infrastructure, allowing 911 operators to dispatch with greater efficiency. The radio system that all local emergency personnel use, including first responders, will be upgraded to 800 MHZ, resulting in an enhanced communication system providing local emergency agencies the ability to communicate with outside agencies on a common first responder interoperable system and eliminating communication dead spots within the county.

In May 2006 Union County participated in CIPHER, (Collaborative Integrated Public Health Hospital Emergency Response). It was sponsored by the state department of Public Health and state Department of Emergency Management. The intent was for state and local government to identify weakness in Pandemic planning and response. Union County had participation from: Homeland Security, Health Department, Emergency Management, Social Services, Sheriff's Department, Public Schools, American Red Cross, Monroe Police Department, CMC Union, and mental health agencies. The event began as a half day tabletop exercise, followed by a two and a half day full scale exercise. A shared community EOC was established, which had a unified command of the Homeland Security Director, Health Department Director and a Nursing Supervisor from CMC Union. A background scenario entailing a community wide outbreak of Avian Influenza spread human to human, with "paper patients" provided for diagnosis and treatment. The CIPHER resulted in better inter-agency working relationships. Union County was singled out in the After Action Report as being an example of how to work collaboratively. The next exercise will be in spring 2007.

Environmental Health

The Environmental Health Department is vital to the health of the community. It is the Environmental Health staff that enforces regulations, conducts inspections, and evaluations within the community that protect the public from potential health hazards.

Environmental Health Factors

- **New Well Inspection Legislation set for 2008**
- **2,566 Evaluations of Food & Lodging Establishments**
- **94 Inspections of Rest Home / Nursing Homes, Adult Day Cares**
- **7,183 Site Visits for Septic Permits, Inspections of Wastewater Systems and Complaints**
- **898 Wastewater System Improvements Issued**
- **419 Water Samples Taken**
- **4% Water samples with Coliform and E.Coli bacteria present**
- **439 Inorganic Water Samples**
- **63 Vector Complaints**
- **5 Methamphetamine Labs (Review of Abatement Plans)**
- **48 Solid Waste Complaints**
- **4,163 Loads Disposed of (Landfill Reclamations)**
- **246 Swimming Pool, Wading Pool, Spa Inspections**
- **1 Child Lead Investigation, 0 Child Lead Poisoning cases**
- **12 Tatoo Parlor Inspections**

With residential growth remaining consistent, commercial development followed. The food service growth expanded the workload for Food & Lodging Division of Environmental Health. The state of NC requires 4 inspections annually for food serving institutions and facilities. As new neighborhoods go up, the amount of new swimming pools, wading pools and spas also increases. These higher numbers equate to an increased workload for Environmental Health staff conducting inspections. According to NC law, seasonal pools and spas require one inspection annually, year round pools and spas require 2 inspections annually.

Water and Septic Issues

The residential growth that has been occurring in Union County has resulted in demand for sewer capacity outpacing the County's ability to provide centralized treatment capacity in some areas. In 2006 the Public Works Department reached discharge capacity levels approaching permit limits. Specifically in the large Twelve Mile Creek service area of the county, where the county will close out 2006 with zero availability, until the completion of the expansion, which is currently underway. The Crooked Creek service area is also permitted at capacity, with no room for additional expansion. The only service area that has limited availability is Six Mile Creek on the western side of the county. Throughout 2006 the Public Works Department and the Board of Commissioners have been working toward a solution through identifying the potential for a proposed new wastewater treatment plant. The capacity at the new plant is set for six million gallons per day. Although this plant is still several years away from being operational, once it is on-line it will alleviate the capacity issues presently facing the county. It is anticipated that the Environmental Health Department will see increased requests for stand alone septic systems. These systems will allow residential development projects to move forward that may otherwise have been delayed due to a lack of available sewer capacity.

Within the state of North Carolina arsenic in the well water is an identified problem. Arsenic occurs naturally, and state groundwater experts believe Union County's large numbers come from underground deposits. Within North Carolina 2,503 wells exist where arsenic has been detected since January of 2000, more than 500 contaminated wells were in Union County. The poisonous element can cause cancer if people drink contaminated water for many years. Union County offers free tests for arsenic, along with required tests for bacteria, when new wells are drilled. Owners of existing wells can get water-sample kits from the county for \$5.00. The early detection of potential problems with new wells is going to be made much easier with the passing of new state legislation.

In August of 2006 NC passed legislation requiring permitting and inspection of new private drinking water wells and will require water quality testing of private drinking water wells. Senate Bill 2056, Section 4 Article 7, 87-97, a) states that each county, through the local health department that serves the county, shall implement a private drinking water well permitting, inspection, and testing program and enforce the minimum well construction, permitting, inspection and repair, and testing requirements. Although permitting is presently being done, the new program will require installation inspections, grouting inspections, monitoring and water sampling. This should help prevent wells from being installed that allow groundwater contamination of drinking water produced by the well. Staffing needs may also increase in order to complete the required inspections, sampling and monitoring. The staff at the Environmental Health Department was increased by two employees from 2005 through 2006. Within that same time period, the staff experienced a significant workload increase.

Air Quality

Health Indicators

- **1 Code Red Ozone Day in Charlotte Region (2004)**
- **13 Code Orange Days in Charlotte Region (2004)**
- **Asthma Hospitalization Rate 199.3 (ages 0-14 yrs), per 100,000 population**
- **Increase in Trachea, Bronchus & Lung Cancer Rate**
- **Union County in Non-attainment Status**

The state of North Carolina has made air quality a NC 2010 objective to ensure that all North Carolinians breathe air that meets the new health standard for ozone. In pursuit of this objective the state has increased the percent compliance rate for major and minor emission rates. By 2010 the state wants 100% compliance, leaving no resident exposed to below standard air quality.

Union County is part of the Charlotte Region when considering air quality, specifically the ozone levels. The NC Department of Environment and Natural Resources (DENR) provides an Air Quality Color Code Index that alerts the region to the quality of the air daily. With the proximity of Union County to Charlotte, the air quality in Union County has been in the red and orange levels several times during the summer months since 2004. The orange ozone index code indicates air that is considered to be unhealthy to sensitive groups, such as people with asthma. The red ozone index code is considered unhealthy in general. When the ozone code reaches red DENR advises everyone to avoid prolonged outdoor exertion, and people with asthma need to avoid outdoor exertion completely. Union County has a higher rate of asthma hospitalizations than the state average.

The Environmental Protection Agency (EPA) uses designations as a way to categorize and describe air quality in a given area for any of six common pollutants known as criteria pollutants. Those pollutants include ground-level ozone, which is unhealthy to breathe. EPA designates an area as non-attainment if it has violated, or has contributed to the violations of the national 8-hour ozone standard over a three year period. Union County has been designated a non-attainment area. As part of the Charlotte area, the county is considered to be moderate to maximum and is forecasted to have a reclassification to attainment status in June 2010.

Conclusions

The growth that the county has been facing will play a role in the quality of life and the health of our residents. With such a large and growing population the county infrastructure has become stressed. The winding, congested, rural roads that were not built for such high traffic volumes can lead to motor vehicle crashes, injuries and fatalities. The proximity to Charlotte and the congested roads within the Charlotte region have contributed to the poor air quality conditions impacting the entire region, including Union County. With the air quality issues we may see a rise in the asthma hospitalization rate (already over the state average).

The volume of residential customers and the rate at which the county has grown is directly impacting the sewer capacity in several heavily populated areas of the county. In order for developers to proceed with projects in the areas with low capacity or no capacity, there may be an increase in demand for stand alone septic systems permitted and inspected through the Environmental Health Department. The greater the number of stand alone systems that exist the higher the workload for the Environmental staff. With the new well legislation being enacted the staff will be inspecting, monitoring and sampling in addition to the permitting. This should improve the quality of drinking water produced by the wells.

The influx of Hispanics and meeting their healthcare needs will remain a focus. The volume of Hispanics utilizing the County Health Department for their healthcare needs has escalated across the board. The community will need to work collaboratively to address the needs of the Hispanic community in order to educate on preventative healthcare measures which will be more cost effective and should result in better health for the Hispanic residents.

With a community comprised of 62,000 married couple families and school enrollments forcing continual expansion needs, child health will play a role in the county's future. Child nutrition is a key factor. Presently the county schools have 30% of their student population on the free and reduced lunch program. WIC and the local Food stamp program have seen their monthly caseloads increasing. A nationwide problem of childhood obesity poses both a challenge and a health threat at national and local levels. Union County will need to monitor the rates for obesity in children and adolescents, as well as developing programs to encourage healthy lifestyle changes for our youth population.

The county has seen increasing mortality rates in several areas, with the largest numbers showing up in Diabetes rates, Trachea Bronchus and Lung Cancer rates, Unintentional Injury Rates and the Alzheimer's rate which went up significantly.

Another area that saw an alarming County rate increase (well exceeding the state rate) was the Minority Teen Pregnancy number which jumped from 97.5 in 2004 up to 108.4 this year.

The county did show improvement, with a decreasing mortality rates in: Breast Cancer, Prostrate Cancer, Colon, Rectum and Anus Cancer, also in Pneumonia and Influenza rates.

Regardless of the healthcare need, preventative, diagnostic or treatment, the residents will need healthcare professionals. The County faces access to healthcare issues, which is also an issue facing the state. The residential population has outpaced the ratio of Healthcare Professionals per 100,000 population. The state of NC has made access to healthcare providers and medicine a NC 2010 state objective, particularly with Primary Care Physician rates.

Goals

2007 Goals

- **Work toward healthy lifestyles and improved quality of life for Union County residents**
- **Work toward Accreditation of the Health Department**
- **Conduct a County wide Health Assessment**
- **Work toward Healthy Carolinian Certification**
- **Pursue NC 2010 Health Objectives**
- **Continue to provide quality healthcare at the Union County Health Department**
- **Work toward reduction in the County Minority Teen Pregnancy Rate**
- **Work toward a reduction in the County Mortality Rate for Diabetes**
- **Expand dental health services offered at the Health Department by pursuing physical expansion of the dental clinic, enabling the clinic to see more patients**
- **Work with United Family Services, Tree House to reduce the number of children under 18 being abused**
- **Indigent Care for Adults**
- **Continue to encourage interagency collaboration for resolution of healthcare issues**
- **Pursue grants to support existing programs and implement new programs to educate and promote healthy lifestyles and improve community health issues**
- **Benchmark with other NC Counties for best practices in healthcare and related programs**

Union County will be conducting a community wide health assessment which will enable the County to get a clear understanding of the healthcare issues that residents and agencies face at the local level. The preliminary goals listed above are a basic guideline until the community health assessment provides a compass for future goal setting. As the residential population changes, issues facing the County will also change. Union County will work toward the NC 2010 Health Objectives while also pursuing additional issues that present themselves within our community.

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