THOMAS JEFFERSON HEALTH DISTRICT

MAPP 2 Health

Mobilizing for Action through Planning and Partnerships

DECEMBER 2012

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EXECUTIVE SUMMARY

IMPROVING HEALTH IN THE THOMAS JEFFERSON HEALTH DISTRICT

Many factors influence public health, including individual health behaviors, access to health care, community characteristics, the environment, and service delivery by private, not-for-profit, and governmental agencies. Mobilizing for Action through Planning and Partnerships (MAPP), a tool developed by the National Association of City and County Health Officials (NACCHO) and the Centers for Disease Control and Prevention (CDC), brings together stakeholders to identify community health issues and take action based on these factors. In July 2011, the Thomas Jefferson Health District (TJHD) launched its second MAPP process to encompass all six localities in the district, working with four critical district partners — UVA's Department of Public Health Sciences (DPHS), Martha Jefferson Hospital (MJH), Region Ten Community Services Board (Region Ten), and the Jefferson Area Board for Aging (JABA) — to identify local health priorities. To achieve county-level input and engagement, Community Health Assessment (CHA) Councils were established in each TJHD locality either through an existing interagency council of health and human services organizations (in Fluvanna, Greene and Nelson Counties) or as a new entity (in Charlottesville-Albemarle and Louisa County). The CHA Councils included representatives from local governments, schools, community agencies, colleges, non-profits and health care organizations who met monthly between October 2011 and May 2012 to (1) review and discuss collected quantitative and qualitative data, (2) recommend other data that should be collected, and (3) select county level priorities. The MAPP 2 Health (M2H) Leadership Council, including 21 partner agencies and representatives from each county, was formed in November 2011 to provide guidance to the M2H process and to develop a Community Health Improvement Plan (CHIP) based on CHA data and input from the CHA Councils.

KEY FINDINGS

For the CHA, representatives from 61 agencies that serve TJHD came together to assess the community's health through the M2H process; input was also gathered from more than 2,000 TJHD residents through surveys and in-depth conversation in county-specific focus groups. After extensive review of qualitative and quantitative data, which included comparing local data to state and national standards, four district-wide priority issues were identified:

1. AN INCREASING RATE OF OBESITY

- Between 2008 and 2010, 27.6% of TJHD adults were obese by self-reported height and weight (BMI > 30)
- Fast-food restaurants and convenience stores make up the greatest percentage (49%) of food stores available in TJHD
- 36% of residents in TJHD believe that obesity is the most important public health concern that needs more attention

2. INSUFFICIENT ACCESS TO MENTAL HEALTH AND SUBSTANCE ABUSE SERVICES FOR SEGMENTS OF THE POPULATION

- Between 2004 and 2010 the average number of self-reported poor mental health days per month in TJHD was 2.7 days, which was higher than the national average of 2.3 days
- 20% of TJHD residents believe that mental health is the most important public health concern that needs more attention
- The rate of hospitalization for non-psychotic mental disorders in TJHD was higher than the state rate between 2000 and 2011

3. LATE AND INSUFFICIENT PRENATAL CARE AND RACIAL DISPARITIES IN PREGNANCY OUTCOMES

- Between 2008 and 2010, 77% of pregnant women in TJHD entered prenatal care in the first trimester, a lower percentage than Virginia (83%) and short of the Healthy People 2020 goal of 78%
- In 2006-2010 in TJHD, the Infant Mortality Rate (IMR) for white infants was 4.9 infant deaths per 1,000 live births and the IMR for African-American infants was 20.2
- In 2008-2010 in TJHD, 12.5% of African-American infants were born at a low birthweight compared to 6.4% of white infants

4. TOBACCO USE ABOVE THE HEALTHY PEOPLE 2020 GOAL

- The average percentage of adult smokers in TJHD was 17.9% in 2008-2010, which was above the Healthy People 2020 target of 12%
- In 2008-2010, a rolling average of 7.5% of pregnant women in TJHD reported smoking during pregnancy, which is higher than the Virginia percentage (6.2%)

The CHIP was developed as a call to action for TJHD organizations and residents to strategically implement interventions that will improve community health outcomes. In collaboration with existing coalitions, the M2H Leadership Council developed specific goals, objectives, and strategies for community implementation.

The community goals are:

1. **Decrease the percent of persons who are overweight or obese in TJHD by promoting school and corporate wellness programs and by engaging residents in a Move to Health campaign**
   Lead Work Group: Community Action on Obesity

2. **Decrease the number of poor mental health days among TJHD residents by increasing access to mental health services and decreasing stigmas and fears surrounding mental health issues**
   Lead Work Group: Community Mental Health and Wellness Coalition

3. **Improve pregnancy outcomes in TJHD by increasing the percentage of women who plan pregnancies and receive prenatal care; by targeting interventions towards vulnerable populations; and by promoting clinical smoking cessation interventions.**
   Lead Work Group: Improving Pregnancy Outcomes Workgroup

4. **Decrease the percent of persons who use tobacco in TJHD**
   Lead Work Group:Tobacco Use Control Coalition

NEXT STEPS

As the population in TJHD grows, new challenges arise in achieving and maintaining health. In many cases, TJHD has made substantial improvements in community health through new programs, campaigns, laws, and community coalition work.

Despite the many successes, health issues such as obesity, mental health, pregnancy outcomes and tobacco use continue to affect the quality of health — and in turn, the quality of life. It is to these areas that the community is called to turn its focus — to actively reevaluate preconceptions and collaboratively brainstorm new solutions, while continuing to hold onto the gains from past efforts.

Progress in these identified priority areas cannot be made without the support of the entire community. The MAPP 2 Health Leadership Council encourages all community members to get involved any way they can — perhaps volunteering with one of the lead agencies or pledging to take fifteen minute walks to reduce their own weight.

Between 2012 and 2017, the lead agencies will continue to work towards these community goals with support from the M2H Leadership Council and other community partners. The Council will meet to (1) review data, (2) evaluate progress and (3) discuss any potential changes needed in strategic approaches.

This report and other downloadable CHA/CHIP content are available online at www.tjhd.org under "Data."

IMPROVING HEALTH IN THE THOMAS JEFFERSON HEALTH DISTRICT

Many factors influence public health, including individual health behaviors, access to healthcare, community characteristics, the environment and service delivery by private, not-for-profit, and governmental agencies. Public health planning has evolved from traditional program planning to a more comprehensive approach that engages the community to examine all of these factors. Mobilizing for Action through Planning and Partnerships (MAPP), a tool developed by the National Association of City and County Health Officials (NACCHO) and the Centers for Disease Control and Prevention (CDC), brings together stakeholders to identify community health issues and take action. Effective community health response requires collective action, and collective action requires meaningful partnerships and an understanding of available resources within the community. By emphasizing participatory planning, MAPP provides both of these.

Several phases comprise the MAPP process: partnership development, assessment, identifying priority issues, formulating goals and strategies, and taking action. Both quantitative and qualitative data from multiple sources are gathered and analyzed. The MAPP model, shown in Figure 1, provides an illustrative schematic of the process.

Figure 1: MAPP Model
Source: NACCHO

In the Thomas Jefferson Health District (TJHD), the MAPP process was initiated in 2007 in the City of Charlottesville and Albemarle County. A steering committee of leaders from a wide array of organizations was established to plan and implement MAPP. After a year of engaged review, analysis and discussion of data, five goals were recommended: (1) Reduce the prevalence of tobacco use and obesity, (2) Improve mental health and ensure access to appropriate quality mental health services, (3) Reduce substance abuse to protect health, safety and quality of life for all, (4) Reduce the infant mortality rate, and (5) Reduce the disparity between white and black infant mortality. Two existing community groups, the Childhood Obesity Taskforce (COTF) and the Charlottesville Free Clinic's Tobacco Cessation Committee, were encouraged to move forward to address goal one. The Community Mental Health & Wellness Coalition (CMHWC) was organized to address goals two and three, and the Improving Pregnancy Outcomes Workgroup (IPO) was established to address goals four and five. The MAPP Community Health Assessment (CHA) report was also disseminated throughout the community, resulting in review, discussion, program initiation, and support in seeking funding by many entities in the community.

In July 2011, MAPP 2 Health (M2H) was launched to capitalize on the successes and to address the shortfalls of the first MAPP process. Critical successes included: (1) the development of a collaborative platform to address community health; (2) the development of community-wide health goals; and (3) progress towards stronger coalitions to address mental health

and pregnancy outcomes. Important shortfalls were: (1) the initiative was focused primarily on Charlottesville and Albemarle County and (2) a community health improvement plan (CHIP) with measurable outcomes was lacking. By working with four critical district partners, UVA's Department of Public Health Sciences (DPHS), Martha Jefferson Hospital (MJH), Region Ten Community Services Board (Region Ten), and the Jefferson Area Board for Aging (JABA), the MAPP effort was extended to encompass all six localities in TJHD. The M2H Leadership Council was formed, including 21 partner agencies and representatives from each county, to provide guidance to the M2H process and to develop a Community Health Improvement Plan (CHIP). To achieve county-level input and engagement, Community Health Assessment (CHA) Councils were established in each TJHD locality either through an existing interagency council of health and human services organizations (Fluvanna, Greene and Nelson Counties) or as a new entity (Charlottesville-Albemarle and Louisa County). The CHA Councils included representatives from local governments, schools, community agencies, colleges, non-profits and health care organizations. Figure 2 and Figure 3 provide an overview of the M2H process.

Both quantitative and qualitative data were collected, analyzed, and presented in a series of monthly meetings to the CHA Councils to answer three broad questions:

1. Who comprises the community, and what do 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?

The CHA Councils each selected three to five county health priorities using the Hanlon Method of prioritization to rate the magnitude and seriousness of the health issues and the feasibility of addressing them at the local level (Figure 4 and Figure 5).

The top priorities selected by each CHA Council are shown in Table 1.

	Sept '11	Oct '11	Nov '11	Dec '11	Jan ''12	Feb '12	Mar '12	Apr '12	May '12	June '12	July '12	Aug '12	Sept '12	Oct '12	Nov '12	Dec '12
Hold initial locality council meetings																
Continue locality CHA meetings																
Collect/present quantitative data																
Plan for qualitative research																
Conduct qualitative research																
Determine health priorities																
Write community profile(s)																
Hold TJHD CHIP meetings																
Complete CHIP																
Disseminate profile and CHIP																

Figure 2: MAPP 2 Health Steps and Timeline, TJHD, 2011-2012; Source: Thomas Jefferson Health District

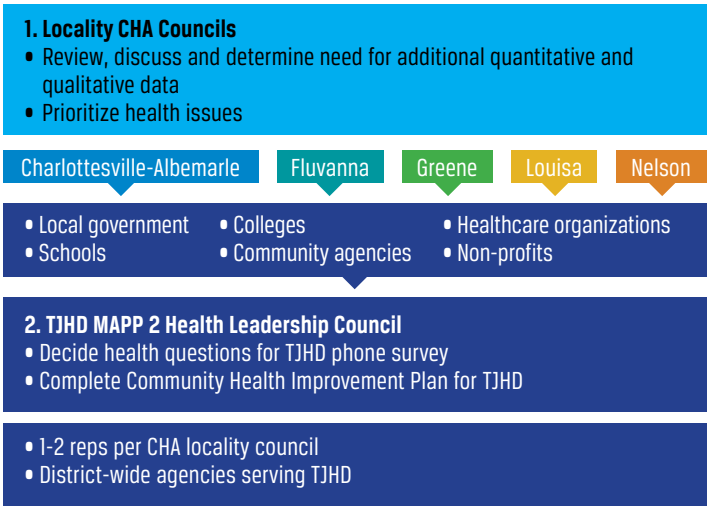


Figure 3: MAPP 2 Health Process, TJHD, 2011-2012;
Source: Thomas Jefferson Health District

Problem Importance Worksheet

Complete a separate form for each health issue identified by the CHA Team

Health Issues: _____

Check the appropriate box for each item and record the score under subtotal

	10 High	9	8	7	6	5	4	3	2	1 Low	Sub-total
Magnitude/Impact How many people does the problem affect, actually or potentially, directly or indirectly? What is the cost to society and the economy?											
Seriousness of the Consequences What degree of disability or premature death occurs because of the problem? What are the potential burdens to the community, such as economic or social burdens? What happens if we do not address this problem?											
Feasibility of Correcting Is the problem amenable to intervention (i.e., is the intervention feasible scientifically as well as acceptable to the community?). What technology, knowledge, or resources are necessary to effect a change? Is the problem preventable? Can we affect this problem at the local level?											
Problem Importance Index (Sum of Subtotal)											

Figure 4: Problem Importance Worksheet, County CHA Councils, 2012
Source: Thomas Jefferson Health District

The M2H Leadership Council identified district-wide health priorities based on the data, the CHA Councils' recommendations, and the need to continue the work that began during the first MAPP process. The four priority issues are:

- An increasing rate of obesity
- Insufficient access to mental health and substance abuse services for segments of the population
- Late and insufficient prenatal care and racial disparities in pregnancy outcomes
- Tobacco use above the Healthy People 2020 goal

The M2H Leadership Council worked with existing community coalitions to develop a detailed Community Health Improvement Plan (CHIP), which is outlined in the next section.

Problem	Problem Importance Index	
	TOTAL	AVERAGE
Obesity		
Mental Health & Substance Abuse		
Prenatal Care		
Transportation		
Tobacco		
Lung Cancer		
Diabetes		
Heart Disease		
Founded Child Abuse & Neglect		
Substance Abuse During Pregnancy		

Figure 5: Problem Prioritization Worksheet
Source: Thomas Jefferson Health District

Charlottesville/Albemarle	Louisa
1. Mental Health and Substance Abuse Disorders	1. Mental Health and Substance Abuse Disorders
2. Adult Obesity	2. Adult Obesity
3. Diabetes	3. Founded Child Abuse & Neglect Reports
Fluvanna	4. Tobacco
1. Adult Obesity	**Nelson**
2. Heart Disease Deaths	1. Obesity
3. Diabetes	2. Mental Health and Substance Abuse Disorders
4. Mental Health and Substance Abuse Disorders	3. Substance Abuse During Pregnancy
Greene	4. Lung Cancer
1. Mental Health and Substance Abuse Disorders	
2. Transportation	
3. Prenatal Care	

Table 1: County Priority Areas, TJHD, 2012
Source: Thomas Jefferson Health District

THE THOMAS JEFFERSON HEALTH DISTRICT COMMUNITY HEALTH IMPROVEMENT PLAN

The Thomas Jefferson Health District (TJHD), Virginia's Planning District 10, is comprised of the City of Charlottesville and the counties of Albemarle, Fluvanna, Greene, Louisa, and Nelson (Figure 6). It includes 234,702 individuals[1] living in urban, suburban, and rural environments. The urban ring of the City of Charlottesville and Albemarle County make up the economic and cultural hub of TJHD, and many residents from the surrounding counties commute there for work, medical care, shopping, and entertainment. Eight percent (19,302) of persons in TJHD reside in rural census tracts, which are in Fluvanna, Louisa, and Nelson Counties, with a particularly high concentration in Nelson County (62% of the total Nelson County population).[2]

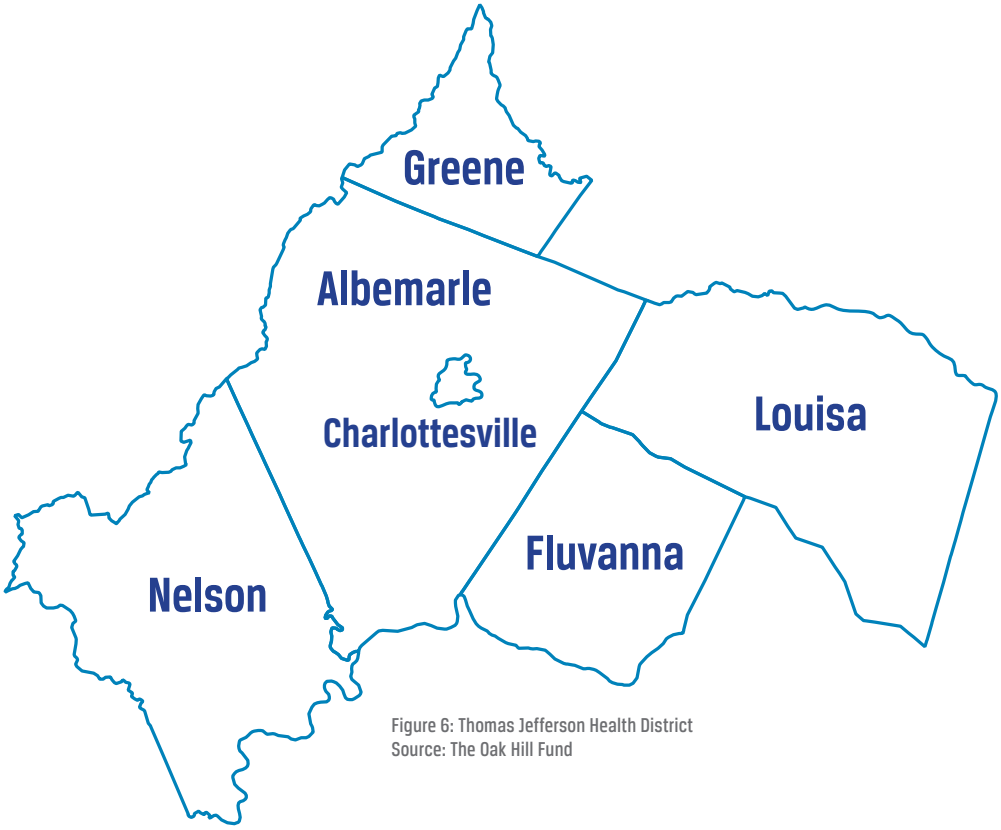


Figure 6: Thomas Jefferson Health District
Source: The Oak Hill Fund

Beginning in the fall of 2011, representatives from 61 agencies that serve TJHD came together to assess the community's health through the MAPP 2 Health (M2H) process. Input was gathered from more than 2,000 TJHD residents through surveys and in-depth conversation in county-specific focus groups. This information was used to develop a Community Health Improvement Plan (CHIP) to call to action TJHD organizations and residents to strategically implement interventions that will improve community health outcomes. After extensive review of qualitative and quantitative data, four priority issues were identified:

- An increasing rate of obesity
- Insufficient access to mental health and substance abuse services for segments of the population
- Late and insufficient prenatal care and racial disparities in pregnancy outcomes
- Tobacco use above the Healthy People 2020 goal

By working with existing coalitions, the M2H Leadership Council developed specific goals, objectives, and strategies for community implementation.

COMMUNITY HEALTH ISSUE #1: AN INCREASING RATE OF OBESITY

Background

According to CDC's Behavioral Risk Factor Surveillance Survey (BRFSS), between 2008 and 2010, 27.6% of TJHD adults were obese[3] by self-reported height and weight (BMI 〉 30), which was higher than Virginia (25.9%) and represents an increase from the 2007-2009 average (20.5%). This was the sharpest increase in obesity since 2000 (Figure 7). According to the County Health Rankings [4], in 2009, the prevalence of adult obesity in TJHD's localities ranged from 26% to 32% (County Health Rankings, 2012) (Figure 8). Obesity is not just a problem among adults in TJHD. A survey conducted by the Blue Ridge Medical Center shows that in the 2010-2011 school year roughly 46% of 5th graders and 47% of 10th graders were overweight or obese[5] (Figure 9). According to the Community Action on Obesity (CAO), in 2011, 37% of 5th graders in Charlottesville and Albemarle public schools were overweight or obese (Figure 10).

Fast-food restaurants and convenience stores made up a plurality (49%) of food stores available in TJHD (Figure 11). These types of stores also make up a plurality of food stores in each of the TJHD localities (Table 2). Grocery stores, where healthy food is most accessible, have a relatively low prevalence, and the majority of available grocery stores are located in Albemarle County (Table 3).

According to a 2009 Harvard School of Public Health study[6], some of the leading behavioral risk factors that contribute to premature deaths in the United States are a combination of smoking, obesity, physical inactivity, poor diet and alcohol abuse. In 2009, BRFSS data showed that approximately 24% of adults in TJHD were physically inactive, defined as no leisure time physical activity (Figure 12). According to the County Health Rankings, in 2009 most TJHD localities did not meet the national benchmark for availability of recreational facilities (Figure 13).

According to the Thomas Jefferson Area Community Survey, administered by the UVA Center for Survey Research, 36% of residents in TJHD believe that obesity is the most important public health concern that needs more attention.

Weight/Obesity was a major topic of discussion among the MAPP 2 Health focus groups:

- Participants in Charlottesville and Albemarle felt there is a lack of knowledge surrounding already existing programs such as the food stamp program at the farmer's market
- In Fluvanna County, participants perceived that parents do not have enough time and knowledge to prepare nutritious food for their families
- In Nelson County, participants stated that education is the key to ameliorating the problem

Goal

Decrease the percentage of persons who are overweight or obese in TJHD by promoting school and corporate wellness policies and by engaging residents in a Move to Health campaign.

Objective 1

By 2017, reduce the percentage of adults living in TJHD who are physically inactive from 24% to 20%.

Objective 2

By 2017, stop the trend of the percentage of TJHD residents who are overweight or obese from increasing.

STRATEGY 1 Encourage and support schools to implement comprehensive wellness policies.

STRATEGY 2 Encourage and support employers to implement comprehensive wellness policies.

STRATEGY 3 Organize and launch a district-wide Move to Health campaign to encourage TJHD residents to be more active.

Lead Organization: Community Action on Obesity

Community Resources

- Blue Ridge Area Food Bank
- Boys & Girls Clubs of Central Virginia
- Children, Youth and Family Services (CYFS)
- Healthy Food Coalition
- Jefferson Area Board for Aging (JABA)
- Jefferson Area Children's Health Improvement Program (CHIP)
- Local Food Hub
- Major employers
- Martha Jefferson Hospital
- Monticello Area Community Action Agency (MACAA)
- Piedmont YMCA
- TJHD Chambers of Commerce
- TJHD Fitness and Wellness Centers
- TJHD Departments of Parks & Recreation
- TJHD Departments of Social Services
- TJHD Health Care Providers
- TJHD Health Departments
- TJHD Local Governments
- TJHD School Systems
- University of Virginia
- University of Virginia Health System
- United Way
- Virginia Cooperative Extension

Determinants Affecting this Health Outcome

* = Determinants targeted by proposed strategies

- Diet*
- Physical Activity*
- Knowledge*
- Workplace/School Policies*
- Psychosocial Stress
- Genetic Factors
- Food Security
- Social Norms
- Access to Preventive Care
- Poverty
- Physical Environment

GRAPHS AND TABLES REFLECTING AN INCREASING RATE OF OBESITY

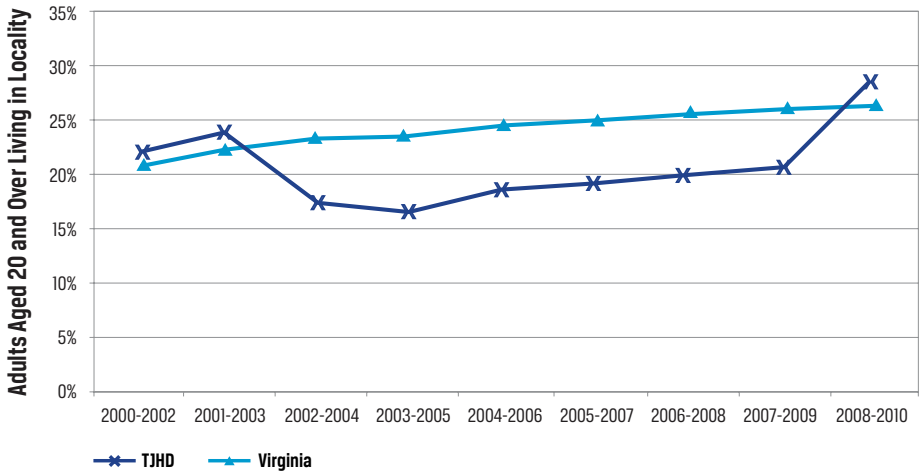


Figure 7: Percent of Adults Who Are Obese, TJHD and Virginia, 2000-2010;
Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention

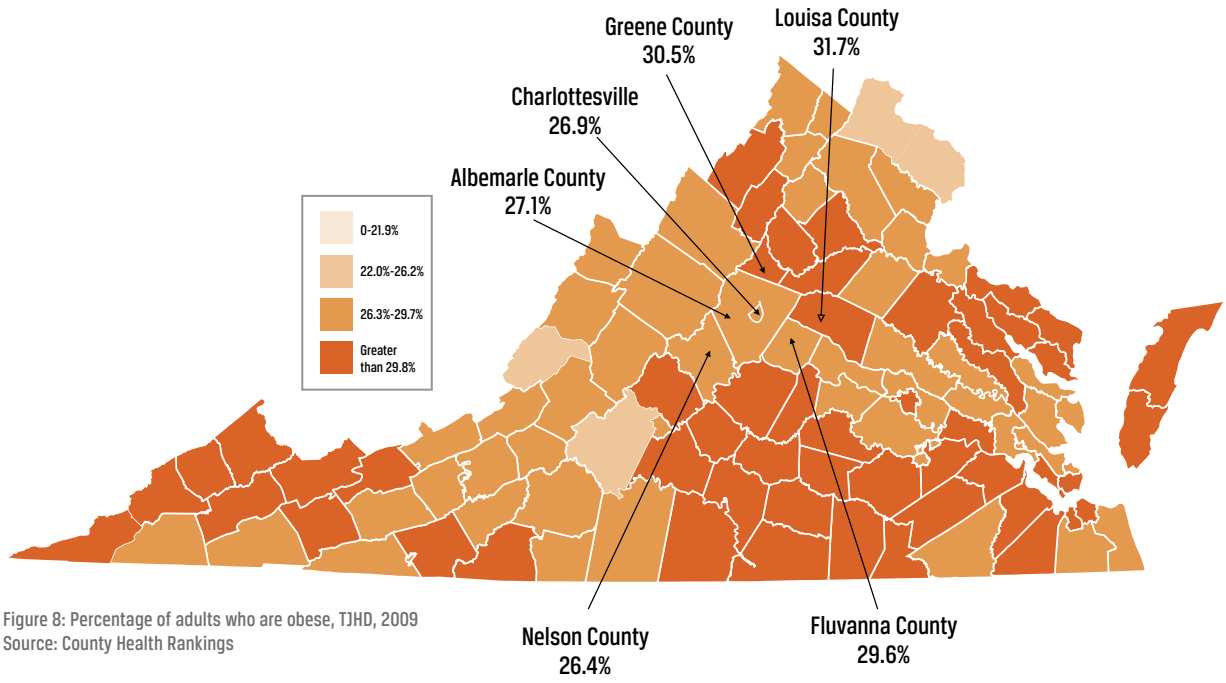


Figure 8: Percentage of adults who are obese, TJHD, 2009
Source: County Health Rankings

GRAPHS AND TABLES REFLECTING AN INCREASING RATE OF OBESITY

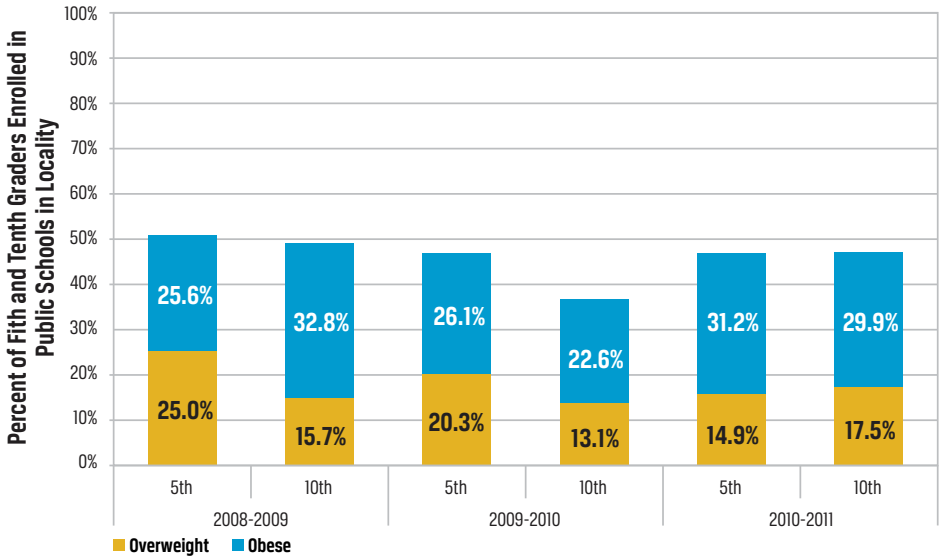


Figure 9: Overweight and obesity prevalence: 5th and 10th graders, Nelson County, school year 2008-2011
Source: Blue Ridge Medical Center – Nelson County Height-Weight Screenings and BMI Results

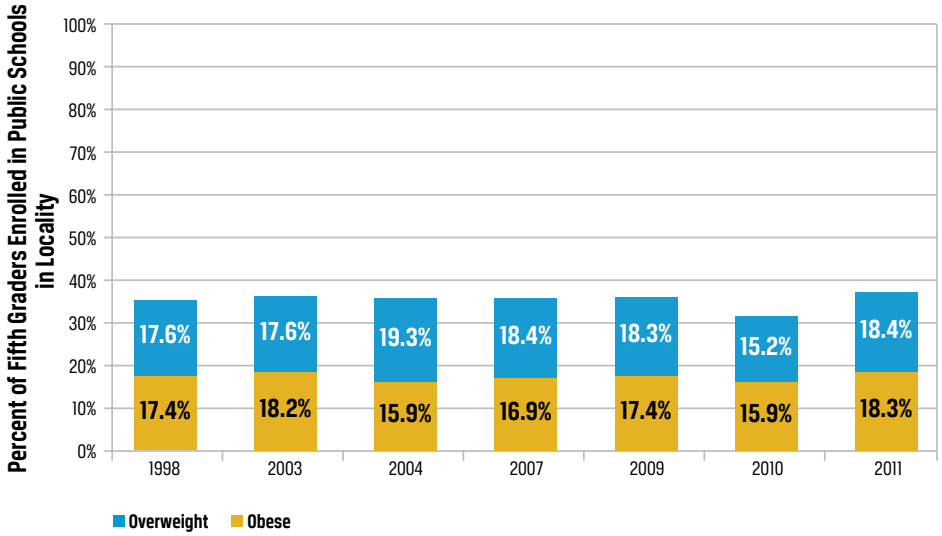


Figure 10: Overweight prevalence, 5th graders, Albemarle County and the City of Charlottesville public schools, 1998-2011
Source: Community Action on Obesity

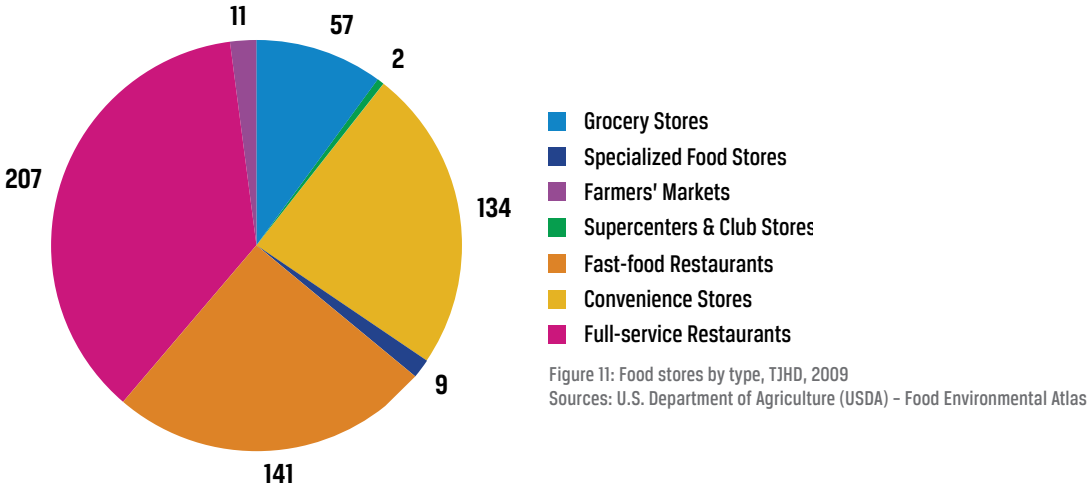


Figure 11: Food stores by type, TJHD, 2009
Sources: U.S. Department of Agriculture (USDA) – Food Environmental Atlas

GRAPHS AND TABLES REFLECTING AN INCREASING RATE OF OBESITY

Percentage of food stores that are fast-food and convenience stores, TJHD by locality, 2009	
41% in the City of Charlottesville	52% in Greene County
52% in Albemarle County	65% in Louisa County
41% in Fluvanna County	66% in Nelson County

Table 2: Percentage of food stores that are fast-food and convenience stores, TJHD by locality, 2009
Source: U.S. Department of Agriculture (USDA) – Food Environment Atlas

Percentage of food stores that are grocery stores, TJHD by locality, 2009	
8% in the City of Charlottesville	12% in Greene County
13% in Albemarle County	8% in Louisa County
9% in Fluvanna County	11% in Nelson County

Table 3: Percentage of food stores that are grocery stores, TJHD by locality, 2009
Source: U.S. Department of Agriculture (USDA) – Food Environment Atlas

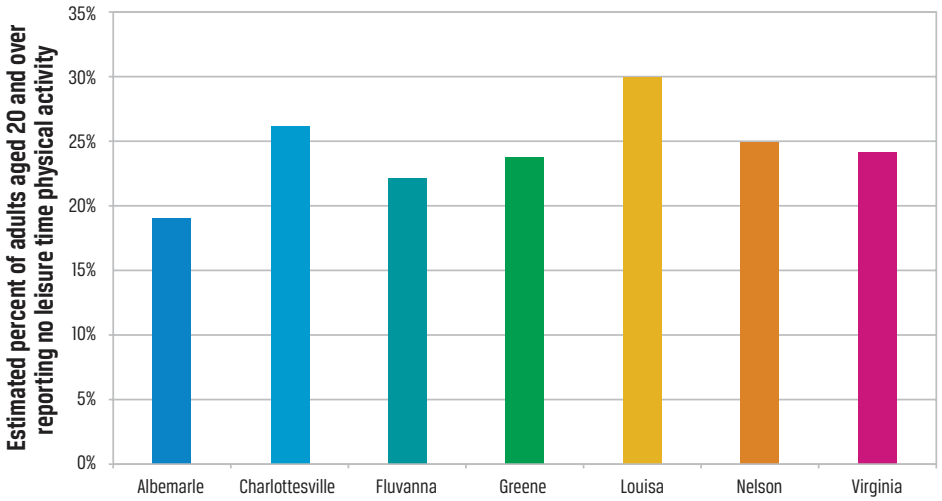


Figure 12: Percentage of adults who are physically inactive, TJHD by locality, 2009
Source: County Health Rankings

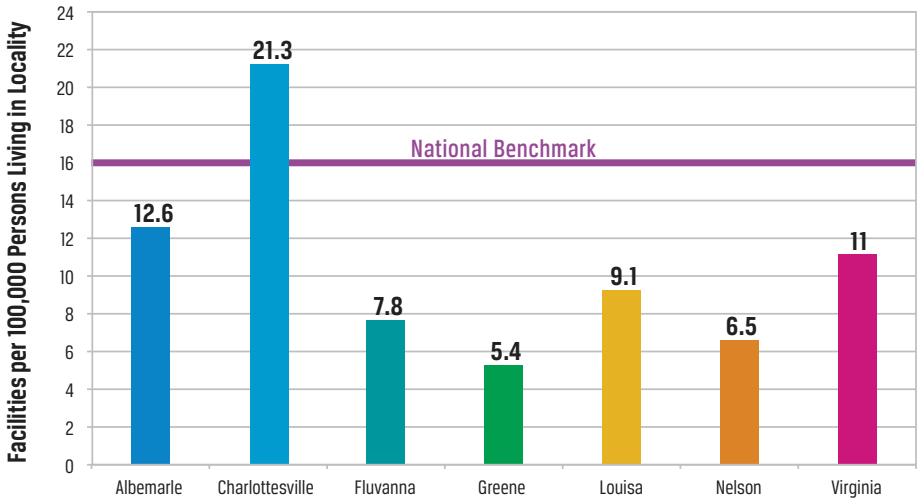


Figure 13: Rate of recreational facilities per 100,000 residents living in locality, TJHD Localities and Virginia, 2009
Source: County Health Rankings

COMMUNITY HEALTH ISSUE #2: INSUFFICIENT ACCESS TO MENTAL HEALTH AND SUBSTANCE ABUSE SERVICES

Background

According to CDC's Behavioral Risk Factor Surveillance Survey, between 2004 and 2010 the average number of self-reported poor mental health days per month in TJHD was 2.7 days, which was higher than the national benchmark of 2.3 days (Figure 14). An analysis of the correlation between mortality and self-rated health found that persons with "poor" self-rated health had a higher mortality risk than persons with "excellent" self-rated health (DeSalvo et al. 2006).

According to the 2011 Thomas Jefferson Community Survey, administered by the UVA Center for Survey Research, 20% of TJHD residents believe that mental health is the most important public health concern that needs more attention. Studies have estimated that only about one-third of Americans with mental health problems receive treatment for their condition (Cunningham, 2009). Greater access to treatment of mental illness enables children to continue their education and gives adults a better opportunity to remain employed (MACMHB, 2011). In focus groups conducted in TJHD in 2012 by MAPP 2 Health, a lack of access to mental health services was cited as a problem and participants believed that stigma associated with mental health issues deters people from getting assistance. Corrigan et al (2002) suggested that persons who have a better understanding of mental illness are less likely to endorse stigmas and discrimination. Studies show participation in educational programs is correlated with improved attitudes about mental illness. According to Virginia Health Information (VHI) data, the rate of hospitalizations for acute psychoses has been decreasing since 2000. In 2011 the rate was 418.6 per 10,000 residents in TJHD, lower than the Virginia rate of 563.09 (Figure 15). The rate of hospitalization for non-psychotic mental disorders in TJHD was higher than the state rate between 2000 and 2011 (Figure 16).

Region Ten is the primary public provider of mental health services within TJHD. Mood disorders and attention deficit/disruptive behavior are the most commonly diagnosed illnesses among TJHD residents seeking services from Region Ten. They comprised 37% of diagnoses in 2011; mood disorders alone accounted for a quarter of the diagnoses (Figure 17).

In 2010, the incidence of persons served through State Mental Health Agencies (SMHA) with co-occurring mental health and substance abuse disorders was higher in Virginia (31.8%) than in the United States (24.4%) (Figure 18).

(DEFINITIONS: "Poor Mental Health Days" = BRFSS question: "Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" This is the average number of days a county's adult respondents report that their mental health was not good. "Physically Unhealthy Days" = BRFSS question: "Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?" This is the average number of days a county's adult respondents report that their physical health was not good.)

Goal

Decrease the number of poor mental health days among TJHD residents by increasing access to mental health services and decreasing stigmas and fears surrounding mental health issues.

Objective 1

By 2017, increase access to mental health services in TJHD by increasing the number of mental health service hours provided by Community Mental Health and Wellness Coalition (CMHWC) member agencies.

Objective 2

By 2017, among TJHD residents decrease stigma and fears associated with mental health, as demonstrated through pre/post surveys from educational programs.

STRATEGY 1 Establish a system to collect and track the number of CMHWC agencies' service hours.

STRATEGY 2 Promote the integration of behavioral health services into primary care settings.

STRATEGY 3 Develop, conduct and promote culturally competent educational programs, such as Mental Health First Aid USA, to reduce stigma and fears that prevent individuals from seeking mental health services.

Lead Organization: Community Mental Health and Wellness Coalition

Community Resources

- AIDS/HIV Services Group
- Addiction Recovery Systems Pantops
- Albemarle Charlottesville Regional Jail
- Charlottesville Free Clinic
- Children Youth and Family Services
- District 9 Probation and Parole
- Jefferson Area Board for Aging
- Office of the Public Defender
- Region Ten Community Services Board
- The Women's Initiative
- Thomas Jefferson Area Crisis Intervention Team
- TJHD Departments of Social Services
- University of Virginia Health System
- Virginia Statewide Mental Health Collaborative
- Offender Aid and Restoration/Jefferson Area Community Corrections

Determinants Affecting this Health Outcome

* = Determinants targeted by proposed strategies

- Knowledge*
- Access to Mental Health Services*
- Social Norms and Values*
- Poverty
- Unemployment
- Social Inequities
- Substance Abuse
- Genetic Factors

GRAPHS AND TABLES REFLECTING INSUFFICIENT ACCESS TO MENTAL HEALTH AND SUBSTANCE ABUSE SERVICES FOR SOME SEGMENTS OF THE POPULATION

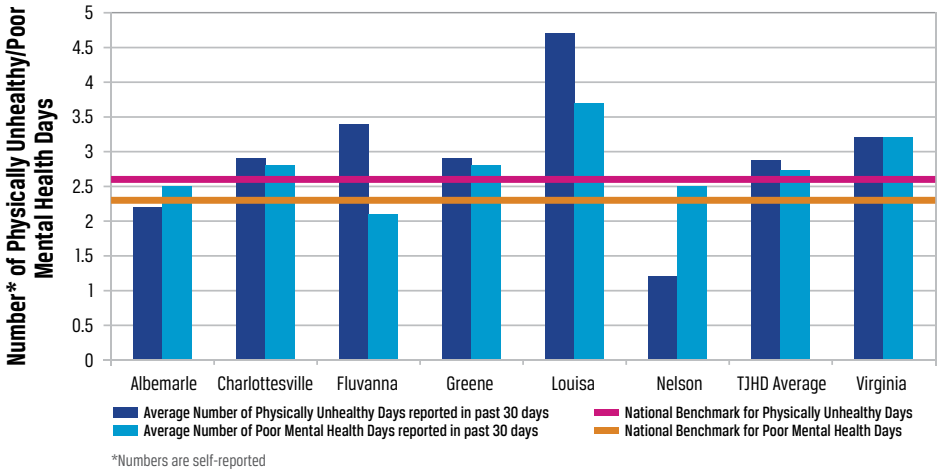


Figure 14: Poor mental health days and physically unhealthy days in the last 30 days, TJHD localities and Virginia, 2004-2010
Source: Behavioral Risk Factor Surveillance Survey; County Health Rankings

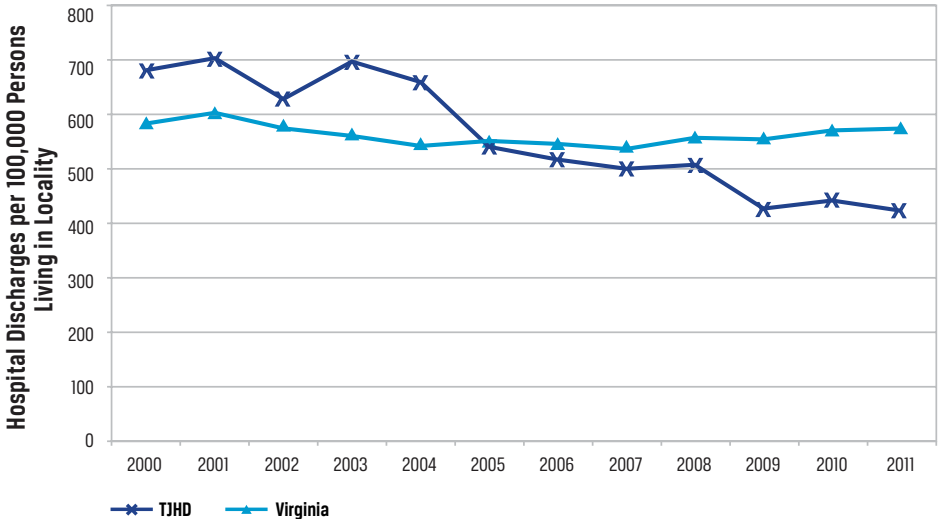


Figure 15: Hospital Discharges with Primary Diagnosis of Psychoses, TJHD and Virginia, 2000-2011
Source: VDH Office of Information Management Data Warehouse; Virginia Health Information

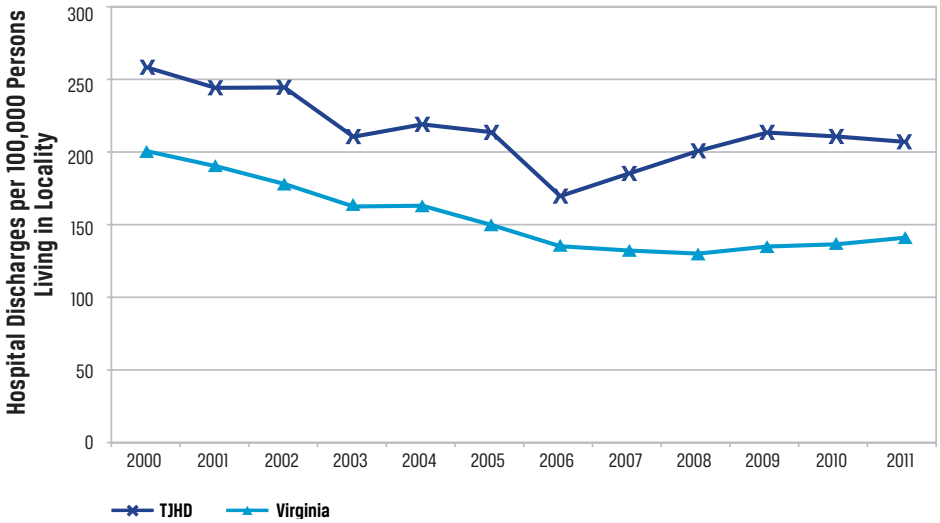


Figure 16: Hospital Discharges with Primary Diagnosis of Neurotic Disorders, Personality Disorders and other Non-psychotic Mental Disorders, TJHD and Virginia, 2000-2011
Source: VDH Office of Information Management Data Warehouse; Virginia Health Information

GRAPHS AND TABLES REFLECTING INSUFFICIENT ACCESS TO MENTAL HEALTH AND SUBSTANCE ABUSE SERVICES FOR SOME SEGMENTS OF THE POPULATION

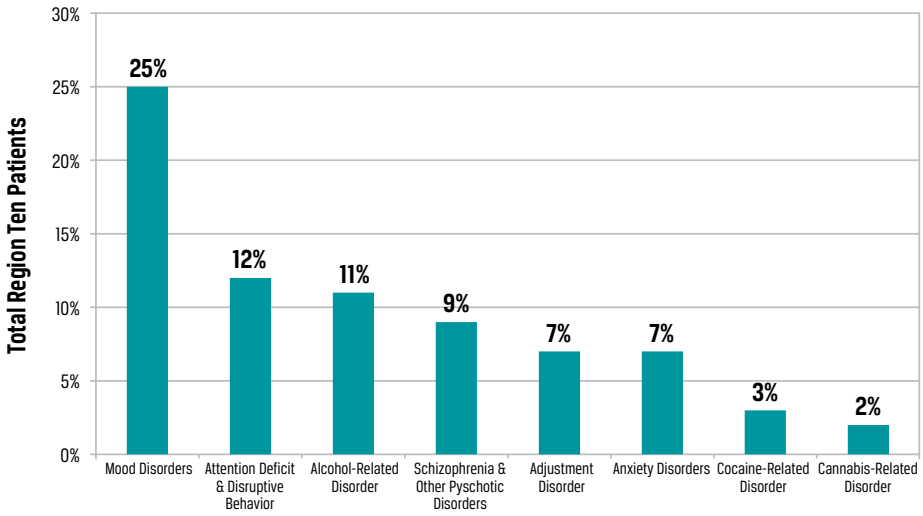


Figure 17: Percent of Region Ten Most Frequent Diagnosed Disorders, TJHD 2011
Source: Region Ten Community Services Board

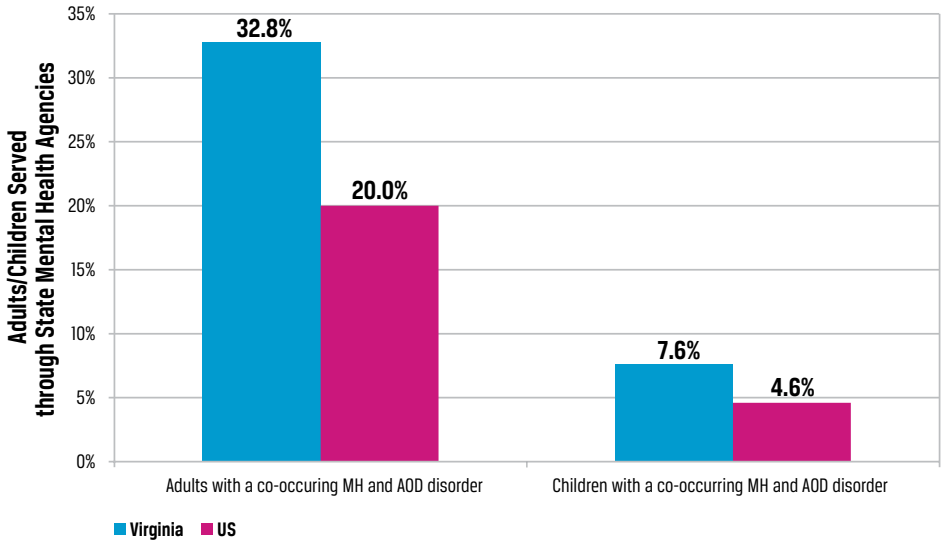


Figure 18: Percent of Persons With Co-occurring Mental Health and Substance Abuse Disorders Served through State Mental Health Agencies, Virginia and U.S., 2010
Source: Mental Health National Outcome Measures, Substance Abuse and Mental Health Services Administration

COMMUNITY HEALTH ISSUE #3: LATE AND INSUFFICIENT PRENATAL CARE AND RACIAL DISPARITIES IN PREGNANCY OUTCOMES

Background

Inadequate prenatal care has been associated with increased risks of low birthweight, premature births, neonatal mortality, infant mortality, and maternal mortality (Keily and Kogan, 2000). According to the U.S. Department of Health and Human Services, babies of mothers who do not receive prenatal care are three times more likely to be low birthweight and five times more likely to die than those born to mothers who receive regular prenatal care. The percentage of women who initiated prenatal care in TJHD during their first trimester of pregnancy decreased between 2002 and 2010. Between 2007 and 2010, it also fell short of the Healthy People 2020 goal of 78%. Between 2008 and 2010, 77% of pregnant women in TJHD entered prenatal care in the first trimester, a lower percentage than Virginia (83%) (Figure 19). Sixty-six percent of pregnant women received ten or more prenatal care visits, a lower percentage than Virginia (77.7%) (Figure 20).

Disparate birth outcomes exist by socioeconomic status and race and are associated with disadvantages measured at multiple levels (individual, family, and neighborhood) and time points (childhood, adulthood). In the U.S., African American infants have worse birth outcomes than white infants (Lu and Halfon, 2003). In 2006-2010 in TJHD, the Infant Mortality Rate (IMR) for white infants was 4.9 infant deaths per 1,000 live births and the IMR for African-American infants was 20.2 (Figure 21). Between 1999 and 2010, in TJHD the percentage of low birthweight births increased from about 7 to 7.8%, comparable to the Virginia and U.S. rates, and at the Healthy People 2020 goal (Figure 22). In 2008-2010 in TJHD, 12.5% of African-American infants were born at a low birthweight compared to 6.4% of white infants (Figure 23).

The risk of infant mortality and pregnancy-related complications can be reduced by increasing access to quality preconception and interconception care (Healthy People 2020, 2012). According to the March of Dimes, some chronic health conditions may lead to pregnancy problems and birth defects. Getting treatment before pregnancy for conditions like diabetes and high blood pressure can improve chances of women having a healthy baby.

Stopping risky behaviors, like drug use, before the time of conception can also increase the chances of having a healthy pregnancy. However, the number of reported cases of substance-exposed infants has been increasing in TJHD since 1999 (Figure 24).

Plan First is a Virginia program that provides insurance coverage for family planning services to income-eligible citizens.

Goal

Improve pregnancy outcomes in TJHD by increasing the percentage of women who plan pregnancies and receive prenatal care; by targeting interventions towards vulnerable populations; and by promoting clinical smoking cessation interventions.

Objective 1 By 2017, increase the percentage of pregnant women who receive 10 or more prenatal care visits from 66% to 75% of TJHD pregnant women.

Objective 2 By 2017, decrease the percentage of low birth weight black infants from 12.5% to 10% of TJHD black births.

Objective 3 By 2017, increase enrollment in Plan First, a Medicaid program that covers family planning services, in TJHD by 5%.

STRATEGY 1 Conduct research to better understand why vulnerable populations of women are not receiving/accessing available prenatal care services.

STRATEGY 2 Work with TJHD prenatal care providers to overcome barriers identified in research.

STRATEGY 3 Increase awareness among vulnerable women of childbearing age about the importance of taking steps to improve health before becoming pregnant and steps to take to improve the likelihood of having a healthy pregnancy.

STRATEGY 4 Develop and/or promote peer-based health navigator services for vulnerable pregnant women.

STRATEGY 5 Increase awareness among clinical providers and eligible populations about the availability of Plan First benefits.

Lead Organization: Improving Pregnancy Outcomes Workgroup

Community Resources

- Blue Ridge Medical Center
- Charlottesville Free Clinic
- Children Youth and Family Services
- Community Health Navigator Program
- Greene Care Clinic
- Jefferson Area Children's Health Improvement Program (CHIP)
- Louisa Wellness Center
- Planned Parenthood
- Martha Jefferson Hospital
- Martha Jefferson Hospital OB/GYN
- The Women's Initiative
- TJHD Departments of Social Services
- TJHD Health Departments
- University of Virginia Family Medicine
- University of Virginia OB/GYN
- University of Virginia Teen Health

Determinants Affecting this Health Outcome

* = Determinants targeted by proposed strategies

- Smoking*
- Illness*
- Poor Nutrition/Obesity*
- Psychosocial Stress*
- Knowledge*
- Lack of Health Insurance
- Substance Abuse
- Poverty
- Poor Housing
- Racism
- Genetic Factors

GRAPHS AND TABLES REFLECTING LATE AND INSUFFICIENT PRENATAL CARE AND RACIAL DISPARITIES IN PREGNANCY OUTCOMES

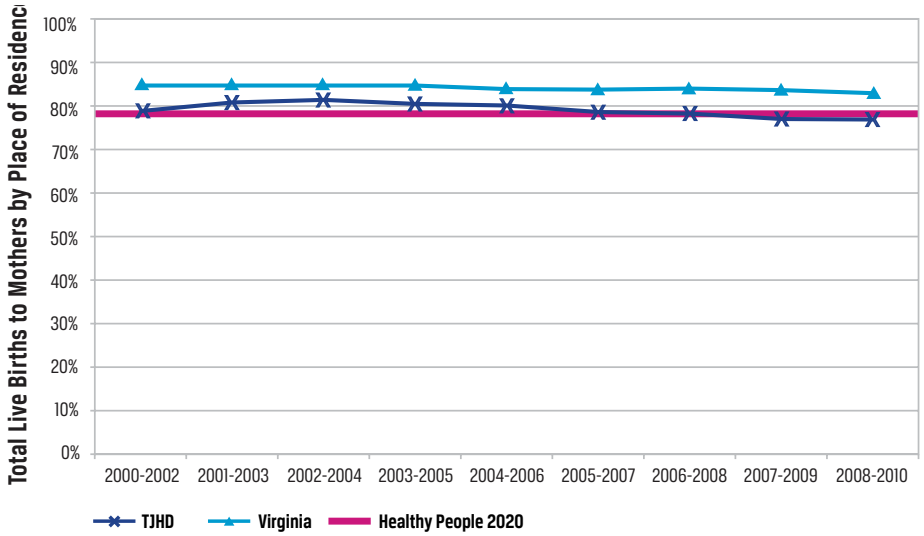


Figure 19: Percent of mothers entering prenatal care in the 1st trimester, TJHD and Virginia, Three-Year Rolling Averages, 2000-2010
Source: Virginia Department of Health

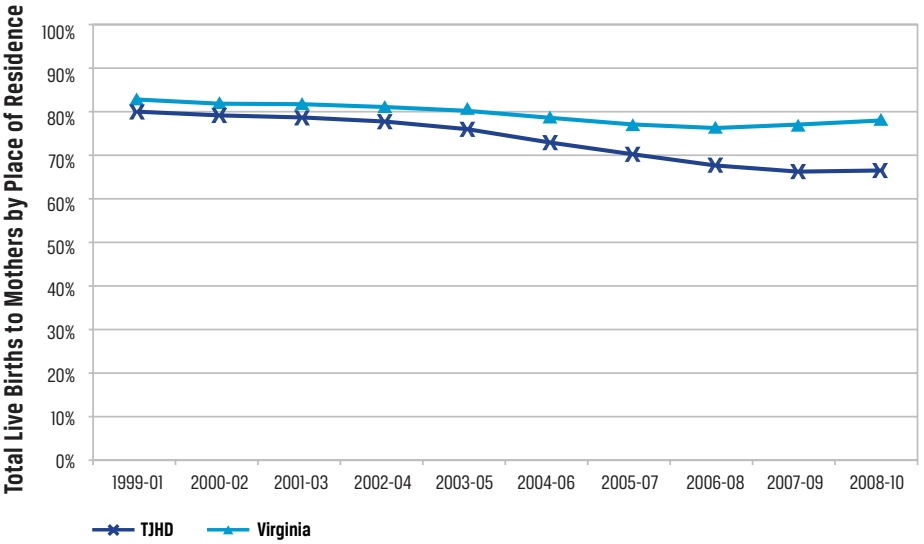


Figure 20: Percent of mothers who had 10 or more prenatal care visits, TJHD and Virginia, Three-Year Rolling Averages, 1999-2010
Source: Virginia Department of Health

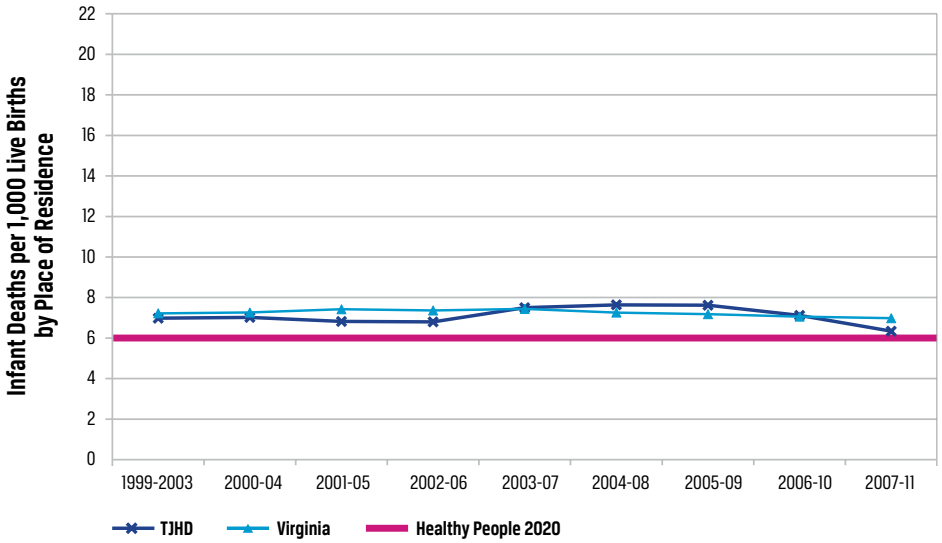


Figure 21: Infant mortality, TJHD and Virginia, Five-Year Rolling Averages, 1999-2011
Source: Center for Health Statistics, Virginia Department of Health

GRAPHS AND TABLES REFLECTING LATE AND INSUFFICIENT PRENATAL CARE AND RACIAL DISPARITIES IN PREGNANCY OUTCOMES

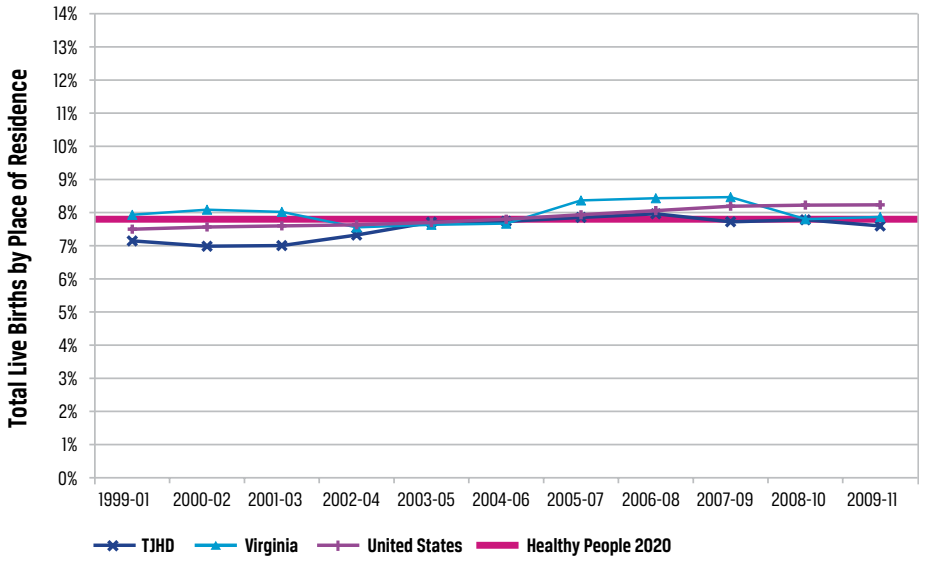


Figure 22: Percent of Low Birth Weight Births, TJHD and Virginia, 1999-2011
Source: Virginia Department of Health, Division of Health Statistics

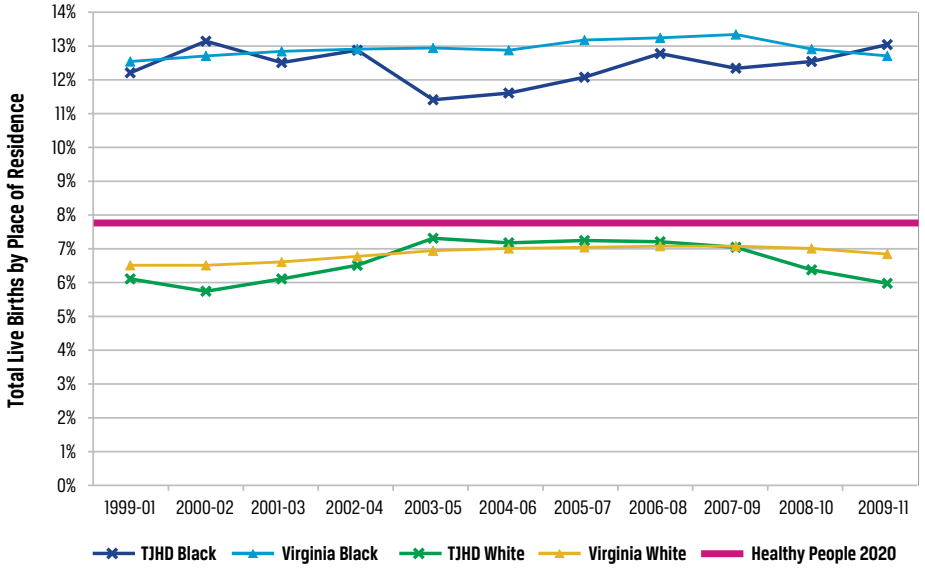


Figure 23: Percent of Low Birth Weight Births by Race, TJHD and Virginia, 1999-2011
Source: Virginia Department of Health, Division of Health Statistics

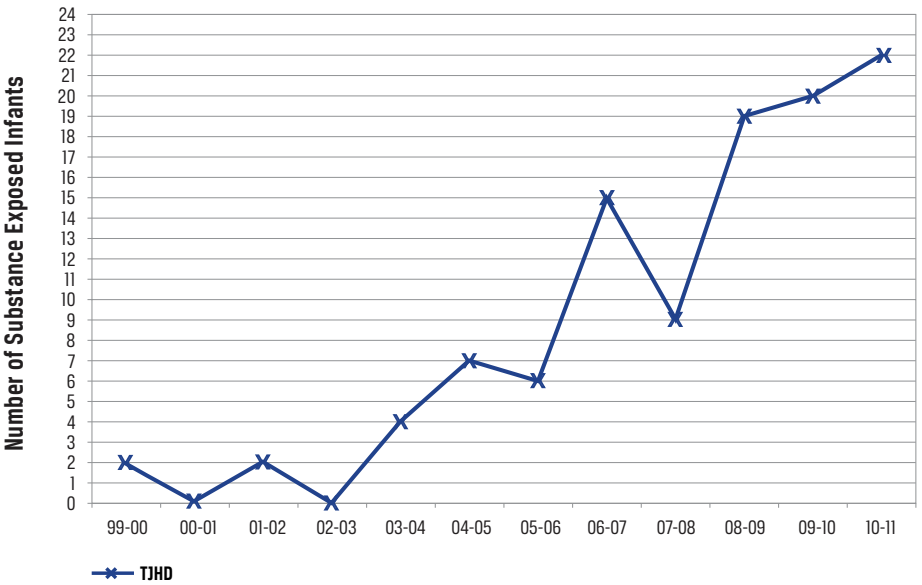


Figure 24: Substance exposed infants, TJHD, Fiscal Year 2000-2011
Source: Virginia Department of Social Services

COMMUNITY HEALTH ISSUE #4: TOBACCO USE ABOVE THE HEALTHY PEOPLE 2020 GOAL

Background

Tobacco use is the single most preventable cause of disease, disability, and death in the United States (CDC, 2011). According to the CDC, each year 443,000 people die prematurely from smoking or exposure to secondhand smoke, and another 8.6 million live with a serious illness caused by smoking. The average percentage of adult smokers in TJHD was 17.9% in 2008-2010, which was above the Healthy People 2020 target of 12% (Figure 25). This is particularly concerning because it represents the first increase in smoking rates (from 14.5% in the 2007-2009 period) since 2001-2003.

The Virginia Department of Health reports that the lung cancer death rate in TJHD is higher than the state rate and ranks 14th among 35 planning districts in Virginia.

Smoking during pregnancy has been linked to pregnancy complications, preterm delivery, low birthweight, and Sudden Infant Death Syndrome (SIDS). According to the Virginia Center for Health Statistics, in 2008-2010, a rolling average of 7.5% of pregnant women[7] in TJHD reported smoking during pregnancy, which is higher than Virginia (6.2%) (Figure 26).

All TJHD localities were higher than the Healthy People 2020 goal of 1.4% (Table 4). In a retrospective review of six trials of clinical smoking cessation interventions conducted from 1983 to 2001, an average of 13.9% of women assigned to the intervention group quit smoking in the last 4-5 months of their pregnancy, compared to 8.3% of the control group (Coalition for Evidence-Based Policy, 2012).

Virginia ranks 31st among U.S. states in adult smoking (Table 5). It ranks 30th in tobacco prevention spending and ranks 50th in the cigarette tax charged per pack. Though many states do not allow localities to institute a local cigarette tax, Virginia is an exception, and the City of Charlottesville cigarette tax totals $0.35 – Charlottesville is the only TJHD locality with a local cigarette tax.

After conducting a systematic review of evidence from 2000 to 2012, the Community Guide Task Force, an independent national body of public health and prevention experts, recommended the promotion of programs that make medication and cessation counseling more affordable.

Goal

Decrease the percent of persons who use tobacco in TJHD.

Objective 1

By 2017, decrease the percentage of adults who smoke from 18% to 16% of TJHD adults.

Objective 2

By 2017, decrease the percentage of pregnant women who report smoking during pregnancy from 7.5% to 6% of TJHD pregnant women.

STRATEGY 1 Collect data to better understand the attitudes and behaviors that encourage young people to start smoking.

STRATEGY 2 Evaluate current smoking cessation programs for effectiveness in decreasing tobacco use.

STRATEGY 3 Develop and/or promote more smoking cessation classes for TJHD residents.

STRATEGY 4 Educate clinical providers in TJHD about evidence-based patient interventions that were shown to increase tobacco cessation and promote their use.

Lead Organization:

PD10 Tobacco Use Control Coalition

Community Resources

- Charlottesville Free Clinic
- Improving Pregnancy Outcomes Workgroup
- Martha Jefferson Hospital
- Planned Parenthood of the Blue Ridge
- TJHD Departments of Social Services
- TJHD Health Departments
- Tobacco-Free Alliance of Virginia
- University of Virginia
- University of Virginia Health System

Determinants Affecting this Health Outcome

* = Determinants targeted by proposed strategies

- Individual Behavior*
- Social Norms*
- Tobacco Control Policies*
- Substance Abuse
- Lack of Health Insurance Coverage
- Poverty
- Unemployment
- Social Inequities
- Substance Abuse
- Genetic Factors

GRAPHS AND TABLES REFLECTING TOBACCO USE ABOVE THE HEALTHY PEOPLE 2020 GOAL

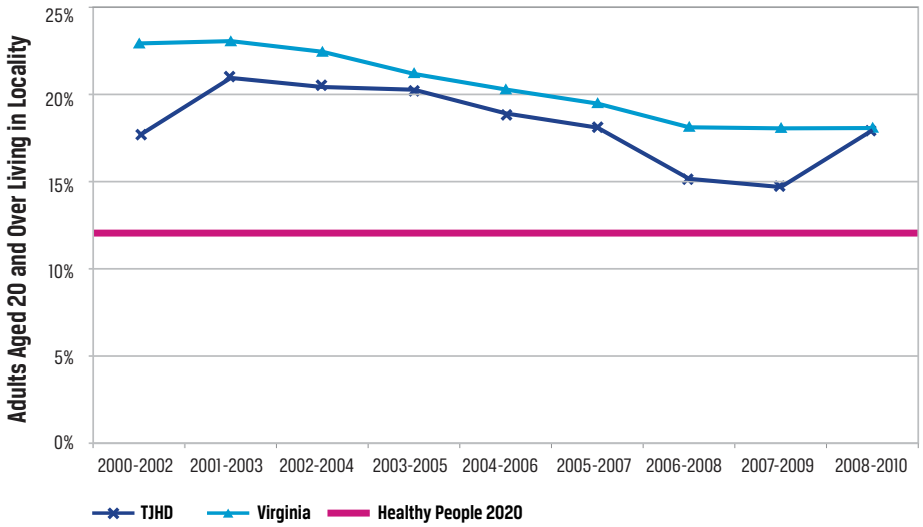


Figure 25: Percent of self-reported adult smokers, TJHD and Virginia, Three-Year Rolling Averages, 2000-2010
Source: Behavioral Risk Factor Surveillance Survey, Survey and Evaluation Research Laboratory

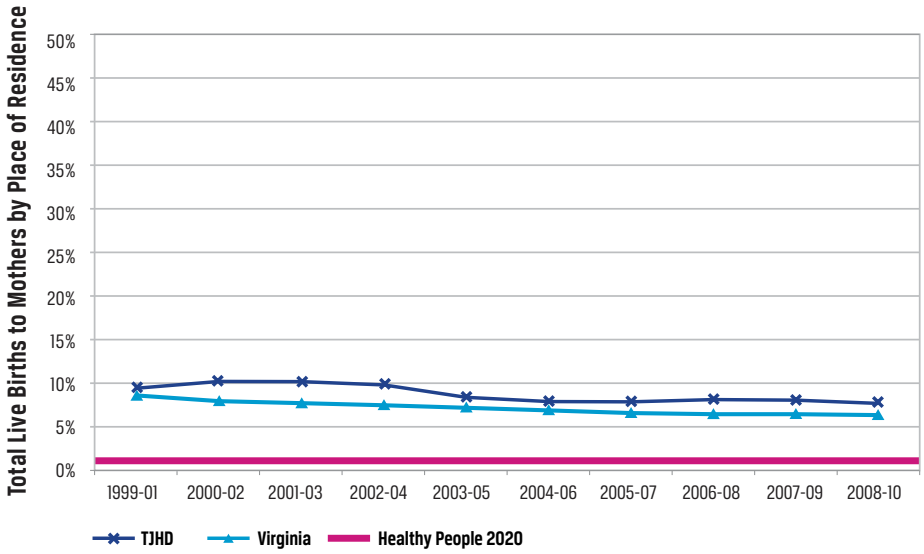


Figure 26: Percent of pregnant Women who Reported Smoking during Pregnancy, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

Smoking during Pregnancy, TJHD by Locality, 2008-2010	
6% of mothers in Virginia	8% of mothers in TJHD
9% of mothers in Charlottesville	5% of mothers in Greene County
5% of mothers in Albemarle County	12% of mothers in Louisa County
7% of mothers in Fluvanna County	16% of mothers in Nelson County

Table 4: Smoking during Pregnancy, TJHD by locality, 2008-2010
Source: Virginia Department of Health

	Virginia	United States
Adult Smoking Rank (1st = low smoking rates)	31st	N/A
Cigarette Tax (per pack)	$0.30 ($0.35 local tax for Cville)	$1.46
Cigarette Tax Rank (1st = high taxes)	50th	N/A
FY 2012 Funding for State TC Programs (millions)	$8.4	$456.7
Tobacco Prevention Spending % of CDC Target	8.1%	12.5%
Tobacco Prevention Spending Rank (1st = high spending rates)	30th	N/A

Table 5: Tobacco Facts, Virginia, 2012
Source: tobaccofreekids.org

THE THOMAS JEFFERSON HEALTH DISTRICT COMMUNITY HEALTH ASSESSMENT

The purpose of the Community Health Assessment (CHA) is to gather data to answer three main questions:

1. Who comprises the community, and what do 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?

Data collected include:

SECTION ONE Data on Demographics, Socioeconomics and Health Resource Availability

SECTION TWO Data on Community Resources, Community Safety, Environmental Quality and Health Behaviors

SECTION THREE Data on Maternal and Child Health, Leading Causes of Death, Cancer, Unintentional Injury, Infectious Diseases, Ambulatory Care Sensitive Conditions and Mental Health

SECTION FOUR Data from the Thomas Jefferson Area Community Survey, the MAPP 2 Health Focus Groups and the Louisa County Citizen Survey

Indicators selected were primarily those recommended by MAPP. Collected data were disseminated via a series of oral presentations to the five CHA Councils during monthly meetings, where input was sought regarding clarifications to the data. Supplementary data were then collected, when available, if the Councils felt they would provide more depth or clarity to an issue.

Data are reported at the planning district and county level. For some indicators, the number of events is too small to reliably report at the locality level. When local data are not available, state data are included. Where possible, data are stratified by age or race. Looking at data at these levels allows for the identification of unique issues to facilitate targeted interventions.

Where possible, data for the Commonwealth of Virginia, the United States, and/or the Healthy People 2020 goals are referenced for comparison. Healthy People 2020 is a set of objectives for the nation's health that was developed by the U.S. Department of Health and Human Services through a broad national consultative process. These 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.

To supplement the quantitative data, qualitative data were gathered through the Thomas Jefferson Area Community Survey (a phone survey given to TJHD residents), five MAPP 2 Health focus groups, and a Louisa County Citizen Survey. These data are used to document community members' perceptions of health in their communities.

CHA SECTION ONE

Section one includes information to answer the question:
Who comprises the community, and what do community members bring to the table?

INDICATORS:

DEMOGRAPHICS

POPULATION ESTIMATES AND GROWTH

As shown in Figure 27, the populations of all localities in the Thomas Jefferson Health District (TJHD) increased between 2000 and 2010 with Louisa County (29%) and Fluvanna County (28%) experiencing the highest percentage growth. Albemarle County's total population increased by 18%, the City of Charlottesville by 8%, Greene County by 21% and Nelson County by 4%. Fluvanna, Greene and Louisa Counties all experienced a higher growth rate than Virginia (13%). In 2010, Albemarle County was the most populated locality in TJHD with over 98,000 residents. Nelson County was the least populated locality with just over 15,000 residents.

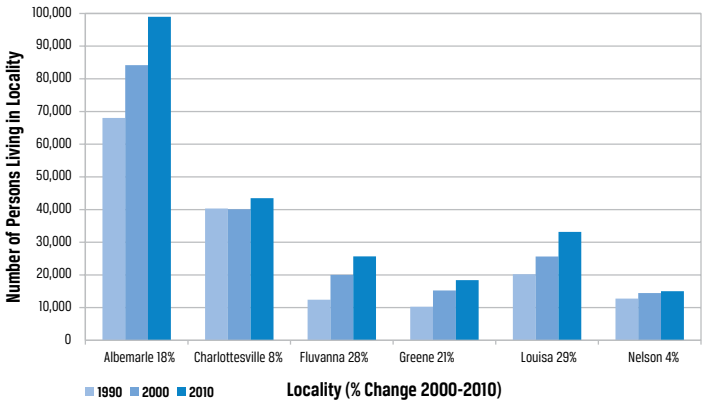


Figure 27: Population Estimates, TJHD by Locality, 1990-2010
Source: Weldon Cooper Center

When comparing the population growth between the last three U.S. census counts, Albemarle, Fluvanna, Greene and Nelson Counties followed state trends with a higher rate of growth between 1990 and 2000 than between 2000 and 2010. Louisa County experienced a higher rate of growth in the 2000-2010 decade, and in the City of Charlottesville, the trend of negative population growth experienced during the 1990-2000 decade reversed in 2000-2010 (Table 6).

	1990	2000	2010	% Change 1990-2000	% Change 2000-2010
Albemarle	68,172	84,186	98,970	23%	18%
Charlottesville	40,475	40,099	43,475	-1%	8%
Fluvanna	12,429	20,047	25,691	61%	28%
Greene	10,297	15,244	18,403	48%	21%
Louisa	20,235	25,627	33,153	26%	29%
Nelson	12,778	14,445	15,020	13%	4%
TJHD	164,476	199,648	234,712	21%	18%
Virginia	6,189,317	7,079,030	8,001,024	14%	13%

Table 6: Percent Change in Population, TJHD by Locality, and Virginia, 1990-2010
Source: Weldon Cooper Center; Thomas Jefferson District Planning Commission

AGE AND SEX DISTRIBUTION OF THE POPULATION

Figure 28 shows the population age and sex distribution in TJHD. College students have been counted as residents of the area in which they live while attending college, rather than their permanent residence, since the 1950 census. University of Virginia (UVA) students living in dormitories are included in Albemarle County's population while students living off campus are included in the City or County population based on their local address. This affects the number of 18 to 19 year olds who live in the County and the number of 20 to 24 year olds who live in the City, which in turn affects the population of TJHD. The magnitude of the effect of UVA students on the area's population of 18 to 24 year olds is shown in Table 7. The second largest age groups are the 45 to 49 and 50 to 54 year olds age groups.

The ratio of male to female residents in TJHD follows that of the United States. There is a slightly greater proportion of males under age five, and then beginning in adulthood, there is an increasingly greater proportion of females.

Between 2000 and 2010, the 45 to 64 year old age group in TJHD experienced the highest growth rate. Figure 29 shows these trends.

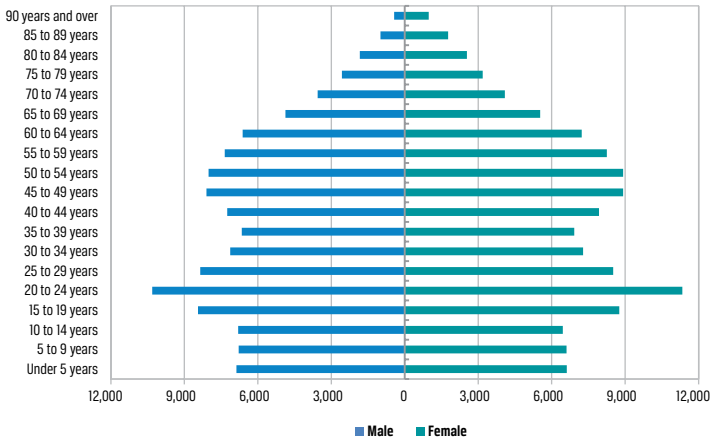


Figure 28: Population Estimates by Age and Gender, TJHD, 2010
Source: U.S. Census Bureau

Number of Persons Ages 18-24, Albemarle and Charlottesville	24,418
Number of UVA Students (undergraduate and Graduate)	21,049
Estimated Number of Students Living in UVA Housing	5,982

Table 7: Numbers of University of Virginia Students Compared To All Persons Aged 18 to 24 Years of Age Residing In Albemarle County and the City of Charlottesville, 2010-2011
Source: U.S. Census Bureau; the University of Virginia

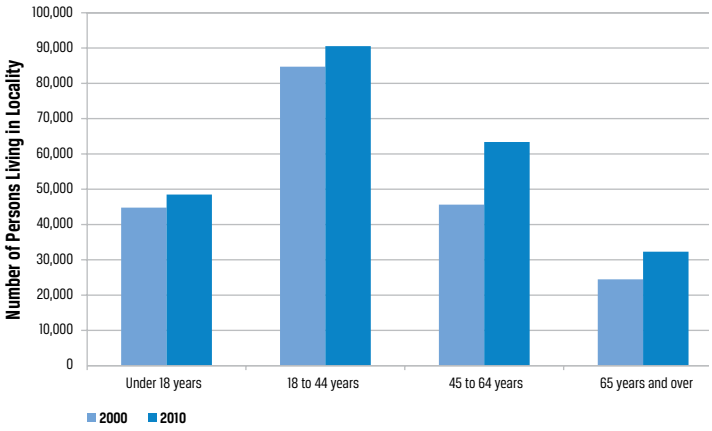


Figure 29: Population Estimates by Age, TJHD, 2000 and 2010
Source: U.S. Census Bureau

RACIAL AND ETHNIC COMPOSITION OF POPULATION

The racial composition of TJHD residents is shown in Figure 30. In 2010, 79% of residents were white, 13% were black and 4% were Asian.

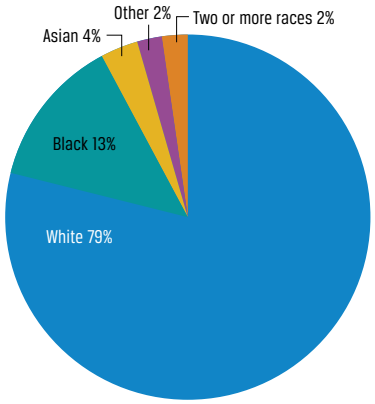


Figure 30: Racial Composition, TJHD, 2010
Source: U.S. Census Bureau

Between 1980 and 2010, the percentage of white residents decreased in Albemarle County, Greene County and the City of Charlottesville. It increased in Nelson, Louisa, and Fluvanna Counties. The percentage of black residents decreased in all localities except the City of Charlottesville (Table 8).

		Percentage of Population			
		1980	1990	2000	2010
Albemarle	Black	11 %	10 %	10 %	10 %
	White	87 %	86 %	85 %	81 %
Charlottesville	Black	18 %	21 %	22 %	19 %
	White	81 %	76 %	70 %	69 %
Fluvanna	Black	29%	23%	18%	15%
	White	70%	77%	79%	81%
Greene	Black	8%	6%	6%	6%
	White	92%	93%	91%	88%
Louisa	Black	33%	26%	22%	18%
	White	67%	74%	77%	78%
Nelson	Black	24%	19%	15%	13%
	White	76%	80%	83%	83%

Table 8: Percent of Population by Race, TJHD Localities, 1980-2010
Source: U.S. Census Bureau

Five percent of TJHD residents were of Hispanic origin. The percentage increase of Hispanic residents between 2000 and 2010 was greater than Virginia's in all localities except Nelson County, as shown in Figure 31.[8]

The City of Charlottesville is home to a branch of the International Rescue Committee (IRC), a resettlement agency that brings about 150 refugees to the area each year. The influx of persons with different cultures and languages

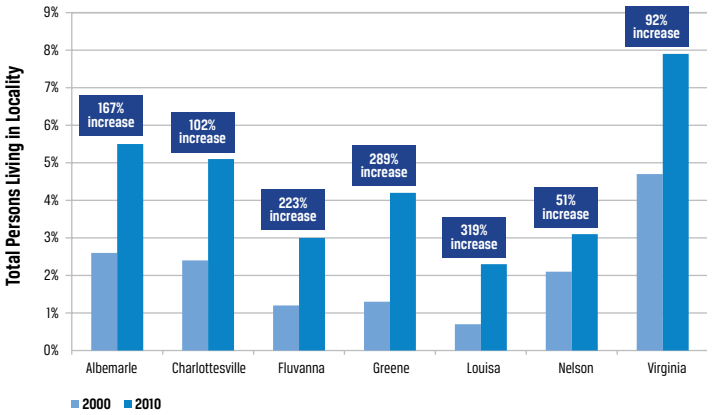


Figure 31: Percent of Total Population that is Hispanic Population Estimates, TJHD Localities and Virginia, 2000 and 2010
Source: U.S. Census Bureau

presents many opportunities but also poses challenges for local schools, human service agencies, and health providers as these groups transition into the community. Between 2002 and 2012, enrollment of students with Limited English Proficiency (LEP) in TJHD public school systems increased from 2.9% to 4.6%; however, this was below the Virginia percentage (7.2% in 2011-2012) (Figure 32). The City of Charlottesville has experienced a significant increase in LEP enrollment, tripling since 2002 from 3% to 9% (Figure 33).

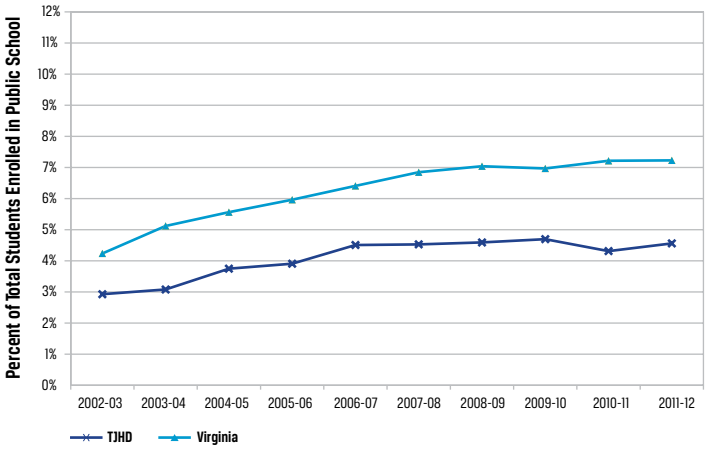


Figure 32: Limited English Proficient Student Enrollment, TJHD and Virginia, 2000-2012
Source: Virginia Department of Education

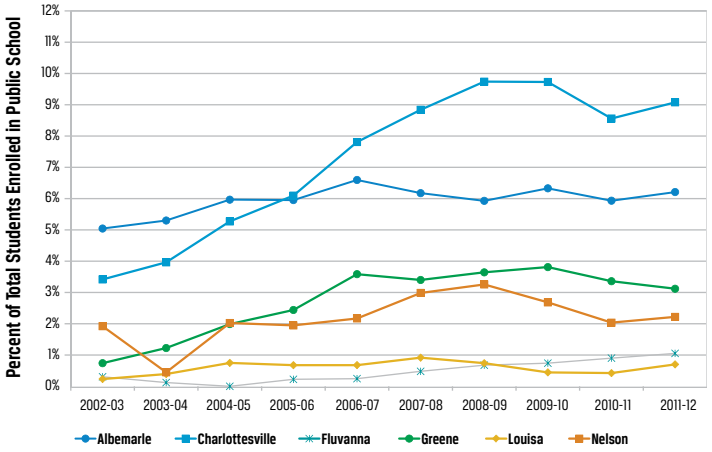


Figure 33: TJHD Localities, 2002-2012
Source: Virginia Department of Education, English as a Second Language Enrollment Report

PERSONS WITH DISABILITIES

The combined number of persons receiving Supplemental Security Income (SSI) and Old-Age, Survivors and Disability Insurance (OASDI) disability benefits provides a snapshot of those in the community with disabilities (Table 9). The percentage of the population that receives SSI benefits only is shown in Figure 34.

	Total Number of Beneficiaries	Total Population	Percent of the Population
Albemarle	2,428	98,970	2.45%
Charlottesville	1,806	43,475	4.15%
Fluvanna	899	25,691	3.50%
Greene	725	18,403	3.94%
Louisa	1,850	33,153	5.58%
Nelson	891	15,020	5.93%
Virginia	**355,299**	**8,001,024**	**4.44%**

Table 9: SSI and OASDI Beneficiaries, TJHD by Locality, 2011
Source: U.S. Social Security Administration, SSI Recipient and OASDI Beneficiary[9] Reports; U.S. Census Bureau

Figure 35 shows that the percentage of students aged 0-19 years old with disabilities who received special education in the public school system decreased between 2006 and 2010 in all TJHD localities except Louisa County. In 2010, 6.99% of the population under 19 years old in Albemarle County received special education; 9% in Charlottesville; 8.55% in Fluvanna County; 8.43% in Greene County; 8.61% in Nelson County; and 10.14% in Louisa County.

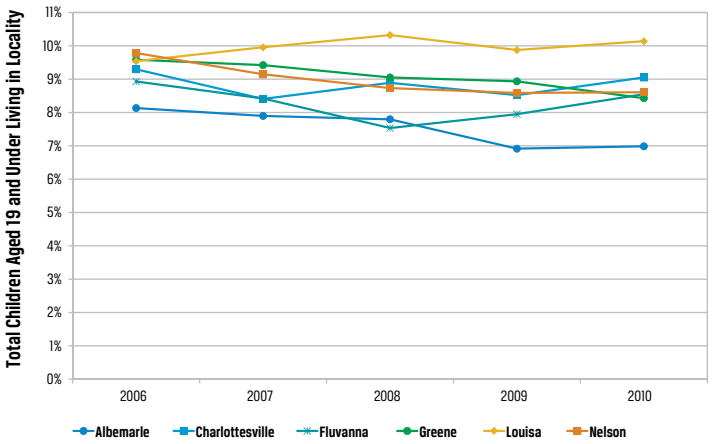
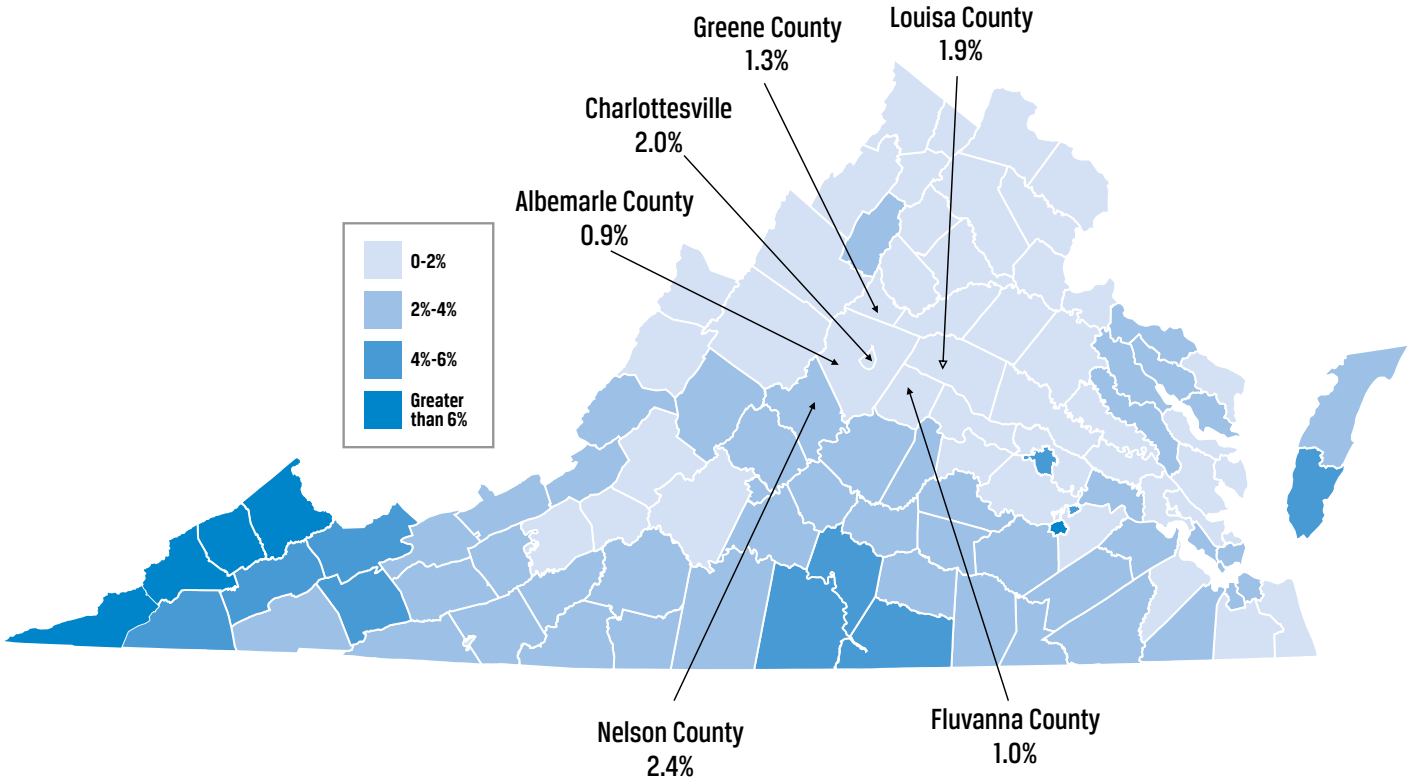


Figure 35: Percent of Children Receiving Special Education, TJHD Localities, 2006-2010
Source: Virginia Department of Education, Special Education Child Count Reports; U.S. Census Bureau, Small Area Health Insurance Estimates

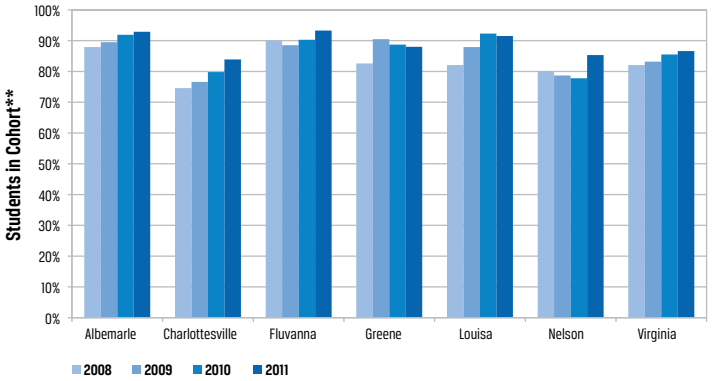


*Measured as December 2010 recipients of Supplemental Security Income benefits divided by the total population
Figure 34: SSI Recipients, TJHD Localities, 2010
Source: Weldon Cooper Center, County Health Rankings; U.S. Social Security Administration

EDUCATIONAL ATTAINMENT

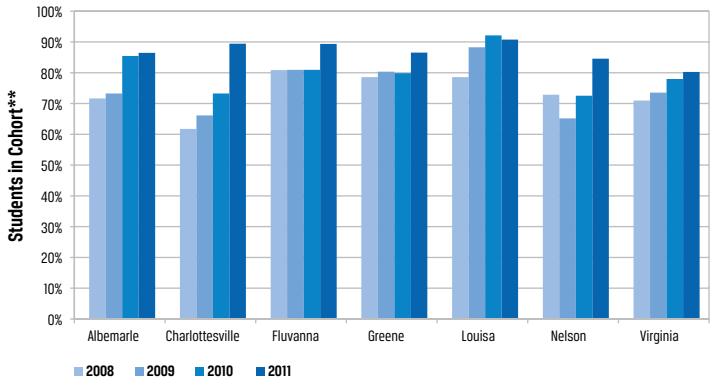
From 2008 to 2011, all TJHD localities demonstrated an increase in the percentage of students who graduated from high school on-time.[10] Albemarle, Fluvanna, Greene, and Louisa Counties exhibited all-student graduation rates higher than Virginia (86.6%) in 2011 (Figure 36). All TJHD localities demonstrated improved on-time graduation rates of economically disadvantaged students and were higher than Virginia in 2011 (Figure 37).

In 2011, the percent of residents 25 years and older who attained a high school diploma, a college degree or an advanced degree was higher in the Charlottesville Metro Area, which includes the City of Charlottesville and Albemarle, Fluvanna, Greene and Nelson Counties, than in Virginia (Figure 38).



*The percentage of students in a cohort who earn a diploma within 4 years of entering high school
**Cohort: Students who entered the ninth grade for the first time together and were scheduled to graduate 4 years later

Figure 36: On-Time Graduation, All Students, TJHD Localities and Virginia, 2008-2011 Source: Virginia Department of Education, Virginia School Report Card



*The percentage of students in a cohort who earn a diploma within 4 years of entering high school
**Cohort: Students who entered the ninth grade for the first time together and were scheduled to graduate 4 years later

Figure 37: On-Time Graduation, Economically Disadvantaged Students, TJHD Localities and Virginia, 2008-2011
Source: Virginia Department of Education, Virginia School Report Card

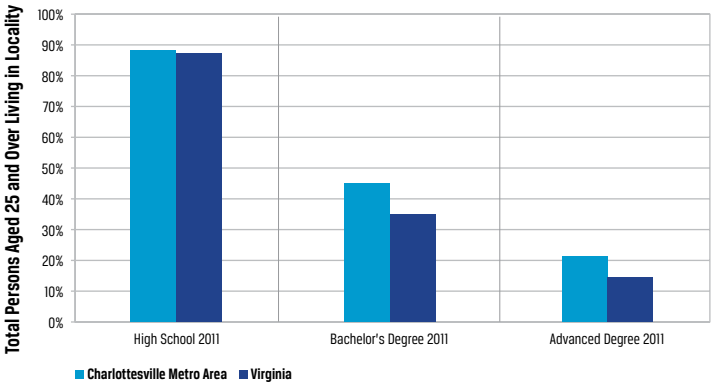


Figure 38: Educational Attainment, Charlottesville Metro Area and Virginia, 2011
Source: U.S. Census Bureau, American Community Survey

SOCIOECONOMICS

MEDIAN HOUSEHOLD INCOME

Over the past decade, all TJHD localities experienced an increase in Median Household Income (MHI), which followed state and national trends. In 2011, the MHI in TJHD localities ranged from $41,826 in the City of Charlottesville to $62,086 in Fluvanna County. The MHIs in the City of Charlottesville and Greene, Louisa and Nelson Counties were below the Virginia MHI ($62,000) and in the City of Charlottesville and Nelson County were also below the U.S. MHI ($51,000) (Figure 39 and Figure 40).

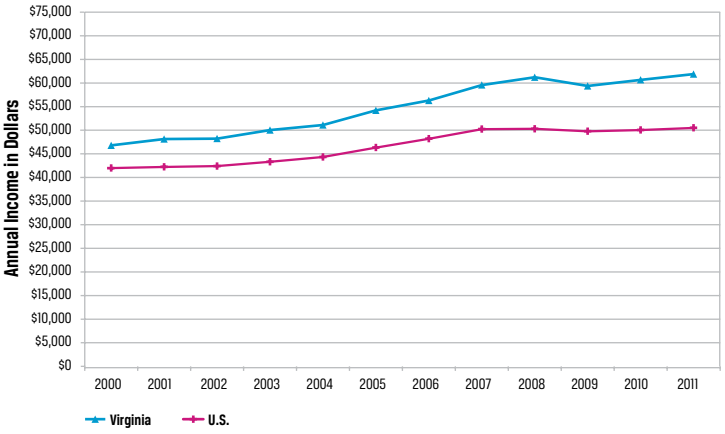


Figure 39: Median Household Income, Virginia, and the U.S., 2000-2011
Source: U.S. Census Bureau, Small Area Income and Poverty Estimates

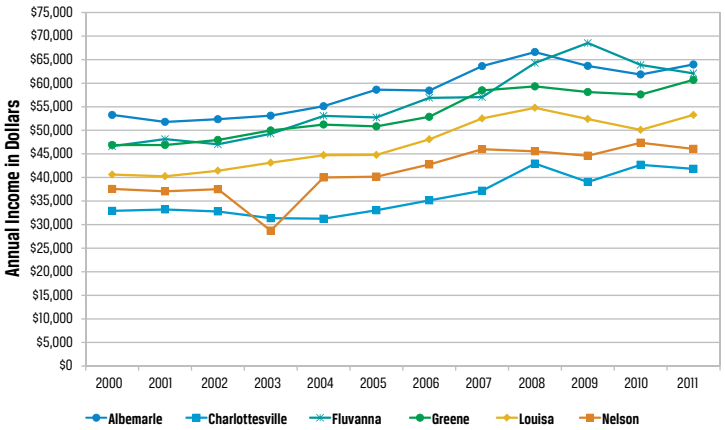


Figure 40: Median Household Income, TJHD Localities, 2000-2011
Source: U.S. Census Bureau, Small Area Income and Poverty Estimates

PERSONS LIVING IN POVERTY

Federal poverty guidelines issued by the U.S. Department of Health and Human Services serve as a simplified version of poverty thresholds. For administrative purposes, such as determining eligibility for public programs, these guidelines are referred to as the Federal Poverty Level (FPL). Incomes at 100% of the FPL in 2010 were set at $10,830 for an individual and $22,050 for a family of four. In 2010, 20.2% of City of Charlottesville residents lived below the FPL; however, as shown earlier in Figure 28 and Table 7, the University of Virginia student body affects this estimate. Elsewhere in TJHD, percentages ranged from 13.1% in Nelson County to 7.3% in Fluvanna County (Figure 41).

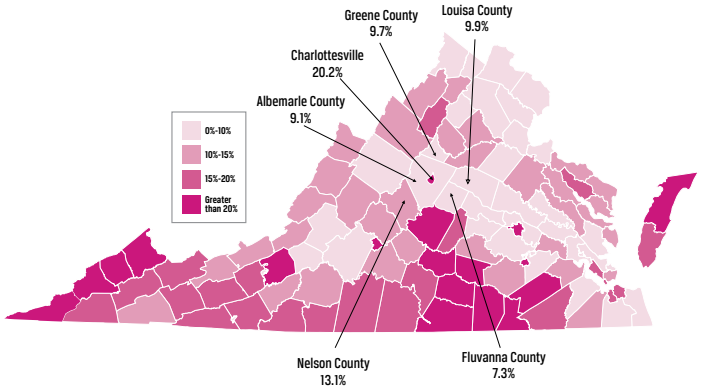


Figure 41: Poverty Rate, TJHD Localities, 2010
Source: Weldon Cooper Center, County Health Rankings; U.S. Census Bureau, Small Area Income and Poverty Estimates

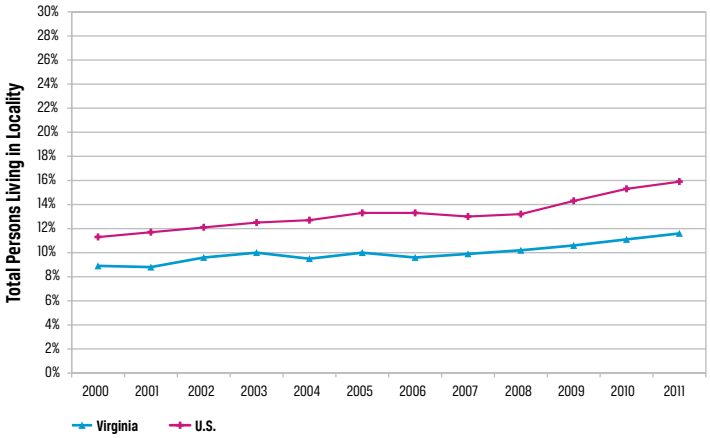


Figure 42: Percent of Persons in Poverty, Virginia, and the U.S., 2000-2011
Source: U.S. Census Bureau, Small Area Income and Poverty Estimates

Between 2001 and 2011, the percentage of persons living below 100% of the FPL in TJHD localities increased. The City of Charlottesville consistently had a higher percentage of residents living in poverty than Virginia (11.6%) and the U.S. (15.9%) (Figure 42) and Nelson County was consistently higher than Virginia. Albemarle, Greene, Louisa and Fluvanna Counties were lower than or consistent with Virginia and consistently lower than the U.S. (Figure 43).

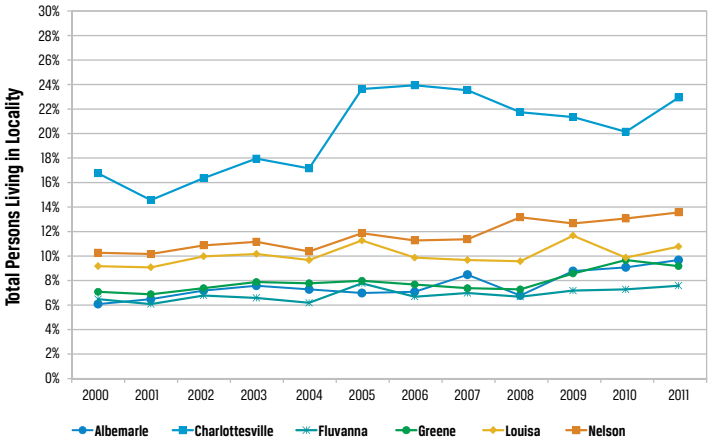


Figure 43: Percent of Persons in Poverty, TJHD Localities, 2000–2011
Source: U.S. Census Bureau, Small Area Income and Poverty Estimates

In 2011, 21% of children in Nelson County and 17% in Louisa County were living below the FPL, higher than the percentage in Virginia (15.6%) but lower than the U.S. (22.5%). In the City of Charlottesville, 23% of children were living in poverty, a higher percentage than both Virginia and the U.S. In Albemarle, Fluvanna, and Greene Counties, the percentages were lower than Virginia, at 13%, 9.2%, and 10% respectively (Figure 44 and Figure 45).

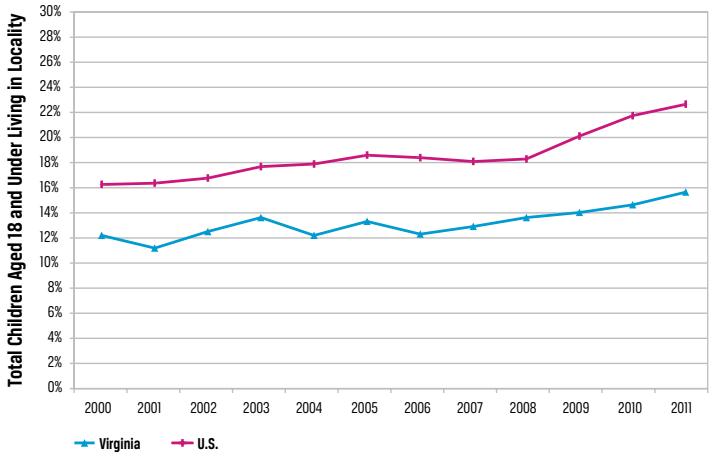


Figure 44: Percent of Children in Poverty, Virginia and the U.S., 2000–2011
Source: U.S. Census Bureau, Small Area Income and Poverty Estimates

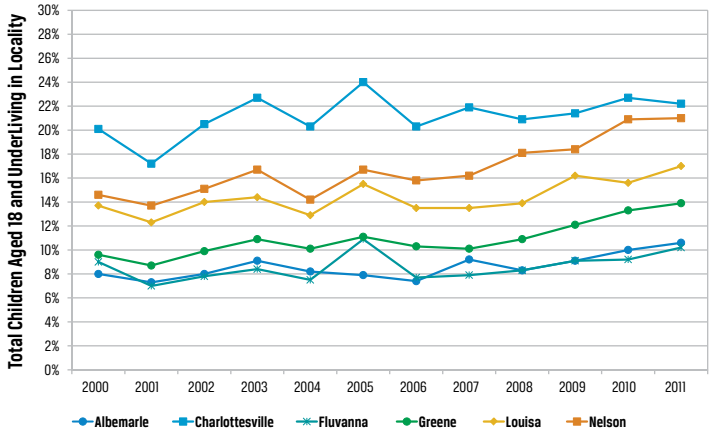


Figure 45: Percent of Children in Poverty, TJHD Localities, 2000–2011
Source: U.S. Census Bureau, Small Area Income and Poverty Estimates

Another indicator of poverty is the percentage of children receiving free and reduced-priced meals under the National School Lunch Program. Children are eligible for free school meals if their family's household income is less than 130% of the FPL and for reduced-price meals if their household income is between 130 and 185% of the FPL. As shown in Figure 46, TJHD experienced a steady increase from 2005 through 2012, which was reflective of the state trend and TJHD has remained below the Virginia percentage. The City of Charlottesville, Louisa County, and Nelson County consistently remained above the Virginia rate while Albemarle County, Fluvanna County, and Greene County were consistently below. During the 2011-2012 school year, approximately 54% of Charlottesville City students, 45% of Louisa County students, and 50% of Nelson County students qualified for free or reduced lunch compared to 40% of all Virginian students. Less than 30% of Fluvanna and Albemarle County students and 38% of Greene County students qualified for free or reduced lunch (Figure 47).

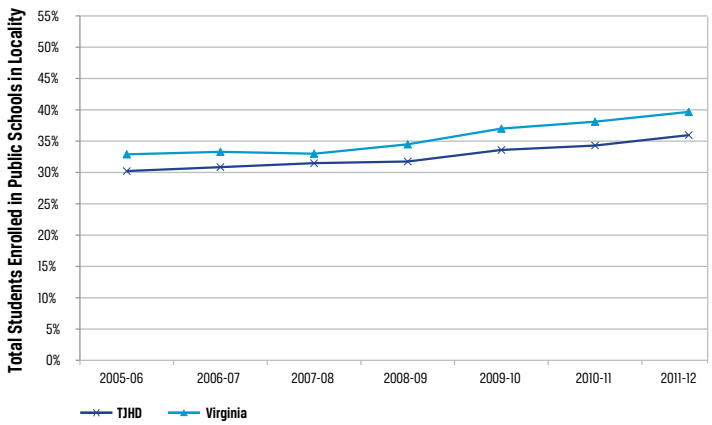


Figure 46: Percent of Students Eligible for Free and Reduced Lunch, TJHD, and Virginia, 2005–2012
Source: Virginia Department of Education, School Nutrition Programs

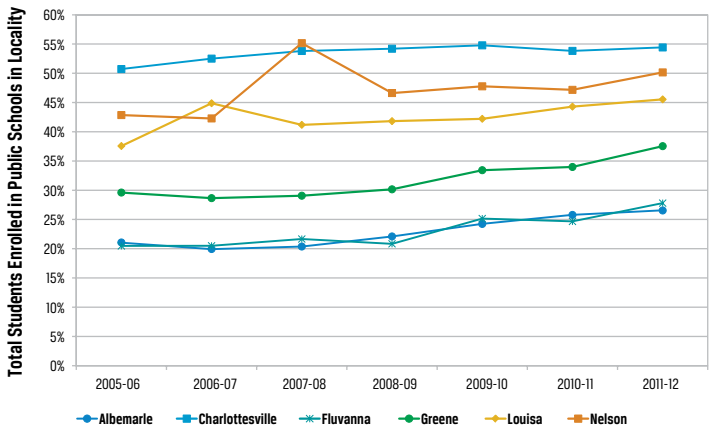


Figure 47: Percent of Students Eligible for Free and Reduced Lunch, TJHD Localities, 2005–2012
Source: Virginia Department of Education, School Nutrition Programs

As demonstrated in Figure 48, the number of households receiving assistance through the Supplemental Nutrition Food Assistance Program (SNAP) increased between 2001 and 2011 in all TJHD localities. Qualification for SNAP is based on household size and income level, with those at approximately 120% of the FPL qualifying for assistance. Between 2001 and 2011 there were substantial percent increases among TJHD localities, ranging from 120% to 387%, and there were greater numbers in all TJHD localities. Within TJHD, the percentage of the locality's population utilizing SNAP benefits ranged from 13.7% in Nelson County to 5.8% in Albemarle County (Figure 49).

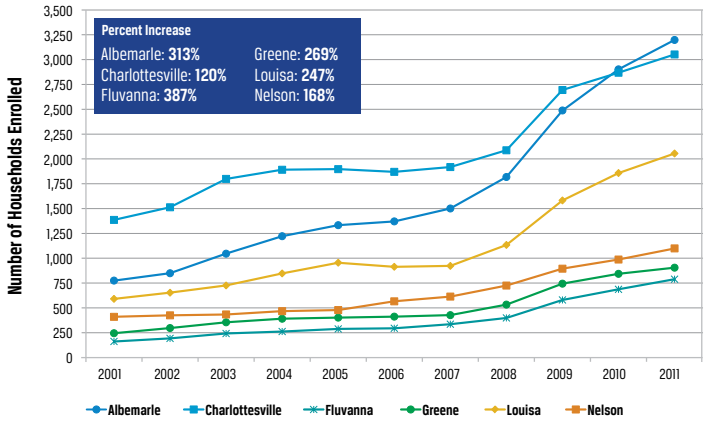
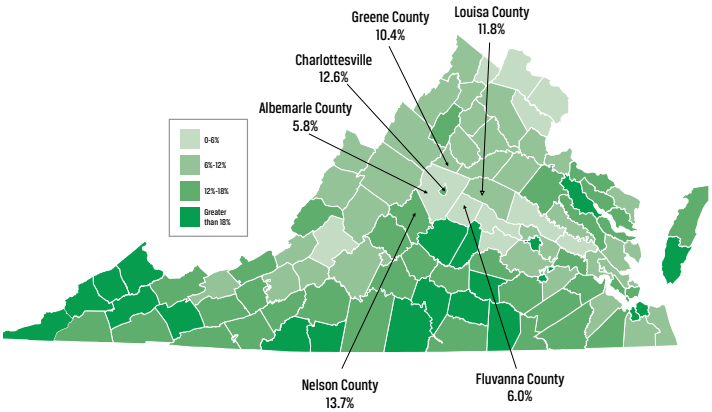


Figure 48: Households Receiving Food Stamps, TJHD Localities, 2001-2011
Source: Virginia Department of Social Services, Food Stamp Participation Report



*Measured as average monthly persons on SNAP divided by the total population

Figure 49: Percent Supplemental Nutrition Assistance Program (SNAP) Recipients, TJHD Localities, 2010; Source: Weldon Cooper Center, County Health Rankings; U.S. Census Bureau

HOMELESSNESS

The Thomas Jefferson Area Coalition for the Homeless (TJACH), a broad-based coalition of individuals and organizations working to end homelessness in TJHD, annually conducts the Street Census (a survey that provides data on the number of homeless in the region and their characteristics). According to this survey, the number of sheltered homeless[11] in TJHD increased by 82% between 2004 and 2011, from 129 in 2004 to 235 in 2011 – with a peak of 277 homeless in 2008 (Figure 50). However, the number of unsheltered persons[12] only decreased by 5% – from 35 in 2004 to 18 in 2011.

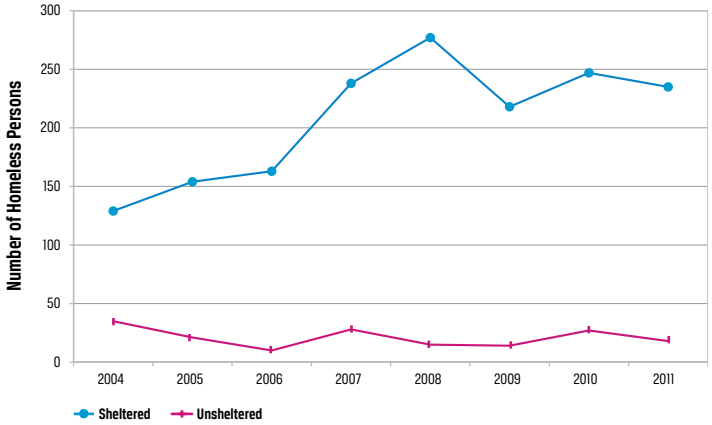


Figure 50: Sheltered and Unsheltered Homeless, TJHD, 2004-2011
Source: Thomas Jefferson Area Coalition for the Homeless, Street Census

UNEMPLOYMENT RATE

Between 2000 and 2011, TJHD, as a whole, and each of its localities maintained lower unemployment rates than that of the U.S. Still, as the economy worsened during the recession, unemployment rates rose, peaking in 2010 and decreasing to 5.5% in 2011 (Figure 51 and Figure 52).

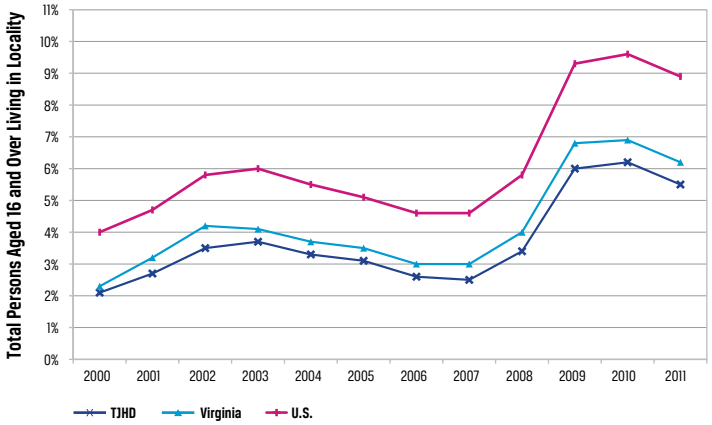


Figure 51: Unemployment Rate, TJHD, Virginia, and the U.S., 2000-2011
Source: Virginia Workforce Connection

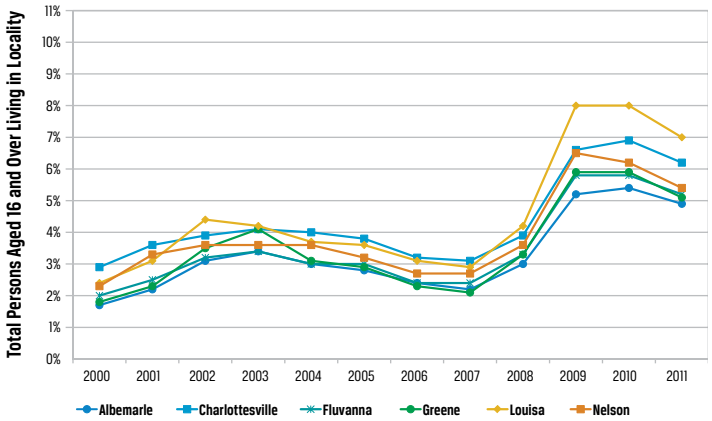


Figure 52: Unemployment Rate, TJHD Localities, 2000-2011
Source: Virginia Workforce Connection

HEALTH RESOURCE AVAILABILITY

HEALTH INSURANCE

Access to healthcare is largely affected by consumer health insurance coverage. Sources of health insurance include private coverage provided or subsidized by employers; private policies purchased by individuals; and government provided or subsidized coverage through Medicaid, Family Access to Medical Insurance Security (FAMIS), and Medicare.

To receive Medicaid benefits, recipients must meet categorical, income and resource criteria as established by each state. In Virginia, Medically Indigent (MI) Medicaid is available to the following groups:[13]

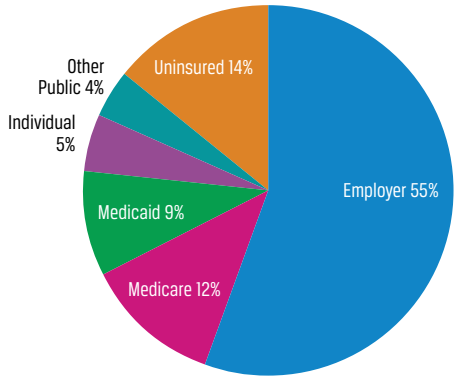
- Aged, blind and disabled (ABD) residents
  - Qualified individuals[14] with income between 120% and 135% of the FPL
  - Qualified Medicare beneficiaries with incomes up to 120% of the FPL
  - Medicaid Works beneficiaries
- Children less than 19 years of age living in households with incomes of less than 133% of the FPL (Children's Medicaid or FAMIS Plus)
- Pregnant women and newborns under 1 year old with household incomes of less than 133% of the FPL
- Women screened and diagnosed with breast or cervical cancer under CDC's Breast and Cervical Cancer Early Detection Program

MI Medicaid provides partial benefits for qualifying individuals with incomes up to 135% of the FPL and full benefits for those with incomes up to 80% of the FPL. Additionally, qualified disabled working Medicare beneficiaries with incomes up to 200% of the FPL are eligible for payment of Medicare Part A premiums by the Medicaid program. Plan First, Virginia's Family Planning Services Program, provides family planning care to qualifying men and women who earn up to 133% of the FPL.

In Virginia, the State Children's Health Insurance Program (SCHIP) is called FAMIS and is available for uninsured children under 19 years old who live in households with incomes up to 200% of the FPL. FAMIS Moms is available for uninsured pregnant women who have a medically confirmed pregnancy or are within a 60 day period after pregnancy and have household incomes up to 200% of the FPL. FAMIS Select helps households with children enrolled in FAMIS pay for their private or employer-sponsored insurance by paying up to $100 per FAMIS child per month to help pay for the family insurance premiums.

Medicare, a federal program, is available for those aged 65 and older, certain disabled individuals and people with end-stage renal disease.

Figure 53 shows the source of health insurance by percentage for Virginians in 2010. A greater percentage of Virginians receive health insurance through their employer than in the U.S. as a whole. Smaller percentages receive Medicaid or are uninsured compared to the U.S.



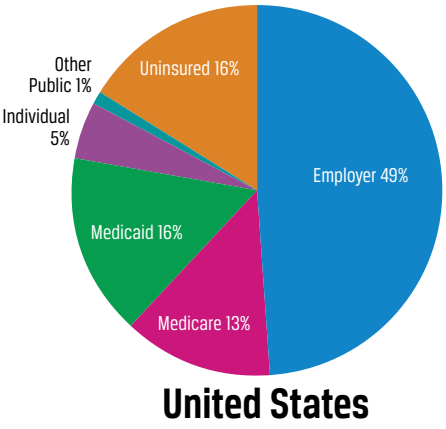


Figure 53: Sources of Health Insurance, Virginia and the U.S., 2010; Source: Kaiser Family Foundation, State Health Facts
*Percentages may not sum to 100% due to rounding effects

According to U.S. Census data, the percentage of Virginia residents who were uninsured in 2011 was not uniformly distributed across age groups, as seen in Figure 54. Adults aged 18 to 64 years old were the most likely to be uninsured.

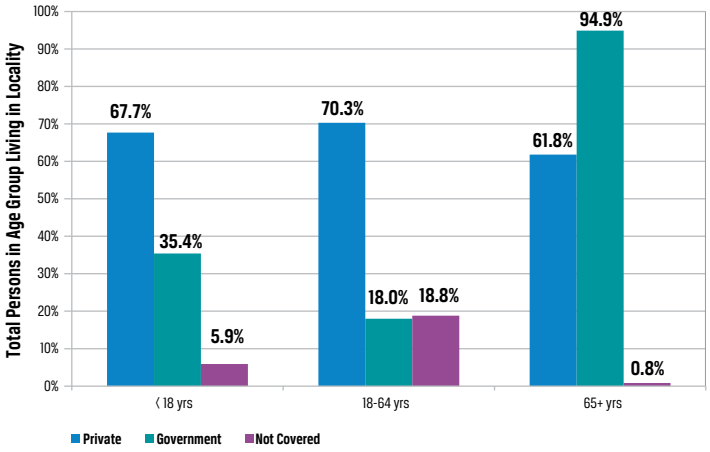


Figure 54: Health Insurance Coverage by Age, Virginia, 2011
Source: U.S. Census Bureau, Annual Social and Economic Supplement

The estimated percentage of uninsured adults in TJHD decreased from 21.5% in 2005 to 17.8% in 2010, which was comparable to the percentage of uninsured adults in Virginia (18%) (Figure 55). However, the City of Charlottesville (19.7%) and Greene (20.6%), Louisa (19.2%) and Nelson Counties (21.4%) had a higher percentage of uninsured adults than Virginia (Figure 56).

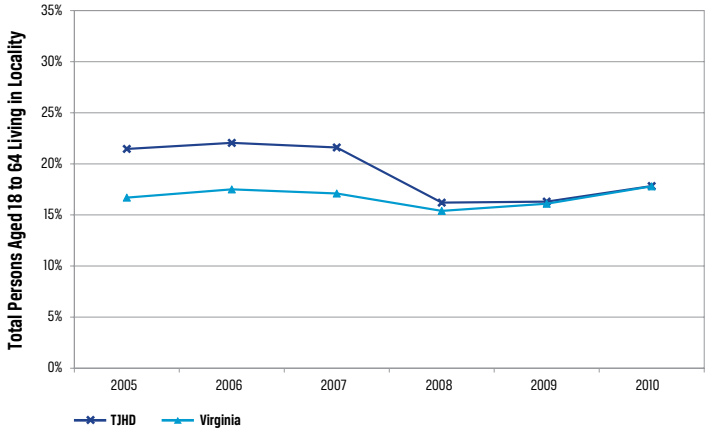


Figure 55: Percent of Estimated Uninsured Persons Aged 18-64 Years, TJHD and Virginia, 2005-2010
Source: U.S. Census Bureau, Small Area Health Insurance Estimates

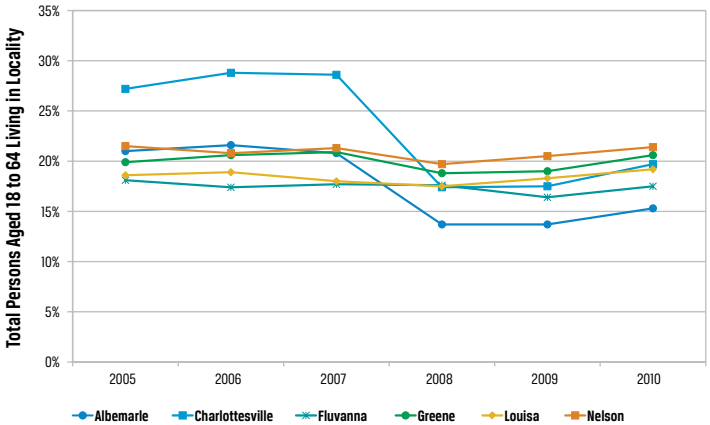


Figure 56: Percent of Estimated Uninsured Persons Aged 18-64 Years, TJHD Localities, 2005-2010
Source: U.S. Census Bureau, Small Area Health Insurance Estimates

Between 2006 and 2010, the estimated percentage of uninsured children decreased from 12.8% to 7.9% in TJHD (Figure 57). In 2010, the City of Charlottesville (7.5%) and Albemarle (7.4%), Fluvanna (7.5%), Greene (9.2%) Louisa (8.2%) and Nelson (10.2%) Counties had higher percentages of uninsured children than Virginia (7.0%) (Figure 58).

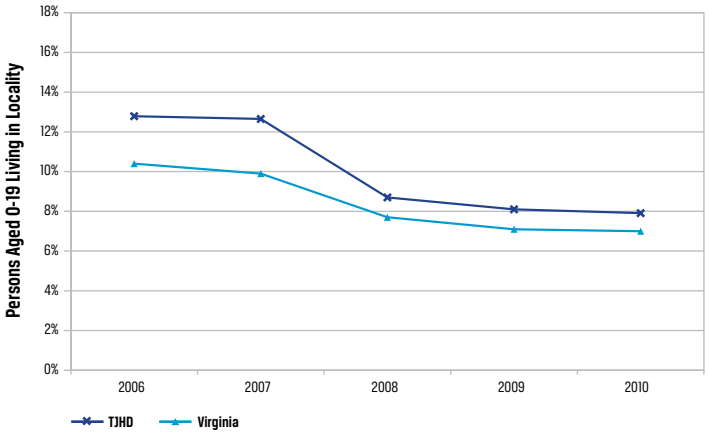


Figure 57: Percent of Estimated Uninsured Persons Aged Less Than 19 Years, TJHD and Virginia, 2006-2010
Source: U.S. Census Bureau, Small Area Health Insurance Estimates

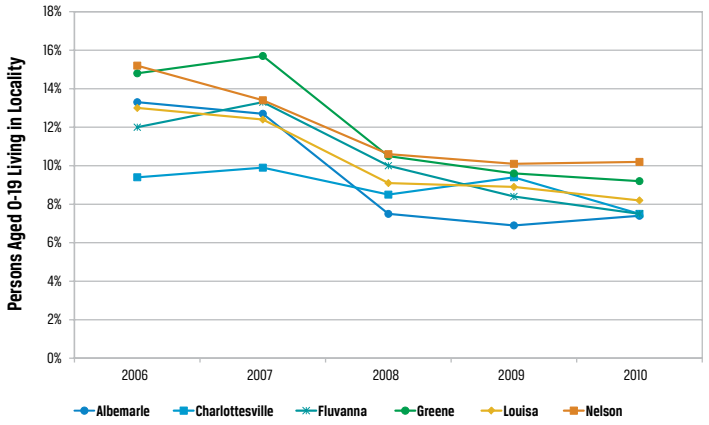


Figure 58: Percent of Estimated Uninsured Persons Aged Less Than 19 Years, TJHD and Virginia, 2006-2010
Source: U.S. Census Bureau, Small Area Health Insurance Estimates

While local data are not available, Figure 59 depicts Medicaid enrollment and spending by recipient group for both Virginia and the U.S. in fiscal year 2009. While children represent the largest group of enrollees in Virginia (55%) and the U.S. (49%), Medicaid spending is greatest among those with disabilities.

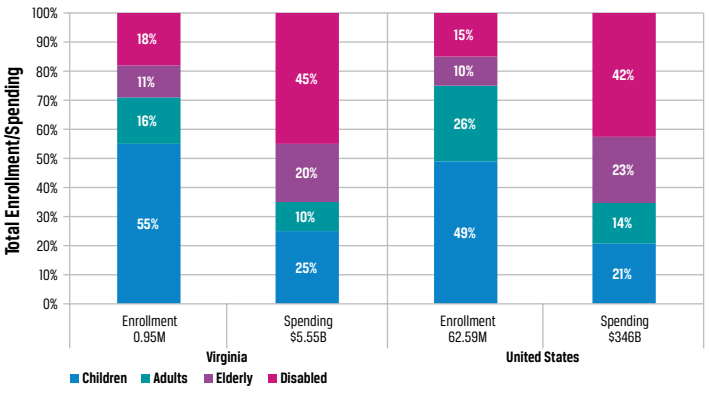


Figure 59: Percent of Medicaid Enrollment and Spending by Recipient Group, Virginia and the U.S., Fiscal Year 2009
Source: Kaiser Family Foundation, State Health Facts

AVAILABILITY OF HEALTHCARE PERSONNEL AND SERVICES

Primary Care

There are a large number of physicians with medical practices located in Albemarle County and the City of Charlottesville; most are affiliated with either the University of Virginia or Martha Jefferson Hospital. Table 10 shows the number of primary care physicians by area of specialty.

	Internal Medicine	Pediatrics	Family Medicine	OB/GYN	Geriatrics
Albemarle/ Charlottesville	65	39	67	27	8
Fluvanna	3	1	4	-	1
Greene	-	-	4	-	-
Louisa	1	1	8	-	-
Nelson	-	-	9	-	-
TJHD	**69**	**41**	**92**	**27**	**9**

Table 10: Number of Primary Care Physicians, TJHD by Locality, 2011
Source: UVA Physician Directory; Martha Jefferson Hospital Physician Directory; Private Practice Database

The Charlottesville Free Clinic (CFC) is a nonprofit health care organization that provides medical care, dental care and medications to low-income uninsured residents in TJHD. Out of the 60 free clinics in Virginia in 2011, CFC is one of 15 to receive accreditation from the Virginia Association of Free Clinics. As of Fiscal Year 2012, CFC had a total of 501 volunteers, including 128 medical providers, 34 pharmacists and 66 dentists providing care to the community. Figure 60 shows the unduplicated number of medical patients by county.

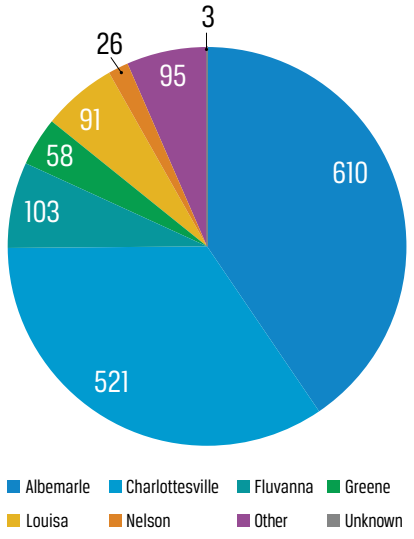


Figure 60: Unduplicated Charlottesville Free Clinic Medical Patients, TJHD by Locality, FY2012
Source: Charlottesville Free Clinic

Dental Care

There are a large number of dentists with general practices located in Albemarle County and the City of Charlottesville; Table 11 shows the number of dentists in TJHD. Although there are many dentists in the area and most dentists in TJHD have signed up to be Medicaid providers, very few actively accept Medicaid patients. For example, of 4,000 dentists in Virginia who are Medicaid providers, 127 submit claims on a regular basis. The barriers to access to dental care in TJHD include the cost of private insurance, the private pay rate and the lack of providers who regularly accept Medicaid.

	Dentists in General Practice, Oral Surgery and Pediatric Specialists
Albemarle/Charlottesville	189
Fluvanna	11
Louisa	9
Nelson	10
Augusta	13
Buckingham	8

Table 11: Number of Dentists, TJHD by Locality, 2011
Source: UVA Physician Directory; Martha Jefferson Hospital Physician Directory; Private Practice Database

The Charlottesville Free Clinic Dental Clinic provides free acute dental care for uninsured persons who are experiencing debilitating dental pain and provides limited restorative dental care, including acute and non-acute extractions (pulling teeth), a basic exam, treatment plan, X-rays, and fillings. The number of dental patients served, broken down by locality, is shown in Figure 61.

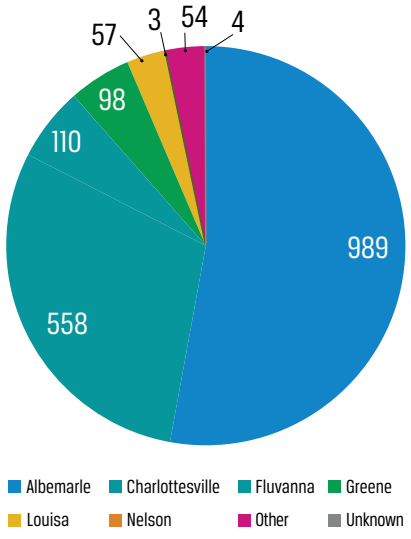


Figure 61: Unduplicated Charlottesville Free Clinic Dental Patients, TJHD by Locality, FY2012
Source: Charlottesville Free Clinic

The Community Dental Center is a non-profit full-service dental center that serves primarily children in TJHD; the Community Dental Center has a full time pediatric specialist dentist, three family practice dentists and five dental assistants. In FY2012, the practice served an average of 522 patients per month (Figure 62).

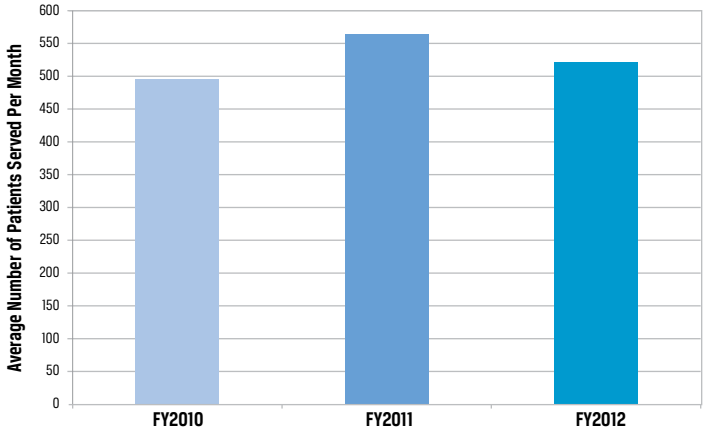


Figure 62: Average Number of Patients Served, Community Dental Center, FY2010-2012
Source: Community Dental Center

Figure 63 shows that since 2006, there has been an increase in the utilization of dental services for children eligible for dental service benefits through the Medicaid and FAMIS Smiles for Children program. In 2009-2010, just over 52% of eligible children received services in TJHD. Each locality has increased utilization since 2006 achieving almost 60% in Fluvanna and Greene Counties.

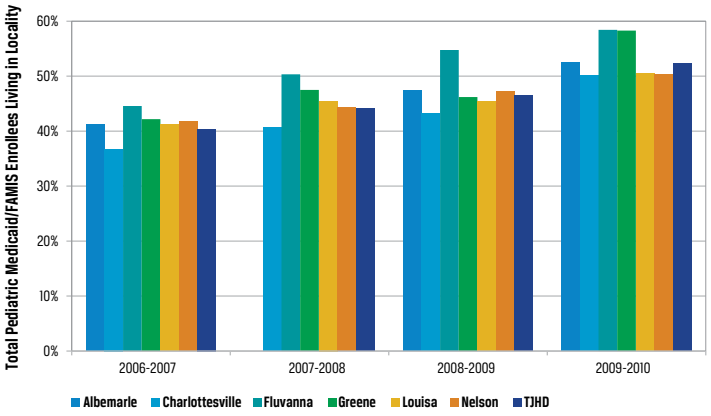


Figure 63: Percent of Medicaid/FAMIS Enrollees Aged 0 to 19 Receiving Dental Services, TJHD and TJHD Localities, 2006-2010
Source: Doral Dental of Virginia, Virginia Smiles for Children Pediatric Dental Participation Report

MENTAL HEALTH SERVICES

Table 12 shows the number of licensed mental health clinicians and practices in TJHD. The majority of these mental health services are located in Albemarle County and the City of Charlottesville.

	Clinicians		Practices		
	Psychiatrists	Licensed Therapists	Total Practices	Practices Serving Youth	Practices Accepting Medicaid
Albemarle/ Charlottesville	24	115	66	7	35
Fluvanna	0	3	3	2	2
Greene	0	1	1	1	1
Louisa	2	16	4	2	2
Nelson	0	3	2	2	2
TJHD	**26**	**135**	**73**	**11**	**39**

Table 12: Number of Mental Health Providers, TJHD by Locality, 2011; Source: Mental Health America

Established through the efforts of locality leaders in TJHD, the Region Ten Community Services Board (Region Ten) is a local agency that provides mental health, intellectual disability, crisis and substance abuse services to area residents. Region Ten works in partnership with the State Department of Mental Health, Mental Retardation Services, and Substance Abuse Services with offices and facilities in each TJHD locality. Programming is available to all children, adults, and families living in these communities; nearly 600 employees serve approximately 6,000 clients, 1,500 of whom are children. Table 13 shows the number of all mental health direct service staff, which includes anyone that provided mental health services whether licensed or not.

	Direct Mental Health Providers
Albemarle/Charlottesville	161
Fluvanna	11
Greene	15
Louisa	14
Nelson	18
TJHD	**219**

Table 13: Number of Mental Health Direct Service Staff: Region Ten, TJHD by Locality, 2012
Source: Personal Communication with Karen Rifkin, Region Ten

PUBLIC HEALTH

In TJHD, each locality has a cooperative agreement with the Virginia Department of Health (VDH) to operate its department of health on their behalf. The City of Charlottesville and Albemarle County have a joint department. The 5 health departments provide services that promote community health and prevent disease. Clinical preventive services include family planning, sexually transmitted infection testing, treatment and contact tracing, immunizations, WIC nutrition counseling and food supplementation, and refugee health screening. Dental varnish application for children younger than 3 years old and case management for vulnerable pregnant women and mothers are provided in Fluvanna, Greene, Louisa and Nelson Counties, and prenatal care is provided in Louisa County. Communicable disease prevention and control efforts in all health departments include infectious disease surveillance and investigation, tuberculosis case management, environmental health programs to prevent food, water borne, and vector transmitted diseases, and emergency preparedness. Health promotion initiatives include general health education, car seat distribution to low-income families, the TJHD Tobacco Use Control Coalition, the Charlottesville/Albemarle Community Health Navigators, Mobilizing for Action through Planning and Partnership (MAPP) Community Health Improvement Planning, the Improving Pregnancy Outcomes Workgroup (IPO), the Charlottesville Area Safe Sleep Program, and the Community Action on Obesity (CAO). Table 14 shows the number of public health staff by specialty.

Local Health Department	Number of Full-Time Equivalent Positions				
	Public Health Nurses	Environmental Health Speacialists	Nutritionists	Clinicians	Public Health Specialists
Albemarle/ Charlottesville	10.65	9.00	3.70	0.70	4.40
Fluvanna	2.40	1.47	0.19	0.11	0.80
Greene	2.45	1.52	0.29	0.11	0.80
Louisa	4.85	2.59	0.63	0.37	2.00
Nelson	2.15	1.42	0.19	0.11	0.80
TJHD	**22.50**	**16.00**	**5.00**	**1.40**	**8.80**

Table 14: Number of staff by specialty, TJHD, 2012
Source: Thomas Jefferson Health District

CHA SECTION TWO

Section two includes information to answer the question:
What are the strengths and risks in our community that contribute to health?

INDICATORS:

COMMUNITY RESOURCES

PUBLIC TRANSPORTATION

The Charlottesville Area Transit (CAT) bus system began service in 1975 as Charlottesville Transit Service after the City of Charlottesville purchased Yellow Transit Company, which provided municipal bus service before that point. CAT was known as Charlottesville Transit Service (CTS) until 2010, when the City of Charlottesville renamed the service Charlottesville Area Transit. CAT is owned and operated by the City of Charlottesville, with funding from University of Virginia (UVA) and Albemarle County. CAT operates seven days a week and provides fixed route transit service within the City of Charlottesville, certain areas of Albemarle County and UVA's campus (Figure 64). Figure 65 shows the top trip origin and destination spots in the City of Charlottesville along CAT routes.

Figure 64: CAT Bus Route Alignments, Monday through Saturday Service, Charlottesville, 2012
Source: Charlottesville Area Transit, Transit Development Plan: Fiscal Years 2012-2017

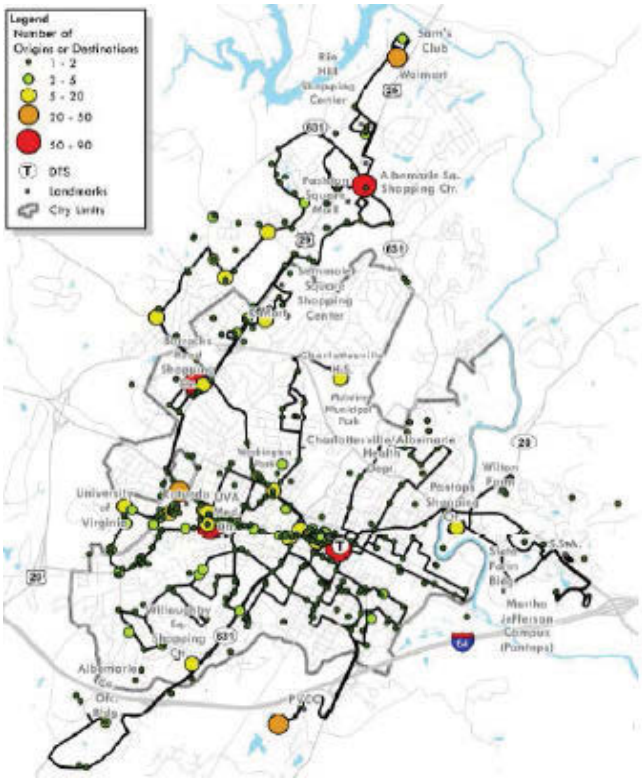


Figure 65: Top Trip Origin and Destination Locations of CAT Survey Responses
Source: Charlottesville Area Transit, Transit Development Plan: Fiscal Years 2012-2017

JAUNT provides transportation services to persons who are handicapped or disabled in the City of Charlottesville and Albemarle, Fluvanna, Louisa, Nelson, Buckingham and Amherst Counties. JAUNT buses make over 300,000 trips each year, transporting residents to work, doctor's appointments, and other activities. Between fiscal year 2008 and 2012, the number of JAUNT passengers originating from the City of Charlottesville and Nelson County both increased by 15%, from Fluvanna County by 34%, from Louisa County by 33%, and from Albemarle County by 23% (Figure 66). Figure 67 shows a breakdown of JAUNT ridership by type of trip. Most trips were made by the elderly and disabled for nonmedical purposes, followed closely by medical trips and rural transportation routes.

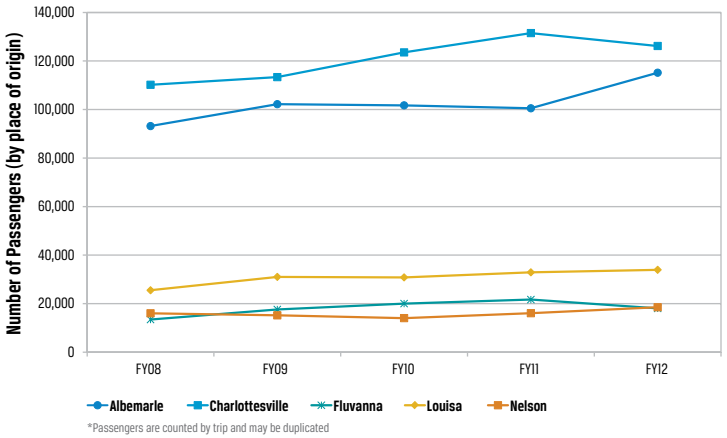


Figure 66: JAUNT Passengers, TJHD Localities, 2008-2012
Source: JAUNT Ridership Report, 2012

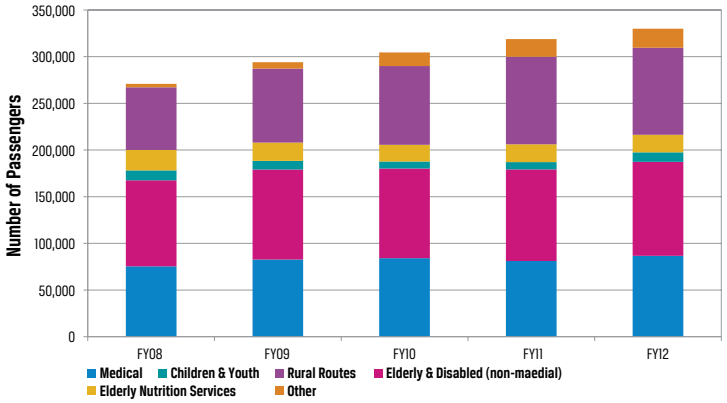


Figure 67: JAUNT Passengers by type of services, TJHD, 2008-2012
Source: JAUNT Ridership Report, 2012

Greene County is not serviced by JAUNT but instead is served by a local system, Greene County Transit, Inc. The number of passengers using Greene County Transit for medical trips increased by 50% between January and August 2011 – from 208 trips to 313 trips (Figure 68).

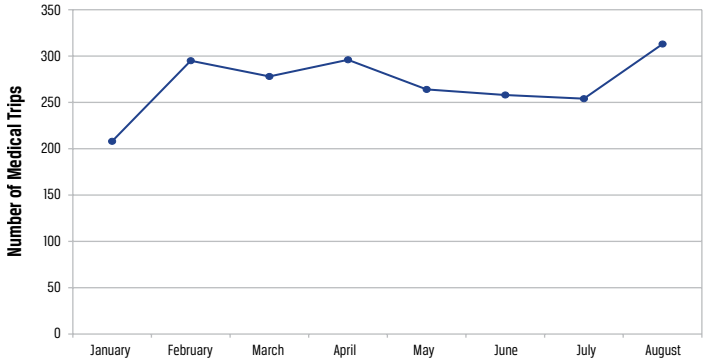


Figure 68: Greene County Transit Authority Medical Trips, Greene County, January-August 2011
Source: Greene County Transit, Inc.

RECREATIONAL FACILITIES

Studies have shown that living in close proximity to recreational facilities is associated with higher physical activity and lower obesity levels among community members.[15,16] The Centers for Disease Control and Prevention (CDC) recommends improving access to recreational facilities as one of the 24 environmental- and policy-level strategies to reduce obesity.[17] In 2009, the City of Charlottesville had 21 facilities per 100,000 residents, which was higher than Virginia's rate (11) and higher than the national benchmark.[18] Albemarle County had 13 facilities per 100,000 residents and Fluvanna County had 8 facilities per 100,000 residents, which were below the national benchmark, but higher than the Virginia rate. Greene County had 5 facilities per 100,000 residents, Louisa County had 9 facilities and Nelson County had 7 facilities (Figure 69).

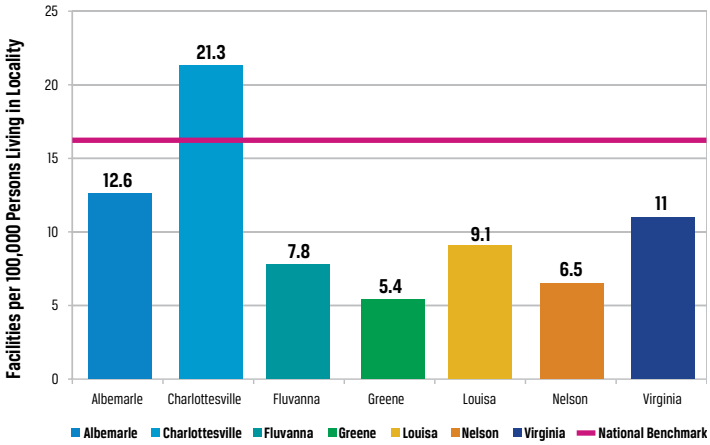


Figure 69: Recreational Facilities, TJHD Localities and Virginia, 2009
Source: County Health Rankings, Access to Recreational Facilities

TYPES OF FOOD STORES

According to the County Health Rankings, "though research on the food environment is still in its early stages, there is strong evidence that access to fast food restaurants and residing in a food desert (a geographic area where mainstream grocery stores are either totally absent or inaccessible to low-income shoppers) correlate with a high prevalence of overweight, obesity, and premature death."[19, 20, 21] In 2009, fast-food restaurants[22] and convenience stores[23] combined made up 49% of available food stores in TJHD while grocery stores[24] made up only 10%. Full-service restaurants[25] (37%) were the most prevalent type of food store in TJHD (Figure 70). While convenience stores make up the majority of available food stores in most TJHD localities, full-service restaurants and fast-food restaurants make up the majority of food stores in the City of Charlottesville and Albemarle County (Figure 71 and Figure 72).

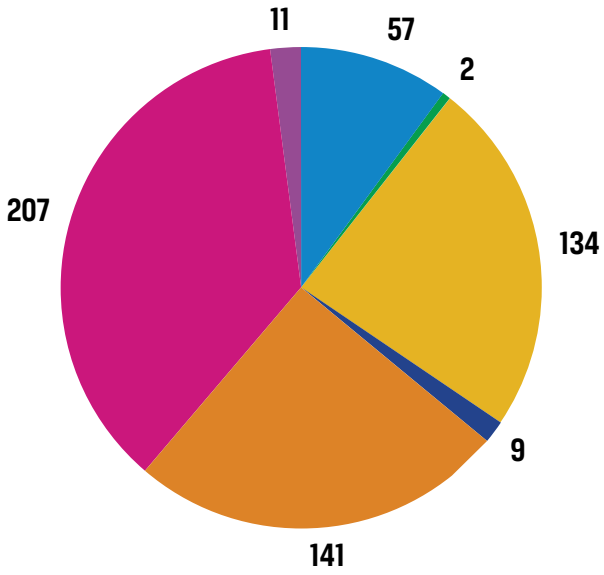


Figure 70: Food Stores by Type, TJHD, 2009;
Source: U.S. Department Of Agriculture, Food Environment Atlas

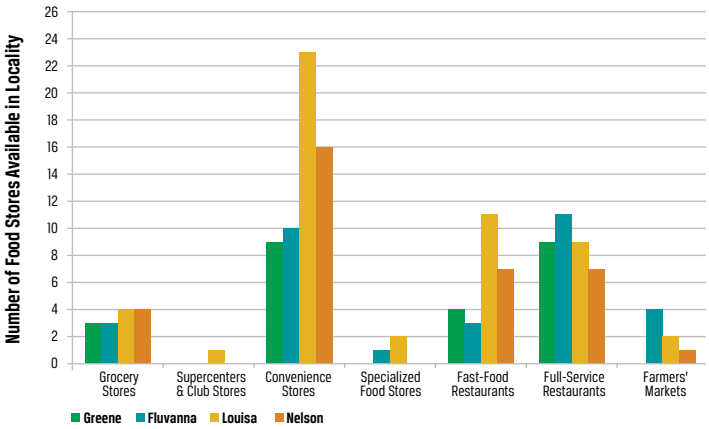


Figure 71: Food Stores by Type, Greene, Fluvanna, Louisa and Nelson Counties, 2009
Source: U.S. Department Of Agriculture, Food Environment Atlas

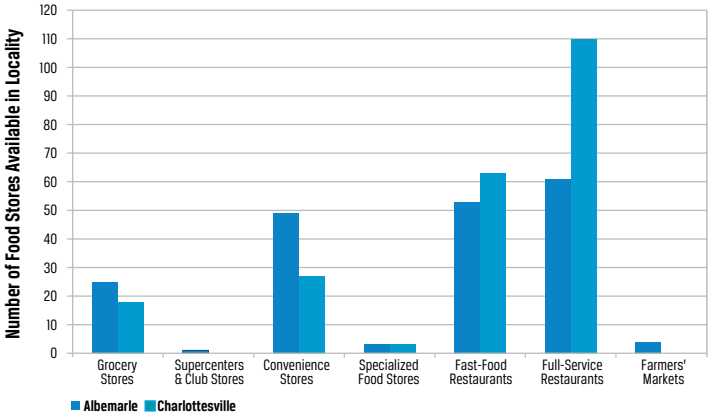


Figure 72: Food Stores by Type, Albemarle County and the City of Charlottesville, 2009
Source: U.S. Department Of Agriculture, Food Environment Atlas

CHILDCARE

According to the American Planning Association, a nonprofit that provides community development leadership, child care is a vital part of livable communities. As shown in Table 15 in 2012, there were 84 licensed child care centers[26] in TJHD. Twenty-three of the centers accepted infants from 1 month to 1 year of age; seven accepted toddlers from 1 to 2 years old; 38 accepted toddlers from 2 to 4 years old; 14 accepted preschoolers from 4 to 5 years old. In addition to these centers, there were 28 licensed family day homes.[27] These homes have the capacity to serve 306 children. Twenty-two accepted infants from 1 month to 1 year of age; three accepted toddlers from 1 to 2 years old; and three accepted toddlers 2 to 4 years old. Theoretically that translates to licensed care available for 42% of children under 5 years of age in TJHD; however, some of the slots are diverted to children aged 6 to 12 years old for preschool and after school programs and most centers do not operate at full capacity.

		Charlottesville & Albemarle	Fluvanna	Greene	Louisa	Nelson
Number of children <5 yrs old residing in locality		7,832	1,592	1,310	2,029	727
Licensed Childcare Centers & Preschool Programs						
Number of slots available (includes 1 mo to 5 yrs old and 6-12 yrs old after school		3,919	279	434	381	393
Number of Facilities		54	4	7	12	7
Number of those facilities that accept ages	1 mo to 1 yr old	19	2	1	1	-
	1 to 2 yrs old	6	-	1	-	-
	2 to 4 yrs old	23	-	3	7	5
	4 to 5 yrs old	6	2	2	2	2
Family Home						
Number of slots available (includes 1 mo to 5 yrs old and 6-12 yrs old after school)		174	44	0	76	12
Number of Facilities		16	4	0	7	1
Number of those facilities that accept ages	1 mo to 1 yr old	12	2	-	7	1
	1 to 2 yrs old	1	2	-	-	-
	2 to 4 yrs old	3	-	-	-	-
	4 to 5 yrs old	-	-	-	-	-

Table 15: Child Care, TJHD, 2012
Source: Virginia Department of Social Services

COMMUNITY SAFETY

The safety of our communities has both direct and indirect effects on health. Victims of violent crimes experience both physical and psychological health issues. Persons who are routinely exposed to unsafe communities may be affected by psychosocial stress that affects health, and fear of crime has been shown in studies to be directly associated with poor health outcomes. Additionally, higher levels of crime in a neighborhood are associated with lower levels of physical activity.[28]

Crime incident report rates are one indicator of community safety, but because rates are influenced by factors such as population size, stability and density, economic conditions and reporting patterns, caution is advised in making inferences from these data. Figure 73 shows total crime (Group A offenses)[29] as reported by county sheriffs' offices and the state police. In TJHD, Group A offenses decreased slightly between 2000 and 2011, from 6,017 incidents per 100,000 residents in 2000 to 4,337 incidents per 100,000 in 2011. Over the past decade, the City of Charlottesville crime rates have decreased (from 10,067 to 8,470), but remained higher than other TJHD localities. In 2011, Albemarle County was 3,800 incidents per 100,00 residents, Fluvanna was 2,270, Greene was 3,398, Louisa was 2,203, and Nelson was 2,782 (Figure 74).

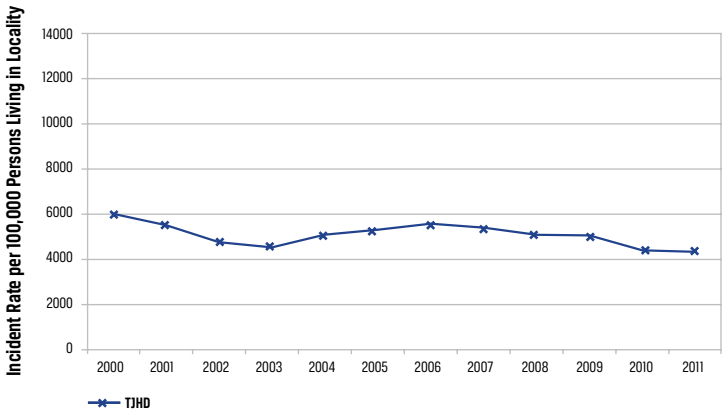


Figure 73: Reported Crime Incidents, TJHD, 2000-2011
Source: Department Of State Police, Virginia Uniform Crime Reporting Program, Crime in Virginia Report

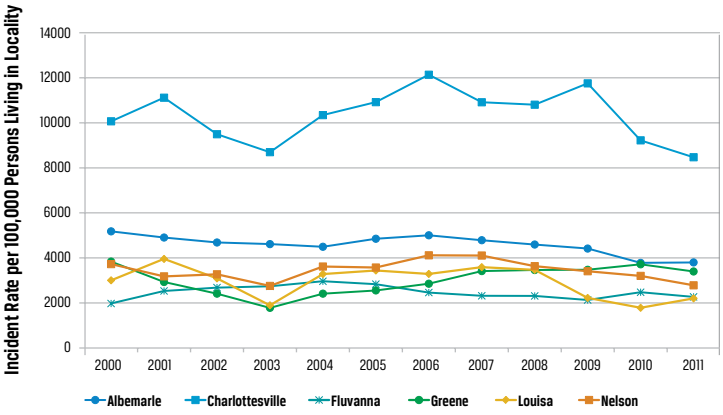


Figure 74: Reported Crime Incidents, TJHD Localities, 2000-2011
Source: Department Of State Police, Virginia Uniform Crime Reporting Program, Crime in Virginia Report

At the time of publication, data on domestic violence arrests were only available for the City Charlottesville, Albemarle County, and Louisa County. According to the Stepping Stones Report from the Commission on Children and Families, arrests for domestic assault decreased visibly in the City of Charlottesville between 2001 and 2010, from 7.40 arrests per 1,000 residents in 2001 to 3.68 arrests per 1,000 residents in 2010 (Figure 75). Between 2001 and 2010, the rate of arrests in Albemarle County hovered around 2 arrests per 1,000 residents. In Louisa County, arrests increased from 1.27 arrests per 1,000 residents to 4.61 arrests in 2011 (Figure 76).

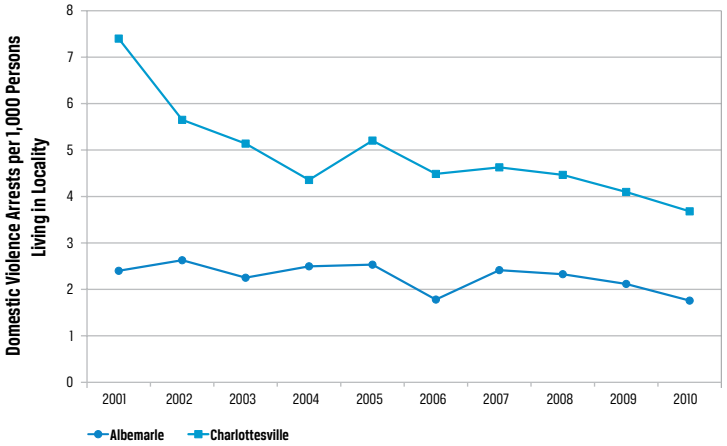


Figure 75: Domestic Violence Arrests, Albemarle County and the City of Charlottesville, 2001-2010
Source: Commission for Children and Families, Stepping Stones Report

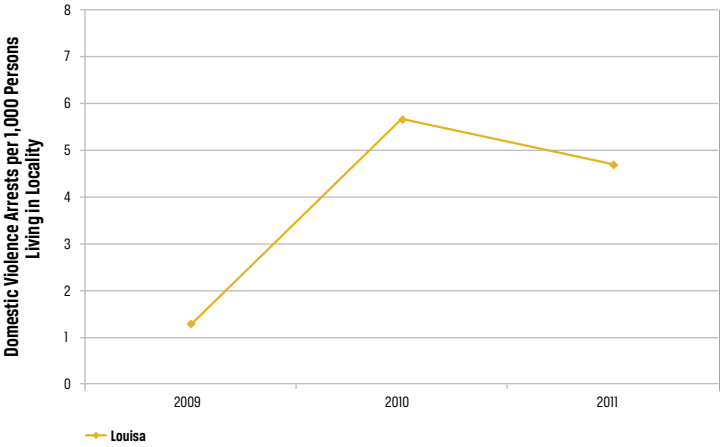


Figure 76: Domestic Violence Arrests, Louisa County, 2009-2011
Source: Louisa County Sheriff's Office

Between 2007 and 2011, TJHD's rates of altercations[30], bullying[31] and threats[32] in public schools were higher than the Virginia rates (Figure 77). See Figure 78 for a breakdown of specific incidents by locality.

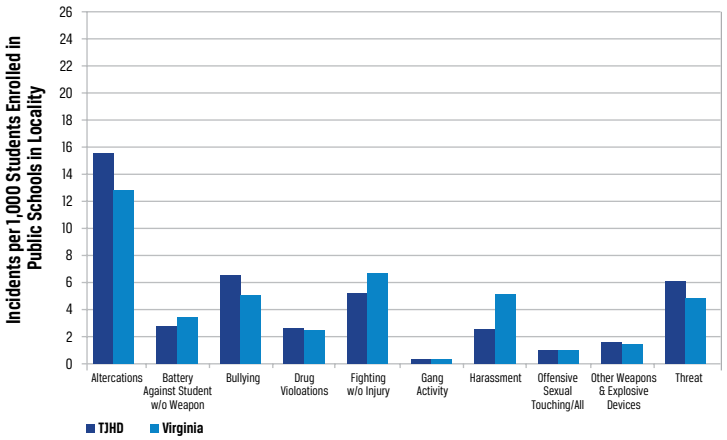


Figure 77: Violence in Schools, TJHD and Virginia, 2007-2011
Source: Virginia Department of Education, School Climate Reports

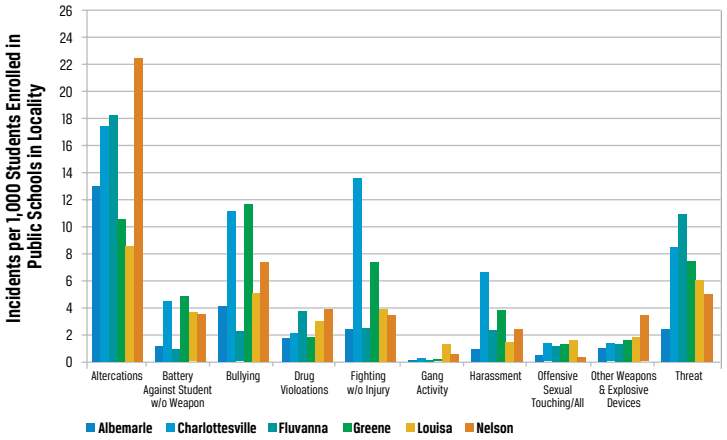


Figure 78: Violence in Schools, TJHD Localities, 2007-2011
Source: Virginia Department of Education, School Climate Reports

Founded child abuse and neglect reports are those that show strong proof of child abuse and/or neglect after a review of the facts and evidence.[33] Only a small proportion of reports for maltreatment qualify for a review and, of those, approximately 10% were determined to be founded in 2011 in TJHD.[34] Between 2000 and 2011, the rate of founded child abuse and neglect reports in TJHD has increased from 1.94 reports per 1,000 children living in TJHD to 2.85, which was higher than the Virginia rate (2.47) (Figure 79). Over the last decade, Albemarle County remained consistent at a rate of about 1 report per 1,000 children, Fluvanna County decreased slightly to 2, and Greene County decreased to 1.38, all of which were lower than the Virginia rate. The rate in Louisa County increased to 6.48 and although the City of Charlottesville has experienced a lot of variation over the last decade, the rate increased to 6.39, both of which are higher than the Virginia rate (Figure 80 – Nelson County data are not shown because the numbers were too low to report).

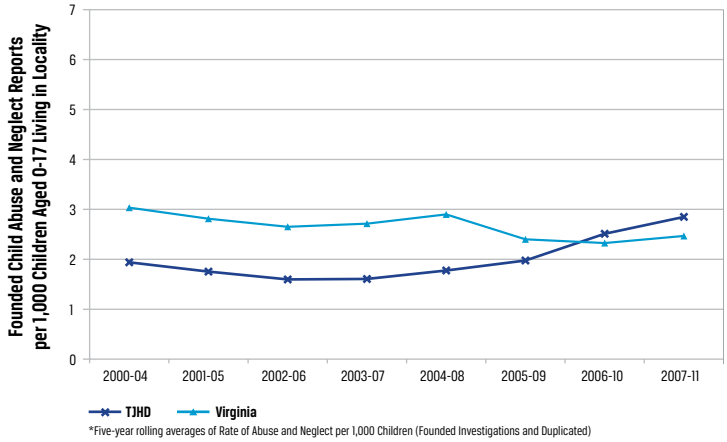


Figure 79: Founded Child Abuse and Neglect (Founded Investigations and Duplicated), TJHD and Virginia, 2000-2011
Source: Virginia Department of Social Services, CPS Reports & Studies

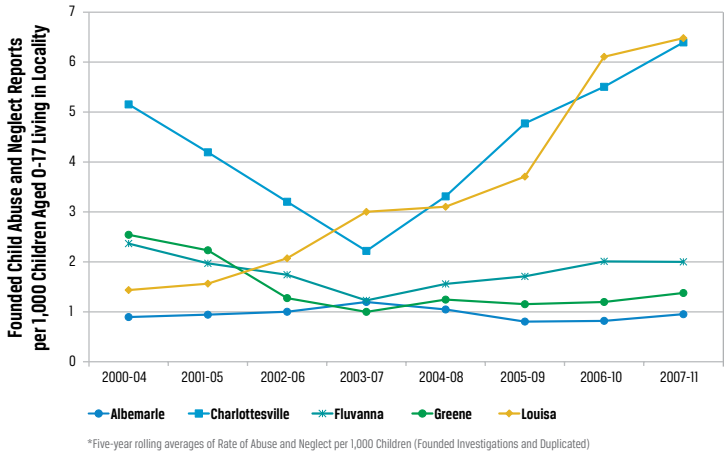


Figure 80: Founded Child Abuse and Neglect (Founded Investigations and Duplicated), TJHD Localities, 2000-2011
Source: Virginia Department of Social Services, CPS Reports & Studies

In TJHD, though the rate of adult protective services reports has decreased slightly since 2008 to 4.96 reports per 1,000 adults, it has remained higher than Virginia overall (2.88 in 2011) (Figure 81). The rates of adult abuse and neglect have decreased in Albemarle County (4.91 in 2011), Charlottesville (7.00), and Greene County (1.83); the rates have increased in Fluvanna County (5.48) and Louisa County (3.70) (Figure 82 – Nelson County numbers were too low to report).

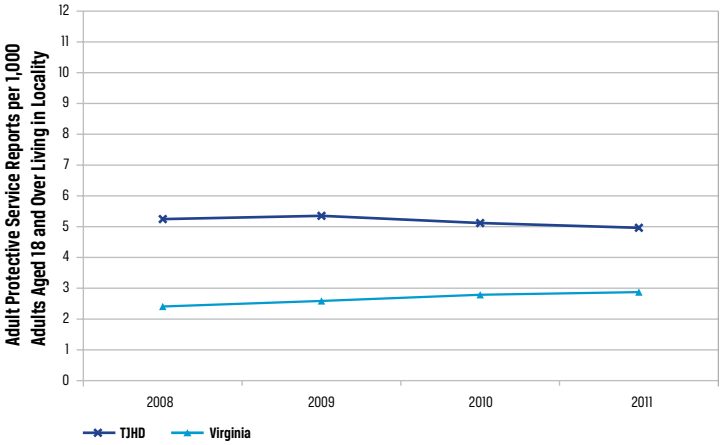


Figure 81: Adult Abuse and Neglect, TJHD and Virginia, 2008-2011
Source: Virginia Department of Social Services, Adult Services/Adult Protective Services

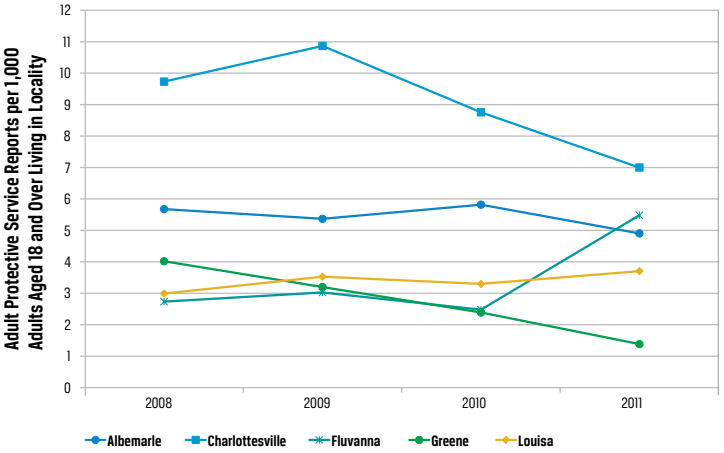


Figure 82: Adult Abuse and Neglect, TJHD Localities, 2008-2011
Source: Virginia Department of Social Services, Adult Services/Adult Protective Services

Between 2000 and 2011, the arrest rate for drug and narcotic offenses[35] in TJHD increased slightly to 495 arrests per 100,000 residents, but remained lower than the Virginia rate (595.7 arrests per 100,000 in 2009-2011) (Figure 83). The City of Charlottesville was higher than the rate in Virginia, and in 2009-2011, the arrest rate was 872 arrests per 100,000 residents. In other TJHD localities, the arrest rate remained lower than the rate in Virginia; in 2009-2011, the average arrest rate was 470 arrests per 100,000 residents in Albemarle County, 248 in Fluvanna County, 493.5 in Greene County, 356 in Louisa County, and 318 in Nelson County (Figure 84).

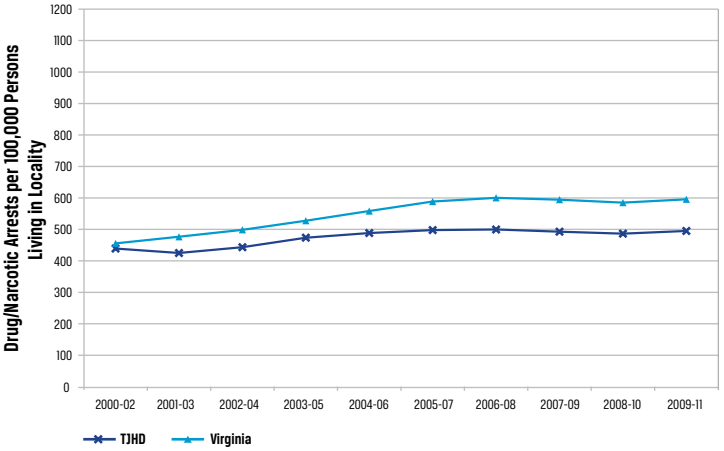


Figure 83: Drug/Narcotic Offenses, TJHD and Virginia, 2000-2011
Source: Department Of State Police, Virginia Uniform Crime Reporting Program, Crime in Virginia Report

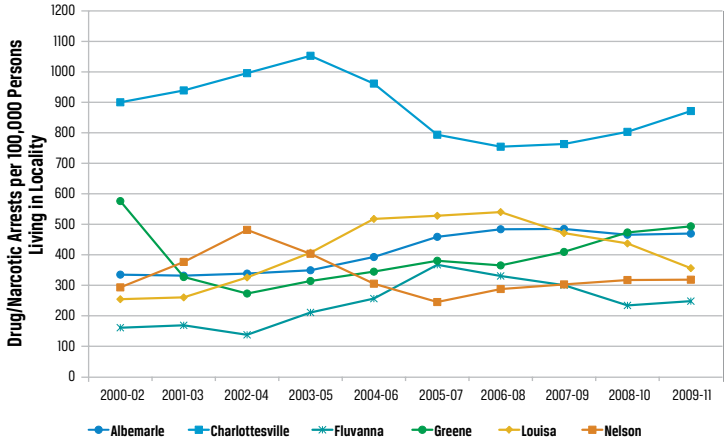


Figure 84: Drug/Narcotic Offenses, TJHD Localities, 2000-2011
Source: Department Of State Police, Virginia Uniform Crime Reporting Program, Crime in Virginia Report

According to the Uniform Crime Reports, TJHD arrest rates for Driving under the Influence (DUI) have decreased slightly to 251.9 arrests per 100,000 residents, which was lower than Virginia in 2009-2011 (368 arrests per 100,000 residents) (Figure 85). All TJHD locality rates were lower than the Virginia rate in 2009-11 (Figure 86).

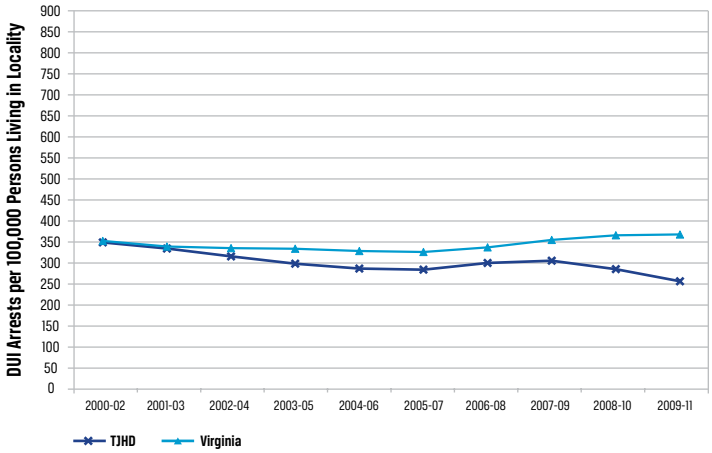


Figure 85: DUI Offenses, TJHD and Virginia, 2000-2011
Source: Department Of State Police, Virginia Uniform Crime Reporting Program, Crime in Virginia Report

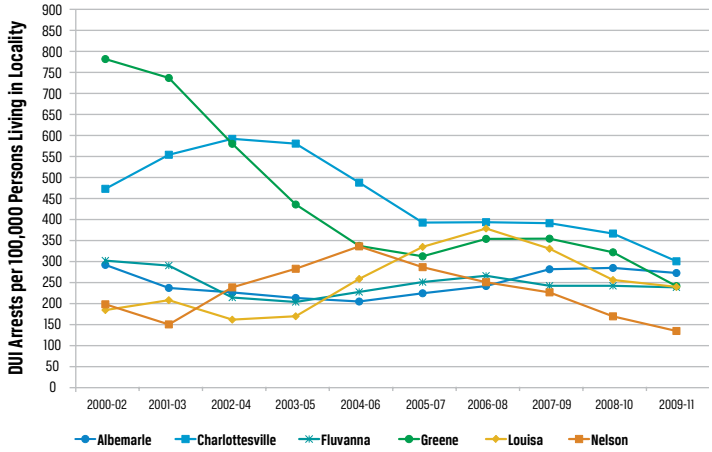


Figure 86: DUI Offenses, TJHD Localities, 2000-2011
Source: Department Of State Police, Virginia Uniform Crime Reporting Program, Crime in Virginia Report

ENVIRONMENTAL QUALITY

Maintaining a healthy environment, especially air and water, leads to increased quality of life and improved community health. Poor environmental quality presents the greatest risks for people with underlying health issues. Studies have shown that several air pollutants, most notably ozone and fine particulate matter, can contribute to increased morbidity and mortality. [36,37,38,39] Protecting water sources and minimizing exposure to contaminated water sources are critical in reducing infectious diseases. According to Occupational Safety and Health Administration, lead poisoning is the leading environmentally induced illness in children in the U.S.

Table 16 shows a snapshot of air quality in Virginia in 2011. The Charlottesville Core Based Statistical Area (CBSA), which includes Albemarle, Fluvanna, Greene and Nelson Counties and the City of Charlottesville, had only 34 days with a Moderate Air Quality Ranking,[40] indicating that the area enjoys good air quality. The Richmond CBSA, which includes Louisa County, had 70 days with a Moderate Air Quality Ranking, 11 with an Unhealthy for Sensitive Groups Ranking[41] and 1 with an Unhealthy for Anyone Ranking.[42]

	Air Quality Rating (Number of days at each rating)				Total Number of Days Monitored
	Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy for Anyone	
Charlottesville CBSA	330 (91%)	34 (9%)	0 (0%)	0 (0%)	364
Fairfax CBSA	295 (82%)	54 (15%)	9 (2%)	2 (1%)	360
Richmond CBSA	283 (78%)	70 (19%)	11 (3%)	1 (0%)	365
Virginia Beach CBSA	276 (76%)	79 (21%)	10 (3%)	0 (0%)	365

*Cities are defined as Core Based Statistical Areas (CBSA) - Charlottesville CBSA includes Albemarle, Fluvanna, Greene, and Nelson Counties and the City of Charlottesville: Richmond CBSA includes the Amelia, Caroline, Charles City, Chesterfield, Cumberland, Dinwiddie, Goochland, Hanover, Henrico, Kin And Queen, King William, Louisa, New Kent, Powhatan, Prince George and Sussex Counties as well as the Cities of Colonial Heights, Hopewell, Petersburg and Richmond.

Table 16: Air Quality Index Report, Charlottesville, Fairfax, Richmond and Virginia Beach, 2011
Source: Environmental Protection Agency

Healthy watersheds provide a habitat for fish, birds, and other animals and also preserve fishing and water-related recreation. According to the Environmental Protection Agency (EPA), approximately 50-70% of the watersheds that drain into the TJHD localities' streams (the Maury, Middle James-Buffalo, Middle James-Willis, Pamunkey, Rapidan – Upper Rappahannock, Rivanna, and South Fork Shenandoah) are impaired (Figure 87), which means they do not meet their assessed uses. Note that this measure shows the streams for each watershed in its entirety, not just in TJHD's localities. For reference, Figure 88 shows these watersheds. Figure 89 shows impaired streams on a local level. According to the Thomas Jefferson District Planning Commission, at least 50% of the streams in TJHD are considered impaired.

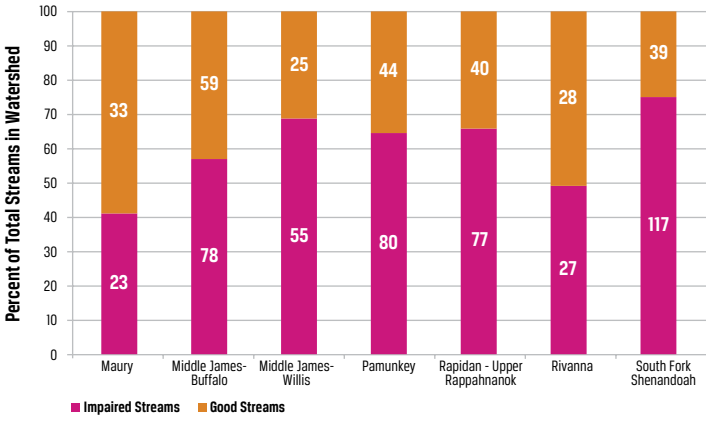


Figure 87: Good and Impaired Streams in Watersheds, TJHD, 2008; Source: Environmental Protection Agency, Surf Your Watershed

Figure 88: Watersheds That Drain Into Albemarle County, 2012
Source: Environmental Protection Agency, EnviroMapper for Water

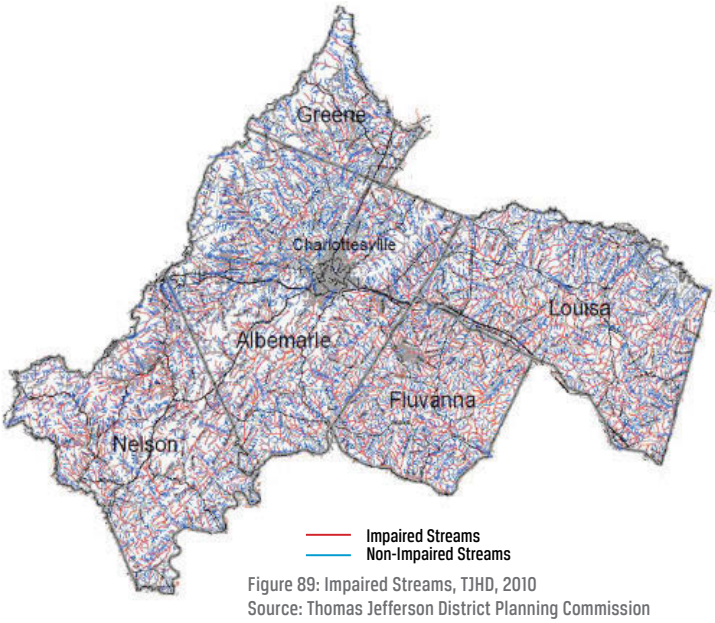


Figure 89: Impaired Streams, TJHD, 2010
Source: Thomas Jefferson District Planning Commission

The Rivanna River and its tributaries are the main source of drinking water for the area. Since a large portion of the basin's rivers and streams are impacted by human activities, there is the potential for contamination. StreamWatch, a partnership composed of Albemarle County and Fluvanna counties, the Nature Conservancy, the Thomas Jefferson District Planning Commission, the Thomas Jefferson Soil and Water Conservation District, the Rivanna Conservation Society, and the Rivanna Water and Sewer Authority, monitors these waters. As reported in A Summary of the StreamWatch 2009 Report, approximately a third of Rivanna basin tributary streams are biologically healthy, with a rich variety of aquatic organisms. The rest are biologically impaired according to the standard set by Virginia. During testing conducted from 2006 to 2009, only 6% of monitored sites received biological health scores of "very good"; 22% were "good". The largest number of streams were "fair" (56%), and 16% were "poor" or "very poor" (Figure 90). Though streams in fair health fail to meet the state standard, many may have a reasonable chance to regain a "passing" status. The Rivanna Basin is typical for Virginia. According to the Virginia Department of Environmental Quality (DEQ), about 30% of randomly sampled Virginia streams are impaired for aquatic life.

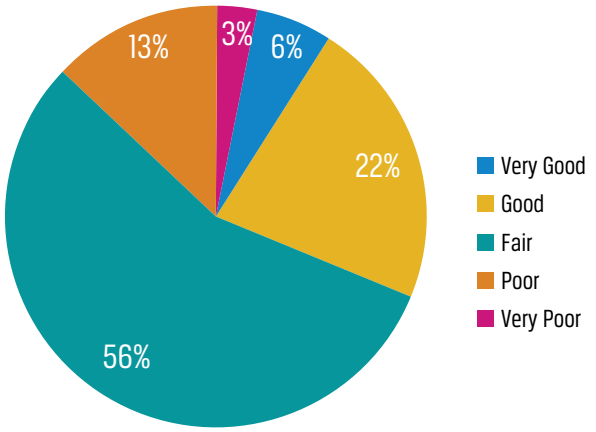


Figure 90: Rivanna Biological Health Scores, Albemarle County and the City of Charlottesville, 2006–2009; Source: StreamWatch, A Summary of the StreamWatch 2009 Report

The primary source of lead exposure is dust from lead-based paint in homes built before 1978. Lead interferes with normal brain development and is associated with learning disabilities and behavioral disorders. VDH identified areas in Virginia at risk for lead exposure as those with more than 27% of homes built before 1950 and/or those with an increased prevalence of children with elevated blood levels (EBLL). Table 17 shows these zip codes for TJHD.

Albemarle	22901	22931 Covesville	22937 Esmont	22943 Greenwood	22947 Keswick	22959 North Garden	24590 Scottsville
Charlottesville	22903						
Fluvanna	23022	23084					
Greene	22935 Dyke						
Louisa	23024						
Nelson	22938 Faber	22964 Piney River	22969 Schuyler	22971 Shipman	24464 Montebello	24553 Gladstone	

Table 17: TJHD At-Risk Zip Codes for Lead, 2012
Source: Virginia Department of Health, Lead Safe Virginia

Figure 91 shows the number of children who were tested for lead from 2004 to 2011, and Figure 92 shows the number of tests that were positive. While the number of children tested (lines) has risen substantially, the number of positive tests (bars) has not.

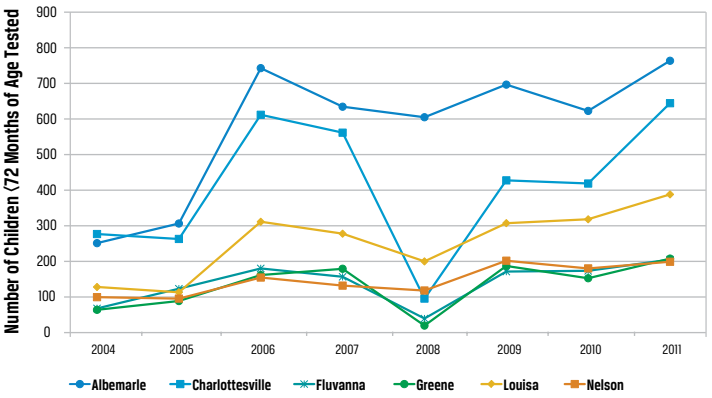


Figure 91: Elevated Blood Lead Level Tests in Children <72 Months of Age, TJHD Localities, 2004-2011
Source: Virginia Department of Health, Lead Safe Virginia

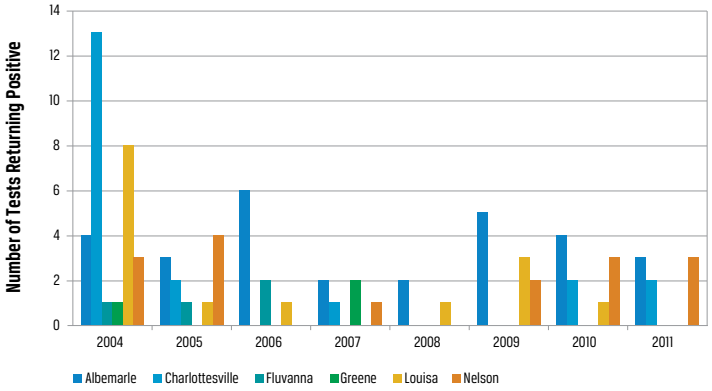


Figure 92: Elevated Blood Lead Level Tests Results in Children <72 Months of Age, TJHD Localities, 2004-2011
Source: Virginia Department of Health, Lead Safe Virginia

HEALTH BEHAVIORS

In 2009, a study conducted by researchers at the Harvard School of Public Health[43] found that in the U.S., 1 in 5 premature or preventable deaths can be attributed to smoking (467,000), 1 in 6 to high blood pressure (395,000) and 1 in 10 to obesity (216,000). When compared to the CDC's leading causes of death,[44] the study provides insight into the effects of risk factors on mortality. Figure 93 shows that some of the leading behavioral risk factors that contribute to premature deaths are smoking, obesity, physical inactivity, poor diet and alcohol abuse.

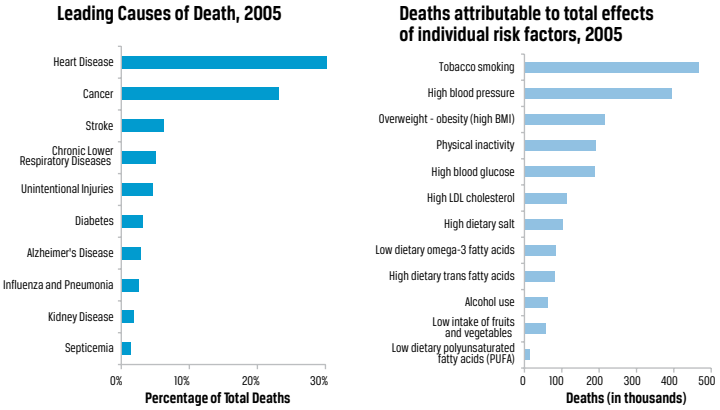


Figure 93: Actual Causes of Death, United States, 2005; Source: PLoS Medicine; CDC

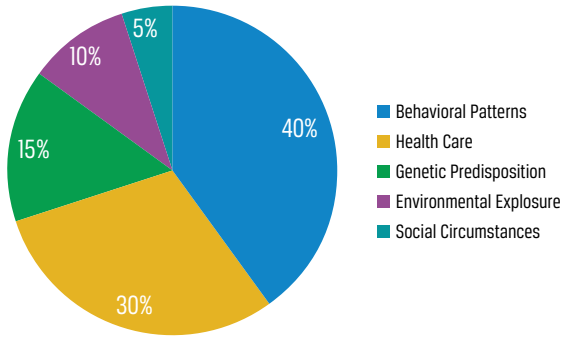


Figure 94: Contributions to Premature Death, United States, 2007
Source: We Can Do Better - Improving the Health of American Persons

Health is influenced by factors in five domains: genetics, social circumstances, environmental exposures, behavioral patterns, and healthcare. Figure 94 shows that behavioral patterns account for 40% of premature deaths in the U.S., thus the greatest opportunity to improve the health of communities comes from influencing individuals to change their personal behaviors.[45]

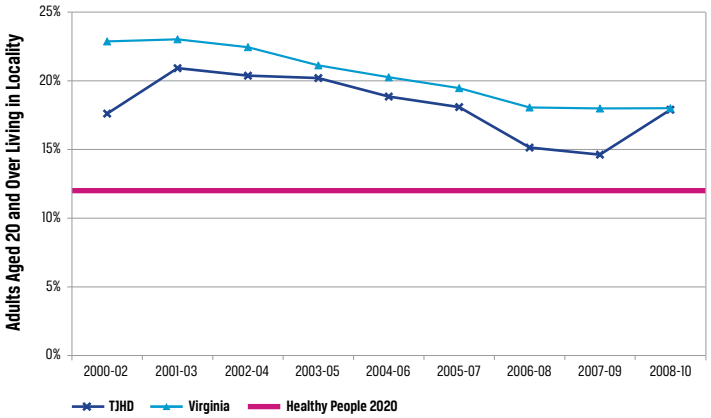


Figure 95: Percent of Self-Reported Adult Smokers, TJHD and Virginia, 2000-2010
Source: Virginia Department of Health, Virginia Behavioral Risk Factor Surveillance Survey

Since 1988, VDH has participated in CDC's Behavioral Risk Factor Surveillance System (BRFSS), a monthly randomized telephone health survey conducted by state health departments across the U.S. It includes standardized questions about health-related behaviors of adults. Statewide BRFSS results are periodically stratified and reported by health district. Most of the local data available in this category came from this study and results for TJHD are presented with the following caveats:

- Only about 500 phone interviews were conducted over three-year intervals for the entire health district
- The BRFSS survey is administered to adults 18 years and older in households where there is a landline phone; adult cell phone users have been included in the survey population since 2008
- All results are based on self reporting; therefore, there is no way of validating responses (e.g., height and weight)

Tobacco Use

Tobacco use, associated with cardiovascular disease, multiple types of cancer, respiratory disease, and poor birth outcomes, is among the most important modifiable risk factors of adverse health outcomes.[46] As a result of extensive public health efforts (including health education, advances in tobacco cessation treatment, counter-marketing, regulation, and litigation) the prevalence of smoking in the U.S. declined among men by 57% in 1955 to 22% in 2010[47] and among women from 34% in 1965 to 17% in 2010.[48] Figure 95 shows the average percentage of adult smokers in TJHD was 17.9% in 2008-2010, which was above the Healthy People 2020 target of 12%. This is particularly concerning because it represents the first increase in smoking rates (from 14.5% in the 2007-2009 period) since 2001.

As shown in Table 18, Virginia ranks 31st among U.S. states in adult smoking (with 1 being the lowest), 30th in tobacco prevention spending, and 50th in the cigarette tax charged per pack. However, though many states do not allow localities to institute a local cigarette tax, Virginia is an exception. Tax on cigarettes in Charlottesville totals $0.35.

	Virginia	United States
Adult Smoking Rank (1st = low smoking rates)	31st	N/A
Cigarette Tax (per pack)	$0.30 ($0.35 local tax for Cville)	$1.46
Cigarette Tax Rank (1st - high taxes)	50th	N/A
FY2012 Funding for State TC Programs (millions)	$8.4	$456.7
Tobacco Prevention Spending % of CDC Target	8.1%	12.5%
Tobacco Prevention Spending Rank (1st = high spending rates)	30th	N/A

Table 18: Tobacco Facts, Virginia, 2012; Source: Campaign for Tobacco-Free Kids

Diet and Exercise

Poor diet and physical inactivity are among the leading contributors to actual causes of death in the United States.[49] Unhealthy eating habits and lack of exercise are key contributors to rising obesity in TJHD.[50] According to the County Health Rankings and BRFSS, physical inactivity is a problem in TJHD – in 2009, an average of 24% of TJHD adults aged 20 years old and older were considered physically inactive, which means in the past month, other than a regular job, they did not participate in any physical activities or exercises. This was comparable to Virginia (24%). In Albemarle County and Fluvanna County, 19% and 22% of adults were physically inactive, which were the only TJHD localities lower than Virginia (Figure 96). All other TJHD localities were higher, 24% in Greene County; 25% in Nelson County; 26% in the City of Charlottesville; and 30% in Louisa County.

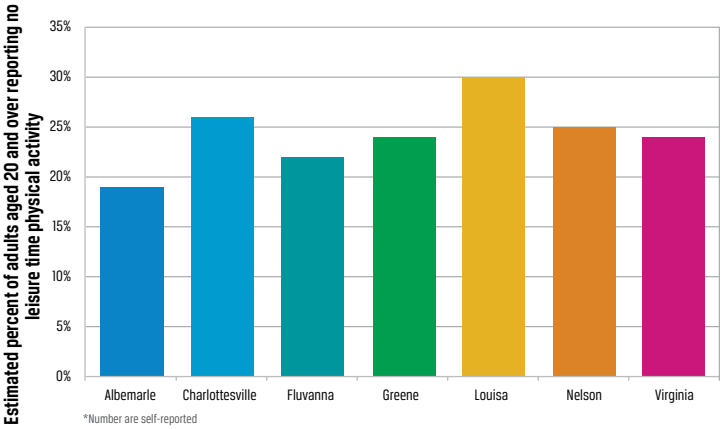


Figure 96: Physical Inactivity, TJHD Localities and Virginia, 2009
Source: County Health Rankings; Behavioral Risk Factor Surveillance System

Poor diet and inactivity can lead to obesity, which is a major risk factor for chronic disease. In addition to health education and regulatory initiatives, creating opportunities to access nutritious foods and to engage in physical activity at work, in school, and in the community can be effective approaches to addressing this public health issue.[51] Obesity among adults aged 20 years old and over continues to be a national problem, as shown in Figure 97. In 1990, no state had more than 14% of adults who were obese, but 20 years later, no state has less than 20% obesity prevalence.

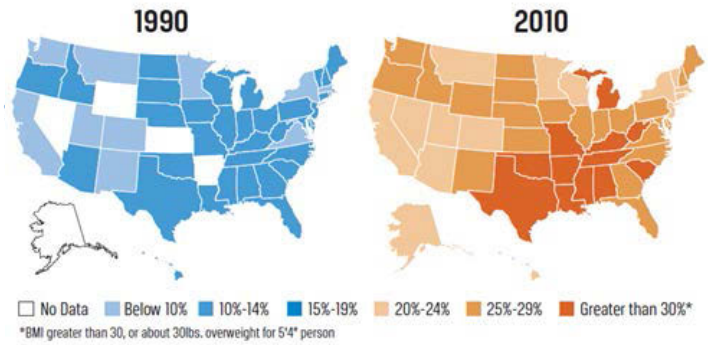


Figure 97: Percent of Obese Adults by State, 1990 and 2010
Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System

Obesity is more than just a national problem – adult obesity continues to be a significant problem in TJHD. Figure 98 shows the percentage of adults who are obese among TJHD localities. BRFSS data show that between 2008 and 2010, 27.6% of TJHD adults were obese by self-reported height and weight (BMI > 30) (Figure 99), which was higher than Virginia (25.9%) and represents an increase from the 2007-2009 average (20.5%), the sharpest increase in obesity since 2000.

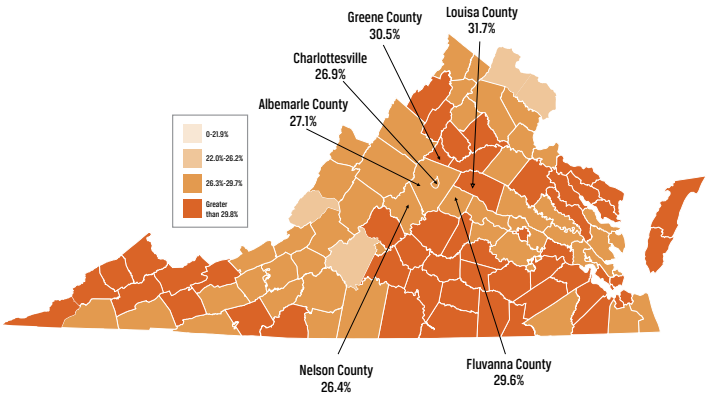


Figure 98: Percentage of Adults Who Are Obese, TJHD Localities, 2009
Source: Virginia Department of Health, Virginia Behavioral Risk Factor Surveillance Survey

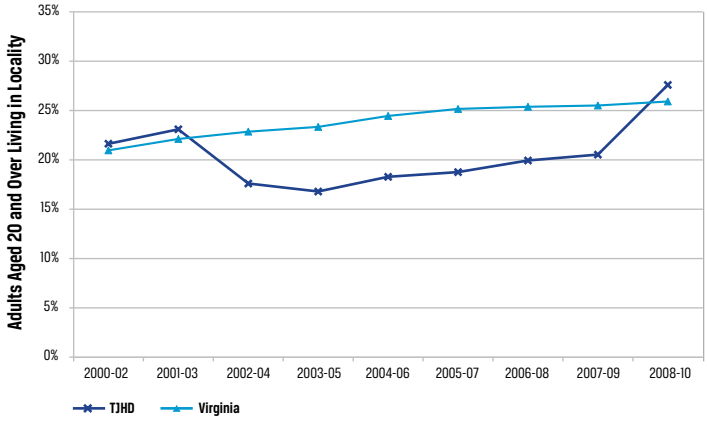


Figure 99: Percent of Adults Who Are Obese, TJHD and Virginia, 2000-2010. Source: Virginia Department of Health, Virginia Behavioral Risk Factor Surveillance Survey

According to the Community Action on Obesity (CAO), in 2011, 37% of fifth graders in the City of Charlottesville and Albemarle County public schools were overweight or obese (Figure 100). A survey conducted by the Blue Ridge Medical Center in the 2010-2011 school year measuring the BMI of students in Nelson County shows that roughly 46% of 5th graders and 47% of 10th graders were overweight or obese (Figure 101). Thirty one percent of 5th graders and 29.9% of 10th graders were obese, higher than the Healthy People 2020 target.

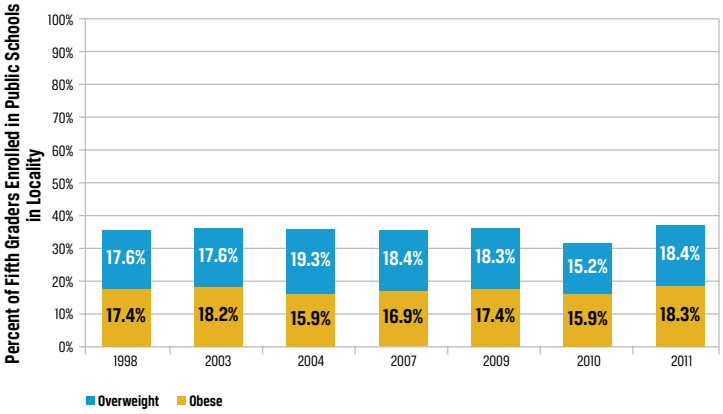


Figure 100: Overweight Prevalence: 5th Graders, Albemarle County and the City of Charlottesville Public Schools, 2004-2011
Source: Thomas Jefferson Health District and Community Action on Obesity

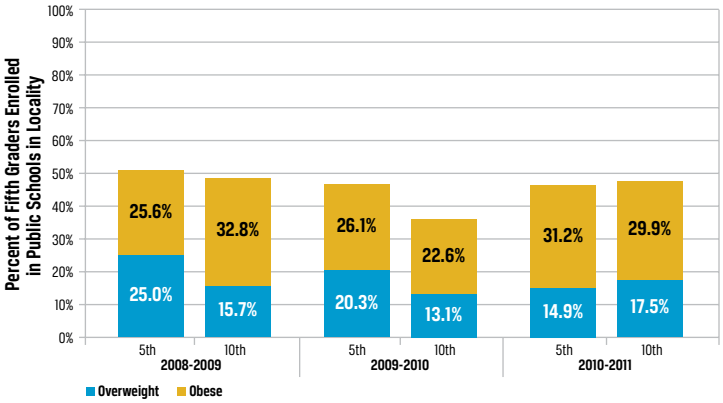


Figure 101: Overweight prevalence: 5th and 10th graders, Nelson County, school year 2008-2011
Source: Blue Ridge Medical Center – Nelson County Height-Weight Screenings and BMI Results

Safety Device Usage

Failure to use safety restraints increases the risk of injury during a motor vehicle crash. As shown in Figure 102, the proportion of front-seat passengers observed to be wearing a seat belt in Virginia since 1987 has gradually approached the national average of 85%, reaching 82% in 2011.

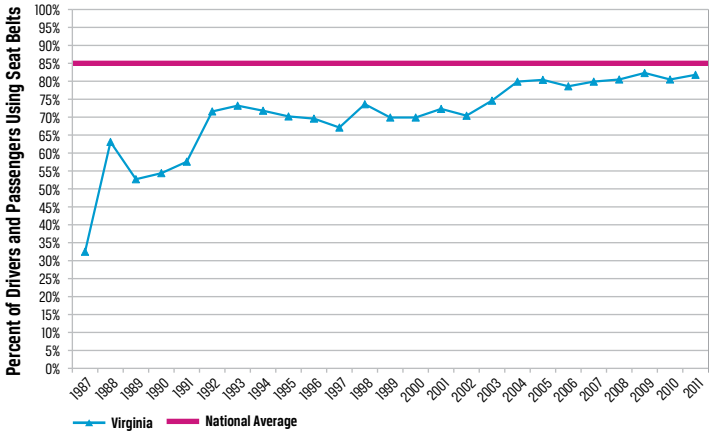


Figure 102: Seat Belt Usage, Virginia, 1987-2011
Source: Virginia Department of Motor Vehicles, Highway Safety Office

According to the Virginia Statewide Trauma Registry, between 2007-2009 and 2009-2011, there were fewer hospitalizations due to motor vehicle accidents (MVAs) in which a safety device[52] was used than hospitalizations in which a safety device was not in TJHD overall (Figure 103) as well as TJHD localities (Table 19).

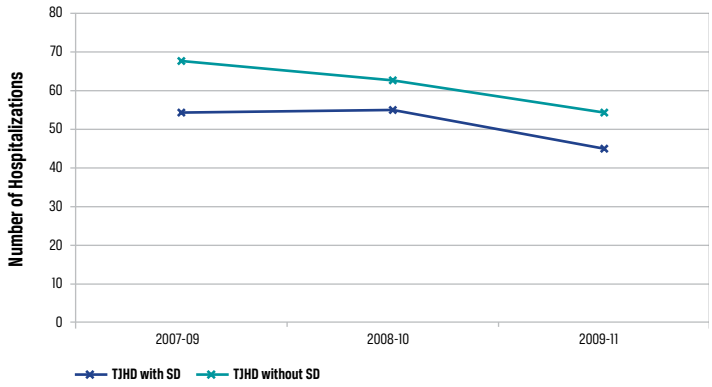


Figure 103: Hospitalization from MVAs With and Without Safety Device Usage, TJHD, 2007-2011
Source: Virginia Department of Health, Division of Immunization

Three-Year Rolling Averages, Number of Hospitalizations from MVAs by Locality				
		2007-2009	2008-2010	2009-2011
Albemarle	With SD	14.7	12.7	8.3
	Without SD	22.3	20.3	18.7
Charlottesville	With SD	7.3	7.7	7.0
	Without SD	12.3	9.7	8.7
Fluvanna	With SD	5.0	6.0	6.0
	Without SD	8.3	6.3	7.0
Greene	With SD	6.3	6.0	5.0
	Without SD	4.7	4.0	3.0
Louisa	With SD	11.0	12.0	9.0
	Without SD	10.3	12.0	9.0
Nelson	With SD	10.0	10.7	9.7
	Without SD	9.7	10.3	8.0

Table 19: Hospitalization from MVAs With and Without Safety Device Usage, TJHD Localities
Source: Virginia Department of Health, Office of Emergency Medical Services

Immunization Rates

Since the 1960s, childhood immunization has been widely used to prevent what were once severe, or even life-threatening, diseases. Due largely to school entrance requirements and increased vaccine availability, childhood immunization rates remain at high levels. In 2011, the percentage of kindergarteners in public school who were adequately immunized[53] in TJHD was 93.4% (Figure 104).[54]

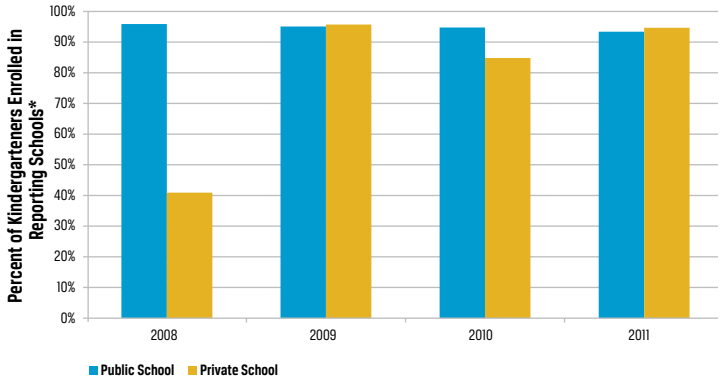


Figure 104: Percentage of Adequately Immunized Kindergarteners, TJHD 2008-2011
Source: Virginia Department of Health, Division of Immunization

In 2011, immunization rates among sixth graders were 88.4% in public schools and 78.8% in private schools (Figure 105).

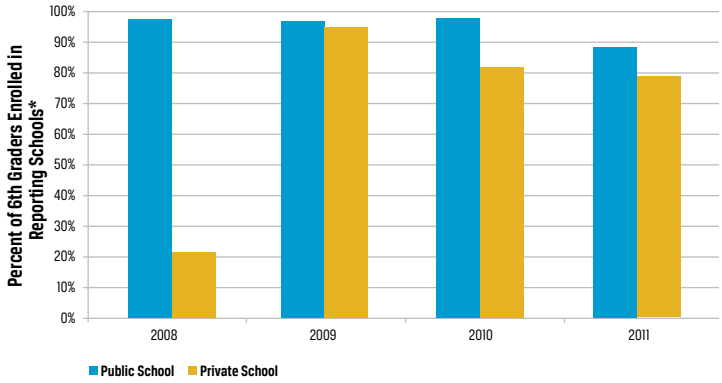


Figure 105: Percentage of Adequately Immunized Sixth Graders, TJHD 2008-2011
Source: Virginia Department of Health, Division of Immunization

SECTION THREE

Section three includes information to answer the question: **What is the status of health in the community?**

INDICATORS:

MATERNAL AND CHILD HEALTH

The well-being of pregnant women and their children influences the health of the next generation and can predict future public health challenges for families, communities, and the health care system. Between 1998 and 2011, the rate of live births[55] in TJHD hovered between 11 and 13 births per 1,000 residents and remained lower than the Virginia rate (Figure 106). Over the decade, the rate was fairly consistent in the City of Charlottesville and Albemarle, and decreased in Greene, Louisa, and Nelson Counties (Figure 107).

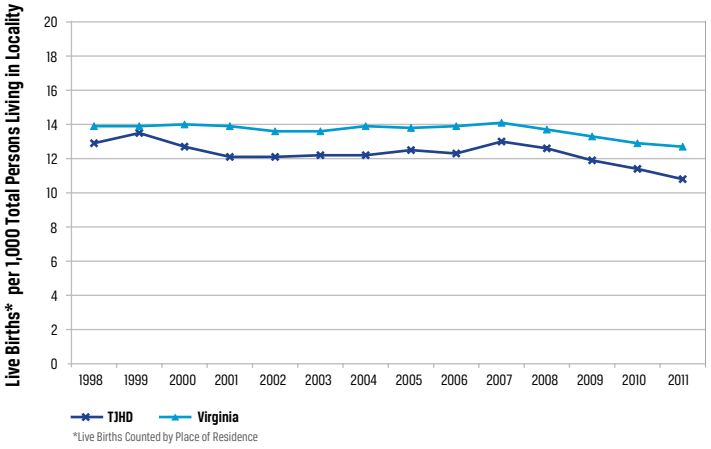


Figure 106: Live Birth Rate, TJHD and Virginia , 1998-2011
Source: Virginia Department of Health, Division of Health Statistics

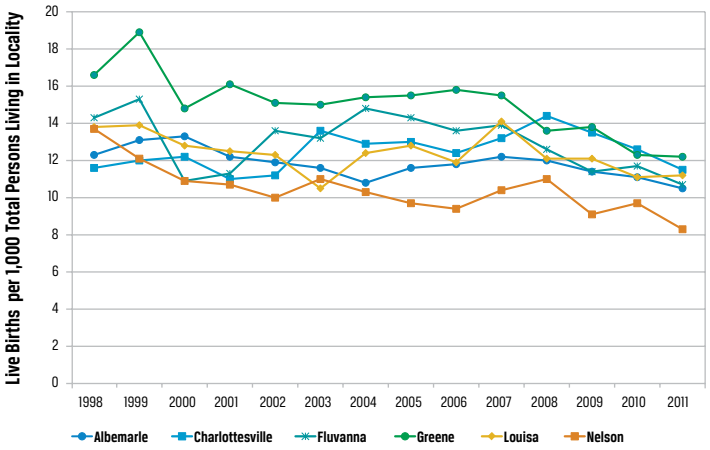


Figure 107: Live Birth Rate, TJHD Localities; 1998-2011
Source: Virginia Department of Health, Division of Health Statistics

Infant Mortality

The Infant Mortality Rate (IMR)[56] is often used as an indicator of the level of health in a country. The U.S. has one of the highest infant mortality rates among the industrialized countries; in 2011, the United Nations ranked the U.S. 43rd out of 194 countries.[57] In 2007-2011, the rolling average IMR was 6 deaths per 1,000 live births in TJHD (Figure 108).

An examination of infant mortality stratified by race demonstrates the same phenomenon in Virginia and TJHD as in the nation — African-American babies die more frequently than white babies. In 2007-2011, the rolling average IMR in TJHD was 4.5 infant deaths per 1,000 live births among white infants, lower than the Virginia (5.4) and U.S. rates; it was 17.3 among African-American infants, which was higher than the Virginia (13.8) and the U.S. rates (Figure 109).

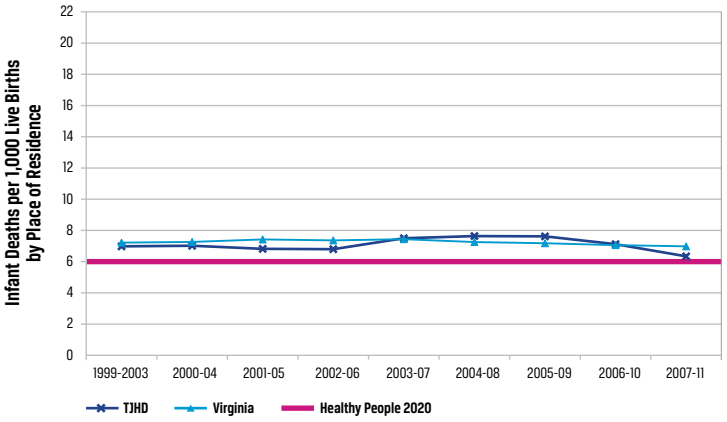


Figure 108: Infant Mortality Rate, TJHD and Virginia; 1999-2011
Source: Virginia Department of Health, Division of Health Statistics

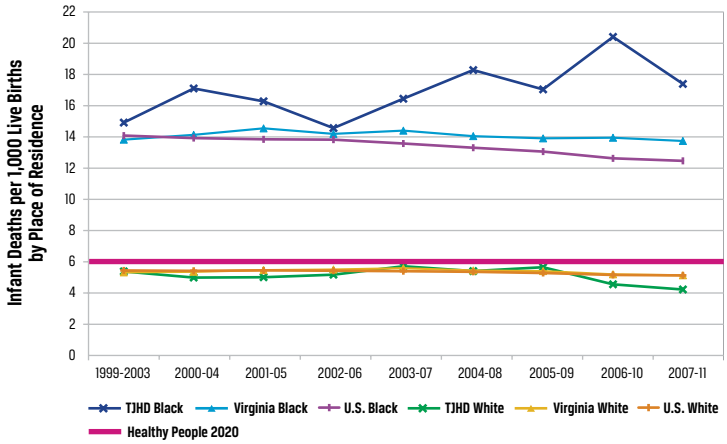


Figure 109: Infant Mortality Rate by Race, TJHD, Virginia, and the United States, 1999-2011
Source: Virginia Department of Health, Division of Health Statistics

The mortality rate within the first 28 days of life, the neonatal death rate, decreased from 4.7 infant deaths per 1,000 live births to 4.3 in TJHD since 2003 (Figure 110).

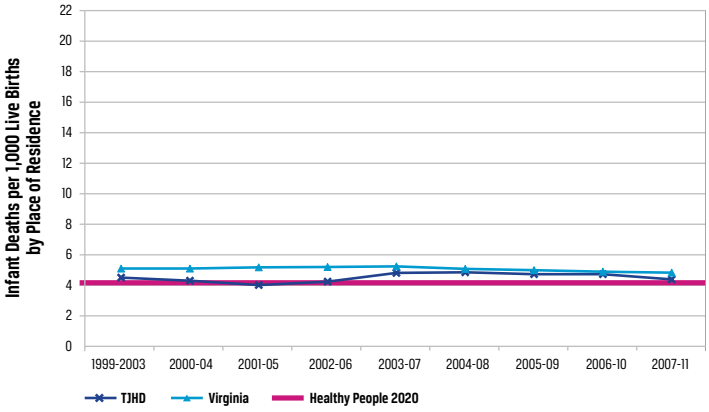


Figure 110: Neonatal Death Rate, TJHD and Virginia; 1999-2011
Source: Virginia Department of Health, Division of Health Statistics

Preterm Births

Infants born preterm (at less than 37 weeks of gestation) are at increased risk of having long-term health and developmental problems and early death.[58] In TJHD, preterm births fluctuated over the decade between 8% and 9%, meeting the Healthy People 2020 goal (Figure 111). All localities met the Healthy People 2020 goal in 2008-2010 (Figure 112).

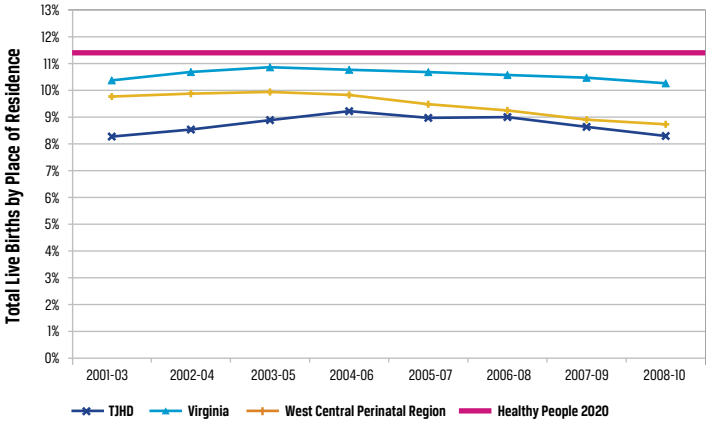


Figure 111: Percent of Preterm Births, TJHD, West Central Perinatal Region, and Virginia, 2001-2010
Source: Virginia Department of Health

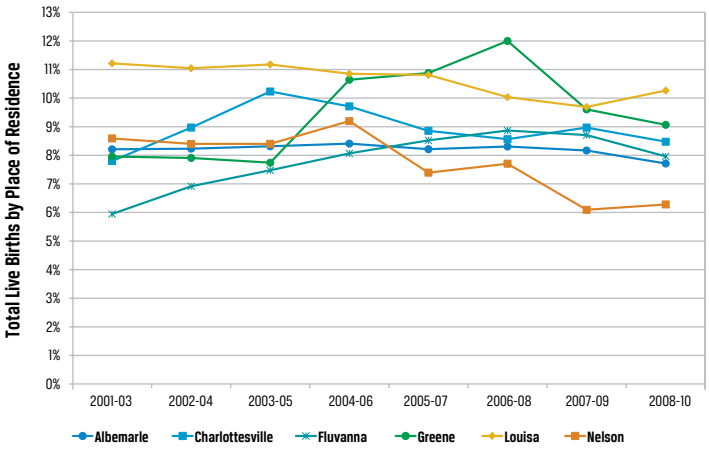


Figure 112: Percent of Preterm Births, TJHD Localities, 2001-2010
Source: Virginia Department of Health, Office of Family Health Services

Low Birth Weight

Low birthweight (LBW) refers to a baby born weighing less than 5 pounds, 8 ounces. Infants born at LBW have greater developmental and growth problems, are at higher risk of cardiovascular disease, and have a greater rate of respiratory conditions.[59,60,61,62] Infant LBW is associated with the mother's health risks during pregnancy, including access to health care, the social and economic environment she inhabits, her health behaviors, and environmental risks to which she is exposed.[63] Between 1999 and 2011, in TJHD the percentage of LBW births increased from about 7 to 7.6%, comparable to the Virginia and U.S. rates, and the Healthy People 2020 goal (Figure 113). In 2009-2011, the percentage of LBW births in the City of Charlottesville and Louisa County did not meet the goal. In Nelson County, LBW decreased from 8.9% in 1999-2001 to 5.8% in 2009-2011 (Figure 114).

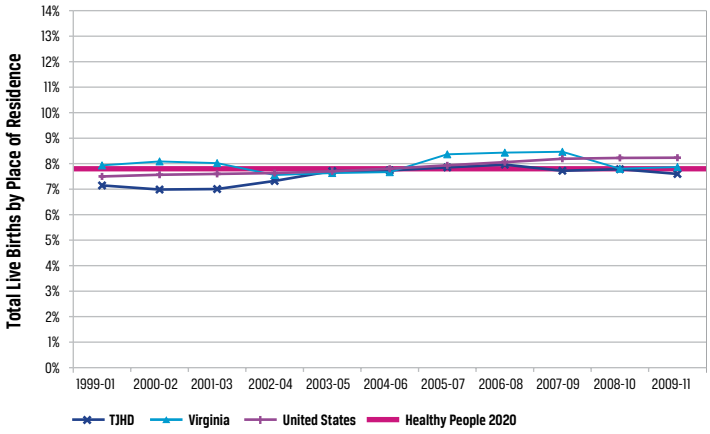


Figure 113: Percent of Low Birth Weight Births, TJHD, Virginia, and the United States, 1999-2011
Source: Virginia Department of Health, Division of Health Statistics

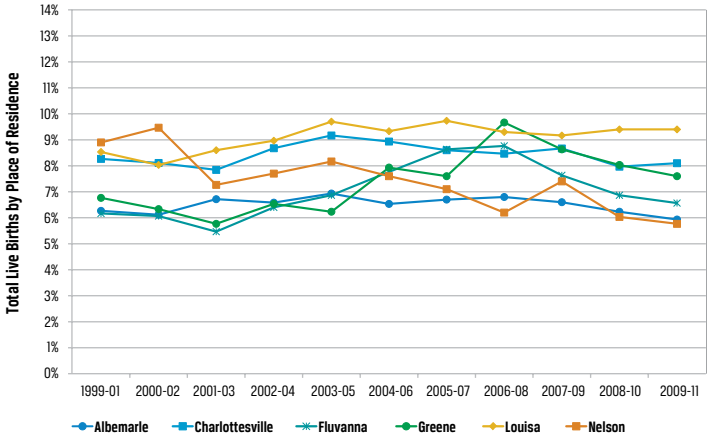


Figure 114: Percent of Low Birth Weight Births, TJHD Localities, 1999-2011
Source: Virginia Department of Health, Division of Health Statistics

When examining the proportion of babies born at LBW stratified by race in the U.S., African-American babies are more likely than white babies to be LBW. In 2009-2011, the rolling average percentage of LBW white infants in TJHD was 6.0%; the rolling average percentage of LBW African-American infants was 13.0% (Figure 115). The same disparities can be found among all of the TJHD localities except Nelson County, as shown in Table 20.

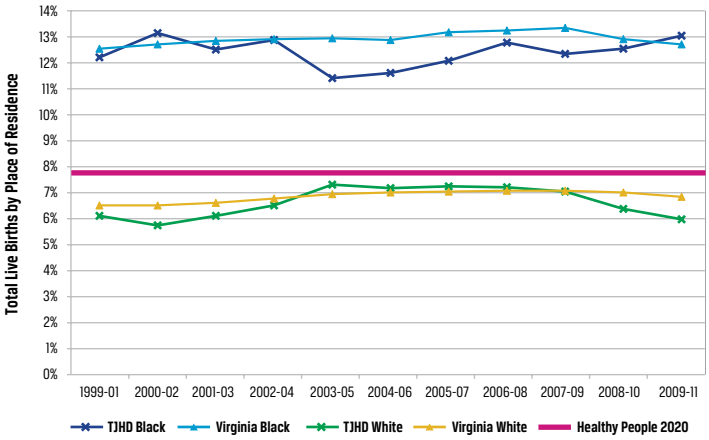


Figure 115: Percent of Low Birth Weight Births by Race, TJHD and Virginia, 1999-2011
Source: Virginia Department of Health, Division of Health Statistics

Three-Year Rolling Averages, Low Birthweight births as a percentage of Live Births						
		2005-2007	2006-2008	2007-2009	2008-2010	2009-2011
Albemarle	White	6.3%	6.5%	6.4%	5.7%	5.0%
	Black	10.9%	9.7%	8.4%	10.3%	12.2%
Charlottesville	White	7.0%	6.9%	6.2%	5.4%	5.2%
	Black	13.7%	13.4%	15.0%	13.9%	14.3%
Fluvanna	White	7.5%	7.5%	7.0%	6.2%	6.5%
	Black	16.4%	18.4%	14.2%	13.4%	7.5%
Greene	White	6.0%	8.6%	8.0%	8.0%	7.2%
	Black	25.6%	21.5%	17.0%	8.6%	8.6%
Louisa	White	9.0%	8.7%	8.6%	8.5%	8.3%
	Black	13.3%	12.0%	12.2%	15.0%	16.7%
Nelson	White	6.6%	6.4%	7.6%	6.2%	6.1%
	Black	9.8%	5.1%	6.9%	6.5%	5.1%

Table 20: Percent of Low Birth Weight Births by Race, TJHD Localities, 2005-2011
Source: Virginia Department of Health, Division of Health Statistics

Teen Pregnancy

Teen pregnancy is a critical issue that affects the health, social, and economic future of mothers and their children.[64] Babies born to teen mothers are more likely to be born preterm and at a low birth weight. The children are at greater risk of living in poverty, lower cognitive attainment, and behavioral problems. Girls born to teen mothers are more likely themselves to become teen mothers, and boys are more likely to be incarcerated. Teen mothers are less likely to graduate from high school or attain a GED and earn an average of $3,500 less per year, compared with those who delay childbearing until their 20s.[65] Early fatherhood is associated with lower educational attainment and lower income.[66] Since 2000, teen pregnancy rates have been decreasing across Virginia and the U.S. TJHD has echoed these trends by decreasing from a rolling average of 23.2 pregnancies per 1,000 females aged 10 to 19 years old in 2000-2002 to 15.6 in 2009-2011 (Figure 116). In Albemarle County the rolling average rate decreased from 16 to 8.7, and in Greene County decreased from 30.8 to 16.5. In Fluvanna County, Louisa County and Nelson County, the rates decreased: from 22.5 to 11.4, from 34.2 to 24.5 and from 34.9 to 19.1, respectively. In the City of Charlottesville, though there was an increase between 2000-2002 and 2004-2006, the rolling average has decreased steadily since that time (Figure 117).

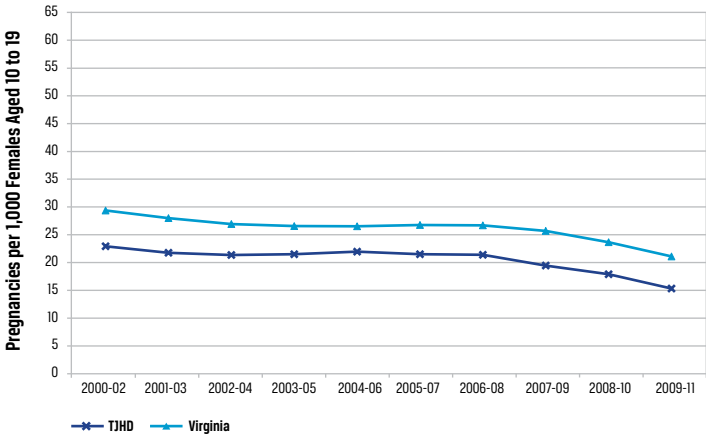


Figure 116: Teen Pregnancy Rate: Ages 10-19, TJHD and Virginia, 2000-2011
Source: Virginia Department of Health, Division of Health Statistics

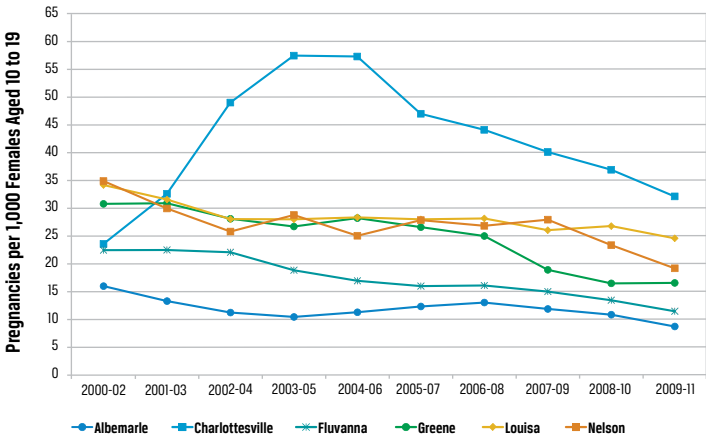


Figure 117: Teen Pregnancy Rate: Ages 10-19, TJHD Localities, 2000-2011
Source: Virginia Department of Health, Division of Health Statistics

As shown in Figure 118, when examining teen pregnancy among the 15 to 17 year old age group, the pregnancy rate has also decreased in TJHD, from 27.6 pregnancies per 1,000 females aged 15 to 17 in 2000-2002 to 13.3 in 2009-2011. This was a lower rate than in Virginia and met the Healthy People 2020 goal. The same decreasing trends have occurred in all TJHD localities (Figure 119).

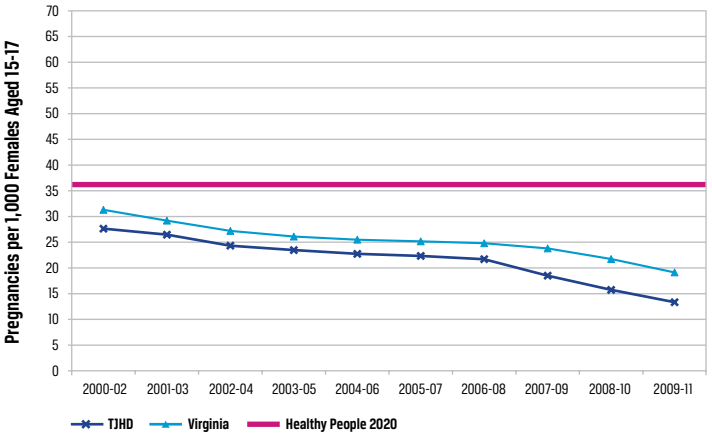


Figure 118: Teen Pregnancy Rate: Ages 15-17, TJHD and Virginia, 2000-2011
Source: Virginia Department of Health, Division of Health Statistics

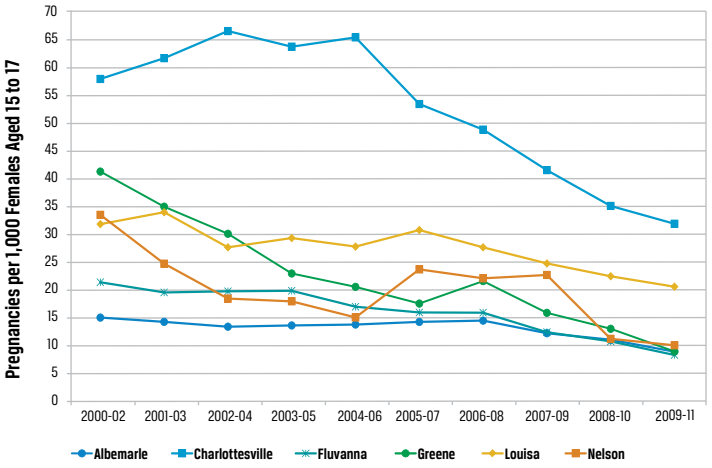


Figure 119: Teen Pregnancy Rate: Ages 15-17, TJHD Localities, 2000-2011
Source: Virginia Department of Health, Division of Health Statistics

When stratified by race, pregnancy among African-American teens in TJHD and Virginia remains higher than among white teens. In 2009-2011, the rolling average rate among African-American teens in TJHD was 26.2 pregnancies per 1,000 females aged 10 to 19. The rate among white teens was 13.8 (Figure 120). Among the TJHD localities, a disparity exists consistently in Albemarle County, the City of Charlottesville, and Fluvanna County but does not in Louisa and Nelson Counties (Table 21).

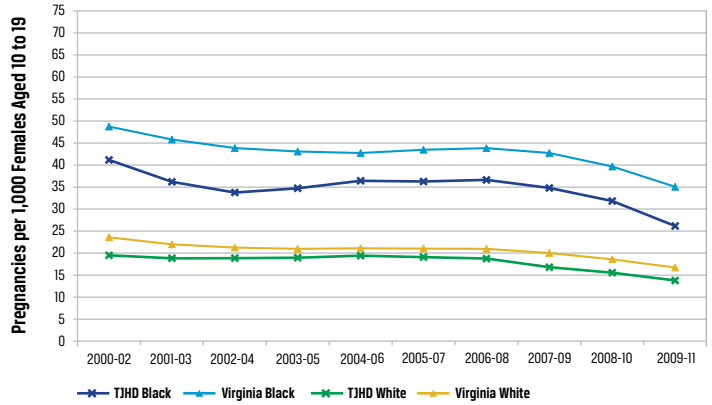


Figure 120: Teen Pregnancy Rate by Race: Ages 10-19, TJHD and Virginia, 2000-2011
Source: Virginia Department of Health, Division of Health Statistics

Three-Year Rolling Averages, Rate of Teen Pregnancies per 1,000 females ages 10-19						
		2005-2007	2006-2008	2007-2009	2008-2010	2009-2011
Albemarle	White	10.4	11.2	10.6	9.8	8.1
	Black	29.8	29.3	23.9	20.0	13.9
Charlottesville	White	43.5	37.3	29.9	28.1	24.5
	Black	56.0	58.5	61.5	56.4	51.9
Fluvanna	White	15.0	14.6	13.0	10.2	9.0
	Black	19.4	20.4	21.2	25.3	22.6
Greene	White	26.7	26.1	20.3	17.7	17.9
	Black	27.1	17.1	7.2	6.9	6.9
Louisa	White	26.3	26.8	25.8	27.0	25.8
	Black	33.9	32.2	25.9	26.1	20.3
Nelson	White	28.4	25.5	25.2	21.7	19.4
	Black	26.4	33.7	41.6	31.7	16.7

Table 21: Teen Pregnancy Rate by Race: Ages 10-19, TJHD Localities, 2005-2011
Source: Virginia Department of Health, Division of Health Statistics

Induced Terminations

Since 2003, the rolling average rate of induced terminations[67] in TJHD decreased slightly, from 12.1 terminations per 1,000 females aged 15-44 years in 2003-2005 to 11.7 in 2009-2011. The TJHD rates were lower than the Virginia rates (Figure 121). In the City of Charlottesville the rate decreased from 30.1 in 2004-2006 to 26 in 2009-2011. Between 2003-2005 and 2009-2011 rates decreased from 6.6 to 4.4 in Fluvanna County, 8.0 to 5.0 in Greene County, and 12.6 to 8.8 in Nelson County (Figure 122).

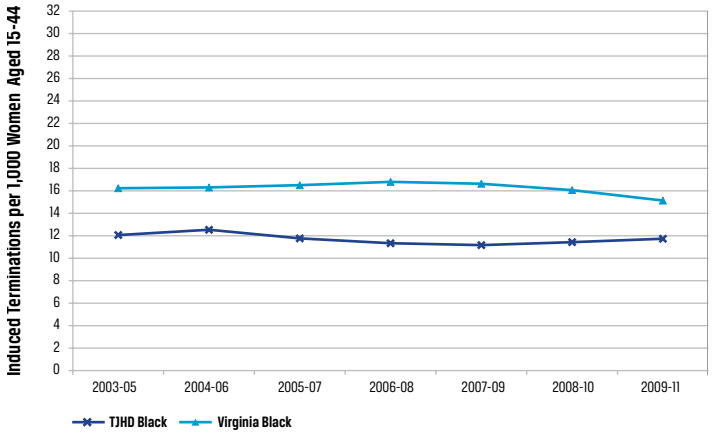


Figure 121: Induced Termination Rate, TJHD and Virginia, 2003-2011
Source: Virginia Department of Health, Division of Health Statistics

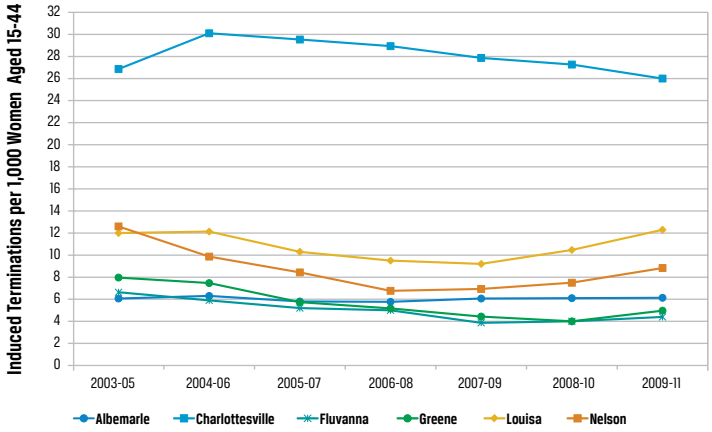


Figure 122: Induced Termination Rate, TJHD Localities, 2003-2011
Source: Virginia Department of Health, Division of Health Statistics

Prenatal Care

Prenatal care has important implications for both a pregnant woman and her child. The risk of infant mortality and pregnancy-related complications can be reduced by increasing access to quality preconception and prenatal care.[68] Early entry into prenatal care provides the opportunity for education of women about healthy behaviors during pregnancy and allows for detection of problems. The percentage of women entering prenatal care during their first trimester (the first 13 weeks of pregnancy) in TJHD decreased between 2002-2004 and 2008-2010. In 2008-2010, the percentage was 77%, which was lower than the Virginia percentage (83%) and below the Healthy People 2020 goal of 78% (Figure 123). Among TJHD localities, in 2008-2010, 75% of pregnant women in the City of Charlottesville, 77.8% in Albemarle and in Fluvanna County, 74.9% in Greene County, and 75.6% in Nelson County received early prenatal care. Only Louisa County met the Healthy People 2020 goal (Figure 124).

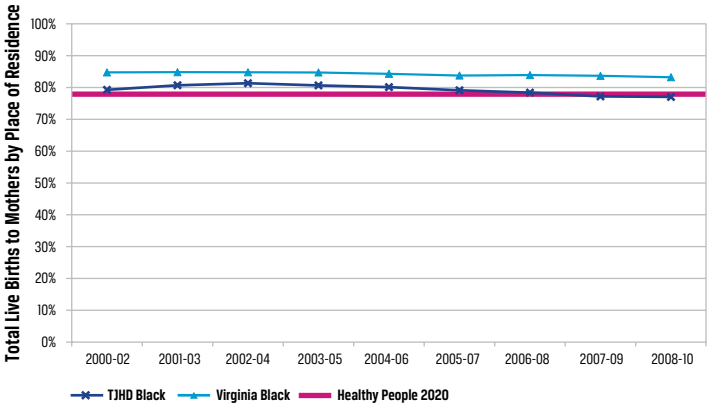


Figure 123: Percent of Pregnant Women Entering Prenatal Care in the 1st Trimester, TJHD and Virginia, 2000-2010
Source: Virginia Department of Health, Division of Health Statistics

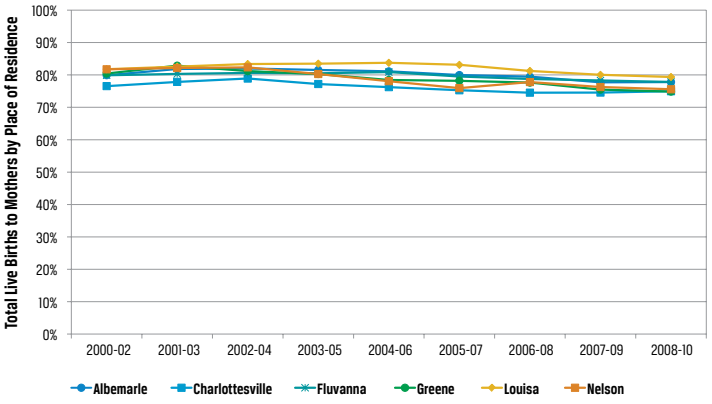


Figure 124: Percent of Pregnant Women Entering Prenatal Care in the 1st Trimester, TJHD Localities, 2000-2010
Source: Virginia Department of Health, Division of Health Statistics

Women receiving routine prenatal care throughout pregnancy are less likely to deliver prematurely, thus decreasing the risk of negative consequences to the infant's health.[69,70] For a full-term (40 week) pregnancy with no complications, the American College of Obstetricians and Gynecologists recommends 13 to 14 prenatal appointments, based on one visit during the first trimester, followed by monthly visits until 28 weeks, visits every two weeks between 28 and 36 weeks, and then weekly visits until delivery. As shown in Figure 125, the percentage of women in TJHD who received 10 or more prenatal care visits decreased over the last decade to 66%, which was lower than the Virginia percentage (77.7%). Among TJHD localities, the percentage of women has decreased particularly since 2001, reaching 65.7% in Albemarle County, 64.5% in the City of Charlottesville, 64.6% in Fluvanna County, 67.6% in Greene County, 69.9% in Louisa County and 64% in Nelson County (Figure 126).

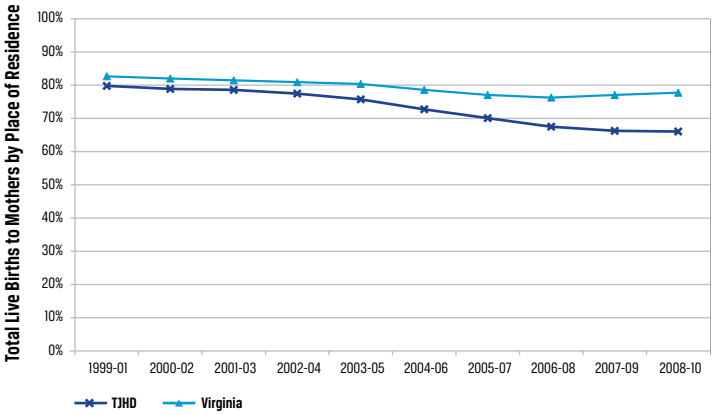


Figure 125: Percent of Pregnant Women Who Had 10 or More Prenatal Care Visits, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

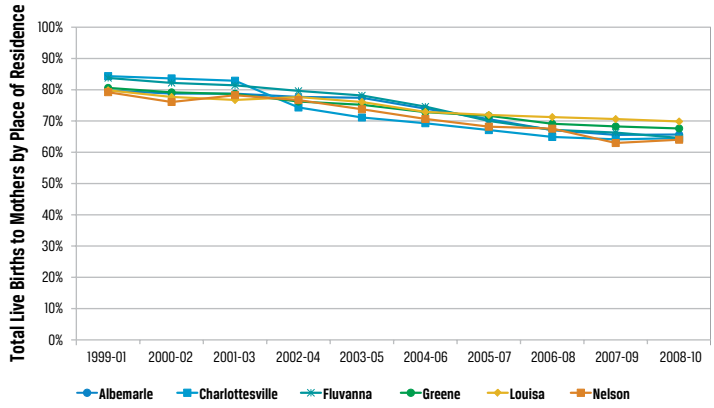


Figure 126: Percent of Pregnant Women Who Had 10 or More Prenatal Care Visits, TJHD Localities, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

Maternal Education

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.[71] In the U.S., babies born to mothers with less than a high school education are at greater risk of living in poverty.[72] In Albemarle, Louisa and Nelson Counties, the percentages of mothers with less than a high school education were comparable to the Virginia percentage (12%) in 2010. In Fluvanna and Greene Counties, the percentages were lower than Virginia, with 9% in both counties. In the City of Charlottesville, the percentage is higher than the Virginia percentage but has been decreasing since 2007 (Figure 127).

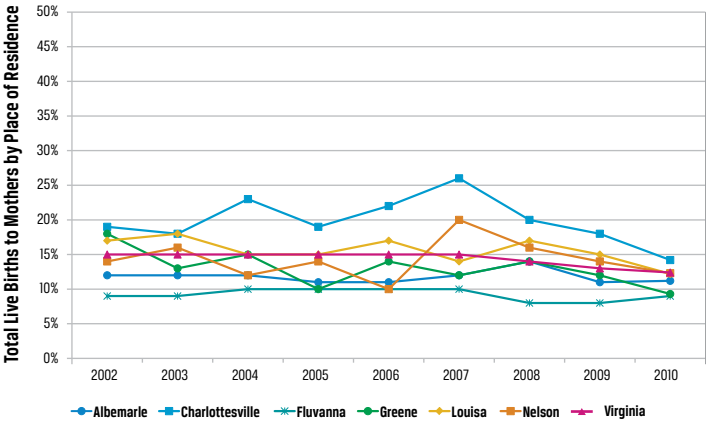


Figure 127: Percent of Mothers with Less than a High School Education, TJHD Localities and Virginia, 2002-2010; Source: Virginia Department of Health, Division of Health Statistics

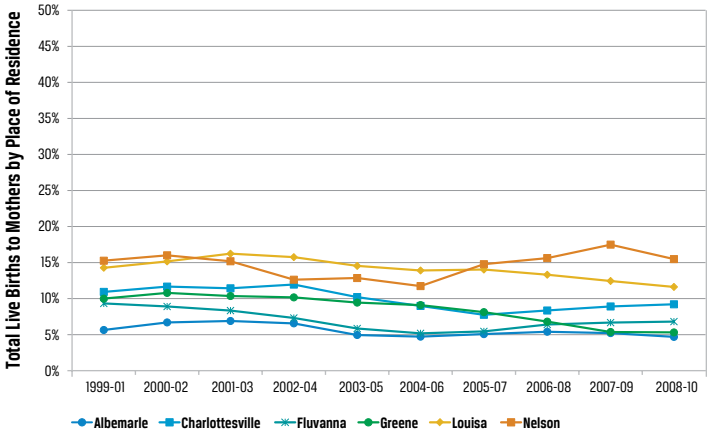


Figure 129: Percent of Pregnant Women who Reported Smoking during Pregnancy, TJHD Localities, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

Maternal Substance Abuse

Smoking during pregnancy increases the risk of miscarriage and increases the risk of the infant having a low birth weight, respiratory distress syndrome, sudden infant death syndrome, and impaired cognitive development.[73] The earlier a woman stops smoking during pregnancy, the greater the reduction of risk to her baby.[74] According to the Virginia Center for Health Statistics, in 2008-2010, a rolling average of 7.5% of pregnant women[75] in TJHD reported smoking during pregnancy, which is higher than Virginia overall (6.2%) (Figure 128). Among TJHD localities, 4.7% of pregnant women in Albemarle County, 9.2% in the City of Charlottesville, 6.8% in Fluvanna County, 5.3% in Greene County, 11.6% in Louisa County and 15.5.% in Nelson County reported smoking during pregnancy (Figure 129). All localities were higher than the Healthy People 2020 goal of 1.4%.

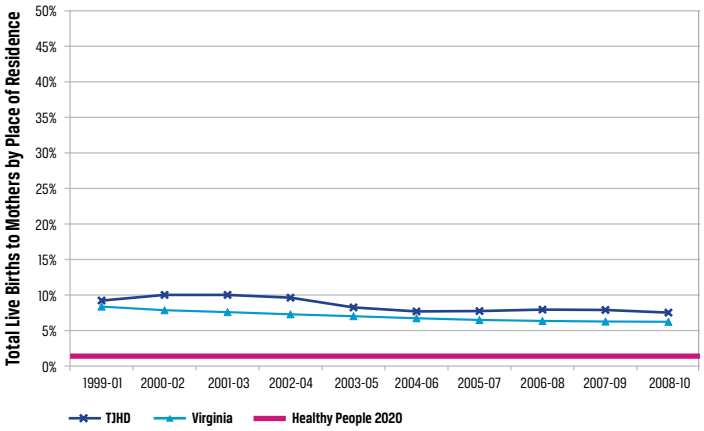


Figure 128: Percent of Pregnant Women who Reported Smoking during Pregnancy, TJHD and Virginia,
1999-2010
Source: Virginia Department of Health, Division of Health Statistics

The Commonwealth of Virginia mandates that newborn infants who may have been exposed to controlled substances prior to birth are reported to the local department of social services. According to the Virginia Department of Social Services, the number of reported substance-exposed infants in TJHD has been increasing since fiscal year 1999 (Figure 130).

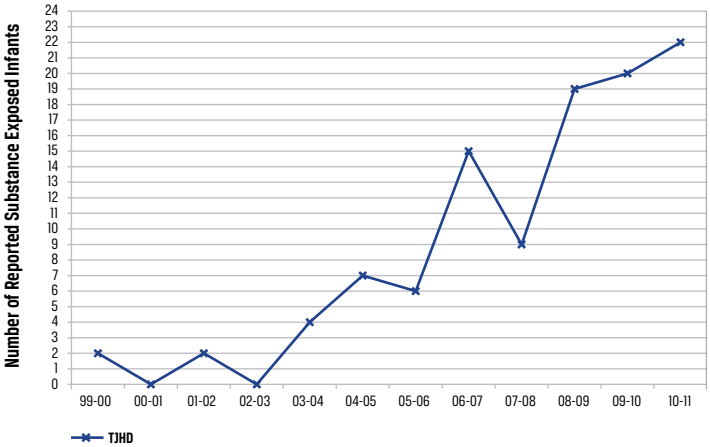


Figure 130: Substance Exposed Infants, TJHD, FY1999-2011
Source: Virginia Department of Social Services

LEADING CAUSES OF DEATH

Mortality Rates

The age-adjusted mortality rate has declined since 1999-2001 in TJHD and in Virginia (Figure 131). This trend is echoed among TJHD localities (Figure 132). In the City of Charlottesville, the mortality rate has decreased from a rolling average of 972.9 age-adjusted deaths per 100,000 residents in 1999-2001 to 648.7 in 2008-2010. In Albemarle County it decreased from 768.4 to 670.3; in Fluvanna County from 867.7 to 699.6; in Greene County from 1021.3 to 765.9; in Louisa County from 987.4 to 760.2; and in Nelson County from 956.1 to 761.7.

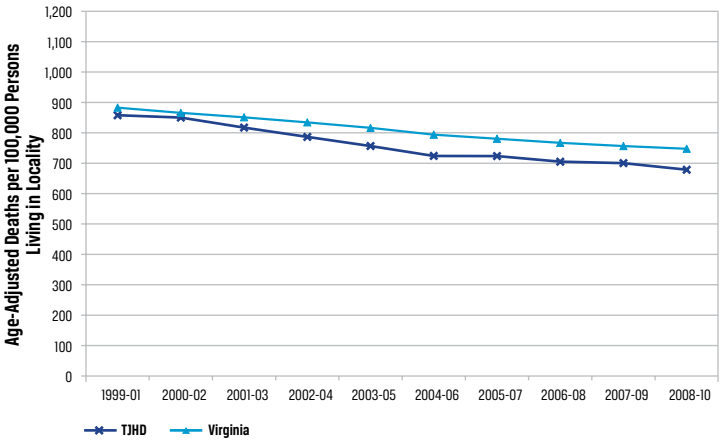


Figure 131: Age-Adjusted Mortality Rate, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

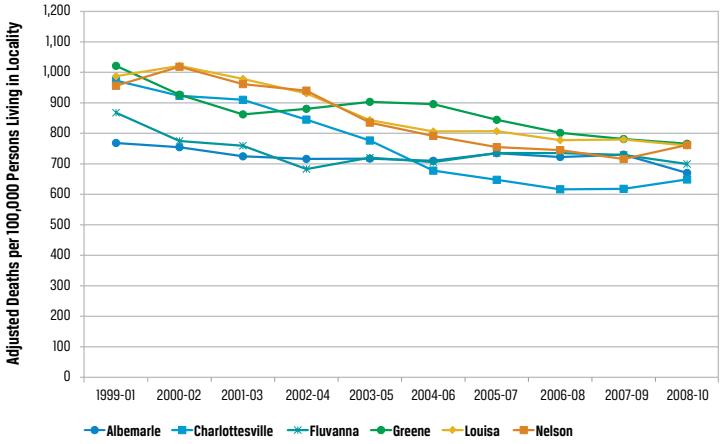


Figure 132: Age-Adjusted Mortality Rate, TJHD Localities, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

Age-adjusted mortality rates by race reveal disparities in TJHD and in Virginia (Figure 133) and disparities consistently over the past decade in all TJHD localities except Greene County (Table 22).

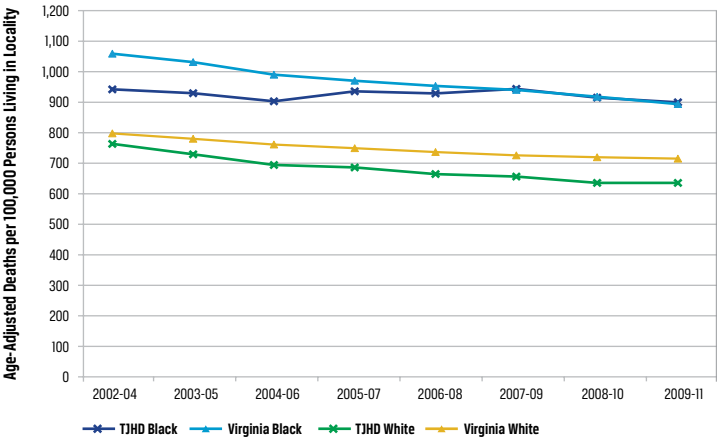


Figure 133: Age-Adjusted Mortality Rate by Race, TJHD and Virginia, 2000-2011
Source: Virginia Department of Health, Division of Health Statistics

Three-Year Rolling Averages, Mortality Rate per 100,000 Persons Living in Locality						
		2004-2006	2005-2007	2006-2008	2007-2009	2008-2010
Albemarle	White	710.8	728.8	713.5	715.9	720.0
	Black	815.0	878.5	890.6	997.6	879.0
Charlottesville	White	596.1	558.0	522.0	512.7	516.2
	Black	963.3	974.2	969.5	995.7	909.6
Fluvanna	White	675.4	709.0	703.2	692.1	685.5
	Black	908.7	911.6	945.6	942.6	883.0
Greene	White	903.3	843.7	799.4	776.0	773.5
	Black	891.3	987.9	1042.2	1051.5	748.2
Louisa	White	769.7	765.6	760.0	763.6	746.0
	Black	990.8	996.5	878.7	872.8	919.5
Nelson	White	780.3	730.0	689.3	681.3	812.9
	Black	907.8	923.8	1101.2	963.0	1277.0

Table 22: Age-Adjusted Mortality Rate by Race, TJHD Localities, 2004-2010
Source: Virginia Department of Health, Division of Health Statistics

Leading Causes of Death

According to the Virginia Department of Health, the five leading causes of death in 2010 in both TJHD and Virginia were cancer, heart disease, stroke, chronic respiratory disease, and unintentional injuries (Table 23). In the U.S., though the five leading causes of death were the same, heart disease was the number one cause and cancer was number two.

1 Cancer
2 Heart Disease
3 Stroke
4 Chronic Respiratory Disease (COPD and Asthma)
5 Unintentional Injuries

Table 23: Leading Causes of Death, TJHD and Virginia, 2010; Source: Virginia Department of Health, Division of Health Statistics

When stratified by age, unintentional injuries are the leading cause of death for Virginia residents aged 0 to 24 years old. The second leading cause of death changes from heart disease in residents less than 1 year old to cancer in residents 1 to 24 years old (Figure 134).

For Virginia adults, unintentional injury is the leading cause of death for residents 25 to 39 years old, but at 40 years old, the leading cause of death changes to cancer (Figure 135).

Finally, for older adults, the leading cause of death changes from cancer for 65 to 84 year olds to heart disease for 85 year olds and up (Figure 136).

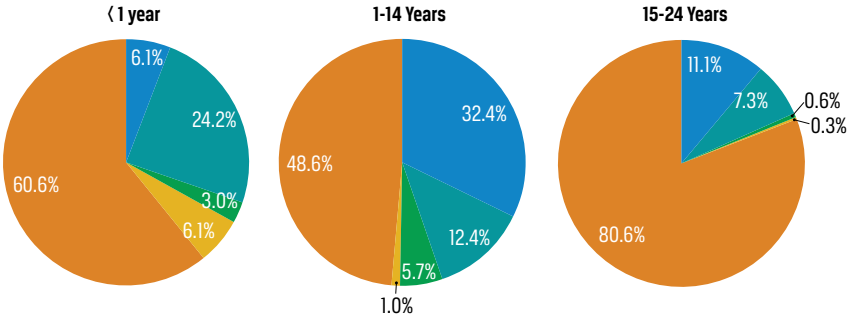


Figure 134: Leading Causes of Death by Age: Youth/Teens, Virginia, 2010
Source: Virginia Department of Health, Division of Health Statistics

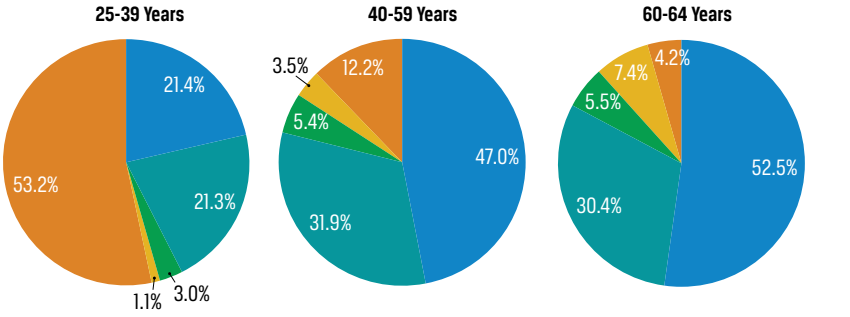


Figure 135: Leading Causes of Death by Age: Adults, Virginia, 2010
Source: Virginia Department of Health, Division of Health Statistics

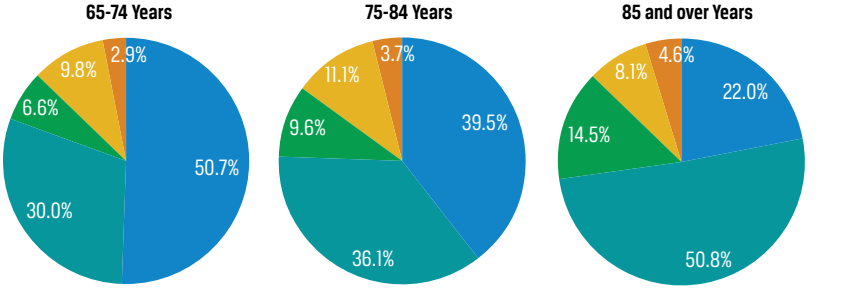


Figure 136: Leading Causes of Death by Age: 65 and over, Virginia, 2010
Source: Virginia Department of Health, Division of Health Statistics

Heart Disease Mortality

The death rate from heart disease in Virginia has fallen every year since 1999 and after adjusting for differences in age, in 2009, Virginia had the 27th lowest rate of heart disease in the U.S. [76] The rate has also declined in TJHD and in each of its localities over the last decade (Figure 137 and Figure 138).

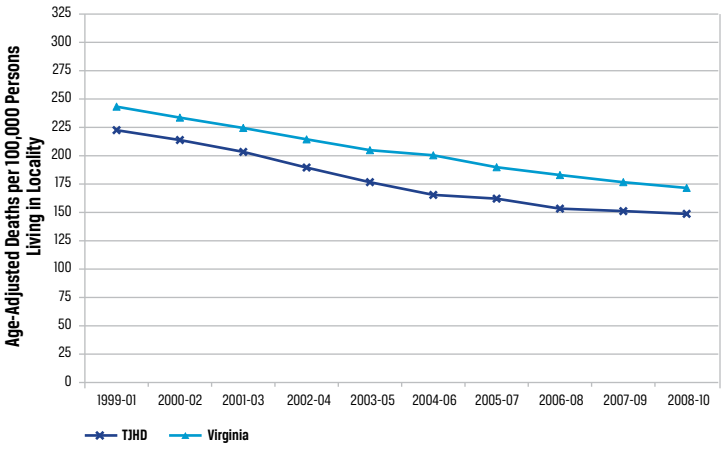


Figure 137: Age-adjusted Heart Disease Death Rate, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

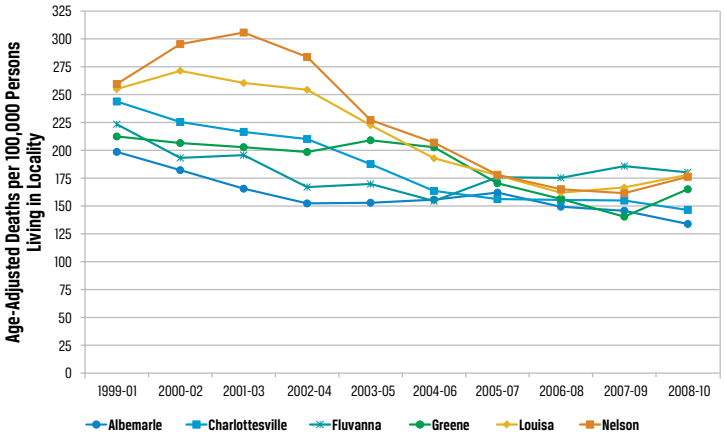


Figure 138: Age-adjusted Heart Disease Death Rate, TJHD Localities, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

While heart disease mortality rates in TJHD have decreased for all groups, there are some disparities. The rural counties have higher rates, and in Albemarle County, the City of Charlottesville, and Fluvanna County, there are consistently higher rates among African-American residents (Figure 139 and Table 24 – the mortality rates in Greene County are not included due to small numbers, which are statistically unstable).

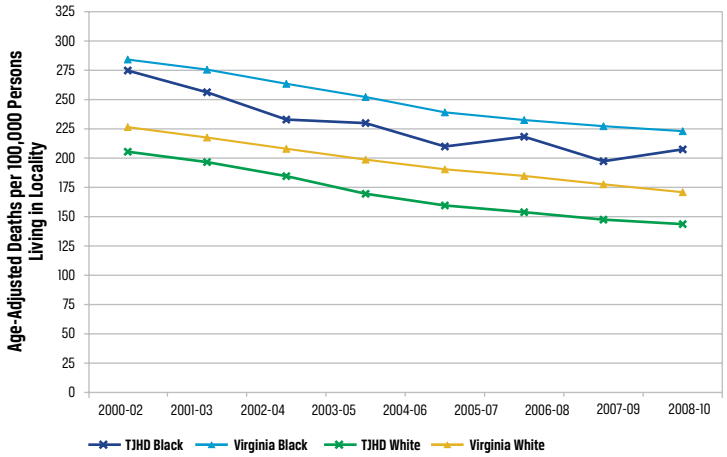


Figure 139: Heart Disease Death Rate by Race, TJHD and Virginia, 2000-2010
Source: Virginia Department of Health, Division of Health Statistics

Three-Year Rolling Averages, Heart Disease Mortality Rate per 100,000 Persons Living in Locality						
		2004-2006	2005-2007	2006-2008	2007-2009	2008-2010
Albemarle	White	148.9	151.3	142.2	142.4	140.7
	Black	194.3	221.0	183.1	195.7	190.1
Charlottesville	White	145.6	132.3	132.3	131.1	126.1
	Black	232.4	249.2	245.1	245.3	255.0
Fluvanna	White	149.2	165.3	166.9	161.7	158.8
	Black	181.1	223.8	226.7	308.7	303.2
Louisa	White	182.8	175.3	168.3	176.2	176.7
	Black	243.3	193.5	144.6	136.2	146.3
Nelson	White	207.7	168.0	155.0	158.1	165.5
	Black	209.4	242.0	231.0	187.5	144.4

Table 24: Heart Disease Death Rate by Race, TJHD Localities, 2004-2010
Source: Virginia Department of Health, Division of Health Statistics

The mortality rate due to stroke in TJHD decreased between 1999 and 2010 in TJHD and in all its localities, which followed state trends, but the rate was slightly higher (44.2 deaths per 100,000 residents) than the Virginia rate (41.9) in 2008-2010 (Figure 140 and Figure 141).

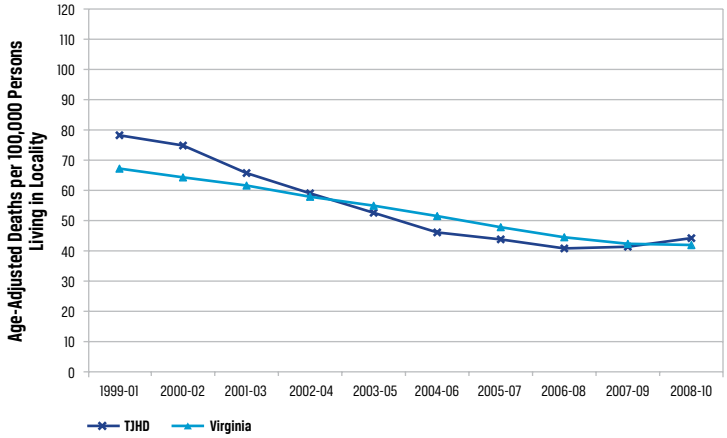


Figure 140: Stroke-Related Death Rate, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

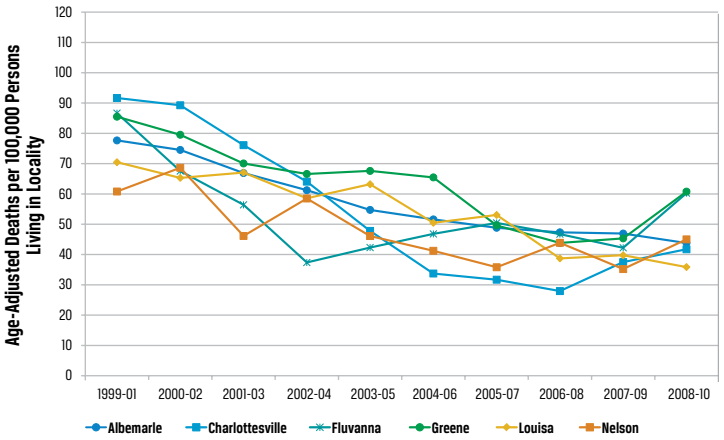


Figure 141: Stroke-Related Death Rate, TJHD Localities, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

Cancer-Related Mortality

The rate of TJHD residents who died from cancer decreased slightly between 1999-2001 and 2008-2010 (Figure 142), following the Virginia trend. However, in 2010, Virginia ranked 30th among U.S. states in age-adjusted cancer mortality.[77] The cancer-related mortality rate was lower in 2008-2010 than 1999-2001 in the City of Charlottesville, Greene County, Louisa County and Nelson County. Though there was variability over the decade, the mortality rate was approximately the same in 2008-2010 as in 1999-2001 in Albemarle County, and increased in Fluvanna County (Figure 143).

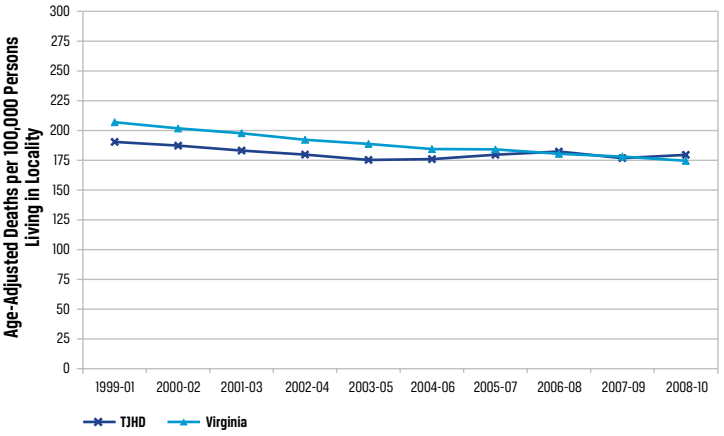


Figure 142: Cancer-Related Death Rate, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

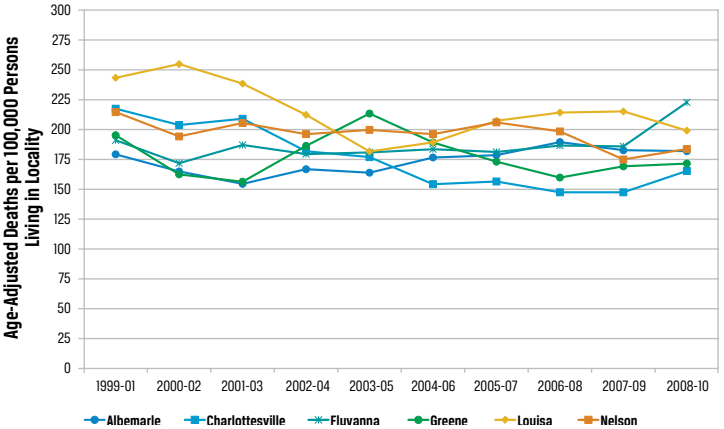


Figure 143: Cancer-Related Death Rate, TJHD Localities, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

In the U.S., disparities have been documented in the rate of cancer-related death by race. Though the mortality rate due to cancer among African-Americans in TJHD was lower than the Virginia rate early in the last decade, it began to increase in 2003-2005 and surpassed the Virginia rate in 2006-2008. Rates among white residents in TJHD remained comparable to Virginia rates over the last decade (Figure 144). The cancer-related death rate was consistently higher in African Americans than white residents in the City of Charlottesville and Fluvanna County over the last decade but not in Albemarle, Louisa or Nelson County (Table 25 – the mortality rates in Greene County are not included due to small numbers, which are statistically unstable).

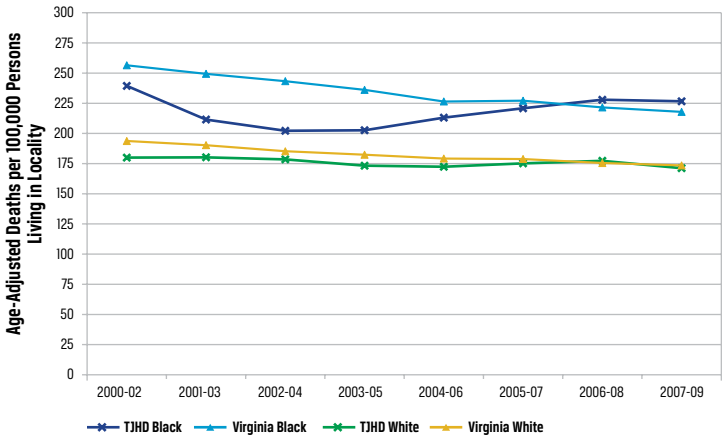


Figure 144: Cancer-Related Death Rate by Race, TJHD and Virginia, 2000-2009
Source: Virginia Department of Health, Division of Health Statistics

Three-Year Rolling Averages, Cancer Mortality Rate per 100,000 Personal Living in Locality						
		2003-2005	2004-2006	2005-2007	2006-2008	2007-2009
Albemarle	White	168.5	180.7	183.0	191.5	183.8
	Black	145.4	171.7	166.7	204.0	212.8
Charlottesville	White	156.5	128.6	126.9	119.7	121.0
	Black	254.1	255.1	269.2	251.9	234.6
Fluvanna	White	164.2	163.3	170.2	177.7	182.1
	Black	291.3	315.9	259.9	255.9	217.0
Louisa	White	190.9	193.8	204.0	216.5	209.1
	Black	171.6	192.5	234.1	211.1	243.5
Four-Year Rolling Average		**2002-2005**	**2003-2006**	**2004-2007**	**2005-2008**	**2006-2009**
Nelson	White	198.3	205.8	196.3	201.7	178.6
	Black	202.3	222.0	183.2	187.3	250.8

Table 25: Cancer-Related Death Rate by Race, TJHD Localities, 2003-2009
Source: Virginia Department of Health, Division of Health Statistics

Chronic Obstructive Pulmonary Disease Mortality

Ninety percent of chronic obstructive pulmonary disease (COPD) deaths in the U.S. are caused by smoking or secondhand smoke. Smokers have 10 times the risk of dying from COPD than non-smokers. The rate of women dying from COPD in the U.S. has increased over the last 20 years, which was associated with increased smoking.[78] Between 1999-2002 and 2007-2010, the mortality rate due to COPD decreased in TJHD and in Virginia (Figure 145) and decreased in the City of Charlottesville, Fluvanna County, and Louisa County. The rate remained consistent in Albemarle and Nelson County and increased in Greene County (Figure 146).

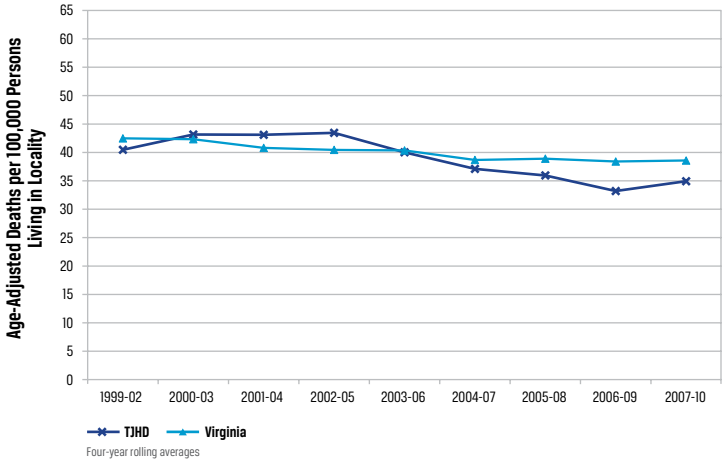


Figure 145: COPD-Related Death Rate, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

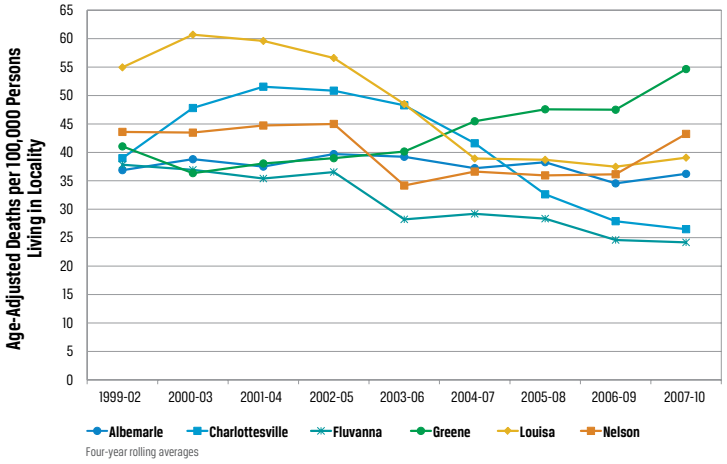


Figure 146: COPD-Related Death Rate, TJHD Localities, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

When stratified by race, disparities exist in COPD-related death rates in TJHD and in Virginia. Throughout the last decade, the death rate of white residents was consistently higher than the rate of African-American residents (Figure 147).

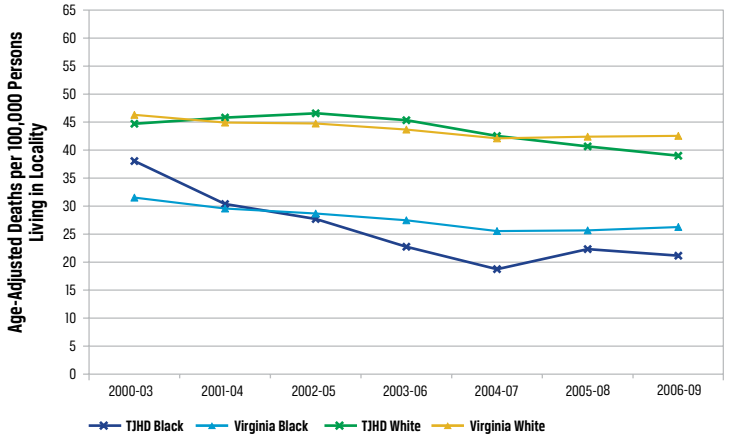


Figure 147: COPD-Related Deaths by Race, TJHD and Virginia, 2000-2009
Source: Virginia Department of Health, Division of Health Statistics

Diabetes-Related Mortality

Nationally, the risk of death among persons with diabetes is about twice that of persons of similar age without diabetes.[79] Over the last decade, the age-adjusted diabetes-related mortality rate in TJHD decreased to a rolling average of 15.7 deaths per 100,000 residents in 2006-2010, which was lower than the Virginia rate, 20.1 (Figure 148). The diabetes-related mortality rate was lower in 2006-2010 than in 1999-2003 in all TJHD localities (Figure 149).

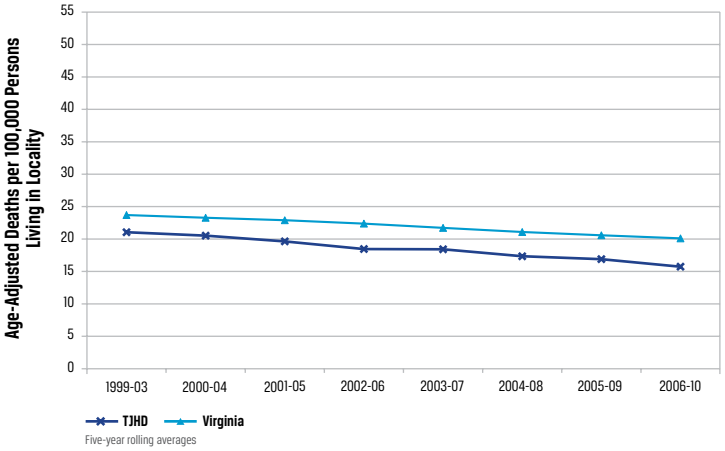


Figure 148: Diabetes-Related Death Rate, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

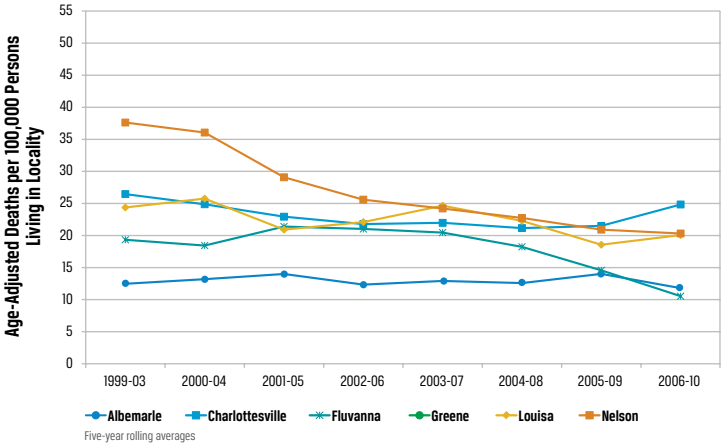


Figure 149: Diabetes-Related Death Rate, TJHD Localities, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

Diabetes mortality rates in Virginia have decreased in all racial/ethnic groups over the past decade, but disparities by gender and race remain in every age group.[80] According to the Virginia Department of Health, both diabetes prevalence and mortality are highest among men and among African Americans. Diabetes mortality rates among black Virginians are approximately twice as high as white Virginians.[81] When stratified by race locally, the mortality rate for diabetes among white residents in TJHD decreased slightly to 12.5 deaths per 100,000 in 2007-2009, which was lower than the Virginia rate (16.3). There was variation in the mortality rate among African-American residents in TJHD (likely due to smaller numbers); it decreased between 2000-2002 and 2002-2004, then increased until 2005-2007, and decreased again in 2007-2009 (Figure 150).

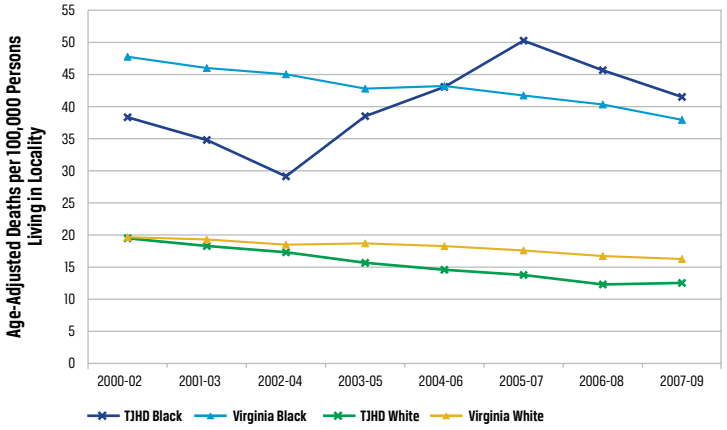


Figure 150: Diabetes-Related Death Rate by Race, TJHD and Virginia, 2000-2009
Source: Virginia Department of Health, Division of Health Statistics

Unintentional Injury-Related Mortality

Injuries, classified as unintentional (accidents) or intentional (suicide and homicide), constitute a significant source of disability and death across the life spectrum. Unintentional injuries are the leading cause of death among 1 to 39 year olds in Virginia and the 5th overall leading cause of death. The mortality rate for unintentional injuries[82] in TJHD increased from 33.8 deaths per 100,000 residents in 1999-2002 to 38.4 in 2007-2010, which was higher than the Virginia rate (34.5) (Figure 151). The rates in the City of Charlottesville and Nelson County decreased over the last decade. The rates in Albemarle County, Fluvanna County, Greene County, and Louisa County increased (Figure 152).

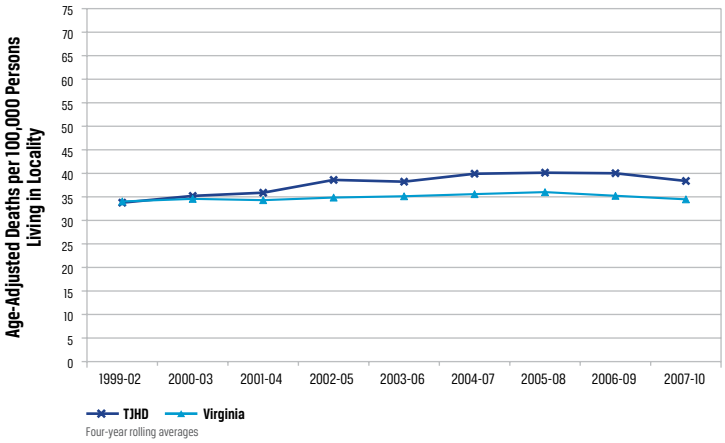


Figure 151: Unintentional Injury Death Rate, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

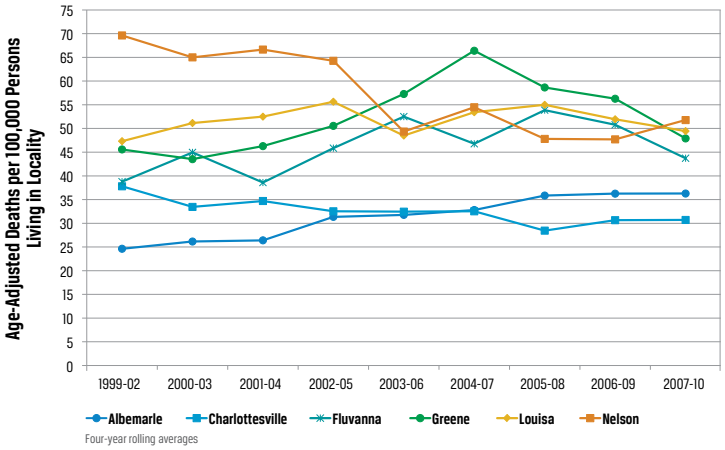


Figure 152: Unintentional Injury Death Rate, TJHD Localities 1999-2010
Source: Virginia Department of Health, Division of Health Statistics

The rate of unintentional injury deaths among white residents in TJHD was about 40 deaths per 100,000 residents in 2006-2009. The rate among African-Americans in TJHD began to rise in 2003-2006, reaching 47.8 in 2006-2009. The rate of both TJHD groups follow state trends (Figure 153).

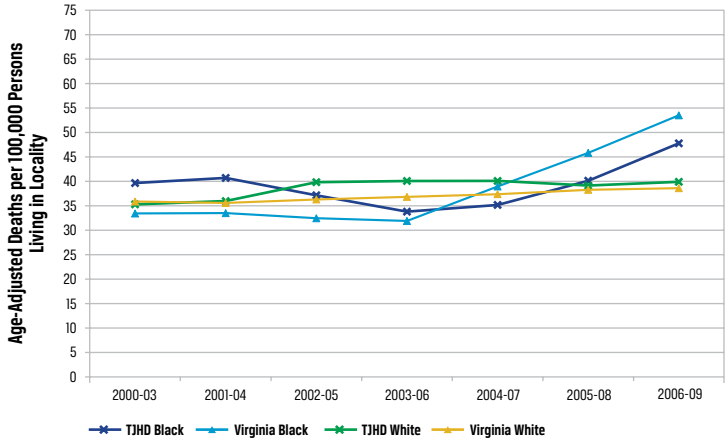


Figure 153: Unintentional Injury Deaths by Race, TJHD and Virginia, 2000-2009
Source: Virginia Department of Health, Division of Health Statistics

Intentional Injury-Related Mortality

According to the CDC, in the U.S. more than 32,000 people die by suicide every year and another 18,000 die by homicide. Suicide, homicide, or both are among the ten leading causes of death in every age group younger than 65 years of age in Virginia. Figure 154 depicts the homicide and suicide rates for TJHD and Virginia. In TJHD, both were lower in 2007-2009 than in 1999-2001. Suicide rates remain higher than homicide rates. In 2007-2009, in TJHD the suicide rate was comparable to the Virginia rate and the homicide rate was lower than the Virginia rate.

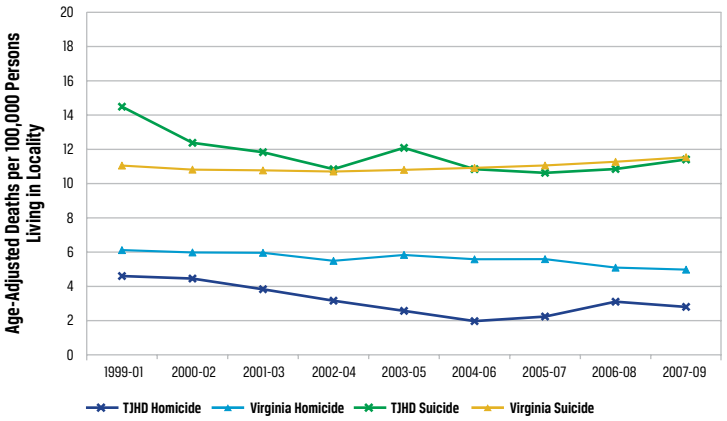


Figure 154: Suicide and Homicide, TJHD and Virginia, 1999-2009
Source: Virginia Department of Health, Virginia Online Injury Reporting System

In the U.S., suicide is the third leading cause of death in 15-24 year-olds, and the suicide rate is four times higher in males than females.[83] In Virginia, on average one youth dies each week from suicide.[84] The white suicide rate is 2.4 times higher than the black suicide rate.[85] In 2004-2008, the rate of youth suicide in TJHD was lower than the Virginia rate (Figure 155).

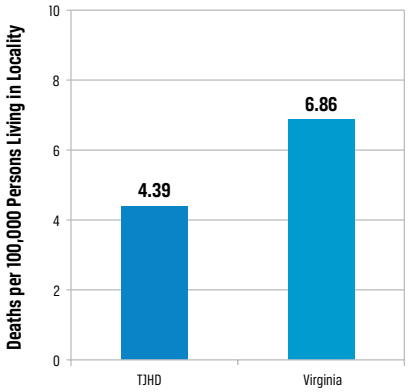


Figure 155: Youth Suicide, TJHD and Virginia, 2004-2008
Source: Virginia Department of Health, Office of Family Health Services

CANCER

Cancer is not one disease, but rather a number of different diseases that have some commonalities. In general, the major risk factors for cancer include a person's age, sex, and family medical history. Different kinds of cancer have specific risk factors.[86] For example:

- Tobacco use is associated with cancers of the lung, mouth, larynx, bladder, kidney, cervix, esophagus, and pancreas.[87]
- Skin cancer is related to unprotected exposure to strong sunlight.[88]
- Breast cancer risk factors include age, changes in hormone levels throughout life, obesity, and physical inactivity.[89]

Lung Cancer

According to the American Cancer Society, lung cancer accounts for 14% of all new cancer cases. The incidence of lung cancer among men in the U.S. has decreased over the past two decades, from 102 cases per 100,000 men in 1984 to 72 in 2008. For women, the rate has recently started to decrease, reversing a trend of growth.[90] Cigarette smoking is the strongest risk factor for developing lung cancer. Other risk factors include exposures to second-hand smoke, radon, and asbestos. Genetic factors may also increase susceptibility to the disease. In Virginia in 2009, inpatient hospitalizations for lung cancer cost over $138 million.[91] In TJHD, the rate in 2004-2008 was 69.8, an increase from 64.4 in 1999-2003. There was also an increase in each locality except Louisa County (Figure 156).

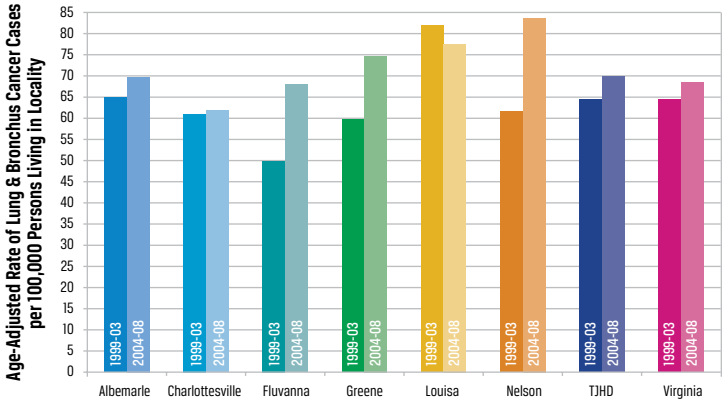


Figure 156: Lung Cancer Incidence, TJHD by Locality, TJHD and Virginia, 1999-2008
Source: Virginia Cancer Registry

When stratified by race, in 2004-2008 the lung cancer incidence rate in Virginia was 71.73 per 100,000 persons for African-Americans and 68.91 for white residents. In TJHD, it was 78.06 for African-Americans and 69.06 for white residents. Rates among all groups increased between 1999-2003 and 2004-2008 (Figure 157).

Though mortality rates have begun to decline, in the U.S. lung cancer accounts for more deaths than any other cancer in both men and women. An estimated 160,340 deaths, about 28% of all cancer deaths, were expected to occur in 2012.[92] In 2003-2007, the rolling average mortality rate due to lung cancer in TJHD was 52.5 deaths per 100,000 residents, which was slightly lower than the Virginia rate, 54.8 (Figure 158).[93]

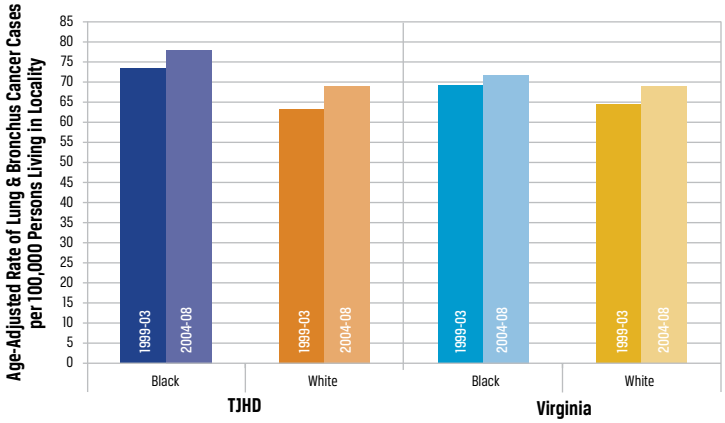


Figure 157: Lung Cancer Incidence by Race, TJHD and Virginia, 1999-2008
Source: Virginia Cancer Registry

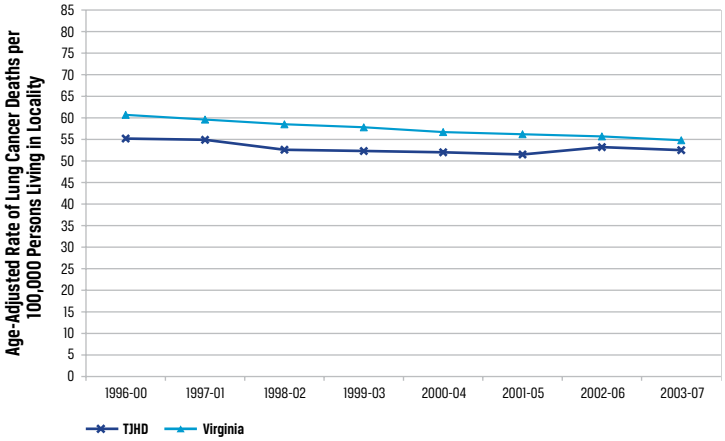


Figure 158: Lung Cancer Deaths, TJHD and Virginia, 1996-2007
Source: Virginia Department of Health, Division of Health Statistics

Breast Cancer

Excluding skin cancer, breast cancer is the most frequently diagnosed cancer among women. Between 1999-2003 and 2004-2008, breast cancer incidence decreased in TJHD from 144.81 cases per 100,000 females to 127.52. On a locality level, it decreased in Albemarle County, the City of Charlottesville and Greene County. The rates increased in Fluvanna County, Louisa County and Nelson County (Figure 159).

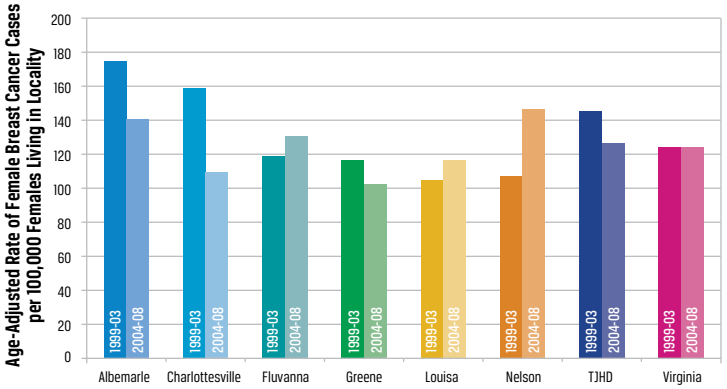


Figure 159: Breast Cancer Incidence, TJHD by Locality, TJHD and Virginia, 1999-2008
Source: Virginia Cancer Registry

In TJHD, breast cancer incidence was higher in white women than black women in 1999-2003, but then reversed in 2004-2008 and was higher in black women than white women (Figure 160).

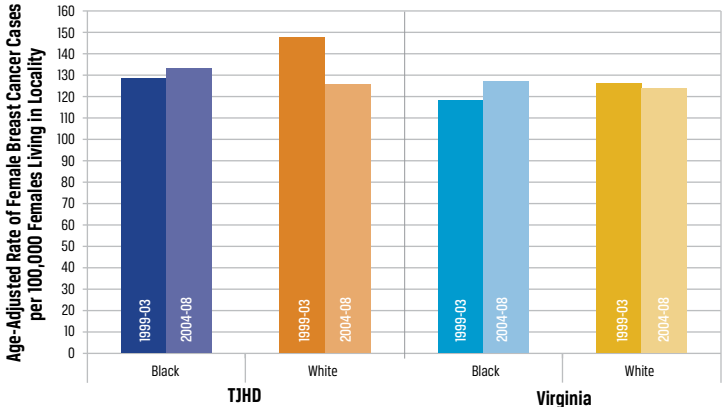


Figure 160: Breast Cancer Incidence by Race, TJHD and Virginia; 1999-2008
Source: Virginia Cancer Registry

In 2003-2007, the breast cancer mortality rate in TJHD was 20.9 deaths per 100,000 residents, which was lower than in 1996-2000 and lower than the Virginia rate (25.4) (Figure 161).

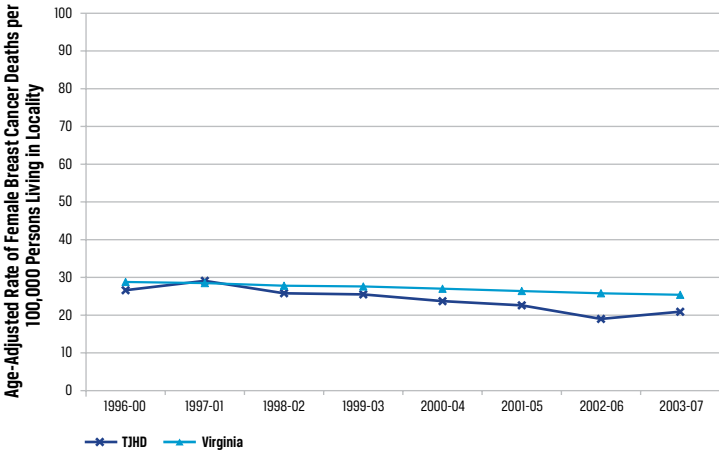


Figure 161: Breast Cancer Deaths, TJHD and Virginia; 1996-2007
Source: Virginia Department of Health, Division of Health Statistics

Prostate Cancer

Prostate cancer incidence increased between 1999-2003 and 2004-2008 in TJHD, as well as in each TJHD locality except Albemarle and Nelson Counties. In 2004-2008, the incidence rates in Albemarle, Louisa and Nelson Counties were higher than the Virginia rate, and in Fluvanna and Greene Counties and the City of Charlottesville, the rates were lower than the Virginia rate (Figure 162).

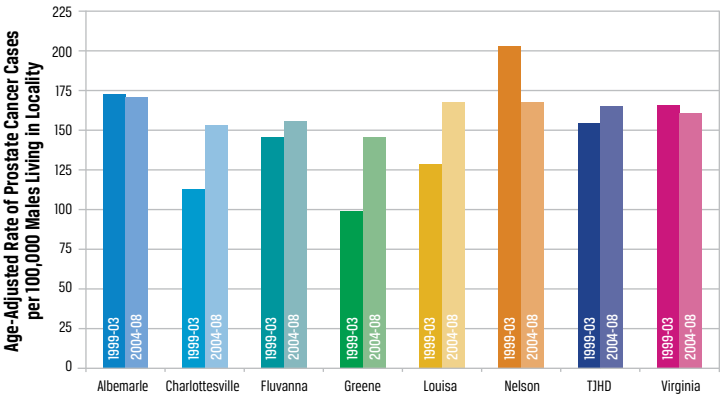


Figure 162: Prostate Cancer Incidence, TJHD by Locality, TJHD and Virginia, 1999-2008
Source: Virginia Cancer Registry

In TJHD in 2004-2008, prostate cancer incidence rates increased from 145.56 to 156.68 among white men and decreased from 207.16 to 202.91 among African American men (Figure 163).

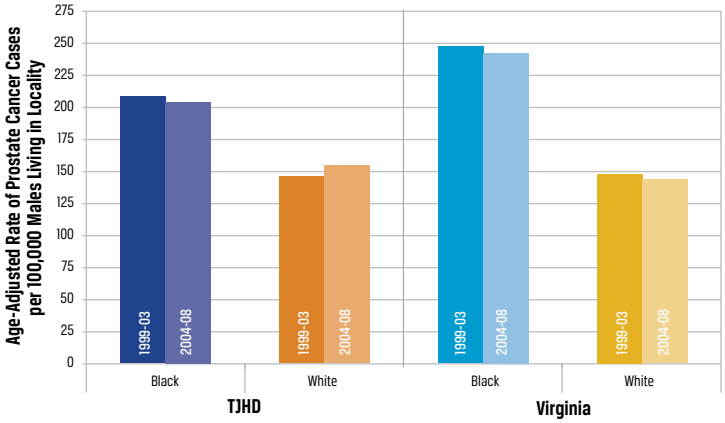


Figure 163: Prostate Cancer Incidence by Race, TJHD and Virginia, 1999-2008
Source: Virginia Cancer Registry

Prostate cancer mortality rates decreased between 1996-2000 and 2003-2007 in both TJHD and Virginia. In 2003-2007, the rate in TJHD was 27.3, which was comparable to the Virginia rate (Figure 164).

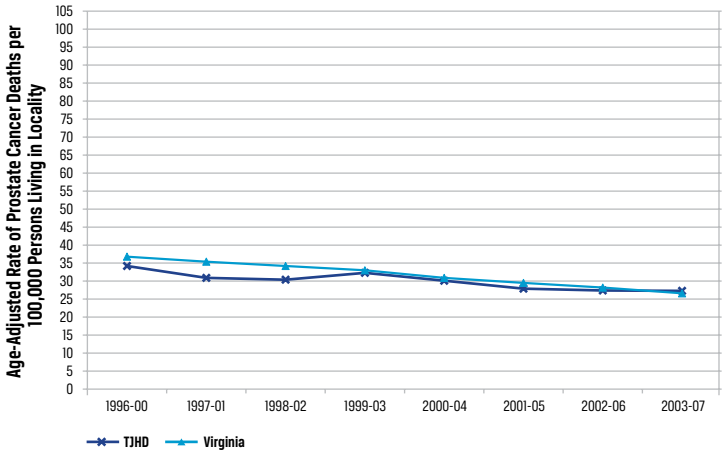


Figure 164: Prostate Cancer Deaths, TJHD and Virginia, 1996-2007
Source: Virginia Department of Health, Division of Health Statistics

Colorectal Cancer

Factors that increase the risk of developing colorectal cancer include age (over 90% of colorectal cancers are diagnosed in people 50 and older), personal/family history of colorectal polyps or cancer, certain genetic mutations, overweight/obesity, sedentary lifestyle, high red/processed meat consumption, and heavy alcohol use.[94] Colorectal cancer incidence rates decreased between 1999-2003 and 2004-2008 in TJHD (44.17) and Virginia (45.14), as well as in every TJHD locality except Greene County (Figure 165).

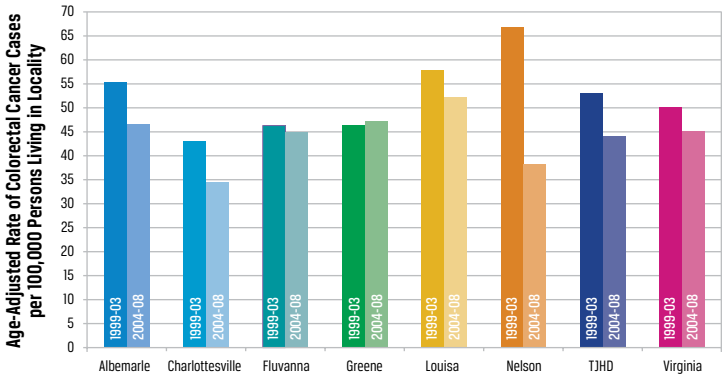


Figure 165: Colorectal Cancer Incidence, TJHD by Locality, TJHD and Virginia, 1999-2008
Source: Virginia Cancer Registry

TJHD followed Virginia trends, with rates of colorectal cancer incidence decreasing among both white and African-American residents between 1999-2003 and 2004-2008 (Figure 166).

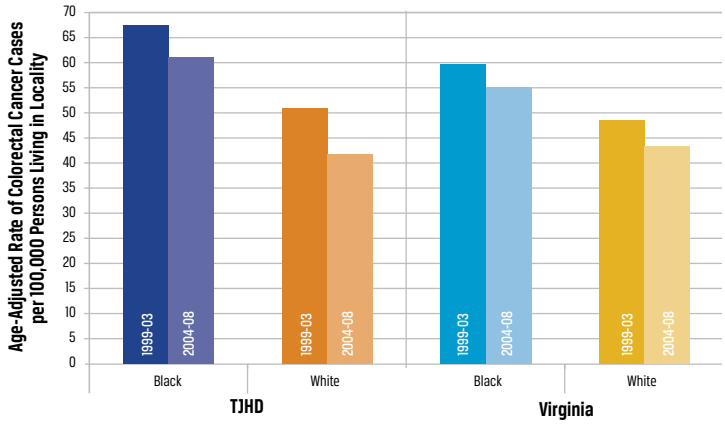


Figure 166: Colorectal Cancer Incidence by Race, TJHD and Virginia, 1999-2008
Source: Virginia Cancer Registry

Mortality rates due to colorectal cancer in TJHD have decreased slightly since 1997-2001 and in 2003-2007 were slightly lower than Virginia at 15.6 deaths per 100,000 residents (Figure 167).

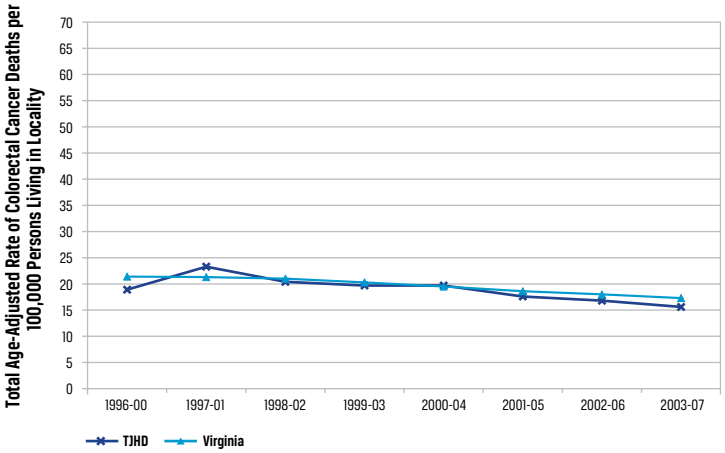


Figure 167: Colorectal Cancer Deaths, TJHD and Virginia, 1996-2007
Source: Virginia Department of Health, Division of Health Statistics

UNINTENTIONAL INJURY

In TJHD over the last decade (1999-2009), 53% of unintentional injury hospitalizations were attributed to falls, as shown in Figure 168. Motor vehicle crashes were the second leading cause. Figure 169 shows a breakdown by locality.

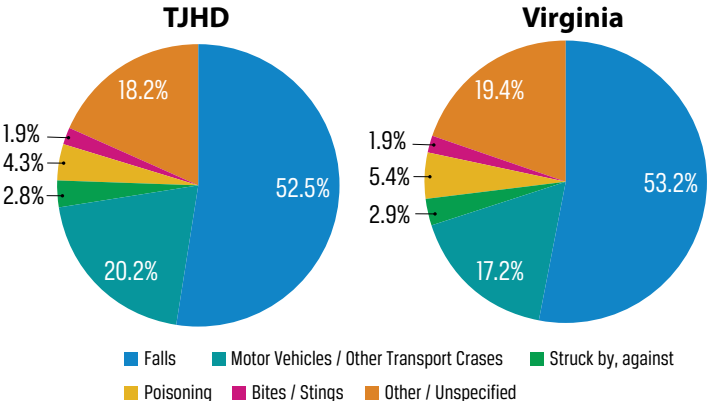


Figure 168: Unintentional Injury Hospitalizations by Cause, TJHD and Virginia, 1999-2009
Source: Virginia Department of Health, Virginia Online Injury Reporting System

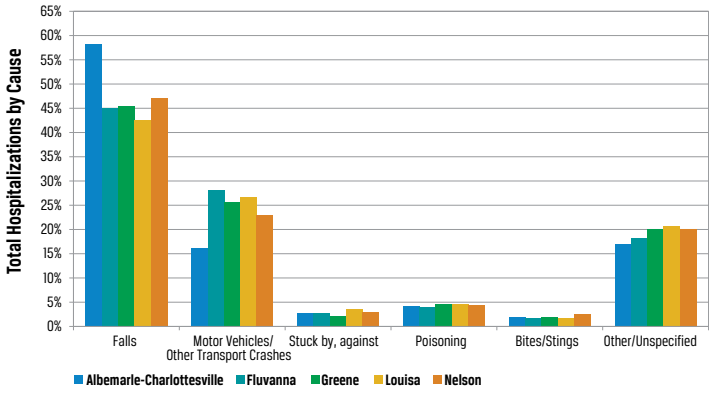


Figure 169: Percent of Unintentional Injury Hospitalizations by Cause, TJHD Localities, 1999-2009
Source: Virginia Department of Health, Virginia Online Injury Reporting System

Table 26 shows cause-specific unintentional injury hospitalizations by age group. Over the last decade, children and teenagers were most likely to be hospitalized due to a motor vehicle crash, while the majority of hospitalizations of the elderly resulted from falls. For adults, motor vehicle crashes and falls were both common causes of unintentional injury hospitalization. In TJHD, 79% of injuries among residents over 65 were due to falls. The rate of falls among residents aged 65 and over increased in TJHD between 2004-2006 and 2007-2009, but it remained below the state rate (Figure 170).

		0-19		20-64		65 and over	
		Number	%	Number	%	Number	%
Falls	TJHD	174	19%	1263	30%	3653	79%
	Virginia	8384	23%	48821	33%	127603	78%
Motor Vehicle/ Other Transport Crashes	TJHD	393	43%	1333	32%	234	5%
	Virginia	11899	33%	39778	27%	7981	5%
Struck by, against	TJHD	76	8%	139	3%	56	1%
	Virginia	2793	8%	5546	4%	1892	1%
Poisoning	TJHD	45	5%	230	6%	143	3%
	Virginia	2752	8%	11512	8%	4606	3%
Bites, Stings	TJHD	24	3%	117	3%	47	1%
	Virginia	1314	4%	3960	3%	1158	1%
Other/Unspecified	TJHD	199	22%	1059	26%	506	11%
	Virginia	8566	24%	38530	26%	20352	12%

Table 26: Hospitalizations by Age, TJHD and Virginia, 1999-2009
Source: Virginia Department of Health, Virginia Online Injury Reporting System

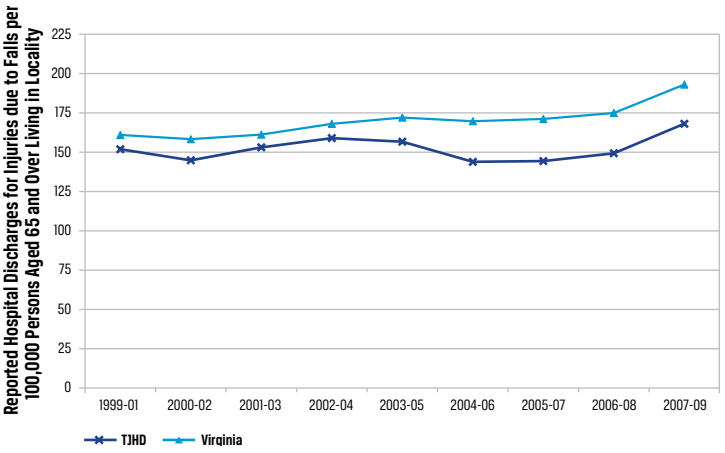


Figure 170: Falls among Persons Aged 65+, TJHD and Virginia, 1999-2009
Source: Virginia Department of Health, Virginia Online Injury Reporting System

In TJHD over the last decade, 48% of unintentional injury deaths were due to motor vehicle/transport crashes, which is more than double the percentage of any other leading cause of unintentional injury death. As shown in Figure 171, in 1999-2009, the TJHD rate of death due to motor vehicle crashes was higher than the state rate. Figure 172 shows a breakdown of unintentional injury deaths by cause for each TJHD locality.

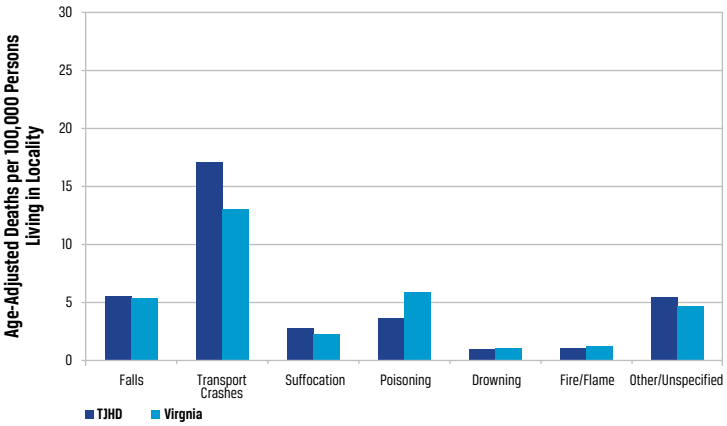


Figure 171: Unintentional Injury Deaths by Cause, TJHD and Virginia, 1999-2009
Source: Virginia Department of Health, Virginia Online Injury Reporting System

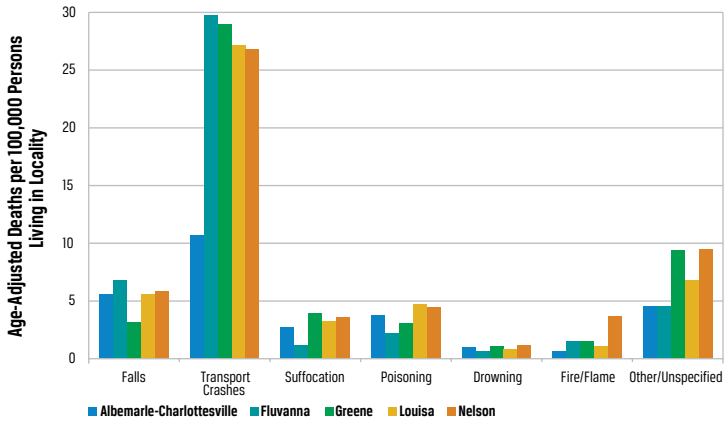


Figure 172: Unintentional Injury Deaths by Cause, TJHD Localities, 1999-2009
Source: Virginia Department of Health, Virginia Online Injury Reporting System

Motor Vehicle Crashes and Fatalities

The rate of motor vehicle crashes occurring in TJHD decreased from 2,484 crashes per 100,000 residents in 2003-2005 to 1,660 per 100,000 residents in 2009-2011, but it remained higher than the state rate (Figure 173). Figure 174 shows a breakdown by locality.

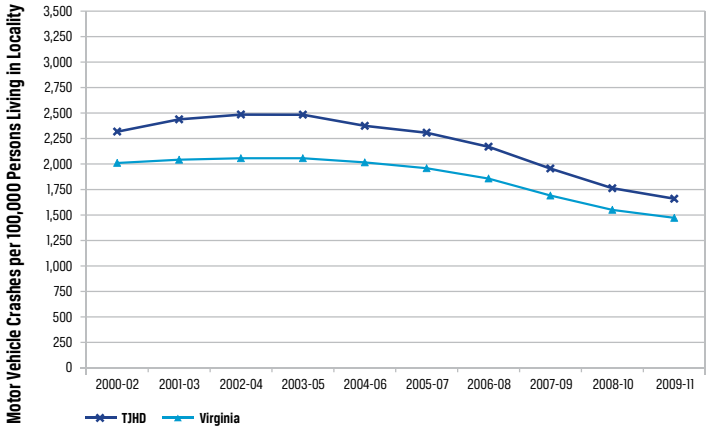


Figure 173: Motor Vehicle Crashes, TJHD and Virginia, 2000-2011
Source: Virginia Department of Motor Vehicles

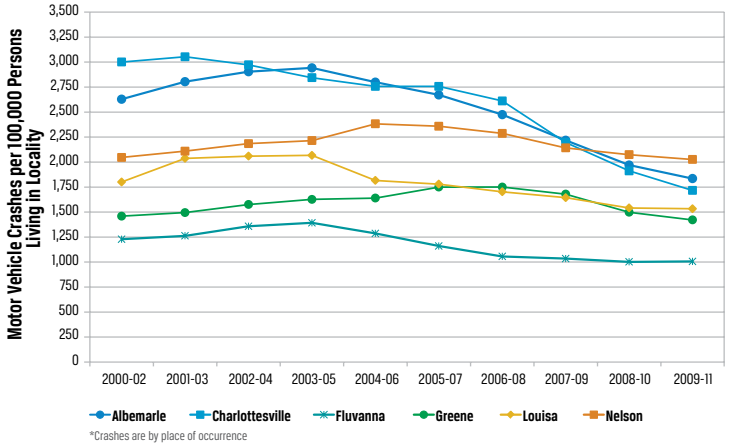


Figure 174: Motor Vehicle Crashes, TJHD Localities, 2000-2011
Source: Virginia Department of Motor Vehicles

As shown in Figure 175, the rolling average rate of motor vehicle crash-related fatalities in TJHD over the last decade was also higher than the Virginia rate.

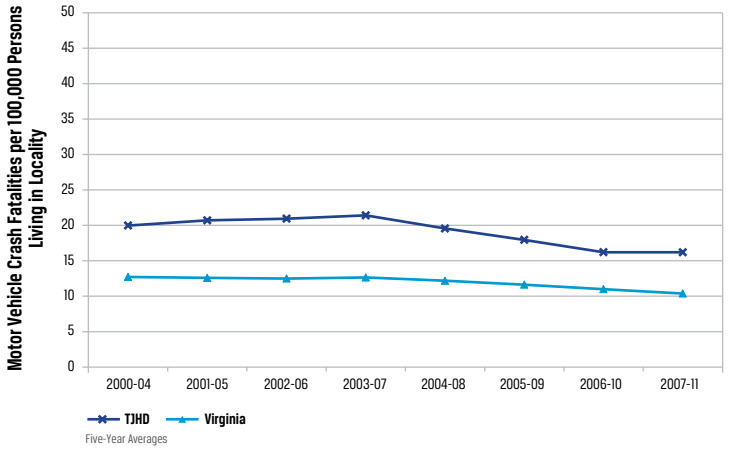


Figure 175: Motor Vehicle Fatalities, TJHD and Virginia, 2000-2011
Source: Virginia Department of Motor Vehicles

Alcohol-Related Crashes and Fatalities

Over the past decade, about 8% of motor vehicle crashes that occurred in TJHD were alcohol-related (Figure 176). Figure 177 shows a breakdown by locality.

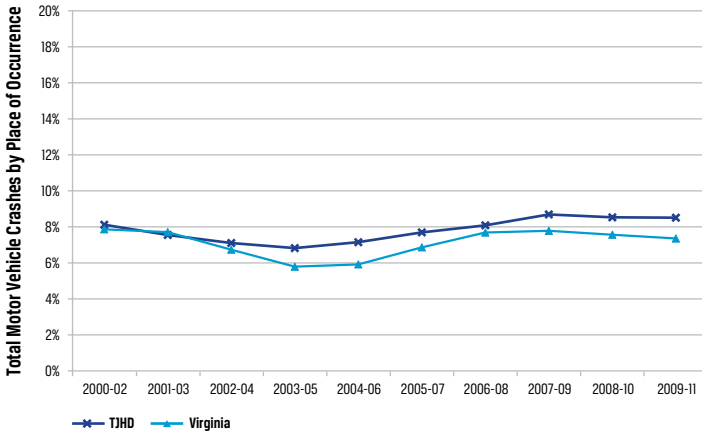


Figure 176: Percent of Alcohol-Related Crashes, TJHD and Virginia, 2000-2011
Source: Virginia Department of Motor Vehicles

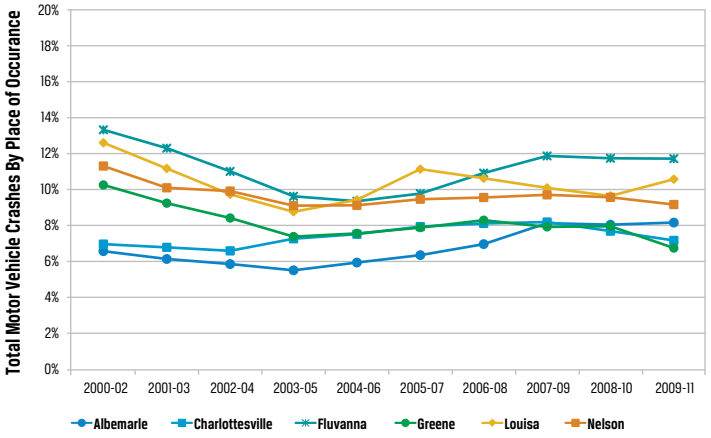


Figure 177: Percent of Alcohol-Related Crashes, TJHD Localities, 2000-2011
Source: Virginia Department of Motor Vehicles

As shown in Figure 178, over the last decade between 30% and 45% of total motor vehicle fatalities that occurred in TJHD were alcohol-related.

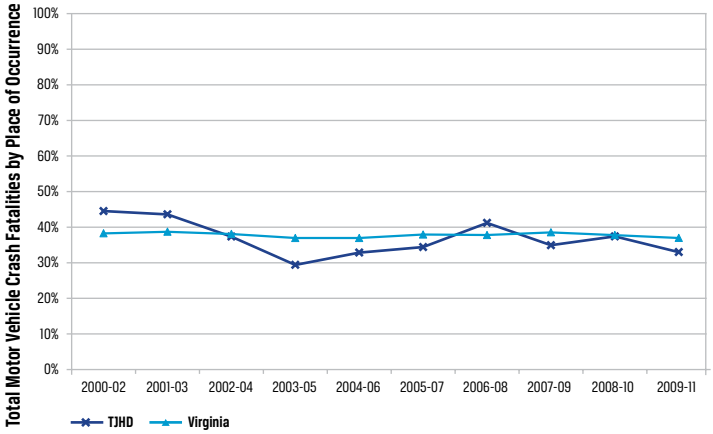


Figure 178: Percent of Alcohol-Related Fatalities, TJHD and Virginia; 2000-2011
Source: Virginia Department of Motor Vehicles

Infectious Diseases

Healthcare providers are required to report cases of over 70 infectious diseases to the local health department so that they can be investigated and strategies can be put in place to reduce further spread in the community. The eight most frequently reported diseases in TJHD over the last decade were chlamydia, gonorrhea, pertussis (whooping cough), salmonellosis, giardiasis, chicken pox, campylobacteriosis, and Lyme disease (Table 27).

Sexually Transmitted Infections

Chlamydia, a sexually transmitted infection (STI), is the most commonly reported disease in both TJHD and Virginia. If untreated it can have serious health consequences, but males and females are often asymptomatic (without symptoms) so it can be spread without the person's knowledge. Since 2001-2003, chlamydia has occurred at a slightly lower rate in TJHD than in Virginia (Figure 179). The rate was higher in 2008-2010 than in 1997-1999 in Albemarle-Charlottesville; the rate was lower in Fluvanna and Nelson Counties and was about the same in Greene and Louisa Counties (Figure 180).

Communicable Disease	TJHD		Virginia	
	Avg. Number of Cases	Average Rate Per 100,000*	Avg. Number of Cases	Average Rate Per 100,000*
Chlamydia	559	**260.2**	23,406	**306.7**
Gonorrhea	134	**62.3**	8,723	**119.3**
Pertussis	56	**26.3**	246	**3.3**
Salmonellosis	35	**16.3**	1,186	**15.8**
Giardiasis	33	**15.5**	489	**6.5**
Chicken Pox	25	**11.7**	1,079	**14.3**
Campylobacteriosis	21	**9.8**	687	**9.2**
Lyme Disease	20	**9.1**	514	**6.7**

*Population data based on U.S. Census Data for TJHD and State of Virginia 2000-2010

Table 27: Reportable Communicable Diseases, TJHD and Virginia, 2000-2010
Source: Virginia Department of Health, Division of Surveillance and Investigation

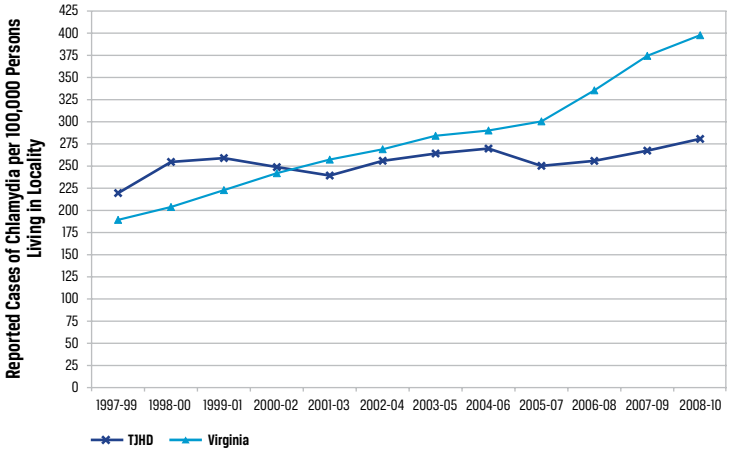


Figure 179: Chlamydia Incidence, TJHD and Virginia, 1997-2010
Source: Virginia Department of Health, Division of Disease Prevention

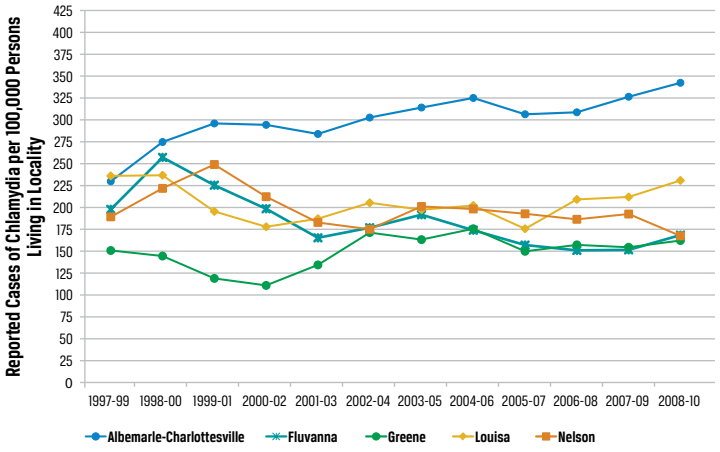


Figure 180: Chlamydia Incidence, TJHD Localities, 1997-2010
Source: Virginia Department of Health, Division of Disease Prevention

Gonorrhea is the second most commonly reported STI in TJHD. The incidence rate is lower in TJHD than in Virginia (Figure 181) and was lower in all localities in 2008-2010 than in 1997-1999 except Louisa County, in which it was about the same (Figure 182).

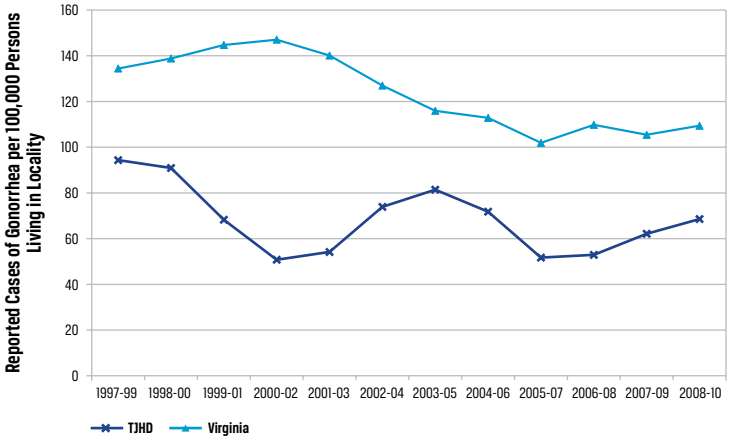


Figure 181: Gonorrhea Incidence, TJHD and Virginia, 1997-2010
Source: Virginia Department of Health, Division of Disease Prevention

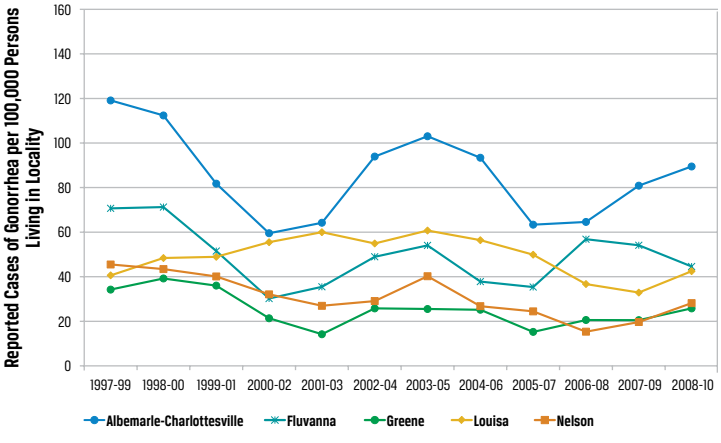


Figure 182: Gonorrhea Incidence, TJHD Localities, 1997-2010
Source: Virginia Department of Health, Division of Disease Prevention

Human Immunodeficiency Virus (HIV) causes Acquired Immunodeficiency Syndrome (AIDS), a disease characterized by a severely weakened immune system. HIV is transmitted through body fluids (blood, semen, vaginal secretions, or breast milk), most commonly through sex and sharing intravenous drug needles. A person can be infected with HIV for many years before developing AIDS. HIV and AIDS rates were lower in 2007-2009 than in 1997-1999 in TJHD and Virginia (Figure 183).

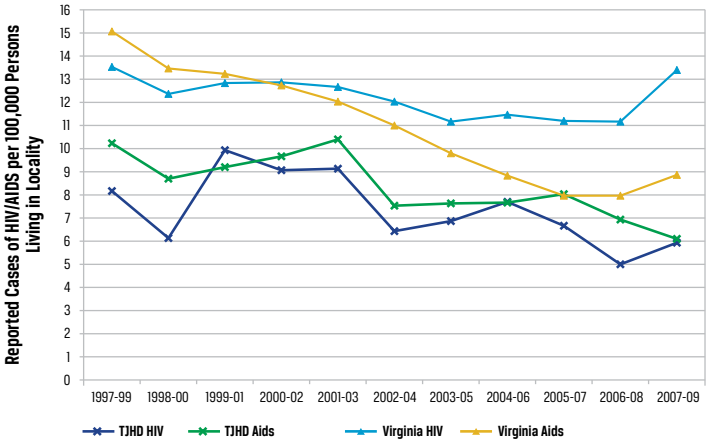


Figure 183: HIV and AIDS Incidence, TJHD and Virginia, 1997-2009
Source: Virginia Department of Health, Division of Surveillance and Investigation

The rate of syphilis increased in TJHD between 2003-2005 and 2008-2010, following the state trend, due to some clusters of cases (Figure 184).

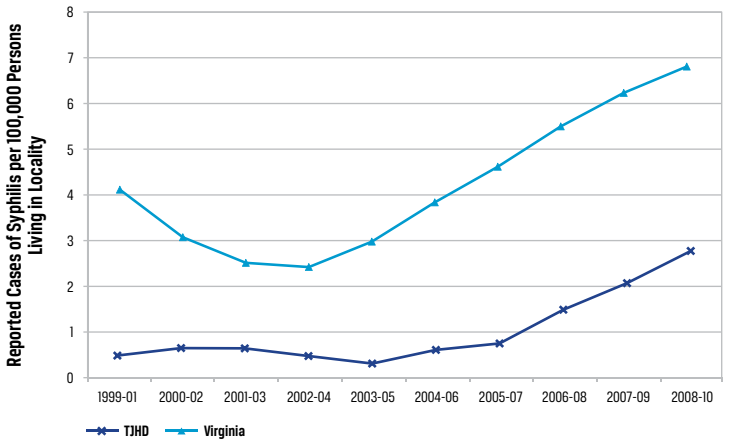


Figure 184: Syphilis (early) Incidence, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Surveillance and Investigation

Vaccine Preventable Diseases

According to the CDC, there are record low levels of vaccine-preventable childhood diseases in the U.S., but that does not mean they have disappeared. For example, the rate of pertussis (whooping cough) tends to cycle with increased cases every three to five years. The rate of pertussis in TJHD has been higher than the Virginia rate over the past decade (Figure 185).

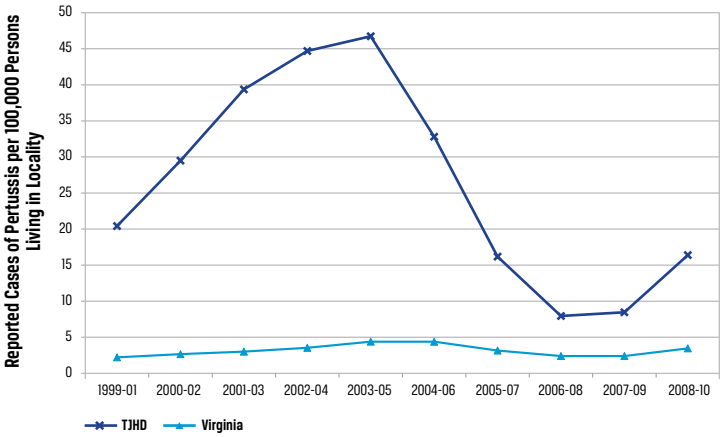


Figure 185: Pertussis Incidence, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Surveillance and Investigation

While chicken pox is often a benign disease, serious complications can occur, including bacterial infections, meningitis, and blindness. Chicken pox was added to the list of nationally reportable diseases in 2003.[95] As shown in Figure 186, the incidence rate in TJHD has followed a similar to pattern to the Virginia rate over the past decade.

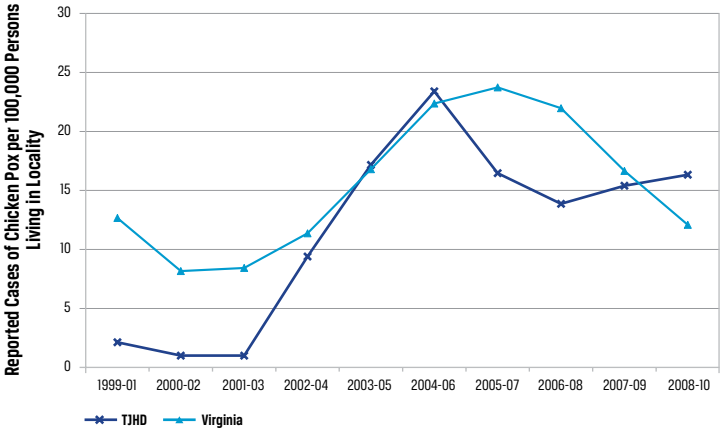


Figure 186: Chicken Pox Incidence, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Surveillance and Investigation

Hepatitis B, an inflammatory illness of the liver caused by the hepatitis B virus (HBV) is transmitted through contact with body fluids. The incidence rate in TJHD was lower than the Virginia rate over the past decade and decreased between 1999-2001 and 2008-2010 (Figure 187). TJHD met the Healthy People 2020 goal of 1.5 cases per 100,000 residents beginning in 2004-2006 and reached 0.4 cases in 2008-2010. This is attributed to increased vaccination against Hepatitis B.

Figure 187: Hepatitis B Incidence, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Surveillance and Investigation

Foodborne and Waterborne Diseases

The CDC estimates that each year roughly 1 in 6 Americans (or 48 million people) gets sick, 128,000 are hospitalized, and 3,000 die of foodborne diseases.[96] Four steps that can be taken to reduce risks of foodborne illness are keeping hands and surfaces clean when preparing raw foods, separating raw and cooked foods, cooking foods thoroughly, and keeping foods at safe temperatures.[97]

Salmonella bacteria are a common cause of foodborne illness, accounting for 11% of cases nationally. While most people who get sick from salmonella infection have mild illness, salmonella is the leading foodborne pathogen in the U.S. that causes illness requiring hospitalization and that results in death.[98] Over the past decade, the rate of reported cases of salmonellosis in TJHD has mirrored the state rate, with the exception of an increase in 2006-2008 due to an outbreak in TJHD (Figure 188). Over the last decade, neither TJHD nor Virginia met the Healthy People 2020 goal of 11.4 cases per 100,000 persons.

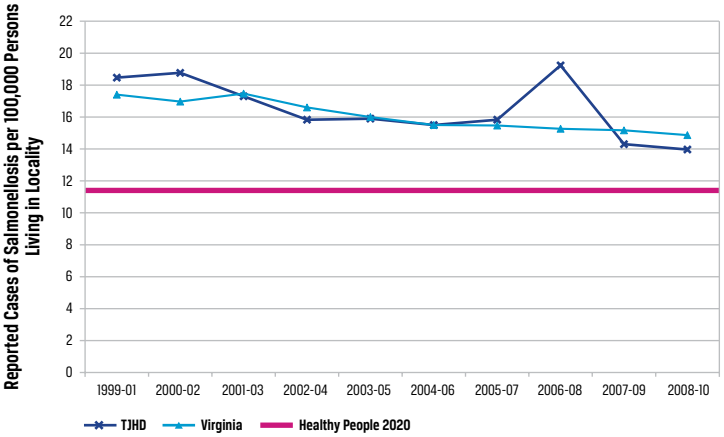


Figure 188: Salmonellosis Incidence, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Surveillance and Investigation

Campylobacter is another top five foodborne pathogen in the U.S. and, like salmonella, is one of the top five foodborne pathogens that cause illness requiring hospitalization and that result in death.[99] The incidence rate of campylobacteriosis in TJHD decreased between 1999-2001 and 2008-2010 (Figure 189).

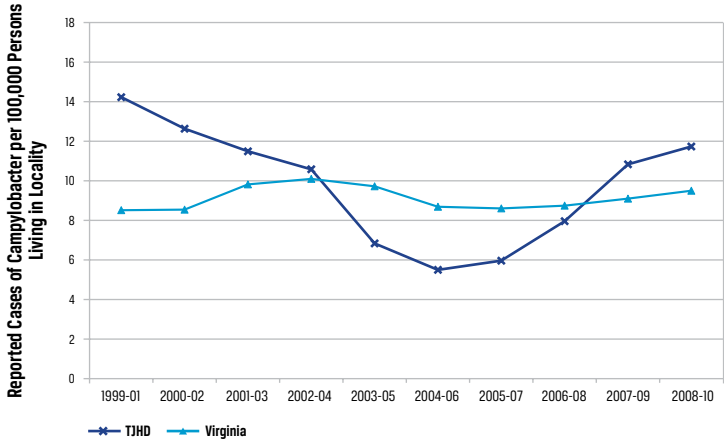


Figure 189: Campylobacteriosis Incidence, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Surveillance and Investigation

E. coli O157:H7 is one of the top five foodborne pathogens in the U.S. that causes illness requiring hospitalization.[100] Both TJHD and Virginia experienced increases in the incidence of E. coli O157:H7 infections between 2002-2004 and 2008-2010, not meeting the Healthy People 2020 goal of 0.6 cases per 100,000 persons. In 2008-2010, the rate was 3.4 in TJHD and 2.3 in Virginia, as shown in Figure 190.

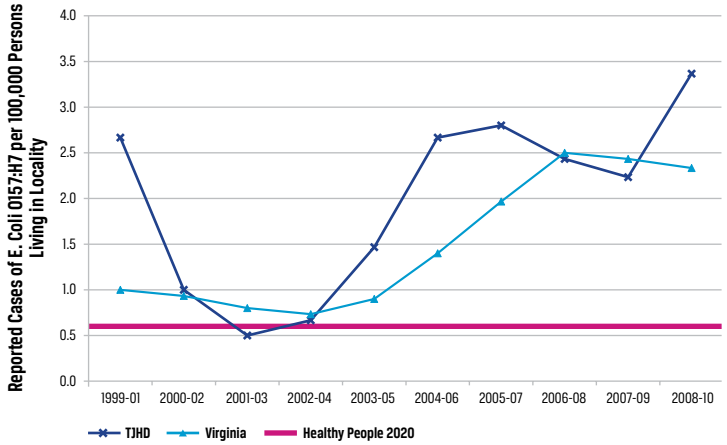


Figure 190: E. coli 0157:H7 Incidence, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Surveillance and Investigation

Giardia is a parasite that causes a diarrheal illness known as giardiasis. It is typically associated with water and is the most common pathogen in waterborne outbreaks in the U.S.; it can also be found in soil and food.[101] Over the past decade, TJHD had a higher rate of giardiasis than Virginia (Figure 191).

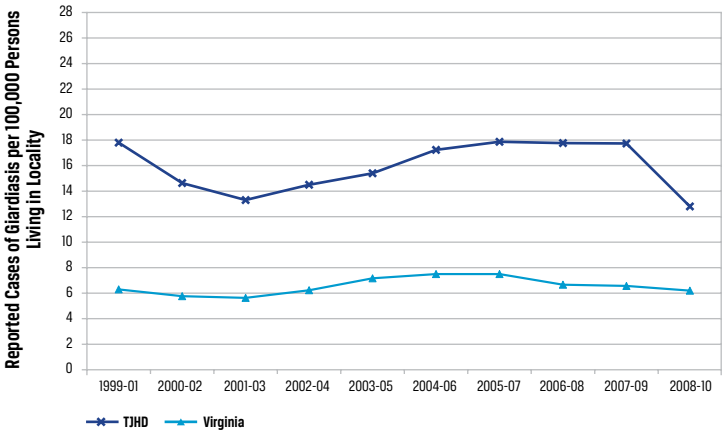


Figure 191: Giardiasis Incidence, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Disease Prevention

Legionella, a type of bacteria, is one of the most frequent causes of waterborne disease (drinking water and recreational water) in the U.S. People get legionellosis, or Legionnaires' disease, when they breathe in mist or vapor (small droplets of water in the air) that has been contaminated with the bacteria. One example might be from breathing in the steam from a hot tub that has not been properly cleaned and disinfected.[102] Over the past decade the incidence rate in TJHD was higher than the state rate, except in 2000-2002 (Figure 192).

Tick-borne Diseases

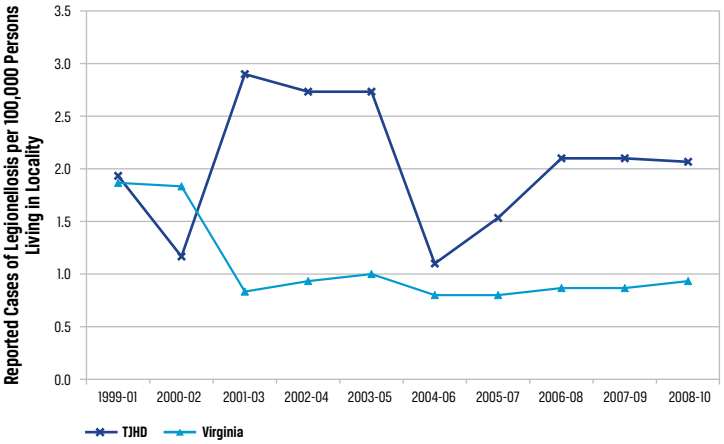


Figure 192: Legionellosis Incidence, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Disease Prevention

Lyme disease, a bacterial disease spread through the bite of an infected tick, became a reportable disease in Virginia in 2003. The incidence rate in TJHD has increased sharply since 2005-2007, paralleling an increase in Virginia (Figure 193).

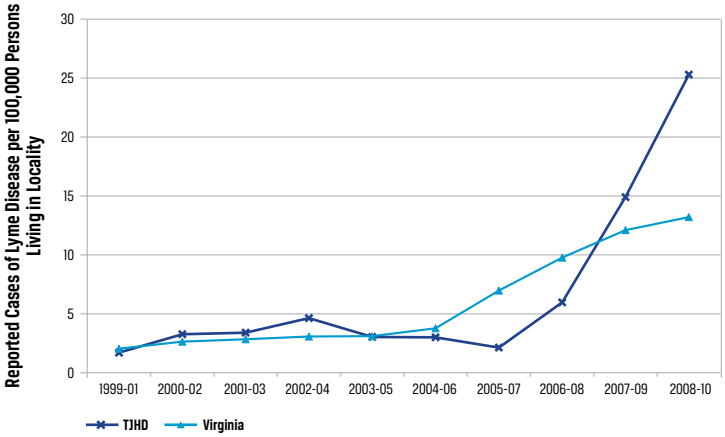


Figure 193: Lyme disease Incidence, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Surveillance and Investigation

Spotted fever rickettsiosis (SFR), a group of diseases that are spread by ticks and includes Rocky Mountain spotted fever, was added to the list of reportable diseases in 2005. The rate of reported cases increased in TJHD and in Virginia over the past decade (Figure 194). Most commonly used SFR lab tests can be misleading, however, because they test for multiple bacteria, some of which don't cause people to get sick, and they may not distinguish between past and current infections. Thus some of the increase in cases between 2006-2008 and 2008-2010 may be due to lab test changes.

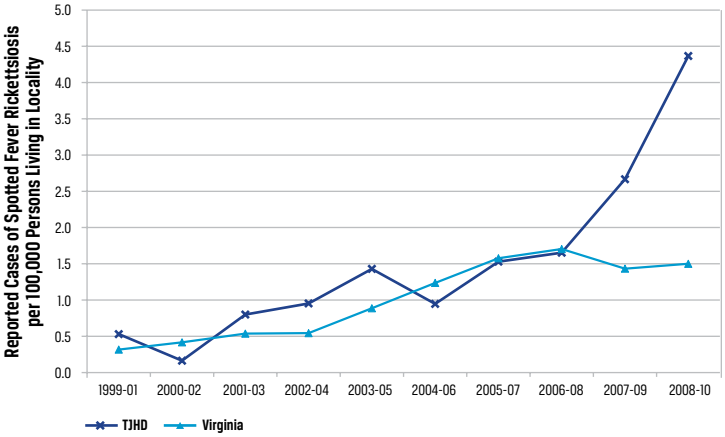


Figure 194: Spotted Fever Rickettsiosis Incidence, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Surveillance and Investigation

Other Infectious Diseases

Tuberculosis (TB) is one of the world's deadliest infectious diseases. In 2011, nearly 9 million people around the world became sick with TB disease and there were about 1.4 million TB-related deaths worldwide. Through vigilant public health efforts to diagnose, treat, case manage, and identify people newly exposed to the germ, the U.S. has made great strides in reducing its burden of TB disease over the past decades. In 2011, there were only 10,528 TB cases (a rate of 3.4 cases per 100,000 persons) reported in the U.S.[103] It is important to distinguish between TB disease and TB infection. Many people infected with the TB germ are not infectious (can not spread

it to others) and can be treated to prevent them from getting sick. This is a cornerstone in the U.S.'s TB prevention strategy. While the rate of TB incidence in TJHD remained below the state rate throughout the last decade, there was an increase between 2006-08 and 2008-2010 (Figure 195). Neither TJHD nor Virginia has met the Healthy People 2020 goal yet.

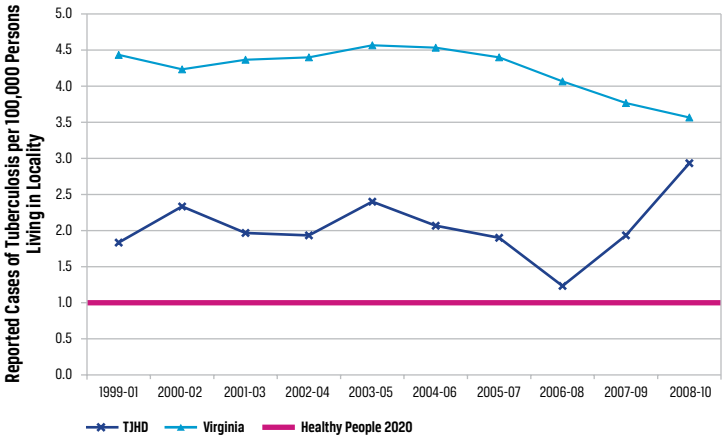


Figure 195: Tuberculosis Incidence, TJHD and Virginia, 1999-2010
Source: Virginia Department of Health, Division of Disease Prevention

AMBULATORY CARE SENSITIVE CONDITIONS

According to the Agency for Health Care Quality and Research, ambulatory care sensitive events are hospitalizations that could be prevented with good outpatient care, which facilitates early intervention and prevention of complications and more severe disease. If few events, such as hospitalization for diabetes, asthma, or hypertension, occur, the primary care system is likely functioning well. Health care events identified as ambulatory care sensitive conditions include diabetes, asthma, hypertension, chronic obstructive pulmonary disease (COPD), low birthweight, congestive heart failure, angina, bacterial pneumonia, urinary infection, pediatric gastroenteritis, dehydration, and perforated appendix. For this assessment, data were compiled for the first four conditions.

Diabetes

Diabetes is a chronic disease in which there are high levels of sugar in the blood. People with diabetes have high blood sugar because their body cannot move sugar into fat, liver, and muscle cells to be stored for energy. High blood sugar levels can cause several symptoms, including blurry vision, excess thirst, fatigue, frequent urination, hunger, and weight loss. Diabetes can lead to other serious health problems such as a loss of vision, feet and skin infections, amputation, heart attack, stroke, nerve damage, and kidney disease. According to data from the Virginia BRFSS, in TJHD the percentage of adults 20 years old and above with diabetes has been increasing since 2000, following the Virginia trend. In 2008-2010, 8.7% of adults reported being diagnosed with diabetes (Figure 196).

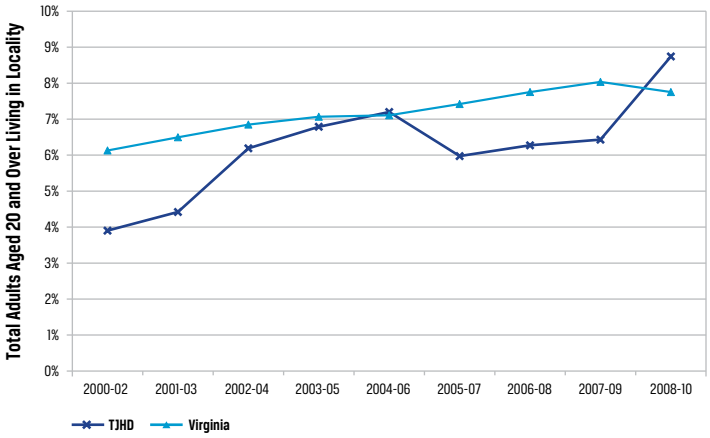


Figure 196: Percent of Self-Reported Adults with Diabetes, TJHD and Virginia, 2000-2010
Source: Virginia Departmvent of Health, Virginia Behavioral Risk Factor Surveillance System

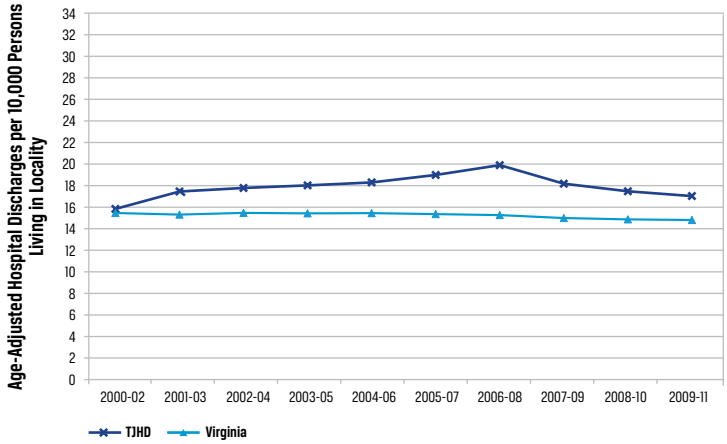


Figure 197: Hospital Discharge Rate for Diabetes, TJHD and Virginia, 2000-2011
Source: Virginia Health Information

Since 2000, there has been an increase in diabetes hospitalizations in TJHD; rates have increased from 15.83 hospital discharges per 10,000 residents in 2000-2002 to 17.01 in 2009-2011, which is higher than Virginia (14.82) (Figure 197). Figure 198 shows a breakdown by locality[104].

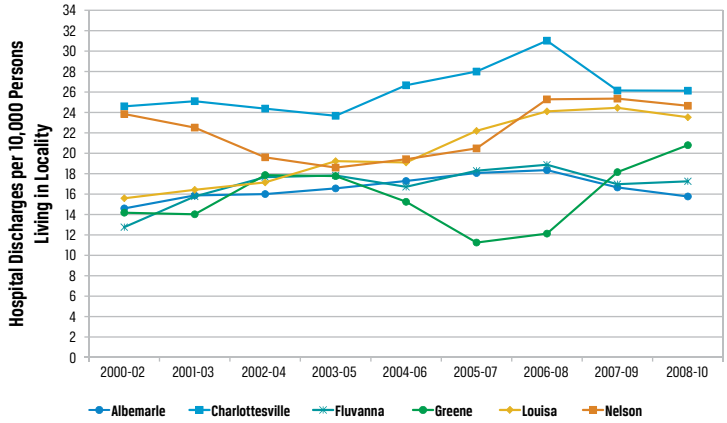


Figure 198: Hospital Discharge Rate for Diabetes, TJHD Localities, 2000-2010
Source: Virginia Health Information

Asthma

Hospitalizations for asthma[105] decreased over the last decade in TJHD and in each TJHD locality, following the state trend (Figure 199 and Figure 200).

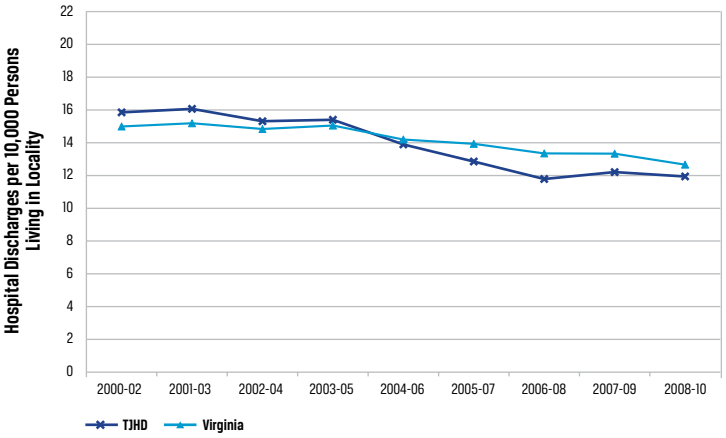


Figure 199: Hospital Discharge Rate for Asthma, TJHD and Virginia, 2000-2010
Source: Virginia Health Information

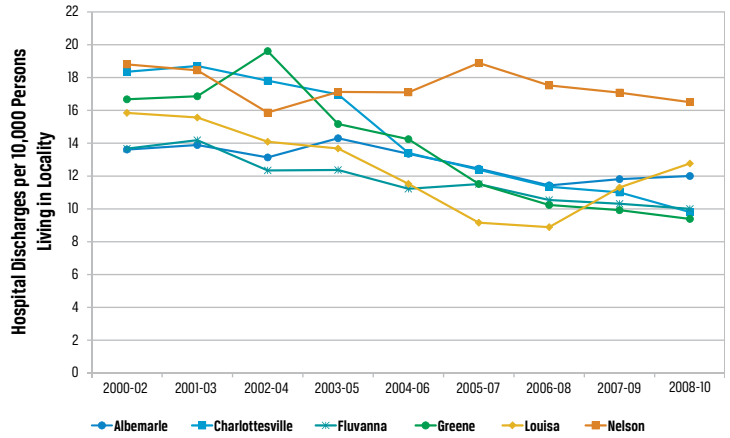


Figure 200: Hospital Discharge Rate for Asthma, TJHD Localities, 2000-2010
Source: Virginia Health Information

Hypertension

According to the CDC, about 1 in 3 U.S. adults has high blood pressure and is therefore at increased risk for heart disease and stroke. Routine blood pressure screening is critical because many people don't realize they have it. The TJHD rate of hospitalization for hypertension[106] was about 2 per 10,000 persons over the past decade, very close to the Virginia rate (Figure 201).

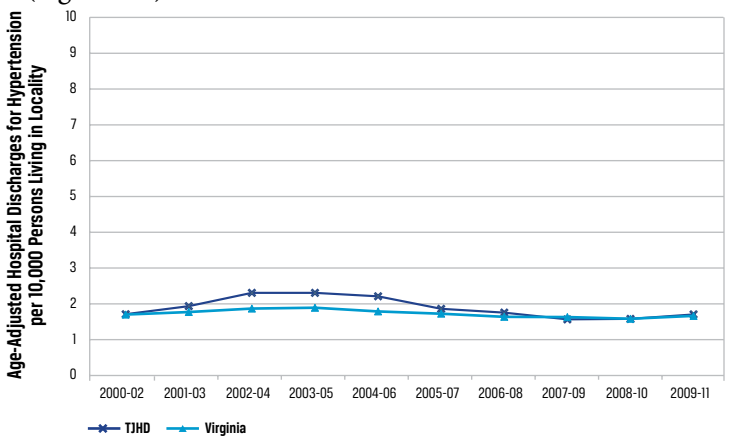


Figure 201: Hospital Discharges for Hypertension, TJHD and Virginia 2000-2010
Source: Virginia Health Information

COPD

Chronic obstructive pulmonary disease (COPD) is defined as a group of diseases that affect the airway and often lead to lung infections. These diseases include emphysema and chronic bronchitis. Tobacco smoke, a major risk factor for COPD, is involved in 80-90% of cases. Other risk factors include occupational chemical and dust exposures. Figure 202 shows that the hospitalization rate for COPD[107] decreased in TJHD and Virginia between 2000-2002 and 2008-2010 and were comparable. In 2008-2010, the discharge rates were 14.96 discharges per 10,000 residents in the City of Charlottesville, 17.72 in Albemarle County, 16.08 in Fluvanna County, 23.19 in Greene County, 15.88 in Louisa County and 26.10 in Nelson County (Figure 203).

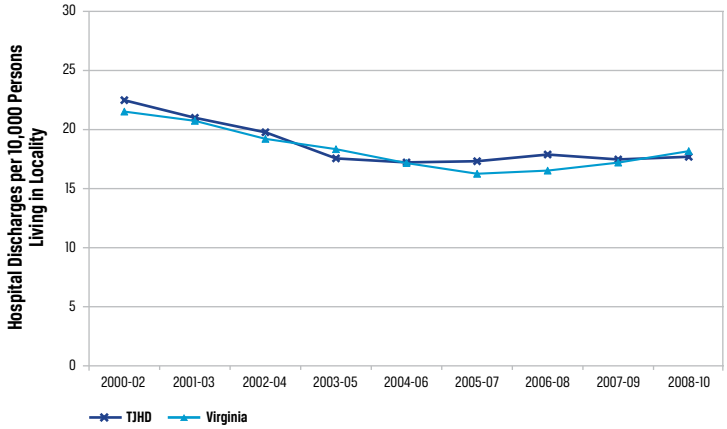


Figure 202: Hospital Discharge Rate for COPD, TJHD and Virginia, 2000-2010
Source: Virginia Health Information

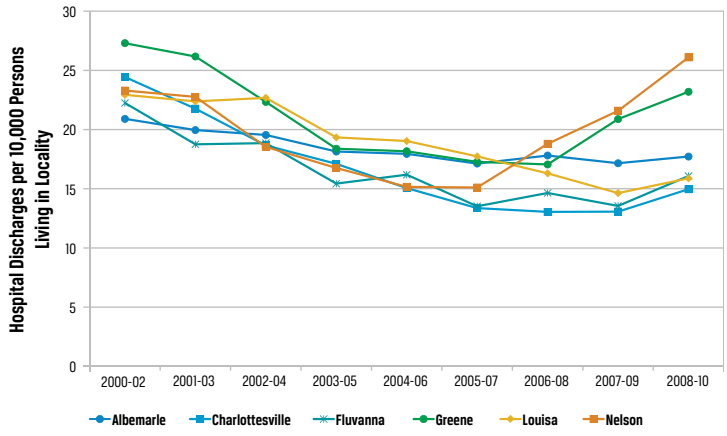


Figure 203: Hospital Discharge Rate for COPD, TJHD Localities, 2000-2010
Source: Virginia Health Information

MENTAL HEALTH

According to the County Health Rankings, overall community health depends on both the physical and mental well-being of its residents.[108] Estimates of physically unhealthy days are based on responses to the CDC's BRFSS question: "Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?" Estimates for poor mental health days are based on responses to the question: "Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" Self-reported healthy/unhealthy days have been widely used and studied for their validity. One study found that counties with adults who reported more unhealthy days were more likely to have higher unemployment, poverty, percentages of adults who did not complete high school, mortality rates, and prevalence of disability.[109] For 2004-2010, the TJHD average number of physically unhealthy days and poor mental health days reported were just over 2.7 days each, just above the national benchmarks and fewer than the Virginia numbers (Figure 204).

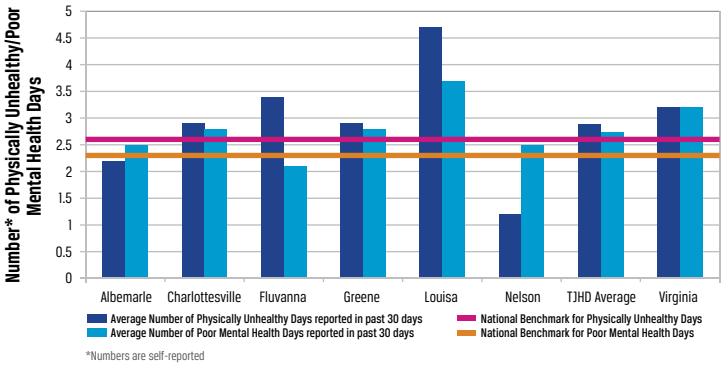


Figure 204: Poor Physical/Mental Health in the Last 30 Days, TJHD Localities and Virginia, 2004-2010
Source: County Health Rankings; CDC's BRFSS

As described previously, Region Ten is the primary public provider of mental health services in TJHD. The top three most commonly diagnosed disorders by Region Ten clinicians are mood disorders, attention deficit/disruptive behavior, and alcohol-related disorders (Figure 205).

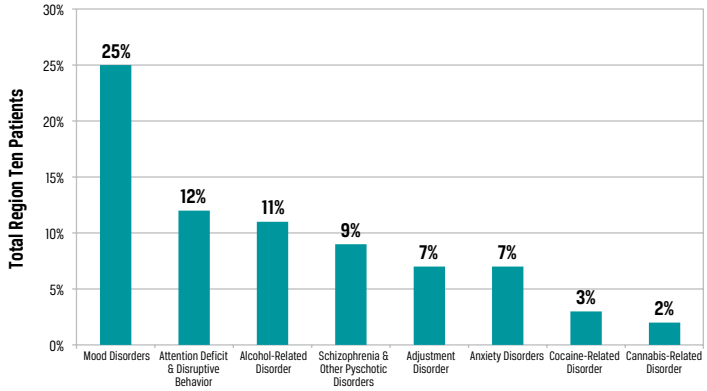


Figure 205: Percent of Region Ten Most Frequent Diagnosed Disorders, TJHD, 2011
Source: Region Ten Community Services Board

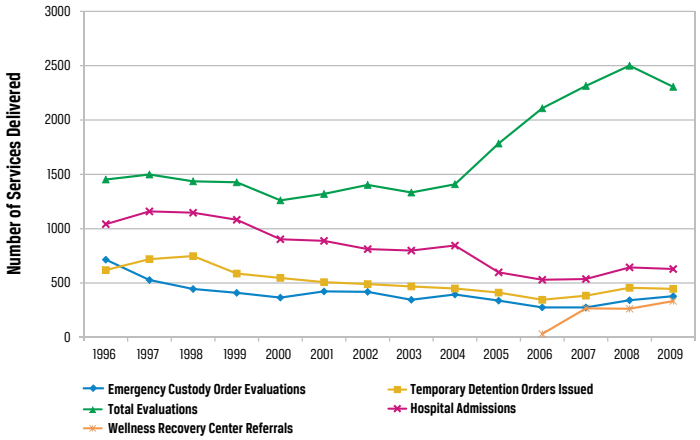


Figure 206: Region Ten Emergency Services, TJHD, 1996-2009
Source: Region Ten Community Services Board

Total emergency services evaluations by Region Ten increased in TJHD between 2004 and 2009 (Figure 206).

Co-Occurring Mental Health and Substance Abuse Disorders

According to the Substance Abuse and Mental Health Services Administration (SAMHSA), the incidence of persons served through State Mental Health Agencies (SMHA) with co-occurring mental health and substance abuse disorders (Figure 207) is higher in Virginia (32.8% for adults and 7.6% for children) than in the United States (20% for adults and 4.6% for children).

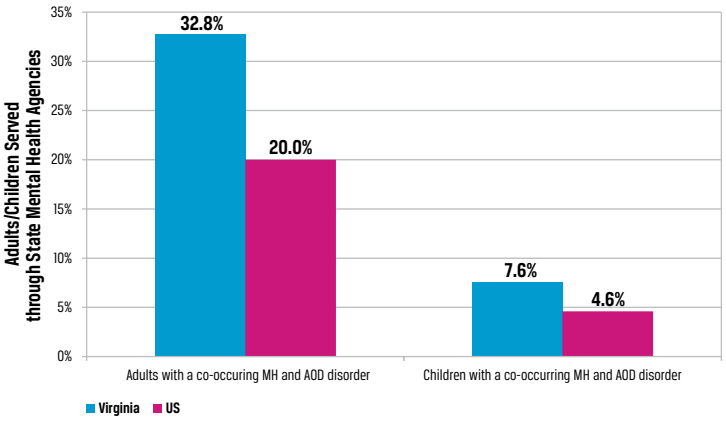


Figure 207: Percent of Persons With Co-occurring Mental Health and Substance Abuse Disorders Served through State Mental Health Agencies, Virginia and the U.S., 2010
Source: The Substance Abuse and Mental Health Services Administration

For persons with co-occurring severe mental illness[110] and substance abuse disorders, the percentage is higher in Virginia than in the U.S. for adults, but slightly lower for children (Figure 208).[111]

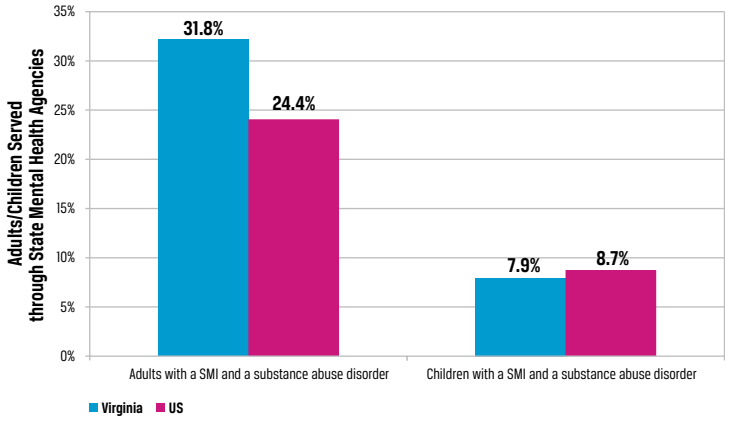


Figure 208: Percent of Persons With Co-occurring Severe Mental Illness and Substance Abuse Disorders Served through State Mental Health Agencies, Virginia and the U.S., 2010
Source: The Substance Abuse and Mental Health Services Administration

Hospital Discharges for Mental Disorders

According to VDH, the rate of hospitalization due to psychoses[112] has been decreasing since 2000. Since 2005 rates have been lower in TJHD than in Virginia. In 2011, the rate was 418.6 per 100,000 residents in TJHD and 563.09 in Virginia (Figure 209). On the other hand, the rate of hospitalizations due to neurotic disorders, personality disorders and other nonpsychotic mental disorders[113] has been increasing in TJHD since 2006. In 2011, the rate in TJHD was 206.3, higher than Virginia (140.9) (Figure 210).

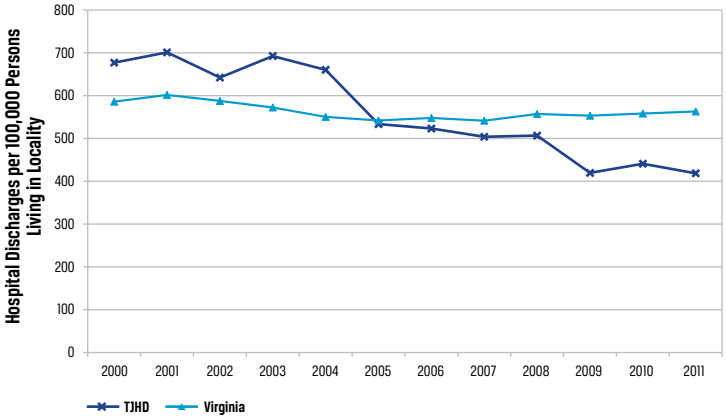


Figure 209: Hospital Discharges with Primary Diagnosis of Psychoses, TJHD and Virginia, 2000-2011
Source: Virginia Health Information

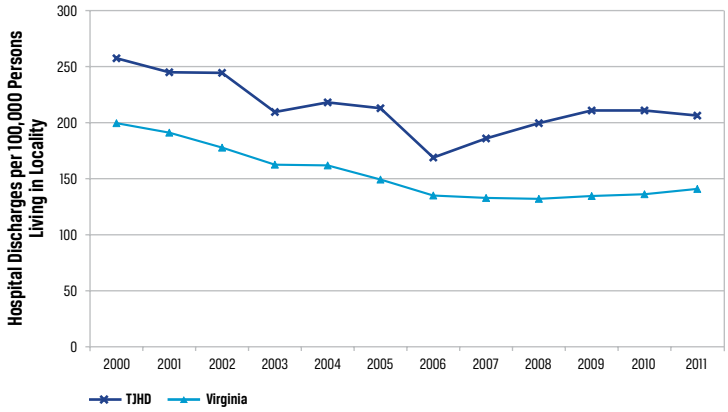


Figure 210: Hospital Discharges with Primary Diagnosis of Neurotic Disorders, Personality Disorders and other Nonpsychotic Mental Disorders, TJHD and Virginia, 2000-2011
Source: Virginia Health Information

SECTION FOUR

Section four includes information to answer the question:
What is important to our community?

QUALITATIVE DATA

Thomas Jefferson Area Community Survey

The Thomas Jefferson Area Community Survey (TJACS) was conducted by the University of Virginia's (UVA) Center for Survey Research (CSR) in January 2012. This survey of 1,098 individuals living in Charlottesville City and Albemarle, Nelson, Fluvanna, Greene, and Louisa Counties was conducted through a Random Digit Dial (RDD) sample of landline and cell-phone numbers and a random sample of directory-listed landline households.

First, respondents were presented with a list of health care services and asked, "Thinking about [your county], which of the following services is most difficult to get care from?" Twenty-one percent of respondents in TJHD said they had the most difficulty getting care from "mental health or substance abuse counselors", 18% said "urgent care facilities", and 15% said "hospital care". Twenty percent said they had no problem accessing health care services. Respondents were next presented with a list of potential obstacles to obtaining health care services and asked, "Thinking about [your county], what is the biggest difficulty people have in getting health services?" Fifty-nine percent of respondents in TJHD said "cost, insurance or Medicaid"; 20% said "distance or transportation", and 11% said "not enough doctors, dentists or counselors." Residents outside the City of Charlottesville and Albemarle County were more likely to choose transportation. Residents of Greene (24.4%), Fluvanna (19.8%), and Louisa (18.8%) were more likely to cite a shortage of doctors than residents of Albemarle (6.7%), Nelson (6.7%) and Charlottesville (10.5%). Finally, respondents were asked, "Which of the following public health concerns is the most important for [your county] to give more attention to?" Thirty-six percent of respondents in TJHD said "weight and obesity", 33% said "alcohol/drug use", 20% said "mental health", and 8% said "smoking". Repondents in Greene (45.0%), Fluvanna (40.4%), Nelson (40.7%), and Louisa (48.7%) were more likely to select "alcohol/drug use" than respondents from Albemarle (25.5%) and Charlottesville (25.8%). Respondents in Charlottesville (22.1%) and Albemarle (25.9%) were more likely to select "mental health".

MAPP 2 Health Focus Groups

Based on the results from the TJACS, the CHA Councils created a list of issues that were considered important in each county. A UVA Community Psychology graduate student facilitated five focus groups in February/March 2012. The focus group participants' demographic characteristics are shown in Table 1.

Demographics and Additional Characteristics for Focus Group Participants, 2012		
68% Female	57% Married	8.5% were uninsured
8.5% Black or African American	26% had children at home	76% use health care services monthly
8.5% Hispanic or Latino	55% Employed	30% had high blood pressure
13% Between ages of 23 and 27	17% Retired	10% had diabetes
15% Between the ages of 58 and 62	49% had college degrees	33% smoked

Table 1: Demographics and Additional Characteristics for Focus Group Participants, TJHD, 2012; Source: Community Health Assessment Focus Group Report, Saida Hussain

Participants across all five localities agreed on many issues. First, education about health and nutrition is important in combating weight and obesity issues. Second, the cost of nutritious foods, the convenience of unhealthy foods, and a lack of activity are important contributing factors to obesity. However, counties differed in their reasons for why lack of activity is a contributor – Fluvanna, Greene, and Nelson participants reported a lack of walking trails and places to take part in physical activity, while this was not considered a problem by Charlottesville and Albemarle participants.

Transportation was noted as an issue by Fluvanna, Greene and Nelson participants. Some citizens of these counties rely on public means of transportation to get healthcare from providers located in Charlottesville/Albemarle. The current transportation system presents some barriers to community members, such as the cost and the schedule. Participants also expressed that urgent care centers in Greene and Fluvanna would be a helpful, rather than relying on the rescue squad and misusing services.

The issue of drug abuse was heavily tied to mental health issues. Participants said that barriers to receiving mental healthcare are stigma, cost, and availability of providers. Those who do not receive mental healthcare were reported as more likely to turn

to drugs and alcohol in order to "self-medicate." Another reason drug use is prevalent in some counties was explained by Fluvanna and Nelson participants as due to a lack of recreational activities.

Finally, participants reported frustration over the lack of a central location to access information about resources. Participants suggested disseminating information through the media (television, radio, newspaper); having a list of resources available in a central location; and having people that assist community members in navigating services.

Louisa County Qualitative Data

In 2011, Louisa County conducted a needs assessment. Data were collected through a Louisa County Citizen Survey, which assessed gaps in service areas, established a benchmark measure of the community's well being and gathered information to gain a better understanding of services/ programs desired by Louisa County residents. The responses to health-related questions from this survey are shown in Table 2.

Issue	Percent of respondents that said it was important	Percent of respondents that were:			Additional Comments
		Satisfied	Unsatisfied	Neither satisfied nor unsatisfied	
Having emergency/urgent medical care facilities	94.2%	16.2%	58.7%	25.1%	27% expressed desire to have a facility in Louisa County
Having affordable medical care choices	92.4%	30.7%	33.8%	35.4%	16% travel outside of Louisa for medical care
Having drug/alcohol abuse treatment programs	68.4%	14.5%	29.3%	56.2%	36% lack knowledge of available resources and/or didn't need the service
Having affordable dental care choices	81.6%	25.5%	34.7%	39.9%	25% commented on the high cost of dental care and poor service locally
Having mental health treatment programs	69.1%	18.3%	30.1%	51.6%	20% expressed need for more programs because it would help the community as a whole
Having recreational programs for youth	91.3%	43.0%	22.9%	34.1%	4% would like more programs geared for younger children
Having supervised after school programs for youth	76.9%	31.8%	23.6%	44.7%	10% commented that activities for youth are important to their quality of life and for working parents
Having support programs for caregivers of senior citizens	75%	18.2%	25.5%	56.3%	49% lacked knowledge of available resources and/or didn't need the service
Having domestic violence education/awareness programs	72.8%	11.9%	28.6%	59.6%	29% expressed that there is a need for more programs
Having parenting skills education programs	63.8%	17.6%	31.9%	50.5%	6% thought churches could become more involved

Table 2: Responses to Health Data Elements, Louisa County Citizen Survey, 2011
Source: Louisa County Department of Human Services, Community Partnership Division

NEXT STEPS

As the population in the Thomas Jefferson Health District grows, it faces new challenges in achieving and maintaining health. The district is fortunate to have some resources that are not always available to communities — two major hospitals, two free clinics, community health centers in three of its counties, a nonprofit children's dental clinic and many nonprofit organizations. In many cases, TJHD has been able to make substantial improvements in community health via new programs, campaigns, laws, workgroups and other mechanisms. Despite the many successes, there are issues that affect the quality of health — and in turn, the quality of life. It is to these areas that the community is challenged to turn its focus — to actively reevaluate preconceptions and collaboratively brainstorm new solutions, while continuing to hold onto the gains from past efforts.

APPENDIX 1: MEMBERS OF CHA COUNCILS AND MAPP 2 HEALTH LEADERSHIP COUNCIL

Charlottesville/Albemarle

Amanda Below
UVA MPH
Anne Cressin
Charlottesville Free Clinic
Beth Baptist
Charlottesville City Schools
Beth Mehring
UVA Emergency Department
Bridget Long
UVA MPH
Bryan Elliot
Albemarle County
Carey Bailey
Jefferson Area CHIP
Catherine Buck
Downtown Family Health Care
Christine Kastan
VA Cooperative Extension
Diane Kuknyo
Charlottesville DSS
Eileen Gomez
Albemarle County Schools
Ellen Tobey
Community Dental Center
Elizabeth Beasley
TJHD
Gretchen Ellis
Commission Children & Families
Hannah Green
CMHWC
Jackie Martin
Martha Jefferson Hospital
Jennifer Behrens
Albemarle County DSS
Judy Berger
JABA
Julia Wonch
TJHD
Karen Rifkin
Region Ten
Karen Shepard
MACAA
Katy Gulat
Region Ten
Leslie Beauregard
City of Charlottesville
Lilian Peake
TJHD
Maria Colopy
UVA MPH
Martha Trujillo
Creciendos Juntos/United Way
Mary Jane King
PVCC
Matt Haas
Albemarle County Schools
Melissa Dean-McKinney
Charlottesville City Schools
Sharon Veith
UVA School of Nursing
Triona Gateley
CHA/CHIP Coordinator
Wendy Novicoff
University of Virignia

Fluvanna

Amanda Below
UVA MPH
Carey Bailey
Jefferson Area CHIP
Dawn Ritterband
Martha Jefferson Hospital
Dianna Wissenger
Smart Beginnings
Dottie Scott
JABA
Elizabeth Shipp
Fluvanna County DSS
Felicia Toney
Jefferson Area CHIP
Florette King
UVA MPH
Jane Gatewood
JABA
Jay Scudder
Fluvanna County Administrator
Karen Davis
JAUNT
Kathie Borkowski
Jefferson Area CHIP
Lilian Peake
TJHD
Mary Ott
FCPS Adult Education
Morgan Lanier
Region Ten
Mozell Booker
Fluvanna County BOS
Rick Waugh
Fluvanna DSS
Rita Jackson
Fluvanna Health Department
Sarah Bleck
PREP
Sara Damron
RideShare
Sarah Cooper
Jefferson Area CHIP
Sharon Veith
UVA School of Nursing
Triona Gateley
CHA/CHIP Coordinator
Wendy Novicoff
University of Virginia

Greene

Barry Clark
Greene County Administrator
Bella Burnett
Greene Health Department
Charlotte Gilbert
Greene County DSS
Cynthia Ward
Region Ten
Doris Swenson
Dottie Scot
JABA
James Howard
Greene County DSS
Janet Frye
Skyline CAP, Inc
Janet Call
Greene Care Clinic
Jasmine Brock
SARA
Jennifer Henkel
Region Ten
Julie Nitzche
Stanardsville UMC
Lilian Peake
TJHD
Michael Jackson
Emmanuel Christian Center
Mike Skeens
Board of Supervisors
Monica Nable
UVA MPH
Roger Morris
Transit/ Early Education
Sandra Davis
JABA
Sara Damron
RideShare
Scott Haas
Greene County Sheriff
Steven Smith
Sheriff
Sharon Veith
UVA School of Nursing
Triona Gateley
CHA/CHIP Coordinator
Wendy Novicoff
UVA

Louisa

Amanda Reidelbach
Louisa County DSS
Amy Loveless
Jefferson Area CHIP
Becky Harpster
Jefferson Area CHIP
Crysti Hopkins
VA Cooperative Extension
Dianna Wissinger
Smart Beginnings
Sharon Diamond-Myrsten
Louisa Health & Wellness
George Martin
Louisa Fire & EMS
Joy Dickens
Keshia Bentick
UVA MPH
Laura Schapiro
UVA MPH
Lilian Peake
TJHD
Lisa Rengers
Louisa County DSS
Patricia Higgins
JABA
Richard Havasy
Louisa County BOS
Robert Dube
Louisa County BOS
Susan Colvin
VA Cooperative Extension
Sheena Richardson
Jefferson Area CHIP
Susie Needham
Louisa Fire & EMS
Sharon Veith
UVA School of Nursing
Triona Gateley
CHA/CHIP Coordinator
Whitney Lundgren
Louisa County CSA
Wendy Novicoff
UVA

Nelson

Adizatu Parham Mohammad
UVA MPH
Betty Sheffield
Martha Jefferson Hospital
Cecilia Epps
JABA
Chuck Strauss
State VICAP Counselor
Connie Brittle
JABA – Nelson Center
Denise Tuso
BRMC/RHOP
Donna Baker
JABA
Gail Troy
NCAE of ACE
Greg Tyree
BRMC/RHOP
J. Vanessa Hale
BRMC/RHOP
Jane Strauss
Library Board of Nelson
Janice Jackson
JAUNT
Jared Ward
UVA MPH
Karen Davis
JAUNT
Kim Connolly
United Way
Laurie Jean Seaman
SARA
Lilian Peake
TJHD
Michael Kohl
Nelson County DSS
Peggy Whitehead
Blue Ridge Medical Center
Sara Damron
RideShare
Sharon Veith
UVA School of Nursing
Shontrill Baskin
JAUNT
Susan Morris
BRMC/RHOP
Tom Eick
Nelson Health Department
Triona Gateley
CHA/CHIP Coordinator
Wendy Novicoff
UVA

MAPP 2 Health Leadership Council

Barbara Hutchinson
United Way
Barbara Yager
Community Action on Obesity
Carey Bailey
Jefferson Area CHIP
Debora Conway
UVA School of Nursing
Donna Shaunesey
JAUNT
Elizabeth Beasley
TJHD
Ellen Tobey
Community Dental Center
Erika Vicellio
Charlottesville Free Clinic
Hannah Green
ASG & CMHWC
Jacki Bryant
Children, Youth and Family Services
Janet Call
Greene Care Clinic
Jessie Ray
Smart Beginnings
Judy Berger
JABA
Lilian Peake
TJHD
Marcus Martin
UVA
Maryfrances Porter
Curry School of Education
Peggy Whitehead
Blue Ridge Medical Center
Rick Waugh
Fluvanna County DSS
Robert Johnson
Region Ten
Ruth Gaare-Bernheim
UVA MPH
Sharon Veith
UVA School of Nursing
Shontrill Baskin
JAUNT
Sue Winslow
Martha Jefferson Hospital
Susan Hess
The Women's Initiative
Susan Erno
Regional Literacy Council
Susan Triggs
VDH
Thomas Saul
UVA Health System
Triona Gateley
CHA/CHIP Coordinator
Whitney Lundgren
Louisa County CSA
Wendy Novicoff
M2H Facilitator

APPENDIX 2: LEAD AGENCIES

COMMUNITY ACTION ON OBESITY

Vision

Our vision is a supportive community that fosters healthy lifestyles for all.

Mission

Our mission is to prevent and reduce obesity and improve health behaviors in the Charlottesville-Albemarle area by promoting education, facilitating policy development, and supporting increased access to healthy food and physical activity.

Goals

- Assure that childcare reflecting optimum nutrition practices and opportunities for active play are available to all families regardless of income.
- Assure that schools provide optimum nutrition to all students.
- Facilitate school systems to incorporate more quality physical activity and physical education into the school day.
- Support community programming for active play, healthy food and good eating behaviors to address obesity.
- To support the local food system, focusing on accessibility to quality foods by school children and low-income families.
- Support and facilitate increased access and use of public facilities for active recreation by underserved populations.
- Support and promote work environments that support breastfeeding for working mothers, healthy food options, and incentive programs for active lifestyles.
- Support local government infrastructure and systems that address quality of life, access to healthy foods, and active lifestyles to address obesity.
- Collaborate with area hospitals and health care providers to enhance community education efforts to reduce obesity and chronic disease.

Current Membership

- ACAC Fitness and Wellness Centers*
- Albemarle County Schools*
- Blue Ridge Area Food Bank
- Boys & Girls Clubs of Central Virginia*
- Camp Holiday Trails*
- Charlottesville City Parks & Recreation*
- Charlottesville City Schools*
- Charlottesville/Albemarle Commission on Children and Families
- City Schoolyard Garden
- Fluvanna County Schools
- Healthy Food Coalition
- JABA
- Jefferson Area Children's Health Improvement Program (CHIP)
- Local Motion
- Local Food Hub
- Martha Jefferson Hospital*
- Monticello Area Community Action Agency (MACAA)*
- Music Resource Center
- Nelson County Parks & Recreation
- Partnership for Children
- PPB&J Foundation
- Pediatric Associates of Charlottesville*
- Piedmont Family YMCA*
- Quality Community Council of Charlottesville*
- QuickStart Tennis of Central Virginia
- Thomas Jefferson Health District, Virginia Department of Health*
- Triple C Camp*
- University of Virginia, Center for Diabetes Professional Education*
- University of Virginia, Curry School of Education
- University of Virginia, School of Architecture, Department of Urban & Environmental Planning
- University of Virginia, School of Medicine, Department of Family Medicine
- University of Virginia, School of Medicine, Department of Pediatrics*
- University of Virginia, School of Medicine, Department of Public Health
- University of Virginia School of Medicine, Children's Fitness Clinic*
- Virginia Cooperative Extension*
- Alliance for Community Choice in Transportation (ACCT)*

(denotes early partners of the COTF)*

History

The Community Action on Obesity (CAO) was founded in 1999 by a group of public health workers, school staff, parents, doctors and dietitians to address a growing prevalence of overweight and obesity among children in the City of Charlottesville and Albemarle County. The organization's original name was the Childhood Obesity Taskforce and began by assessing the scope of the problem in the community. It then built coalition membership through expanding awareness of the data and the health, social and economic consequences for the community. CAO has piloted evidence-based intervention models with key community agencies and organizations. The coalition changed its name to the Community Action on Obesity to reflect a wider focus than just children as the obesity epidemic is affecting both adults and children. CAO has helped shape local and state public policy by developing nutritional standards for the Walker School snack bar that were then shared with the Virginia Action for Healthy Kids and later forwarded by the Virginia Department of Education to all school superintendents as a recommendation to include in their wellness policies.

Leadership

Chair: Barbara Yager
Staff: Robin Schroyer, Grant Project Coordinator, and Kate McIntire, Strategic Planning Coordinator

COMMUNITY MENTAL HEALTH AND WELLNESS COALITION

Vision

Healthy Minds, Healthy Community

Mission

Collaborating for Individual and Community Wellness

Goals

- Phase I Goals
  - Improve access to mental health services for the underserved
    - Target Population
      - ≥18 years of age
      - ≥200% FPL
      - Mild to Moderate MH Issues
      - In the Region Ten catchment area
      - No insurance
  - Collect area-specific data on the nature and scope of the MH needs, utilization, demographics, etc. of the target population to improve in planning for MH services
  - Establish long-term sustainability of the program
- Phase II Goals
  - To tap existing resources in the community
    - Expand choice to other providers
    - Reduce barriers to access, such as transportation
    - Foster better relationships with primary care physicians for mental health medication management

Current Membership

- Charlottesville Free Clinic*
- AIDS Services Group*
- Region Ten Community Services Board*
- The Women's Initiative*
- Offender Aid and Restoration/Jefferson Area Community Corrections*
- Jefferson Area Community Corrections/Crisis Intervention Team*
- Albemarle-Charlottesville Regional Jail
- District 9 Probation and Parole*
- Public Defender's Office
- Mental Health America*
- ARS Pantops
- Charlottesville/Albemarle Regional Jail
- Martha Jefferson Hospital
- Monticello Area Community Action Agency
- Jefferson Board on Aging*
- Thomas Jefferson Coalition for the Homeless
- Charlottesville Department of Social Services:
- Children Youth and Family Services
- University Medical Associates
- University of Virginia Women's Center
- University of Virginia Masters of Public Health Program
- On Our Own

Those marked with an asterisk are on the Coalition's Board.

History

In Spring 2007, when the Thomas Jefferson Health District (TJHD) conducted the first MAPP process, one of the identified goals was to improve mental health and ensure access to appropriate quality mental health and substance use services. In December 2008 Region Ten Community Services Board and TJHD convened a Mental Health Workgroup to address that identified goal. Around the same time, health agencies in Charlottesville realized there was an increasing number of people who had nowhere to go for mental health services.

In November of 2009, the Charlottesville Free Clinic convened a meeting of service providers – from that meeting it was clear there was a shortage of mental health services and agencies were unsure where to refer people in need of services. Also at that meeting there was a commitment by those gathered to work together to improve mental health services access and availability

Leadership

Co-Chairs: Erika Viccellio and Karen Rifkin
Staff: Hannah Green, Coalition Coordinator

IMPROVING PREGNANCY OUTCOMES WORKGROUP

Goals

Improve pregnancy outcomes among TJHD infants by increasing the percentage of women who plan pregnancies, receive adequate prenatal care, targeting interventions towards vulnerable populations with disparate pregnancy outcomes, and promoting smoking cessation clinical interventions.

Current Membership

• Wanda Hoerman	Albemarle DSS
• Kate White	Birth Matters Charlottesville
• Charlene Green	Charlottesville Dialogue on Race
• Judy Smith	CHIP
• Catherine Buck	Downtown Family Health
• Sarah Chan-Reyes	FAMIS Outreach
• Karen Shepard	MACAA
• Brian Harris	March of Dimes
• Claire Snell-Rood	Maternal Stress Researcher
• Suzanne Wentworth	MJ OB GYN
• Keiana Mayfield	Planned Parenthood
• Elizabeth Beasley	TJHD
• Joan Richards	TJHD
• Lilian Peake	TJHD
• Sheila Ahmadi	UVA OB GYN
• Cathy Horton	UVA Infant Mortality Review Coordinator
• Michael Moxley	UVA OB GYN
• Neena Chacko	UVA OB GYN
• Vanessa Gregg	UVA OB GYN
• Robert Sinkin	UVA Pediatrics
• Sharon T. Veith	UVA West Central Perinatal Council

History

In 2008, when the Thomas Jefferson Health District (TJHD) conducted the first MAPP process, two of the identified goals were to (1) reduce the infant mortality rate, and (2) reduce the disparity between white and black infant mortality. Strategies adopted included: (1) Develop a coalition of community partners to identify and address risk factors and access issues, and (2) Implement activities to promote community and personal awareness about behaviors that result in healthy births. Thus, the Improving Pregnancy Outcomes Workgroup (IPO) was established.

Accomplishments to date include: (1) community screenings and discussions of the documentary, *"Unnatural Causes: When the Bough Breaks,"* which discusses links between racism and health disparities, (2) GIS mapping to identify neighborhoods with higher proportions of women with risk factors associated with infant mortality, (3) a Pregnancy and Parenting Resource Guide, mailed to all PD10 prenatal care and pediatric providers, and maintained on-line, and (4) improvements to obstetric scheduling practices among private providers.

Leadership

Facilitator: Elizabeth Beasley

PD10 TOBACCO USE CONTROL COALITION

Vision

The Tobacco Use Control Coalition will improve the quality of life and prevent and reduce the harmful effects of tobacco among residents of PD10.

Mission

The Tobacco Use Control Coalition works in collaboration to reduce the burden of tobacco use and shape tobacco-free norms for all PD10 residents so that tobacco becomes less desirable, acceptable, and accessible.

Goals

1. To reduce morbidity (illness) and mortality (death) rates among PD10 residents associated with the use of tobacco and/or exposure to environmental tobacco smoke (ETS).
2. To advocate for progressive tobacco control issues.
3. To change perception and reduce the acceptability of tobacco use among the PD10 population through advocacy and education.
4. To prevent and decrease the incidence and prevalence of tobacco use by youth under 18 years of age and young adults 18-24 years of age.
5. To increase tobacco treatment rates among youth and adult tobacco users.
6. To decrease exposure to ETS (Secondhand and Third-hand smoke).
7. To reduce PD10 health disparities related to tobacco use and its effects among its diverse population

Current Membership

- UVA/CFC, Smoking Cessation Program Coordinator for CFC, Tom Daniel
- Charlottesville DSS, Director, Kathy Ralston
- UVA, Public Health Sciences, Ruth Gaare Bernheim
- UVA, Control Coordinator for the UVA Cancer Center's Community Outreach Program, Nila Saliba
- CFC, Nurse Practitioner, Barrie Carveth
- UVA, Associate Dean for School of Nursing, Janie Heath
- Planned Parenthood, Community Health Educator, Keiana Mayfield
- TJHD, Nurse Manager, Marilyn Pace
- UVA, Hoo's Wellness Coordinator/HR Tobacco Cessation at UVA, Shana Pack-Gangluff
- MJH, Disease Management and Wellness Coordinator, Joe Connor
- Fluvanna DSS, Director, Susan Muir
- Region Ten, Prevention Director, Lori Wood
- Design Electric, Wellness Director, Jessica Calderon
- Tobacco Alliance, Pam MacIntyre

History

In 2008, when the Thomas Jefferson Health District (TJHD) conducted the first MAPP process, one of the identified goals was to reduce the prevalence of tobacco use and obesity. TUCC was originally created in 2007 and was encouraged by MAPP to move forward to address this goal. The coalition has two main directions: implementing smoke-free policies and ensuring access to smoking cessation services, and its goals include: (1) conducting local assessments of tobacco control status and cessation services available, (2) conducting evidence-based tobacco use control strategies in the local community, and (3) promoting the Quitline Fax Referral Program to healthcare providers.

Leadership

Facilitator: Julia Wonch

APPENDIX 3: ENDNOTES

[1] U.S. Census Bureau. (2011). State and County QuickFacts: Virginia. State and County QuickFacts. Retrieved July 25, 2012 from http://quickfacts.census.gov/

[2] The Office of Rural Health Policy. (2005). List of Rural Counties and Designated Eligible Census Tracts in Metropolitan Counties. Retrieved July 16, 2012 from ftp://ftp.hrsa.gov/ruralhealth/eligibility2005.pdf

[3] This percentage comes from self-reported height and weight and should thus be considered a minimum number of obese adults aged 20 and over in the county; this figure does not take into account overweight individuals or those who are on their way to becoming overweight

[4] County Health Rankings. (2012). Adult Obesity in Virginia. County Health Rankings: Health Factors. Retrieved November 13, 2012 from http://www.countyhealthrankings.org/#app/virginia/2012/measures/factors/11/map

[5] BMI 〉 30

[6] Danaei G, Ding EL, Mozaffarian D, Taylor B, Rehm J, et al. (2009) The Preventable Causes of Death in the United States: Comparative Risk Assessment of Dietary, Lifestyle, and Metabolic Risk Factors. PLoS Med 6(4). Retrieved October 3, 2012 from http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.1000058?imageURI=info:doi/10.1371/journal.pmed.1000058.t008

[7] These data are self-reported from birth certificates and therefore are likely underreported

[8] It should be noted that the populations of Albemarle County and The City of Charlottesville have smaller magnitudes, thus a slight increase in population will cause a large percentage change in population.

[9] SSI Beneficiaries includes those only receiving SSI benefits – those who also received OASDI benefits were not included in this number to avoid duplication; OASDI Beneficiaries includes all those classified under the disability category

[10] On-time graduation: the percentage of students in a cohort who earn a diploma within 4 years of entering high school. A cohort is a group of students who entered the ninth grade for the first time together and were scheduled to graduate 4 years later

[11] Sheltered Homeless: those residing in emergency, transitional or permanent supportive facilities

[12] Unsheltered Homeless: those residing outside (such as on a park bench), in vehicles or abandoned buildings

[13] Virginia Department of Social Services. (2012). Medicaid Manual. Retrieved November 13, 2012 from http://www.dss.virginia.gov/benefit/medical_assistance/manual.cgi

[14] The Social Security Administration (SSA) defines a disability for an individual 18 years of age or older as the inability to do any substantial gainful activity (work) because of a severe medically determinable physical or mental impairment that has lasted or is expected to last for a continuous period of not less than 12 months or until death.

[15] Ahern, M., Brown, C., & Dukas, S. (2011). A national study of the association between food environments and county-level health outcomes. *The Journal of Rural Health* , 27: 367-379. Retrieved August 8, 2012 from http://www.countyhealthrankings.org/health-factors/built-environment

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[18] The National Benchmark comes from the National 90th Percentile (only 10% of states have more than 17 recreational facilities per 100,000 residents)

[19] Ahern, M., Brown, C., & Dukas, S. (2011). A national study of the association between food environments and county-level health outcomes. *The Journal of Rural Healt*h , 27: 367-379. Retrieved August 8, 2012 from http://www.countyhealthrankings.org/health-factors/built-environment

[20] Taggart, K. (2005). Fast food joints bad for the neighbourhood. *Medical Post* , 41: 21-23. Retrieved August 8, 2012 from http://www.countyhealthrankings.org/health-factors/built-environment

[21] Schafft, K., Jensen, E., & Hinrichs, C. (2009). Food deserts and overweight schoolchildren: evidence from Pennsylvania. *Rural Sociology* , 74: 153-277. Retrieved August 8, 2012 http://www.countyhealthrankings.org/health-factors/built-environment

[22] **Fast-Food Restaurants**: Establishments primarily engaged in providing food services (except snack and nonalcoholic beverage bars) where patrons generally order or select items and pay before eating. Food and drink may be consumed on premises, taken out, or delivered to the customer's location.

[23] **Convenience Stores**: Establishments primarily engaged in retailing a limited line of goods that generally includes milk, bread, soda, and snacks. Also includes the number of gasoline-convenience stores, which are engaged in retailing automotive fuels (for example, diesel fuel, gasohol, and gasoline) in combination with convenience store or food mart items. These establishments can either be in a convenience store (food mart) setting or a gasoline station setting

[24] **Grocery Store**: Establishments primarily engaged in retailing a general line of food, such as canned and frozen foods; fresh fruits and vegetables; and fresh and prepared meats, fish, and poultry. Included in this industry are delicatessen-type establishments primarily engaged in retailing a general line of food.

[25] **Full-Service Restaurants**: The number of full-service restaurants in the county. Full-service restaurants include establishments primarily engaged in providing food services to patrons who order and are served while seated (i.e., waiter/waitress service) and pay after eating. These establishments may provide this type of food service to patrons in combination with selling alcoholic beverages, providing take-out services, or presenting live nontheatrical entertainment

[26] **Licensed Child Care Centers**: Includes child care centers and preschool programs that offer preschool as child care

[27] **Licensed Family Day Homes**: Operates out of a home, and cares for less than 12 children, not including children that reside in the home

[28] Messer, L. et al (2006). Violent Crime Exposure Classification and Adverse Birth Outcomes. *International Journal of Health Geographics*, 5:22. Retrieved October 18, 2012 from http://www.ij-healthgeographics.com/content/5/1/22#B31.

[29] G**roup A Offense Categories include**: arson, assault, bribery, burglary, counterfeiting/forgery, destruction/damage/vandalism of property, drug/narcotic offenses, embezzlement, extortion/blackmail, fraud, gambling, homicide, kidnapping/abduction, larceny/theft, motor vehicle theft, pornography/obscene material, prostitution, robbery, sex – forcible and non-forcible, stolen property, and weapon law violations.

[30] **Altercations**: Confrontation, tussle, or verbal/physical aggression that does not result in injury

[31] **Bullying:** Using repeated negative behaviors intended to frighten or cause harm; these may include, but are not limited to, verbal or written threats or physical harm

[32] **Threat**: Unlawfully placing a staff member/student in fear of bodily harm through physical, verbal, written or electronic threats without displaying a weapon or subjecting the person to actual physical attack. Considers age, developmentally appropriate behavior and disability status before use

[33] Virginia Department of Social Services. (2011, July). *Child and Family Services Manual*. Retrieved August 9, 2012, from http://www.dss.virginia.gov/files/division/dfs/cps/intro_page/manuals/07-2012/section_5_out_of_family_investigations_.pdf

[34] Virginia Department of Social Services. (2011). Victims disposition and risk annual report. *Virginia child protective service*. Retrieved November 8, 2012 from http://www.dss.virginia.gov/files/about/reports/children/cps/all_other/2011/victimdisprisk_sfy11.pdf

[35] **Drug/Narcotic Offenses**: The violation of laws prohibiting the production, distribution, and/or use of certain controlled substances and the equipment or devices utilized in their preparation and/or use (includes drugs and equipment violations).

[36] Bascom, R., Bromber, P., & Costa, D. (1996). Health effects of outdoor air pollution. *Am J Respir Crit Care Med* , 153: 3-50. Retrieved August 8, 2012 http://www.countyhealthrankings.org/health-factors/environmental-quality 26 Bullying: Using repeated negative behaviors intended to frighten or cause harm; these may include, but are not limited to, verbal or written threats or physical harm

[37] Bell, M., McDermott, A., Zeger, S., Samet, J., & Dominici, F. (2004). Ozone and short-term mortality in 95 US urban communities, 1987-2000. *JAMA* , 292: 2372-2378. Retrieved August 8, 2012 http://www.countyhealthrankings.org/health-factors/environmental-quality

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[39] Pope, C., Ezzati, M., & Dockery, D. (2009). Fine-particulate air pollution and life expectancy in the United States. *New England Journal of Medicine* , 360: 376-386. Retrieved August 8, 2012 http://www.countyhealthrankings.org/health-factors/environmental-quality

[40] **Moderate**: Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people. For example, people who are unusually sensitive to ozone may experience respiratory symptoms

[41] **Unhealthy for Sensitive Groups**: Although general public is not likely to be affected at this AQI range, people with lung disease, older adults and children are at a greater risk from exposure to ozone, whereas persons with heart and lung disease, older adults and children are at greater risk from the presence of particles in the air

[42] **Unhealthy for Anyone**: Everyone may begin to experience some adverse health effects, and members of the sensitive groups may experience more serious effects

[43] Danaei G, Ding EL, Mozaffarian D, Taylor B, Rehm J, et al. (2009) The Preventable Causes of Death in the United States: Comparative Risk Assessment of Dietary, Lifestyle, and Metabolic Risk Factors. PLoS Med 6(4). Retrieved October 3, 2012 from http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.1000058?imageURI=info:doi/10.1371/journal.pmed.1000058.t008

[44] Heron, M., Tejada-Vera, B. (2009). Deaths: Leading Causes for 2005. *National Vital Statistics Reports.* 58(8)

[45] *We Can Do Better – Improving the Health of American People*, NEJM 357;12 9/20/07

[46] Centers for Disease Control and Prevention. (2011). Current cigarette smoking prevalence among working adults - United States, 2004-2010. *MMWR* , 60 (38), 1305-1309.

[47] Ibid

[48] Schroeder, S. (2007). We can do better - improving the health of the American people. *New England Journal of Medicin*e , 337 (12), 1221-1227.

[49] Mokdad, A. H., Marks, J. S., & Stroup, D. F. (2004). Actual Causes of Death in the United States, 2000. *JAMA* , 291: 1238-1245.

[50] Centers for Disease Control and Prevention. (2009, December 7). *Overweight and obesity: causes and consequences.* From Centers for Disease Control and Prevention Web Site: http://www.cdc.gov/obesity/causes/index.html. Retrieved August 8, 2012 http://www.countyhealthrankings.org/health-factors/built-environment

[51] Ibid

[52] **Safety Devices**: includes air bags, child safety seats, helmets, and safety belts; note that the presence of a safety device does not necessarily imply that it was used (properly or otherwise). Similarly, "none" does not necessarily mean that safety device was not used

[53] **Adequately Immunized**: includes children vaccinated in accordance with either the current harmonized schedule or the harmonized catch-up schedules (including all minimum age and interval requirements) and are considered appropriately immunized for school attendance. The children not included in the "adequately immunized" category includes the number of children with medical exemptions, with religious exemptions, children that are conditionally enrolled and the children without records 49 In 2008, the private school percentage is low because only two schools reported their immunization rates – participation in the school immunization survey increased after 2008 to include up to six private schools reporting.

[54] In 2008, the private school percentage is low because only two schools reported their immunization rates – participation in the school immunization survey increased after 2008 to include up to six private schools reporting.

[55] **Live births**: the complete expulsion or extraction of a product of human conception from its mother, irrespective of the duration of pregnancy, which breathes or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached.

[56] Number of deaths among infants less than one year old per 1,000 live births.

[57] United Nations, Department of Economic and Social Affairs, Population Division (2011): World Population Prospects: The 2010 Revision. New York

[58] Forum on Child and Family Statistics. (2012). America's children in brief: key national indicators of well-being, 2012. *Childstats.gov*. Retrieved October 12, 2012 from http://www.childstats.gov/americaschildren/health.asp

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[66] Elfenbein DS, Felice ME. (2003). Adolescent pregnancy. Pediatr Clin North Am. Aug;50(4):781-800, viii

[67] **Induced Termination**: the intentional interruption of pregnancy with the intention to produce other than a live-born infant or to remove a dead fetus and which does not result in a live birth, regardless of reason for termination.

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[71] Desai S, Alva S. (1998). Maternal education and child health: is there a strong causal relationship? C*enter on Population, Gender and Social Inequality*. University of Maryland at College Park. 20742-1315

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[79] Centers for Disease Control and Prevention. (2011). National Diabetes Fact Sheet, 2011. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Retrieved October 26, 2012 from http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2011.pdf

[80] Virginia Department of Health, Office of Family Services. (2012). D*iabetes in Virginia. Diabetes Prevention and Control Project*. Retrieved October 4, 2012 from http://www.vdh.virginia.gov/ofhs/prevention/diabetes/documents/2012/pdf/Diabetes%20Burden%20Report1.pdf

[81] Ibid.

[82] **Most common injuries include**: Motor Vehicle Traffic, Other vehicle accidents (including boat accidents), Poisoning, Drowning, Fall, Other Transport, Fire/burn, Firearm, Suffocation, Struck by or Against, Natural/Environment, Pedestrian, Machinery, Cut/Pierce

[83] Centers for Disease Control and Prevention. (2012). Suicide: Facts at a Glance. *Division of Violence Prevention*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Retrieved October 26, 2012 from http://www.cdc.gov/violenceprevention/pdf/Suicide_DataSheet_2012-a.pdf

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[95] Centers for Disease Control and Prevention. (2010). Summary of Notifiable Diseases – United States, 2010. *Morbidity and Mortality Weekly Report*. Retrieved November 13, 2012 from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5953a1.htm

[96] Centers for Disease Control and Prevention. (2011). Estimates of Foodborne Illness in the United States. Atlanta, GA: Centers for Disease Control and Prevention. Retrieved November 9, 2012 from http://www.cdc.gov/foodborneburden/index.html

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[101] Centers for Disease Control and Prevention. (2012). Waterborne Illness. *Health Practices on Cruise Ships: Training for Employees*. Transcript. Retrieved November 9, 2012 from http://www.cdc.gov/nceh/vsp/training/videos/transcripts/water.pdf

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[105] This indicator includes ICD-9 diagnosis codes: 49392, 49312, 4932, 49320, 49321, 49322, 4938, 49381, 49382, 4939, 49390, 49391, 493, 4930, 49300, 49301, 49302, 4931, 49310 , 49311

[106] This Indicator includes ICD-9 diagnosis codes 401.0, 401.9, 402.00, 402.10, 402.90; Excludes cases with the following procedures: 36.01, 36.02, 36.05, 36.1, 37.5, 37.7

[107] This indicator includes ICD-9 diagnosis codes: 494, 4940, 4941, 495, 4950, 4951, 4952, 4953, 4954, 4955, 4956, 4957, 4958, 4959, 496, 490, 491, 4910, 4911, 4912, 49120, 49121, 49122, 4918, 4919, 492, 4920, 4928

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[109] Jia H, Muennig P, Lubetkin EI, Gold MR. (2004). Predicting geographical variations in behavioural risk factors: An analysis of physical and mental healthy days. J Epidemiol Community Health. 58:150-155.

[110] **Adults with a serious mental illness (SMI)**: Persons 18 years and Over who, "at any time during a given year, had a diagnosable mental, behavioral, or emotional disorder without the benefit of treatment or other support services ... that has resulted in functional impairment which substantially interferes with or limits one or more major life activities...."

[111] **Children with a serious emotional disability (SED)**: children with "serious emotional disturbance" are persons from birth up to age 18 who currently or at any time during the past year have had a diagnosable mental, behavioral, or emotional disorder of sufficient duration to meet diagnostic criteria...that resulted in functional impairment, which substantially interferes with or limits the child's role or functioning in family, school, or community activities"

[112] This indicator includes ICD-9 diagnosis codes 290-299

[113] This indicator includes ICD-9 diagnosis codes 300-316

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