

City of Charlottesville - Albemarle County

Mobilizing for Action through Planning and Partnerships

Community Health Status Assessment

A Compilation of Data that Reflects the Community's Health

Technical Report

2008

**Thomas
Jefferson**
HEALTH DISTRICT

Serving: Albemarle Charlottesville
Fluvanna Greene Louisa Nelson

Executive Summary

Community health assessment plays a fundamental role in developing and evaluating policies for improving the health of the public. A complex system of components affect public health, including, but not limited to, behavioral modification to change personal health status; health care accessibility; the environment; and service delivery by an assortment of private, not-for-profit, and governmental agencies.

Public health planning has evolved from traditional needs assessment and program planning to a more comprehensive community approach. Mobilizing for Action through Planning and Partnerships (MAPP) is a strategic planning tool for improving health developed by the National Association of County and City Health Officials (NACCHO) and the Centers for Disease Control and Prevention (CDC). It provides a framework for local communities to prioritize local health issues, identify resources, and mobilize partners to take integrated action toward addressing needs.

In the spring of 2007, the Charlottesville/Albemarle Health Department adopted the MAPP method to assess the health status and develop a strategic plan that addresses priority health needs of the City of Charlottesville and Albemarle County. A steering committee with representatives from local agencies and organizations that impact the overall health of the community was convened to oversee the process. Effective community health response requires collective action, which in turn depends on meaningful partnership and knowledge of available resources. By emphasizing participatory planning, MAPP provides both of these.

MAPP - Mobilizing for Action through Planning and Partnership

Several phases comprise the MAPP process: partnership development, visioning, assessment, identifying priority issues, formulating goals and strategies, and taking action. Four aspects of the community are assessed: community health status, community themes and strengths, the local public health system, and forces of change. The MAPP model, shown in Figure 1, provides a schematic of the process. This report presents the quantitative data collected in the Community Health Status Assessment. Qualitative data collected in the MAPP process will be reported separately.



Figure 1. MAPP Model

The Community Health Status Assessment

The purpose of the Community Health Status Assessment is to answer three main questions:

1. Who comprises the community, and what do the community members bring to the table?
2. What are the strengths and risk factors in the community that contribute to health?
3. What is the status of health in the community?

Quantitative data from the following thirteen categories were compiled from various existing sources to address these questions:

- Demographics
- Socioeconomics
- Health Resource Availability
- Quality of Life
- Environmental Health
- Behavioral Risk Factors
- Maternal and Child Health
- Causes of Death
- Cancer
- Injury
- Infectious Disease
- Ambulatory Care Sensitive Conditions
- Mental Health

Indicators were selected primarily because they are recommended by MAPP. Collected data were disseminated to the MAPP steering committee via a series of oral presentations during which input was sought regarding clarifications to the data. Supplementary data were collected if available when the steering committee felt they would provide more depth or clarity to an issue.

Data are reported at the City and County level. Additionally, where possible, they are stratified by age, race or census block. Looking at data at these levels allows for the identification of unique issues to facilitate targeted interventions. For some indicators, the number of events is too small to report at a locality level so data from either the combined City-County area or the Thomas Jefferson Health District (TJHD), which includes the City of Charlottesville and Albemarle, Fluvanna, Greene, Louisa and Nelson Counties, are included. When local data are not available, state or national data are included. Additionally, data for TJHD, other areas of the state, the Commonwealth of Virginia, and/or the United States are frequently reported for reference.

Where applicable, Healthy People 2010 benchmarks are referenced. Healthy People 2010 is a set of objectives for the nation's health that were developed by the U.S. Department of Health and Human Services through a broad national consultation process. These benchmarks (or targets) were developed with the foundation of the best scientific knowledge and are intended for use in public health program evaluation over time with the ultimate goal of assisting local, state, and federal agencies in improving the health of the nation.

Demographics

The Thomas Jefferson Planning District (PD 10) experienced the fifth highest population growth in the Commonwealth between 2000 and 2004. Although the City's population size has remained consistent, the County has contributed to this growth with a 33 percent increase in its population over the last decade and a half. However, high ranking is heavily influenced by marked changes in the populations of the surrounding counties: Fluvanna (99 percent increase), Greene (69 percent increase), and Louisa (48 percent increase). In 2000, PD 10 was a net importer of workers, with more people commuting in than out. The largest concentration of jobs is in Charlottesville and Albemarle. Many residents of the contiguous counties commute to the City-County area to work, shop, recreate, and obtain services, which contributes to community health issues.

The County has the largest population among the Thomas Jefferson Health District (TJHD) localities with over 90,000 residents. The City and other counties follow distantly with populations ranging from 15,000 to 40,000. The City population is younger than that of the County with the UVA student body contributing significantly to the 18 – 24 year old population. The area has seen the majority of its population growth among residents 45 years of age and older. There has also been a significant influx of immigrants and refugees from many different countries, presenting both unique opportunities and challenges as they transition into the community. Persons managing disabilities often have transportation and healthcare needs to be considered in health services planning, and there are a number of census blocks in both the Charlottesville Urban Ring as well as in the outlying areas of the County that have 20 percent or more of the residents reporting disabilities.

Socioeconomics

Median household incomes have remained stable in the last five years. The County median household income is greater than that of Virginia and the U.S., and is 77 percent greater than that of the City. Both the City and County benefit from a low unemployment rate, less than five percent, although there was a substantial rise in the City between 2003 and 2004.

Greater than 80 percent of City residents and 90 percent of County residents live above the federal poverty level (FPL), which is currently set at \$10,210 annually for an individual and \$20,650 annually for a family of four. Children are the most affected group by age of persons living in poverty. In the 2000 Census of Population and Housing, among City residents, 9,950 individuals were living below 100 percent of the FPL, 1,383 of whom were children and 302 of whom were elderly. In the County, 5,232 persons were estimated to live below 100 percent of the FPL. Of those, 1,262 were children and 430 were elderly. While about 10 percent of City households receive assistance through food stamps, over 50 percent of City schoolchildren qualify for free or reduced-cost lunch programs.

Health Resource Availability

Published estimates show that while most area residents have health insurance, nearly 17,000 persons living in the City and County – 2,600 of whom are children – may not be insured. Nearly 60 percent of the County uninsured persons and about 35 percent of City uninsured persons live in households with income greater than 200 percent of the federal poverty level (FPL). In Virginia, the proportion of residents who are uninsured differs markedly by age group. While 98 percent of persons older than 65 years have insurance, over 16 percent of adults aged 18 to 64 years do not. The U.S. Administration on Aging reports that, despite having health insurance, in 2005 older Americans spent 12.4 percent of their total expenditures on health and the Agency for Healthcare Research and Quality reports that in 1999 Medicare beneficiaries spent 19 percent of their income on health related expenses.

Both FAMIS and Medicaid enrollment are rising in the City, which may be a reflection in local enrollment efforts and/or an increase in need corresponding to increases in the number of area children living below 200 percent of poverty over the last several years.

The City and the County appear to have sufficient numbers of primary care physicians, more than half of whom accept Medicaid. National workforce issues, especially among nurses and pharmacists, may have future impact on healthcare delivery.

Public insurance for preventive and restorative dental care is available for children, and there are sources of care for Medicaid and FAMIS enrolled children as well as uninsured low-income children. There is a

need, however, for outreach to increase the number of children enrolled in Medicaid that receive services. In contrast, there is no public insurance for preventive and restorative dental care for adults, and there is a significant gap in dental care provision for uninsured low-income adults in the area.

Quality of Life

In both the City and County, the majority of residents report that this area is a good or excellent place to live. Although the majority of residents drive alone to work in both the City and County, over a quarter of City residents carpool or walk to work. Overall, the area has ample public access to park space.

High ratings as a quality place to live have contributed to growth resulting in an extremely tight housing market. The impact of scarce housing is most severe for those seeking lower-cost housing. In 2005 the median percent of income paid to a mortgage was 24.1 percent compared to the national median of 20 percent. Scarcity of affordable housing in the urban core leads many people with special needs to live in rural counties, restricting access to services. There has been a pattern of people moving out of Charlottesville and Albemarle to the surrounding counties, with Fluvanna County receiving the most people. The cost of living is higher in the Charlottesville MSA than in Richmond, Roanoke and Hampton Roads.

The crime rate in the County has been consistent over time and was the same in 2006 as in 2000. The rate in the City was the same in 2006 as in 1999 but fluctuated during that period. Homicide rates decreased in both the City and County from 2000 through 2005. The rate of domestic assault arrests decreased significantly in the City between 1997 and 2006 and in the County between 1998 and 2006. The City's rate of victims of child maltreatment has decreased since fiscal year 2002-04 and is similar to the rate in the Commonwealth overall. While the rate in the County has crept up slightly, it is substantially lower than that of Virginia.

Environmental Health

The area enjoys particularly good outdoor air quality, with 100 percent of monitored days falling in a desirable category. The EPA estimates that radon is the second leading cause of lung cancer and recommends that all homeowners test for radon. EPA categorizes counties into risk zones using five factors to determine radon potential: indoor radon measurements; geology; aerial radioactivity; soil permeability; and, foundation type. The City and County fall within Zone 2 or "moderate potential for elevated indoor radon levels (two to four pCi/L)." In contrast to outdoor air quality, less than half of the Rivanna Basin monitored sites, the water source for the City and County, received biological health scores of "very good" or "good" from 2003 to 2005. Positively, though, less than one percent of housing units in the area are without plumbing and all residents of the City and 38 percent of the County have public water, which is tested on a regular basis to ensure that it meets all EPA standards. Efforts have been made to increase blood lead level testing in children and very few children in the area have been found to have elevated levels.

Behavioral Risk Factors

Because tobacco use is associated with numerous health disorders, reducing smoking is one of the top public health priorities. The prevalence of smoking in the U.S. declined among men by 57 percent in 1955 to 23 percent in 2005 and among women from 34 percent in 1965 to 18 percent in 2005. The Healthy People 2010 target is for less than 12 percent of Americans to smoke. While in TJHD 20 percent of surveyed residents reported smoking in 2002-04, public health experts state that establishing programs designed to keep young people from starting to smoke and to help smokers quit can continue the significant progress in moving communities, and the nation as a whole, towards this goal. There do not appear to be racial disparities in the proportion of current smokers in Virginia; however, disparities do appear among income levels. Targeted

interventions for persons with lower incomes may be beneficial.

Like tobacco, obesity is major risk factor for chronic disease. In addition to health education and regulatory initiatives, creating opportunities to access nutritious foods and physical activity at work, in school, and in the community can be effective approaches to addressing this public health issue. The percent of adults who are obese by self-reported height and weight decreased in TJHD between 1997-99 and 2002-04 to less than 20 percent, approaching the Healthy People 2010 target of 15 percent. These data contrast with trends in measured obesity indicators of children in the City and County, in which percentages of overweight or obese children increased between 2003 and 2007 and exceed the Healthy People 2010 target.

Alcohol abuse is associated with liver and kidney disease, a number of types of cancer, pregnancy complications and birth defects. The National Survey on Drug Use and Health states that young adults in Virginia are more likely to abuse alcohol or illicit drugs than other age groups, with binge drinking being the most common substance abuse problem.

Preventive health care can lead to early detection and intervention of a number of diseases and can improve longevity and quality of life as well as reduce healthcare spending. Because of access to care and the nature of the health insurance, health maintenance organization (HMO) members may serve as an upper estimate for those seeking out and receiving preventive health care services. Among HMO members in Virginia, 69 percent receive breast cancer screening, 82 percent receive cervical cancer screening and 28 percent receive colorectal cancer screening. The area is doing fairly well with regard to select screening and prevention activities, based on local BRFSS results. Over 70 percent of women aged 40 years or older in TJHD reported receiving mammograms within two years of when surveys were conducted, which exceeds the Healthy People 2010 target, and around 50 percent of men aged forty years or older reported receiving at least one PSA test. Although the area does not quite meet the target for flu vaccination among its elderly population, the proportion of adults reported visiting a dentist at least once in the previous year exceeds the Healthy People 2010 target.

Maternal and Child Health

Infant mortality is an indicator used to compare the health and well-being of populations across countries as well as within countries. Surprising to many Americans, the U.S. has one of the highest infant mortality rates among the industrialized countries. This is due to disparities among different groups of the population. Within the U.S., African-Americans and American Indians have higher infant mortality rates than other groups, and although infant mortality rates have been falling for all groups, differences between groups have persisted. The City consistently has had a higher rate when compared to both Virginia and the U.S. The County has experienced lower rates, although they rose throughout the last decade. When examining infant mortality stratified by race, we see the same phenomenon in the City and County as is seen in the nation: African-American babies die more frequently than their white counterparts. In our area that rate has also been rising. The mortality rate within the first 28 days of life, the neonatal death rate, declined substantially in the City during the later half of the 1990s; the rate for the County meets the Healthy People 2010 target.

Risk factors for poor health outcomes in infants include low birth weight and lack of adequate prenatal care. Poor circumstances during pregnancy can lead to less than optimal fetal development. These risks can be reduced by improved preventive health care before the first pregnancy and adequate pre- and postnatal care for mothers and babies. As pointed out by the World Health Organization (WHO), a good start in life means supporting mothers and young children: the health benefits of early development and education last a life time. About eight percent of babies in the area are born at an unhealthy low birth weight. Sixty percent of women in the City and County receive the recommended number of 10 or more prenatal visits, leaving room

to increase visits for pregnant mothers with the hope of improving both maternal and infant health.

Babies born to teen mothers are more likely to be born prematurely and at low birth weight. These children are at greater risk of child maltreatment and of living in poverty. Girls born to teen mothers are more likely to become teen mothers than girls born to older mothers. According to the WHO, the greater the length of time that people live in disadvantaged circumstances, the more likely they are to suffer from a range of health problems. The County consistently meets the Healthy People 2010 target for the teen pregnancy rate among females ages 15 to 17 years; however, the City's overall teen pregnancy rate (ages 10-19 years) appears to be climbing in recent years.

Public health studies have shown a correlation between maternal education and infant health as well as improvements in infant health when maternal educational status improves. In the U.S., babies born to mothers with less than a high school education are at greater risk of living in poverty. The proportion of births to mothers in the area with less than a high school education was about the same in 2005 as in 2002; it is nearly 20 percent in the City, higher than Virginia as a whole.

Causes of Death

Within TJHD, overall race and age-adjusted mortality declined between 2001 and 2004 for both whites and African-Americans; however, the rate among African-American residents is higher than that of white residents and higher than African-Americans in Virginia.

Cardiovascular disease, cancer, chronic lower respiratory disease, and unintentional injuries are the leading causes of death at the local, state and national level. Tobacco, poor diet, physical inactivity and alcohol consumption are significant behavioral factors that lead to premature death. Although they remain the top three causes of mortality, deaths due to heart disease, cancer, and stroke have declined since 1999 in the County and City. Rates are higher among non-white residents compared to white residents for heart disease and stroke. Strategies that can be employed to reduce cardiovascular disease include reducing tobacco use, lowering blood cholesterol levels, increasing physical activity, reducing obesity, controlling hypertension and diabetes, and improving social and psychological circumstances to reduce long-term stress. The mortality rate from chronic lower respiratory disease (chronic obstructive pulmonary disease and asthma) has risen in the City, while remaining steady in the County and Virginia; it is higher among white residents compared to non-white residents. Reducing tobacco use is an important strategy in reducing lower respiratory disease.

Intentional injury is an important cause of mortality among 15 to 54 year olds. Homicide is among the five leading causes of death from persons aged one to 34 years in Virginia and is among the two leading causes of death (first among 15 to 35 year olds) among African-Americans in this age group. Suicide is among the five leading causes of death for persons aged 15 to 54 years in Virginia. Deaths attributable to HIV infection particularly affect African-Americans in the 35 to 54 year old age group, ranking it among the five leading causes of death.

Cancer

Breast and prostate cancer are the types of cancer that occur most often in women and men, respectively, but lung cancer causes the highest percentage of cancer deaths for both genders. Cancers (breast, prostate, and colon) for which screening tests are available tend to be diagnosed at an earlier stage than those without screening tests, resulting in improved survival. Although the incidence of most cancers has remained relatively consistent in Charlottesville and Albemarle, deaths attributable to these cancers have declined in TJHD. Cancer screening can lead to early diagnosis, which leads to improved survival.

Injury

Unintentional injury is the fifth leading cause of death in Virginia, and the leading cause among children aged one to 18 years old. Unintentional injury mortality is most often related to motor vehicle crashes, whereas unintentional injury hospitalizations are most often associated with falls.

The percentage of motor vehicle crashes involving alcohol is less than 10 percent in the City and County, while the percentage of fatal crashes involving alcohol is much higher, over 15 percent and nearly 40 percent, respectively. Use of child restraints in four Virginia cities, including Charlottesville, has risen over the last decade, and seat belt use among front seat passengers in Virginia has nearly reached the national average.

Falls are the second leading cause of unintentional-injury-related death and the leading cause of unintentional-injury-related hospitalization. Virginia's death rate from falls is more than twice the Healthy People 2010 target. The elderly are most susceptible to fall-related injuries requiring hospitalization and often resulting in death. These injuries are costly to treat, and the federal government is the payer of the majority of these medical costs.

The death rate from unintentional poisoning is lower in Charlottesville-Albemarle than Virginia, likely a result of having two hospitals and the Blue Ridge Poison Center in the community. Children under six years of age comprise nearly half of calls related to unintentional poisoning.

Intentional injuries also significantly contribute to morbidity and mortality, with suicide and/or homicide ranking in the top ten causes of death among one to 64 year olds. Contrary to popular perception, suicides often account for more deaths than homicides, which is the case in both the County and City.

Infectious Disease

Among reportable infectious diseases, gonorrhea and Chlamydia, both sexually-transmitted infections, are the most common, and the incidence of Chlamydia and gonorrhea is greater in teens than the overall population. Rates are higher in the City, due in large part to it being a younger population.

The City has experienced higher rates of HIV and AIDS than Virginia, though the incidence (i.e., new cases) of AIDS has slowed markedly in the last couple of years. The prevalence of HIV and AIDS in both the City and County is slowly increasing, likely indicating improvements in treatment and survival. A disproportionate percent of HIV/AIDS cases occur among black and Hispanic persons, requiring targeted prevention efforts.

Salmonella, Giardia, Campylobacter, and E. coli 0157:H7 infections, which can all be transmitted through food and/or water, are all of concern for TJHD because of recent increases or a greater mean annual incidence. Proper hygiene and food handling techniques can help stem the spread of these infections.

Ambulatory Care Sensitive Conditions

Ambulatory care sensitive events are hospitalizations that can be prevented through good outpatient care because early intervention can prevent complications and more severe disease. If few sentinel events, such as hospitalization for diabetes, asthma, or hypertension, occur, the primary care system is likely functioning well. The prevalence of diabetes and hypertension have increased in Virginia. The rate of hospitalization for diabetes is slightly higher in TJHD than in Virginia while the rates of hospitalization for asthma and COPD are lower.

Mental Health

There is a lack of readily available data regarding the incidence of psychological disease locally; however, according to the National Survey on Drug Use and Health, in 2004-05 roughly 10 percent of Virginia adolescents and young adults suffered a major depressive event, and one-fifth suffered psychological distress. The percentage of persons older than 26 who suffered similar episodes is a bit lower. In most cases, patients with mental health issues can receive appropriate care in an outpatient setting; however, hospitalization is sometimes necessary. According to local hospital discharge data, psychosis requiring hospitalization increased in the City between 1998 and 2005 and is higher than the state rate. The County rate appears to have decreased slightly during this time period. Depressive, psychotic/schizophrenic, and bipolar disorders account for more than 40 percent of Region Ten diagnosed disorders, and the majority of Region Ten services are delivered in an outpatient setting.

Next Steps

The City-County community is growing, evolving and presenting new challenges to achieving and maintaining health. We are fortunate to have some resources that are not always available in other communities - two major hospitals, an ample supply of physicians, a free clinic, and a not-for-profit children's dental clinic. In addition, the constant influx of new people and ideas has helped to develop a cache of other traditional and non-traditional sources of health care and education.

In many cases, we have been able to make substantial improvements in our community's health through new programs, campaigns, laws, and other mechanisms. Despite the many successes, this community still struggles with issues that affect the quality of health - and in turn, the quality of life. It is to these areas that we must turn our focus; we must actively reevaluate our preconceptions, and collaboratively brainstorm new solutions to these problems, while continuing to hold onto the gains where we have been successful.

The process of collecting quantitative data for MAPP began in the spring of 2007 with a review of previously collected data, moving forward to augment what was available with what was desirable. In one year's time the Charlottesville/Albemarle Health Department, in collaboration with the MAPP steering committee and many community partners, was able to pull together data from a variety of sources to present a comprehensive picture of where the health of our community stands today.

The process does not end with this report. The steering committee will continue to analyze these data and, combined with the results of the other MAPP assessments, use them as a basis to develop a strategic plan to advise where the community could work together to advance the health of the City and County. It is our hope that the data will help direct resources to areas where benefits to the collective health of our community can be maximized.