Roanoke Valley Community Health Needs Assessment

Final Report

September 21, 2012

Carilion Clinic

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Acknowledgments

On behalf of the community it serves, Carilion Clinic, a not-for-profit health care system headquartered in Roanoke, Virginia, applied for, and was granted a 12-month Health Center Planning Grant from the Health Resources and Services Administration's Bureau of Primary Health Care in September 2011. The funding allowed Carilion Clinic and key partners in the Roanoke Valley the opportunity to conduct a comprehensive Roanoke Valley Community Health Needs Assessment to examine the needs of the community and to identify appropriate solutions to these needs.

The many activities conducted as part of the Health Center Planning Grant and Roanoke Community Health Needs Assessment was due to the strong leadership and participation of a Project Management Team, Community Health Assessment Team, Data Collection and Analysis Team, and Carilion Clinic Grants Management/Office of Sponsored Programs. Members of these Teams included:

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Project Planner: Marie Webb, Carilion Clinic– Senior Director Planning & Community Outreach
Project Planner: Aaron Harris-Boush, Carilion Clinic– Planning Analyst
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Lee Wonson	Roanoke City Health Department
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Lin Young	CHIP of the Roanoke Valley

CHAT members during the last meeting on 8/20/2012 at the United Way

Data Collection and Analysis Team

The following individuals and organizations assisted in the collection of data and provided data analysis support to the Project Management Team as part of the Roanoke Valley Community Health Needs Assessment.

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- Sam Garber, Planning Advisor
- Aaron Harris-Boush, Planning Analyst
- Peggy Norkus, Planning Advisor
- Sheila Walker, Planning Advisor
- Teresa Carr, Department Secretary
- Wendy Shaffer, Department Secretary
- Sandy Sloan, Department Secretary

Carilion Direct

- Tammy Nerenberg, Director

Council of Community Services

- Sara Cole, Planning and Consultation
- Dan Merenda, Planning and Consultation
- Denny Huff, 2-1-1 VIRGINA, Southwest Center
- Pam Shepherd, 2-1-1 VIRGINA, Southwest Center

Dan Merenda of the Council of Community Services facilitating a community stakeholder focus group

City of Roanoke

- Tom Carr, Director, Planning and Building Development
- Beverly T. Fitzpatrick, III, Planning and Building Development, City Planner/GIS Technician

Grants Management

Eryn Perry, Carilion Clinic, Director of Grants Management, Office of Sponsored Projects

Project Summary

In September 2011, Carilion Clinic received a grant from the U.S. Health Resources and Services Administration (HRSA), Bureau of Primary Health Care (BPHA), to conduct a year-long planning initiative to study the health of those who live, work and play in the Roanoke Valley and to determine how to strengthen the current system of care for these individuals.

As a primary component of this planning process, the Roanoke Valley Community Health Needs Assessment was conducted. ***This report contains the findings of that needs assessment,*** including data on the target population and service area, primary and secondary data, a health and human services inventory of existing safety net providers, an analysis of the environment of care, and a strategic plan addressing the needs of the community.

Method

A 35-member Community Health Assessment Team (CHAT) oversaw the planning activities. The service area included those living in the Roanoke Metropolitan Statistical Area (MSA) which includes the counties of Botetourt, Craig, Franklin and Roanoke and the cities of Roanoke and Salem. An emphasis was placed on those living in the city of Roanoke, especially those living in the two Medically Underserved Areas (MUAs) of the city. The target population included the low-income, uninsured and/or underinsured, and those living with chronic illness.

Beginning in January 2012, primary data collection included a Community Health Survey, ten focus groups with key stakeholders and providers, and six focus groups with target populations. Secondary data was collected including demographic and socioeconomic indicators as well as health indicators addressing access to care, health status, prevention, wellness, risky behaviors and the social environment.

Findings

The findings of the Community Health Needs Assessment revealed distinct disparities, especially for those living in the city of Roanoke. Poverty rates were higher, academic attainment rates were lower, and unemployment rates continue to be greater than statewide averages. The city of Roanoke is ethnically diverse compared to other localities in the MSA, with language and cultural barriers impacting care. Health statistics revealed higher death rates and prevention quality indicators for preventable, chronic diseases. Teen pregnancy rates in the city of Roanoke have improved but continue to be two times higher than rates in Virginia. More adults have high blood pressure and high blood cholesterol levels, are smokers, and are obese with limited physical activity in the city of Roanoke. Fewer adults have visited a dentist in the past two years and there are higher suicide and prescription drug deaths. Utilization of the Emergency Department for non-acute, primary care services for the low-income and uninsured has resulted in an over-burdened system of care.

Many of the respondents to the Community Health Survey and focus group participants, whether insured or uninsured, noted that the cost of services keeps them from accessing preventive care and services. Often individuals self-treat or delay treatment due to cost. Access to affordable oral health services for uninsured and low-income adults continues to be a major need in the MSA. Respondents reported suffering from depression and anxiety and the need to "talk to someone." Many cited poor health literacy among the target population, including limited basic health knowledge, no value placed on preventive care and chronic disease management, lack of trust in the current health care system, and little awareness of existing resources in the community. There is a need to develop a "Culture of Wellness" with an emphasis on health education, access to healthy foods, and increased physical activity. The Roanoke Valley is rich in resources for underserved populations, but respondents stated that strengthening coordination of care could significantly improve current access to services.

Response

In May 2012, the CHAT undertook strategic planning to address the findings of the Roanoke Valley Community Health Needs Assessment. Three priority areas emerged from these findings:

1. Access to health services – oral health, mental health, and primary care
2. Coordination of care
3. Wellness

Goals and strategies addressing these priority areas were created. The CHAT agreed that the strategic plan must have community engagement and involvement to have the greatest impact on the health and wellness of those in the Roanoke Valley. Many of the members of the CHAT will continue to collaborate to activate the plan beyond the end of the grant project period (August 31, 2012). Beginning in October 2012, a steering committee and multiple work groups will be formed to develop tactical plans focused on the needs identified in the Roanoke Valley Community Health Needs Assessment.

Description of Project

The Roanoke Valley is nestled among the Blue Ridge Mountains with the city of Roanoke serving as the largest urban hub in western Virginia. The city is a destination place, rich in cultural diversity, the arts, shopping, recreational opportunities and services not available in more rural areas of the region. Despite these amenities and the presence of key safety net providers in this region, including the hospital system, a federally qualified health center, free clinics, the health department and other service agencies, there are thousands of low-income and uninsured residents who do not have access to affordable primary health care. Emergency departments are overwhelmed by inappropriate use of their services for non-urgent primary care.

Carilion Clinic Roanoke Campus

Carilion Clinic is a not-for-profit health care organization serving nearly one million people in Virginia through a physician specialty group, advanced primary care practices, hospitals and outpatient centers. Led by clinical teams with a shared philosophy that puts the patient first, Carilion is committed to improving the community's health while advancing the quality of care through medical education and research. Carilion Clinic is based in Roanoke, Virginia and serves the residents of 18 counties and six cities in western Virginia and southern West Virginia. Carilion Clinic employs 575 physicians representing more than 60 specialties who provide care at 160 practice sites. The Clinic's education system includes the Virginia Tech Carilion (VTC) School of Medicine and Research Institute, ten residency programs and 12 fellowships as well as the Jefferson College of Health Sciences offering degree programs in nursing and allied health.

The availability of HRSA BPHC Health Center Planning Grant funds allowed Carilion Clinic, in partnership with New Horizons Healthcare, a federally qualified health center in Roanoke, to conduct an in-depth assessment and develop appropriate solutions to the need in the community. Ultimately the project fostered focused work with area safety net providers and key stakeholders to ensure that resources were maximized while addressing the substantial

unmet need. This work was of critical importance in creating solutions to improving health and reducing disparities of the underserved in the Roanoke area.

The project examined the current system of care for the most vulnerable residents in the service area and developed solutions to expand the existing safety net and to close the gaps in unmet need in the community. The goals of the project were to:

1. Conduct a comprehensive needs assessment;
2. Undergo strategic planning based on the needs assessment and consider a service delivery plan to allow for the expansion of the Federally Qualified Health Center (FQHC) network in the service area;
3. Secure financial, professional and technical assistance to support this expanded network;
4. Continue to develop linkages and foster relationships in the community that ensure a seamless continuum of care for all persons.

A 12-month Work Plan and Project Timeline was developed to evaluate whether the goals, objectives, and deliverables were addressed during the project period. (See Appendix 1: Work Plan and Timeline)

The Roanoke Valley Community Health Needs Assessment focused on high levels of community engagement involving health and human services leaders, stakeholders, and providers; the target population; and the community as a whole. A Community Health Assessment Team (CHAT) consisting of project management staff and representatives from area health and human services, faith-based communities, and schools led the year-long initiative. (See Appendix 2: CHAT Directory.) The majority of CHAT members serve the low-income, uninsured, underserved and other vulnerable populations in the Roanoke Valley. Beginning in December 2011, the CHAT met monthly to oversee the Roanoke Valley Community Health Needs Assessment. Meeting agendas and minutes were prepared for each meeting and distributed to CHAT members for review.

Three work groups were led by the Project Manager and consisted of members of the CHAT and other appropriate leaders/stakeholders. (See Appendix 3: Work Groups Directory.) Work Group meetings began in December 2011 and continued through February 2012. The Work Groups are listed below:

- Community Forum and Stakeholders Focus Groups Work Group: This Work Group was created to assist in the planning, implementation, and evaluation of a Community Forum & Stakeholders Focus Groups conducted at the Community Forum.

- Data and Information Work Group: This Work Group was created to collect and summarize existing secondary data from local, state, and/or national sources. In addition, it was charged with collecting primary data from target populations addressing access to care, health status, and barriers to care through a Community Health Survey.
- Target Population Focus Groups Work Group: This Work Group was created to develop, conduct, and evaluate focus groups conducted with target populations to identify barriers and gaps to their care.

The Management Team included Carilion Clinic's Vice President of Strategic Development, who served as the Project Director for the Health Center Planning Grant, managing grant requirements as well as serving to mobilize stakeholders, health and human services representatives and civic leaders to accomplish the goals and objectives of the planning grant. The Project Administrative Assistant managed meeting logistics, expenses related to grant activities, and travel arrangements for the site visits conducted during the project period. The Project Manager, a consultant seasoned in community health planning and the requirements of (FQHCs), was responsible for the management, implementation, and final evaluation of planning activities. Project planners included Carilion Clinic's Senior Director of Community Outreach and a Planning Analyst with Strategic Development who assisted in all aspects of the project, including the development, distribution, and analysis of the Community Health Survey; collection of minutes from focus groups and CHAT meetings; collection of secondary data; participation in strategic planning; and final project evaluation. The Project Partner, the Executive Director of New Horizons Healthcare, provided key support related to FQHCs and the environment of care impacting safety net providers and other key services at the local, state and national level.

The Data Collection and Analysis Team included the Council of Community Services, which was contracted by Carilion Clinic to assist in the collection of secondary data for the needs assessment. Planning Advisors from Carilion Clinic Strategic Development evaluated trends nationally and within Carilion Clinic regarding primary care, urgent care, and emergency services utilization data, and determined payor mixes and demographic information for the service area. In addition, staff from Strategic Development, Carilion Direct, 2-1-1 VIRGINIA Southwest Center, and volunteers from the Jefferson College of Health Sciences and the Roanoke Mission of Mercy project were instrumental in entering survey data into Survey Monkey for the hundreds of paper Community Health Surveys received throughout the Roanoke Valley. The city of Roanoke's Department of Planning and Building Development provided local data and maps to support the assessment. Carilion Clinic's Office of Sponsored Programs ensured that all federal reporting requirements for, and financial management of, the Health Center Planning Grant were conducted in a timely fashion.

Technical assistance related to FQHCs was provided by the Virginia Community Healthcare Association (Primary Care Association) throughout the project period. Due to the large number of Health Center Planning Grant awards in Virginia (five total), the Association offered monthly to bi-monthly face-to-face meetings and teleconferences during the first six months of the planning project, presenting topics relevant to the creation of a new access point, including needs assessment activities, financial considerations, 340b pharmacy regulations, and required services and programs for an FQHC. These meetings allowed for peer networking among the grantees. One-on-one technical assistance was offered throughout the project period by the Association's Executive Director and Director of Membership Services. Additional technical assistance was received from the National Association of Community Health Centers and the BPHC.

Key members of the Management Team and other stakeholders participated in two site visits– one to study an established care coordination system between hospital systems and safety net providers, the Primary Care Access Network in Orlando, Florida; and the second to Teaching Health Centers in FQHC settings in Fitchburg and Worcester, Massachusetts.

The Roanoke Star, located at the top of Mill Mountain in Roanoke, VA

Community Health Needs Assessment

A comprehensive Community Health Needs Assessment was conducted from January through April 2012 to better understand the health care needs of the residents in the Roanoke Valley with an emphasis on those living in the city of Roanoke, especially in the MUAs of the city. The needs assessment activities were based on a variation of the Roanoke Valley Community Health Needs Assessment conducted by Carilion Clinic's Strategic Development Team in 2000.

The Roanoke Valley Community Health Needs Assessment was designed to be a community-driven process that:

1. Assesses the health status of target populations in the Roanoke Valley;
2. Determines the needs and barriers to care faced by these populations;
3. Assesses the resources available that impact their health; and
4. Identifies initiatives and community efforts to address the needs and create positive change in their lives.

Activities were as follows:

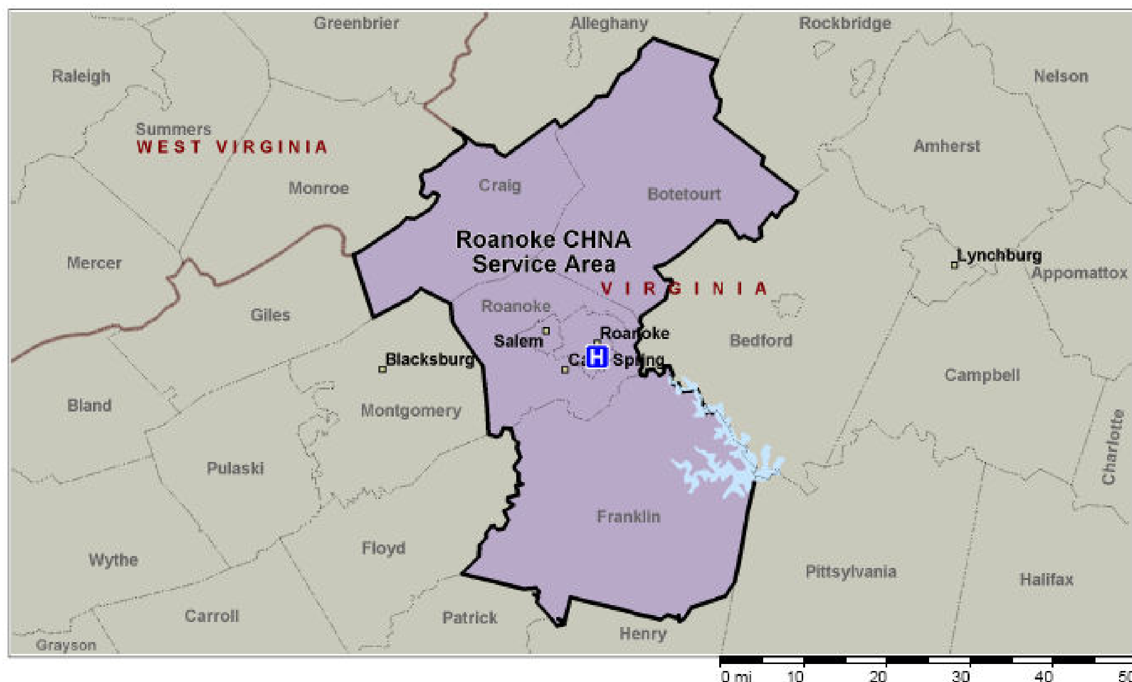
- Primary data collection included a Community Health Survey; Focus Group meetings with key stakeholders, community leaders and the target population; and site visits to study "Models that Work" related to care coordination and Teaching Health Centers. These activities allowed strong community engagement throughout the process and focused on topics related to access to care, existing resources in the community, and perceived barriers to care. In addition, these activities allowed the project teams to review the current system of care for the target population that yields more appropriate utilization of resources through the expansion and/or coordination of the current safety net.
- Secondary data collection focused on quantitative data addressing demographic and socioeconomic status; access to health care; health status of the population; risk factor behaviors and conditions; social environment; and County Health Rankings from existing local, state and national sources.
- A gap analysis was performed based on the findings of the primary and secondary data to identify priority areas of need and to drive a community health strategic plan. Barriers to care were identified with a focus on the impact these barriers have on access to primary care, oral health, and mental health and substance abuse services.

- A strategic plan was created to address these needs through the identification and strengthening of existing initiatives in the service area as well as the development of new programs.

Service Area

Carilion Roanoke Memorial Hospital and Carilion Roanoke Community Hospital, collectively referred to as Carilion Medical Center (CMC), are located in Roanoke, Virginia. In fiscal year 2011, CMC served 124,543 unique patients. Patient origin data for both inpatient and outpatient services revealed that in fiscal year 2011, 74.98% of patients served by CMC lived in the following localities:

- Roanoke City (32.54%)
- Roanoke County (20.38%)
- Franklin County (8.89%)
- Botetourt County (6.79%)
- Salem City (5.74%)
- Craig County (0.64%)[1]



[1] TrendStar, Carilion Medical Center Patient Origin, Inpatient/Outpatient, Fiscal Year 2011

The Roanoke MSA, commonly known as the Roanoke Valley, is composed of the independent cities of Roanoke and Salem and the counties of Botetourt, Craig, Franklin and Roanoke.

Roanoke is the largest city in southwest Virginia and is the urban hub for the MSA. Surrounded by the Blue Ridge and Alleghany Mountains, the city of Roanoke is nestled in the Roanoke Valley and is the most densely populated area in the MSA, with 2,280 persons per square mile and a land area of 43 square miles. [2]

Roanoke MSA and Virginia Land Mass and Persons per Square Miles

(Quick Facts, U.S. Census Bureau, 2011)

	Roanoke City	Salem City	Botetourt County	Craig County	Franklin County	Roanoke County	Virginia
Land area in square miles	42.56	14.44	541.2	329.53	690.43	250.52	39,490
Persons per square miles	2,279.8	1,717.9	61.2	15.7	81.3	368.7	203

Part of the Sixth Congressional District, there are 23 census tracts in the city which are bisected by interstate 581 and the Roanoke River. In 2010, certain census tract boundaries in the city were redrawn to more closely reflect neighborhood boundaries, resulting in changes in the census tract numbers. There are 48 neighborhoods in the city. A comparison of the 2010 census tracts and the 2000 census tracts for the city of Roanoke is found in Appendix 4: 2010 Census Tract Rosetta Stone.

The city is divided into quadrants (Northwest, Northeast, Southwest and Southeast) separated geographically by railroad tracks, the Roanoke River, and Interstate 581. These quadrants vary greatly in the demographic and economic makeup of the residents who live there. Specifically, two of the quadrants—the Northwest and Southeast quadrants—have federal designations as MUAs and are home to a large proportion of the low-income individuals and families in the city who may be uninsured, underinsured and/or Medicaid recipients who often face additional barriers due to race and cultural differences.

The service area for the Roanoke Valley Community Health Needs Assessment includes the localities that are a part of the Roanoke MSA, with an emphasis on the city of Roanoke, in particular the MUAs of the city, where the majority of health, socioeconomic, and cultural disparities exist in the MSA.

[2] U.S. Census, Quick Facts, 2010

It is important to note that Franklin County is also served by Carilion Franklin Memorial Hospital (CFMH) located in the county. CFMH will undergo a Community Health Needs Assessment for its service area in fiscal year 2013 (October 1, 2012- September 30, 2013).

Target Population

The target population for the Roanoke Valley Community Health Needs Assessment was defined as those living in the Roanoke MSA, in particular the underserved areas in the city of Roanoke, with an emphasis on the low-income, uninsured and underinsured, minority groups, and those suffering from chronic disease.

Primary Data and Community Engagement

Community Forum and Stakeholder and Provider Focus Groups

A Community Forum was held on February 1, 2012 at St. John's Episcopal Church in Roanoke with stakeholders and leaders representing the health professions, health and human services, local government, business and industry, educators, and faith-based and volunteer organizations. Many of the participants serve the target population. A total of 107 individuals attended. A participant directory is available in Appendix 5: Community Forum Attendance.

The Community Forum was covered by local media sources including the regional newspaper, *The Roanoke Times*, and WSLS-10, the NBC affiliate in Roanoke. This coverage ensured communications to the community at large about the Roanoke Valley Community Health Needs Assessment activities.

Carilion Clinic's CEO Nancy H. Agee speaking at the Community Forum

The goal of this forum was to inform the community of the purpose and activities of the Roanoke Valley Community Health Needs Assessment and create commitment to the project ensuring optimal participation and support from the community as a whole. In addition, it was a venue to collect information from participants on the needs of those that they serve in the community. Finally, participants were asked to assist in the collection of a Community Health Survey as part of the project.

During the event, "Stakeholder and Provider" focus groups were conducted to assess the health of those who live, work and play in the Roanoke Valley. Participants were randomly assigned to 10 focus groups. Participants were asked to address three topics that impact health for the populations they serve, including:

1. The needs and barriers that impact health, including identification of areas/neighborhoods with the most challenges
2. The resources available that impact health
3. Changes/initiatives that can occur to impact health

Participant responses related to each topic were recorded for all 10 focus groups. Common themes emerged and were categorized accordingly. The full summary of the Key Stakeholders and Providers Focus Group can be found in Appendix 6: Community Forum Summary.

Needs and Barriers

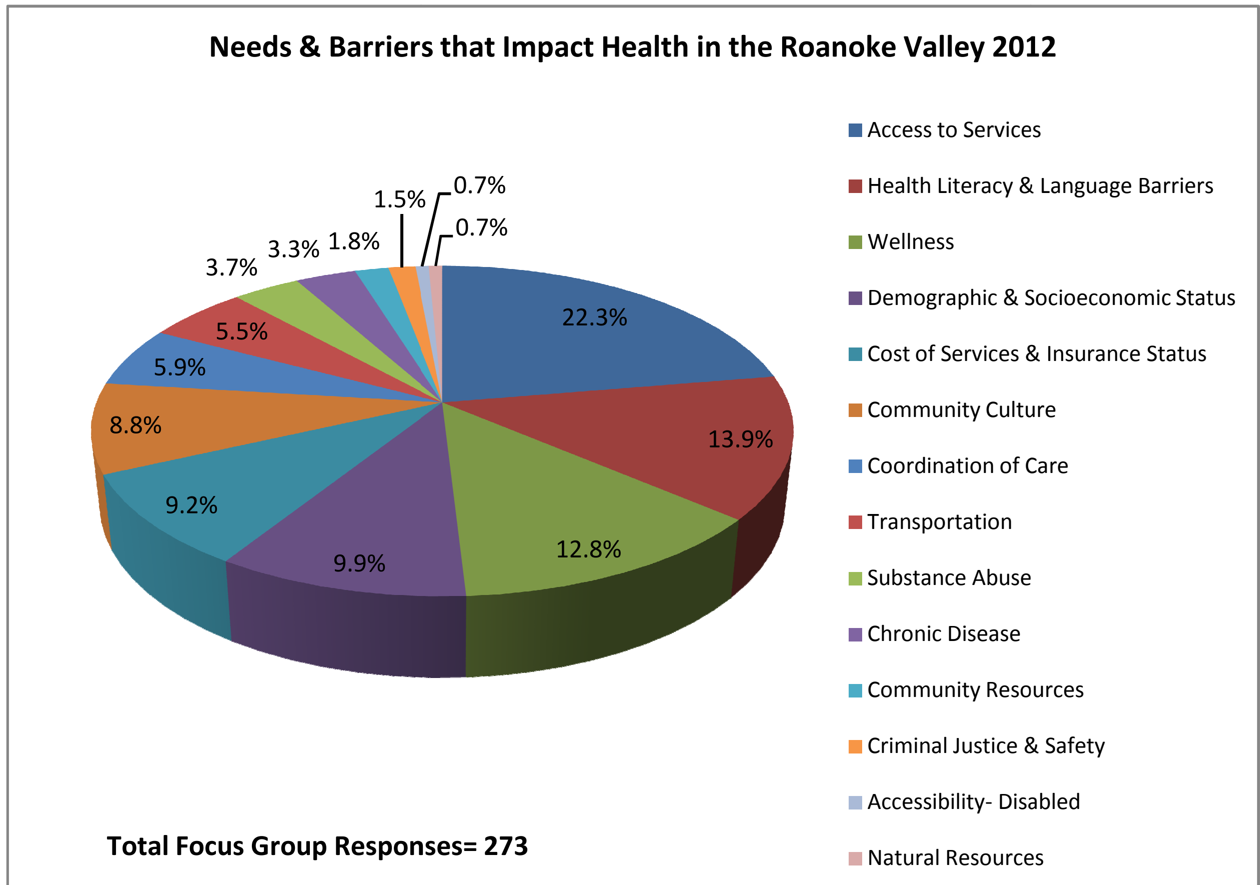
Focus group participants were asked to respond to the following questions addressing the health needs and barriers in the Roanoke Valley.

- ***What are the most important issues (needs) that impact health in Roanoke?***
- ***What are the barriers to health for the populations you serve in Roanoke?***

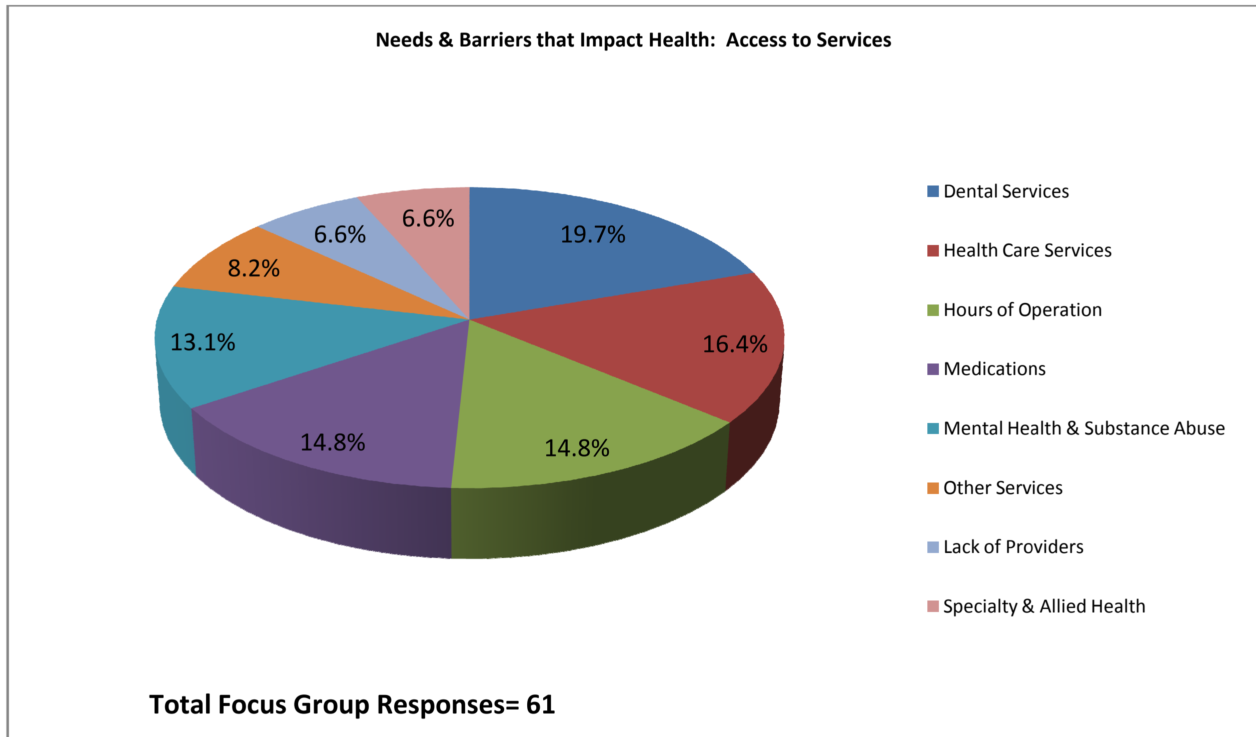
A total of 273 responses among the 10 focus groups were collected addressing the "Needs and Barriers," and 14 categories were identified:

- Access to Services
- Accessibility (Disabled)
- Chronic Disease
- Community Culture
- Community Resources
- Coordination of Care
- Cost of Services & Insurance Status
- Criminal Justice & Safety
- Demographic & Socioeconomic Status
- Health Literacy & Language Barriers
- Natural Resources
- Substance Abuse
- Transportation
- Wellness

To determine which "Needs and Barriers" categories were identified most often by the focus groups, the responses for each category are presented as a percentage of the total responses.



Respondents identified "Access to Services" as the greatest need/barrier that impacts health. Within this category, "access to dental services" had the greatest number of responses and included the need for affordable services for self-pay and Medicaid adults and seniors, the lack of pediatric dentists, and the unmet oral health issues present in the community. "Access to health care services," including overall access to services including primary and preventive care, was the second greatest response in this category. Access to affordable prescriptions; the cost of the Medicare "donut hole" for seniors; and the need for medication services impacted residents' health, as did the need for extended hours of operation for services. Access to mental health, substance abuse, and psychiatric services was identified as a need as well as education on the existing services available in the service area. Respondents identified the overall lack of providers that serve the target populations and offer affordable care, including primary care providers accepting new Medicaid patients and specialty services for vision, hearing, geriatrics, pain management, urology, and physical therapy.



Other needs and barriers impacting health in the service area included the health literacy of the target population, including language barriers. Participants noted that individuals are unable to navigate the healthcare system; have limited understanding of and compliance with treatments; have an overall lack of understanding of "health"; lack knowledge of existing resources in the community and understanding of health insurance coverage; and have poor communications with their providers.

Focus group respondents stated that a "Culture of Wellness" is needed in the community and that many in the target populations place limited priority on prevention and healthy living. Access to affordable, healthy foods especially in low-income neighborhoods and increased physical activity overall were identified as a need, as was improving the school lunch program, increasing physical education in the schools and nutrition education both in the schools and the community at large.

There is a need for coordination. of care including a centralized system for coordination of care; assistance with forms and eligibility requests; health navigators; and better communication between providers and other service entities in the community.

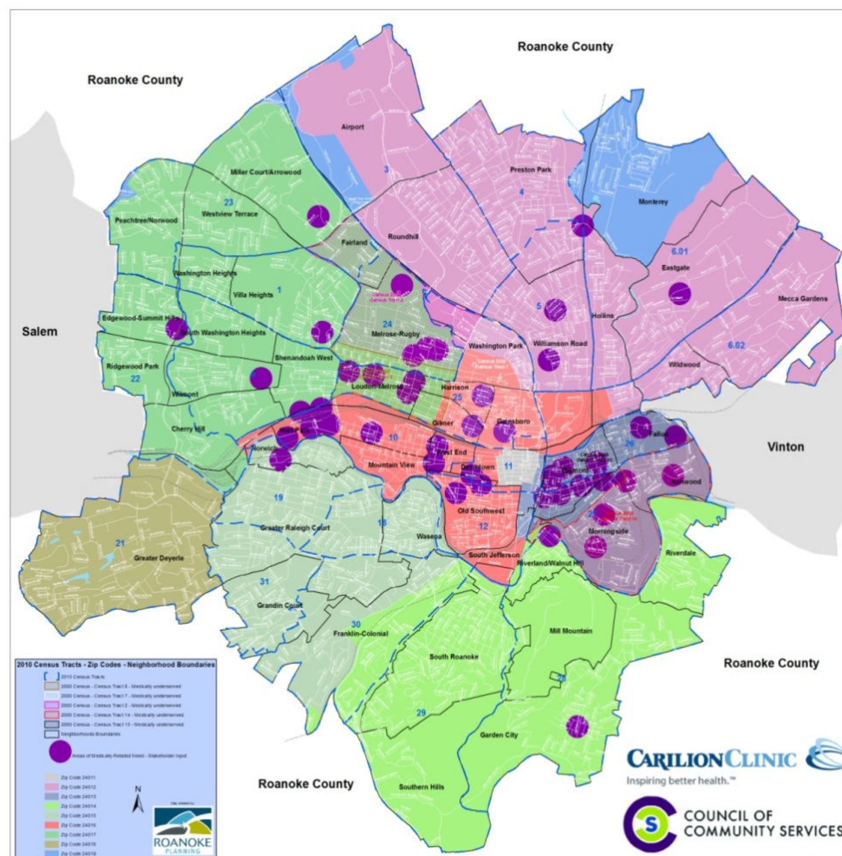
Barriers to care included a large impoverished population, particularly in the city of Roanoke; low educational attainment rates; an aging population; homelessness, unemployment and lack of jobs; and the demographic and cultural changes in the area. In addition, cost of services and

insurance status limited access to services for the uninsured and under-insured. For certain services, Medicare and Medicaid coverage is limited, and there are long waits for Disability coverage. Lack of transportation was noted as a barrier, as was the high incidence of asthma, diabetes, obesity, and overall self-neglect within the target population.

In addition to the "Needs and Barriers" that impact health, focus group participants were asked if applicable:

- ***Is there one locality/neighborhood with the greatest unmet need in Roanoke? Why?***

The majority of focus group participants agreed that there is unmet need throughout the Roanoke Valley. Of the 25 responses, the following localities/neighborhoods were identified:



Map showing areas of need from the Community Forum Focus Groups

- Urban areas and inner city of Roanoke including the central downtown area, and the Northeast, Northwest, and Southeast quadrants as well as the following neighborhoods in the city:
    - Belmont
    - Eastgate
    - Gilmer

  - Hurt Park
  - Melrose
  - West End
- Town of Vinton (Roanoke County)
- Areas of poverty in general

Resources

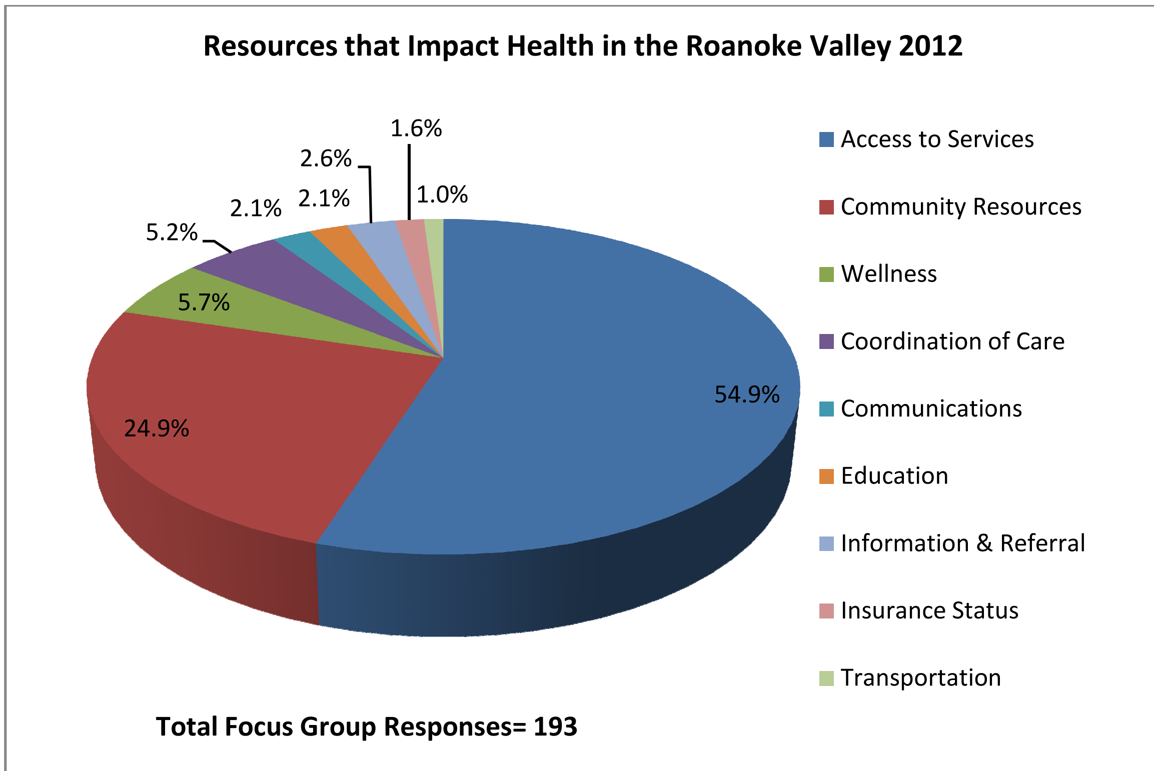
Focus group participants were asked to respond to the following question addressing the available resources in the Roanoke Valley.

- ***What are the resources for health for the populations you serve in Roanoke***?

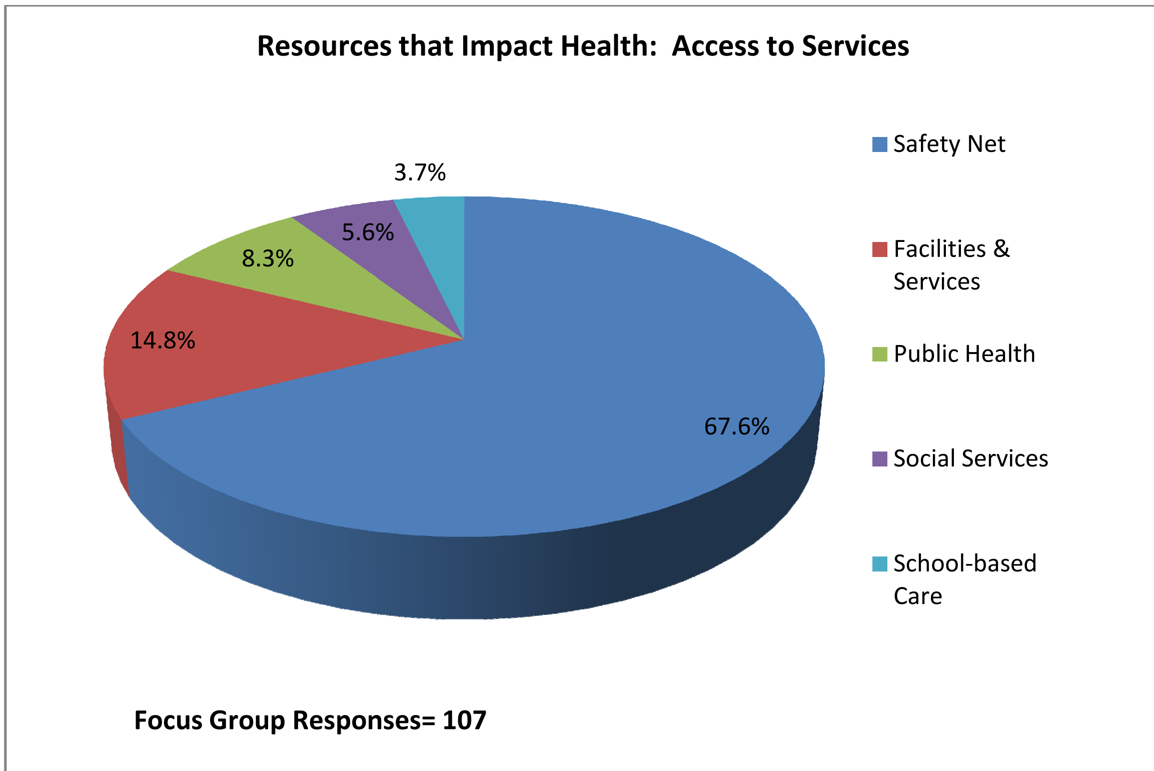
A total of 193 responses among the 10 focus groups were collected addressing the "Resources," and nine categories were identified:

- Access to Services
- Communications
- Community Resources
- Coordination of Care
- Education
- Information and Referral
- Insurance Status
- Transportation
- Wellness

To determine which "Resources" categories were identified most often by the focus groups, the responses for each category are presented as a percentage of the total responses.



As with “Needs and Barriers,” “Access to Services” was identified as the greatest resource that impacts health. Within this category, over half of the responses (67.6%) pointed to access to existing “safety net” providers including primary care, oral health, mental health and substance abuse, and medication assistance providers and programs. Approximately 25% of responses identified “Facilities and Services” as resources including area hospitals; behavioral health care; emergency departments and urgent care centers; the Veterans Administration; and pediatric and palliative care services. Additional services included public health programs; school-based health care; and social services.



Other resources impacting the health of those living in the Roanoke Valley included "community resources" with a wide variety of non-profit, community-based organizations available in the area. "Wellness" resources including greenways and natural amenities; parks and recreation; and the YMCA were noted as were resources for "coordination of care" especially for children enrolled in CHIP and Head Start and other home-visiting services. "Communications" resources included health newsletters and media coverage as well as electronic health records. Additional resources included information and referral programs; availability of Medicaid, FAMIS, and Medicare; public schools and allied health training programs; and the availability of public transportation and non-acute medical transport services like RADAR.

(See Appendix 6: Community Forum Summary for a complete list of resources.)

Initiatives and Changes

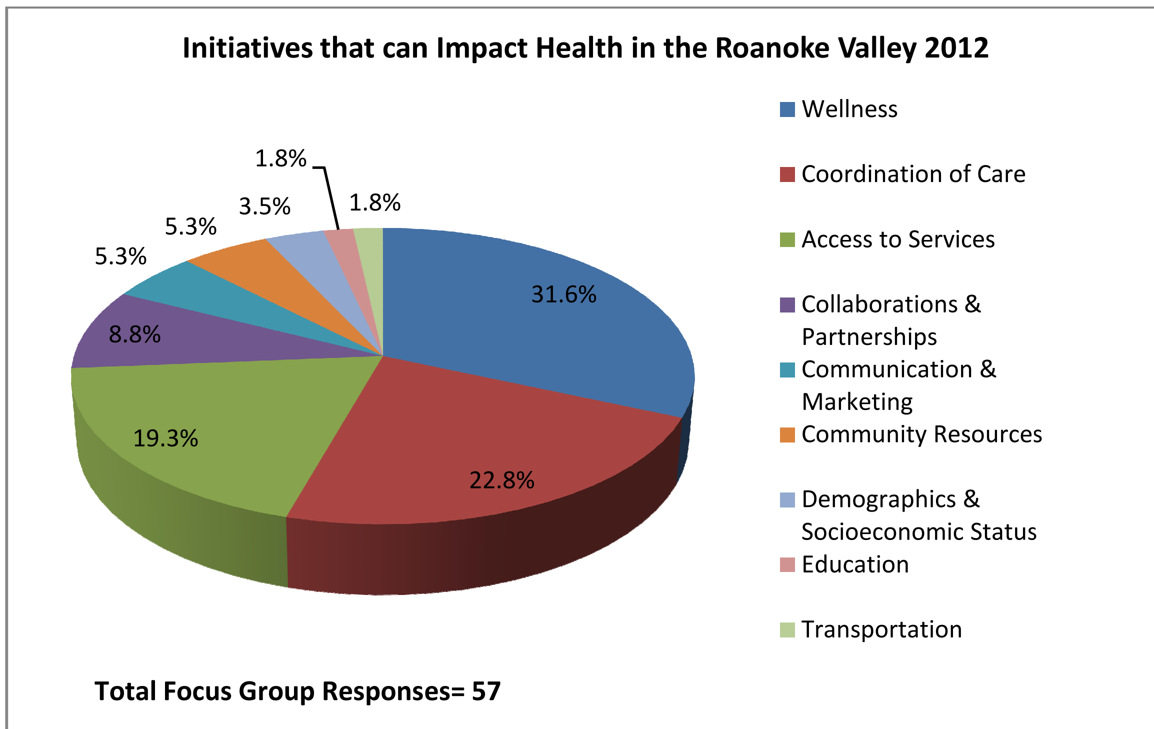
Focus group participants were asked to respond to the following question:

- ***If we could make one change as a community to meet the needs and reduce the barriers to health in Roanoke, what would that be***?

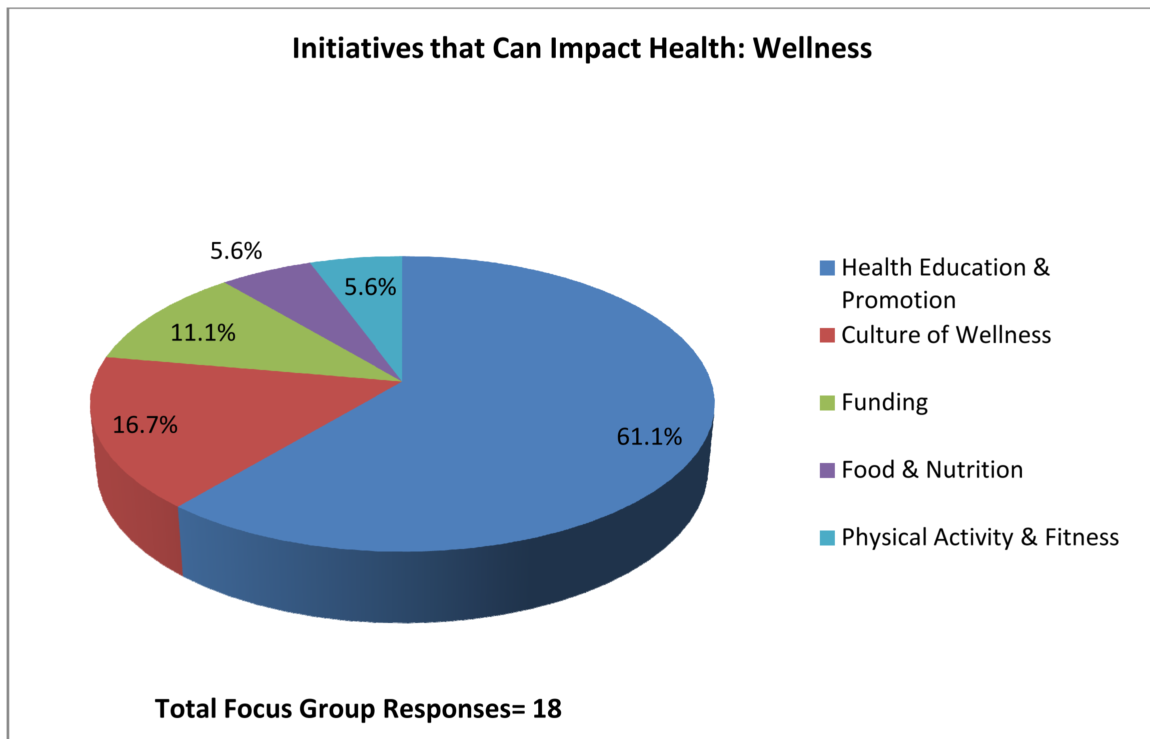
A total of 57 responses among the 10 focus groups were collected addressing the "Initiatives and Changes," and nine categories were identified:

- Access to Services
- Collaborations and Partnerships
- Communication and Marketing
- Community Resources
- Coordination of Care
- Demographics and Socioeconomic Status
- Education
- Transportation
- Wellness

To determine which "Changes and Initiatives" categories were identified most often by the focus groups, the responses for each category are presented as a percentage of the total responses.



“Wellness” initiatives were identified as having the greatest impact on health, especially those initiatives that focus on health education and promotion, creating a culture of wellness by educating and empowering people to take control of their health by focusing on healthy behaviors (i.e. smoking cessation, good diet) and creating prevention-oriented and culturally sensitive programming. Other initiatives included promoting local and whole foods, especially in schools, and promoting physical activity and fitness. Advocacy related to wellness included a unified campaign to emphasize prevention and healthy lifestyles, with a focus on neighborhoods and personal responsibility, as well as advocating for schools and government accountability for teaching wellness and redirecting meal taxes to fund wellness programs.



Other responses related to community initiatives included “Coordination of Care,” which focused on in-home care coordination across the continuum; providing health education at an individual’s literacy levels; and coordination of care using community health promoters and navigators. Creating a single point-of-entry for information and resources was suggested, as well as greater access to patient-centered medical homes and to high-level nurses who can assess patients and assist with health navigation and education.

Focus group participants recommended advocating for “access to services” and health care as a right for all, including universal health insurance and grants to fund access to free health care. They suggested a “medical mall” with multidisciplinary services, information and referral, alternative therapies, health education classes, and access to healthy foods and a gym, all

under one roof that is accessible to the bus line. Participants encouraged organizing the community to promote healthy behaviors and to develop coordinated community campaigns and partnerships behind target issues. Finally, the groups recommended promoting education and creating more full-time employment opportunities in the service area as a way out of poverty.

Focus Group Meetings– Target Population

Six focus group meetings with target populations living in the MUAs in the city of Roanoke were conducted from March 5 through March 27, 2012 to address the health care needs for, and address barriers to, affordable comprehensive services including primary care, oral health, and mental health and substance abuse services.

The Target Population Focus Groups Work Group identified participants for the focus group meetings by reviewing programs and organizations in the city of Roanoke that offer services to the uninsured and under-insured, the low-income, minority, and chronically ill groups across the life cycles and special populations (homeless and public housing residents). All attempts were made to conduct focus groups at sites where existing, intact groups already met and/or at sites that served the target population. The Work Group recommended the following participants for the focus group meetings.

Participants

Location	Children	Women of Childbearing Age	Adults	Seniors
Melrose Towers Public Housing			✓ Disabled	✓
Morningside Manor Public Housing			✓ Disabled	✓
West End Center	✓	✓	✓	
Rescue Mission Women & Children's Homeless Shelter	✓	✓	✓	
Presbyterian Community Center	✓	✓	✓	
New Horizons Healthcare	✓	✓	✓	✓

Locations and Meeting Descriptions

Location	Site and Meeting Description	Number of Participants
Melrose Towers Public Housing	Part of the Roanoke Redevelopment and Housing Authority (subsidized housing), Melrose Towers is a nine-story independent living apartment building for individuals who are 62 years of age or older, or who are disabled. Rent is based on 30% of their adjusted gross income with the option to pay the established flat rent for this site (whichever is the lesser amount). There are 212 apartments and some are handicapped-accessible apartments. Melrose Towers is located in the Northwest MUA.	15

Location	Site and Meeting Description	Number of Participants
	A focus group meeting was held with residents who participate in the League of Older Americans Diners Club, a congregate meal program, at the site.	
Morningside Manor Public Housing	Part of the Roanoke Redevelopment and Housing Authority (subsidized housing), Morningside Manor is a nine-story independent living apartment building for individuals who are 62 years of age or older, or who are disabled. Rent is based on 30% of their adjusted gross income with the option to pay the established flat rent for this site (whichever is the lesser amount). There are 105 apartments and some are handicapped-accessible apartments. Morningside Manor is located in the Southeast MUA. A focus group meeting was held with residents who participate in the League of Older Americans Diners Club, congregate meal program, at the site.	14
West End Center	Located in the West End neighborhood in southeast Roanoke city, the West End Center enables local families and children with limited resources to lead more self-determined and enriched lives by creating a positive and nurturing child development community offering after-school and summer programs. A focus group meeting was held with parents participating in the monthly "Family Night" where a meal and planned activities are offered to the parents of children who attend the West End Center's after-school program.	12
Rescue Mission Women & Children's Homeless Shelter	Committed to offering safe shelter to those who are homeless, the Rescue Mission Women & Children's Homeless Shelter offers a warm bed, three meals per day, medical attention, and legal assistance to single women and women with families. A focus group meeting was held with women (single and with children) who volunteered to participate in	11

Location	Site and Meeting Description	Number of Participants
	discussions.	
Presbyterian Community Center	The Presbyterian Community Center (PCC) is a coalition of Christian resources from throughout the Roanoke Valley, bringing together churches, caring volunteers, professionals, and financial contributions for a ministry designed to help their most needy neighbors living in the eastern quadrants of Roanoke including the southeast MUA, the eastern quadrants of Roanoke County, and the Town of Vinton. Pathways for Youth is a comprehensive after-school program and is a cornerstone of the PCC commitment to see children succeed in school and graduate. A focus group meeting was held with parents participating in the monthly “Pathway’s Parents’ Meeting” where supper and planned activities are provided to the parents of “Pathways” children.	11
New Horizons Healthcare	New Horizons Healthcare is a not-for-profit community-based family medical practice and Roanoke’s only FQHC. Its mission is to serve the uninsured and underserved with high-quality, comprehensive primary health care. Services include pediatrics, a medication assistance program, behavioral health care, and a sliding-fee discount program for those who are eligible. The neighborhoods in the city of Roanoke are represented by neighborhood organizations and watch groups. A focus group meeting was held with current patients of New Horizons Healthcare and neighborhood organization representatives and residents from the MUAs in northwest and southeast Roanoke.	13

Focus Group Format

A point-of-contact at each host site attempted to recruit 8-12 adult participants for each meeting. The Project Manager facilitated the meetings and the Project Planner/Planning Analyst recorded discussions.

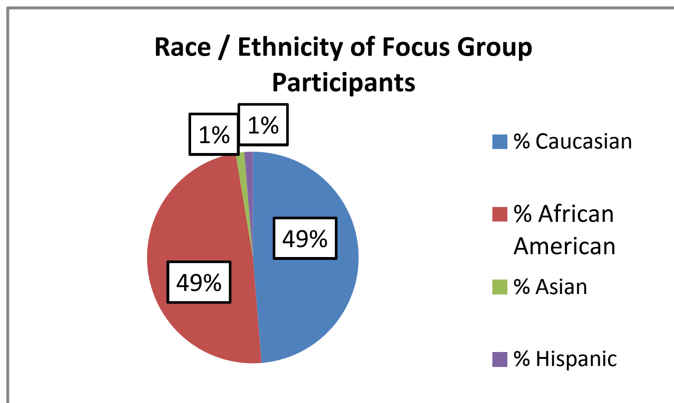
Prior to each meeting, participants were asked to read and sign a consent form to ensure conversations were kept confidential. Focus group meetings lasted for an hour and addressed personal and system-based barriers in accessing primary care, mental health, substance abuse, and dental services by participants and/or their families; transportation; and gaps in the current continuum of care. To protect the participants' privacy, they had the option to address their own situation or address similar populations. Additional follow-up questions were asked based on the responses.

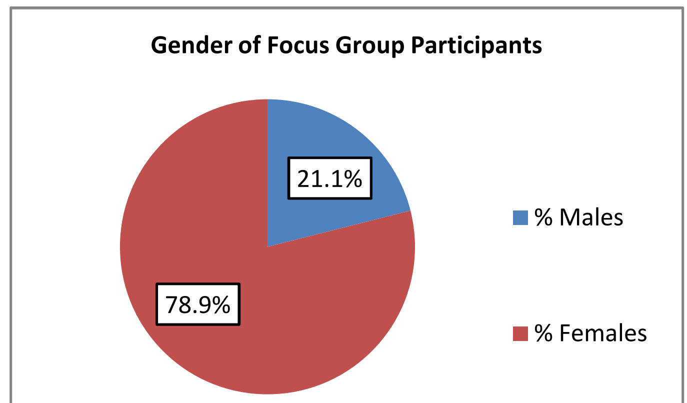
Focus Group Questions:

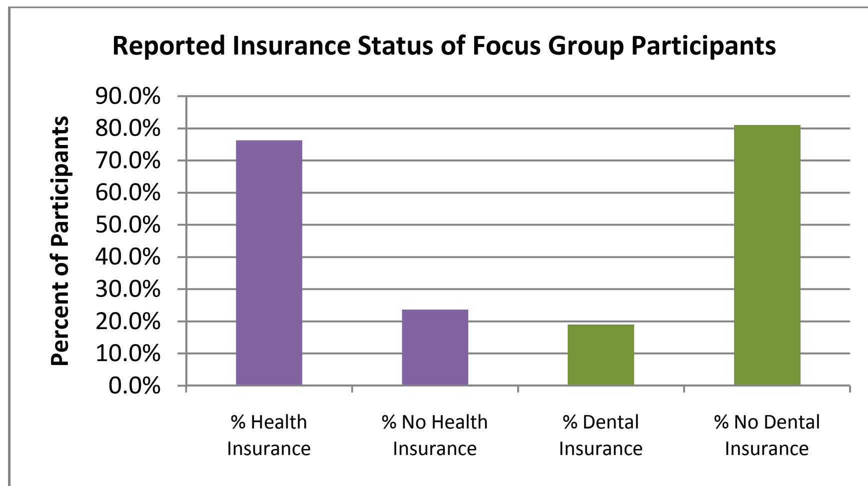
1. In one or two words, how would you describe good health?
2. What do you, or your family and friends, do when you need a checkup or are sick?
    (1) How many participants have health insurance?
3. What do you, or your family and friends, do when you have a toothache or need your teeth cleaned?
    (1) How many participants have dental insurance?
4. What do you, or your family and friends, do when you need to talk to someone about your nerves/stress/depression or need help with alcohol or drug addiction?
5. Is there anything else you would like to tell us about your health or the health of others in Roanoke?

Focus Group Demographics

A total of 76 individuals participated in the focus group meetings. Of the participants, 49% were Caucasian, 49% African American, 1% Asian, and 1% Hispanic. The majority of participants were women (78.9%) with the remaining 21.1% men. More participants reported having health insurance (76.3%) compared to no health insurance (23.7%), while few participants had dental insurance (81%) compared to those having dental insurance (19%).







Focus Group Results

The summary of the Target Population Focus Groups with all participant responses can be found in Appendix 7: Target Population Focus Groups by Life Cycle.

At the beginning of each meeting, participants were asked "What is good health?" Responses addressed participants' perceptions of health status, wellness and prevention, social networks, and access to services.

In their own words:

What is good health?

"I think being able to have access to medications and to make them affordable"
"Waking up each morning, getting out of bed, and going throughout the day without any medical issues"
"Good bedside manners when you go to the doctor"
"Being able to take care of yourself"
"Oral hygiene and how it connects to the rest of our body…"
"Not being overweight"
"Exercise, exercise, exercise"
"Eating Healthy"
"Proper rest"
"Being in tune mentally, emotionally, and spiritually"
"Praying"
"Having good friends and people that live around you"
"Eliminating stress and 'worriation' "

Focus group responses for each group/population were reviewed by Work Group members and summarized based on common themes across the life cycles and current utilization of services, needs, perceived barriers, and sources of care. The responses were categorized by the following general topics:

- Primary care and specialty care
- Dental care
- Mental health and substance abuse care
- Transportation
- Wellness

In their own words– Women of Childbearing Age:

"We stop taking care of ourselves when we have children."

Findings for **<u>"Children"</u>** included:

- All have resources and access to services regardless of insurance status
  - Parents ensure that children receive preventive and sick care when needed
  - Travel to University of Virginia Health System in Charlottesville, Virginia necessary at times for specialty care
- Transportation dependent on parents' resources
- Access to healthy foods an issue especially for children living in the homeless shelter
- Positive Actions Toward Health program helping children with obesity

Findings for **<u>"Women of Childbearing Age," "Adults" & "Seniors"</u>** included:

- Primary Care and Dental Care
  - The insured participants generally had a regular provider, however, they may or may not get annual checkups and other preventive screenings. They self-treat at times rather than going to the doctor.
  - The uninsured go without care; self-treat and/or delay treatment and use the Emergency Department, urgent care, free clinics and community health center for care.

In their own words– Seniors:

"I had an abscess and it was so bad they (Emergency Department) had to get surgery (oral surgery consult). They worked it out so I can go to the rehab (Carilion Dental Care). There is nothing for us. One of the doctors at the hospital told me it was very lucky that they worked on me. They have had to send people to UVA."

*(*Participant recently discharged from Carilion Roanoke Memorial Hospital

- Barriers to care include:
    - Out-of-pocket expenses and cost of services are prohibitive for uninsured
    - Out-of-pocket expenses for co-pays and deductibles are prohibitive at times for the insured
    - High out-of-pocket expenses for maternity care with insurance
    - High cost of living and preference for necessities leaves little money for health care expenses or healthy choices

In their own words– Adults:

"…what keeps me from getting health care is the large expense. There are high deductibles and co-pays. I know people that do not go to the doctor because they cannot afford it. I consider it criminal when people who work for a living cannot afford health care. It is good that our country is changing. We should not have to think about how we are going to pay for health care."

- Specialty care
    - There is a need for dermatology, neurology, and affordable vision services. It is difficult to get appointments even if insured.

- Medication Assistance
    - Access to affordable medications is needed for the uninsured and seniors who reach the Medicare Part D donut hole.

- Mental Health and Substance Abuse Services
    - Many of the participants rely on a support network of family, friends and church. Some access community resources for care.
    - Participants expressed a "need to talk to someone" prior to a crisis including support of stress management. In addition, a support network for adults taking care of their parents is needed.
    - There is a need for psychiatry services overall.

In their own words:

"Many of my friends use the emergency room for primary care because they know that they will get services without having to pay."

In their own words– Women of Childbearing Age & Adults:

"Mental health is important. There is a stigma attached to getting health care. Many do not know resources in the community. There is no shame in getting the mental health care you need. "

"I am exhausted at the end of the day. I work all day, come home and cook dinner, make sure the kids do their homework, get them to bed and then I drop."

"I am addicted to cigarettes but that is because I have two kids. I have a lot of stress in my life right now, not just being here (Rescue Mission)."

Health Literacy

- Value is not always placed on preventive care and chronic disease management by the participants.
- There is a lack of knowledge of health and they do not always understand what the provider is saying.
- Participants use the Internet for health information and lack knowledge of available community resources.
- Language barriers impact care.

In their own words- Seniors:

"I go to Southeast Medical (Carilion Family Medicine Southeast). *I see another doctor each time. How do you know anything about me? How can you establish a relationship with a doctor or even understand what they are saying?"*

"I keep falling through the cracks. Can't get meds and nurses never called me. Coordination of care is terrible. Nobody called me to increase my medicine. I fall between the cracks and I am very verbal and I let them all know but I still fall through the cracks."

- Transportation
    - Reliance on public transportation, community resources, family and friends is a challenge for the homeless, disabled and elderly.
    - The increasing cost of bus and cab fares is a strain.
    - Public/community transport schedules can impact an individual's ability to keep appointments.
    - Roanoke City Public Schools transports school-age children living in a homeless shelter to their school of origin.

In their own words– Adults:

"There is a level of fear for people seeking health services because they do not want to know what the news is."

- Wellness
    - Access to and utilization of wellness programs varied. Some participants had insurance and/or employer-sponsored memberships to fitness facilities while others had home exercise equipment. Others walked outside. Some participants took advantage of the Farmers Market at the West End Center that accepts EBT for food stamps.
    - Value was placed on exercise, rest and healthy eating.
    - Fixed incomes and increasing cost of living for many of the participants impacted healthy choices including healthy foods and gym memberships.
    - Access to healthy foods was challenging when relying on others for meals.

In their own words– Adults:

"Exercise will change your life! It will help with stress. Walking will help and make you healthy. Drinking water. The key to health is exercise."

Community Health Survey

Methodology

A Community Health Survey was conducted as a part of the Roanoke Valley Community Health Needs Assessment. This survey was used to gauge the health of the community and identify potential areas to target improvements. Input and oversight of survey development was provided by the CHAT and the Data and Information Work Group.

The survey was developed using community survey samples from the following:

- National Association of County and City Health Officials' Mobilizing for Action through Planning and Partnerships Community Themes and Strengths Assessments;
- YMCA's Community Healthy Living Index;
- Center for Disease Control's Behavioral Risk Factor Surveillance System;
- Community Health Surveys from Montgomery and Giles County, Virginia;
- Martin County Community Health Assessment, Martin County, North Carolina; and
- Roanoke Valley Community Health Needs Assessment, 2000.

A 24-question survey was developed that asked questions about an individual's access to medical, dental and mental health care. The survey also asked questions about chronic illness, healthy and risky behaviors, insurance status, and basic demographic information. Both an English and Spanish version of the survey was available. (The survey tool, in both English and Spanish, is included in Appendix 8: Roanoke Valley Community Health Survey.)

Populations targeted for the survey were residents 18 years of age and older and included:

- General Population
  - All residents living throughout the Roanoke MSA including the cities of Roanoke and Salem, and the counties of Botetourt, Craig, Franklin and Roanoke
- Target Populations
  - Low-income and/or uninsured residents; minority populations; and residents living with chronic illness
  - Residents living in the MUAs of the city of Roanoke

A nonprobability sampling method, which does not involve random selection of respondents, was used.[3] This method is often used for social research. Although surveys were made available to all residents living in the Roanoke Valley, oversampling of the target populations occurred through targeted outreach efforts. Oversampling methodologies involve data collection for particular subgroups of the population that may be underrepresented in a random sample survey.

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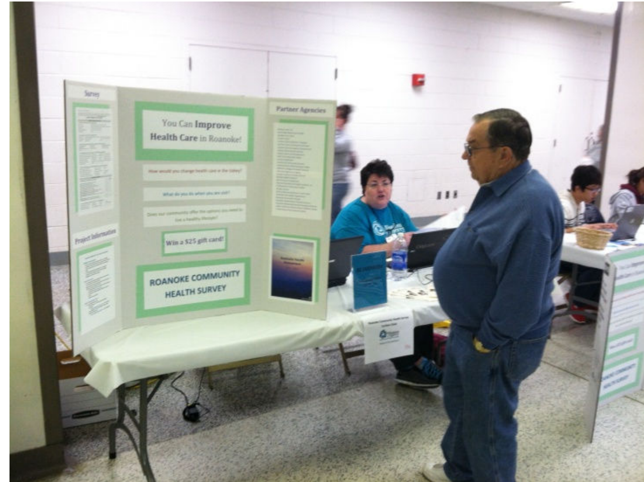
[3] Research Methods- Knowledge Base, Nonprobability Sampling, Web Center for Social Research Methods, www.socialresearchmethods.net/kb/sampnon/php

The CHAT and Work Group identified target populations, collection sites and mode(s) of distribution of the surveys. (See Appendix 9: Location and Distribution of Community Surveys.) Surveys were distributed beginning February 1 through March 31, 2012. Over 80 organizations, agencies, and community members assisted in the distribution of the surveys. All efforts were made to collect a minimum of 2,000 surveys.



Survey booth set up at the Roanoke Mission of Mercy Project

The survey was distributed via the following methods:

- Survey Monkey link (http://inspired.cc/rvhs)
- Phone line 540-981-7079
- Postcards with survey URL and phone line information
- Paper surveys (collected by volunteers and/or staff of partner agencies)

Four drawings for a $25 Wal-Mart gift card for those who completed the survey (one survey per person) were offered as an incentive.

Outreach strategies for survey distribution included:

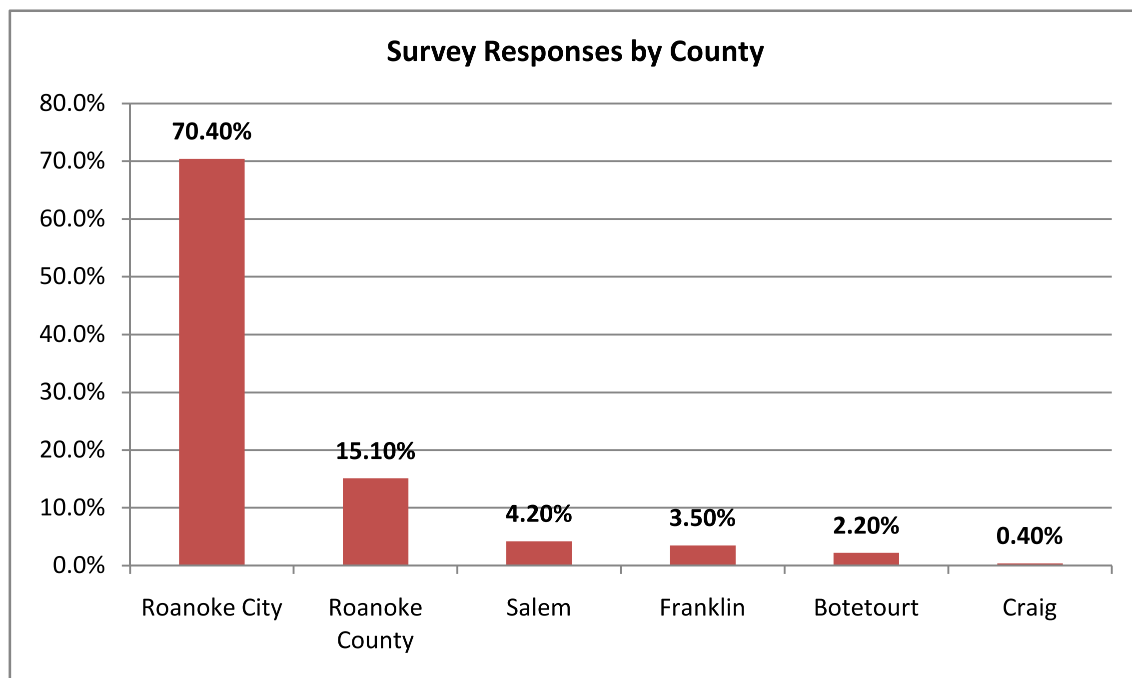
- Media coverage by the local television stations and newspaper announcing the URL for the survey
- Facebook
- Face-to-face survey interviews at sites/agencies that serve the target populations using volunteers and/or staff
- Postcards distributed at sites/agencies that serve the general community and target populations
- Survey URL posted on partner agency websites

Surveys were analyzed and reported using Survey Monkey and Microsoft Excel. All responses were entered into Survey Monkey either directly by the respondents or by volunteers who entered responses from paper or phone surveys.

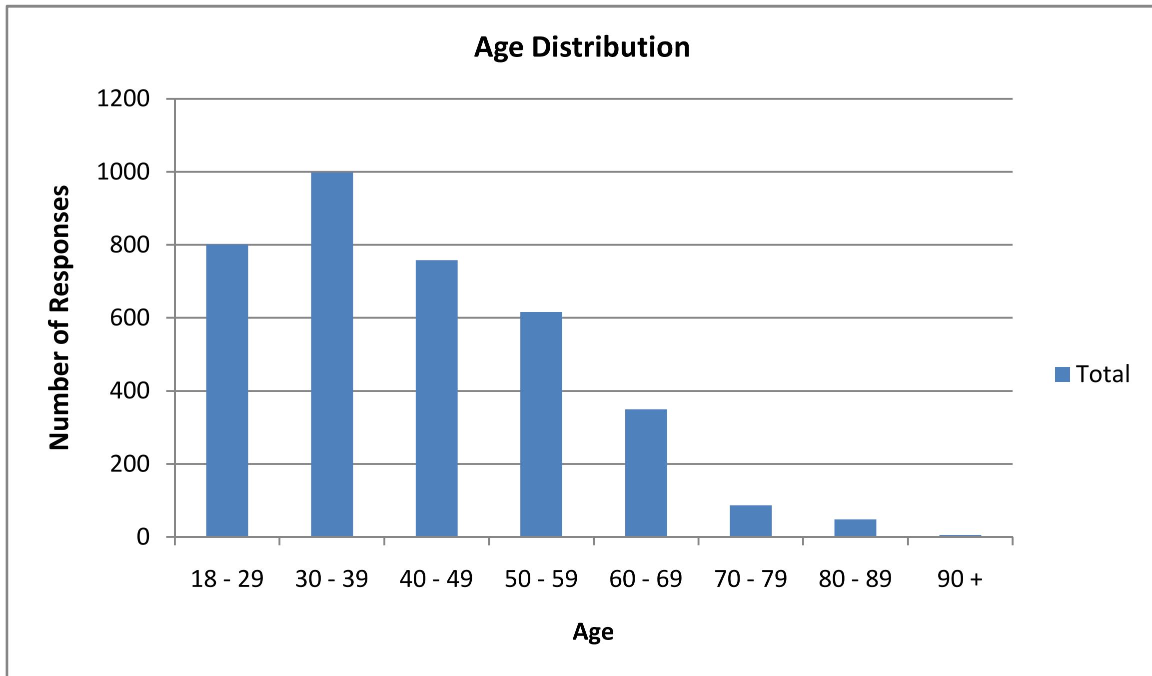
Survey Results

A total of 3,889 surveys were completed by March 31, 2012. For the purpose of the Roanoke Valley Community Health Needs Assessment, the surveys were filtered out to include only those residents living in the Roanoke MSA and those who were age 18 years or older. Responses were further delineated into two categories: (1) all survey respondents living in the MSA (including those living in the city of Roanoke) and (2) those survey respondents living in the city of Roanoke only. Responses from "other" categories were categorized into appropriate answer options if indicated. See Appendix 10: Roanoke Valley Community Health Survey Results for the complete survey responses.

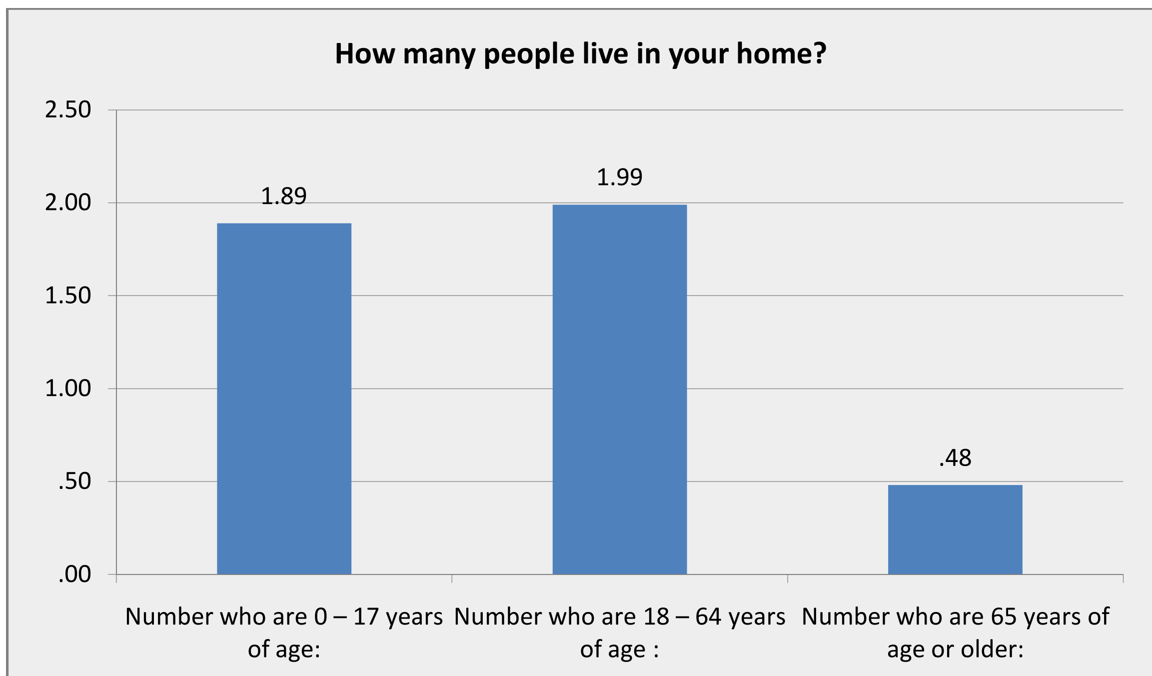
Demographic, socioeconomic, and insurance status information was collected for each respondent. The majority of the respondents (70.4%) lived in the city of Roanoke.



All respondents were 18 years of age or older, with the majority ages 30-39 years.



Respondents were asked how many people live in their homes by age. Of those who responded, there were 1.89 persons ages 0-17 years of age; 1.99 persons ages 18- 64 years of age; and 0.48 persons ages 65 years of age and older on average living in their homes.



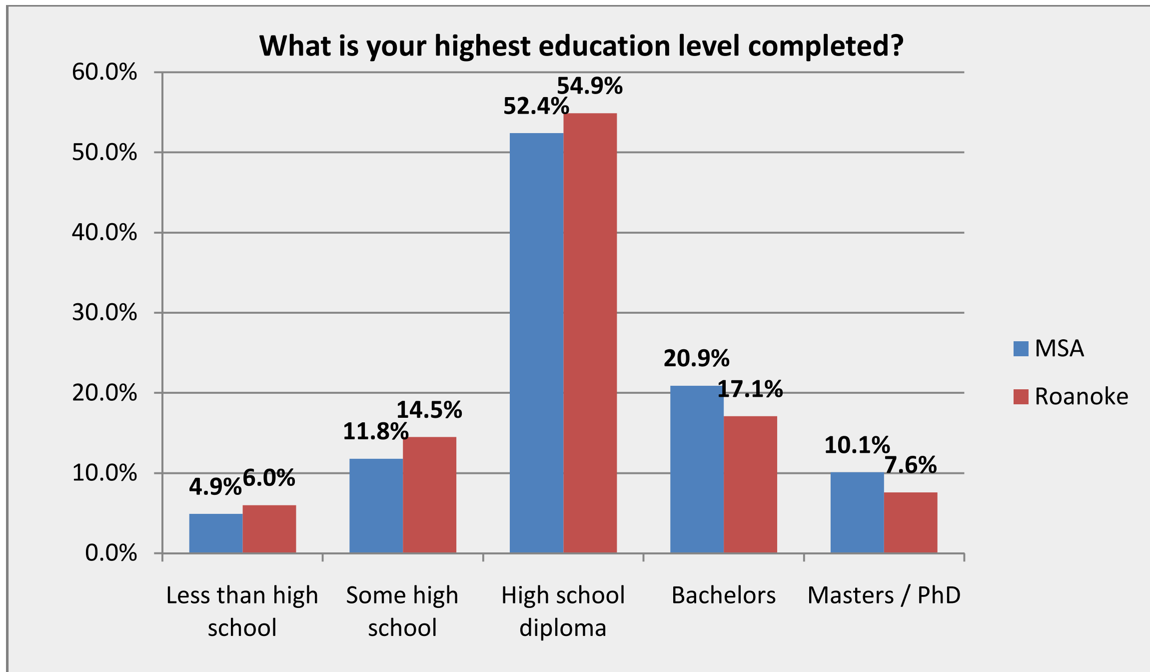
A vast majority of the respondents in the MSA as a whole were female (81.5%) as compared to male (18.5%). When asked about marital status, 47.6% were married; 33.4% were single; 15.0% were divorced; and 4.0% were widowed.

Race and ethnicity for respondents revealed that slightly more African Americans and Hispanics who completed surveys live in the city of Roanoke compared to the MSA as a whole.

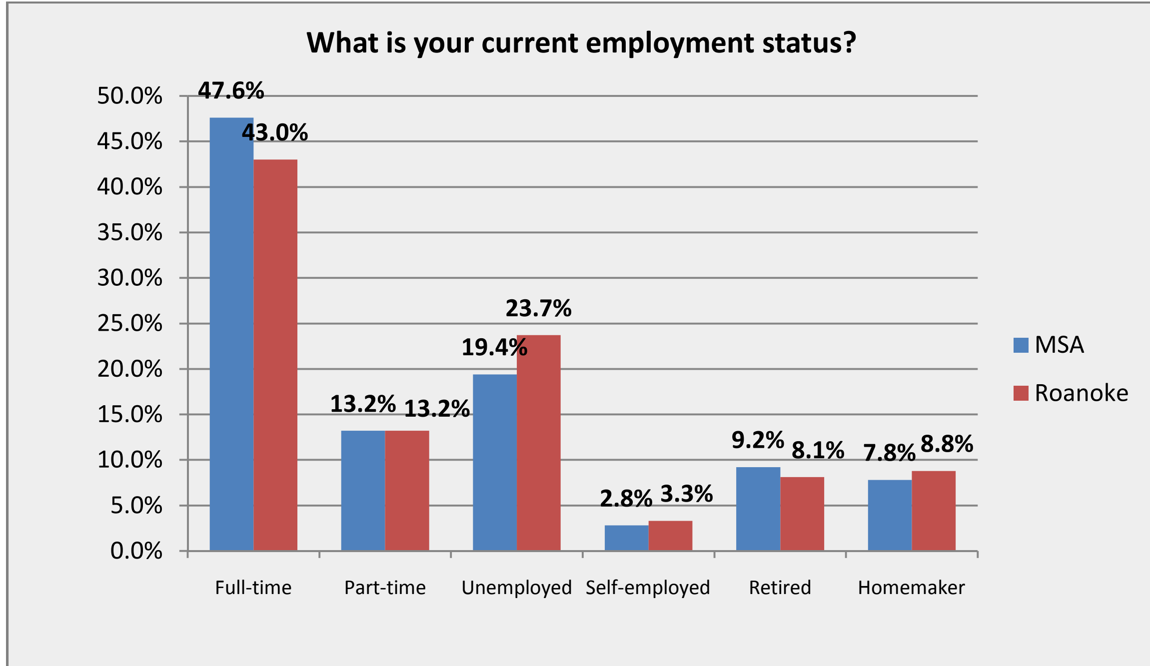
What is your race / ethnicity?	MSA	Roanoke
Answer Options	%	%
Native Hawaiian / Pacific Islander	0.1%	0.1%
Asian	2.3%	2.9%
Black / African American	27.7%	35.0%
White	62.7%	54.0%
American Indian / Alaskan Native	0.5%	0.5%
Hispanic	3.7%	4.2%
More than one race	2.0%	2.6%
Decline to answer	1.8%	1.8%
Other	0.6%	0.7%

The majority of respondents reported that English was their primary language (93.7%), with 3.4% reporting Spanish as their primary language and 3.0% reporting other languages. A list of the “other” languages is included in Appendix 10.

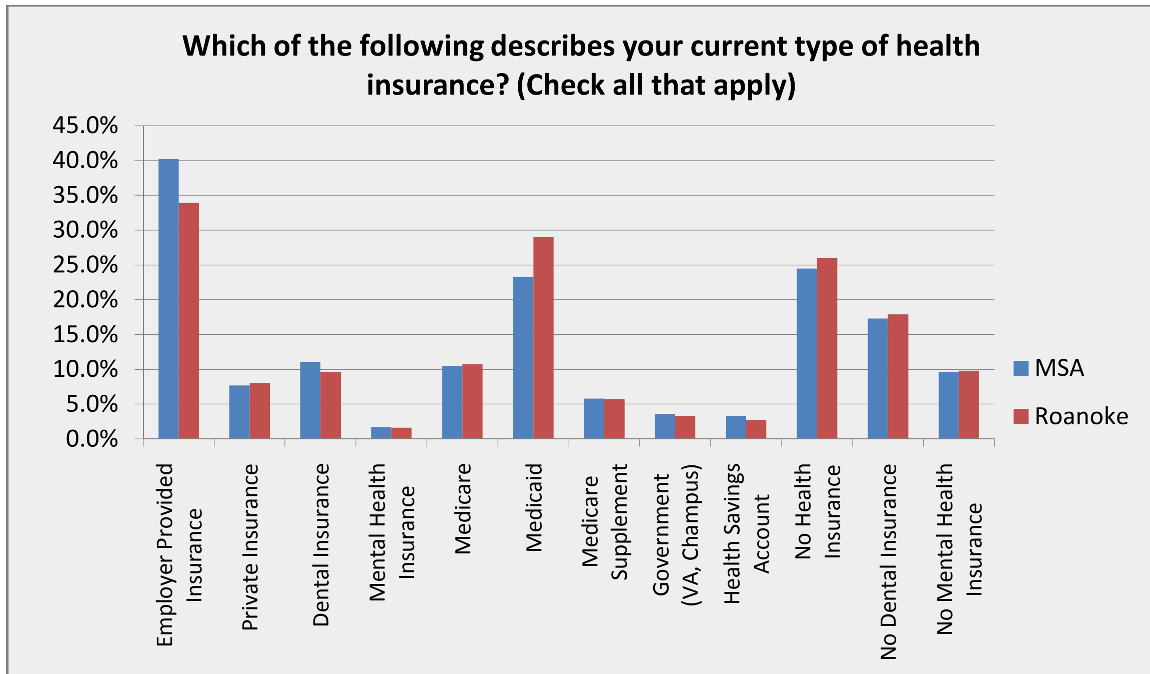
The majority of respondents reported having a high school diploma both in the city of Roanoke and the MSA. Approximately 20% of respondents in the city of Roanoke reported less than a high school education (17% in the MSA). More respondents in the MSA reported having a Bachelor’s degree or higher.



Of the respondents living in the city of Roanoke, slightly fewer were employed (full-time or part-time, 56.2%) as compared to those living in the MSA (60.8%), and slightly more were unemployed (23.7%) in the city compared to the MSA (19.4%).

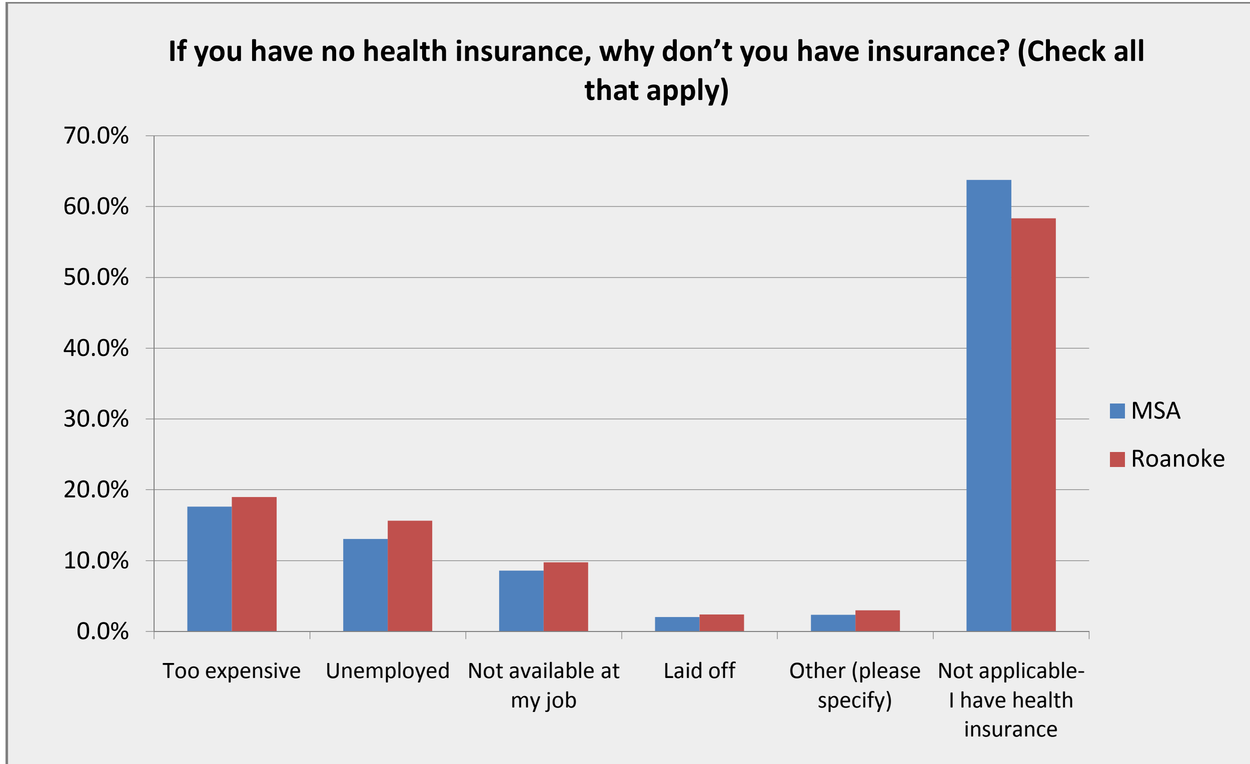


More respondents living in the MSA as a whole had employer provided-health insurance as compared to those in the city, and more city respondents had Medicaid compared to those in the MSA.

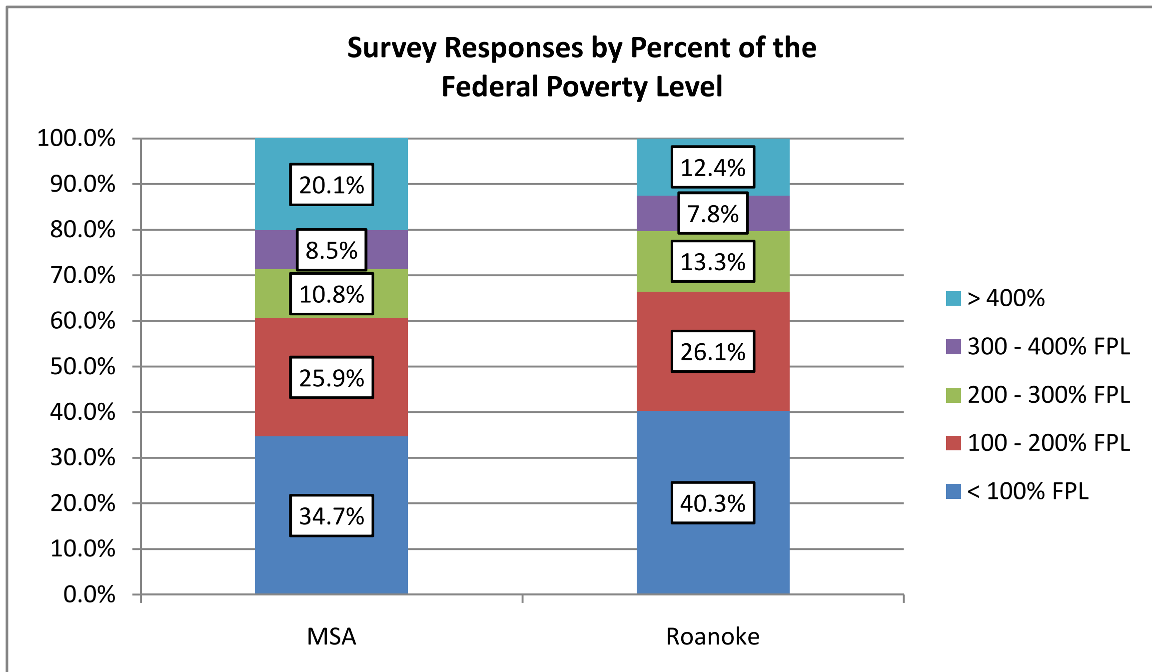


Over one in four respondents did not have health insurance both in the MSA and the city. When asked why they don't have health insurance, the majority cited the following reasons:

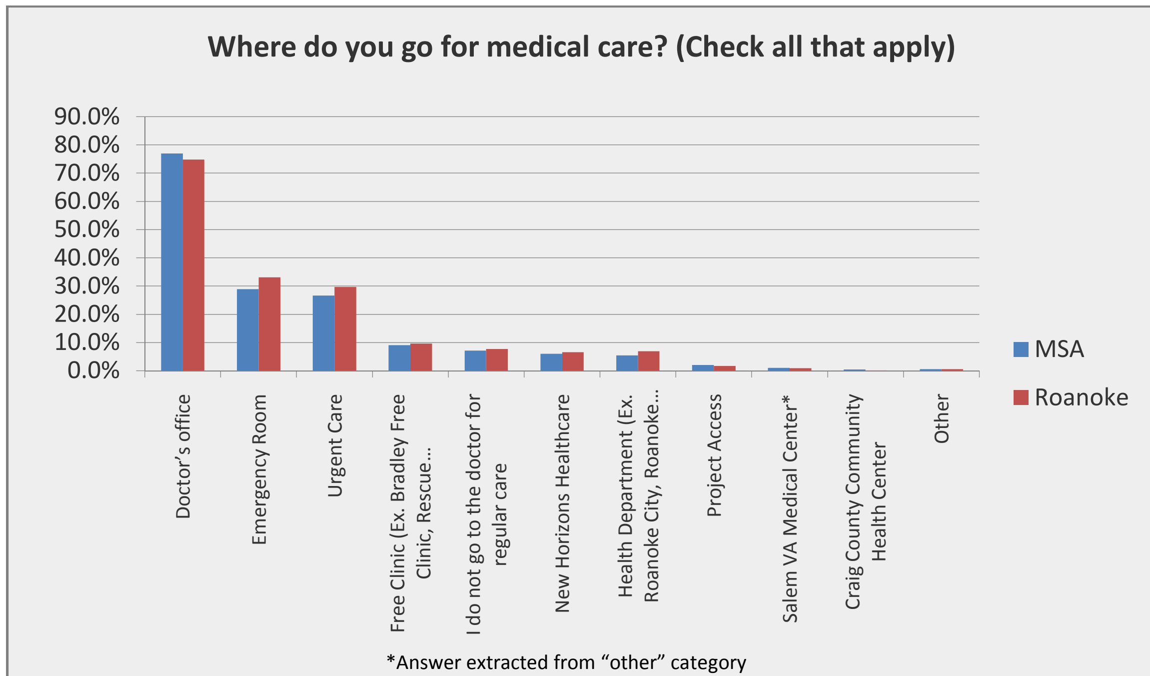
- Too expensive
- Unemployed
- Not available at their job



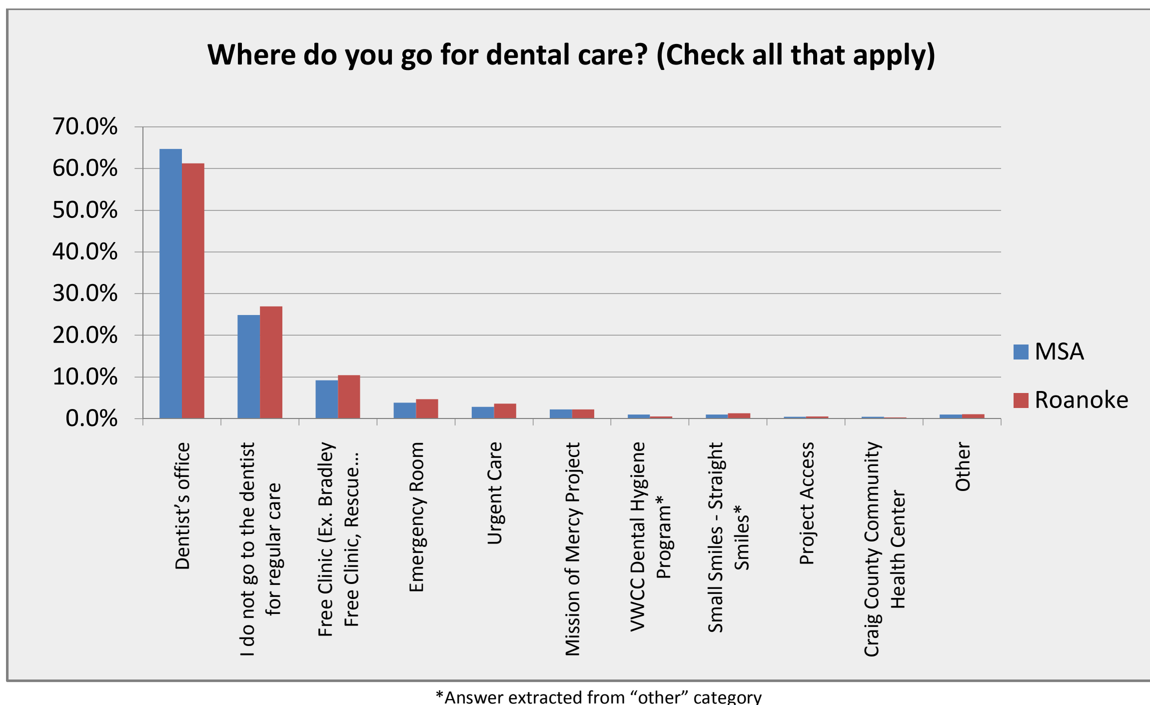
Respondents were asked to report their annual income. Estimated poverty status was determined using the 2012 Federal Poverty Guidelines. More respondents lived below 200% of the Federal Poverty Level (FPL) (66.4% in Roanoke and 60.6% in the MSA) as compared to those living above 200% of the FPL. Over half of those who lived below 200% of the FPL lived below 100% of the FPL.



There were no distinct differences between responses from those living in the MSA compared to those in the city regarding where they go for medical care. The majority (75% or more) used a doctor's office.

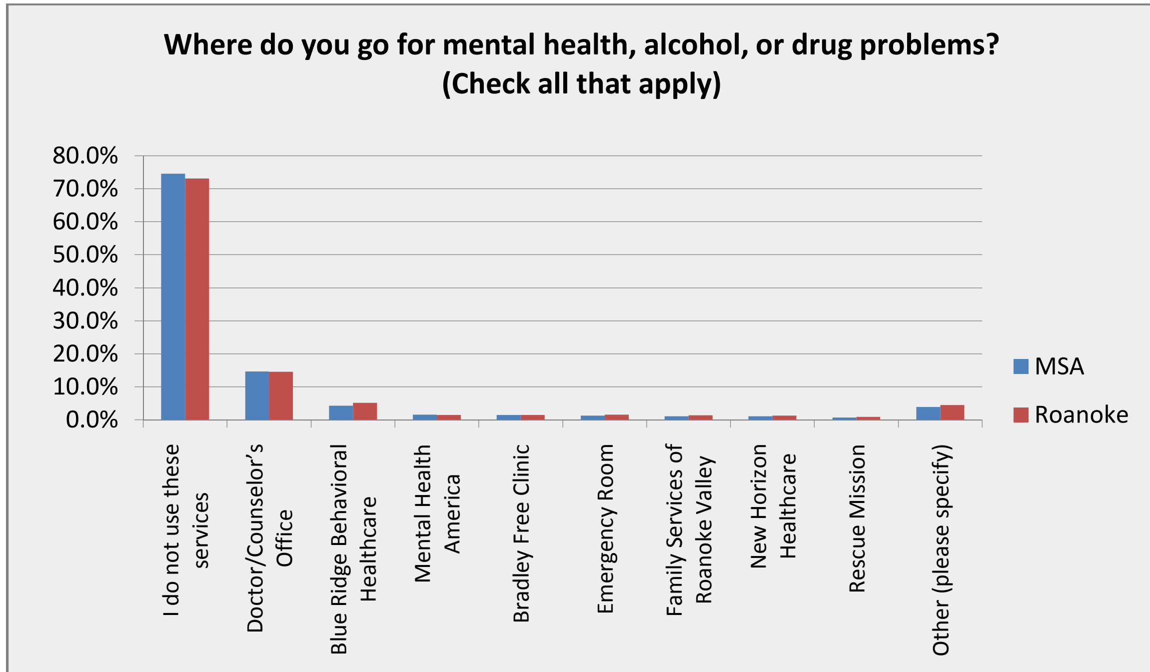


Of all respondents, one in four does not go to the dentist for regular care.

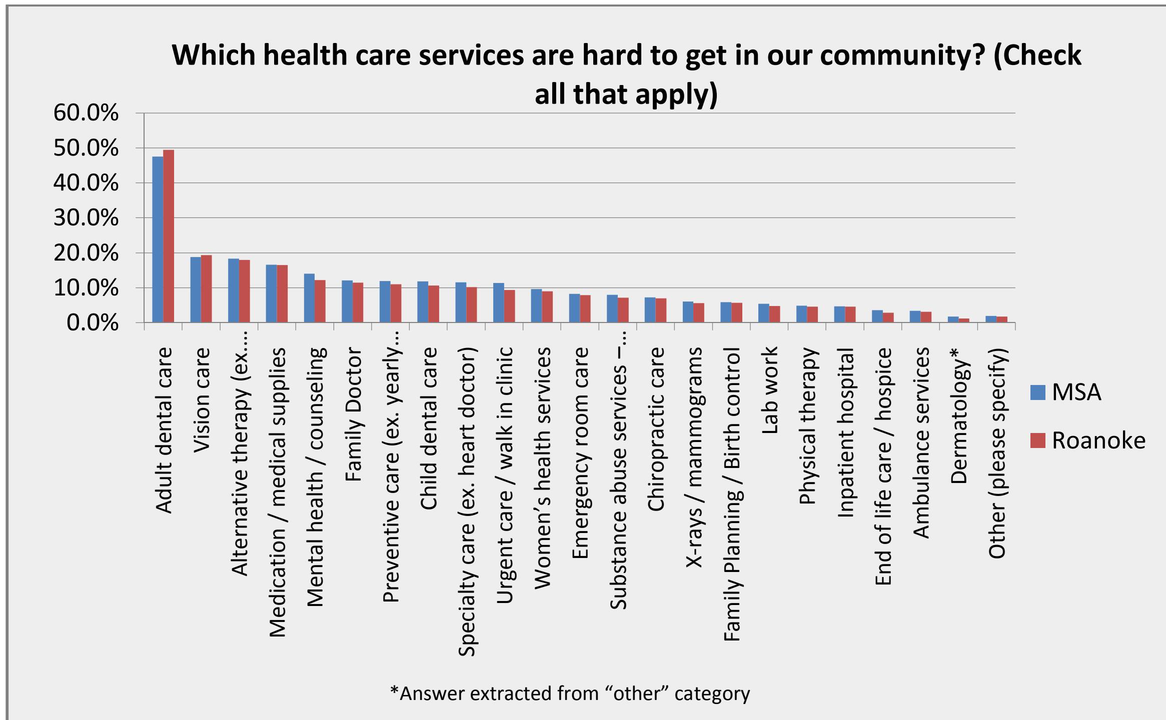


*Answer extracted from "other" category

The vast majority of respondents did not use mental health, alcohol, or drug abuse services. There were no differences between those living in the city compared to the MSA as a whole regarding sources of care for these services.

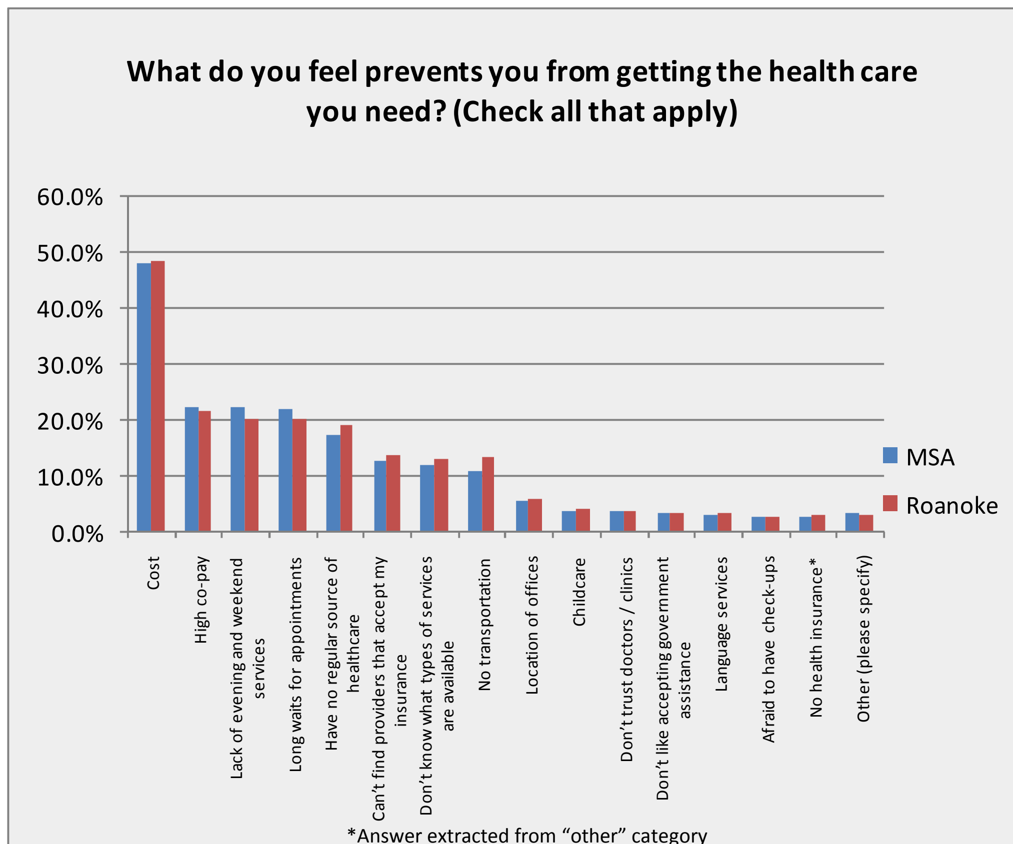


Nearly half of respondents reported that it is most difficult to get adult dental care in the community.

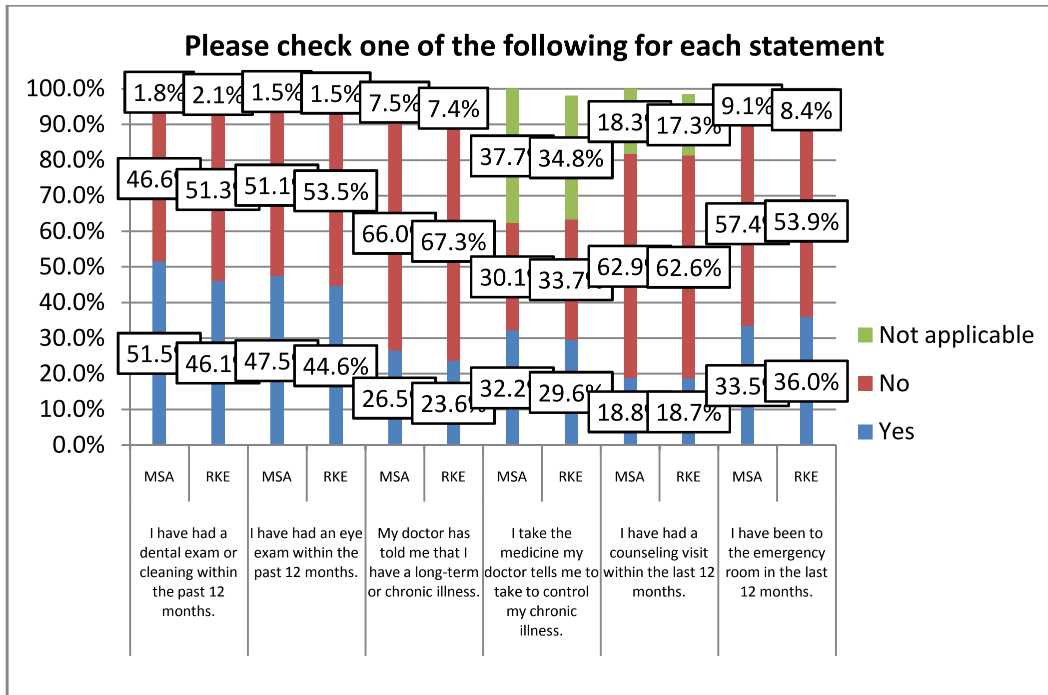


The greatest barriers to health care for respondents living in the city and the MSA as a whole included:

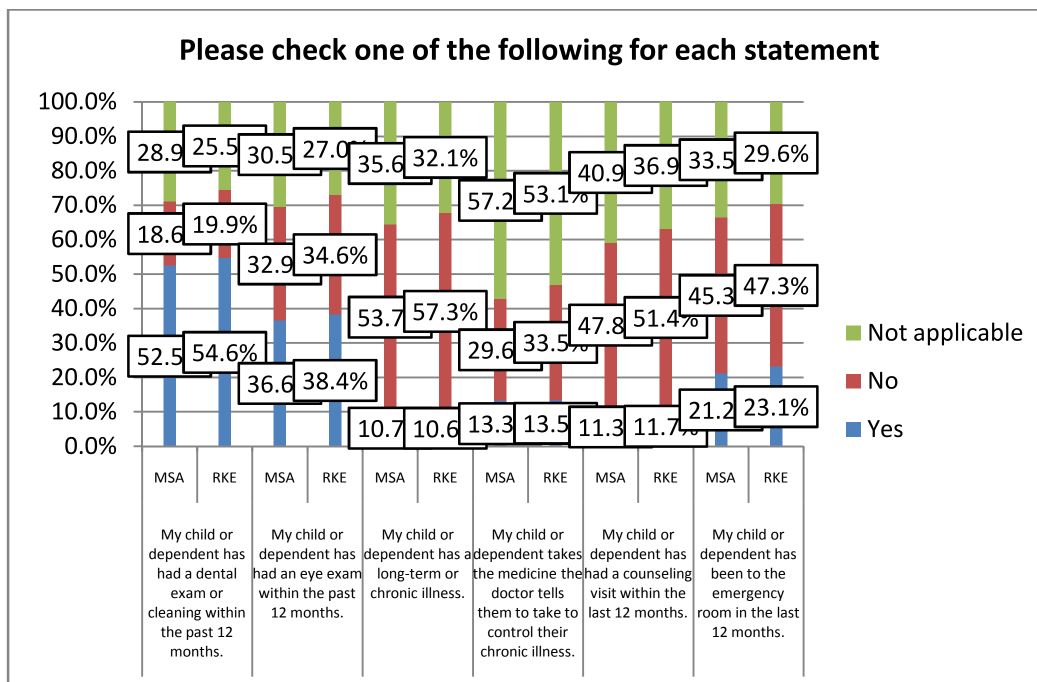
- Cost
- High co-pay
- Lack of convenient hours and long waits for appointments
- Having no regular source of health care
- Lack of providers participating in insurance plans
- Lack of knowledge of available services
- Lack of transportation



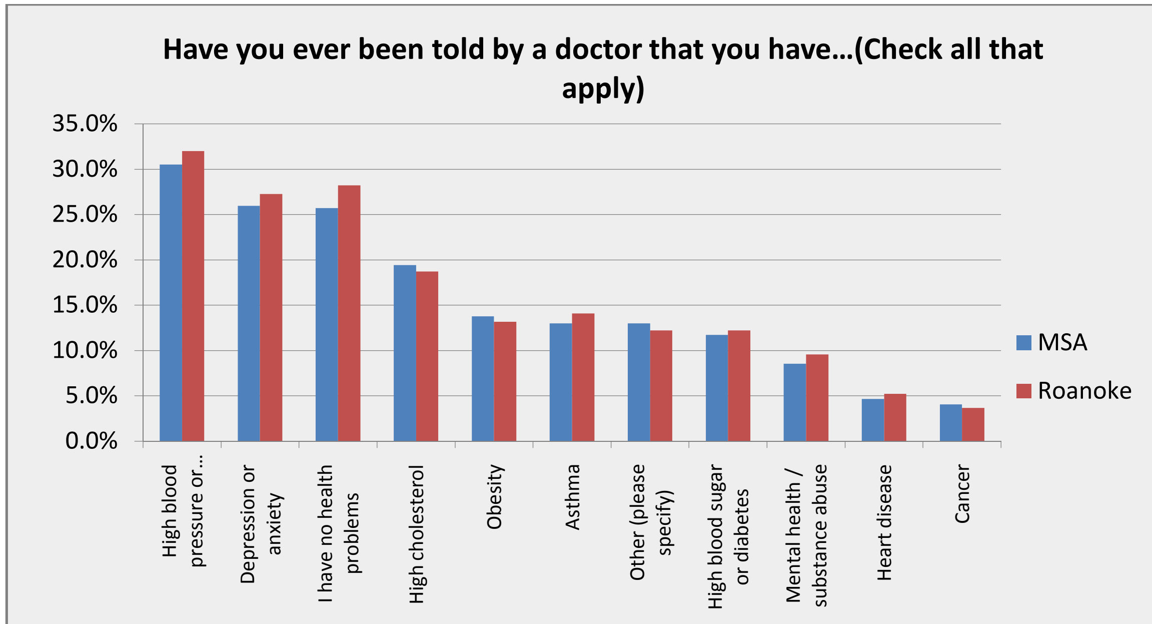
Participants were asked about their health status and behaviors as well as those of their children (when applicable). Of particular concern from these findings is that on average almost half of the adults have not visited a dentist and or had an eye exam in the past year. Close to one in three adults do not take the medications prescribed to control their chronic disease. Slightly over 35% of adults on average visited the Emergency Room in the past year.



For respondents with children, more than half reported that their children visited a dentist and slightly more than 35% reported their children had an eye exam in the past year. Few respondents reported that their children had a chronic illness but of those that did, nearly one-third reported their children did not take the medicine prescribed to control their illness. About one in five respondents reported their children visited the Emergency Room in the past 12 months.



Over 30% of respondents, both in the city and the MSA, reported that they have been told they have high blood pressure; greater than 25% reported they have depression or anxiety; and almost 20% reported having high cholesterol. Greater than one in four respondents reported they had no health problems.



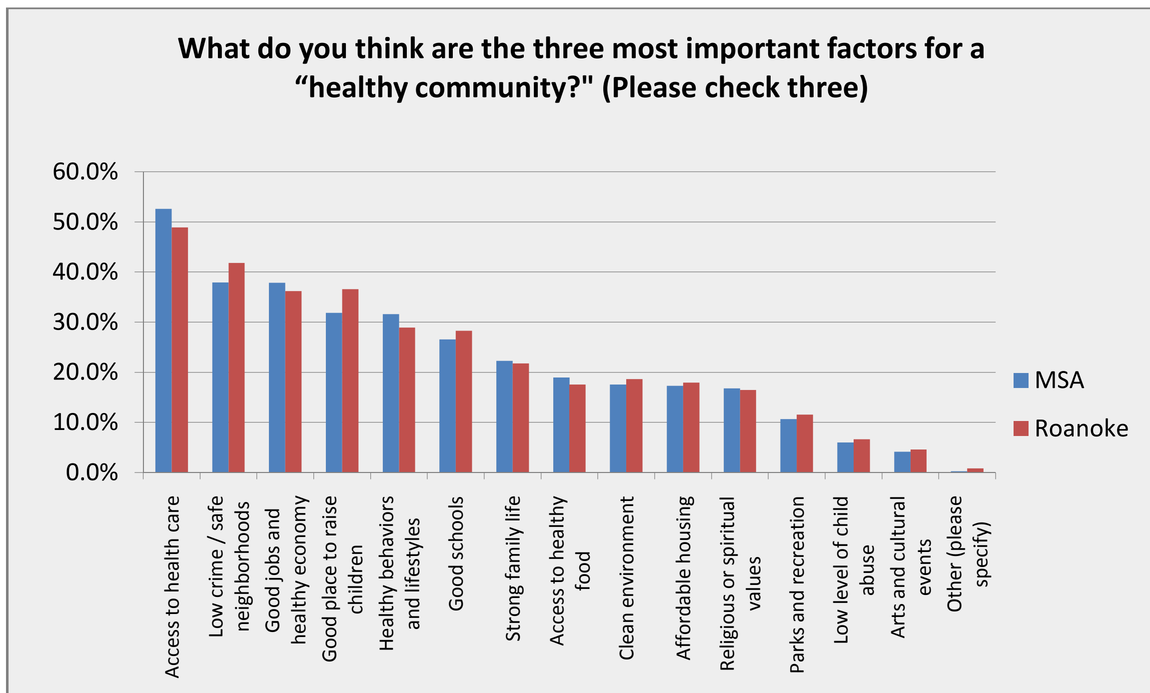
The majority of respondents in both the city and the MSA reported having a checkup in the past year for both themselves and their children (when applicable).

How long has it been since you last visited a doctor for a routine checkup? (Please check one)	MSA	Roanoke
Answer Options	**%**	**%**
Within the past year (1 to 12 months ago)	73.0%	73.4%
Within the past 2 years (1 to 2 years ago)	13.5%	13.2%
Within the past 5 years (2 to 5 years ago)	6.6%	6.3%
5 or more years ago	6.9%	7.0%

If applicable, how long has it been since your child or dependent visited a doctor for a routine checkup? (Please check one)	MSA	Roanoke
Answer Options	**%**	**%**
Within the past year (1 to 12 months ago)	67.5%	71.8%
Within the past 2 years (1 to 2 years ago)	6.5%	6.1%
Within the past 5 years (2 to 5 years ago)	1.6%	1.6%
5 or more years ago	1.5%	1.5%
Not applicable	22.9%	19.1%

Respondents were asked to choose the most important factors for a healthy community. The top four choices included:

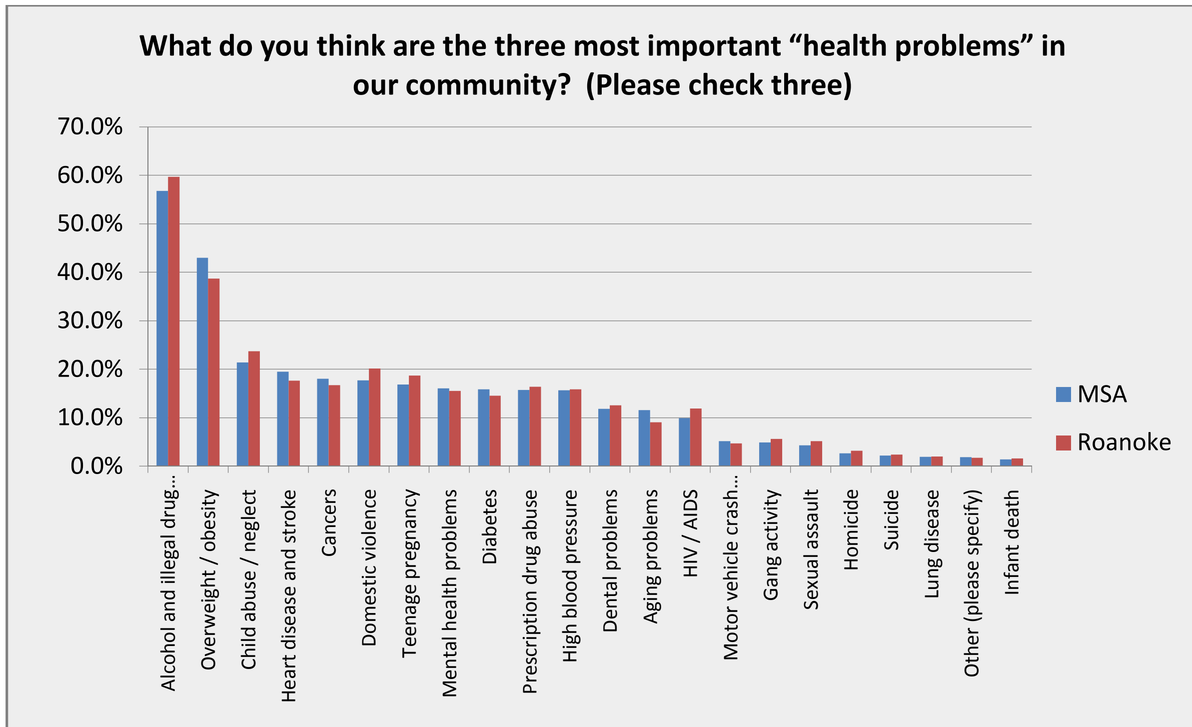
- Access to health care
- Low crime and safe neighborhoods
- Good jobs and a healthy economy
- Good place to raise children



In contrast, respondents were asked to choose the three most important health problems in the Roanoke Valley. The top three choices for both the MSA and city included:

- Alcohol and illegal drug use
- Overweight and obesity
- Child abuse and neglect

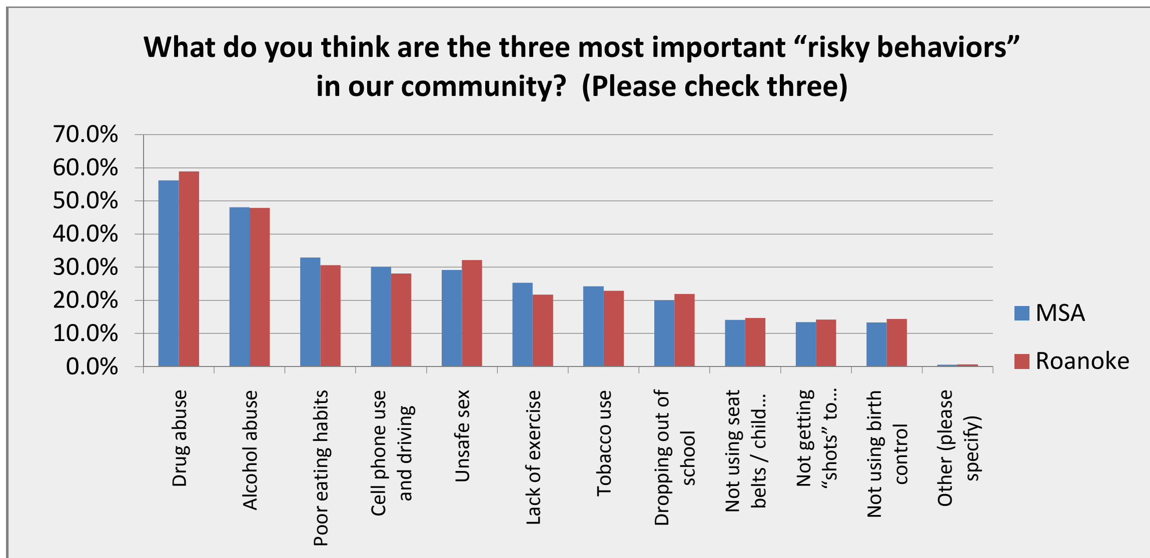
In the MSA, more respondents chose heart disease and stroke as their fourth choice while those in the city chose domestic violence.



When asked which risky behaviors have the greatest impact on the community, the top three choices for both the MSA and city were:

- Drug abuse
- Alcohol abuse
- Poor eating habits

Cell phone use and driving was the fourth top response for the MSA as a whole, while unsafe sex was the fourth choice for those living in the city.



Secondary Data

Demographics and Socioeconomic Status

Population, gender, race and age

From 2000 to 2010, the Roanoke MSA experienced a 7.1% increase in its population, with the greatest growth occurring in Franklin County (18.8%). The city of Roanoke experienced its first growth in the population (2.2%) in the past two decades. In comparison, Virginia experienced a 13.0% increase in its population and there was a 9.7% increase in the United States as a whole.[4] There are currently 97,032 residents in the city of Roanoke and 308,707 in the MSA.[5]

Population projections for 2010 to 2030 predict continued growth in the MSA, especially in Botetourt, Franklin and Roanoke Counties, but a decrease in growth in the city.[6]

Population Change Estimates, 2010 – 2030

(Virginia Employment Commission, 2007, http://www.vawc.virginia.gov/gsipub/index.asp?docid=359)

Geography	2010	2020	2030	% Change 2010 - 2030
Virginia	8,001,024	8,917,396	9,825,019	23%
Botetourt County	33,148	35,756	38,437	16%
Craig County	5,190	5,238	5,311	2%
Franklin County	56,159	57,347	62,443	11%
Roanoke City	97,032	88,503	88,495	-9%
Roanoke County	92,376	99,048	105,889	15%
Salem City	24,802	24,145	24,143	-3%
Roanoke MSA	308,707	310,037	324,718	5%

In this study, five-year population estimates are used when comparing statistics for the MSA, the city of Roanoke and the northwest and the southeast MUAs of the city. From 2006-2010, a total of 35,851 residents lived in the city's MUAs, accounting for 37.4% of the city's population as a whole. The northwest MUA is the most densely populated section of the city, with a population of 27,235 individuals (28.4% of the population), while 8,616 individuals live in the southeast MUA (9.0% of the population in the city). [7]

In the MSA and in the city of Roanoke, 52% of the population is female and 48.2% is male.[8]

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[4] U.S. Census Bureau, QuickFacts, 2011
[5] U.S. Census Bureau, QuickFacts, 2011
[6] Virginia Employment Commission, County Profiles, Source: US Census Bureau, 2007
[7] U.S. Census Bureau, American Community Survey 5-year estimates, 2006-2010
[8] U.S. Census, Table QT-P1, Age Groups and Sex, 2010

The median age in the Roanoke MSA is 41.4 years and in the city of Roanoke is 38.7 years, which is slightly higher than the median age in Virginia as a whole (37.2). Median age for the northwest and southeast MUAs is lower for the city as a whole. [9]

Median Age by Geographic Location

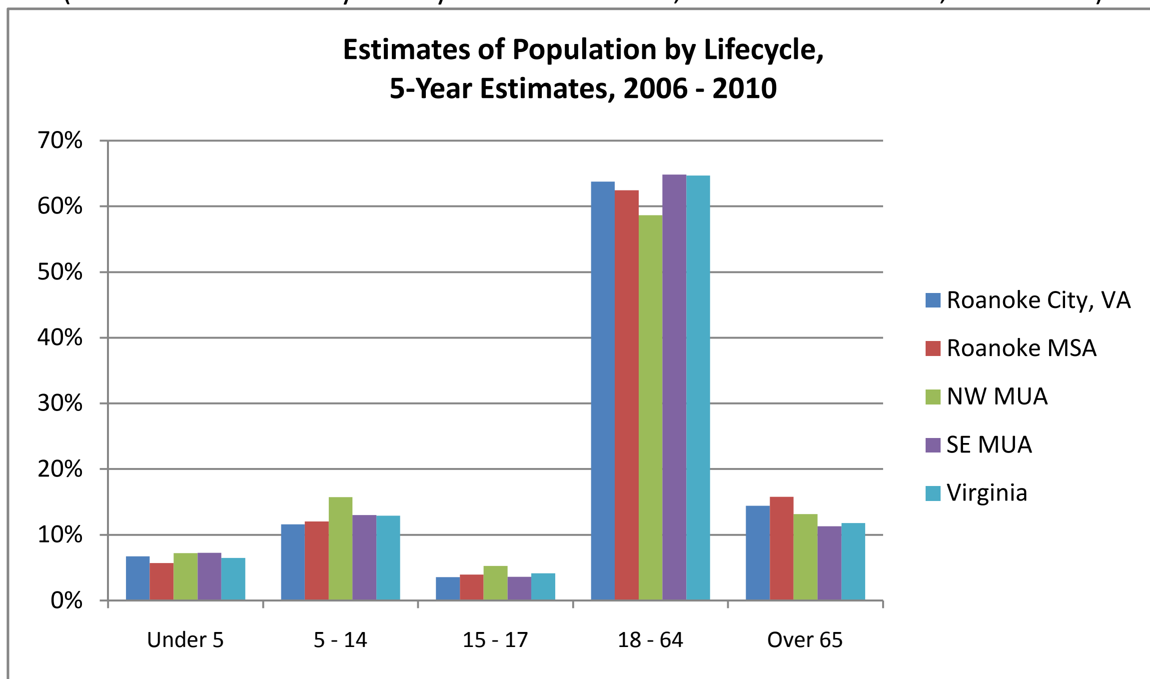
(American Community Survey 5-Year Estimates, U.S. Census Bureau, 2006-2010)

	Roanoke City, VA	Roanoke MSA	NW MUA	SE MUA	Virginia
Median age (years)	38.7	41.4	35.1	37.55	37.2

More children ages 0-17 years live in the northwest and southeast MUA's (28.2% and 23.9% respectively) compared to children living in the city (21.8%), the MSA (21.7%), and Virginia (23.5%). There are slightly more adults ages 18-64 living in the southeast MUA (64.8%) and in Virginia (64.7%) compared to the northwest MUA (58.7%), the city (63.8%), and the MSA (62.5%). There are more seniors 65 years and older living in the MSA (15.8%), the city as a whole (14.4%), and the northwest MUA (13.1%) compared to those living in the southeast MUA (11.3%) and the state (11.8%).[10]

Estimates of Population by Life Cycle, 5-Year Estimates, 2006 - 2010

(American Community Survey 5-Year Estimates, U.S. Census Bureau, 2006-2010)



[9] U.S. Census, American Community Survey 5-Year Estimates, Median Age, 2006-2010
[10] U.S. Census, American Community Survey 5-year Estimates, Age by Sex, 2006-2010

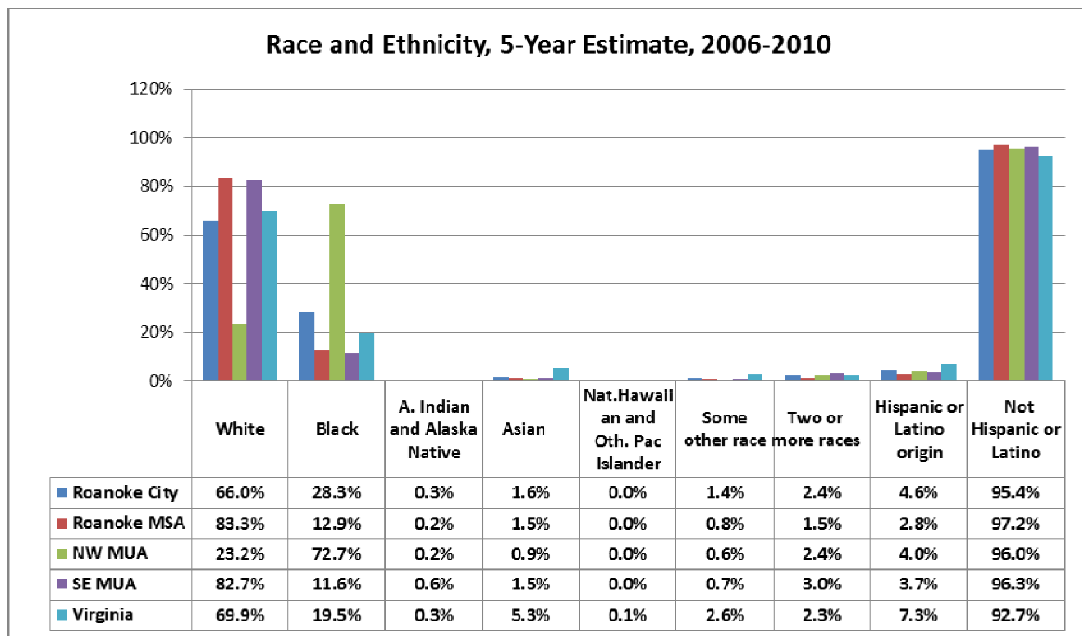
The city of Roanoke serves as a cultural hub in southwest Virginia. Much of the population growth in the city in the past ten years is due to the influx of nearly 4,000 Hispanic residents, accounting for a 280% increase in this population. There was a 9% growth in the number of blacks and 55% growth in the number of Asians living in the city, while the number of whites fell by 5%.[11]

In addition to a growing Hispanic population, the city is seeing increasing numbers of immigrants from around the world. Virginia ranks in the top 15 states for refugee resettlement, and Roanoke has become the largest resettlement site in Virginia for individuals and families from Southeast Asia, Bosnia, Iraq, Haiti, Cuba, Afghanistan and Africa, partly because of its low cost of living and hospitable ways.[12]

In the city of Roanoke, 66% of the population is white, 28.3% is black, and 4.6% is Hispanic compared to 83.3% white, 12.9% black, and 2.8% Hispanic in the MSA. In the northwest MUA, the majority of residents are black (72.7%), with 23.2% white and 4.0% Hispanic. This is in sharp contrast to the southeast MUA, where 82.7% of the population is white, 11.6% of the population is black, and 3.7% is Hispanic.[13]

Race and Ethnicity, 5-Year Estimate, 2006-2010

(American Community Survey 5-Year Estimates, U.S. Census Bureau, 2006-2010)



	White	Black	A. Indian and Alaska Native	Asian	Nat.Hawaiian and Oth. Pac Islander	Some other race	Two or more races	Hispanic or Latino origin	Not Hispanic or Latino
Roanoke City	66.0%	28.3%	0.3%	1.6%	0.0%	1.4%	2.4%	4.6%	95.4%
Roanoke MSA	83.3%	12.9%	0.2%	1.5%	0.0%	0.8%	1.5%	2.8%	97.2%
NW MUA	23.2%	72.7%	0.2%	0.9%	0.0%	0.6%	2.4%	4.0%	96.0%
SE MUA	82.7%	11.6%	0.6%	1.5%	0.0%	0.7%	3.0%	3.7%	96.3%
Virginia	69.9%	19.5%	0.3%	5.3%	0.1%	2.6%	2.3%	7.3%	92.7%

[11] The Roanoke Times: Census 2010: Roanoke's population expands over decade. Lawrence Hammack & Matt Chittum , February 4, 2011

[12] The Roanoke Times, Refugee and Immigration Services director retires after 19 years of service, January 13, 2008

[13] US Census Bureau, American Community Survey, 5-year estimates, 2006-2010

Roanoke City Public Schools continues to experience an increase in the minority populations it serves, especially children who are Hispanic. In the current school year, the school system reports that 9.2% of the children in elementary schools, 6.8% in middle schools, and 5.6% in the high schools are Hispanic. This presents a challenge in the classroom, where more and more children have limited English proficiency.[14]

Roanoke City Public Schools Race / Ethnicity, 2011 – 2012

(Roanoke City Public Schools, Membership Summary by Race, Grades PK-12, September 30, 2011)

Roanoke City Public Schools Race/Ethnicity (2011-12)								
	Hispanic	American Indian/Alaskan Native	Asian	Black or African American	White	Native Hawaiian/Other	2 or more	Total
Elementary Schools (%)	9.2%	0.2%	2.5%	41.9%	42.6%	0.0%	3.6%	
Middle Schools	185	3	63	1269	1091	1	114	2726
Middle Schools (%)	6.8%	0.1%	2.3%	46.6%	40.0%	0.0%	4.2%	
High Schools	199	18	125	1630	1429	1	175	3577
High Schools (%)	5.6%	0.5%	3.5%	45.6%	39.9%	0.0%	4.9%	
District Grand Total	1008	35	361	5743	5410	4	533	13094
District Grand Total (%)	7.7%	0.3%	2.8%	43.9%	41.3%	0.0%	4.1%	

In the City of Roanoke, 7.7% of the population 5 years and over speaks a language other than English at home compared to 5.9% in the MSA, 14.1% in Virginia, and 20.1% in the United States. In the MSA, more individuals 5 years and over who speak a language other than English at home live in Roanoke County and the city of Salem and the city Roanoke compared to other localities in the MSA.[15]

Population 5 years and over whom speak a language other than English at home

(American Community Survey 5-Year Estimates, U.S. Census Bureau, 2006-2010)

Locality	#	%
Botetourt	631	2.0%
Craig	36	0.7%
Franklin	1883	3.6%
Roanoke	6015	6.9%
Roanoke City	6901	7.7%

[14] Roanoke City Public Schools, Membership Summary by Race, Grades PK-12, September 30, 2011
[15] Us Census Bureau, American Community Survey, 5-year estimates, 2006-2010

Locality	#	%
Salem City	1488	6.4%
Roanoke MSA	16954	5.9%
Virginia	1036378	14.1%

Academic Attainment

There is a direct link to educational attainment, health literacy, and positive health outcomes. According to the most recent Virginia Health Equity report, Virginians who don't attend, or complete, high school are more likely to die of heart disease, cancer and a dozen other leading causes of death than those who earn a diploma.[16]

In the Roanoke MSA, a total of 38,585 children are enrolled in public schools. More students are enrolled in Roanoke County Public Schools (14,494 students) than any other school system in the MSA, accounting for 37.5% of the student population.

In the city of Roanoke, there is one public school division, Roanoke City Public Schools, consisting of 17 elementary, five middle, and two high schools with an enrollment of 13,154.[17] In addition there are two alternative Roanoke City Public Schools– one for over-age students and the second for students with disciplinary problems and four private schools located in the City– Community School, Parkway Christian Academy, Roanoke Adventist Preparatory School and Roanoke Catholic Schools.

Education attainment in the MUAs of the city of Roanoke is lower than in any other locality in the MSA and in the state as a whole. Only 37.5% of the population 25 years and over in the northwest MUA and 31.8% of the population in the southeast MUA has a high school diploma, while only 5.2% in the northwest MUA and 2.5% in the southeast MUA have a Bachelor's Degree or higher.[18]

[16] Virginia Department of Health, Virginia Health Equity Report, 2012 http://www.vdh.state.va.us/healthpolicy/Documents/Health%20Equity%20Report%202012-%20FINAL%207-31-12.pdf

[17] Virginia Department of Education, Annual Report of Student Free & Reduced Eligibility Data by School Division, 2011-2012, published January 25, 2012

[18] U.S. Census Bureau, American Community Survey 5-year estimates, 2006-2010

Academic Attainment for Population 25 and Over, 5-Year Estimate, 2006-2010

(American Community Survey 5-Year Estimates, U.S. Census Bureau, 2006-2010)

	Percent high school graduate or higher	Percent bachelor's degree or higher
Botetourt County	44.6%	11.5%
Craig County	41.7%	6.8%
Franklin County	40.0%	7.6%
Roanoke County	44.9%	16.3%
Roanoke City	40.5%	11.0%
Salem City	43.8%	14.6%
NW MUA	37.5%	5.2%
SE MUA	31.8%	2.5%
Virginia	43.1%	16.9%

On-time graduation rates for all students in the city of Roanoke (75.7%) are lower than for students in the MSA and in the state, although graduation rates in the city improved by 8% from the 2010 to 2011 school year. Improvements were seen at both city high schools. On-time graduation rates for students in the city with Limited English Proficiency are 64% and for homeless students 60%. Graduation rates are highest in the MSA for Roanoke County (91.8%) and Botetourt County Public Schools (91.0%).[19]

On-Time Graduation Rates, Roanoke MSA Localities

(Virginia Department of Education, 2011)

MSA Localities	2009	2010	2011
Botetourt County	84.8%	90.1%	91.0%
Craig County	81.0%	86.3%	87.3%
Franklin County	80.1%	87.7%	85.2%
Roanoke County	89.8%	91.2%	91.8%
Roanoke City	66.5%	67.7%	75.7%
Salem City	88.3%	89.1%	88.0%
Virginia	83.2%	85.5%	86.6%

[19] Virginia Department of Education, Division Level and Drop-out Rates, 2011

On-Time Graduation Rates, Roanoke City High Schools

(Virginia Department of Education, 2011)

	2009	2010	2011
Patrick Henry High	68.1%	66.4%	79.1%
William Fleming High	65.1%	69.3%	71.5%
Virginia	83.2%	85.5%	86.6%

Roanoke City Public Schools has the worst dropout rate in the MSA, with 12.2% of students dropping out in the 2010-2011 school year. Again there was almost a 7% improvement from the previous school year at both of the city high schools.[20]

Dropout Rates, Roanoke MSA Localities

(Virginia Department of Education, 2011)

Locality	2009	2010	2011
Botetourt County	6.0%	4.3%	5.3%
Craig County	8.6%	9.8%	3.2%
Franklin County	10.0%	5.1%	6.8%
Roanoke County	4.6%	5.1%	4.0%
Roanoke City	17.8%	19.0%	12.2%
Salem City	4.4%	4.7%	3.7%
Virginia	7.9%	8.2%	7.0%

Dropout Rates, Roanoke City High Schools

(Virginia Department of Education, 2011)

Location	2009	2010	2011
Patrick Henry	17.3%	17.8%	10.9%
William Fleming	18.4%	20.6%	13.7%
Virginia	7.9%	8.2%	7.0%

Total Action Against Poverty's Head Start program offers pre-school opportunities to at-risk children living in the Roanoke Valley as well as in neighboring Alleghany and Rockbridge Counties. There are 11 Head Start locations in the city of Roanoke serving pre-schoolers, infants and toddlers. In the 2010-2011 school year, 213 children were enrolled in Early Head

[20] Virginia Department of Education, Division Level and Drop-out Rates, 2011

Start and 784 children were enrolled in Head Start programs. Baseline eligibility for Head Start is children living at or below 100% of the Federal Poverty Level and transitions to a point system for those above 100%. Parents must be in school, working, or a combination of the two for at least 30 hours per week.[21]

The Roanoke and adjoining New River Valleys boast several institutions of higher learning. Roanoke College and Hollins University are located within the MSA. Virginia Tech, the largest land grant university in Virginia, with nationally recognized research programs, is located in neighboring Montgomery County, as is the Edward Via College of Osteopathic Medicine. Radford University, located in the independent city of Radford in the New River Valley, is a state university and is the site of the Waldron College of Health and Human Services, which houses the School of Nursing, School of Social Work, Communication Sciences and Disorders, and the newly formed occupational therapy program, as well as the Speech and Hearing Clinic, Child Advocacy Center, and Family Access to Medical Insurance Security (FAMIS) Outreach program. In addition, Radford University's Department of Psychology offers graduate degrees in clinical psychology and counseling.

The city of Roanoke is home to Virginia Western Community College and Carilion Clinic's medical education programs including the Virginia Tech Carilion (VTC) School of Medicine and Research Institute, ten residency programs and nine fellowships. Additionally, the Jefferson College of Health Sciences, which offers 13 degree programs (Associate's, Bachelor's and Master's) in nursing and allied health is, part of the Carilion Clinic education system in the city.

[21] Total Action Against Poverty (TAP) Program Information Report 2011

Income and Poverty Status

In the MSA, median household incomes in the northwest and southeast MUAs of the city of Roanoke are more than half the median income statewide and the lowest in the MSA. In addition, the median income in the city of Roanoke is lower compared to all other localities in the MSA and the state. Botetourt and Roanoke counties have the highest median incomes in the MSA.[22]

Median Household Income, 5-Year Estimate, 2006-2010

(American Community Survey 5-Year Estimates, U.S. Census Bureau, 2006 - 2010)

Location	Median Income
Botetourt County	$64,724
Craig County	$51,291
Franklin County	$45,555
Roanoke County	$59,446
Roanoke City	$36,422
Salem City	$48,828
Roanoke MSA	$48,032
NW MUA	$27,447
SE MUA	$27,846
Virginia	$61,406

The Federal Poverty Guidelines (FPL) are used to determine eligibility for many local, state and federal assistance programs. The FLP is based on an individual's or family's annual cash income before taxes. Updated yearly by the Census Bureau, the 2012 guidelines are provided below as a reference.[23]

2012 Federal Poverty Guidelines for the 48 Contiguous States and the District of Columbia	
Persons in family/household	**Poverty guideline**
1	$11,170
2	15,130
3	19,090
4	23,050
5	27,010

[22] U.S. Census Bureau, American Community Survey 5-year estimates, 2006-2010
[23] http://aspe.hhs.gov/poverty/12poverty.shtml/#guidelines

2012 Federal Poverty Guidelines for the 48 Contiguous States and the District of Columbia	
Persons in family/household	**Poverty guideline**
6	30,970
7	34,930
8	38,890
For families/households with more than eight persons, add $3,960 for each additional person.	

The guidelines reflect 100% of the FPL. To calculate 200% of the FPL, multiply the listed income level by two.

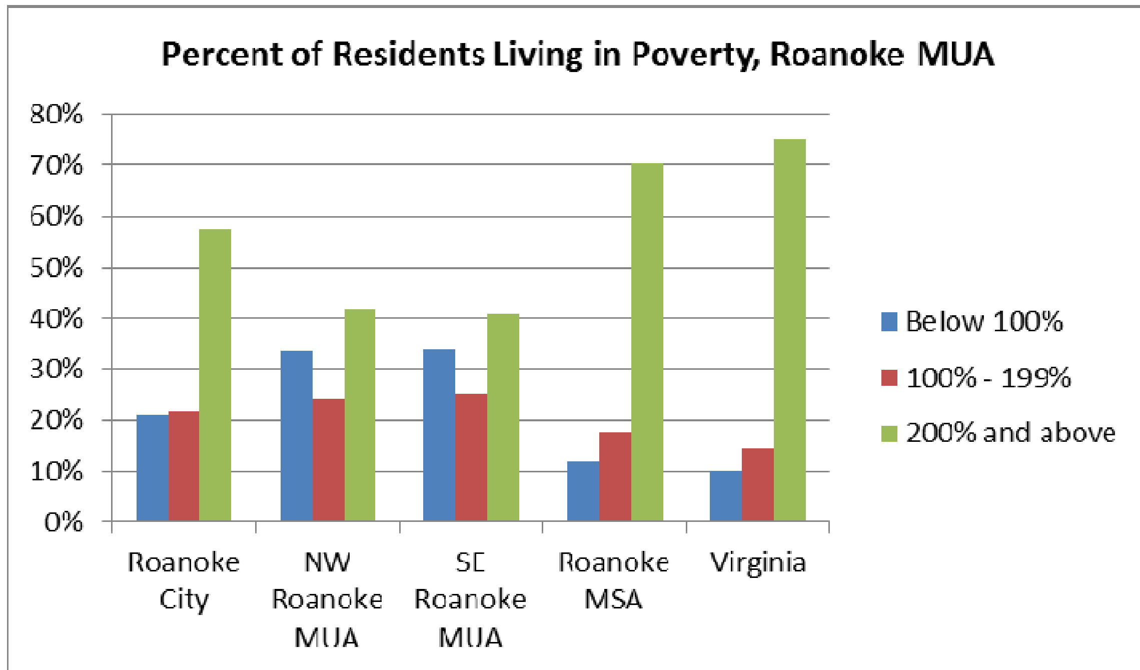
In the city of Roanoke, 42.6% of residents for whom poverty was determined live below 200% of the FPL as compared to 29.7% in the MSA, 24.9% in Virginia, and 32% in the United States. Even more startling is that close to 60% of residents in the northwest and southeast MUA's live below 200% of poverty (58.0% in the northwest and 59.1% in southeast) with the majority of these residents living below 100% of poverty (33.8% in northwest and 34.1% in southeast).[24]

Number of Residents Living in Poverty, 2006-2010

(US Census Bureau, American Community Survey 5-year Estimates, 2006-2010)

	Below 100% FPL		100- 199% FPL		200% FPL and above		Total	
	#	%	#	%	#	%	#	%
United States	40,917,513	13.8	53,775,904	18.2	201,447,732	68.0	296,141,149	100
Virginia	781,516	10.3	1,107,228	14.6	5,706,642	75.1	7,595,386	100
Botetourt County	1,783	5.6	4,445	13.8	25,866	80.6	32,094	100
Craig County	364	7.2	961	19.1	3,702	73.6	5,027	100
Franklin County	7,069	13.2	12,205	22.8	34,266	64	53,540	100
Roanoke County	4,550	5.1	11,003	12.3	73,935	82.6	89,488	100
Salem City	2,002	8.8	3,873	17.1	16,813	74.1	22,688	100
Roanoke City	19,627	20.9	20,398	21.7	54,056	57.5	94,081	100
NW Roanoke MUA	9,125	33.8	6,547	24.2	11,336	42.0	27,008	100
SE Roanoke MUA	2,921	34.1	2,141	25.0	3,499	40.9	8,561	100
Roanoke MSA	35,395	11.9	52,885	17.8	208,638	70.3	296,918	100

[24] U.S. Census Bureau, American Community Survey 5-year Estimates, 2006-2010



In the city of Roanoke, a disproportionate number of children less than 6 years of age (62.4%) and 6-17 years of age (59.4%) live below 200% of FPL. These rates are even more alarming for children living in the MUAs, where 87.0% of children less than 6 years of age and 77.7% of children 6-17 years of age in the northwest MUA live below 200% FPL. In the southeast MUA, 83.1% of children less than 6 years of age and 73.2% of children 6-17 years of age live below 200% of the FPL. In addition to the city of Roanoke and the MUAs, almost half of children less than 6 years of age (47.8%) and children 6-17 years (49.8%) in Franklin County live below 200% of the FPL. The majority of the children living in the city of Roanoke, the MUAs, and in Franklin County live below 100% of FPL. In each of these areas, the number of children below 100% FPL is higher compared to the MSA as a whole, the state and nation.[25]

Ratio of Income by Poverty Status by Age, Roanoke MSA & MUA

(American Community Survey 5-Year Estimates, U.S. Census Bureau, 2006 - 2010)

< 6 years of age						
	Below 100% FPL		100-199% FPL		200% FPL & over	
	#	%	#	%	#	%
United States	5,223,584	22.0%	5,379,266	22.6%	13,152,913	55.4%
Virginia	92,913	15.5%	110,847	18.5%	394,024	65.9%
Roanoke MSA	4,517	21.7%	4,703	22.6%	11,631	55.8%
Botetourt County	198	9.0%	364	16.5%	1,640	74.5%
Craig County	15	4.6%	108	32.9%	205	62.5%

[25] U.S. Census Bureau American Community Survey 5-year estimates, 2006-2010

< 6 years of age						
	Below 100% FPL		100-199% FPL		200% FPL & over	
	#	%	#	%	#	%
Franklin County	641	18.8%	990	29.0%	1,783	52.2%
Roanoke County	660	11.5%	937	16.3%	4,150	72.2%
Salem City	208	13.3%	362	23.1%	997	63.6%
Roanoke City	2,795	36.8%	1,942	25.6%	2,856	37.6%
NW MUA	1,426	61.2%	602	25.8%	301	12.9%
SE MUA	470	60.2%	179	22.9%	132	16.9%

6-17 years						
	Below 100% FPL		100-199% FPL		200% FPL & over	
	#	%	#	%	#	%
United States	8,756,913	17.8%	10,439,998	21.3%	29,897,626	60.9%
Virginia	150,326	12.4%	207,995	17.1%	856,348	70.5%
Roanoke MSA	6,958	15.7%	9,588	21.7%	27,643	62.6%
Botetourt County	208	4.2%	877	17.6%	3,911	78.3%
Craig County	82	12.2%	124	18.4%	467	69.4%
Franklin County	1,666	20.9%	2,299	28.9%	3,995	50.2%
Roanoke County	741	5.2%	2,135	14.9%	11,436	79.9%
Salem City	200	6.0%	552	16.5%	2,592	77.5%
Roanoke City	4,061	31.5%	3,601	27.9%	5,242	40.6%
NW MUA	2,380	45.8%	1,659	31.9%	1,161	22.3%
SE MUA	467	38.3%	426	34.9%	326	26.7%

Of adults 18-64 years of age, 38.1% who live in the city and over half who live in the MUAs live below 200% of the FPL as compared to 26.2% in the MSA, 22.0% in Virginia, and 28.5% in the United States. Over half of these adults in the city and MUAs live below than 100% of the FPL. In Franklin County, 31.8% of adults live below 200% of the FPL.

Over half the seniors 65 years of age and older in the southeast MUA, 41.8% in the northwest MUA, and 34.8% in the city of Roanoke live below 200% of poverty as compared to 30.0% in the MSA, 27.9% statewide, and 32.0% nationally. In Franklin County, 34.9% of seniors live below 200% of the FPL.

18-64 years						
	Below 100% FPL		100-199% FPL		200% FPL & over	
	#	%	#	%	#	%
United States	23,382,725	12.6%	29,529,192	15.9%	13,152,913	71.5%
Virginia	462,219	9.5%	612,626	12.5%	3,806,688	78.0%
Roanoke MSA	20,618	11.1%	28,163	15.1%	137,358	73.8%
Botetourt County	1,076	5.4%	1,866	9.4%	16,875	85.2%
Craig County	203	6.1%	580	17.4%	2,552	76.5%
Franklin County	4,076	12.3%	6,483	19.5%	22,656	68.2%
Roanoke County	2,538	4.6%	5,381	9.7%	47,595	85.7%
Salem City	1,397	10.1%	2,128	15.4%	10,282	74.5%
Roanoke City	11,328	18.7%	11,725	19.4%	37,398	61.9%
NW MUA	4,756	29.8%	3,386	21.2%	7,837	49.0%
SE MUA	1,764	31.6%	1,253	22.4%	2,570	46.0%

65 years & >						
	Below 100% FPL		100-199% FPL		200% FPL & over	
	#	%	#	%	#	%
United States	3,554,291	9.5%	8,427,448	22.5%	25,419,022	68.0%
Virginia	76,058	8.4%	175,760	19.5%	649,582	72.1%
Roanoke MSA	3,302	7.2%	10,431	22.8%	32,006	70.0%
Botetourt County	301	5.9%	1,338	26.3%	3,440	67.7%
Craig County	64	9.3%	149	21.6%	478	69.2%
Franklin County	686	7.7%	2,433	27.2%	5,832	65.2%
Roanoke County	611	4.4%	2,550	18.3%	10,754	77.3%
Salem City	197	5.0%	831	20.9%	2,942	74.1%
Roanoke City	1,443	11.0%	3,130	23.8%	8,560	65.2%
NW MUA	563	16.1%	900	25.7%	2,037	58.2%
SE MUA	220	22.6%	283	29.1%	471	48.4%

In the city of Roanoke more whites live in poverty (19%) as compared to those living in the MSA (11%) and Virginia (9%). More blacks live in poverty in both the city (39%) and the MSA (34%) as compared to the statewide averages (19%).[26]

[26] U.S. Census Bureau, American Community Survey, 1-year estimates, 2010

Income in the Past 12 Months Below Poverty Level by Race, 2010

(American Community Survey 1-Year Estimates, U.S. Census Bureau, 2010)

Geography	White			Black		
	Population	Number in Poverty	Percent	Population	Number in Poverty	Percent
Virginia	5,423,319	483,098	9%	1,495,444	284,105	19%
Roanoke city	63,497	12,290	19%	27,776	10,722	39%
Roanoke MSA	247,307	26,663	11%	38,054	13,010	34%

The Roanoke City Department of Social Services works to promote self-sufficiency while providing support and protection to the citizens of the city through the delivery and coordination of community-based social services. Services include financial assistance programs, including aid to families with dependent children-foster care; emergency assistance and energy assistance; Medicaid and FAMIS enrollment; the Supplemental Nutrition Assistance Program (SNAP) and the Temporary Assistance for Needy Families (TANF); and state and local hospitalization. Other support programs include adult and child protective services; prevention services for families; foster care and adoption services; and child-care development.

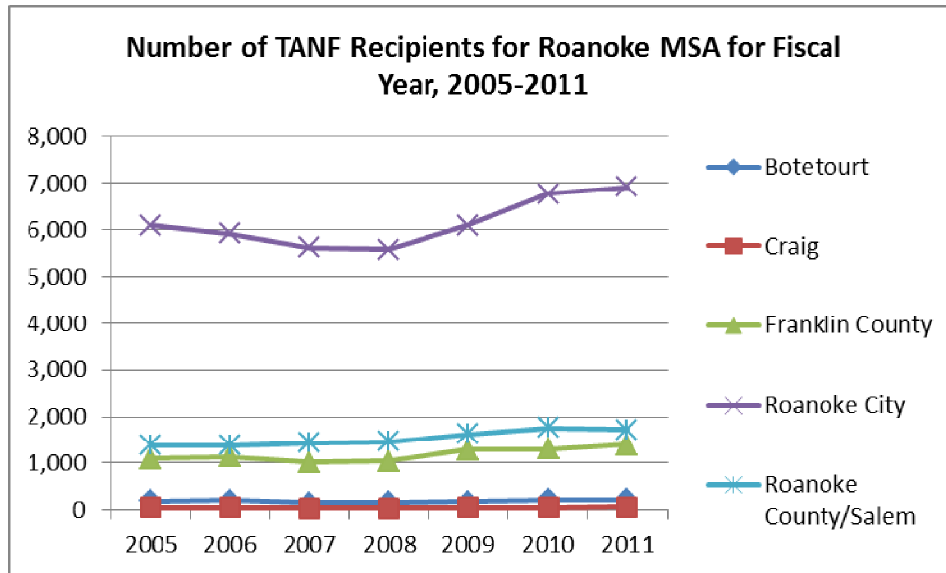
Since 2005, the Roanoke City Department of Social Services has experienced a steady increase in the number of residents enrolled in the SNAP and TANF programs.[27]

Number of TANF Recipients for Roanoke MSA for Fiscal Year, 2005-2011

(Virginia Department of Social Services, 2012)

	2005	2006	2007	2008	2009	2010	2011
Botetourt	198	200	155	158	175	219	223
Craig	57	55	46	45	55	59	67
Franklin County	1,106	1,147	1,015	1,048	1,291	1,302	1,398
Roanoke City	6,087	5,921	5,611	5,580	6,098	6,773	6,918
Roanoke County/Salem	1,383	1,386	1,438	1,467	1,623	1,762	1,720

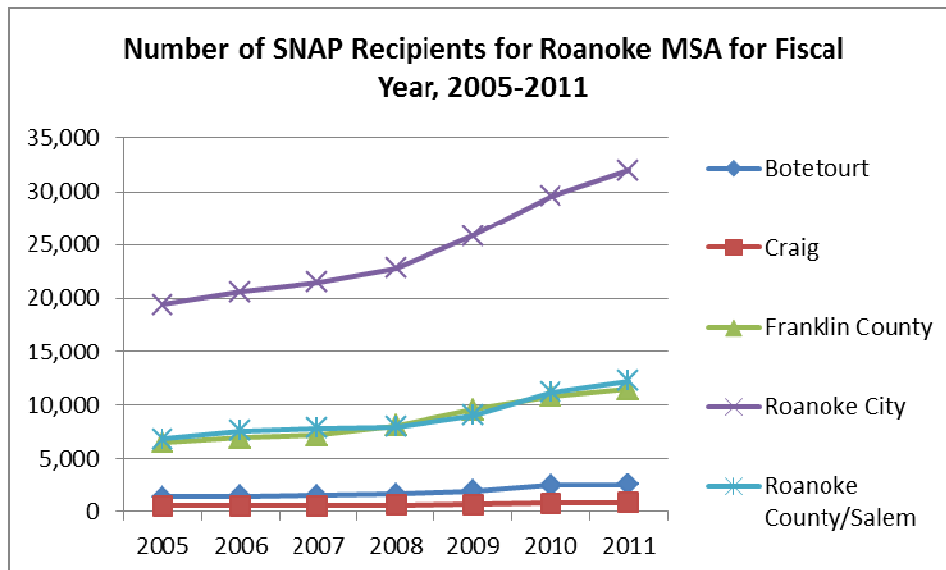
[27] Virginia Department of Social Services, Department of Social Services Profile Report, 2012
http://www.dss.virginia.gov/geninfo/reports/agency_wide/ldss_profile.cgi



Number of SNAP Recipients for Roanoke MSA for Fiscal Year, 2005-2011

(Virginia Department of Social Services, 2012)

	2005	2006	2007	2008	2009	2010	2011
Botetourt County	1,372	1,459	1,481	1,634	1,929	2,461	2,522
Craig County	517	542	533	578	662	800	829
Franklin County	6,550	6,928	7,163	8,091	9,582	10,818	11,442
Roanoke City	19,436	20,626	21,476	22,766	25,844	29,553	31,978
Roanoke County/Salem	6,822	7,586	7,840	7,974	9,054	11,141	12,248



Of the children currently enrolled in TAP Head Start programs, an average of 58% live below 100% of the FPL and 22% receive public assistance (TANF, SNAP).

In the city of Roanoke, 68.0% of children and adolescents are enrolled in the Free and Reduced Lunch Program, as compared to 42.4% in the MSA and 39.7% for Virginia school districts as a whole.[28] Half of the school children in Franklin County and nearly half in Craig County are enrolled in the Free and Reduced Lunch Program.

Students Eligible for Free and Reduced Lunch Program, 2011- 2012

(Virginia Department of Education, Office of School Nutrition Program,
National School Lunch Program Free & Reduced Price Eligibility Report, October 31, 2011)

Locality	% Eligible for Free or Reduced Lunch 2011
Botetourt County	22.0%
Craig County	43.3%
Franklin County	50.1%
Roanoke County	25.0%
Roanoke City	68.0%
Salem City	32.3%
Roanoke MSA	42.4%
Virginia	39.7%

The elementary, middle and high schools with the greatest number of children enrolled in free and reduced lunches are located in the MUAs in the northwest and southeast quadrants of the city.

Roanoke City Public Schools Free and Reduced Lunch Eligibility October 2011

	SNAP Membership	Free Lunch Eligible	% Free Lunch Eligible	Reduced Lunch Eligible	% Reduced Lunch Eligible	Total F/R Lunch Eligible	% Total F/R Lunch Eligible
Elementary Schools							
CRYSTAL SPRING	404	68	16.8%	16	4.0%	84	20.8%
***FAIRVIEW**	517	371	71.8%	30	5.8%	401	77.6%
***FALLON PARK**	595	498	83.7%	38	6.4%	536	90.1%
FISHBURN PARK	315	130	41.3%	33	10.5%	163	51.8%
GARDEN CITY	334	212	63.5%	29	8.7%	241	72.2%
GRANDIN COURT	360	108	30.0%	19	5.3%	127	35.3%
HIGHLAND PARK	392	231	58.9%	13	3.3%	244	62.2%

[28] Virginia Department of Education, Office of School Nutrition Program, National School Lunch Program Free & Reduced Price Eligibility Report, October 31, 2011

	SNAP Membership	Free Lunch Eligible	% Free Lunch Eligible	Reduced Lunch Eligible	% Reduced Lunch Eligible	Total F/R Lunch Eligible	% Total F/R Lunch Eligible
*HURT PARK	284	261	91.9%	8	2.8%	269	94.7%
*LINCOLN TERRACE	242	209	86.4%	9	3.7%	218	90.1%
MONTEREY	518	294	56.8%	33	6.4%	327	63.1%
*MORNINGSIDE	281	212	75.4%	25	8.9%	237	84.3%
PRESTON PARK	401	238	59.4%	56	14.0%	294	73.3%
*ROANOKE ACAD. MATH/SCIENCE	450	376	83.6%	29	6.4%	405	90.0%
ROUND HILL	496	411	82.9%	22	4.4%	433	87.3%
VIRGINIA HEIGHTS	383	251	65.5%	19	5.0%	270	70.5%
WASENA	227	107	47.1%	11	4.9%	118	52.0%
*WESTSIDE	638	505	79.2%	29	4.6%	534	83.7%

	SNAP Membership	Free Lunch Eligible	% Free Lunch Eligible	Reduced Lunch Eligible	% Reduced Lunch Eligible	Total F/R Lunch Eligible	% Total F/R Lunch Eligible
Middle Schools							
*ADDISON AEROSPACE MAGNET	538	414	77.0%	37	6.9%	451	83.8%
BRECKINRIDGE	570	358	62.8%	62	10.9%	420	73.7%
JAMES MADISON	586	289	49.3%	26	4.4%	315	53.8%
*STONEWALL JACKSON	508	378	74.4%	44	8.7%	422	83.1%
WOODROW WILSON	503	252	50.1%	38	7.6%	290	57.7%

	SNAP Membership	Free Lunch Eligible	% Free Lunch Eligible	Reduced Lunch Eligible	% Reduced Lunch Eligible	Total F/R Lunch Eligible	% Total F/R Lunch Eligible
High Schools							
PATRICK HENRY	1907	873	45.8%	97	5.1%	970	50.9%
*WILLIAM FLEMING	1417	843	59.5%	111	7.8%	954	67.3%
Other Schools							
*FOREST PARK ACADEMY	198	134	67.7%	13	6.6%	147	74.2%
NOEL C. TAYLOR ACADEMY-OAKLAND	90	64	71.1%	6	6.7%	70	77.8%

*Schools located in the MUAs.

Households and Marital Status

In the city of Roanoke, of the population 15 years of age and older, fewer were married, more were divorced, and more had never married as compared to all localities in the Metropolitan Statistical Area and the state as a whole.[29]

[29] U.S. Census Bureau, American Community Survey, 5-year Estimate, Table S1201, 2006-2010

Marital Status, Population 15 Years and Over, 2006-2010, Percentage

(U.S. Census Bureau, American Community Survey, 5-year Estimate, Table S1201, 2006-2010)

Geography	Now Married (except separated)	Widowed	Divorced	Separated	Never Married
Virginia	51.7	5.8	9.6	2.6	30.3
Botetourt County	65.3	7.2	8.4	1.3	17.8
Craig County	54.6	8.7	9.7	2.4	24.5
Franklin County	59.6	7.1	10.1	2.4	20.8
Roanoke County	58.1	7.8	10.6	1.5	22.1
Roanoke City	39.7	8	16.1	3.4	32.9
Salem City	46.4	7.9	12.9	3.1	29.8
Roanoke MSA	52.4	7.7	12.1	2.4	25.4

More children less than 18 years of age who live with their own parents live in single-parent families in the city of Roanoke than any other locality in the MSA. Of these children, the majority are African American or Hispanic.[30]

Percent of Children Living in Single-Parent Households, 2010, by Race/Ethnicity*

(U.S. Census Bureau, 2010 Census Summary File 1 (Table P31), 2010)

Geography	Total Child Population	White	African American	Hispanic or Latino
Virginia	27.2	19.5	55.5	28.4
Botetourt County	18.2	17.7	26.2	23.9
Craig County	22.8	22.9	0.0	18.2
Franklin County	28.6	25.5	60.7	28.4
Roanoke Co./Salem	24.0	21.3	56.6	28.6
Roanoke City	49.5	34.3	71.1	45.5

*Note: Refers to population of children (< 18 years) living in their own parents' households. Excludes minors who are heads of households, spouses, or other relatives (e.g., grandchildren) living in the household as well as children living in institutionalized settings. Hispanic origin is not mutually exclusive of race.

There are twice as many families (16.6%) in the city of Roanoke that live below 100% of poverty as compared to the MSA (8.7%) and statewide (7.2%). These disparities are even greater for families living in poverty with children under 18 years of age where 28% of families in the city of Roanoke live below 100% of the FPL, double the number of families in the MSA (14.3%) and

[30] U.S. Census Bureau, Census Summary File 1, Table P31, 2010

almost three times the number of families statewide (11.1%). In Roanoke, almost half of families (47.4%) with a female head of household and children less than 18 years of age live below 100% of the FPL compared to 34.6% in the MSA and 30.2% in Virginia as a whole. Franklin County is second in the MSA with the number of families, families with children, and families with female heads of household and children living in poverty.[31]

Families Living in Poverty, 2006-2010

(American Community Survey 5-Year Estimates, U.S. Census Bureau, 2010)

Geography	Percent (%)
Virginia	7.2
Botetourt County	4.1
Craig County	6.3
Franklin County	10.2
Roanoke County	3.4
Roanoke City	16.6
Salem City	4.1
Roanoke MSA	8.7

Families Living in Poverty with Related Children Under 18 Years, 2006-2010

(American Community Survey 5-Year Estimates, U.S. Census Bureau, 2010)

Geography	Percent (%)
Virginia	11.1
Botetourt County	4.4
Craig County	12.2
Franklin County	16.7
Roanoke County	5.6
Roanoke City	28
Salem City	6.8
Roanoke MSA	14.3

[31] U.S. Census Bureau American Community Survey 5-year estimates 2006-2010

Female Head of Household with Related Children Under 18 Years Living in Poverty, 2006 - 2010

(American Community Survey 5-Year Estimates, U.S. Census Bureau, 2010)

Geography	Percent (%)
Virginia	30.2
Botetourt County	12.6
Craig County	11.3
Franklin County	33.5
Roanoke County	17.2
Roanoke City	47.4
Salem City	19.7
Roanoke MSA	34.6

A survey conducted by the Older Dominion Partnerships on behalf of the Local Agency on Aging revealed that more seniors living in the service area aged 50 to 64 (44%) report they cared for a friend or family member with a long-term illness within the past month as compared to seniors statewide (35%).[32] In all of the Roanoke MSA except the city of Salem, more grandparents are responsible for their grandchildren as compared to statewide.[33]

Percent of Grandparents Living with Grandchildren who are Responsible for their Grandchildren, 2006 - 2010

(American Community Survey 5-Year Estimates, U.S. Census Bureau, 2010)

Geography	Percent (%)
Virginia	39.9
Botetourt County	50.2
Craig County	52.7
Franklin County	54.0
Roanoke County	58.6
Roanoke City	54.3
Salem City	40.6

[32] Older Dominion Partnership 2011 Virginia Age Ready Indicators Benchmark Survey, November 15, 2011 http://www.olderdominion.org/age_survey_2011.php
[33] U.S. Census Bureau, American Community Survey 5-year Estimates, 2006-2010

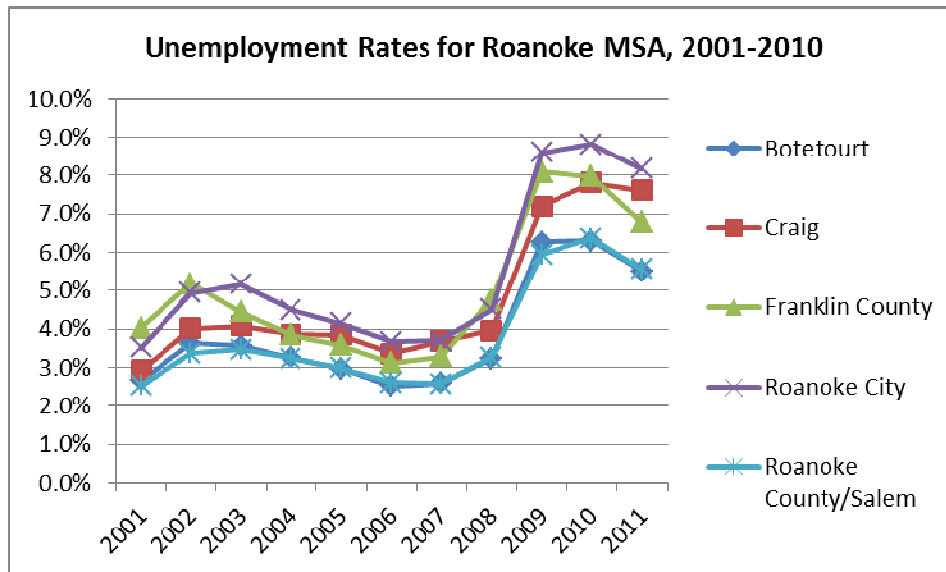
Employment Status

Many areas in the Roanoke MSA were hard hit by the recession, with a doubling of unemployment rates from 2008 to 2011. The city of Roanoke continues to have the highest unemployment rate in the MSA (8.2%) and is only slightly lower than the national unemployment rates (8.9%). The city of Roanoke, Craig County, and Franklin County all have higher unemployment rates than state averages.[34]

Unemployment Rates for Roanoke MSA, Virginia, and U.S. 2001-2010

(Virginia Employment Commission, Local Area Unemployment Statistics, 2001-2011)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Botetourt County	2.7%	3.6%	3.6%	3.3%	3.0%	2.5%	2.6%	3.2%	6.3%	6.3%	**5.5%**
Craig County	2.9%	4.0%	4.1%	3.9%	3.8%	3.4%	3.7%	4.0%	7.2%	7.8%	**7.6%**
Franklin County	4.0%	5.2%	4.4%	3.8%	3.6%	3.1%	3.3%	4.8%	8.1%	8.0%	**6.8%**
Roanoke City	3.5%	4.9%	5.2%	4.5%	4.1%	3.7%	3.7%	4.5%	8.6%	8.8%	**8.2%**
Roanoke County/Salem	2.5%	3.4%	3.5%	3.2%	3.0%	2.6%	2.6%	3.3%	5.9%	6.4%	**5.6%**
Virginia	3.2%	4.2%	4.1%	3.7%	3.5%	3.0%	3.1%	4.0%	6.9%	6.9%	**6.2%**
United States	4.7%	5.8%	6.0%	5.5%	5.1%	4.6%	4.6%	5.8%	9.3%	9.6%	**8.9%**



The largest employer in the city of Roanoke is Carilion Clinic and its two hospitals, Carilion Roanoke Memorial Hospital and Carilion Roanoke Community Hospital, both located in

[34] Virginia Employment Commission, Local Area Unemployment Statistics, 2001-2011

downtown Roanoke. In addition to Carilion Clinic, the Roanoke City School Board, city of Roanoke, and Wal-Mart are the largest employers in the city.[35]

Transportation

In the northwest MUA of the city, two times as many residents (26.6%) live in housing without an available vehicle as compared to the city as a whole (13.3%). This rate is four times greater than the rate for the MSA (7.0%) and state (6.3%). In the southeast MUA, 10.3% of residents live in housing without an available vehicle.[36]

Occupied Housing Units with No Vehicles Available, Roanoke MUA

(American Community Survey 5-Year Estimates, U.S. Census Bureau, 2006 - 2010)

	# Occupied housing units with no vehicles available	% Occupied housing units with no vehicles available
Roanoke City	5,683	13.3%
NW Roanoke MUA	2,600	26.6%
SE Roanoke MUA	321	10.3%
Roanoke MSA	9,021	7.0%
Virginia	186,322	6.3%

There are public transportation services in the city of Roanoke via *Valley Metro*, the city's public transit system. Most Valley Metro buses run at half-hour intervals during peak commuting hours, and at one-hour intervals during the off-peak hours between 9:15 a.m. and 3:15 p.m., and after 6:45 p.m. There is no service after 9:00 p.m. and no service on Sundays. In addition to this fixed-route schedule, the buses provide specialized transportation for the disabled. In addition to Valley Metro, RADAR, a non-profit corporation, provides rural public transit services and specialized transit for a $3.00 fare. RADAR services are aimed at physically disabled, mentally disabled, or transportation-disadvantaged individuals who meet eligibility criteria. Virginia Premier offers free transportation to medical and dental appointments for its managed-care Medicaid clients.

The Local Office on Aging (LOA) serves persons 60 and older and their families in the Fifth Planning District of Virginia, which includes Alleghany County, Botetourt County, Craig County, Roanoke County, Covington, Roanoke City and Salem. The LOA is a private, non-profit organization with a mission of helping older persons remain independent for as long as

[35] Virginia Employment Commission, Quarterly Census of Employment and Wages, 4th quarter (Oct.-Dec.), 2011
[36] U.S. Census Bureau American Community Survey 5-year estimates, 2006-2010

possible. To effectively carry out this mission, the LOA administers over 25 community services that provide nutrition, education, advocacy and socialization. They strive to enhance the quality of life in the home; help individuals stay in their homes and avoid early institutionalization; provide support to caregivers of the elderly; and advocate for quality services, medical care, and housing for the elderly.

Vital Services Transportation is a program of the LOA available to individuals 60 or older with low incomes who have an emergency need for transportation to a doctor, the pharmacy, grocery store or other critical appointment. It helps those who need door-to-door assistance and who have no other source for transportation or means to pay for transportation. Individuals are transported by volunteers, taxi-cab or van service.[37]

Lack of access to reliable transportation is one of the most pervasive barriers to regular health care for families and individuals. The result is missed opportunities for preventive and routine care. Target Population Focus Group participants noted a reliance on public transportation, community resources, and friends and family for doctors' appointments, which are unreliable modes of transportation, given the lack of "control" over their arrivals and departures. Lack of transportation was one of the top barriers to health care identified by the Community Health Survey.

Homelessness and Persons Living in Public Housing

The city of Roanoke is rich in resources and services for the homeless that are not found in the more rural areas of the MSA and as such is often considered a destination for those experiencing homelessness in the region. There are six overnight shelters, two day shelters, and a substance-abuse recovery center.

- **Overnight Shelters:**
    - Firebase Hope works to help homeless veterans with shelter and services to get them out of homelessness.
    - The Rescue Mission is the largest provider of emergency shelter in Roanoke. Its components include a health care center, male recovery program, family and female shelter, and transient male shelter. Supportive services include meals, showers, clothing, furniture, assistance with prescriptions, recovery program and employment training.
    - Roanoke Valley Interfaith Hospitality Network (IHN) is a multi-denominational network of religious congregations who have joined together to provide shelter for homeless families. The IHN will accept families who are referred by other shelter

[37] Local Office on Aging, www.loaa.org

programs, Social Services, congregations, or human service agencies. Families are carefully screened to ensure the safety of other homeless families and congregation volunteers.

  - Salvation Army Red Shield Lodge is an emergency shelter for males only, sponsored by the Salvation Army. It can accommodate up to 36 individuals during a single night. Men can stay up to 14 days, and then must be out of the shelter for 30 days before they can return for services. Meals are also provided at the shelter for both guests and other homeless persons sleeping outside.
  - Turning Point Shelter is a domestic violence shelter for female victims and their children sponsored by the Salvation Army. It can house a maximum of 60 women and children. The average length of stay is 60 days. The Salvation Army will provide furnishings and household items from its retail stores for those who transition into permanent housing.
  - TRUST House is a non-profit organization serving the Roanoke Valley with a mission to provide transitional and emergency shelter to individuals, families and unaccompanied minors, with an emphasis on case management, intervention and referrals.
  - Total Action Against Poverty Transitional Living Center [TAP/TLC] is a transitional housing program for families in transition. The center offers comprehensive services to residents, including case management, meals, prescription assistance, transportation, clothing, counseling, life skills training and housing counseling. This facility is operated by Total Action Against Poverty.
- **Day Shelters:**
  - Roanoke Area Ministries [RAM] House is a day shelter for homeless individuals and families offering hot lunches, job club, laundry facilities, and mail services. It is open 365 days a year from 8:00 a.m. until 4:00 p.m. RAM offers a variety of services including emergency financial assistance.
  - The Samaritan Inn provides lunch and noon-day worship service daily. Volunteers and local religious congregations sponsor the facility.
- **Other Facilities:**
  - Rita J. Gliniecki Recovery Center is a crisis stabilization and detox center. It provides short-term (3 to 15 day) stabilization for individuals who have symptoms of mental illness that could, if not addressed, result in a need for hospitalization. This service also offers medically supervised detoxification from alcohol and other drugs. Those needing both detoxification and support for symptoms of mental illness are served. Services are provided in a recovery-oriented environment and include skills training, psychiatric care, 12-step recovery groups on-site, and discharge planning to assure continuity of care in transitioning to outpatient services.

In addition, the city of Roanoke's Homeless Assistance Team (HAT) provides outreach services and case management to homeless individuals and families needing help locating permanent housing. HAT works to ensure emergency and transitional shelter, plus support services are available for the homeless persons. Funding is provided by the U.S. Department of Housing and Urban Development. HAT provides outreach (including street outreach), case management and supportive services to those seeking assistance.

The city's Community Housing Resource Center (CHRC) works to prevent homelessness and rapidly re-house those who are homeless. It streamlines getting individuals and families through intake, assessment and referral/placement, and reduces duplication of services by electronically tracking participants using the Homeless Management Information System. The CHRC works in partnership with the city of Roanoke and key service providers, including:

- 2-1-1 VIRGINIA– Southwest Region
- Blue Ridge Behavioral Healthcare
- Blue Ridge Independent Living Center
- Council of Community Services
- Homeless Assistance Team
- Interfaith Hospitality Network
- Presbyterian Community Center
- Salvation Army
- TAP
- Trust House
- Veteran's Administration
- YWCA

The Council of Community Services in Roanoke is the home of the Homeless Management Information System (HMIS), which tracks and collects data on homelessness and service interventions in the Roanoke region. Data is used to improve coordination of shelter and supportive services as well as document service gaps.

The 2012 Winter Point-in-Time Count (PIT) and Shelter Survey Report reported a nightly count of 561 individuals experiencing homelessness in the city of Roanoke.[38] This is an increase of 4.7% from 2011. Of the 561 individuals, 240 homeless adults participated in the point-in-time survey. An inability to pay rent, lack of jobs and substance abuse problems were most often cited as reasons for being homeless.

[38] Roanoke Valley Alleghany Regional Advisory Council on Homelessness, 2012 Winter Point-in-Time Count and Shelter Survey Report

Of those who took the survey, 4.2% (10) met the HUD definition of chronically homeless (homeless over one year, homeless more than two times, co-occurring mental health and substance abuse problems). All area shelters participated in the survey.

Findings revealed:

- Demographics
  - 44.2% (106) respondents were living in the city of Roanoke when they became homeless.
  - 58% of homeless surveyed identified themselves as white and 35% identified themselves as African American.
  - The oldest respondent is 70 years old. The average age of respondents is 45 years old.
  - Survey respondents reported 59 children under age 18 with their homeless parent[s].
  - 36 of 44 children between the ages of 5-18 were attending school.
  - 22.1% (53) of those surveyed were veterans.
  - The number of women surveyed decreased 25% in 2012 (69 compared to 92).

- Socioeconomic status
  - 77.9% (187) of respondents reported having a high school/GED education or more (73.4% in 2011).
  - 40.8% (98) of respondents were employed either “on” or “off” the books.
  - 26.7% (64) of respondents receive food stamps (43.8%in 2011).
  - 51.7% (124) of respondents were actually looking for work (50.9% in 2011).

- Barriers to care and health status
  - The five top challenges experienced by the homeless in 2012 include:
    - Inability to find employment (#1 in 2011)
    - Affordable housing (#2 in 2011)
    - Medical problems. (Medical problems ranked #3 in 2011.)
    - Dental problems, (Dental problems ranked #4 in 2011.)
    - Substance abuse (not in top 5 in 2011; physical disability was #5 in 2011).
      - 32.9% (79) respondents are currently receiving mental health services (73 in 2011).
      - 39.6% (95) respondents reported having received mental health services in the past (43.4% in 2011).
      - 32.9% (79) of respondents reported having received alcohol abuse treatment at some point (33.7% in 2011).

Roanoke is participating in the Virginia Coalition to End Homelessness project's "1000 Homes for 1000 Virginias." In 2012, Roanoke served as one of 12 sites in the Commonwealth that surveyed individuals living on the streets with the following goals:

- Identify the most vulnerable using a tool called the Vulnerability Index
- Rank their vulnerability by severity
- Systematically house them before their homelessness causes them to die.[39]

Data was collected by Jefferson College of Health Sciences physician assistant students on Monday, January 23, 2012 as part of the Point-in-Time count. Students worked in teams of four with a team leader to canvas all known locations previously identified by the Roanoke Homeless Assistance Team where street homeless were known to spend the night. These locations included parks, bridges, parking garages, an elevated walkway, and the downtown Market area. Teams began the survey at 4 a.m. in order to increase the likelihood of finding vulnerable individuals before they dispersed for the day. Seventeen people experiencing homelessness on the streets were identified.

Findings revealed:

- Reported mental health treatment 52.9% [9]
- Limited mobility 35.2% [6]
- Heart conditions 35.2% [6]
- Any emergency room visits 64.7% [11]
- Any inpatient hospital stay 41.1% [7]
- Incarceration – Jail 88.2% [15]
- Victim of physical attack 35.2% [6]

Those surveyed reported 45 Emergency Room visits in the previous three months and 14 inpatient hospitalizations in the past year.

- Health care providers used:
    - Carilion Roanoke Community Hospital Urgent Care
    - Carilion Roanoke Memorial Hospital
    - Rescue Mission Clinic
    - Bradley Free Clinic
    - Salem VA Hospital

[39] Roanoke Valley Alleghany Regional Advisory Council on Homelessness, 2012 Winter Point-in-Time Count and Shelter Survey Report

Roanoke City Public Schools has a full-time coordinator who works to help homeless students enroll and stay in school. In the 2011-2012 school year, the coordinator identified 510 students living in a homeless situation, a 27% increase from 2010-2011.[40] Using American Recovery and Reinvestment Act (ARRA) funds, Roanoke City Public Schools are providing children, youth and their families experiencing homelessness with transportation to their school of origin, case management, parent advocacy and support, shelter staff training, coordination of tutoring and professional development for local educators. Referrals for various community services are made; however, there is often a waiting list. In addition to the waiting list, these particular students often do not have transportation and experience reoccurring moves, making it difficult to receive the necessary services. Due to these barriers the Homeless Student Program in Roanoke City Public Schools and Blue Ridge Behavioral Healthcare, the local community services board, has negotiated 12 revolving openings specifically for Roanoke City Public Schools homeless students. With ARRA funds, Roanoke City Public Schools is working to create a more collaborative environment to coordinate services and assistance that will attract, engage and retain homeless children and youth in public school programs. In addition, it is working to expand tutoring and supplemental educational services for these children. [41]

In the city of Roanoke, eight of the ten public housing developments are located in the MUAs the city. The Roanoke Redevelopment and Housing Authority (RRHA) currently leases 1,262 residential units to low-income individuals and families including disabled adults and seniors. In addition, RRHA provides 1,690 Section 8 vouchers to individuals and families. In 2012, there were 1,302 individuals on the waiting list for Section 8 vouchers, with a current wait time of several years. In addition, there are 475 on a waiting list for public housing. The majority of residents (66.9%) are black, 28% are white, and 1.8% are Asian. Forty-three percent of residents are ages 0-17, 50% are 18 to 65 years of age, and 7% are over 65 years. Females account for 61% of residents and males 39%. There are a total of 1,253 families served by RRHA, with an average family size of 2.23 persons earning an average annual income of $10,462.[42]

The West End in the city of Roanoke, partially located in the northwest MUA and including portions of the West End, Hurt Park, Old Southwest, Mountain View and downtown neighborhoods, is the target of revitalization efforts to improve this impoverished area of the city. Beginning in 2013, the city's Housing and Urban Development Community Resources Division will invest $1.5 million in the West End to rebuild eight or more houses through Habitat for Humanity. Some of the funds will go to TAP, Rebuilding Together Roanoke, and the

[40] Roanoke City Public Schools, Email from Homeless Student Program Coordinator, August 27, 2012
[41] ARRA Report: School of Education, College of William and Mary, http://education.wm.edu/centers/hope/descriptions/arra%20writeup.pdf, accessed 8/19/12
[42] Roanoke Redevelopment and Housing Authority, Low Rent Demographic Summary, June 2012

Roanoke Redevelopment and Housing Authority for renovations and repairs to existing homes in the area. The intent is to eventually create a village center in the area bringing much needed improvements and economic development. Hurt Park in the northwest MUA was recently part of a $2.4 million federal housing effort that was used in part by the Roanoke Redevelopment and Housing Authority to rebuild its public housing units in the neighborhood.[43]

Access to Health Care

Access to health services is one of Healthy People 2020's Leading Health Indicators, and its goal is to improve access to comprehensive, quality health care services. Objectives related to this goal include:

- Increase the proportion of persons with a usual primary care provider (AHS-3)
- Increase the number of practicing primary care providers (AHS-4)
- Increase the proportion of persons who have a specific source of ongoing care (AHS-5)
- Reduce the proportion of individuals who are unable to obtain, or delay in obtaining, necessary medical care, dental care, or prescription medicines (AHS-6)[44]

Disparities in access to health services directly affect quality of life and are impacted by having health insurance and ongoing sources of primary care. Individuals who have a medical home tend to receive preventive health care services, are better able to manage chronic disease conditions, and decrease Emergency Room visits for primary care services.[45]

Health Staffing Shortages and Designations

Craig County and Franklin County are designated MUAs as are portions of northern-Botetourt County. In the city of Roanoke, eight census tracts are designated MUAs– six are located in the northwest quadrant (Census Tracts 1, 9, 10, 23-25) and two in the southeast quadrant (Census Tracts 26 and 27). The northwest MUA is the service area for New Horizons Healthcare, a federally qualified health center, serving the northwest area since 2000.

Health Professional Shortage Areas (HPSAs) are present in the portions of the Roanoke MSA for primary care, dental, and mental health providers and are outlined in the following table.

[43] The Roanoke Times, West End will be Roanoke's next neighborhood project, Mason Adams, June 12, 2012 http://www.roanoke.com/news/roanoke/wb/309842
[44] US Department of Health & Human Services, Healthy People 2020, Topics and Objectives, www.healthypeople.gov
[45] Closing the Divide: How Medical Homes Promote Equity in Health Care: Results from the Commonwealth Fund 2006 Health Care Quality Survey, Volume 62, June 27, 2007

Roanoke MSA Health Professional Shortage Areas

(Health Resources and Services Administration, http://muafind.hrsa.gov and http://hpsafind.hrsa.gov, accessed August 18, 2012)

Geography	MUA	Health Professional Shortage Area		
		Primary Care HPSA	Dental HPSA	Mental Health HPSA
Botetourt County	Northern Botetourt (CT 1, 2)	Botetourt Correctional Facility Northern Botetourt (CT 1, 2)	Low-income, Botetourt County North (CT 1,2)	Botetourt Correctional Facility
Craig County	Craig County	Craig County	Craig County	None
Franklin County	Franklin Service Area	Franklin County	Low Income - Franklin County (Population Group)	None
Roanoke County	None	None	None	None
Roanoke City	Southeast Roanoke City (CT 26,27) Northwest Roanoke City (CT 1, 9, 10, 23-25)	Kuumba Community Health (dba New Horizons Healthcare) (Comprehensive Health Center); Northwest Roanoke (CT 1, 9, 10, 11, 23-25)	Kuumba Community Health dba New Horizons Healthcare (Comprehensive Health Center) Low Income-Roanoke/Salem (Population Group)	Kuumba Community Health dba New Horizons Healthcare (Comprehensive Health Center)
Salem City	None	None	None	None

Health Services Professionals

There is a direct relationship between the number of primary care providers in a community and improved health outcomes. Having an adequate supply of primary care providers is a measure of access to care and can be determined by calculating the ratio of the population to one Full-time Equivalent (FTE) provider. It is important to note that this information may at times under- or over-estimate the number of providers in the area; it does not take into account patient satisfaction; how care is provided and utilization of services by the patients; and finally this measure does not reflect how care is coordinated within a community.[46]

In the Roanoke MSA, the ratio of population to one FTE provider is higher than the state averages for primary care providers, mental health providers, and dentists in the counties of Botetourt, Craig and Franklin.[47] For the most part, these counties are rural in nature, and provider recruitment and retention can be challenging. All three counties have MUA and HPSA designations.

[46] County Health Rankings, 2012 Data and Methods, http://www.countyhealthrankings.org/health-factors/access-care accessed 8/18/12

[47] Health Resources and Services Administration, Area Resource File, 2009 data accessed from County Health Rankings www.countyhealthrankings.org.

Primary Care Providers Population Ratio

Health Resources and Services Administration, Area Resource File, 2009

Geography	# PCP	PCP Rate per 10,000	PCP Ratio
Virginia	9676	124	806:1
Botetourt	25	77	1303:1
Craig	2	40	2526:1
Franklin	50	97	1035:1
Roanoke	185	205	489:1
Roanoke City	153	163	613:1
Salem City	53	209	479:1

Mental Health Providers Population Ratio

Health Resources and Services Administration, Area Resource File, 2009

Geography	# MHP	MHP Rate per 10,000	MHP Ratio
Virginia	3788	49	2058:1
Botetourt	11	34	2962:1
Craig	1	20	5052:1
Franklin	7	14	7390:1
Roanoke	81	90	1117:1
Roanoke City	57	61	1644:1
Salem City	29	114	875:1

Dentist Population Ratios

Health Resources and Services Administration, Area Resource File, 2009

Geography	# Dentists	Dentist Rate per 10,000	Dentist Ratio
Virginia	NA	37	2692:1
Botetourt	6	18	5446:1
Craig	1	19	5212:1
Franklin	12	22	4537:1
Roanoke	71	78	1283:1
Roanoke City	40	42	2372:1
Salem City	19	78	1288:1

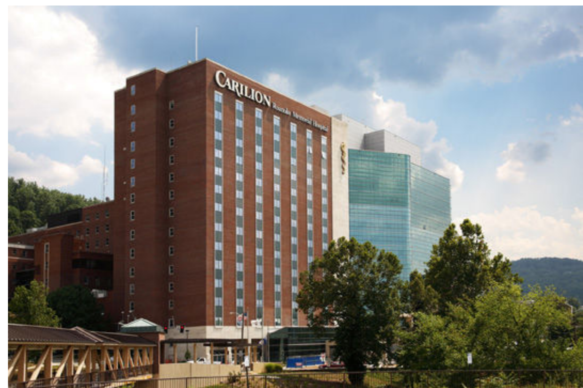
Hospital services

There are five hospitals that serve those living in the Roanoke MSA including:

- Carilion Roanoke Memorial Hospital
- Carilion Roanoke Community Hospital
- LewisGale Medical Center- Salem (part of HCA Virginia Health System)
- Salem Veterans Administration Medical Center
- Carilion Franklin Memorial Hospital

The Roanoke Valley Community Health Needs Assessment focused primarily on Carilion Roanoke Memorial Hospital (CRMH) and Carilion Roanoke Community Hospital, known collectively as Carilion Medical Center (CMC). As previously stated, CMC served 124,543 unique patients in fiscal year 2011, with 74.98% of patients living in the Roanoke MSA. At CRMH, over one-third of patients (33.19%) were older adults ages 45-64 years of age and 24.49% were seniors ages 65 years and older. The largest payor for services was commercial plans (34.59%); followed by Medicare (32.76%); Medicaid (18.84%); and self-pays (10.65%).

As a not-for-profit health system, Carilion Clinic is committed to providing quality health care to all regardless of their ability to pay. Its Charity Care policy is designed to allow relief of all or part of the charges that exceed a patient's reasonable ability to pay. Eligibility is based on the FPL, with those living up to 400% of poverty eligible for assistance. For those who do not meet the eligibility criteria for charity care but face the burden of unexpected medical expenses, Carilion offers a low-interest-rate payment plan (Medkey).



In 2010, Carilion provided $145.7 million in community benefit, including $117.9 million in uncompensated care ($63 million as charity care); $21.9 million in education; $5.2 million in community outreach; and $0.7 million in research.[48]

CRMH's Emergency Services is one of the largest and busiest emergency departments in Virginia, serving as the region's only Level I Trauma Center and it includes a Pediatric Emergency Room. In fiscal year 2011, the Emergency Department (ED) had 71,247 patient visits. Patient origin for these visits revealed that 86% of patients lived in the MSA. As a Level I Trauma Center and with the presence of the Pediatric Emergency Department, patients of all ages use the Emergency Department for care. Utilization of ED services revealed that 26.61%

[48] Carilion Clinic, 2011 Report to the Community

were Medicaid, 25.29% were Medicare, and 24.80% were commercial payors. One in five users of the ED (20.80%) was self-pay.

On an average day, the ED estimates that there is “inappropriate utilization” of services for approximately 15-20% of the patient population. This is especially true for the uninsured and Medicaid recipients, who use the ED for minor injury or illness that do not require emergency evaluation or treatment. Often there are excessive utilizers of the ED in these groups.[49] In 2011, “otitis media (middle ear infection/inflammation) and upper respiratory infection” and “esophagitis, gastrointestinal, and other miscellaneous digestive disorders,” disorders generally managed in a primary care setting, were among the top four diagnoses for Medicaid and self-pay patients, accounting for almost 6,000 visits.[50] There are a myriad of issues that contribute to inappropriate use, including education, socio-economic, financial/insurance status and access to care for these patients in the community.

Slightly over 35% of adult respondents to the Community Health Survey reported they visited the ED in the past year.

With the enactment of the Patient Protection and Affordable Care Act by 2014, access to care and financial issues are very concerning, as the largest increase in the newly "insured" population will be Medicaid users. In the ED, expanded Medicaid coverage will increase utilization of services by a group of patients who historically have used the ED for primary care where they can get immediate service without an appointment. Often, primary care appointments and delays for appointments in the community are not viewed as acceptable by this population. In addition, there are a limited number of primary care providers in the area who currently accept Medicaid patients.

Solutions to this current overburdened system begin with improving access to primary care for this population through stronger care coordination with existing providers who can serve as a medical home in the community. Most importantly, there is a need to change the culture of patients who view the ED as free, convenient medical care. Education on the value of a medical home and the use of a medical home for regular, non-acute care is needed.

EMTALA (Emergency Medical Treatment and Labor Act) requires that hospitals provide an examination and stabilizing treatment to anyone needing emergency health care treatment, without consideration of insurance coverage or ability to pay. In Virginia, the Department of Medical Assistance Services (DMAS), the state’s Medicaid agency, continues to be viewed as one of the most conservative in the nation. Part of the solution of overburdened ED and inappropriate use of services must be addressed through EMTALA reform and Medicaid

[49] Report from Carilion Clinic’s Chair, Department of Emergency Medicine, August 16, 2012
[50] TrendStar, Carilion Medical Center Patient Origin, Inpatient/Outpatient, Fiscal Year 2011

restructuring that result in incentives to care for patients in the primary care setting and enhanced reimbursement for this care.

Carilion Franklin Memorial Hospital is a 37-bed community hospital located in Rocky Mount in Franklin County. The hospital offers a wide range of medical and surgical services including outpatient and ED services. It admits over 2,100 acute patients and treats over 26,000 emergency room patients each year. It will be the focus of a Community Health Needs Assessment in the 2012-2013 fiscal year.

The LewisGale Medical Center, headquartered in Salem and part of HCA Virginia, is a for-profit health system with a network that stretches from the Alleghany Highlands and Rockbridge County to the Roanoke and New River Valleys. The system includes four hospitals, six outpatient centers, two cancer centers and nearly 700 employed and independent physician practices. It offers a charity care program for the uninsured who access its facilities for emergency treatment. For non-elective care, patients whose household financial resources and/or income are at or below 200% of the FPL receive free care. LewisGale also has an uninsured discount program designed for uninsured patients who do not qualify for Medicaid, charity care, or any other discount program at its facilities, and whose household financial resources and/or income is more than 200% of the FPL. These patients receive a bill that reflects a discount from total charges. A payment plan is available as well.

The Salem Veterans Administration Medical Center (VAMC), headquartered in Salem, serves veterans throughout the State of Virginia for psychiatric care and southwestern Virginia for medical and surgical care. The Salem VAMC also has Community Based Outpatient Clinics in Danville, Lynchburg, Staunton, Tazewell, and Wytheville, Virginia. The VAMC has 182 beds for general medical, surgical and psychiatric care; 90 beds in the Extended Care Rehabilitation Center; and 26 beds in the Substance Abuse Residential Rehabilitation Treatment Program (10 long-term Substance Abuse beds). The VAMC serves as a tertiary referral center and is classified as a Clinical Referral Level I Facility. It is a teaching hospital, providing a full range of patient care services, with state-of-the-art technology as well as education and research. Comprehensive health care is provided through primary care, tertiary care, and long-term care in areas of medicine, surgery, psychiatry, physical medicine and rehabilitation, neurology, oncology, dentistry, geriatrics, and extended care.

Public Health Services

Localities in the Roanoke MSA are served by the Roanoke City and Alleghany Health District (Botetourt, Craig and Roanoke counties and the cities of Roanoke and Salem) and the West Piedmont Health District (Franklin County).

The target population living in the service area for this Community Health Needs Assessment is served primarily by the Roanoke City Health Department, part of the Roanoke City and Alleghany Health District. The District reports more than 50,000 visits to the Health Department offices, and more than 6,400 Environmental Health staff encounters each year. The Health Department also conducts home visits and engages in patient/client contact time dedicated to case management and care coordination. In addition, the Health Department provides targeted pharmacy and laboratory services for patients and is available for community consultations on a variety of topics.

In general, the Health Department provides programs and services for infants/children and adolescents, adult health, the prevention and treatment of communicable diseases, environmental health and other activities including emergency preparedness and vital records.

While most of the visitors to the Health Department speak English as their primary language, the Health Department also sees a large Spanish-speaking population in addition to populations that speak other languages, including Nepali, Arabic, Burmese, Amharic and Bahasa Malaysia.

The majority of Health Department Clinic programs see residents between the ages of 15 to 44. There are exceptions however. For example, the Immunizations program and the WIC program. These two programs see the large majority of patients that are under 15 years of age. The WIC program sees infants and children younger than 5 years of age. [51]

Programs offered by the Health Department include:

- Bright Smiles for Children (dental education and fluoride varnish program)
- Care Safety Seat
- Family Planning
- Immunizations
- Lead Testing
- Mothers, Infant Care Coordination (MIC)
- Resource Mothers
- School Physicals
- Women, Infants, and Children Program (WIC)
- Refugee Health
- Ryan White Program and Anonymous HIV Testing
- Sexually Transmitted Disease Clinics
- Tuberculosis Management

[51] Roanoke City and Alleghany Health Districts Programs, 2012

Like many public health departments in the state and across the United States, the Roanoke City/Alleghany Health District has had to discontinue providing general primary care programs due to lack of funding, and it recently had to scale back its pharmacy and lab services. Its pediatric dental clinic currently does not have a dentist to offer care.

Source of Primary Care and Cost of Services

Having a usual source of care and cost of services greatly impacts an individual's ability to access primary care, especially in the low-income and uninsured populations living in a community. In the Roanoke MSA, more persons living in the city of Roanoke (14%) and Franklin County (18%) reported that they could not see a doctor due to cost than in other localities in the MSA or in Virginia as a whole.[52]

Percent of People Who Could Not See a Doctor Due to Cost

(County Health Rankings, 2012, Behavioral Risk Factor Surveillance System, 2004-2010)

Geography	% Couldn't Access
Virginia	12
Botetourt County	8
Craig County	8
Franklin County	18
Roanoke County	11
Roanoke City	14
Salem City	9

Target population focus group participants cited cost of care as a barrier to services, especially for the uninsured and underinsured. Cost of services, high co-pays, and having no regular source of health care were noted as the greatest barriers to health care for Community Health Survey respondents living in the city of Roanoke and the MSA as a whole.

There are primary care services available that offer affordable services and a safety net for uninsured and underinsured, low-income, and chronically ill patients in the MSA. This safety net includes primary care practices, federally qualified health centers, and free clinics:

- Carilion Family Medicine, Carilion Internal Medicine
- New Horizons Healthcare
- Craig County Health Center
- Tri-Area Community Health Center

[52] County Health Rankings, 2012, Virginia Behavioral Risk Factor Surveillance System, 2004-2010

- Bradley Free Clinic
- G. Wayne Fralin Free Clinic for the Homeless
- Project Access
- Christian Free Clinic (Botetourt County only)
- Free Clinic of Franklin County (Franklin County only)

Carilion Clinic has over 40 primary care sites spanning the Shenandoah, Roanoke and New River Valleys as well as southside and far southwest Virginia, with 767,283 primary care visits in 2011.[53] These practices are, or are in the process of becoming, certified as Level III Patient Centered Medical Homes (PCMH) by the National Committee for Quality Assurance (NCQA).

In the Roanoke MSA, there are 16 family and internal medicine sites located in Botetourt, Franklin, and Roanoke counties and the cities of Roanoke and Salem. Of these sites, two of the practices target residents living in the MUA of the city. These two family medicine sites serve as family medicine residency training centers. The Family Medicine-Roanoke/Salem site is located in the northwest quadrant MUA, and Family Medicine- Southeast is located just outside the southeast quadrant MUA in census tract 11. In 2011, their payor mix included 17% self-pay patients, and 37-42% Medicaid. Both practices are at capacity.

Carilion Roanoke Community Hospital (CRCH) was the site of the Carilion Clinic Urgent Care Center. This urgent care site was inundated with self-pay, Medicaid and Medicare patients seeking non-urgent primary care services, with over 35,000 patient visits each year. A large majority of this inappropriate use of care was linked to residents living in the MUAs of the city. In the spring of 2012, Carilion Clinic launched its new line of urgent care centers, VelocityCare, with sites in Bedford, Botetourt, Montgomery and Roanoke Counties.

In March 2012, the Urgent Care Center at CRCH transitioned into Carilion Community Care. Most major insurance plans, including Medicaid, and self-pay are accepted. Carilion Community Care established a discounted fee schedule for self-pay patients of $2 to $10 based on eligibility. Appointments are required, however, same-day or walk-in sick visits are available. Hours of operation are Monday-Friday 8 a.m. to 5:30 p.m., and Saturday 8 a.m. to 1 p.m. Carilion Community Care currently has a 10-15% no-show rate for scheduled appointments and has the capacity to see 10 to 15 more patients per day. The majority of appointments (90%) are same-day and are often available within 30 minutes of calling for an appointment. Seventy percent of patients have been happy to schedule appointments, while 25% of patients report they want “instant access” and are not willing to wait the 30 minutes for a scheduled appointment.

[53] Carilion Clinic, 2011 Report to the Community

Since changing to a community clinic model, the CRMH ED is seeing a volume swing of 15 to 30 patients per day that may be coming from the decrease in hours at the community clinic site. Previously the Urgent Care Center was open seven days per week and included late evening hours. As of this writing, Carilion Clinic continues to monitor the utilization of services at the Carilion Community Care site to determine how it can best serve the community at large by serving vulnerable populations who currently lack an access point for a medical home.

Carilion Direct, Carilion Clinic's Physician Referral and Health Information system, is designed to help patients obtain the information that they need to find the physicians and services in their communities to support a continuum of care. When a patient is in a Carilion hospital without a primary care provider identified, Carilion Direct works to help facilitate a follow-up appointment with a primary care provider that is geographically close to where the patient lives or works. Carilion Direct report difficulty scheduling primary care visits for residents throughout the MSA, as the demand outweighs the capacity.

CMC's community health education department serves as host of the local chapter of the National Safe Kids Coalition and provides education on injury prevention to the community and other providers. In 2011, more than 300 individuals received car seat education or car seat safety checks during 32 events. In addition, CMC's Safe Kids Coalition coordinator provided training through a program offered by the Virginia Department of Health on proper car seat installation for other health and safety providers free of charge. CMC provides education to the public about health risks and steps that can be taken to improve health; 37,464 people were encountered during 786 events that included regularly scheduled health screenings such as blood pressure, blood glucose and cholesterol as well as seasonal stroke, vascular, prostate and facial sun damage detection screenings. Each Saturday morning Physicians on Foot, a program that encourages physical activity in the community, is led by a local primary care physician who walks with participants for two miles on a local greenway near the Roanoke River. Additional health improvement services include assistance with enrollment in public medical programs such as Medicaid and interpreter services for non-English speaking patients.

Founded in 1999 and opened for services in 2000, New Horizons Healthcare, the FQHC located in the city of Roanoke, offers comprehensive primary care services on a sliding-fee discount to the low-income uninsured and underinsured populations. The health center has undergone tremendous growth and changes in its first 12 years.

In 2011, its family practice, pediatric, and behavioral health providers served 4,659 individual patients, with 14,574 visits. Seventy-two percent (72%) of the patients had incomes at or below 200% of the federal poverty level, 48% had no health insurance, and 31% had Medicaid. The patient population is 6% Asian, 35% black/African American, 53% white, and 6 % unreported. Nine percent (9%) of patients are Hispanic/Latino, and 13% of patients are best served in a

language other than English. Twenty-two percent of the patients are aged 0-19, 73% are aged 20-64, and 5% are aged 65 and above. The gender breakdown is 64% female and 36% male.

New Horizons Healthcare has begun the process of becoming NCQA-certified in 2013. It has developed strong collaborative arrangements and informal partnerships with various health care providers and service agencies in the community to strengthen the safety net and close some of the gaps in access to quality care. It has two primary care clinics (family medicine and pediatrics), laboratory services, behavioral health care and a pharmacy-assistance program on-site. It also has access to specialty services in Roanoke or via a telemedicine agreement with the University of Virginia's Medical Center for uninsured patients that cannot be linked with local specialty services. The telemedicine equipment was purchased as a result of Capital Improvement Program funding from the American Recovery and Reinvestment Act. Patients who must travel the two hours to the University of Virginia for an initial consult for specialty care can have follow-up visits in Roanoke via telemedicine.

In October 2010, New Horizons Healthcare received a $10.65 million federal grant as part of the Affordable Care Act funding to build a new facility in the northwest MUA in the city of Roanoke. The new 32,000 square-foot facility will increase the number of medical exam rooms from its current 14 to 24, add pharmacy and dental services on-site and expand space for its mental health services.[54]

With its current staffing (2.925 primary care providers), New Horizons Healthcare is currently over capacity as an overall organization. The new facility, however, will allow the health center to double its primary care capacity, which will allow it to serve an additional 5,280 patients. New Horizons Healthcare is currently recruiting for three primary care provider– one family medicine physician and two advanced practice clinicians. It expects to move into the new facility in October 2012.[55]

Enhancing health education services was a focus of New Horizons Healthcare's efforts during 2011. It offered shared (group) visits for diabetes and a 4-week series on diabetes education every month. It also received "mini-grants" from its primary care association in 2011 to implement tobacco-cessation training and patient education with the nursing staff, and to develop and implement new policies and procedures to increase access to self-management support for patients who smoke, have pre-diabetes or diabetes, hypertension, and/or high cholesterol. It has also applied for certification as a Diabetes Education Center and is actively seeking funding to employ a Certified Diabetes Educator full-time.

[54] *The Roanoke Times*, New Horizons Healthcare to expand medical services, build new center, Sarah Bruyn Jones, October 9, 2010 http://www.roanoke.com/news/roanoke/wb/263280

[55] New Horizons Healthcare, Report from the Executive Director, August 10, 2012

New Horizons Healthcare hosted “Lighten Up,” a weight loss and healthy living support group led by the Virginia Cooperative Extension Master Food Volunteers program. It began with weekly meetings for 10 weeks wherein participants achieved weight loss goals while learning about how to make lifestyle changes to sustain a healthy weight. This group has progressed to once-monthly meetings that cover a variety of topics from stress management to healthy breakfasts, to boosting metabolism. In 2013, New Horizons Healthcare will initiate more Lighten Up groups with plans to have multiple groups running simultaneously throughout the year.

New Horizons Healthcare is the founding member and host of a bimonthly coalition that is focused on community health, called Education and Access for Community Health (EACH). This group serves as a networking, information and referral opportunity for several community health and human services organizations. They are able to share news of upcoming events of interest to member organizations and their clients. They promote these events to others and often collaborate to assist each other’s activities that meet mutual goals. In this way, they are able to tap into existing resources and avoid duplication of efforts.

One program that grew out of the EACH coalition is the *Helping Hands Community Health Promoter Program (CHPP)*. This educational series is focused on lay health volunteers who complete a 10-week series of 3-hour classes on various health topics. The community health promoters acquire skills for helping others to navigate the health care system, locate health care resources, and practice healthier behaviors for prevention of disease and disability. The program is offered at least once a year, and sometimes twice a year, depending on available support. There is great potential to integrate the CHPP with other local initiatives to improve health care coordination between and among health care providers and hospitals in our community.

Craig County is served by the Craig County Health Center in New Castle, Virginia, which is part of the Monroe Health Center, a an FQHC headquartered in Union, West Virginia. The health center offers primary care, dental services and school-wellness at Craig County Schools to the citizens of Craig County. It is the only primary care provider in the County.

Tri-Area Community Health Center at Ferrum is a FQHC serving Franklin County at a site on the campus of Ferrum College. Part of the Tri-Area Community Health Centers system, it provides a full array of primary care services and has an on-site pharmacy.

The Bradley Free Clinic (BFC) is one of the oldest free clinics in Virginia and offers primary care, pharmacy, dental (restorative and extraction only), specialty and psychiatric services, and health education to adults of Roanoke, Roanoke County, Salem, Vinton, Botetourt and Craig Counties. In 2011, BFC provided over $4 million in value of health care to the Roanoke Valley’s working uninsured, temporarily unemployed, and their families. This amount includes $2.7

million in value of medications and supplies. Since 1974, BFC has provided over $55 million in value of health care services through the efforts of volunteer health care professionals and the community at large.[56]

The clinic does not accept patients receiving Medicaid or Medicare or who are privately insured. Eligibility requirements include adults who live at or below 250% of the FPL for medical services and at or below 200% of the FPL for all other services; people who work in full-time, part-time and seasonal jobs; people who are recently laid-off or have been unemployed no more than two years; students enrolled in college or training programs; caregivers of preschoolers, the elderly, and persons with disabilities; people residing in shelters or treatments centers; and those recently released from incarceration.

In 2011, 45.9% of patients served by BFC lived at or below 100% of FPL; 50.9% lived at 101-200% of FPL; and 3.2% lived at 201-250% of FPL. The majority of patients were white (63.8%); 30.3% were black; 2.1% were Asian; 2.3% Hispanic; and 1.5% were “other.” Employment status of patients revealed 69% were employed; 27.5% were unemployed; 0.4% were retired; 1.1% were disabled; 1.7% were students; and 0.2% were caretakers.

The G. Wayne Fralin Free Clinic for the Homeless, a ministry of the Rescue Mission, serves the uninsured homeless offering free primary care, pharmacy assistance, dental and mental health services, case management, and diabetes education. Its 16-month residential recovery program serves the homeless suffering from alcohol and other substance abuse addictions. In February 2012, it began offering vision services on-site. In 2011, it served 910 patients for medical care, 299 for dental services, and 269 for mental health services, for a total of 14,007 clinic encounters and a value of $2.4 million. In addition, it provided 8,102 free medications at a value of $12,368.30.[57]

Despite their presence as key safety nets for the uninsured in the Roanoke Valley, Bradley Free Clinic and the Fralin Clinic are unable to offer a continuum of care to those they serve due to limited clinic hours, reliance on volunteer providers, and no or limited after-hours coverage. In addition, they do not have the capability to serve low-income Medicaid and Medicare recipients.

Project Access of the Roanoke Valley is a nonprofit organization that strives to improve the health care and well-being of low-income uninsured persons by increasing and coordinating free care commitments made by area physicians, for primary care and specialty care, and dentists for emergency care and coordinating free care resources through community collaboration. Project Access provides an effective means to enhance access to care and

[56] Bradley Free Clinic, April 2012
[57] Rescue Mission Health Care Center, 2011 Statistics

improve the health of the people in the Roanoke Valley. Area physicians/dentists agree to see a certain number of patients in their respective practices/facilities free of charge. In addition to the 530 participating providers who donate their services, additional services, including diagnostic, physical therapy, vision care and prosthetics are donated by local service providers. They serve uninsured patients with incomes at or below 200% of the FPL who are residents of Botetourt, Craig and Roanoke counties and the cities of Roanoke and Salem. Patients must be working; in school or job training; or have a temporary medical problem preventing them from working. In 2011, 64% of their patients were female, 73% were between the ages of 25 and 55; 70% were white and 22% were black.[58] Their eligibility requirements, similar to the Bradley Free Clinic's limit those they serve. Clients must re-enroll every six months, and low-income Medicaid and Medicare recipients are ineligible for their services.

The Christian Free Clinic in Botetourt, located at the Fincastle Baptist Church, serves residents of Botetourt County with clinics on Monday evenings and Wednesdays. It offers diagnosis and follow-up of chronic diseases, diagnosis of non-urgent symptoms, disease prevention and health education, and medication assistance. Patients eligible for services must be uninsured and live below 200% of the FPL. The Free Clinic relies on five clinicians to treat patients and 43 volunteers. It currently serves 330 patients. Despite increased demand for services, the clinic recently reported that it will stop holding appointments for patients on Monday evenings beginning in September 2012 due to a shortage of volunteer providers.[59]

The mission of the Free Clinic of Franklin County is to provide quality primary medical care for uninsured families of the poor, the working poor and elderly on fixed incomes. It serves adults who are residents of Franklin County, 18-64 years of age, and whot live at or below 200% of the FPL. Services include medical care provided by physicians and a physician assistant; free prescriptions with a $2.00 administrative fee; laboratory services and limited X-ray; specialty care for diabetics; and dental extractions.[60]

The United Way of Roanoke Valley distributes FamilyWize drug discount cards to many of the health and human services agencies in the MSA. The card can be used by those without insurance or who have medications not covered by Medicaid, Medicare or their insurance companies. The program has resulted in community savings of about $1.2M and close to 99,000 prescriptions filled. The United Way of Roanoke Valley reports that it is among the top "users" of the card in the nation.[61]

[58] Project Access of the Roanoke Valley, May 3, 2012
[59] *The Roanoke Times*- Med Beat, Free clinic puts out appeal for physician volunteers, Sarah Bruyn Jones, http://www.roanoke.com/business/wb/305282, accessed August 17, 2012
[60] Free Clinic of Franklin County, http://fcfreeclinic.org/index.html, accessed 8/19/2012
[61] United Way of Roanoke Valley, FamilyWize report, 8/27/2012

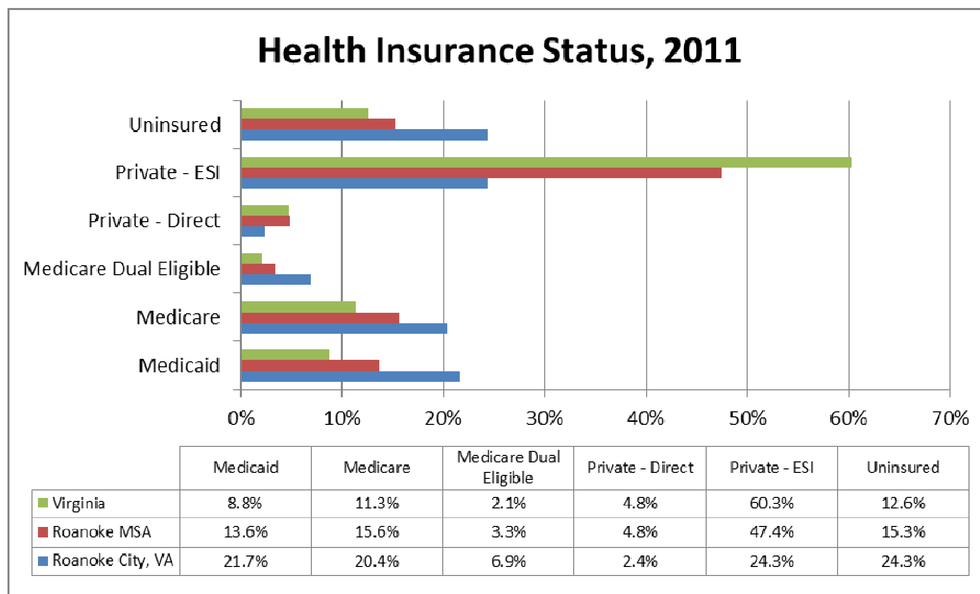
Insurance Status

There are a significantly greater number of uninsured individuals (24.3%), Medicaid (21.7%), Medicare (20.4%), and Medicare dual-eligible (6.9%) recipients in the city of Roanoke as compared to the Roanoke MSA and statewide. There are fewer individuals with private insurance plans (24.3%) in the city.[62]

Health Insurance Status for Roanoke City, Roanoke MSA, and Virginia, 2011

(Thomson Reuters Market Planner Plus, 2011)

	Roanoke City, VA		Roanoke MSA		Virginia	
	#	%	#	%	#	%
Medicaid	21,700	21.7%	42,259	13.6%	708,638	8.8%
Medicare	20,438	20.4%	48,354	15.6%	911,885	11.3%
Medicare Dual-Eligible	6,932	6.9%	10,322	3.3%	172,950	2.1%
Private – Direct	2,375	2.4%	14,805	4.8%	382,561	4.8%
Private – ESI	24,344	24.3%	147,143	47.4%	4,852,138	60.3%
Uninsured	24,370	24.3%	47,514	15.3%	1,016,168	12.6%
Total:	100,159	100.0%	310,397	100.0%	8,044,340	100.0%



	Medicaid	Medicare	Medicare Dual Eligible	Private - Direct	Private - ESI	Uninsured
Virginia	8.8%	11.3%	2.1%	4.8%	60.3%	12.6%
Roanoke MSA	13.6%	15.6%	3.3%	4.8%	47.4%	15.3%
Roanoke City, VA	21.7%	20.4%	6.9%	2.4%	24.3%	24.3%

The State Child Health Insurance Program in Virginia is FAMIS and offers insurance coverage to children and pregnant mothers (FAMIS MOMS) in Virginia with family incomes up to 200% of the FPL. FAMIS Plus, formerly MI Medicaid for Children, Pregnant Women, and Plan First,

[62] Thomson Reuters Market Planner Plus, 2011 provided by Carilion Clinic, Strategic Development

provides coverage for families with incomes up to 133% of FPL. The income eligibility limit for Medicaid for low-income adults in Virginia is less than 30% of the FPL and is one of the lowest in the nation.

As part of the Patient Protection and Affordable Care Act (ACA), Medicaid expansion will include individuals with incomes under 133% of the FPL by 2014. In Virginia, over 400,000 currently uninsured residents will be eligible for coverage. In the Roanoke MSA, over 19,000 residents will be newly eligible for Medicaid.[63]

Projected Newly Eligible for Medicaid in 2014, Roanoke MSA

(Virginia Medicaid Now and Under Health Reform, Estimating Medicaid Eligible and Enrolled Populations, Demographics & Workforce Group, Weldon Cooper Center, University of Virginia, September 2010)

Projected Newly Eligible for Medicaid in 2014	
Botetourt County	1,706
Craig County	789
Franklin County	3,607
Roanoke City	7,862
Roanoke County	3,201
Salem City	2,186
Roanoke MSA	19,351

In Virginia, there are more uninsured who are Hispanic (34%), black (23%) or Asian (18%) as compared to white residents (14%).[64]The uninsured, especially those living in poverty, are least likely to have a medical home and/or a regular source of care. The health insurance status of those who live below 200% of the FPL reveals that the majority of the low-income uninsured residents are adults ages 18-64 years. There are more uninsured adults ages 18-64 years of age who live below 200% of the FPL in the city of Roanoke (40.9%) as compared to the MSA (36.7%) and the state (38.3%). The majority of children who live below 200% of the FPL in the city of Roanoke are enrolled in Medicaid (68%) as compared to 62.6% in the MSA and 52.8% in the state. Almost all seniors, 65 years of age and older, living below 200% of the FPL are enrolled in Medicare (97-99%).[65]

Less Than 200% FPL Health Insurance Status by Age, Roanoke City VA

(American Community Survey 3-Year Estimates, U.S. Census Bureau, 2008 - 2010)

[63] Virginia Medicaid Now and Under Health Reform, Estimating Medicaid Eligible and Enrolled Populations, Demographics & Workforce Group, Weldon Cooper Center, University of Virginia, September 2010
[64] Virginia Department of Health, Office of Minority Health & Health Equity, Virginia Health Equity Report 2012
[65] U.S. Census Bureau, American Community Survey 3-Year Estimates, 2008-2010)

	< 18 Years		18-64		65 +		All Ages	
	#	%	#	%	#	%	#	%
With health insurance	12,417	92.7%	14,793	59.1%	4,793	100.0%	32,003	74.01%
Employer-based health insurance	3,066	22.9%	6,181	24.7%	692	14.4%	9,939	22.99%
Direct-purchase health insurance	301	2.2%	1,418	5.7%	1,831	38.2%	3,550	8.21%
Medicare	369	2.8%	2,918	11.6%	4,751	99.1%	8,038	18.59%
Medicaid	9,104	68.0%	6,177	24.7%	1,323	27.6%	16,604	38.40%
No health insurance	980	7.3%	10,256	40.9%	0	0.0%	11,236	25.99%
Total Number < 200% FPL	13,397		25,049		4,793		43,239	

Less Than 200% FPL Health Insurance Status by Age, Roanoke MSA

(American Community Survey 3-Year Estimates, U.S. Census Bureau, 2008 - 2010)

	< 18 Years		18-64		65 +		All Ages	
	#	%	#	%	#	%	#	%
With health insurance	25,365	91.8%	33,125	63.3%	14,393	99.7%	72,883	77.20%
Employer-based health insurance	7,568	27.4%	16,780	32.1%	2,634	18.2%	26,982	28.58%
Direct-purchase health insurance	1,426	5.2%	4,939	9.4%	6,291	43.6%	12,656	13.41%
Medicare	819	3.0%	5,563	10.6%	14,269	98.8%	20,651	21.87%
Medicaid	17,292	62.6%	10,270	19.6%	2,761	19.1%	30,323	32.12%
No health insurance	2,273	8.2%	19,204	36.7%	46	0.3%	21,523	22.80%
Total Number < 200% FPL	27,638		52,329		14,439		94,406	

Less Than 200% FPL Health Insurance Status by Age, Virginia

(American Community Survey 3-Year Estimates, U.S. Census Bureau, 2008 - 2010)

	< 18 Years		18-64		65 +		All Ages	
	#	%	#	%	#	%	#	%
With health insurance	515,019	87.9%	690,169	61.7%	250,071	98.8%	1,455,259	74.3%
Employer-based health insurance	174,285	29.8%	356,955	31.9%	59,385	23.5%	59,0625	30.2%
Direct-purchase health insurance	36,135	6.2%	118,141	10.6%	98,334	38.8%	252,610	12.9%
Medicare	9,361	1.6%	88,066	7.9%	247,191	97.7%	344,618	17.6%
Medicaid	309,013	52.8%	187,998	16.8%	58,197	23.0%	555,208	28.4%
No health insurance	70,692	12.1%	429,020	38.3%	3,048	1.2%	502,760	25.7%
Total Number < 200% FPL	585,711		1,119,189		253,119		1,958,019	

Health Status of the Population

In Virginia, individuals are more likely to face high rates of disease, disability and death from a host of health conditions that span generations if they are poor, live in rural areas or inner-city communities, and are a racial or ethnic minority. In addition, residents with the least education have higher death rates. [66]

In the Roanoke MSA, more adults who live in the city of Roanoke, Craig and Franklin Counties reported fair or poor health as compared to other localities in the MSA and statewide. Adults in all localities in the MSA except the city of Salem reported more unhealthy days in the past month as compared overall in Virginia.[67] As compared to those aged 50 to 64 in Virginia as a whole (33%), a greater proportion of respondents from the Local Agency on Aging (41%) in the service area report having a chronic illness or facing some limitations due to physical, mental or emotional problems.[68]

Percent of Adults Reporting Fair to Poor Health and the Number of Poor Physical Health Days in the Past Month

(Virginia Department of Health, Office of Family Health Services, Behavior Risk Factor Surveillance System, 2004-2010)

	Poor or Fair Health	Poor Physical Health Days
Geography	% Poor or Fair Health	Physically Unhealthy Days
Virginia	13	3.2
Botetourt County	13	4.0
Craig County	19	5.6
Franklin County	23	3.7
Roanoke County	13	4.0
Roanoke City	17	3.8
Salem City	11	2.2

[66] Virginia Department of Health, Office of Minority Health & Health Equity, Virginia Health Equity Report 2012
[67] Virginia Department of Health, Office of Family Health Services, Behavior Risk Factor Surveillance System, 2004-2010
[68] Older Dominion Partnership 2011 Virginia Age Ready Indicators Benchmark Survey, November 15, 2011

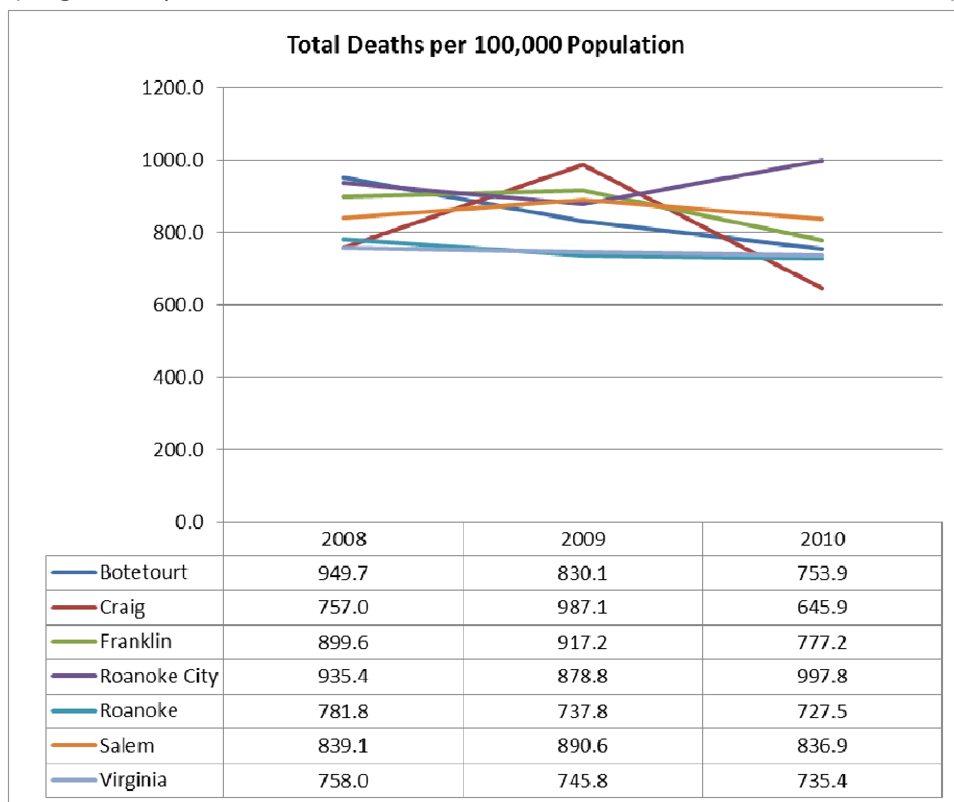
Death Rates

In the Roanoke MSA, the death rates are highest in the following localities and exceed the rates for Virginia as a whole as follows:

- Total deaths– city of Roanoke
- Malignant neoplasms– city of Roanoke
- Heart disease– Craig County and the city of Roanoke
- Cerebrovascular disease– Botetourt County and the city of Roanoke
- Chronic lower respiratory disease– city of Roanoke
- Diabetes– Craig and Franklin County[69]

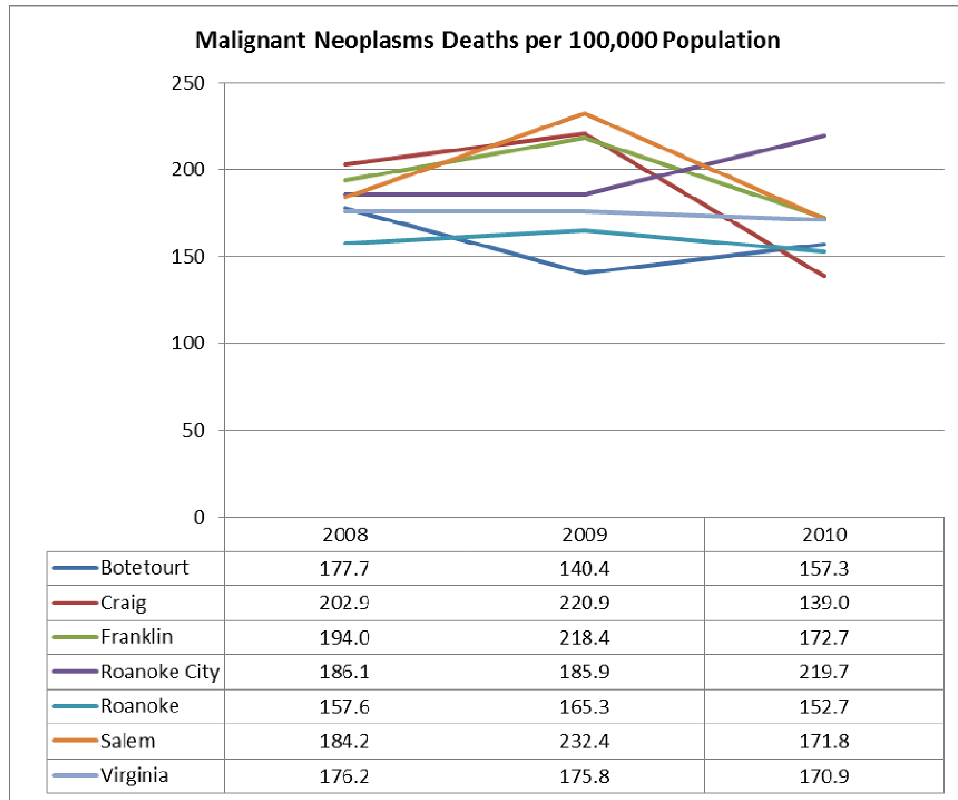
Roanoke Metropolitan Statistical Area Deaths Age-Adjusted Rates per 100,000

(Virginia Department of Health, Division of Health Statistics, 2008 - 2010)

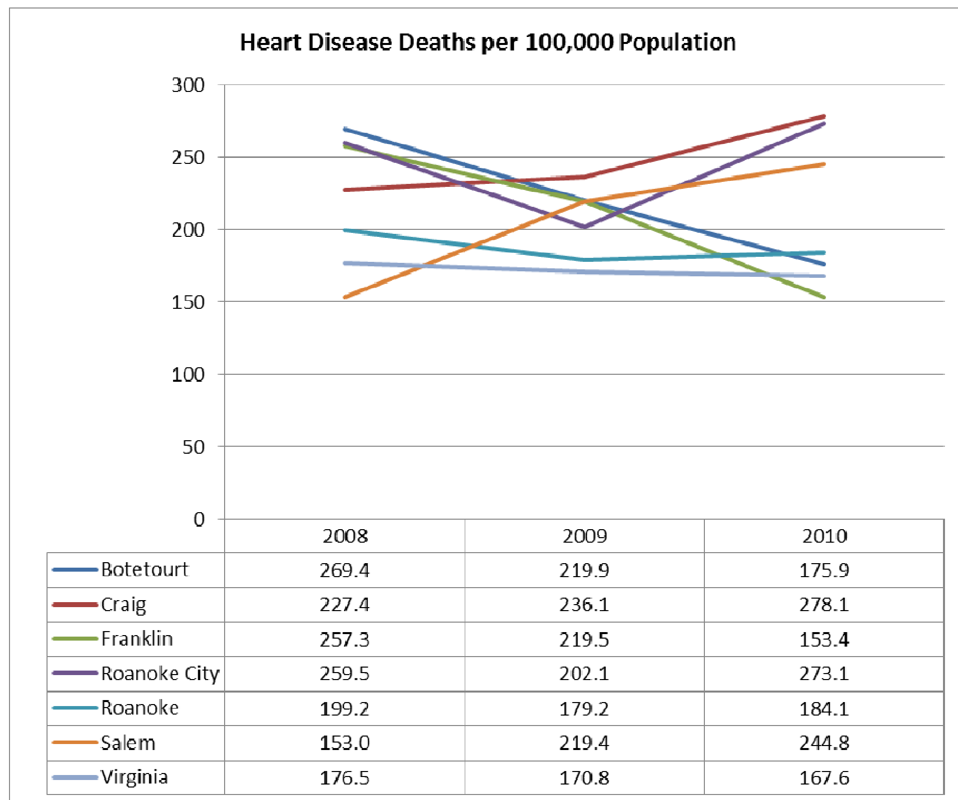


	2008	2009	2010
Botetourt	949.7	830.1	753.9
Craig	757.0	987.1	645.9
Franklin	899.6	917.2	777.2
Roanoke City	935.4	878.8	997.8
Roanoke	781.8	737.8	727.5
Salem	839.1	890.6	836.9
Virginia	758.0	745.8	735.4

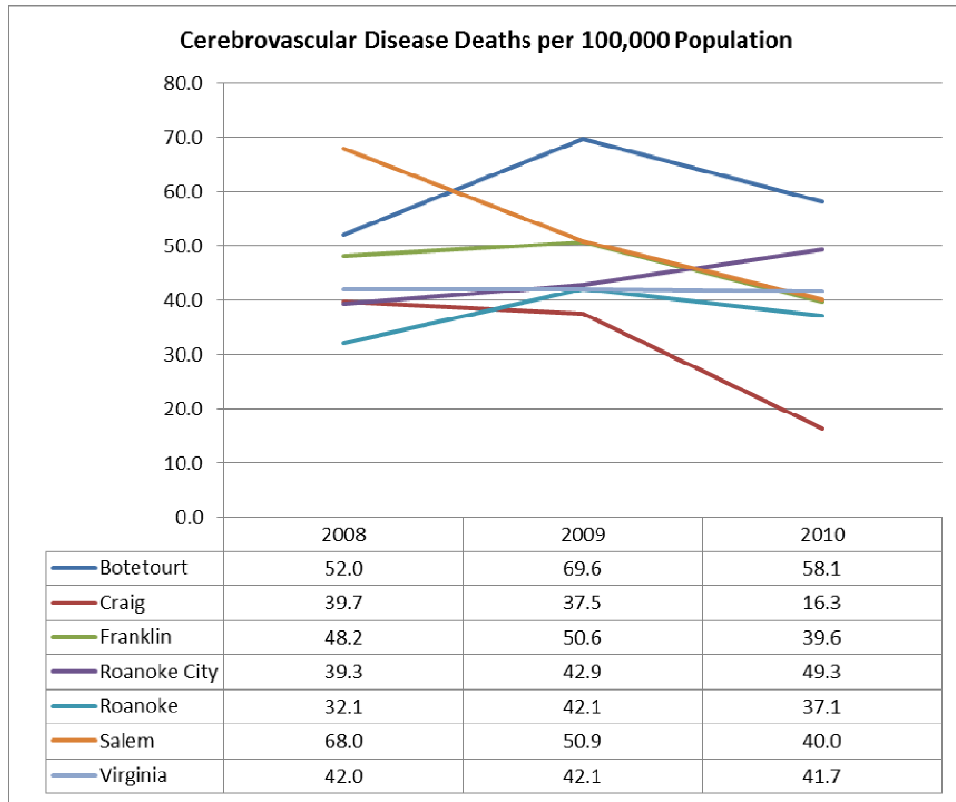
[69] Virginia Department of Health, Division of Health Statistics, 2010



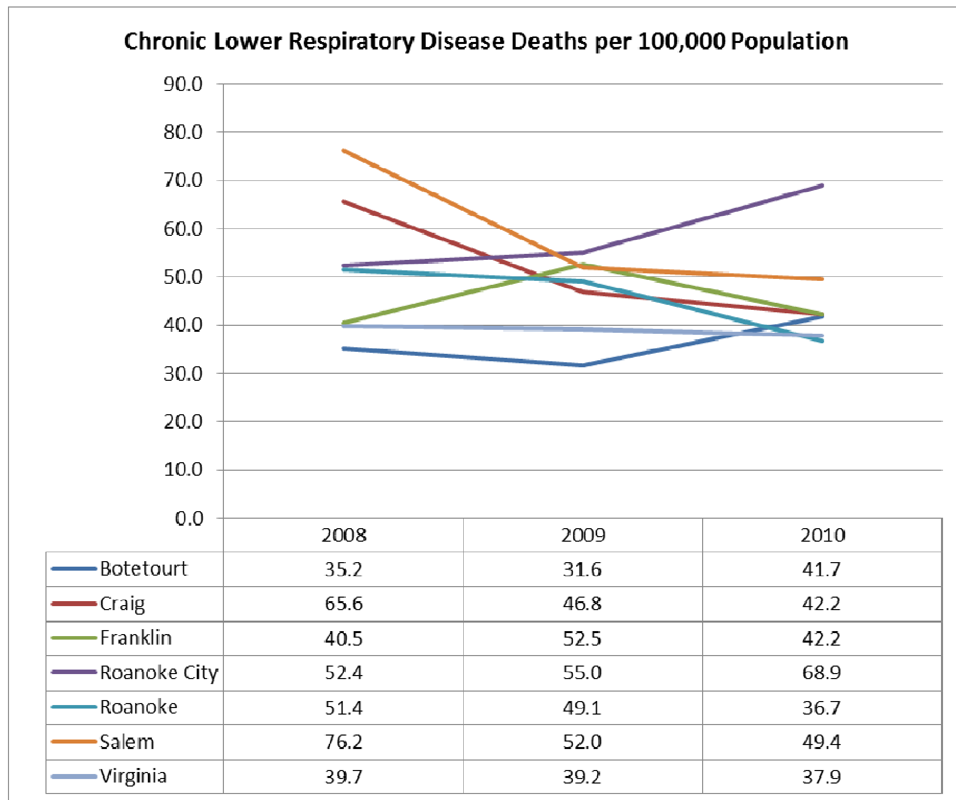
	2008	2009	2010
Botetourt	177.7	140.4	157.3
Craig	202.9	220.9	139.0
Franklin	194.0	218.4	172.7
Roanoke City	186.1	185.9	219.7
Roanoke	157.6	165.3	152.7
Salem	184.2	232.4	171.8
Virginia	176.2	175.8	170.9



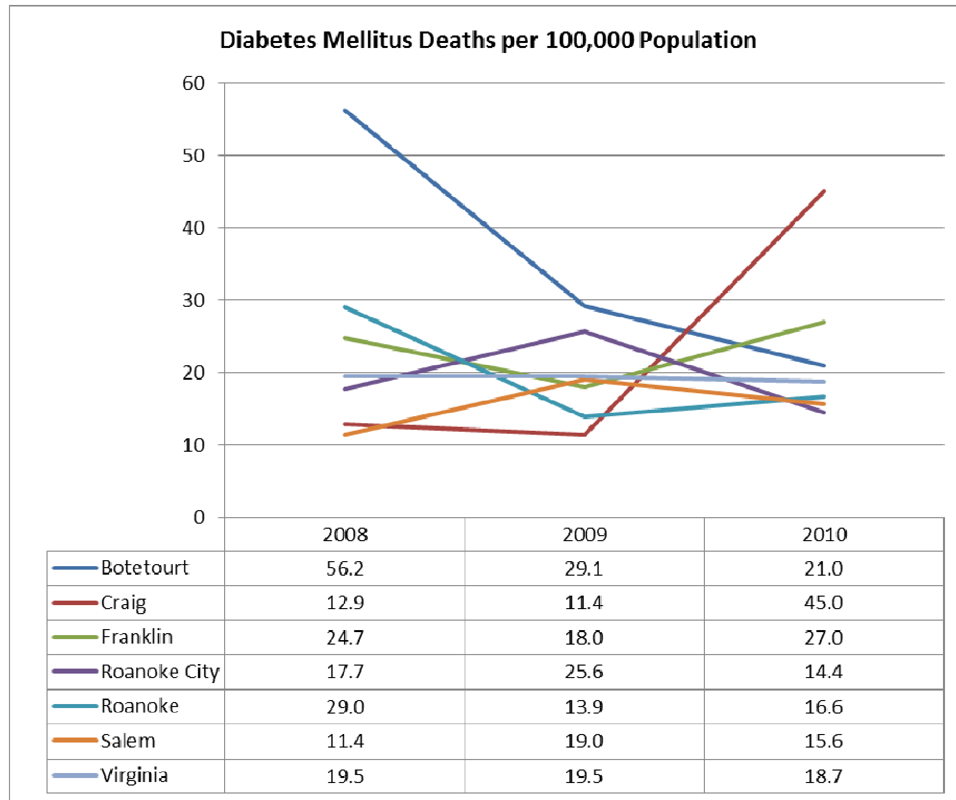
	2008	2009	2010
Botetourt	269.4	219.9	175.9
Craig	227.4	236.1	278.1
Franklin	257.3	219.5	153.4
Roanoke City	259.5	202.1	273.1
Roanoke	199.2	179.2	184.1
Salem	153.0	219.4	244.8
Virginia	176.5	170.8	167.6



	2008	2009	2010
Botetourt	52.0	69.6	58.1
Craig	39.7	37.5	16.3
Franklin	48.2	50.6	39.6
Roanoke City	39.3	42.9	49.3
Roanoke	32.1	42.1	37.1
Salem	68.0	50.9	40.0
Virginia	42.0	42.1	41.7



	2008	2009	2010
Botetourt	35.2	31.6	41.7
Craig	65.6	46.8	42.2
Franklin	40.5	52.5	42.2
Roanoke City	52.4	55.0	68.9
Roanoke	51.4	49.1	36.7
Salem	76.2	52.0	49.4
Virginia	39.7	39.2	37.9



	2008	2009	2010
Botetourt	56.2	29.1	21.0
Craig	12.9	11.4	45.0
Franklin	24.7	18.0	27.0
Roanoke City	17.7	25.6	14.4
Roanoke	29.0	13.9	16.6
Salem	11.4	19.0	15.6
Virginia	19.5	19.5	18.7

Prevention Quality Indicators

Prevention Quality Indicators (PQI) identify quality of care for ambulatory-sensitive conditions, conditions for which good outpatient care can prevent hospitalization or for which early intervention can prevent complications and severe disease. In the Roanoke MSA, total PQI hospital discharge rates are higher, at times twice the rate, in the city of Roanoke and/or other localities as compared to Virginia as a whole for the following:

- Adult Asthma– cities of Roanoke and Salem
- Angina– city of Salem
- Bacterial Pneumonia– cities of Roanoke and Salem and Craig County
- Chronic Obstructive Pulmonary Disease– cities of Roanoke and Salem
- Congestive Heart Failure– cities of Roanoke and Salem
- Diabetes– cities of Roanoke and Salem
- Hypertension– cities of Roanoke and Salem and Franklin County[70]

[70] Virginia Atlas of Community Health, County Profiles, 2011, www.atlasva.com/

Roanoke Metropolitan Statistical Area Age-Adjusted Discharge Rates per 100,000

(Virginia Atlas of Community Health, 2011)

Age-Adjusted Discharge Rate per 100,000	Botetourt County	Craig County	Franklin County	Roanoke City of	Roanoke County	Salem City of	*Virginia Total
Adult Asthma PQI Discharges	28.8	26.0	105.5	143.1	47.8	123.6	76.0
Angina PQI Discharges	6.8	0.0	7.6	8.8	6.5	12.1	9.6
Bacterial Pneumonia PQI Discharges	132.0	232.2	171.1	191.6	144.7	319.6	184.5
Chronic Obstructive Pulmonary Disease (COPD) PQI Discharges	87.2	88.5	118.7	218.0	85.2	275.2	125.6
Congestive Heart Failure PQI Discharges	196.0	233.3	168.5	300.3	165.6	356.8	238.1
Diabetes PQI Discharges	80.7	119.8	129.6	277.3	113.7	258.1	134.0
Hypertension PQI Discharges	33.6	12.3	47.3	98.7	28.5	82.2	34.6

Mental Health and Substance Abuse

Approximately one in five Americans experienced some sort of mental illness in 2010 with approximately 5% of Americans suffering from such severe mental illness that it interfered with day-to-day school, work or family. Prevalence of any mental illness was higher in females (23.8%) than males (15.6%); higher for persons with Medicaid, or Children's Health Insurance Coverage (33.4%); and higher for the uninsured (24.9%) than for persons with health insurance (16.1%).[71] Serious psychological distress among adults 18 years and over is two times greater for those living in poverty (less than 100% of the FPL) as compared to those living 100%-200% of poverty and over.[72]

Mental Health and Disorders are a Leading Health Indicator for Healthy People 2020 with a goal to "improve mental health through prevention by ensuring access to appropriate, quality mental health services."

In the Roanoke MSA, adults in the city of Roanoke, the city of Salem, and Roanoke County reported a greater average of mentally unhealthy days in the past month as compared to 3.2

[71] Substance Abuse and Mental Health Administration, Mental Health United States, 2010 http://www.samhsa.gov/data/2k12/MHUS2010/MHUS-2010.pdf

[72] Centers for Disease Control, Health United States, Table 59, 2011 http://www.cdc.gov/nchs/data/hus/hus11.pdf

days in Virginia.[73] National benchmarks established by County Health Rankings are to reduce the average number of mentally unhealthy days reported to 2.2 in the past month.[74]

Number of Mentally Unhealthy Days in the Past Month

(Virginia Department of Health, Office of Family Health Services, Behavior Risk Factor Surveillance System, 2004-2010)

Geography	Mentally Unhealthy Days in the Past Month
Virginia	3.2
Botetourt County	3.1
Craig County	NA
Franklin County	2.9
Roanoke County	3.4
Roanoke City	3.9
Salem City	3.8

Greater than 25% of Community Health Survey respondents reported they have depression or anxiety. The vast majority of respondents did not use mental health, alcohol, or drug abuse services. Most respondents used a doctor/counselor's office (14.6%) or Blue Ridge Behavioral Healthcare (4-5%) as their source of care for these services.

In the Commonwealth of Virginia, Community Services Boards (CSB) are the single point of entry for the Virginia public mental health system serving the low-income populations. Blue Ridge Behavioral Healthcare serves the residents of the counties of Botetourt, Craig and Roanoke and the cities of Roanoke and Salem. Services are available to adults or children with severe and persistent mental illness; severe emotional disorders; substance abuse disorders; and/or intellectual disabilities. Due to drastic state budget cuts, CSB's have limited capacity, serving primarily those with severe mental illness, those discharged from the hospital, or those who are suicidal or homicidal.

Services include:

- Adult Clinical Services programs provide consumers a single point of entry to the agency, crisis response and assessment, case management, and therapeutic services designed for specific populations meeting its admission criteria. Persons with mental disabilities can receive a comprehensive assessment to determine their mental health, intellectual disability, and/or substance use services needs, and be referred

[73] Virginia Department of Health, Office of Family Health Services, Behavior Risk Factor Surveillance System, 2004-2010

[74] University of Wisconsin Population Health Institute & the Robert Wood Johnson Foundation, County Health Rankings, www.countyhealthrankings.org, 2012

to the services which best meet those needs. Services are designed to aid consumers in achieving their highest possible level of functioning.

- Adult Rehabilitative Services programs consist of case management, rehabilitation services, community living services, and support to consumers with intellectual disability. The goal of this community support system is to maximize each consumer's potential for independence, improved quality of life, and optimum level of functioning

- Child & Family Services programs offer an integrated and comprehensive system of early intervention services, therapeutic services, and supports for families of children and adolescents with, or at risk of, developing Serious Emotional Disturbance (SED), Intellectual Disabilities (ID), and/or Substance Use Disorders (SUD). Staff engages families and other natural and formal supports and services to develop a family/child-driven, strength-based and solution-focused plan of services to support the child and family in meeting their goals.

The Department of Psychiatry and Behavioral Medicine at Carilion Clinic employs psychiatrists and therapists who specialize in programs and services for addiction, psychiatric illness, and behavioral problems. It provides inpatient and outpatient treatment programs in Roanoke across the lifespan from children through geriatrics. Additionally, CONNECT, the emergency evaluation and referral service, is available 24 hours daily. The department also operates an Employee Assistance Program (EAP) that offers confidential counseling service to employees of participating companies to help identify and resolve personal and workplace problems.

Through a variety of projects, Carilion Clinic is working to increase access to high-quality psychiatric services in the community. There is a huge challenge, nationally, to deliver adequate psychiatric care for everyone including uninsured, low-income populations. The EDs in our system, especially in Roanoke, are inundated with patients presenting with mental health and substance abuse issues. Consequently, the Department of Psychiatry and Behavioral Medicine partners with Blue Ridge Behavioral Health Services (BRBH) to provide psychiatric services for its patients. This public-private coordinated effort across organizations includes same-day, walk-in services for patients who might otherwise be psychiatrically hospitalized. Furthermore, the Carilion Clinic Addiction Fellowship provides attending and trainee psychiatrists to treat adult patients with substance use disorders, in both ambulatory and residential settings. In order to care for the large number of seriously mentally ill patients presenting to Carilion Clinic's EDs– and due to the shortage of state hospital beds in this region– the psychiatry department expanded its intensive treatment unit to 16 beds.

LIPOS (local inpatient purchase of services) funds were budgeted by the state of Virginia through the Department of Behavioral Health and Disability Services to address the need for more inpatient psychiatric services in the face of a reduction in state hospital beds. LIPOS

funding has increased private psychiatric hospitals' ability to accept acutely ill patients; however, these funds are generally exhausted months before the end of each fiscal year.[75]

Family Service of Roanoke Valley is a private non-profit multi-service agency, serving a diverse population of clients that span the area's economic, ethnic, and cultural divisions. Family Service of Roanoke Valley offers counseling services for victims of sexual abuse; couples, marriage and family counseling; anger management; domestic violence counseling; youth development and outreach; and employee assistance programs. It accepts insured clients and offers a sliding scale fee plan for the uninsured. It does not, however, have a psychiatrist on staff. It serves residents in the Roanoke Valley with offices in the city of Roanoke and in Rocky Mount (Franklin County).

Effective January 2011, New Horizons Healthcare enacted a contract with Family Service of Roanoke Valley to staff the health center for 30 hours a week with three different counselors. This new approach to behavioral health service delivery is different from previous years in that the counselors spend much more time in the clinical area interacting with the medical providers and patients on an as-needed basis. The counselors schedule therapy sessions only after first meeting patients in the clinic. New Horizons Healthcare feels this approach is improving their effectiveness in attracting patients to counseling and ensuring an improved show rate for follow-up appointments.

It also created a new position for a Psychiatric/Mental Health Nurse Practitioner, and successfully recruited an excellent candidate for this position, who joined New Horizons in November 2011. The Nurse Practitioner sees patients on referral from both the medical providers and the counselors, and is gradually building a patient panel. While most of the visits to date have been for initial assessments and medication analysis, she is beginning to see some patients for return visits as well. This addition to the provider team has strengthened New Horizons' overall behavioral health program, as providers, counselors, nurses, and the nurse practitioner share the care for patients who benefit from this holistic approach to care. The Psychiatric Nurse Practitioner serves all ages, including children who previously had been managed by the Carilion Child Psychiatry Fellows program.

New Horizons Healthcare also signed an agreement with the University of Virginia, Department of Telemedicine in December 2010, and has begun coordinating telemedicine visits for its patients in need of specialty care that is not readily available in Roanoke due to the limited number of certain specialists and appointments. It has used dermatology and psychiatry services, but the volume remains fairly low so far. This program requires the patient to

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[75] Carilion Clinic, report from the Practice Administrator Carilion Department of Psychiatry and Behavioral Medicine, August 22, 2012

complete University of Virginia eligibility documents and other paperwork, which is a bit daunting the first time for patients. The Referral Coordinator is assisting patients with the process, and those who have received services via telemedicine have been very satisfied.[76]

Mental Health America of Roanoke Valley has been providing mental health services in the Roanoke Valley for over 60 years. It offers free mental health assessments, psychiatric care, access to medications, and counseling services by volunteer providers to adults with mental illnesses or emotional disturbances who lack financial access to, or are ineligible for, services in any other system of care who are residents of the Roanoke Valley. Eligibility is based on income (less than 200% FPL) and lack of adequate insurance coverage.[77] Through a partnership with Carilion Clinic, the Mental Health Collaborative connects residents with community-based mental health services and medications to help manage their symptoms and decrease exacerbation of mental health issues that require inpatient hospitalization. As previously mentioned, the Bradley Free Clinic and G. Wayne Fralin Free Clinic for the Homeless provide mental health services to their patient populations.

Catawba Hospital, located in the Catawba Valley of Roanoke County, is part of the Commonwealth of Virginia public behavioral health system. Catawba Hospital specializes in serving adults including geriatric individuals who are in need of mental health care. The first priority of Catawba Hospital is to help patients regain and maintain their highest level of mental and physical functioning. The ultimate goal is for patients to return to community living. The hospital is responsive to the needs and preferences of consumers and their families and is invested in the Department of Behavioral Health and Development Services' vision of self-determination, empowerment and recovery. The hospital offers both short-term "acute care" units and dedicated geriatric units. Both private and semi-private rooms are available. Catawba Hospital is affiliated with the University of Virginia School of Medicine, where staff psychiatrists may have faculty appointments and help train psychiatry residents and medical students. A clinical practicum is available for students of various disciplines including nursing, psychology, social work, music therapy, recreation therapy, and food and nutritional services.[78]

In the past five years, the Regional Support Service Plan, known as the Catawba Regional Partnership (CRP), has had a mission to develop and implement a purposefully designed and structured, regional behavioral health care system that serves persons through effective and efficient utilization of all available resources. CRP's vision is to have a partnership of behavioral health care providers and advocates that fully integrates and cooperatively maximizes the

[76] New Horizons Healthcare, Report from the Executive Director, August 17, 2012
[77] MHA of Roanoke Valley, http://www.mharv.com/main/index.php?m=1&p=1
[78] Catawba Hospital http://www.catawba.dbhds.virginia.gov/

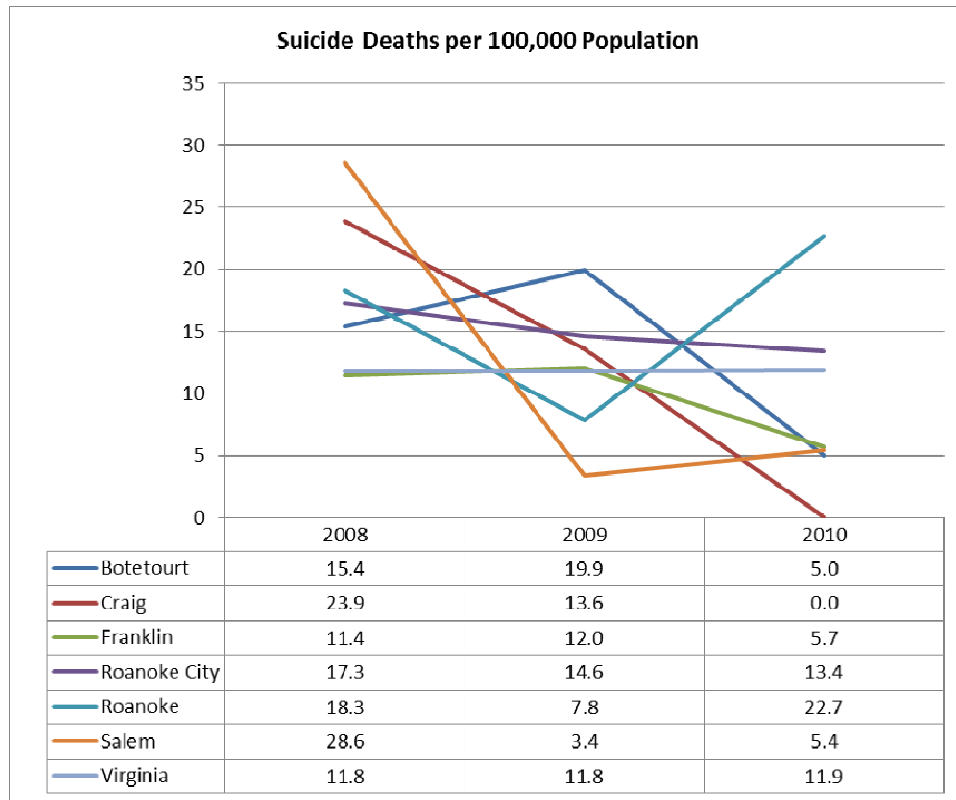
individual resources of each member organization, so that persons seeking services will receive the right treatment, in the right setting, at the right time, thereby improving their chances for recovery. Partners include: Alleghany Highlands Community Services, Blue Ridge Behavioral Healthcare, Carilion Clinic, Catawba State Hospital, Court Community Corrections, LewisGale Medical Center, Mental Health America – Roanoke Valley, National Alliance for the Mentally Ill, Salem VA Medical Center, and The Rescue Mission.[79]

One of Healthy People 2020's targets is to reduce the suicide rate to 10.2 suicides per 100,000 and is a Leading Health Indicator (MHMD-1). Suicide is ranked as the 10th cause of deaths in the United States.[80] Suicide rates for whites (12.5 per 100,000) are two times the rates for blacks (5.0 per 100,000) and Hispanics (6.0 per 100,000).[81] In 2010, suicide deaths in Virginia were most frequently of males (78.3%) and those 45-54 years old (24.4%).[82] In 2010, suicide deaths in the Roanoke MSA were highest in Roanoke County (22.7 per 100,000), more than double the Healthy People 2020 target and the rate for Virginia as a whole (11.9 per 100,000). In the past three years, Roanoke County has experienced a distinct fluctuation in its suicide rates from 18.3 per 100,000 in 2008 to 7.8 per 100,000 in 2009 to its current rate of 22.7 per 100,000 in 2010. There has been a decline in suicide deaths in the city of Roanoke over the past three years, although the death rate continues to exceed the rate statewide and the Healthy People 2020 targets.[83]

[79] Carilion Clinic, report from the Practice Administrator, Carilion Department of Psychiatry and Behavioral Medicine, August 22, 2012
[80] Centers for Disease Control and Prevention, Suicide and Self-Inflicted Injury, FastStats, http://www.cdc.gov/nchs/fastats/suicide.htm accessed 8/18/12
[81] Substance Abuse and Mental Health Administration, Mental Health United States, 2010 http://www.samhsa.gov/data/2k12/MHUS2010/MHUS-2010.pdf
[82] Virginia Department of Health, Office of the Chief Medical Examiner's Annual Report, 2010
[83] Virginia Department of Health, Division of Health Statistics, 2008-2010

Roanoke Metropolitan Statistical Suicide Deaths per 100,000 Population, 2008 - 2010

(Virginia Department of Health, Division of Health Statistics, 2008 - 2010)



	2008	2009	2010
Botetourt	15.4	19.9	5.0
Craig	23.9	13.6	0.0
Franklin	11.4	12.0	5.7
Roanoke City	17.3	14.6	13.4
Roanoke	18.3	7.8	22.7
Salem	28.6	3.4	5.4
Virginia	11.8	11.8	11.9

Like mental health, substance abuse is a Leading Health Indicator for Healthy People 2020 with a goal to "reduce substance abuse to protect the health, safety, and quality of life for all, especially children." Community Health Survey respondents named alcohol and illegal drug use as the top most important health problem in the Roanoke Valley.

Recently the Roanoke Valley has been swept by crime and deaths related to the abuse of synthetic marijuana and bath salts labeled as "designer drugs." Many of these synthetic drugs contain methylenedioxypyrovalerone (MDPV) and mephedrone. They are marketed as legal highs with effects similar to cocaine and Ecstasy and easily found in smoke shops across

southwest Virginia.[84] Roanoke Police officers describe the drugs' effects as "a hurricane that took this area by storm."[85]

Synthetic drugs began appearing in tobacco shops in March 2012 and were sold under various names including Amped, White Water Rapids, Go Fast, and Snowman. Synthetic drugs' violent effects on users overwhelmed police officers and emergency personnel. The southeast neighborhoods of Roanoke were hardest hit due to a tobacco shop in the area that began offering the drugs at a discount when they initially appeared on the market. The impact soon spread throughout the city and into surrounding counties. In May of 2012, Roanoke City Police officers responded to 34 bath salts-related calls and city police chief Chris Perkins called the problem a spreading "epidemic." [86]

Some chemical compounds in synthetic drugs have already been banned in Virginia (beginning on July 1, 2012). Police officers across the Roanoke Valley sponsored two community awareness seminars about synthetic drugs on July 19, 2012 to help keep these substances out of schools and the community.[87] Despite this ban, there is concern that modifications to the drugs will continue to show up legally on the market.[88] The president of the Southeast Action Forum, a neighborhood alliance in southeast Roanoke that advocates and works to create safe, crime-free neighborhoods for its residents, recently remarked that bath salts "were and are a widespread problem" in the area.[89]

In the Roanoke MSA, unintentional injury deaths were higher than the state averages for Botetourt, Craig, and Franklin counties and the city of Roanoke.[90] Drug use was second only to motor vehicle accidents as the common cause of accidental death in Virginia in 2010.[91]

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[84] WDBJ-7, Bath Salts: Deadly High, May 2012, http://www.wdbj7.com/news/wdbj7-bath-salts-deadly-high-20120521,0,1478571. Story accessed 8/16/12

[85] WDBJ-7, Roanoke warns people about the dangers of bath salts, July 19,2012 http://www.wdbj7.com/news/wdbj7-roanoke-warns-people-about-the-dangers-of-bath-salts-20120719,0,1024122 Story accessed 8/17/12

[86] Rob Fischer "Bath salts in the Wound" Vice Magazine. www.vice.com August 13, 2012

[87] WDBJ-7, Roanoke warns people about the dangers of bath salts, July 19,2012 http://www.wdbj7.com/news/wdbj7-roanoke-warns-people-about-the-dangers-of-bath-salts-20120719,0,1024122.story accessed 8/17/12

[88] *The Roanoke Times*, Editorial- Bath salts controversy, Glenn Garvin June 24, 2012

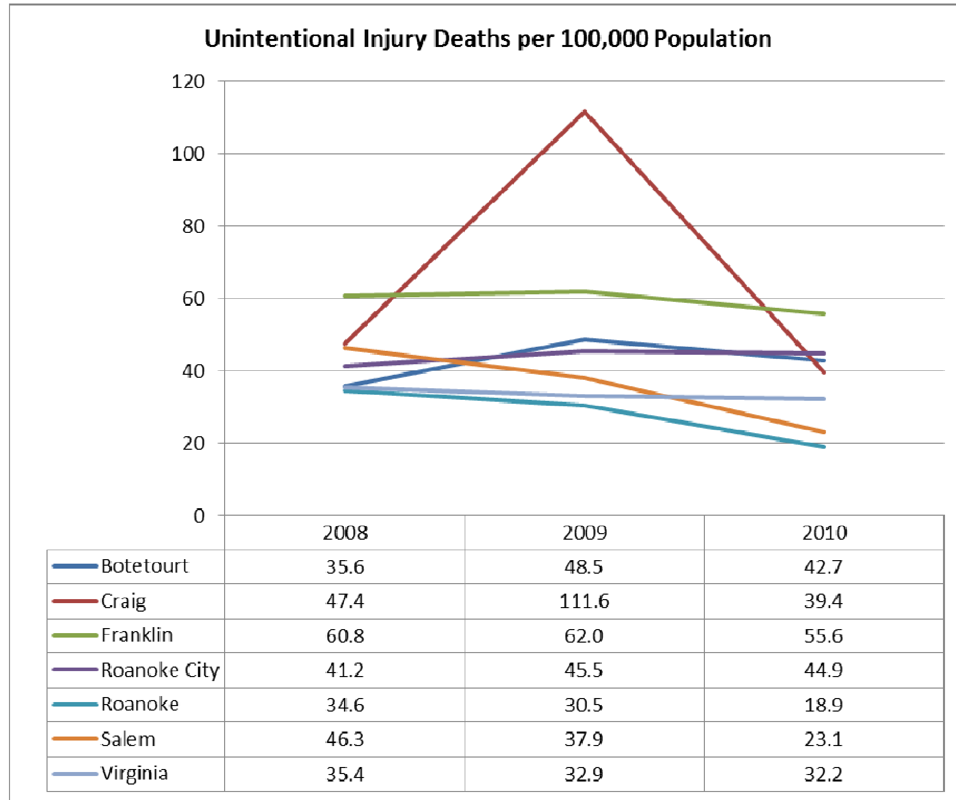
[89] Southeast Action Forum, email correspondence, August 16, 2012

[90] Virginia Department of Health, Division of Health Statistics, 2008-2010

[91] Virginia Department of Health, Office of the Chief Medical Examiner's Annual Report 2010, released December 2011 (www.vdh.state.va.us/medExam/documents)

Roanoke Metropolitan Statistical Unintentional Injury Deaths per 100,000 Population, 2008 - 2010

(Virginia Department of Health, Division of Health Statistics, 2008 - 2010)



	2008	2009	2010
Botetourt	35.6	48.5	42.7
Craig	47.4	111.6	39.4
Franklin	60.8	62.0	55.6
Roanoke City	41.2	45.5	44.9
Roanoke	34.6	30.5	18.9
Salem	46.3	37.9	23.1
Virginia	35.4	32.9	32.2

In 2010, prescription drug deaths accounted for at least 69% of all drug poisoning deaths and continued to increase in the Commonwealth for the second year in a row. More of these deaths were due to oxycodone than methadone. The greatest number of deaths occurred in western Virginia, which includes the Roanoke MSA. Nationally, 15,000 deaths per year are attributed to overdoses of prescription painkillers and are considered a "national epidemic" which started in rural Appalachia.[92]

In the Roanoke MSA, more deaths per 100,000 were attributed to drug/poison (narcotics, antianxiety medication, and alcohol) overdose and prescription drugs (fentanyl, hydrocodone, methadone, and oxycodone) in all localities except Botetourt County as compared to Virginia as a whole. The most startling deaths rates were seen in Craig County, part of rural Appalachia, and the city of Roanoke, where rates were two to four times those in the state.[93]

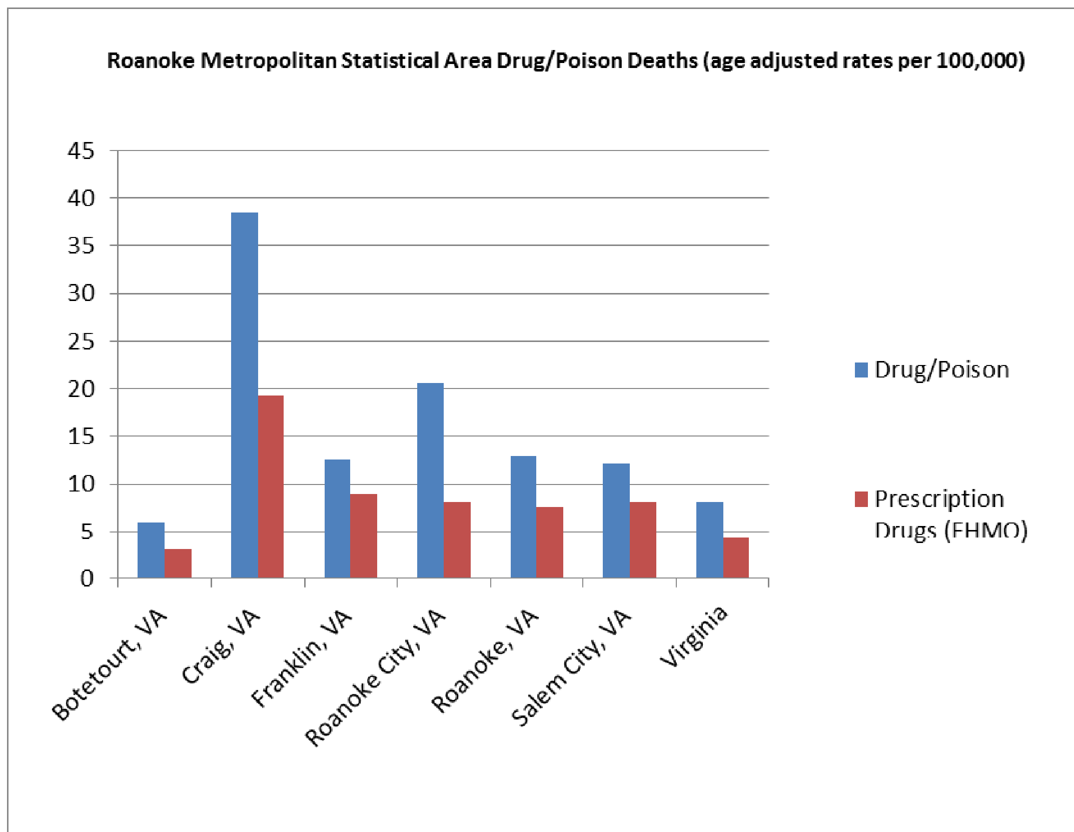
[92] The Champion of Painkillers, www.dailyyonder.com/champion-painkillers/2011/12/27/3657

[93] Virginia Department of Health, Office of the Chief Medical Examiner's Annual Report 2010, released December 2011 (www.vdh.state.va.us/medExam/documents)

Roanoke Metropolitan Statistical Area Drug/Poison Deaths (age - adjusted rates per 100,000)

(Virginia Department of Health, Office of the Chief Medical Examiners , 2010)

Drug/Poison (deaths per 100,000 population)	Botetourt	Craig	Franklin	Roanoke City	Roanoke	Salem City	Virginia
Drug/Poison	6.0	38.5	12.5	20.6	13.0	12.1	8.2
Prescription Drugs (FHMO)	3.0	19.3	8.9	8.2	7.6	8.1	4.4



Oral Health

Oral health is a Leading Health Indicator for Healthy People 2020 with a goal to “prevent and control oral and craniofacial diseases, conditions, and injuries and improve access to preventive services and dental care.” Access to preventive oral health services is a key Healthy People

2020 objective which includes increasing the proportion of children, adolescents, and adults who used the oral health care system in the past 12 months to 49% (OH-7).

Lack of access to dental care for all ages remains a public health challenge. The challenge of providing affordable, accessible dental care to uninsured, underserved and/or low-income adults is a significant issue throughout the Commonwealth. In Virginia, there are no Medicaid dental benefits for adults 21 years of age or older with the exception of those 18-21 years of age enrolled in school, pregnant women who require emergency care or extractions, and adults who require an extraction due to medical necessity**.**

A recent study found that many Virginians don't have access to dental care due to cost and a lack of dentists. The impact is greatest on low-income residents who are uninsured or who have Medicaid. In addition, more black Virginians are less likely to visit a dentist "in the past year" than other groups. More than 15% of Virginia's population lives in areas designated as dental Health Professional Shortage Areas. Residents of the western and southern areas of the state (including the Roanoke MSA) are less likely to receive dental care.[94]

Access for dental services for low-income children has improved greatly in the past 10 years. In 2001, Carilion Clinic's hospital-based pediatric dental program began providing comprehensive services for children and young adults who have limited access to dental care from birth to age 21. Located at CRCH, it offers preventive and restorative procedures for healthy children as well as those who are medically, physically and developmentally disabled. In addition, it offers surgical services for craniofacial deformities such as cleft palate, dental disease and trauma. It caters to medically complex and developmentally delayed children and can provide dental care requiring sedation or general anesthesia.

In 2006, Small Smiles, a national chain of pediatric clinics serving low-income children to age 20, opened a practice in the city of Roanoke.[95] It serves families living at or below 200% of the Federal Poverty Level who have Medicaid and FAMIS (SCHIP) insurance. Both the Carilion Pediatric Dental Clinic and Small Smiles are enrolled as providers with DentaQuest Smiles for Children, the vendor for Medicaid-sponsored dental benefits for children.[96]

The Child Health Investment Partnership (CHIP) of Roanoke Valley "Begin With A Grin" program is an innovative approach to providing preventive dental care to children who are at most risk for dental caries and long-term dental disease. The educational component of the program

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[94] *The Washington Post*, UVA study finds disparities in Virginians' access to dental care, cost is greatest barrier, http://www.washingtonpost.com/local/uva-study-finds-disparities-in-virginians-access-to-dental-care-cost-is-greatest-barrier/2012/08/17/974f9fec-e85c-11e1-9739-eef99c5fb285_story.html accessed August 17, 2012

[95] *The Roanoke Times*, Small Smiles defies traditional system, Jeff Sturgeon August 14, 2006 http://www.roanoke.com/news/roanoke/wb/78070

[96] Find a Dentist, DentaQuest, https://govservices.dentaquest.com, accessed August 11, 2012

(based on the Virginia Department of Health's "Bright Smiles for Babies" curriculum) provides parents with information on proper oral hygiene, nutrition and oral health literacy in an effort to reduce high-risk behaviors that lead to early childhood caries. In addition to educational support, CHIP nurses apply semi-annual dental varnish to the teeth of CHIP-enrolled children, from tooth-bud eruption to age 36 months, who do not presently receive varnish treatments through another health care provider. CHIP nurses provided over 530 fluoride dental varnishes to enrolled children in 2011.[97]

Like CHIP, TAP's Head Start Programs work to ensure that all preschool children have access to continuous accessible dental care provided by a dentist. In 2011, 662 children enrolled in Head Start received a professional dental exam. Of these children, 17% were diagnosed as needing treatment, with 46% receiving treatment.[98]

Of adults 18 and over in the MSA, almost 50% report not seeing a dentist in the past two years.[99] In Local Office on Aging's Health Planning District 5 (excludes Franklin County and includes Alleghany County), seniors were slightly more likely to have visited a dentist in the past year as compared to statewide (80% in the Planning District 5 and 77% in Virginia for ages 50-64; 66% in Planning District 5 and 65% in Virginia for ages 65 and over).[100] In Fiscal Year 2011, CRMH's ED reported that "dental and oral diseases" was one of the top ten diagnoses for self-pay patients, accounting for almost 4% of self-pay visits.[101]

Community Health Survey respondents in the service area revealed that one in four does not go to the dentist for regular care, and nearly half of respondents reported that it is most difficult to get adult dental care in the community. The Virginia 2-1-1 Southwest call center provides free information and referral services to callers related to health and social service needs. In 2011, it reported that calls for dental care were the sixth most-frequent call to the center by residents living in the city of Roanoke.[102]

Health and human services providers, as well as residents participating in focus group meetings, report that access to affordable dental care for uninsured and low-income adults is one of the greatest needs in the Roanoke Valley. Roanoke has a disjointed "patchwork" of oral health care for the uninsured and low-income adults, and it's focused mostly on immediate pain management, extractions, and restorations for a limited few. The Bradley Free Clinic (through direct services) and Project Access (through referral) provide free and reduced cost care to the working poor. However, many adults who are disabled, elderly, or chronically unemployed do

[97] Child Health Investment Partnership of Roanoke Valley, www.chiprv.org, accessed August 20, 2012
[98] Total Action Against Poverty (TAP) Head Start Program Information Report 2011
[99] Virginia Atlas of Community Health, County Profiles, 2011 www.atlasva.com
[100] Older Dominion Partnership 2011 Virginia Age Ready Indicators Benchmark Survey, November 15, 2011
[101] TrendStar, Carilion Medical Center Patient Origin, Inpatient/Outpatient, Fiscal Year 2011
[102] Virginia 211 Southwest Center, 211 GetCare Caller needs detail, 2011

not qualify for their services. The Fralin Free Clinic for the Homeless provides free dental care to its homeless guests and recovery program residents using volunteer dentists. Virginia Western Community College's School of Dental Hygiene offers free cleanings to low-income residents in its student-run campus clinic. All these programs have limited appointment slots and remain at or above capacity.

The Craig County Dental Clinic, the dental component of the FQHC in Craig County, has been providing comprehensive dental services on a sliding-fee basis to children and adults since May 2010. In addition to its fixed site in New Castle, it uses portable equipment to provide dental care to public school children at their School Wellness site on the school campus. It has experienced a great demand for their services and have quickly reached capacity. New Horizons Healthcare will have eight dental operatories as part of its new facility but is currently seeking funding to support the operations of a dental clinic.

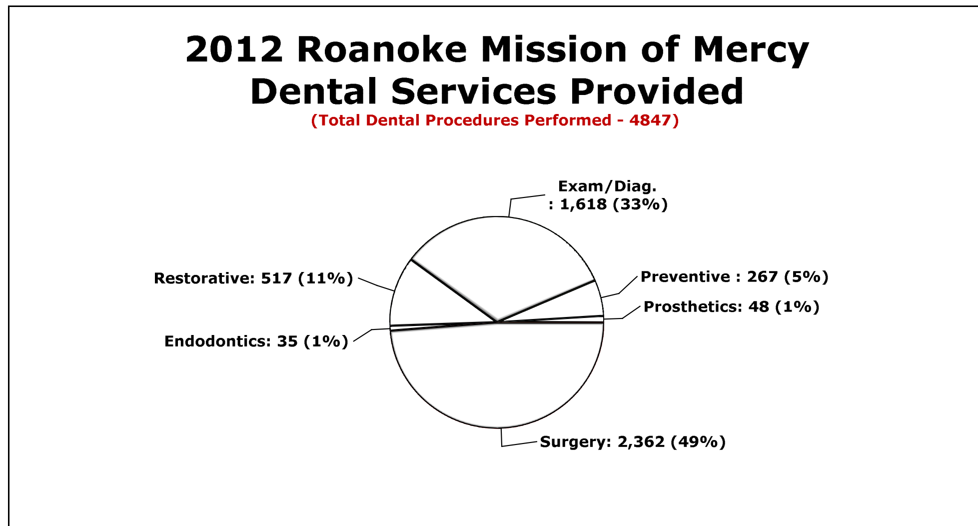
The Community Based Health Care Coalition (CBHCC) champions initiatives for access to oral health care services for special populations in southwest Virginia, and it was instrumental in the development of the Carilion Pediatric Dental Clinic. Since January 2007, the CBHCC has worked to increase access to dental services for underserved, uninsured adults through the Roanoke Mission of Mercy (MOM) project. The MOM projects are conducted in identified, underserved areas of the state where there are not enough dental practitioners to adequately address the oral health needs of the community.

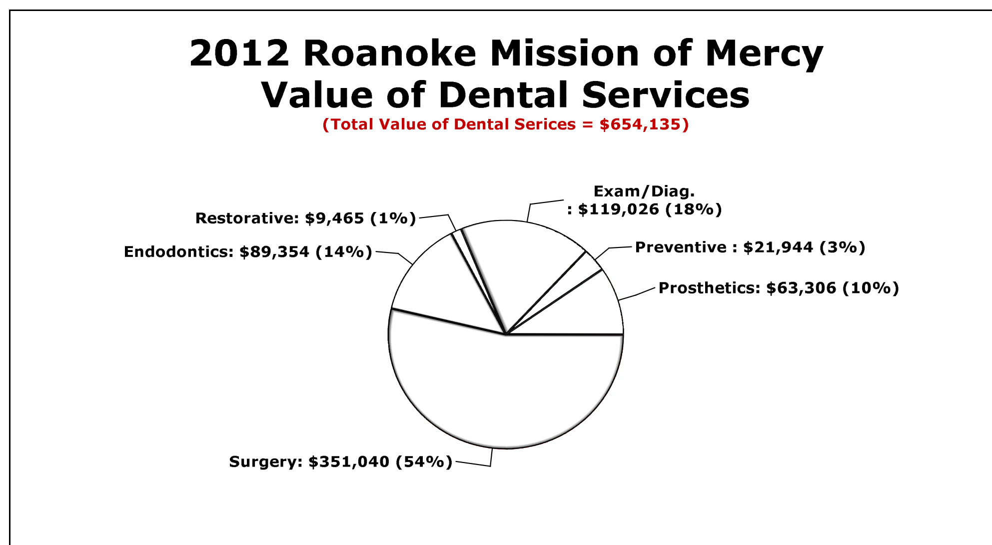
MOM has provided free dental care to uninsured or underinsured low-income adults in the Roanoke Valley and surrounding localities. The project is funded in large part by the Carilion Clinic Foundation, Delta Dental, the Roanoke Women's Foundation and the United Way. The MOM clinic held annually uses portable dental equipment and is staffed by hundreds of volunteer dentists, dental students, dental hygienists and assistants, and numerous other volunteers. In the past five projects, MOM has served nearly 5,000 patients offering a variety of free services from oral hygiene, restorative care and oral surgery for a value of over $3.6 million.

In 2012, the majority of Roanoke MOM patients were low-income, uninsured adults with 35% living below 100% of the FPL, 65% having no medical and 97% having no dental insurance. In 2012, the Roanoke MOM served 33 localities including the Roanoke, New River, and Shenandoah Valleys; far southwest Virginia; and central and southside Virginia. Of the 985 registered patients, 16% (133 patients) did not report a place of residence. Of the remaining, the majority lived in the city of Roanoke (47%), Roanoke County (8%), Franklin County (6%), the City of Salem (5%), Montgomery County (5%), and Bedford County (4%). Sixty-three percent of those served lived in the Roanoke MSA. Twenty-five (3%) patients indicated that they were

homeless; twenty-two (3%) patients indicated that they were veterans. Four patients were both homeless and veterans.[103]

Dental services and value of services in 2012 included:





One of the proposed objectives for Healthy People 2020 for Oral Health is to "increase the number of adults who never had a tooth extracted because of dental caries or periodontal disease." These extractions are an indicator of poor oral health and a key predictor of overall health and quality of life. Many of the patients who presented to the 2012 Roanoke MOM reported having no regular dental care and most had not seen a dentist in years and presented with severe dental disease and tooth decay. Almost half of services performed (49%) were for

[103] Roanoke Mission of Mercy Executive Summary 2012

oral surgery, 11% for fillings, and 5% for dental hygiene. Fifty-three percent (53%) of the patients who presented to the 2012 Roanoke MOM project had extractions, with an average of 5.4 teeth pulled per patient, for a total of 2,361 teeth pulled. The majority of these patients were under 30 years of age, 20% were 30-39, 18% were 40-49, and over 21% were 50-59.

The following table delineates the extractions by age of patient.

Age of Patient	Number of Patients with Extractions	Total Number of Teeth Pulled	Average Number of Teeth Pulled per Patient	% of Teeth Pulled Per Age Group
Up to Age 29	93	518	5.6	22%
30-39	86	463	5.4	20%
40-49	74	434	5.9	18%
50-59	81	496	6.1	21%
60-69	90	315	3.5	13%
70-79	9	51	5.6	2%
80-89	3	17	5.7	1%
Unknown	12	67	5.6	3%
Total	437	2361	5.4	100.0%

A problem exists for the patients who often need dentures or partials after the extractions. Although a limited number of dentures (21 complete upper and 25 complete lower) and partials (2) were provided on site at the Roanoke MOM, it is recognized that the need remains much greater. The Roanoke MOM, with coordination and support from a local dentist, was able to provide a new type of prosthetic which can be made and fitted during the two-day event, with the majority of patients needing only minor adjustments later. There are few affordable providers in the region who offer these services, and the Community Based Health Care Coalition continues to work on solutions to this critical issue, including seeking additional funding to provide more of these denture products for future projects.

The Carilion Foundation has been a strong supporter of the MOM Project. In addition, many Carilion Clinic employees provide leadership and volunteer hours to the project each year.

Prevention and Wellness

In the United States, 7 of the 10 leading causes of death are due to chronic illnesses that can often be prevented by adopting healthy behaviors and reducing health risk factors such as

tobacco use, physical inactivity, poor nutrition, and obesity.[104] In addition to reducing risk factors, adherence to preventive screenings and care can greatly reduce the incidence of chronic disease and greatly improve quality of life.

County Health Rankings

Beginning in 2010, the County Health Rankings have analyzed localities in all 50 states using measures to determine how healthy people are and how long they live. These measures include (1) health outcomes which look at how long people live (mortality) and how healthy people feel while alive (morbidity); and (2) health factors which represent what influences the health of a county, including health behaviors, clinical care, social and economic factors, and physical environment.[105] The lower the overall ranking, the healthier the community.

Since 2010, the City of Roanoke has been ranked the unhealthiest locality in the Roanoke Valley, even as the other communities in the MSA report much healthier populations.

County Health Rankings– Health Outcomes (out of 131)			
Locality	2010 Rank	2011 Rank	2012 Rank
Botetourt	41	42	44
Craig	20	59	63
Franklin	61	58	67
Roanoke	29	30	33
Roanoke City	116	117	116
Salem City	44	39	35

County Health Rankings– Health Factors (out of 131)			
Locality	2010 Rank	2011 Rank	2012 Rank
Botetourt	13	11	11
Craig	36	41	61
Franklin	62	68	64
Roanoke	5	4	9
Roanoke City	127	122	124
Salem City	37	20	29

[104] Centers for Disease Control and Prevention, CDC's Health Communities Program accessed 8/11/2012, http://www.cdc.gov/healthycommunitiesprogram/overview/diseasesandrisks.htm
[105] University of Wisconsin Population Health Institute & the Robert Wood Johnson Foundation, County Health Rankings, www.countyhealthrankings.org, 2012

Health Risk Factors

Low education levels in the region, high poverty rates, and an increased proportion of minority populations result in the inability for many to understand the complexities of health care resulting in poor compliance with disease management goals, preventive services and screenings, and follow-up with providers.

High blood pressure and high cholesterol are two of the controllable risk factors for heart disease and stroke. Reducing the proportion of adults with hypertension to 26.9% (HDS-5) and high blood cholesterol levels to 13.5% (HDS-7) are two targets for the Healthy People 2020 goal to improve cardiovascular health. More adults living in the Roanoke City/Alleghany Health Districts reported having hypertension or high blood cholesterol levels as compared to statewide. Both health districts and state rates exceeded Healthy People 2020 targets, with the highest rates belonging to those who live in the city of Roanoke.[106]

Health Risk Factors– High Blood Pressure and Cholesterol

(Virginia Department of Health, Virginia Behavior Risk Factor Surveillance System, 2010)

Adult Age 18+ Health Risk Profile	Alleghany Health District	Roanoke City Health District	Virginia
High Blood Pressure (told by a doctor or other health professional)	29.9%	39.6%	27.5%
High Cholesterol (told by a doctor or other health professional) %	37.5%	52.9%	36.7%

One of the Healthy People 2020 Leading Health Indicators addresses the effects of tobacco and a goal to "reduce illness, disability, and death related to tobacco use and secondhand smoke exposure." One of its key objectives is to reduce the number of adults who are current smokers to 12% (TU-1). In Franklin County and the cities of Roanoke and Salem, more adults smoke daily or most days (24%, 26%, and 24% respectively) as compared to adults in Virginia (19%), which is two times the Healthy People 2020 target.[107]

[106] Virginia Department of Health, Office of Family Health Services, Behavior Risk Factor Surveillance System, 2010
[107] Virginia Department of Health, Office of Family Health Services, Behavior Risk Factor Surveillance System, 2004-2010

Health Risk Factors– Adult Smoking

(Virginia Department of Health, Virginia Behavior Risk Factor Surveillance System, 2004-2010)

Locality	% Adults who smoke daily or most days
Virginia	19
Botetourt County	12
Craig County	NA
Franklin County	24
Roanoke County	17
Roanoke City	26
Salem City	24

Nutrition, Weight Status, and Physical Activity

A healthy body weight, good nutrition, and physical activity are positive predictors of good health and are a Healthy People 2020 Leading Health Indicator. The prevalence of overweight and obesity has increased tremendously in the past 30 years and is at epidemic proportions in the United States. These increasing rates raise concern because of their implications on health and their contribution to obesity-related diseases like diabetes and hypertension. Overall, persons who are obese spend 42% more for medical care than do normal weight adults.[108] Reducing the proportion of adults who are obese to 30.6% is a Healthy People 2020 Leading Health Indicator (NWS-9). In the Roanoke MSA, more are obese in Franklin County (30%) and the city of Roanoke (34%) as compared to 28% in Virginia.[109] Being overweight or obese was identified as one of the top three most important health problems by Community Health Survey respondents, while "poor eating habits" was identified as one of the top three risky behaviors that impact health in the community.

The benefits of physical activity include weight control; reduction of risk for cardiovascular disease, diabetes, and some cancers; and increased strength and overall well-being. In the Roanoke MSA, more adults in Craig County (26%), Franklin County (26%), and the city of Roanoke (27%) reported no-leisure-time physical activity as compared to adults in Virginia (24%).[110] These percentages are better than the Healthy People 2020 target to reduce the proportion of adults who engage in no-leisure-time physical activity to 32.6% (PA-1).

Health Risk Factors-Obesity and Physical Inactivity

[108] Centers for Disease Control and Prevention, Study Estimates Medical Cost of Obesity May be as High as $147 Billion Annually, July 27, 2009, www.cdc.gov/media/pressrel/2009/r090727.htm

[109] Virginia Department of Health, Office of Family Health Services, Behavior Risk Factor Surveillance System, 2004-2010

[110] Virginia Department of Health, Office of Family Health Services, Behavior Risk Factor Surveillance System, 2004-2010

(Virginia Department of Health, Virginia Behavior Risk Factor Surveillance System, 2004-2010)

	Adult obesity	Physical inactivity
Locality	**% Obese**	**% No Leisure Time Physical Activity**
Virginia	28	24
Botetourt County	29	22
Craig County	27	26
Franklin County	30	26
Roanoke County	27	24
Roanoke City	34	27
Salem City	28	23

The presence of recreational facilities in a community can influence a person's ability to engage in physical activity. In the Roanoke MSA, there were fewer recreational facilities in more-rural localities (Botetourt, Craig and Franklin Counties) as compared to the urban communities of Roanoke County and the cities of Roanoke and Salem.[111] In addition, rich in scenic beauty, the Roanoke Valley boasts miles of hiking and biking trails, greenways, and rivers for outdoor recreation.

Access to Recreational Facilities

(U.S. Department of Agriculture, Food Environment Atlas Census County Business Patterns, 2009)

Access to recreational facilities		
Locality	**Rec. Facs.**	**Rec. Fac. Rate**
Botetourt	3	9.2
Craig	0	0.0
Franklin	4	7.7
Roanoke City	16	16.9
Roanoke	12	13.2
Salem City	3	11.8
Virginia	859	10.9

Access to healthy foods directly impacts an individual's (and community's) ability to consume fruits, vegetables, and whole grains. Increasing the proportion of Americans who have access to a food retail outlet that sells a variety of foods encouraged by the Dietary Guidelines is an objective of Healthy People 2020 (NWS-4). More residents in the rural areas of the MSA (Botetourt, Craig and Franklin counties) and the city of Roanoke have limited access to healthy foods as compared to Virginia as a whole (7%).[112]

[111] U.S. Department of Agriculture, Food Environment Atlas Census County Business Patterns, 2009
[112] U.S. Department of Agriculture, Food Environment Atlas 2006

Access to Healthy Food

(U.S. Department of Agriculture, Food Environment Atlas 2006)

	Limited access to healthy foods	
Locality	**# Limited Access**	**% Limited Access**
Botetourt	5755	19
Craig	1156	23
Franklin	12557	27
Roanoke City	13135	14
Roanoke	6222	7
Salem City	1604	7
Virginia	493435	7

In the city of Roanoke, food deserts exist in census tracts located in the MUAs of northwest and southeast Roanoke. Food deserts are defined as an area where residents are poor, lack transportation and have no supermarkets to supply healthy food choices. In Virginia there are 200 census tracts identified as food deserts, and 29 of them have been identified as having no access to a supermarket or grocery store. Four of the 29 are located in the city of Roanoke, where 100% of people have no access to a supermarket or large grocery store in census tracts 5, 11, 25 and 26.[113] All census tracts border each other from northwest to downtown to the southeast side of the city. Census tracts 25 and 26 are located in the MUA of the city.

[113] *The Roanoke Times*, Food deserts parch Roanoke residents of nutrition, money,. Matt Chittum July 24, 2011

Census Tract Food Deserts

(United States Department of Agriculture, Ecomonic Research Service, 2011)

Locality	Census Tract	Total Population	Percentage of people with low access to a supermarket or large grocery store	Number of people with low access to a supermarket or large grocery store	Percentage of total population that is low-income and has low access to a supermarket or large grocery store	Number of low-income people with low access to a supermarket or large grocery store
Roanoke City	1	3800	49.6	1884	6.9	263
Roanoke City	24	4406	39.8	1753	7	305
Roanoke City	5	4666	100	4666	12.1	549
Roanoke City	6.01 6.02	7468	55.6	4150	10.3	768
Roanoke City	25	3546	100	3546	34	1129
Roanoke City	9	5259	11.9	626	3.7	193
Roanoke City	10	2785	31.5	877	13.7	378
Roanoke City	11	874	100	874	40.4	88
Roanoke City	26	4411	100	4411	32.2	1402
Roanoke City	27	3573	41	1466	9.3	330
Roanoke City	28	4844	44.2	2140	4.1	195
Roanoke City	19	4842	19.8	957	1.8	87
Roanoke City	23	5079	9.9	504	0.8	40
Roanoke county	1	7782	21.9	1703	3.1	236
Salem	1	5932	35.3	2091	2.2	121
Salem	3	4389	19.4	853	2.1	92

Accessibility to and affordability of healthy foods in the city of Roanoke are issues being addressed by non-profit organizations in the community. LEAP (Local Environmental Agriculture Project) exists for the purpose of developing, supporting and sustaining a local food system in the greater Roanoke region of southwestern Virginia. It believes that a healthy local food system leads to both a healthier local population and a healthier local economy. In short, connecting local food with local folks is a win-win.[114] Its current projects are the Grandin Village Community Market and the West End Community Market (located in the northwest MUA. The markets feature 100% locally produced food, meaning they must originate within 100 miles of our locations, food items with an emphasis on organically grown fruit and produce, and humanely raised, pastured meats, poultry, and eggs. They accept SNAP-EBT benefits (food stamps) at both markets and double those benefits with funds donated by a local law firm. They match every dollar spent by a SNAP-EBT recipient, making local healthy foods more

[114] LEAP, report from the Executive Director, August 17, 2012

affordable. The SNAP-EBT program has steadily grown since it began in May 2011, with sales increasing each consecutive month. This equates to more fresh healthy food reaching low-income residents, and increased sales for partner farmers and food producers. Plans are under way to open a market in the near future in northwest Roanoke to further reach more low-income residents. In addition to continuing to offer the SNAP-EBT "Double your Dollars" program, LEAP plans to pursue WIC and senior nutrition programs.

LEAP believes that accessibility and affordability are just part of the equation. Residents need education. In September 2012, LEAP is piloting a program that will provide both shopping and cooking instruction to low-income families by teaching them about food items at the markets, how to economically shop at the markets for their families, and how to prepare these items for a healthy, and most importantly delicious, meal that the whole family can enjoy and benefit from.

Carilion Clinic is funding similar SNAP-EBT efforts at the Roanoke City Market in downtown Roanoke. In addition, to promote health in the community and to their employees, CRMH hosts a Farmers Table Tuesday afternoons from May to October.

The Roanoke Community Garden Association's (RCGA) mission is to promote, educate, and provide information about organic gardening principles, diet, nutrition, and food security that sustains the Roanoke region through the creation of community gardens. Currently, it administers three large community gardens in the city of Roanoke, two located in MUAs of southeast and northwest Roanoke (14th St. S.E., Hurt Park Community Garden and the Campbell Avenue Community Garden). RCGA is currently examining two sites in northwest Roanoke in an effort to expand its outreach to numerous communities.[115]

RCGA assists approximately 300 registered community gardeners in growing food (while also growing thousands of pounds of food for local pantries). Each garden has allotments for families and individuals (including beds that are ADA-accessible) where participants grow the healthy organic food of their choosing. The gardens are connecting people from all walks of life (one-third of participants are first-generation immigrants, many of them refugees); include green amenities such as rainwater harvesting and composting facilities; and are locations for educational workshops.

RCGA recently completed a summer youth gardening program with 25 children from the West End Center for Youth– an afterschool and summer program in the northwest MUA serving low-income and underprivileged children. RCGA is currently working (in partnership with Carilion Clinic and Roanoke City Public Schools) on designing and constructing a children's garden at the Hurt Park Elementary School– where over 94% of children were eligible for free and reduced

[115] Roanoke Community Garden Association, report from the Executive Director, August 15, 2012

lunches during the 2011-2012 school year– which will be available to students for the fall 2012 term.

RCGA partnerships are many and are the core of the organization. They have worked with student volunteers from Hollins University, Roanoke College and the Virginia Tech Carilion School of Medicine through volunteer workdays, internships, and service learning projects. They are currently working with an intern from Roanoke College who will be focused on creating an ethnological study of the gardeners. They recently established a relationship with Goodwill Industries, who will provide employees over 55 years of age for a jobs training program called the Senior Community Service Employment Program. Many community volunteers (West End Center for Youth, Family Service, Freedom First, Leadership Roanoke Valley, Legacy International, United Way, REACH Roanoke, Roanoke Jaycees) are helping RCGA through service days to establish gardens. And of course, the gardeners themselves are taking the reins of the gardens and maintaining the sites.

In the Roanoke Valley, there are approximately 80 food programs, pantries, and soup kitchens helping to address hunger for the neediest residents in the area.[116] Feeding America Southwest Virginia, headquartered in the city of Salem, is the largest food bank in the region, serving 26 counties and 10 cities, including localities in the MSA. In 2011, it distributed over 17.5 million pounds of food with a value of $24 million. However, it reports the availability of donated food in the region is shrinking.[117] Located in the southeast MUA, Rescue Mission Ministries served 350,195 meals to homeless individuals and families in 2011.[118] The Presbyterian Community Center, also in southeast Roanoke, has a food pantry that provides food to residents of northeast and southeast Roanoke city, eastern Roanoke County and the town of Vinton who live below 200% of the FPL. In downtown Roanoke, Roanoke Area Ministries and St. Francis House provide meals and food to the needy. A multitude of faith-based programs ensure individuals and families are fed.

The Local Office on Aging offers Meals on Wheels to homebound seniors, 60 and older who live in the Fifth Planning District. The program serves over 650 recipients each week day and provides a hot nutritious mid-day meal that meets one-third of the U.S. Recommended Daily Allowance.[119] In addition, it sponsors Congregate Meals Programs, “Diners Clubs” at sites centrally located in its service area offering lunch and recreational and educational activities for their participants. Diners Clubs are located at both public housing neighborhoods (Melrose

[116] United Way of Roanoke Valley, Council of Community Services, Roanoke Valley Alleghany Regional Commission, Income Mapping Project, accessed 8/27/12
[117] Feeding American Southwest Virginia, www.faswva.org/, accessed 8/27/12
[118] Rescue Mission Ministries, Annual Report, 2011
[119] Local Office on Aging, http://www.loaa.org/meals-on-wheels/ accessed 8/18/2012

Towers and Morningside Manor) serving elderly and disabled adults in the city of Roanoke located in the northwest and southeast MUAss.

Clinical Preventive Screenings

According to the National Cancer Institute, deaths can be greatly reduced for breast, cervical, colon, and rectal cancer through early detection and screening tests. In the Roanoke City/Alleghany Health Districts, more women 18 years and older had no Pap test in the past three years as compared statewide, fewer women had no mammogram in the past three years; and more adults 50 years of age and older had no fecal occult blood test within the past two years.[120]

Health Risk Factors– Cancer Screenings, 2010

(Virginia Department of Health, Virginia Behavior Risk Factor Surveillance System, 2010)

Adult age 18+ Health Risk Profile	Alleghany Health District	Roanoke City Health District	Virginia
Percent of women 18 and older with no Pap test in past 3 years	16.8%	16.8%	13.2%
Percent of women 40 and older with no mammogram in past 3 years	15.9%	14.7%	10.1%
Percent of adults 50 and older with no fecal occult blood test within the past 2 years	66.0%	53.9%	49.3%

Maternal, Infant and Child Health

Prenatal and Perinatal Health Indicators

Maternal and child health is a Healthy People 2020 Leading Health Indicator with the goal to "improve the health and well-being of women, infants, children and families." Infant mortality is affected by many factors, including the socio-economic status and health of the mother, prenatal care, birth weight of the infant, and quality of health services delivered to both the mother and child.

Healthy People 2020 objectives and targets are as follows:

MICH- 1.3: Reduce the rate of infant deaths (within 1 year) to 6.0 infant deaths per 1,000 live births

MICH- 8.1: Reduce low birth weight (LBW) to 7.8% of live births

[120] Virginia Department of Health, Virginia Behavior Risk Factor Surveillance System, 2010

MICH- 10.1: Increase the proportion of pregnant women who receive early and adequate prenatal care to 77.9%

In the Roanoke MSA in 2010, fewer women had late entry into prenatal care as compared to statewide– well above the Healthy People 2020 Target.[121]

Late Entry into Prenatal Care, Roanoke MSA, 2010

(Virginia Department of Health, Division of Health Statistics, 2010)

Prenatal & Perinatal Health Indicators	BOTETOURT	CRAIG	FRANKLIN	ROANOKE CITY	ROANOKE	SALEM CITY	VA
Late entry into prenatal care (entry after first trimester) Percent of all births	2.9%	6.1%	6.2%	1.7%	2.4%	4.2%	18.1%

Despite better early entrance into prenatal care, low birth weight (LBW) rates and infant mortality rates in portions of the MSA are higher as compared to statewide. Five-year averages for LBW and infant mortality rates reveal that LBW rates (percent of live births) in the city of Roanoke (10.9%) are the highest in the MSA as compared to the rate statewide. LBW rates for the city of Roanoke, the city of Salem, Franklin County, and Virginia as a whole exceed the Healthy People 2020 target of 7.8% of live births.[122]

Five-year infant mortality rates per 1,000 births across the MSA and the state exceed the Healthy People 2020 target of 6.0 infant deaths per 1,000 live births. The rates in Botetourt County and the city of Roanoke are higher than in Virginia as a whole. However both localities have seen recent improvements in these rates.

Prenatal & Perinatal Health Indicators, Roanoke MSA, 5-year average, 2006-2010

(Virginia Department of Health, Division of Health Statistics, 2006-2010)

	BOTETOURT	CRAIG	FRANKLIN	ROANOKE CITY	ROANOKE	SALEM CITY	VA
Low Birth Weight Rate (5-year average) %	7.4%	7.1%	8.0%	10.9%	7.6%	8.2%	8.40%
Infant Mortality Rate (5-year average) Number per 1,000 births	12.5	4.8	7.0	10.7	5.3	7.4	7.1

[121] Virginia Department of Health, Division of Health Statistics, 2010
[122] Virginia Department of Health, Division of Health Statistics, 2010

Infant Mortality Rates per 1,000 live births					
	2006	**2007**	**2008**	**2009**	**2010**
Botetourt County	10.8	19.5	11.3	11.5	8.2
Roanoke City	12.0	12.0	10.1	11.7	7.6

Racial disparities exist for infant death rates across the state. In 2010, the total live birth rate in Virginia was 12.9 per 1,000 live births, with more births to blacks and others (including Hispanic and Asian) than to whites. The infant death rate per 1,000 live births in 2010 was 6.8 overall. However this rate was more than double (14.6 per 1,000 live births) for black infants.[123]

In the Roanoke MSA, the total live birth rate in the city of Roanoke (15.0 births per 1,000) exceeded the statewide average, with more births to whites than blacks or other races. Infant mortality rates in the MSA were highest in Botetourt County (8.2) and the cities of Roanoke (7.6) and Salem (7.7) as compared to statewide averages. All infant deaths in Botetourt County were for white infants (8.5 deaths per 1,000 live births) and all infant deaths in Salem were black infants (71.4 deaths per 1,000 live births). In the city of Roanoke, infant deaths for black infants (12.0 deaths per 1,000 live births) and for "other" infants (35.7 deaths per 1,000 live births) were two to seven times greater, respectively, than the rate for white infants (5.0 deaths per 1,000 live births).

Prenatal & Perinatal Health Indicators, Roanoke MSA, 2010

(Virginia Department of Health, Division of Health Statistics, 2010)

Total Live Births Rates by Race, 2010	BOTETOURT	CRAIG	FRANKLIN	ROANOKE CITY	ROANOKE	SALEM CITY	VA
Live Birth Rates per 1,000	7.3	6.4	9.1	15.0	8.5	10.4	12.9
Live Birth Rates per 1,000 (White)	7.4	6.5	9.5	15.4	8.4	9.8	11.9
Live Birth Rates per 1,000 (Black)	6.5	-	5.1	14.3	8.2	14.8	13.7
Live Birth Rates per 1,000 (Other)	3.4	45.5	12.5	11.8	13.8	21.7	20.4

Total Infant Deaths by Race, 2010	BOTETOURT	CRAIG	FRANKLIN	ROANOKE CITY	ROANOKE	SALEM CITY	VA
Infant Death Rates per 1,000 live births	8.2	-	2.0	7.6	2.5	7.7	6.8
Infant Death Rates per 1,000 live births (White)	8.5	-	2.1	5.0	2.8	-	4.9
Infant Death Rates per 1,000 live births (Black)	-	-	-	12.0	-	71.4	14.6
Infant Death Rates per 1,000 live births (Other)	-	-	-	35.7	-	-	2.5

[123] Virginia Department of Health, Division of Health Statistics, 2010

Since 1996, the teen pregnancy rate in the city of Roanoke has been one the highest in the state, but recently the city saw a dramatic drop in its rate from 2009 to 2010, moving it out of the top 10 localities, to a ranking of 12th.[124] The rate, however, continues to be the highest in the Roanoke MSA (42.8 per 1,000 births) and is more than double the state is (21.1 per 1000 births).[125]

Teen Pregnancy Rate			
PREGNANCY RATE PER 1,000 FEMALES AGES 10-19 (per 1,000 births)	**2008**	**2009**	**2010**
BOTETOURT COUNTY	12.9	11.6	11.4
CRAIG COUNTY	25.5	32.9	12.3
FRANKLIN COUNTY	32.4	24.4	19.3
ROANOKE CITY	59.5	62.7	42.8
ROANOKE COUNTY	16.6	17.0	18.6
SALEM CITY	22.5	21.2	19.8
VIRGINIA	26.3	24.3	21.1

According to a recent article in *The Roanoke Times*, the number of drug-exposed babies has more than doubled in Virginia in the past 10 years according to the Virginia Department of Social Services (DSS). In 2011, the number of cases in Roanoke (41) reported to DSS was second only to Richmond (56 cases), the state's capital.[126] These babies who often undergo severe withdrawal symptoms after birth must be given narcotics and sedatives to help minimize their symptoms. Although traditionally these infants have been managed in the hospital, since 2009 Carilion Clinic has had a program where, with close physician supervision, these babies can be managed at home, where they can be in a nurturing environment. This cost-effective system has resulted in decreased stays in neonatal intensive care from an average of 35 days to 13 days where the cost is estimated at $1,200 per day and has met with success.

In Virginia, Regional Perinatal Councils were established to provide support for the well-being of infants, pregnant women and women of reproductive age through education programs and reviews of infant deaths in the region. Since 1992, Carilion Clinic has served as the lead agency for the Southwest Virginia Perinatal Council, serving 24 counties, nine cities, and seven health districts in southwestern Virginia. These perinatal councils have been funded by the Virginia Department of Health, which has recently decided to restructure the program and its goals due to stagnant infant mortality rates over the past decade and distinct disparities among racial

[124] *The Roanoke Times*, Roanoke's teen pregnancy rate falls 32%, Courtney Cutright, January 20, 2012 http://www.roanoke.com/news/roanoke/wb/303746
[125] Virginia Department of Health, Division of Health Statistics, 2010
[126] *The Roanoke Times*, Born to addiction, Sarah Bruyn Jones, March 11, 2012 http://www.roanoke.com/news/roanoke/wb/306088

groups (especially blacks).[127] Current funding for the programs is available through the state's allotment from the federal Maternal and Child Health Services Block Grant Program and is expected to end by December 2012.

Carilion Clinic's Obstetrics and Gynecology (OBGYN) and Pediatric Clinics serve as a referral source for a large number of low-income Medicaid and self-pay clientele in the Roanoke MSA and a large proportion of minority groups. In Fiscal Year 2011, the OBGYN Clinic served 3,040 patients, of which 57.0% were white, 23.3% black, 1.5% Asian, and 14.3% Hispanic. The majority of women were low-income, with 66.8% enrolled in Medicaid and 20.5% uninsured.[128] The Pediatric Clinic served 8,439 patients, of which 33.8% were white, 36.4% black, and 21.4% Hispanic.

The Roanoke City and Alleghany Health Districts provide programs targeted at keeping mothers, infants, and children well.[129] The Family Planning Program provides women and men with a broad range of acceptable and effective family planning methods, infertility services and services for teens. During these visits, clients are offered counseling, education, physical exams, breast, cervical and testicular cancer screening, pregnancy testing, follow-up and referrals for abnormal findings and administration of medications and methods of birth control. In 2011, 2,661 patients were seen during 5,914 clinic visits. Mother, Infant Care Coordination (Baby Care) provides registered nurse home-visiting services to high-risk pregnant women and infants. The program provides support and services through intensive case management and coordination of care. During 2011, 278 women and their babies were serviced through this program. Resource Mothers is a program designed to reduce the incidence of low birth weight babies and infant deaths among the teen pregnant population serving pregnant and parenting teens. Community health workers mentor these teens and assist them with keeping medical appointments, staying in school and delaying repeat pregnancies. In 2011, 150 teens were served. The Infant and Toddler Connection of the Roanoke Valley is a program that targets children from birth to 2 years of age with developmental delays or potential for delay and their families. In 2011 the program served 575 children. The WIC program (Special Supplemental Nutrition Program for Women, Infants and Children) provides nutrition education, breast feeding promotion and support, supplemental nutritious foods, counseling, and screening and referrals to other health, welfare, and social services. In 2011, 6,070 district residents participated in the WIC program. As of April 2012, the combined WIC caseload was already 5,996 participants. WIC anticipates opening additional sites. In addition, the program is

[127] The Roanoke Times, State to review perinatal councils as it seeks to reduce infant deaths, Sarah Bruyn Jones, August 12, 2012 http://www.roanoke.com/news/roanoke/wb/312695

[128] Epic, Carilion Clinic Patient Origin, Selected Practices, January 4, 2012

[129] Roanoke City and Alleghany Health Districts' Programs 2012

establishing a partnership with Carilion Clinic and TAP Head Start to provide on-site certifications for service.

The Child Health Investment Partnership of Roanoke Valley (CHIP) provides home visits with a case manager and nurse. Believing that parents are the most important ingredient to a healthy outcome for children; the nurses and case managers work with the entire family to foster a nurturing, safe and healthful home environment. They connect the family with a myriad of services including assistance with obtaining a GED, job training, or literacy classes; guidance on effective parenting; information on nutrition and well-baby care; and transportation in the CHIP van if needed.[130]

Families eligible for CHIP services must live in the counties of Botetourt, Craig or Roanoke or the cities of Roanoke and Salem; live at or below 185% of FPL; have one or more children under the age of 5, or are expecting their first child; and have children insured or eligible for Medicaid/FAMIS. CHIP currently has an active caseload of 560 uninsured parents and 740 children. Of these children, 3.1% are uninsured; 2.6% are privately insured; and 94% are on Medicaid. In addition to linking preschool children with a medical home, programs include in-home asthma management and education; and programs for expectant moms to ensure healthy birth outcomes. CHIP has two-bilingual Family Case Managers, thus limiting the numbers of Hispanic clients that can be served at any one time. They currently have 28 Hispanics waiting for intake.[131]

The Early Head Start (EHS) program coordinates services for pregnant women to ensure healthy outcomes during their pregnancy. During the 2010-2011 school year, there were 33 mothers enrolled in the program, and 11 were identified as medically high risk by a health care provider. Services received while enrolled in EHS included:

- Prenatal and postpartum health care (91%)
- Mental health interventions and follow-up (45.5%)
- Substance abuse prevention (45.5%)
- Substance abuse treatment (45.5%)[132]

In addition, EHS provided prenatal education on fetal development and information on the benefits of breastfeeding.

TAP's Head Start program works to ensure that the children it serves are connected with a medical home for an ongoing source of medical care; tracks their immunizations; and follows

[130] CHIP of Roanoke Valley, http://chiprv.org/our-programs
[131] CHIP of Roanoke Valley, report from the Executive Director, August 20, 2012
[132] TAP Head Start Program Information Report, 2011

those who received medical treatment for chronic health conditions. In 2011, 154 children enrolled in the Early Head Start and Head Start programs received treatment for chronic health conditions including:

- Anemia (10.4%)
- Asthma (60.4%)
- Hearing Difficulties (7%)
- Overweight (11.7%)
- Vision Problems (8.4%)
- High Lead Levels (1.9%)

During the 2009-2010 Head Start program year, 45.6% of preschoolers were found to have body mass indices (BMI) that indicated they were overweight or at risk for being overweight. They report that most parents and many care providers are unwilling to address this health issue. All children with a BMI at or above the 95th, or below the 5th, percentile were offered additional services, although few parents expressed interest in receiving assistance. TAP Head Start has a registered dietitian on staff that ensures meals served to children meet the USDA dietary requirements. She is available to work one-on-one with families and teachers as needed.[133]

Mental and behavioral health issues continue to be some of the greatest challenges Head Start teachers and families face. Teachers continue to report a high number of behavioral changes in the classroom while there continues to be a lack of community mental health providers who treat infants, toddlers and preschoolers. The number of children receiving behavioral health services has increased drastically. In 2009-2010, the Behavioral Health Coordinator consulted staff about 93 children, and provided an individual mental health assessment for 63 of these children, referring 32 for mental health services. Funds and program time have dedicated to preparing staff to address the psychosocial needs of the children and their families.

School-based Care

In 2011, the Roanoke City Public Schools privatized its school nurse program. Carilion Clinic currently contracts with the schools where there is a school nurse in each of the 17 elementary schools, four middle schools, two high schools and two alternative schools (shared position) in the city. School nurse services include:

- Provide acute and emergency health care
- Assist in performing state mandated health screenings
- Plan and/or implement in-school care for students with chronic or ongoing illnesses
- Administer or supervise medication administration

[133] TAP Head Start December 2010, 2010-2011 Community Assessment

- Provide health care counseling and education
- Review student health records for compliance with state mandates
- Facilitate student access to health care providers
- Facilitate communication between school, parents, and health care providers and/or community resources
- Monitor health status and trends
- Control communicable disease
- Promote health and safety

Of the over 13,000 students served in the 2011-2012 school year, there were 4,596 cases of students with chronic conditions and complex issues that required medication management and other skilled nursing procedures. The greatest number of cases involved children with asthma (13.1%), ADD/ADHD (11.7%), and allergies (6.4%). In addition, a host of other chronic conditions were managed by the school nurses, including:

- Type I and Type II diabetes
- Seizure disorders
- Cardiac disorders
- Cystic fibrosis
- Kidney disorders
- Cancer
- Tube feeding
- Impaired mobility
- Hearing impairment
- Tracheostomy tube
- Autism spectrum disorder
- Acquired traumatic brain injury
- Sickle cell disease
- Juvenile rheumatoid arthritis
- Cerebral palsy
- Celiac disease
- Down syndrome
- Scoliosis
- Migraines
- Bipolar disorders[134]

In the 2011-2012 school year, school nurses began tracking BMIs of city school children and found that 32.8% of school children (kindergarten to 12th grade) had BMIs greater than the 90th percentile.

In January 2011, Carilion Clinic assumed the management of the three Roanoke Adolescent Health Partnership (RAHP) Teen Health Clinics, the Adolescent and Student Health Services. Two of the clinics are housed in each of the city high schools serving Roanoke City Public

[134] Carilion Clinic, Roanoke City Public Schools, School Nurse report, 2012

Schools students only and one is a community-based clinic serving teens 10-19 years of age living in the Roanoke Valley. A school nurse is housed in each of the high school clinics. RAHP began in 1992 as a response to the high teen pregnancy rate in the city through a partnership with Carilion, the Roanoke City Health Department, Roanoke City Public Schools, the Roanoke Redevelopment and Housing Authority, the Better Beginnings Coalition and the Barnhart Fund. The Partnership was established to improve access to health care for children aged 10-19, provide pregnancy prevention education and confidential services for teens, and reduce the rate of teen pregnancy in Roanoke through community-based and school-based health care services. In recognition of these efforts, Carilion Clinic received the Virginia Hospital and Healthcare Association's 2012 Community Benefit Award for its Adolescent and Student Health Services Program.[135]

In fiscal year 2011, the Adolescent and Student Services Program served 1,778 patients with 2,864 visits. Of these students, 903 (51%) lived in the MUAs of the city. The majority of students were black (57.6%); 32.7% were white; and 3.3% were Hispanic, with a payor mix of 43.7% Medicaid; 38.1% self-pay; and 18.2% private pay.[136]

The Positive Actions Towards Health (PATH) Program has provided obesity treatment for children of the Roanoke Valley and beyond since 2010. The initiative led by Carilion Clinic's Pediatric Clinic, has brought together community members to talk about childhood obesity and the current health of the community. Through funding from the Virginia Foundation for Healthy Youth's (VFHY) Healthy Communities Action Team, they formed the PATH Community Coalition in the spring of 2012. Through their efforts, they have produced community assessment tools; supported private sector projects such as Food For Thought, a gardening program of Roanoke City Schools; and provided community obesity prevention education sessions. In total, to date, the PATH program has provided obesity education to almost 1,000 people in the Roanoke area and beyond including students, young children, parents, teachers, and medical professionals.[137]

In 2012, The PATH Community Coalition received a two-year VFHY grant to implement a coordinated effort between the rejuvenation of the high-risk Hurt Park neighborhood and its corresponding elementary (Hurt Park Elementary School) and middle school (James Madison Middle School) to improve health behaviors of this community. The project will involve rewriting and reworking health curriculum within the two target Roanoke City schools and the development of community gardens by the Roanoke Community Garden Association at Hurt

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[135] *The Roanoke Times*, Carilion Clinic recognized for excellence in community service, May 1, 2012 http://blogs.roanoke.com/ticker/2012/05/01/local-health-care-organizations-recognized-for-excellence-in-community-service/

[136] Epic, Carilion Clinic Patient Origin, Selected Practices January 4, 2012

[137] Carilion Clinic, PATH Virginia, Virginia Foundation for Healthy Youth application, 2012

Park Elementary and by Food for Thought at James Madison Middle School. They will integrate these gardening plots and start one additional garden at the target schools. In partnership with Roanoke College, they will collect a variety of pre- and post-outcomes data on students involved in the project. Parents will be involved through events held through the school (parent nights, health fairs, safe routes to schools, etc.) and families will have the opportunity to use gardening space within the schools' garden plots. In addition, the project will involve the assessment of the "health" of the community, including GIS mapping of schools, grocery stores, medical facilities, and parks as well as the presence of sidewalks, greenway access, bus routes, and high crime/drug areas, with a focus on improving access, encouraging outdoor activity and providing safe routes. It will include the addition of a community garden, market, and kitchen area at a neighborhood center.

Schools are powerful places to shape the health, education and well-being of children by creating environments where physical activity and healthy eating are accessible and encouraged. New Horizons Healthcare hosts a Roanoke City Public Schools health education outreach program called Happy Healthy Cooks. The purpose of the program is to change dietary behaviors among elementary and preschool children while inspiring them to have fun and be creative in their food choices. The unique curriculum (based on Food Is Elementary by Antonia DeMas, Ph.D., copyright 2001) exposes children to a healthy lifestyle and healthy eating patterns at an early age, and offers them skills to make healthier choices. Once a week for 20 weeks, a group of volunteers spends an hour with students. The first semester focuses on learning about healthy foods and the importance of good nutrition as they taste a variety of whole grains, fruits, vegetables and legumes. Incorporated in the lessons are botany, language, reading, math/measuring, social studies, character and manners, safety in the kitchen, skill development (using kitchen tools: heat, knives, peelers, graters) and cooperation. The second semester is spent preparing, cooking and eating healthy plant-based recipes with the students. The children do all of the prep and cooking. They learn about the culture from which each recipe originates. The volunteers and instructor sit after the food is prepared and experience it together using all senses. Each week, the recipe used in class is sent home to encourage kids to prepare the recipe with their families. In 2012, Happy Healthy Cooks is expanding from three elementary schools to four and from one Head Start to three sites.[138]

Preventive Screenings

The impact of immunizations on the spread of communicable disease is a key public health strategy for preventing associated morbidity and mortality in the United States. In Virginia, the percent of children at 24 months who received the recommended vaccines was 44.0%.[139]

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[138] New Horizons Healthcare, report from the Executive Director, August 17, 2012
[139] Virginia Department of Health, Division of Immunization, 2008

These immunization rates fall short of the Healthy People 2020 target of 80% for "increasing the proportion of children aged 19 to 35 months who receive the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella and PCV vaccines" (IID-8).

The Roanoke City and Alleghany Health Districts' immunizations program worksto reduce the morbidity and mortality associated with vaccine–preventable diseases for all residents in the Health District. Vaccines are provided to adults and children following the guidelines set forth by the Advisory Committee in Immunization Practices (ACIP). The Health Department is a participant in the Virginia Vaccines for Children program and provides school vaccines to children through age 18 at no charge. It also participate in the Virginia Immunization Information System, which allows the sharing of immunization information with other providers. Local health departments collect data annually by conducting a random sampling of immunization records in daycares and schools (CoCASA). In addition to on-site immunization clinics, an immunization team provides many off-site community vaccination opportunities for flu, pneumonia, Tdap and school vaccines. To do this, it partners with a variety of community members and hold events across the community including at schools, local businesses, churches, local malls, community-based agencies, health fairs and housing developments. In 2011, the immunization program served 8,682 residents.[140]

Childhood lead exposure remains a major environmental health concern in the United States. Those most vulnerable to lead exposure are children ages 1 to 5 years of age who are low-income and/or Medicaid-enrolled, non-Hispanic African Americans, and those who live in older housing where lead-based paint is a concern.[141]

In the Roanoke MSA, portions of Botetourt and Craig counties and the city of Roanoke (including the southeast MUA and parts of the northwest MUA) are considered high-risk areas by zip code for lead poisoning. In Virginia, the Virginia Department of Health's Lead-Safe Virginia Program is working to eradicate lead toxicity in children through a campaign to increase awareness of lead poisoning and promote testing. In all localities in the Roanoke MSA, except for the city of Salem, the Elevated Blood Lead Levels (EBLL) testing rates for children under 36 months were lower as compared to statewide. In the city of Roanoke, the percent of confirmed EBLLs was four times greater than the statewide average and slightly higher in Franklin County as compared to Virginia. [142]

[140] Roanoke City & Alleghany Health Districts' Programs, 2012

[141] *Recommendations for Blood Lead Screening of Young Children Enrolled in Medicaid: Targeting a Group at High Risk.* MMWR, 49(RR14); 1-13, December 8, 2000.

[142] Virginia Department of Health, Lead Safe Virginia, Childhood Lead Poisoning Prevention Program, Surveillance Summary Report, 2009

Reported Number of Children Tested for Elevated Blood Lead Levels under 36 Months

Virginia Department of Health, Lead-Safe Virginia Program, 2009

	BOTETOURT	CRAIG	FRANKLIN	ROANOKE	ROANOKE CITY	SALEM CITY	VA
Elevated Blood Lead Level Testing Rate/1,000	162	117	76	93	178	237	194
Percent Confirmed Elevated	0.0	0	0.9	0.0	2.0	0.0	0.5

Youth Risk Factors

Blue Ridge Behavioral Healthcare's (BRBH) Prevention Services programs provide a variety of evidence-based programs in school and community settings that are designed to address the prevention of violence and the use of alcohol, tobacco and other drugs by youth. Partnerships with the school districts, YMCA centers and other youth-serving organizations provide a variety of settings for the provision of services to a diverse range of children and youth. These services are designed to increase participants' skills and enhance their resiliencies to better cope with life's challenges and to help them succeed in school and other endeavors. Youth leadership skills are emphasized to encourage healthy youth development for all children and teenagers. Services are research-based and evaluated.

RAYSAC, the Roanoke Area Youth Substance Abuse Coalition, is staffed by BRBH Prevention Services and has sponsored many events and activities promoting drug-free messages. The coalition's signature annual events are the After Prom Grand Finale in June and Red Ribbon Week in October. Prevention Planning Teams in Botetourt County and the cities of Roanoke and Salem meet regularly under BRBH Prevention Services leadership to gather, assess and analyze youth risk behavior data in order to identify areas of high-risk behavior and plan prevention and intervention services tailored to local needs. Prevention staff are members of the Roanoke County Prevention Council, also a SAMHSA Drug Free Communities grant recipient, which performs similar functions and partners with RAYSAC in a variety of community events.[143]

The Prevention Council of Roanoke County, part of Family Service of Roanoke Valley's Youth Development programs, is a group of parents, youth, school, business, faith and other community members who foster the healthy development of Roanoke County's youth. The Council seeks to prevent alcohol and drug use and other risky behaviors through community and parenting education; promoting coordination and partnerships between community organizations serving youth; strengthening Roanoke County communities by increasing

[143] Blue Ridge Behavioral Healthcare, Prevention, Training & Response Services, http://www.brbh.org/prevention.htm accessed August 21, 2012

neighborhood attachment of families and youth; and providing opportunities for positive youth involvement and recognition.[144]

A Youth Risk Behavior Survey was conducted in the counties of Botetourt and Craig and the cities of Roanoke and Salem in 2011 involving 6th- and 8th-grade students (middle school) and 10th- and 12th-grade students (high school). The survey asked middle and high school students about risky behaviors including tobacco, alcohol and drug use as well as sexual activity and compared these findings to the previous 2008-2009 survey.[145]

Age of onset was lower for middle school students as compared to high school students for tobacco, alcohol and marijuana. However use of all three substances increased, and perception of risk and parental disapproval decreased with high school students.

Core measures for the Middle School Students survey revealed:

	Tobacco	Alcohol	Marijuana
Age of onset	10.4 years	10.3 years	10.3 years
Use within the past 30 days	6.4%	14.3%	9.9%
Perception of risk with use	89.3%	70.6%	80.4%
Perception of parental disapproval of use	94.8%	86.5%	93.3%

Middle School Conclusions:

- Cigarette/tobacco-related behavior improved with respect to perception of risk, perception of parental disapproval, ever tried, and 30 -day use.
- With respect to other drugs, ecstasy use had decreased and methamphetamine use and injecting illegal drugs was up.
- Frequency of sexual behaviors decreased, however:
    - 27.4% of 8th-grade students had ever had sexual intercourse (28.8% in 2008-2009)
    - 19.4% of 8th-grade students were 12 or younger when they had sexual intercourse for the first time (16.5% in 2008-2009)
    - 31.3% of 8th-grade students used alcohol or drugs the last time they had sexual intercourse (20.8% in 2008-2009)
    - 62% of 8th-grade students used a condom the last time they had sexual intercourse (68.4% in 2008-2009)

[144] Family Service of Roanoke Valley, Prevention Council of Roanoke County, http://www.fsrv.org/index.php?option=com_content&view=article&id=75&Itemid=90 accessed August 21, 2012
[145] Valley Wide 2011 Youth Risk Behavior, David Sallee, PhD and Kerry Redican, M.P.H., Ph.D.

- Cigarette/tobacco, alcohol, marijuana, over the counter, prescription drugs, cocaine, methamphetamine, steroids and injecting illegal substances related behaviors was higher among males than females.

Core measures for the high school students survey revealed:

	Tobacco	Alcohol	Marijuana
Age of onset	13.1 years	13.2 years	13.8 years
Use within the past 30 days	18.2%	36.8%	25.6%
Perception of risk with use	87.5%	62.1%	55.6%
Perception of parental disapproval of use	85.4%	70.1%	83.6%

High School Conclusions:

- Cigarette/tobacco and alcohol-related behavior improved.
- Marijuana behaviors increased in frequency.
- Cocaine and inhalant use was down and ecstasy use and injection of illegal substances was up.
    - 10% had ever used ecstasy (9.0% in 2008-2009)
    - 5% had ever used a needle to inject any illegal drug into their body (4.7% in 2008-2009)
- Sexual behaviors were more frequent for males than females. Overall for all high school students:
    - 53.6% had ever had sexual intercourse (57.8% in 2008-2009)
    - 24.7% used alcohol or drugs the last time they had sexual intercourse (23.5% in 2008-2009)
    - 56.4% used a condom the last time they had sexual intercourse (58.7% in 2008-2009)
- Thirty-day use of alcohol was higher for males (37.1%) than females (36.3%), but having ever tried alcohol was higher for females (65.8%) than males (64.1%).

Infectious Diseases

HIV Infection Prevalence and Other Sexually Transmitted Infections Rate

One of the Healthy People 2020 goals is to “promote healthy sexual behaviors, strengthen community capacity, and increase access to quality services to prevent sexually transmitted diseases in their complications.”

The HIV infection prevalence and the rates of early syphilis, gonorrhea, and chlamydia are much higher in Roanoke as compared to the MSA and state as a whole.[146]

Roanoke MSA HIV Infection Prevalence, 2011

(Virginia Department of Health, HIV Surveillance Quarterly Report, 2011, http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/DAta/#Profile)

	BOTETOURT COUNTY	CRAIG COUNTY	FRANKLIN COUNTY	ROANOKE CITY	ROANOKE COUNTY	SALEM CITY	VA
HIV Infection Prevalence	0.12%	0.05%	0.11%	0.53%	0.07%	0.09%	0.30%

Roanoke MSA Sexually Transmitted Infection Rates (per 100,000)

(Virginia Department of Health, Virginia STD Surveillance Quarterly Report, 2010, http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/DAta/#Profile)

Sexually Transmitted Diseases (Rates per 100,000) 2010			
Locality	Early Syphilis	Gonorrhea	Chlamydia
Botetourt County	6.0	6.0	96.5
Craig County	0.0	0.0	115.6
Franklin County	1.8	32.1	222.6
Roanoke City	7.2	237.0	823.4
Roanoke County	1.1	34.6	195.9
Salem City	0.0	28.2	338.7
Virginia	6.5	89.6	393.2

The Roanoke City and Alleghany Health District's Ryan White program works to reduce the mortality of HIV disease through care coordination and to prevent the spread of HIV infection. Under the Ryan White Care Act, Part B, case management services are offered to those infected and affected by HIV/AIDS. The Health Department determines program eligibility and assists with entry into care, pharmaceutical navigation and referrals to other social service providers to help clients meet the needs of their illness. It keeps clients engaged in care and treatment to prevent the spread of HIV in the community. This service is provided to more than 395 clients, all with income below 300% of the Federal Poverty Level. The ADAP (AIDS Drug Assistance

[146] Virginia Department of Health, HIV Surveillance Quarterly Report and STD Surveillance Quarterly Report, 2011 http://www.vdh.virginia.gov/epidemiology/DiseasePrevention/DAta/#Profile

Program) helps provide HIV medications to those without access to insurance or other pay source, and HIV staff assists these patients with this program.[147]

The Health District offers a Sexually Transmitted Infections (STI) Program to prevent the spread of sexually transmitted infections through education, outreach and clinical services. STI clinics offer counseling, testing, treatment and partner referral services for patients at risk for STIs. STI clinics are offered at no cost to the patient. In 2011, there were 1,745 patients seen during 2303 clinic visits.

The HIV Drop-In Center, a program of the Council of Community Services, provides free, confidential oral HIV testing and oral rapid HIV screening by trained staff. The oral testing method is highly accurate and results are ready in 20 minutes. No appointment is necessary. The Drop-In Center offers prevention counseling, education, outreach and support services for those living with HIV/AIDS, and professional training to Southwest Virginia. It reports that the prevalence of HIV continues to rise, especially in teens and heterosexuals.[148]

According to the Centers for Disease Control and Prevention, disparities in tuberculosis (TB) persist among members of racial and ethnic minority populations. Among people from countries where TB is common, TB disease may result from infection acquired in their country of origin. Among racial and ethnic minorities, unequal distribution of TB risk factors, particularly HIV infection, can also increase the chance of developing the disease.[149]

In the city of Roanoke, where there is a growing refugee population and a greater number of minority populations, the TB rates are higher than those in other localities in the MSA and in Virginia as a whole. These rates have been declining over the past two years.[150]

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[147] Roanoke City and Alleghany Health Districts' Programs 2012

[148] Council of Community Services, Drop-In Center, http://www.councilofcommunityservices.com/programs/drop-in-center/about-the-drop-in-center/ accessed August 21, 2012

[149] Centers for Disease Control and Prevention, Tuberculosis in Minorities- Fact Sheet, http://www.cdc.gov/tb/publications/factsheets/specpop/resources_TB_Minorities.htm

[150] Virginia Department of Health, Division of Disease Prevention, Tuberculosis Control 2007-2011

Roanoke MSA Number of Reported Tuberculosis (TB) Rates per 100,000 2007-2011

(Virginia Department of Health, Division of Disease Prevention, 2007 - 2011)

Number of Reported Tuberculosis (TB) Rates per 100,000 2007-2011					
Locality	**2007**	**2008**	**2009**	**2010**	**2011**
Botetourt County	0.0	0.0	3.0	3.0	3.0
Craig County	0.0	0.0	0.0	0.0	0.0
Franklin County	0.0	0.0	0.0	0.0	0.0
Roanoke City	8.7	1.1	10.7	5.3	3.1
Roanoke County	1.1	3.4	1.1	0.0	2.2
Salem City	4.0	4.1	0.0	0.0	0.0
Virginia	4.0	3.9	3.5	3.4	2.7

The Health District's Tuberculosis (TB) Management program works to control, prevent and eliminate tuberculosis in the Roanoke Valley. The TB team collaborates with a patient's medical home to provide tuberculosis management, including medications and care coordination for those diagnosed with TB and for those who have Latent TB Infection. In addition, the TB team assists with case finding and the testing of contacts, transportation for chest X-rays and home visits to deliver medication, and perform DOT (Directly Observed Therapy) and DOPT (Directly Observed Preventative Therapy). In 2011, 138 patients were seen in this program with 1,173 visits in either the home or in the clinic. In 2011, there were six cases of TB disease in the Roanoke and Alleghany Health districts.

Social Environment

During state Fiscal Year 2011, there were 46,619 children reported to the Department of Social Services as possible victims of abuse and/or neglect in 33,963 completed reports in Virginia. There were 6,116 children in founded investigations. In addition, there were 34,876 children involved in reports where a Child Protective Services worker completed a family needs assessment with these families and developed a written safety plan and provided or arranged for services, if needed.

Of those children who were maltreated:

- 55.96% of the maltreatment was due to physical neglect, a failure to provide food, clothing, shelter or supervision to the child to the extent that the child's health was endangered.
- 25.91% of the maltreatment was due to physical abuse.

- 12.74% of the maltreatment was due to sexual abuse.
- 1.86% of the maltreatment was due to medical neglect.
- 2.60% of the maltreatment was due to mental abuse/neglect. [151]

In the city of Roanoke, the rate of child abuse and neglect remains higher than the state rate. However, it has been falling. The rates in Botetourt County have been slightly higher than the state rate but remains well below the rate in the city of Roanoke.[152]

Roanoke MSA Rate of Child Abuse and Neglect (per 1000 children), 2005-2011

(Virginia Department of Social Services, Voices for Virginia's Children, CPS Program and Statistical Reports, 2005-2011)

Rate of Child Abuse and Neglect (per 1000 children)							
Locality	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Botetourt County	4.5	5.4	4.0	4.8	4.5	2.6	3.0
Craig County	5.1	4.3	1.7	7.5	3.3	5.9	2.7
Franklin County	2.9	5.2	2.0	2.9	1.0	2.3	1.5
Roanoke City	12.6	14.5	12.9	10.3	8.4	8.1	5.1
Roanoke County	1.7	2.5	2.2	3.6	2.5	3.1	3.7
Salem City	0.2	0.0	0.2	0.4	0.0	0.0	0.2
Virginia	N/A	3.9	3.4	3.4	3.2	3.9	3.3

[151] Virginia Department of Social Services, Virginia Child Welfare Outcome Reports, July 1, 2010-June 30, 2011
[152] Virginia Department of Social Services, CPS Program and Statistical Reports, 2005-2009

Health and Human Services Inventory

During the project period, an inventory of existing health and human service providers who serve as a safety net for the target population was performed with the assistance of the Community Forum, Target Population Focus Groups, and Community Health Assistance Team. The majority of these providers, and the services they offer to the Roanoke Valley community, are referenced throughout the needs assessment.

Service Line	Health and Human Services Provider
Primary Care	Carilion Clinic Bradley Free Clinic Child Health Investment Partnership (CHIP) of Roanoke Valley (case management) Christian Free Clinic in Botetourt Craig County Health Center Free Clinic of Franklin County G. Wayne Fralin Free Clinic for the Homeless New Horizons Healthcare Project Access (referral) TAP Head Start (case management)
Medications	Bradley Free Clinic Christian Free Clinic in Botetourt Craig County Health Center Free Clinic of Franklin County G. Wayne Fralin Free Clinic for the Homeless New Horizons Healthcare Project Access Roanoke and Alleghany Health District United Way of Roanoke Valley FamilyWize
Dental	Bradley Free Clinic Carilion Dental Clinic (Adult and Pediatrics) CHIP of Roanoke Valley Craig County Dental Clinic G. Wayne Fralin Free Clinic for the Homeless Project Access Roanoke Mission of Mercy Small Smiles TAP Head Start (case management) Virginia Western School of Dental Hygiene

Mental Health & Substance Abuse Services	Bethany Hall Blue Ridge Behavioral Healthcare Bradley Free Clinic Carilion Clinic G. Wayne Fralin Free Clinic for the Homeless Mental Health America of Roanoke Valley New Horizons Healthcare
Transportation	CHIP of Roanoke Valley Local Office on Aging RADAR Valley Metro Virginia Premier Insurance
Information and Referral	Carilion Direct Virginia 2-1-1 Senior Navigator

Environment of Care[153]

As of today, the health care environment in Virginia remains in flux. On one hand, the Commonwealth continues to benefit from federal funding coming into the state for health reform. On the other hand, the Commonwealth continues to actively contest federal health reform.

In June 2012, the Supreme Court upheld the Patient Protection and Affordable Care Act (ACA) as constitutional including the individual mandate and Medicaid expansion. Medicaid expansion is optional for states, and those wishing to implement expansion will receive 100% ACA funding to support this, to be phased to 90% over time. States not implementing the expansion must still comply with provisions of the Medicaid Act or risk losing funding. In addition, the new ACA Medicaid provisions must be adhered to by all States, including increased payments to Medicaid-participating primary care providers, mandatory coverage of freestanding birthing centers, options for expanding coverage for community-based services and support for people with disabilities and the elderly, and gradual reductions in disproportionate-share hospital funding beginning in 2014.[154]

In Virginia, Republican Governor Bob McDonnell stated he is waiting until after the 2012 presidential elections before proceeding with the health benefits exchange hoping that Republican presidential candidate Mitt Romney will be elected and repeal the ACA, including Medicaid expansion. In addition, current Republican Lt. Governor Bill Bolling and Attorney General Ken Cuccinelli are calling for state legislatures to opt out of Medicaid expansion prior to the elections.[155]

Recognizing that the Commonwealth may still have to act further on health reform, the Governor continues to have the Virginia Health Reform Initiative move forward to discuss and create recommendations on ways to improve health care access and delivery, lower costs and address the growing costs of Medicaid. The focus of this group's efforts will be on designing a health benefits exchange that the Commonwealth will implement.

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[153] Unless otherwise indicated, information provided was received from the Virginia Community Healthcare Association, 2012 Virginia State Health Care Environment Update, as of April 23, 2012

[154] NHelp National Health Law Program, Summary of the Supreme Court Decision on the ACS: Court removes the “gun from the States’ heads” but leaves open the possibility of States shooting themselves in the foot, prepared by Jane Perkins, Sarah Somers, and Byron Gross, June 29, 2012

[155] *The Roanoke Times*, Editorial: Uninsured shouldn’t be political pawns, Lt. Gov. Bolling and Attorney General Cuccinelli are pushing the state to make a bad decision. July 18, 2012.

As the economy continues to improve, Virginia state revenue and the state budget have improved. The state budget crisis has abated somewhat. The Governor and General Assembly continue to call for conservative fiscal measures. Given a slow economy and a "jobless" recovery, increases in state funds are not anticipated to be significant enough to allow enhanced funding for access to health care services, nor for any significant increase in health care funding, other than what is mandated for services such as Medicaid and mental health reform.

During the 2012 General Assembly session, the Governor had called for slashing funding to safety net providers in the state budget, including 50% cuts in state funding for community health centers, free clinics and the Virginia Health Care Foundation. This is the third year in a row that attacks on state funding to safety net providers have occurred. As in the past, efforts to cut funding were pushed back. At this time, the General Assembly has fully restored state funding for community health centers, free clinics, and the Virginia Health Care Foundation.

The Department of Medical Assistance Services (DMAS), the state's Medicaid agency, continues to be viewed as one of the most conservative in the nation. For example, Medicaid does not provide coverage for adult dental care. Virginia has several waivers currently available in Virginia including mental retardation/intellectual disabilities; day support; individual and family developmental disabilities support; elderly or disabled with consumer direction; and technology-assisted waivers. Several Health Maintenance Organizations (HMOs) in the state participate in Medicaid managed care. FQHCs receive a cost-based reimbursement, which is composed of the reimbursement from the Medicaid HMOs and a quarterly wraparound payment from the state.

The state previously passed legislation to expand Medicaid Managed Care into all parts of the state. Rollout is occurring on a region by region basis, starting in Roanoke, and then expanding into other parts of southwestern Virginia over the next few months.

In March 2011, Carilion Clinic and Aetna announced a new partnership to develop several new insurance offerings, including three co-branded commercial insurance plans and a managed care plan for Medicaid recipients.[156] The collaboration is a major step for both organizations by integrating the health care delivery system with a payment system that will tie health care outcomes to payments.

Since the last Roanoke Valley Community Health Needs Assessment was performed in 2000, there has been a noticeable strengthening of the safety net in the Roanoke Valley. In 2006, Carilion Health System became "Carilion Clinic," restructuring itself to enable better coordination of patient care. The Riverside Center on Carilion Clinic's Roanoke campus was

[156] *The Roanoke Times*, Carilion Clinic to partner with Aetna to develop insurance plans, March 11, 2011

built to centralize services, bringing practices such as orthopaedics, internal medicine, rheumatology, gastroenterology, neurosurgery, physical medicine, neurology, general breast and bariatric surgery, trauma surgery, imaging, pain management and a spine center under one roof. Epic, an electronic health record, has been adopted system-wide and the primary care practices are transforming into accredited patient-centered medical homes.

Reflecting national health care industry trends in the growth of urgent care centers across the United States and recently in southwest Virginia, Carilion Clinic launched VelocityCare in the spring of 2012, with sites in Roanoke, Botetourt, Bedford and Montgomery counties.

New Horizons Healthcare has increased access to affordable primary care through its expansion of services, including pediatrics, behavioral health, pharmacy assistance, and health education. The completion of its new facility in 2012 will allow New Horizons to increase its number of primary care providers and bringing a pharmacy and dental services offering a full-array of services. It too is moving toward accreditation as a Patient-Centered Medical Home. In the past decade, new FQHCs were opened in Craig County (Craig County Health Center) and in Franklin County (Tri-Area Community Health Center at Ferrum).

The G. Wayne Fralin Free Clinic for the Homeless opened in 2002 and has greatly impacted care for the homeless men, women and children in the area. Since 2005, Project Access has increased access to free primary and specialty care, dental services and pharmacy assistance. The Bradley Free Clinic, a mainstay in the community for almost 40 years, continues to respond to the needs of the community as demand for care increases.

The Carilion Pediatric Dental Clinic and Small Smiles have increased access to dental care for low-income children. Although affordable dental services for uninsured and low-income adults continues to be a need in the Roanoke Valley, through the efforts of the Community Based Health Care Coalition, the Roanoke Mission of Mercy project has provided services to almost 5,000 adults since 2007. In addition, the Fralin Free Clinic and Bradley Free Clinic continue to provide care to their populations, although are limited by the number of volunteer providers available to offer this care. CHIP of Roanoke Valley introduced its “Begin with a Grin” program for its young clients, and TAP Head Start ensures that its preschoolers have access to preventive dental services. The Craig County Dental Clinic has been providing dental services to children and adults in rural Craig County since 2010, including a sliding-fee discount for the uninsured. Unfortunately, due to budget cuts, the Roanoke City and Alleghany Health District has discontinued its dental program to low-income children that once boasted three dentists serving the service area.

Although access to affordable, coordinated mental health services continues to be a challenge in the Roanoke MSA, there have been marked improvements in the past ten years in the safety net. Carilion Clinic’s Department of Psychiatry and Behavioral Medicine has worked collaboratively with community-based organizations to expand access to services; has established fellowships for mental health and substance abuse; and expanded its inpatient Intensive Treatment Unit. Mental Health America of Roanoke Valley, through the Mental Health Collaborative, has expanded access to free services and medications to those they serve.

New Horizons Healthcare, Bradley Free Clinic, and the G. Wayne Fralin Free Clinic for the Homeless are now providing services on-site. And the Catawba Regional Partnership was established to strengthen the continuum of care in the Roanoke Valley.

The Roanoke Valley has seen improvements in the health status of its residents. The teen pregnancy rates are declining and access to early prenatal care is improving. There is increased access to affordable medications, in large part due to Medication Assistance Programs offered by the safety net as well as due to the expansion of Medicare Part D. Although the Health District has faced cuts in its primary care, dental, lab and pharmacy services, it has strengthened its immunization, Emergency Preparedness and Surveillance and Investigation Program. There has been a greater focus on wellness and health promotion programs, including access to local foods and nutrition education in the schools.

There is a broader range of stakeholders addressing health in the Roanoke Valley beyond the traditional medical providers. The United Way has identified health as one its strategic priorities and the Alleghany Regional Commission's "Partnership for a Liveable Roanoke Valley" is linking the health of the community to economic development and growth. The City of Roanoke is improving the built environment of impoverished neighborhoods in the Hurt Park and West End areas, ensuring they are safe and accessible for those who live there. The availability of data at the census tract level is allowing community stakeholders to pinpoint health, demographic, and economic indicators in neighborhoods.

Despite these successes in the past 10 years, the Roanoke Valley, and in particular the city of Roanoke, are faced with overall economic indicators that are more depressed and health disparities that are pronounced, especially among minority populations and the poor. Prescription and designer drug use is on the rise and impacting the population at an earlier age. There is an increased demand for safety net services but limited resources to support these services, including an erosion of the Medicaid and Medicare reimbursement system. There has been a shift in the use of the ED for primary care by uninsured and low-income residents.

Visitors Entering Carilion Roanoke Memorial Hospital

Strategic Planning

Upon completion of the Roanoke Valley Community Health Needs Assessment, the Management Team and the Community Health Assessment Team (CHAT) performed a gap analysis to identify common themes related to the health care needs, barriers to care, and available resources in the Roanoke Valley based on the four assessment activities performed, including stakeholder and target population focus groups, community health surveys, and secondary data collection.

Community Health Needs Assessment Findings were grouped by five general categories and are delineated in the table that follows this section. The categories included:

- Demographics and Socioeconomic Status
- Access
- Health Status
- Risk Factors and Behaviors
- Others

The findings demonstrated the need for:

- Access to primary care, dental care, and mental health and substance abuse services
- Prevention and wellness
- Access to healthy food
- Physical activity
- Health literacy and education
- Coordination of care
- Education regarding mental health and substance abuse services to adults

The findings validated what many of the primary care providers already knew about the health of those they serve in the Roanoke Valley and reflected similar findings in the Community Health Needs Assessment performed in 2000.

The Management Team and CHAT further identified three priority areas to drive a strategic plan, the final step of the Roanoke Valley Community Health Needs Assessment. These priorities were used to identify goals and strategies that will help improve the health of those who live, work and play in the Roanoke Valley and included:

- Access to Services
- Coordination of Care
- Wellness

On May 31, 2012, 27 members of the Community Health Assessment Team and key stakeholders with interests in the priority areas participated in a half -day strategic planning retreat. (See Appendix 11: Strategic Planning Retreat Participants for the Directory of Participants and for Work Group rosters.)

Work groups were led by a facilitator who asked work group participants to consider:

- Focus Question: How do we improve the health of those who live, work and play in the Roanoke Valley?
- Priority Goals:
  - Achieve wellness
  - Improve coordination of care
  - Expand access to services
- What resources are currently available in the community to support these measures and strategies?

The strategic planning retreat resulted in the creation of five goals for a community strategic plan based on the three priority areas addressed at the retreat. Access to Services was further delineated to Primary Care, Mental Health and Substance Abuse, and Oral Health goals. The five goals included:

1. *Expand access to affordable, comprehensive primary care services for underserved populations in the Roanoke Valley.*
2. *Improve access to preventive services and dental care for uninsured and underserved adults in the Roanoke Valley.*
3. *Improve mental health and reduce substance abuse by increasing access to appropriate and coordinated mental health and substance abuse services, including prevention services.*
4. *Improve coordination of care and ensure access to available resources and services that address the health care needs of the community.*
5. *Create a culture of wellness and manage chronic disease by promoting a healthy lifestyle, consuming a nutritious diet and achieving an optimal body weight.*

To better align with national initiatives and priorities, the goals were linked to the Healthy People 2020 Leading Health Indicators and their related objectives (www.healthypeople.gov).

Summaries for each of the goals can be found in Appendix 12: Strategic Plan Goals Summaries and were presented to the CHAT at its June 25, 2012 meeting. The CHAT agreed that the plan needs to have community engagement and involvement to have the greatest impact on the

health and wellness of those in the Roanoke Valley. Discussion regarding the overall implementation and organization structure of the plan and how to prioritize suggested strategies ensued. To further define the organizational structure of the plan, a survey was administered to the CHAT and strategic planning participants in early July. In addition, a review of "models that work" was presented to the CHAT demonstrating successful community-based strategic initiatives including the Primary Care Access Network (www.pcanorangecounty.com), Bergen County Community Health Improvement Partnership (www.healthybergen.org), and Healthy Memphis Common Table (www.healthymemphis.org).

At its July 2012 meeting, the CHAT recommended that continued work is needed beyond the end of the Health Resources and Services Administration Bureau of Primary Health Care Health Center Planning (August 31, 2012) to ensure that the plan is action-oriented; realistic based on available resources; measureable; and achievable over the next three years (2013-2015). Many of the members of the CHAT agreed to continue to participate in activities related to the plan. During this transitional period, a steering committee and work groups will be formed that will develop tactical plans focused on the priority areas identified in the Roanoke Valley Community Health Needs Assessment.

In their own words

Response to next steps with a community-based strategic plan:

"We are talking about very deep issues with far-reaching implications on how each organization essentially functions. We may be successful in our respective silos but if we organize ourselves better and really buy into a shared vision, we can do even more as a community. However, it takes time and a lot of trust-building to change the community's mindset and introduce this new way of thinking. Leadership and commitment to collective ownership will be very essential in moving this forward! Start with the network of the willing and go from there."

–Abby Verdillo, United Way of Roanoke Valley, Vice President of Community Impact

Roanoke Valley Community Health Needs Assessment Summary Chart

Roanoke Valley Community Health Needs Assessment Summary	Community Forum	Focus Group	Survey	Secondary Data
Demographics & Socioeconomic Status				
Aging population	x	x	x	x
Homelessness	x	x	x	x
Unemployment & lack of jobs	x	x	x	x
Demographic & cultural changes	x	x	x	x
Access				
Inappropriate utilization of ED/urgent care for primary care, dental, and mental health services	x	x	x	x
Services that are hard to get in our community:				
Adult dental care	x	x	x	x
Vision care	x	x	x	N/A
Alternative therapies	-	-	x	N/A
Specialty care	x	x	x	N/A
Psychiatry	x	x	x	x
Mental health counseling / substance abuse	x	x	x	x
High cost of services:				
Uninsured	x	x	x	N/A
Insured (co-pay, deductible, premium)	x	x	x	N/A
Medications	x	x	x	N/A
High uninsured population	x	x	x	x
Weekend and extended hours for health care services	x	x	x	N/A
Need for urgent care services	-	x	x	N/A
Services for the elderly	x	x	x	N/A
Health Status				
Chronic disease (diabetes, cardiovascular disease, hypertension, asthma)	x	x	x	x
Oral health issues	x	x	x	x
Mental health (depression, anxiety) & substance abuse (alcohol, illegal & prescription drugs)	x	x	x	x
Obesity / overweight	x	x	x	x
Risk Factors and Behaviors				
Not accessing regular preventive care for:				
Primary care	x	x	x	N/A
Adult dental care	x	x	x	x
Vision	x	x	x	N/A
Not taking medications for chronic conditions	x	x	x	N/A
Risky behaviors :				
Alcohol and illegal drug use	x	x	x	x
Child abuse / neglect	x	-	x	x
Teenage pregnancy	-	-	x	x
Prescription drug abuse	x	-	x	x
Poor eating habits	x	x	x	x
Lack of exercise	x	x	x	x
Domestic violence	x	-	x	x
Dropping out of school	x	-	x	x
Tobacco use	x	x	x	x
Self-treatment	x	x	x	N/A
Others				
Health literacy, cultural competency and language barriers				
Value not placed on preventive care and chronic disease management	x	x	x	N/A
Unable to understand what provider is saying	x	x	N/A	N/A
Language barriers and services	x	x	x	x
Lack of knowledge of health care	x	x	N/A	N/A
Lack of knowledge of community resources	x	x	x	N/A
Lack of trust in health care services	x	x	x	N/A
Stigma with mental health and substance abuse services	x	x	x	N/A
High cost of living and preferences for necessities	x	x	x	N/A
Cultural perception of care	x	x	x	N/A
Culture of entitlement	x	x	x	N/A
Wellness and prevention				
Increase physical activity	x	x	x	x
High cost of living impacting healthy choices	x	x	x	N/A
Access to healthy foods	x	x	x	x
Enabling Services				
Lack of reliable transportation	x	x	x	x
Coordination of care	x	x	N/A	N/A

Appendices

Appendix 1: Work Plan and Timeline

CARILION CLINIC HEALTH CENTER PLANNING GRANT

2011-2012

WORK PLAN ACTIVITIES AND TIMELINE

Carilion Clinic Health Center Planning Grant	**Project Year 2011-2012**											
Work Plan Activities	**Sept**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**
Finalizing Work Plan												
Management Team												
New Horizons Healthcare (NHH) Team												
Community Health Assessment Team (CHAT)												
Carilion Clinic Team												
Board Development (if New Start FQHC)												
<u>Roanoke Community Health Needs Assessment</u> • Community Forum • Stakeholders Focus Groups • Target Population Surveys • Target Population Focus Groups • Secondary Health & Population Stats												
<u>Strategic Plan</u> • Management Team • NHH Team • CHAT • Carilion Clinic Team												
<u>Service Delivery Plan</u>: Site Visits ○ *ED Diversion Program* ○ *Education Health Center*												
<u>Service Delivery Plan</u>: Development of a New Access Point												

ROANOKE COMMUNITY HEALTH NEEDS ASSESSMENT

Carilion Clinic, along with community partners, will conduct a needs assessment focusing on defined target populations. A special emphasis will be placed on individuals living in the Medically Underserved and Health Professional Shortage Areas in Roanoke. It is a community-driven process that will:

(1) Assess the health status of target populations in the service area
(2) Determine the barriers to care faced by these populations
(3) Identify gaps in services currently available in the community

Service Area
City of Roanoke (Census Tracts 1-23)

Target Population
Emphasis will be placed on residents living in the Medically Underserved Areas of the City (Census Tracts 1, 2, 7, 8, 9, 10, 13, 14, and 23) including:

- Low-income
- Uninsured and under-insured
- Those that face barriers to accessing care and available resources because of cultural differences

Needs Assessment Activities

Community Forum: February 1, 2012 5:00 p.m. to 6:30 p.m.

A Community Forum will be held with stakeholders and leaders representing the health professions, health and human services, local government, business and industry, educators, religious and volunteer organizations. The purpose of this forum will be to inform the community of the purpose and activities of the planning grant, introduce them to the expectations of a 330-funded community health center, and create "buy-in" to the project ensuring optimal participation and support from the community as a whole. Focus group meetings will be conducted with participants during the event.

Target Population Surveys and Focus Group Meetings

Interviews with the target populations through surveys and focus groups will be conducted. The CHAT Team will serve to identify target populations, survey content, focus group format, and sites for these activities.

Review of Health Statistics and Population Data

The Council of Community Services will collect, track and report select indicators in the city of Roanoke and seven other jurisdictions in the region including the counties of Alleghany, Botetourt, Craig, Franklin and Roanoke and the cities of Salem and Covington. The Virginia Department of Health will provide "Core Barriers" and "Core Health Indicator" data as defined in HRSA BPHC's Form 9: Needs for Assistance Worksheet. The CHAT members will be asked to provide statistics (when available) related to the populations they serve.

Appendix 2: CHAT Directory

Individual	Organization	Category	Email	Phone
Avner, Estelle	Bradley Free Clinic	Direct Services: Primary Care, Dental, Pharmacy	Estelle@bradleyfreeclinic.com	540-344-5156
Bishop, Dr. Nathaniel L.	Jefferson College of Health Sciences	Allied Health Sciences	nlbishop@carilionclinic.org	540-985-8484
Bishop, Dr. Rita	Roanoke City Public Schools	Schools	rdbishop@rcps.info	540-853-2381
Cone, Rita	Salem Veterans Administration Medical Center	Coordinator Mental Health Intensive Care Team	rita.cone@va.gov	540-982-2463 x 2766
Conklin, Dr. Charles	Carilion Clinic, Dental Services	Direct Services, Dental	CEConklin@carilionclinic.org	540-981-7128
Conlin, Jane	Roanoke Department of Social Services	Social Services	jane.conlin@roanokeva.gov	540-853-2591
Derbyshire, Mark	Carilion Clinic	Behavioral Health	mhderbyshire@carilionclinic.org	540 981-8954
Ellmann, Kate	Project Access	Coordination of Care	projectaccess@projectaccessroanoke.org	540-344-4200
Ferguson, Helen	Rescue Mission Ministries- Fralin Clinic		helen.ferguson@rescuemission.net	540-777-7668
Haldiman, Robin	CHIP of the Roanoke Valley	Coordination of care, pre-K	Robin.Haldiman@chiprv.org	540-857-6993
Harper, Dr. Stephanie	Roanoke City Health Department	Public Health	Stephanie.harper@vdh.virginia.gov	540-204-9441
Harris-Boush, Aaron	Carilion Clinic	Strategic Development	amharrisboush@carilionclinic.org	540-226-6603
Hofford, Dr. Roger	Carilion Clinic, Family Medicine	Direct Services, Primary Care	rahofford@carilionclinic.org	540-562-5702
Holland, Shirley	Carilion Clinic- Project Director		sbholland@carilionclinic.org	540-981-8672
Jeremiah, Dr. Michael	Carilion Clinic, Family Medicine	Direct Services, Primary Care	MPJeremiah@carilionclinic.org	540-562-5702
Kelly, Diane	Mental Health America	Behavioral Health	mharv@infionline.net	540-344-0931

Individual	Organization	Category	Email	Phone
Lee, Dr. Bill	New Horizons Healthcare; Loudon Christian Church	Direct Services: Primary Care; Pastoral Care	rev.wlee@gmail.com	540-342-8852
Lepro, Eileen	New Horizons Healthcare	Direct Services: Primary Care	elepro@newhorizonshealthcare.org	540-362-0360 ext. 326
McGarry, Lynda	Bethany Hall, Inc.	Nurse	lynda_mcgarry@hotmail.com	540-343-4261 ext. 305
McNally, Karen	Presbyterian Community Center	Coordination of Care, After-school programs	kmcnally@pccse.org	540-982-2911
Merenda, Dan	Council of Community Services		danm@councilofcommunityservices.org	540-985-0131 ext. 701
Ostrander, Wanda	Carilion Clinic- Childrens' Hospital, School Nurse Program		wkostrander@carilionclinic.org	540-266-6203
Thacker, Sharon	Family Service of the Roanoke Valley	Behavioral Health/Family Support	sthacker@fsrv.org	540-563-5316 x3031
Rhea, Dr. Randy	Bradley Free Clinic; Carilion Clinic- Family Medicine	Direct Services: Primary Care, Dental, Pharmacy	rrrhea@carilionclinic.org	540-983-6700
Roe, Kim	Carilion Clinic- Emergency Department		keroe@carilionclinic.org	540-853-0212
Smith, Pat	Carilion Clinic- Project Assistant		pnsmith@carilionclinic.org	540-981-8672
Steller, Tim	Blue Ridge Behavioral Health	Community Services Board	tsteller@brbh.org	540-345-9841
Sylvester-Johnson, Joy	Rescue Mission Ministries- Fralin Clinic	Direct Services: Primary Care, Behavioral Health, Dental, Pharmacy homeless	joy.sylvester-johnson@rescuemission.net	540-777-7655
Verdillo, Abby	United Way of the Roanoke Valley		abby@uwrv.org	540-777-4206
Walker, Sally	Planned Parenthood Health Systems, Inc.	Direct Services- Family planning	sally.walker@pphsinc.org	540-562-2370 ext. 7041

Individual	Organization	Category	Email	Phone
Webb, Marie	Carilion Clinic- Community Outreach	Senior Director	mariew@carilionclinic.org	540-224-4974
Wells, Catherine	Roanoke Redevelopment & Housing Authority		cwells@rkehousing.org	540-983-9267
Williams, Susan	LOA Local Office on Aging	Aging	sbwloa@loaa.org	540-345-0451
Wonson, Lee	Roanoke City Health Department	Public Health	Lee.Wonson@vdh.virginia.gov	540-204-9957
Woodrum, Tim	Salem Veterans Administration Medical Center	Chief of Social Work Service	john.woodrum@va.gov	540-982-2463 x 2520
Yopp, Denise	Bethany Hall, Inc.		Dyopp2@aol.com	540-343-4261 ext. 307
Young, Lin	CHIP of the Roanoke Valley		lin.young@chiprv.org	540-857-6993
Young, Pat	CommunityWorks- Project Manager		pat@communityworks4you.com	540-774-4883

Appendix 3: Work Groups Directory

Community Forum & Stakeholders Focus Groups
Goal: Assist in the planning, implementation, and evaluation of a Community Forum & Stakeholder Focus Groups
Tasks: • Develop list of invitees • Disseminate invitations for the event • Secure food donations/sponsorship for the event • Develop agenda for Community Forum • Review Roanoke Community Health Needs Assessment 2000 and compare to 2011 status of the community • Create Focus Group format • Facilitators for Focus Groups needed • Scribes for Focus Groups needed • Participate in Forum/Focus Groups (2/1/2012) • Summarize Focus Groups and identify common themes • Present findings on 2/27/11 to CHAT
Timeline: 12/14/11 - 2/15/12

Report to: Pat Young
Members:
John Pendarvis
Helen Ferguson (Rescue Mission)
Karen McNally
Sally Walker
Roaming Facilitator:
Shirley Holland

Data and Information
Goal: Collect and summarize existing secondary data from local, state, and/or national sources. Collect primary data from target populations that address access to care, health status, and barriers to care through a face-to-face survey.
Tasks: • Determine what secondary data will be collected • Summarize secondary data • Review existing survey templates for Target Population • Finalize survey formats (consider literacy and language barriers) • Determine distribution and collection methods for surveys • Identify individuals to conduct face-to-face interviews using survey tool • Determine incentives for survey • Determine survey data entry and analysis format • Assist in summary development of secondary data and survey findings • Present findings on April 23, 2012 to CHAT
When: 12/14/11- 3/31/12

Report to: Pat Young
Members:
Abby Verdilo
Amy Petersen
Brooke Mercedes
Dan Merenda
Elizabeth Holbrook
Hanna Jaworski
Sara Cole
Tricia Reynolds
Jackie Rearick
Aaron Harris-Boush
Marie Webb

Target Population Focus Group
Goal: Develop, conduct, and evaluate focus groups for target populations which identify barriers and gaps to care.
Task: • Determine sites/target population (parents of young children, adult, childbearing, elderly) • Review focus group format • Identify scribes (audio tape) • Develop letters to participants • Finalize confidentially statement/consent form • Determine incentives/ refreshments for meetings • Summarize data, identify themes • Present findings on April 23, 2012 to CHAT
When: 12/14/11- 3/31/12

Report to: Pat Young, Project Manager
Members:
Denise Yopp, Bethany House
Tim Stellar
Bill Lee
Susan Williams
Jane Conlin
Kim Roe
NL Bishop
Lee Wonson
Kate Ellmann
Diane Kelly
Catherine Wells
Sally Walker

Appendix 4: 2010 Census Tract Rosetta Stone

2010 Census Tract Rosetta Stone		
CT 2010	CT 2000	Changes from 2000 to 2010
1	1	Added several blocks formerly part of CT 10
24	2	New number, but mostly the same as former CT 2. The western most part of former CT 2 (Fairland) was ceded to CT 23, and the northeast corner of former CT 2 was ceded to new CT 25 (Washington Park), and a strip along Orange Ave. at the southern edge of CT 2 was picked up from former CT 8.
3	3	A small area that is part of the Preston Park neighborhood was ceded to CT 4
4	4	Picked up a small area that was part of CT 3
5	5	Same
6.01	6	The part of CT 6 north of Orange Ave. is now 6.01
6.02	6	The part of CT 6 south of Orange Ave. is 6.02
25	7, 8	New number comprised of former CT 7 and 8 and a small part of former CT 2. Encompasses the Gainsboro, Gilmer, Harrison and Loudon-Melrose neighborhoods
9	9	Same
10	10	Same, except for a few blocks ceded to CT 11 (Downtown)
11	11	Same, except for a few blocks added from CT 10 (West End, Mountain View, Hurt Park)
12	12	Same
26	13	New number (Belmont and Fallon) comprised of former CT 13 except for area south of Jamison Ave. ceded to new CT 27

27	**14**	**New number (Morningside and Kenwood) comprised of former CT 14 and a part of former CT 13**
CT 2010	**CT 2000**	**Changes from 2000 to 2010**
28	**15**	**New number comprised mainly of former CT 15 plus a part of former CT 16. Encompasses (Mill Mt, Garden City and Riverland/Walnut Hills)**
29	**16**	**New number comprised of former CT 16, except for an area of Mill Mt and Riverland/Walnut Hill ceded to new CT 28**
30	**17**	**New number comprised of former CT 17 plus a portion of former CT 20. Encompasses Franklin/Colonial and parts of Grandin Court and Greater Raleigh Court**
18	**18**	**Same**
19	**19**	**Same**
31	**20**	**Former CT 20 except for a portion along the eastern boundary ceded to new CT 30**
21	**21**	**Same**
22	**22**	**Same**
23	**23**	**Picked up a small area (Fairland) from former CT 2**

Appendix 5: Community Forum Attendance

Individual	Organization
Adkins, Kristin	UWRV
Agee, Nancy	Carilion Clinic
Allen, Brenda	Roanoke Valley Healthcare Connection
Avner, Estelle	Bradley Free Clinic
Bishop, Dr. Nathaniel L.	Jefferson College of Health Sciences
Bishop, Dr. Rita	Roanoke City Public Schools
Black, James	Carilion Clinic
Bowers, David	City of Roanoke- Mayor
Burton, John	Carilion Clinic
Byrd, Debbie	Project Access- Dental
Carver, Colette	Carilion Clinic
Chapman, David (Rev)	High Street Baptist
Chappell, Deb	Virginia Cooperative Extension
Clement, Bob	City of Roanoke
Cobb, Joe	Metropolitan Community Church of the Blue Ridge
Cochran, Brent	LEAP
Cole, Sara	Council of Community Services
Conklin, Dr. Charles	Carilion Clinic, Dental Services
Conlin, Jane	DSS
Cromer, Rena	Rke City Neighborhood Advocate
Davis, Sandra	Anchor of Hope Community Center
Derbyshire, Mark	Carilion Clinic
Elliott, Kandy	Friendship Retirement/Community Volunteer
Ellmann, Kate	
Ferguson, G. Rena	
Ferguson, Helen	Rescue Mission Ministries- Fralin Clinic
Frankel, Sue	TAP Headstart
Franklin, Michelle	Carilion Clinic
Frye, Linda	New Horizons Healthcare
Garber, Sam	Carilion Clinic
Gilmer, Jake	RV-Alleghany Commission
Gladwell, Jane	
Haldiman, Robin	CHIP
Hamilton, Michele	
Hans, Nancy	Roanoke Prevention Council
Hardin, Virginia (Ginny)	BRBH
Harper, Stephanice	RCHD
Harris-Boush, Aaron	Carilion Clinic
Hartman, Cheri	Consultant/Carilion Clinic
Harvey, Margaret	Carilion Clinic

Individual	Organization
Heim, Jas	United Way of the Roanoke Valley
Helton, Gary	Carilion Clinic
Henderson, Agness	Roanoke Valley Speech & Hearing
Holland, Shirley	Carilion Clinic- Project Director
Hoover, Gina	
Hughes, Eva	Loudoun Avenue Christian Church
Jaworski, Hannah	Carilion Clinic- Pediatric Hospital
Johnson, Cal	YMCA
Johnson, Cynda	VTC School of Medicine
Jordan, Robin	
Joyner, James	VTC-SOM, Student
Keister, Erin	LGMC
Kelly, Diane	Mental Health America of RV
Kestner, Pam	Council of Community Services
Kilgus, Mark	Carilion Clinic Psychiatry
Lee, Dr. Bill	New Horizons Healthcare; Loudon Christian Church
Lepro, Eileen	New Horizons Healthcare
Lutjen, Beth	Commonwealth Catholic Charities
Manns, Linda G	Loudoun Christian Church
McCadden, Estelle	Melrose Neighborhood Association
McDaniel, Gerri	Parish Nursing
McGarry, Lynda	Bethany Hall
McNally, Karen	Presbyterian Community Center
McNew, Karen	WSLS 10
Meadows, Georgia	Samaritan Inn
Merenda, Dan	Council of Community Services
Michael, Brooks	Carilion Clinic- Adolescent Health
Mikalski-Karney, Karen	Blue Ridge Independent Living Center
Miller, Janet	Roanoke Valley Speech & Hearing
Murphy-Stephenson, Kathy	Carilion Clinic
Ostrander, Wanda	Carilion Clinic- Childrens' Hospital, School Nurse Program
Pendarvis, John	Family Services of Roanoke Valley
Petersen, Amy	United Way
Powell, Mark	Roanoke Community Garden Assoc.
Quintana, Heather	Happy Healthy Cooks
Ranson, Sue	Good Samaritan Hospice
Rearick, Jackie	RLI, LLC
Reynolds, Tricia	YMCA- Salem
Rhea, Dr. Randy	Bradley Free Clinic; Carilion Clinic- Family Medicine
Robertson, Kimberly	
Roe, Kim	Carilion Clinic
Rogan, Frank	UWRV
Sanchez-Jones, Vivian	Commonwealth Catholic Charities

Individual	Organization
Sandidge, Brittany	
Schultz, Owen	TAP- VP Planning & Development
Seltz, Rhonda	Radford University FAMIS Outreach Coordinator
Smith, Pat	Carilion Clinic- Project Assistant
Soltis, Lisa	Roanoke City Economic Development
Specht, Stephanie	UWRV
Steller, Tim	BRBH
Sullivan, Marty	VWCC- School of Dental Hygiene
Sylvester-Johnson, Joy	Rescue Mission Ministries- Fralin Clinic
Thompson, Laura	UWRV
Tuning, Carol	City of RKE Homeless Assistance Team
Verdillo, Abby	United Way of the Roanoke Valley
Wall, Sarah	VT Translational Obesity Research
Watts, Mark	Project Access
Waugh, Joyce	Roanoke Chamber of Commerce
Weaver, Ann	Lead Safe Roanoke
Webb Buelzeuski, Leaeann	
Webb, Marie	Carilion Clinic
Wells, Catherine	Roanoke Redevelopment & Housing Authority
Williams, Susan	LOA
Wonson, Lee	RCHD
Yopp, Denise	Bethany Hall
Young, Lin	CHIP
Young, Pat	CommunityWorks

Appendix 6: Community Forum Summary

St. John's Episcopal Church
Wednesday, February 1, 2012

Carilion Clinic, along with community partners, is conducting the Roanoke Community Health Needs Assessment (RCHNA) on defined target populations who live in the Roanoke Valley. It is a community-driven process that will:

5. Assess the health status of target populations in the Roanoke Valley;
6. Determine the needs and barriers to care faced by these populations;
7. Assess the resources available that impact their health; and
8. Identify initiatives and community efforts to address the needs and create positive change in their lives.

A Community Forum was held on February 1, 2012 with stakeholders and leaders representing the health professions, health and human services, local government, business and industry, educators, faith-based and volunteer organizations. The purpose of this forum was to inform the community of the purpose and activities of the RCHNA and create commitment to the project ensuring optimal participation and support from the community as a whole. A total of 106 individuals attended.

During the event, "Stakeholder and Provider" focus groups were conducted to assess the health of those who live, work and play in the Roanoke Valley. Participants were randomly assigned to 10 focus groups. Participants were asked to address three topics that impact health for the populations they serve including:

4. The needs and barriers that impact health, including identification of areas/neighborhoods with the most challenges
5. The resources available that impact health
6. Changes/initiatives that can occur to impact health

Participant responses related to each topic were recorded for all 10 focus groups. Common themes emerged and were categorized accordingly.

The following summary presents the responses and categories for each topic that were identified by the focus groups.

Needs and Barriers

Focus group participants were asked to respond to the following questions addressing the health needs and barriers in the Roanoke Valley.

- ***What are the most important issues (needs) that impact health in Roanoke?***
- ***What are the barriers to health for the populations you serve in Roanoke?***

A total of 273 responses among the 10 focus groups were collected addressing the "Needs and Barriers" and 14 categories identified.

- Access to Services
- Accessibility
- Chronic Disease
- Community Culture
- Community Resources
- Coordination of Care
- Cost of Services & Insurance Status
- Criminal Justice & Safety
- Demographic & Socioeconomic Status
- Health Literacy & Language Barriers
- Natural Resources
- Substance Abuse
- Transportation
- Wellness

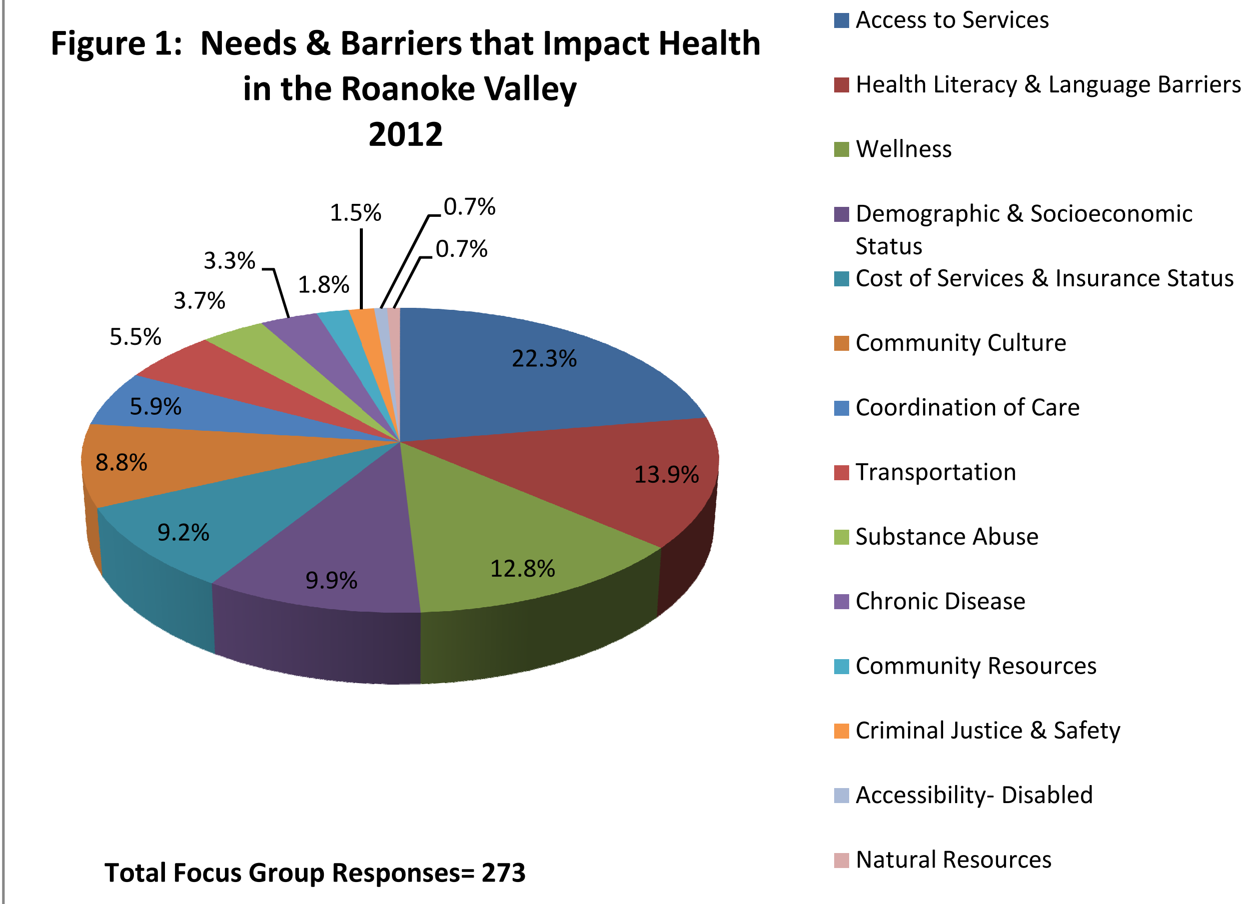

Figure 1: To determine which "Needs and Barriers" categories were identified most often by the focus groups, the responses for each category are presented as a percentage of the total responses. Respondents identified "Access to Services" (22.3%) as the greatest needs and barriers that impact health followed by "Health Literacy and Language Barriers" (13.9%); "Wellness" (12.8%); "Demographic & Socioeconomic Status" (9.9%); "Cost of Services and Insurance Status" (9.2%); "Community Culture" (8.8%); "Coordination of Care" (5.9%); "Transportation" (5.5%); "Substance Abuse" (3.7%); "Chronic Disease" (3.3%); "Community Resources" (1.8%); "Criminal Justice and Safety" (1.5%); "Accessibility" (0.7%); and "Natural Resources" (0.7%).

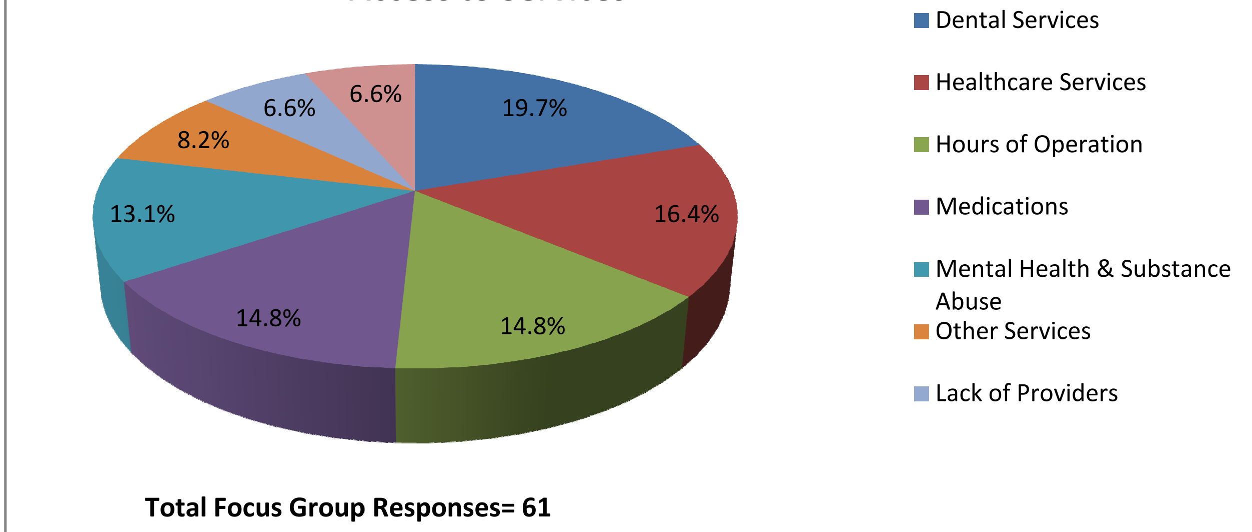

Figure 2: "Needs and Barriers" identified in the "Access to Services" category addressed "Dental Services" (19.7%); "Health care Services" (16.4%); "Hours of Operation" (14.8%); "Medications" (14.8%); Mental Health and Substance Abuse Services" (13.1%); "Other Services" (8.2%); "Lack of Providers" (6.6%); and Specialty and Allied Health Services (6.6%).

A summary of the responses for each "Needs and Barriers" category is presented in Table 1.

In addition to the "Needs and Barriers" that impact health, focus group participants were asked if applicable:

- ***Is there one locality/neighborhood with greatest unmet need in Roanoke? Why?***

The majority of focus group participants agreed that there is unmet need throughout the Roanoke Valley. Of the 25 responses, the following localities/neighborhoods were identified:

- Urban areas and inner city of Roanoke including the central downtown area, Northeast, Northwest, Southeast
- Neighborhoods:
    - Belmont
    - Eastgate
    - Gilmer
    - Hurt Park
    - Melrose
    - West End
- Town of Vinton (Roanoke County)
- Areas of poverty

Resources

Focus group participants were asked to respond to the following question addressing the available resources in the Roanoke Valley.

- ***What are the resources for health for the populations you serve in Roanoke***?

A total of 193 responses among the 10 focus groups were collected addressing the “Resources” and 9 categories identified.

- Access to Services
- Communications
- Community Resources
- Coordination of Care
- Education
- Information and Referral
- Insurance Status
- Transportation
- Wellness

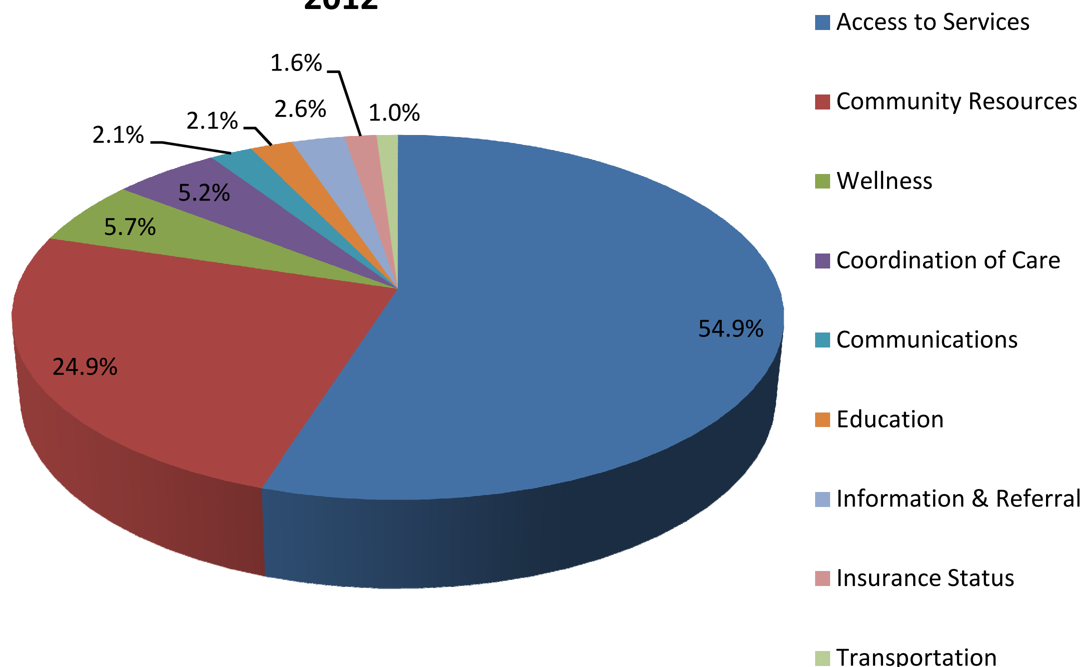

Figure 3: To determine which "Resources" categories were identified most often by the focus groups, the responses for each category are presented as a percentage of the total responses. Respondents identified "Access to Services" (54.9%) as the greatest "Resource" that impacts health followed by "Community Resources" (24.9%); "Wellness" (5.7%); "Coordination of Care" (5.2%); "Communications" (2.1%); "Education" (2.1%); "Information and Referral" (2.6%); "Insurance Status" (1.6%) and "Transportation" (1.0%).

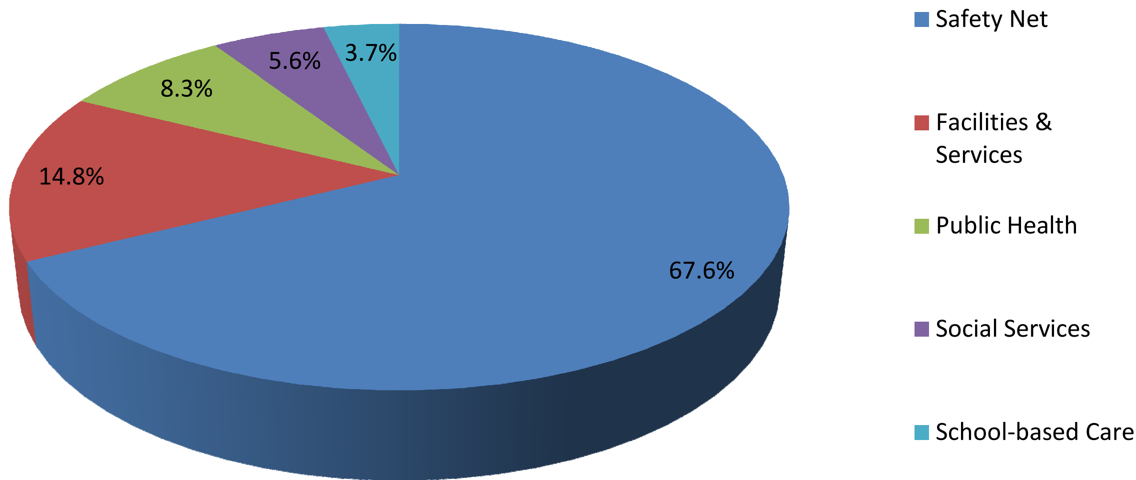

Figure 4: "Resources" identified in the "Access to Services" category included the "Safety Net" (67.6%); "Facilities and Services" (14.8%); "Public Health" (8.3%); "Social Services" (5.6%); and "School-based Care" (3.7%).

A summary of the responses for each "Resources" category is presented in Table 1.

Initiatives and Changes

Focus group participants were asked to respond to the following question.

- ***If we could make one change as a community to meet the needs and reduce the barriers to health in Roanoke, what would that be***?

A total of 57 responses among the 10 focus groups were collected addressing the “Initiatives and Changes” and 9 categories identified.

- Access to Services
- Collaborations and Partnerships
- Communication and Marketing
- Community Resources
- Coordination of Care
- Demographics and Socioeconomic Status
- Education
- Transportation
- Wellness

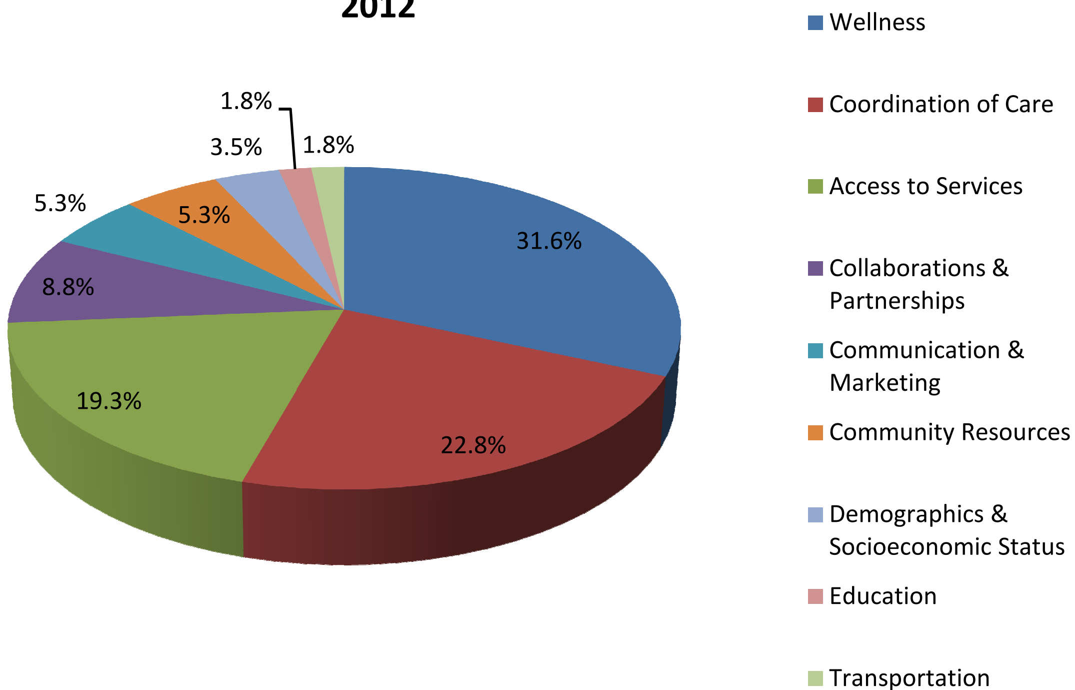

Figure 5: To determine which "Initiatives and Changes" categories were identified most often by the focus groups, the responses for each category are presented as a percentage of the total responses. Respondents identified "Wellness" (31.6%) as the greatest "Initiative and Change" that impacts health followed by "Coordination of Care" (22.8%); "Access to Services" (19.3%); "Collaborations and Partnerships" (8.8%); "Communication and Marketing" (5.3%); "Community Resources" (5.3%); "Demographics and Socioeconomic Status" (3.5%); "Education" (1.8%) and "Transportation" (1.8%).

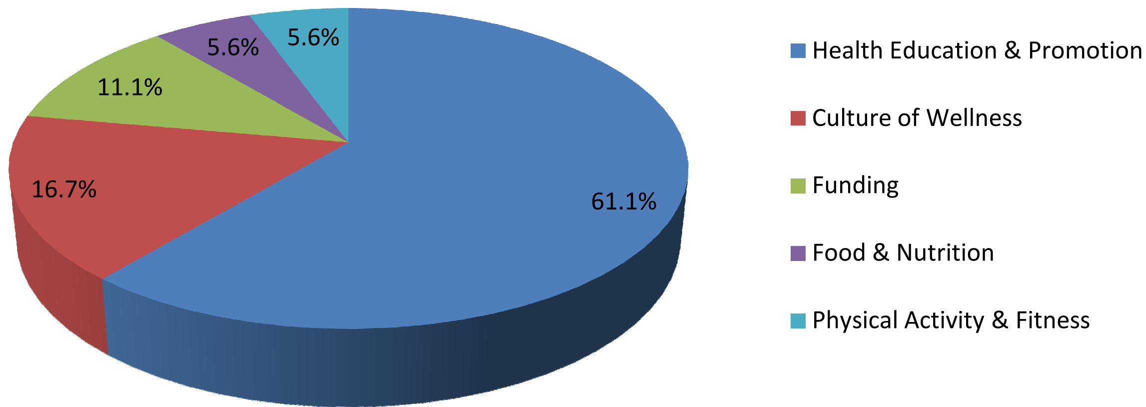

Figure 6: "Initiatives and Changes" identified in the "Wellness" category included the "Health Education and Promotion" (61.1%); "Culture of Wellness" (16.7%); "Funding" (11.1%); "Food and Nutrition" (5.6%); and "Physical Activity and Fitness" (5.6%).

A summary of the responses for each "Initiatives and Changes" category is presented in Table 1.

Table 1: "Roanoke Community Health Needs Assessment" Stakeholders and Providers Focus Group Responses by Category and Topic

Categories	Needs and Barriers	Resources	Initiatives and Changes
Access to Services	• Health care services ○ Overall access including primary & preventive care • Dental ○ Affordable services for self-pay & Medicaid adults; seniors ○ Lack of pediatric dentists ○ Unmet oral health issues • Hours of Operation ○ Limited hours of operation ○ Late and after-hours needed • Medications ○ Access to affordable prescriptions ○ Cost of "donut hole" ○ Medication management services • Mental Health & Substance Abuse ○ Overall access ○ Psychiatric services ○ Youth- residential; psychosocial; & substance abuse services ○ Education on available services ○ Unmet mental health & substance abuse needs • Other Services ○ In-home services ○ Workplace ○ Veterans • Lack of Providers ○ Overall ○ Primary care providers	• Facilities & Services ○ Area Hospitals ○ Behavioral Health care ○ Carilion Clinic ○ Emergency Departments & Urgent Care Centers ○ Palliative Care ○ Pediatric Care ○ Veterans Administration • Public Health ○ Health Department ○ WIC • Safety Net ○ Community Health Center ▪ New Horizons Healthcare ○ Free Clinics ▪ Bradley Free Clinic ▪ Rescue Mission (Fralin Clinic) ▪ Mental Health America of Roanoke Valley ○ Blue Ridge Behavioral Healthcare ○ Family Service of Roanoke Valley ○ Carilion Clinic Charity Care ○ Lewis Gale Medical Center Charity Care ○ Medication Assistance Programs ○ Mission of Mercy Project ○ Carilion Pediatric Dental Clinic	• Access for all ○ Health care as a right ○ Universal health insurance ○ Grant programs to ensure access to free health care • "Medical Mall" with multi-disciplinary clinic including health education, information and referral, yoga and nutrition classes, care coordination and care managers. Healthy foods available (grocery & restaurant) and track/gym. On the bus route. Medical students run clinic • School-based clinic • Satellite clinics in underserved neighborhoods in non-threatening locations • Affordable dental care • Champion legislative agendas to include Medicaid & Medicare dental coverage for adults.

	○ Accepting new patients ○ Accepting new Medicaid patients • Specialty & Allied Health ○ Vision ▪ Cost for self-pay ▪ Ophthalmology ○ Hearing devices- cost ○ Geriatrics ○ Pain Management ○ Physical Therapy- cost & transportation to existing services (limited bus routes) ○ Urology	○ Small Smiles ○ Planned Parenthood ○ Project Access • School-based Care ○ School nurse program ○ Teen health centers • Social Services ○ Supportive programs ○ FAMIS & Medicaid ○ Homeless Assistance Team	• Champion legislative agendas for children's services • Home care for all ages • Free pharmacy services • Sick child care
Accessibility	• Lack of accessibility for disabled populations	N/A	N/A
Chronic Disease	• Asthma • Diabetes • Obesity • Self-neglect	N/A	N/A
Collaborations & Partnerships	N/A	N/A	• Organizing the community to promote health education & healthy lifestyle behaviors • Develop coordinated community campaigns & partnerships behind target issues • Function as a community to solve health issues
Communications & Marketing	N/A	• Newsletters • Electronic health records • Media	• Better marketing to create a "Culture of Wellness" • Marketing professionals working together with students in service learning opportunities • Increase transparency in messages

Community Culture	• Fear & mistrust of providers, civic leaders, existing resources & health care system • Lack of motivation, empowerment, personal accountability & self-efficacy to be well • Lack of value in health • Social stigma associated with illness; mental health & substance abuse issues; people with disabilities; and the elderly • Culture of entitlement • Fragmentation of the community	N/A	N/A
Community Resources	• Assisted living for low-income elderly • Additional resources for the elderly • Child advocacy • More faith-based programs • Funding to support programs	• A giving community • A wide variety of non-profit, community-based organizations ○ Adult Care Center ○ Alcoholics Anonymous ○ Backpack Programs ○ Bethany Hall ○ Brain Injury Services of SW VA ○ Commonwealth Catholic Charities ○ Children's Trust ○ Council of Community Services ○ Children's Haven ○ Faith-based organizations, churches, & parish nurses ○ City Coalitions ○ Community Based Healthcare Coalition ○ Drop-in Center ○ Food Banks including Feeding America SW VA ○ Hospice ○ Public libraries ○ League of Older Americans ○ Manna Ministries ○ Mountain House ○ National Alliance of Mental Illness Roanoke Valley	• Volunteer support and community services requirement for local businesses • Liability coverage for volunteers of faith-based organizations • Utilize existing resources

		○ On Our Own ○ Presbyterian Community Center ○ Sara's House ○ St. Francis House ○ Straight Street ○ Susan G. Komen ○ Total Action Against Poverty ○ Turning Point ○ United Way ○ Virginia Cooperative Extension	
Coordination of Care	• Lack of coordination and a seamless system of care • Need for a centralized system for coordination of care (i.e. medical homes) • Need for health navigators • Assistance with forms, eligibility requests • Communication between providers and other entities needed	• Home Visiting Services • CHIP • TAP Head Start	• Coordination of care with community/health navigators. Neighborhood health promoters. • In-home care coordination across the continuum to assist in accessing services & provide health education at an individual's literacy levels • Central center for information & resources with fundamental services and information. Single point of entry. • High-level nurses to assess patients and assist with health navigation and education. • More Patient-Centered Medical Homes
Cost of Services & Insurance Status	• Uninsured ○ Unable to afford out-of-pocket expenses ○ Lack of resources to pay ○ Lack of insurance for the unemployed ○ Limits access to services • Under-insured	• FAMIS (overlap with Social Services) • Medicaid (overlap with Social Services) • Medicare	N/A

	○ High co-pays ○ Gaps in services covered • Medicare & Medicaid coverage is limited • Long-waits for Disability coverage		
Criminal Justice & Safety	• Gangs and crime • Domestic violence	N/A	N/A
Demographic & Socioeconomic Status	• Large impoverished population • Lack of education and education success • Aging population • Homelessness • Unemployment & lack of jobs • Demographic and cultural changes in the area	N/A	• Promote education as a way out of poverty • Full employment opportunities
Education	N/A	• Public Schools • Virginia Western Community College • Virginia Tech Carilion School of Medicine & Research Institute	• Charter school for children with psychosocial issues
Health Literacy & Language Barriers	• Unable to navigate the health care system • Limited understanding & compliance to treatments • Lack of knowledge of existing resources • Lack of understanding of health insurance coverage • Lack of understanding of health • Poor communication with providers • Language barriers	N/A	N/A
Information & Referral	N/A	• 2-1-1 Virginia • Clearinghouse • Carilion Clinic website	N/A
Natural Resources	• Poor air quality • Natural environment	N/A	N/A
Substance Abuse	• Overall substance abuse • Smoking • Prescription drug abuse • Self-medication	N/A	N/A

Transportation	• Lack of transportation	• Public Transportation • RADAR	• Free Transportation
Wellness	• Culture of Wellness needed ○ Limited priorities on prevention and healthy living ○ Lack of healthy communities • Food & Nutrition ○ Access to affordable, healthy foods especially in low-income neighborhoods ○ Cultural awareness of good nutrition; nutrition education needed ○ Improve school lunch program including funding • Health Education • Physical Activity & Fitness ○ Increase physical education in schools ○ Increase access to recreation ○ Increase physical activity overall	• Greenways & Natural Amenities • Parks and Recreation ○ Green Ridge Recreation Center • YMCA	• Create a culture of wellness by educating & empowering people to take control of their health by focusing on behaviors (i.e. stop smoking, good diet). Prevention oriented & culturally sensitive programming. • Advocate for a unified campaign to emphasize prevention & healthy lifestyles with a focus on the neighborhoods and personal responsibility. • Promote local & whole foods especially in the schools. • Education on accessing preventive services for all ages. • Take health education & promotion to where people live (i.e. neighborhoods) • Advocate for schools & government accountability for teaching wellness • Promote physical activity • Tax cigarettes/alcohol to support wellness programs • Redirect meals tax to wellness programs

Appendix 7: Target Population Focus Groups by Life Cycle

	Children	Sources of Care	Comments

Primary Care & Specialty Care	Access:
	• Preventive & chronic care
	• Acute care
	    ○ Parents will treat children for minor illness with over-the-counter remedies
	• Specialty, rehabilitative & therapy services
	    ○ Drive to UVA for specialty care
	
	Insurance status:
	• Medicaid/FAMIS or private insurance
	• **Homeless children**: not all had health insurance coverage
		Primary Care:
		• Carilion Family Medicine
		• Carilion Pediatric Clinic
		• Lewis Gale Medical Center
		• New Horizons Healthcare
		• Physicians to Children
		
		Specialty, Rehabilitative, Therapy
		• Carilion Speech Therapy
		• Easter Seals
		• Heartland Rehabilitative Services
		• Newman Blackstock Optometrists
		• University of Virginia Health System
			Self-medicate children at times if it is a cold or fever. The doctor would treat it as a virus and do the same thing. I know from experience what helps.

Dental Care	Access:
	• Preventive care every 6 months
	
	Lack of access:
	• Affordable orthodontics
	
	Insurance status:
	• Medicaid/FAMIS or private insurance
	• Not all homeless children had health insurance coverage
		• Carilion Pediatric Dental Clinic
		• Small Smiles
		• Other Medicaid providers
		    ○ Dr. Jones
		    ○ Dr. Kanetzke
		    ○ Dr. Kevorkian
			Difficult to get an appointment with Carilion Pediatric Dental Clinic
			
			I work at Small Smiles and all places have complaints. People should ask if they do not understand and know what treatment is going on. It is a communication issue. Sometimes we get patients that yell and the waits are long.

Mental Health & Substance Abuse	Access: • Utilize community resources for care	• Blue Ridge Behavioral Healthcare	*Medicaid had made it hard to get services*

Care	Challenges: • Issue with bullying in schools • Grandparents raising grandchildren with mental health issues	• Dominion Services • Family Preservation Program- Fallon Park Elementary School • Family Service of Roanoke Valley • Intercept Youth • Presbyterian Community Center • Reach • Straight Street • West End Center	

Transportation	Access:
	• Dependent on parents' source of transportation
	• **Homeless Children**
	  ○ Roanoke City Public Schools provides bus service to school of origin for children living in shelters.
	  ○ Medicaid transportation to UVA specialty care
		• Medicaid transport	

Wellness	Access: • Weight loss program (PATH) Lack of access: • Affordable fitness program for pre-teens • **Homeless Children:** Access to healthy foods/meals difficult when living in a shelter. No special diets available for those with dietary restrictions.	• Carilion Clinic Positive Actions Toward Health (PATH)	*My son has Downs Syndrome and intestinal disease. He cannot have every type of food. Here at the Rescue Mission, not all the kids and adults can eat some of the things that they prepare here. We have no choice on the food. I am not able to feed my son here; he has not eaten for a month because he cannot have whole wheat. I have to sneak in stuff for him. When I have the opportunity to take him to*

			McDonalds, he eats like he had never eaten in his life.

	Women of Childbearing Age	Sources of Care	Comments
Primary Care & Specialty Care	Access dependent on insurance status Access with insurance: • Have a primary care provider • Some get annual checkups • Self-treat at times Access without insurance: • Go without care • Self-treat • Use Emergency Department for primary care Access to affordable vision services needed Health literacy: • Value not placed on preventive care for self although access to care for children is always a priority. • Do not always understand what the provider is saying. • Good hygiene and infection control used to prevent illness. Challenges: • Out-of-pocket expenses and cost of services are prohibitive for uninsured • Out-of-pocket expenses for co-pays, deductibles are prohibitive at times for the insured • Out-of-pocket expenses for maternity care with insurance	• Carilion OB/GYN Clinic • Doctor's office • Emergency Department • Planned Parenthood • Physicians to Women	*We stop taking care of ourselves when we have children.* *This is the first place I do not get free health care. I lived in Massachusetts and everything was provided for me, even vision services.* *I have to pay out of pocket. I go where ever is cheap.* *I am uninsured. Medicaid claims we make too much to qualify for me and my husband. My husband is self-employed.* *I doctor myself if I am sick. I go to the ED or if I can afford it I go to my family doctor.* *My child was born in January. The person that set up my health insurance policy asked if we wanted to induce labor in December to save money. Out of pocket for maternity care is outrageous. On average, out of pocket $6000-$7000 for these services.* *I was traumatized by my OB/GYN- said I needed a procedure, sonogram because there was something wrong.*

	• High cost of living and preference for necessities leaves little money for health care expenses.		*I did not go. Doctors need to tell you what they're doing.* *I disinfect the house with Clorox Wipes and encourage good hand washing.* *It is hard to be healthy when you have people who are sick around you. The people here (residents at Rescue Mission Women's & Children Shelter) do not care about health and spread germs. They do not wash their hands and spread germs.*
Dental Care	Access dependent on insurance status • The majority of participants did not have dental insurance Access with insurance: • Bi-annual to annual cleanings Access without insurance: • Go without care • Self-treat and/or delay treatment • Use Emergency Department for pain/infection Health literacy: • Value not placed on preventive care for self although access to care for children is always a priority. Challenges: • Out-of-pocket expenses are prohibitive for uninsured • Out-of-pocket expenses for co-pays,	• Dentist office • Emergency Department	*I have called different dentist and they say they take on a certain amount a year but there has to be an open spot. Medicaid only pays for tooth pulling.* *I have not been to dentist for several years. There is a program in Amherst county but it is expensive.* *I can't afford it. I just brush and floss.* *I don't go until the pain is so bad that you can't stand it.* *Dental care is expensive even with insurance.* *I have gone to the Emergency Room for an abscess. They gave me a prescription for an antibiotic.*

	deductibles are prohibitive at times for the insured		
Mental Health & Substance Abuse Care	Access: • Rely on a support network • Family, friends • Church • Rely on self-management for stress • Participants expressed a need “to talk to someone” but did not access community resources Lack of access: • Psychiatry appointments Health literacy: • Stigma associated with mental health care • Lack of knowledge of community resources Challenges: • Tobacco addiction		*Need someone to talk to prior to the "crisis stage".* *I am exhausted at the end of the day. I work all day, come home and cook dinner, make sure the kids do their homework, get them to bed and then I drop.* *I talk to myself.* *I don't have time for me.* *I pray.* *I go to the gym early in the morning to help with my stress.* *I am addicted to cigarettes but that is because I have two kids. I have a lot of stress in my life right now, not just being here (Rescue Mission).*
Transportation	Lack of access: **Homeless Mothers** • Do not have reliable transportation. Rely on public transportation, community resources, or walk	• Valley Metro • Medicaid sponsored for appointments Self (walk)	
Wellness	Access: • Gym memberships • Home equipment • Farmers’ Market provides Electronic Benefits	• Planet Fitness • Home Equipment • West End Market	*We have to leave the Mission from 9-12 p.m. and do not have anywhere to go. We have asked about a reduced membership at the YMCA. A lot of the*

	Transfer for Food Stamps Lack of access: **Homeless Mothers** • Membership to a fitness facility cost prohibitive • Healthy foods- dependent on whatever food is available at the shelter Health Literacy: • Value placed on healthy foods & exercise Resources: • Food stamps • Homeless shelter Challenges: • High cost of living impacts healthy choices	*people cannot afford $20/person for the YMCA. For families it is $45. We would all like to use these services.* *The food stamp program is good and you can go to the farmers market and get vegetables.*

	Adults	Sources of Care	Comments
Primary Care & Specialty Care	Access dependent on insurance status Access with insurance: • Have a primary care provider • Some get annual checkups • Self-treat at times Access without insurance: • Go without care • Self-treat • Use Emergency Department for primary care Lack of access to specialty care: • Often must be referred to specialist by primary care provider (gatekeeper) • Dermatology • Neurology • Vision (affordable services) Need for additional services: • 24-hour urgent care • Affordable medications for the uninsured Health literacy & language barriers: • Value not placed on preventive care and chronic disease management • Do not always understand what the provider is saying. • Lack of knowledge of health. • Use the internet for health information. • Lack knowledge on available community resources. • Large language barrier in Roanoke.	• Bradley Free Clinic • Carilion Family Medicine (various sites) • Doctor's office • Emergency Department • G. Wayne Fralin Free Clinic for the Homeless • Lewis Gale Medical Center • New Horizons Healthcare • Urgent Care (Carilion Roanoke Community Hospital)	*Many of my friends use the emergency room for primary care because they know that they will have access to services without having to pay.* *I worked at Wal-Mart for over 17 years. Had Blue Cross Blue Shield. Now I am uninsured. When I was in the hospital, they left me with $10,000 in bills. Wal-Mart now after Obama care covers preventive care. Now since I was laid off, I go to Bradley Free Clinic and urgent care. I have no transportation and use the ED as primary care.* *I have personal health insurance. I work in banks and even though there is a premium and out of pocket, if we had an emergency we would not be able to afford it. There are many people without insurance. The people that are unemployed without insurance fall through the cracks. New Horizons Health care is the only sliding scale organization.* *There is a level of fear for people seeking health services because they do not want to know what the news is. This is not the case with me, what keeps me from getting health care is the large expense. There are high deductibles and co-pays. I know people that do not go to the doctor because they cannot afford it. I consider it criminal when*

	Resources: • Food stamps • Public housing • Homeless shelter Challenges: • Out-of-pocket expenses and cost of services are prohibitive for uninsured • Out-of-pocket expenses for co-pays, deductibles are prohibitive at times for the insured • High cost of living and preference for necessities leaves little money for health care expenses.		*people who work for a living cannot afford health care. It is good that our country is changing. We should not have to think about how we are going to pay for health care.* *Fralin Clinic provides for me because I am in the program (Residential Substance Abuse Recovery program). They give me all of my care.* *I discuss my sickness with my wife. She is more insistent about me going to the doctor if I need to.* *I am a parish nurse. I see the same problems and many have insurance and do not use it. They do not practice primary care and prevention. We try to get people connected to resources in the community* *I went to Greensborough NC to get an appointment for dermatology services.*
Dental Care	Access dependent on insurance status • The majority of participants did not have dental insurance Access with insurance: • Bi-annual to annual cleanings Access without insurance: • Go without care • Self-treat and/or delay treatment • Use Emergency Department for pain/infection	• Dentist office • G. Wayne Fralin Free Clinic for the Homeless • Roanoke Mission of Mercy (MOM)	*Where in history did the government remove dental and eyes as part of the body and does not cover them in basic health insurance.* *Dental care is very expensive. I had a root canal in Roanoke. It would have been half the cost if I went to Columbia and had the procedure done, including travel and lodging.* *Rescue Mission is making dentures for*

	• Homeless have access to G. Wayne Fralin Free Clinic for the Homeless (provide dentures as well) Health literacy: • Value not placed on preventive care for self. • Limited understanding of treatment and/or advocating for self. Challenges: • Out-of-pocket expenses are prohibitive for uninsured • Out-of-pocket expenses for co-pays, deductibles are prohibitive at times for the insured		*the homeless. I got a new pair at the Rescue Mission. (Substance Abuse Recovery Program graduate)* *Information is needed about the MOM for working people who are not served by organizations (safety nets, health & human services agencies). How are we supposed to know about this? I have family who need this.* *The Mission of Mercy project is a Band-Aid approach to dental care. Doesn't help you get regular care. It does help with dentures.* *You must advocate for yourself when you go to the dentist. A Presbyterian Community Center client with a bad tooth went to the dentist and they pulled the wrong tooth. She did not say anything.* *I had an abscess and I had to get to the hospital. I had to get antibiotics and they had to stick a needle in my head and pull the tooth in the ED.* One participant reported not having her teeth cleaned since she was 10 years old.

Mental Health & Substance Abuse Care	Access:
	• Rely on a support network
	  • Family, friends
	  • Church
		• Blue Ridge Behavioral Health
		• Carilion Clinic Center for Healthy Aging
			Mental health is important. There is a stigma attached to getting health care. Many do not know resources in the community. There is no shame is getting the mental health care you

	• 12-step program • Rely on self-management for stress • Participants expressed a need “to talk to someone” • Community services Lack of access: • Psychiatry appointments • Limited affordable programs for the uninsured • Support groups for children taking care of aging parents Health literacy: • Stigma associated with mental health care • Lack of knowledge of community resources	• Family Service of Roanoke Valley • 12-step program • Psychiatrist	*need.* *Dementia support group needed. You are kind of on your own for elder care and dementia issues. I have been going to a support group at the Center for Healthy Aging. This is a growing issue of caring for parents* *It is hard because I do not have insurance and I go through depression.* *I talk to my pillow.* *I talk to my pastor.*
Transportation	Access: • Own vehicles • Public transportation Lack of access: <u>Disabled Adults in Public Housing</u> • Rely on public transportation, cabs, community resources, RADAR, or walk • No ramps on sidewalks prevent accessibility for wheel-chair bound residents <u>Homeless Adults</u> • Rely on public transportation, community resources, or walk	Cab Car RADAR Valley Metro	*I use to go to the doctors. I don't have access to my car so I go wherever I can. I have seizures and the hospital took away my license and I do not have transportation.*
Wellness	Access: • Insurance and/or employer pays for fitness	Home equipment Planet Fitness	*Value is not placed on wellness and prevention. Community does not*

	facility membership • YMCA incentive (1/3 employer pays, 1/3 YMCA pays, 1/3 self-pay) for those who qualify • Virginia Premier helps to pay for membership • Affordable fitness facilities • Planet Fitness ($10/month) • Home exercise equipment • Farmers' Market provides Electronic Benefits Transfer for Food Stamps Lack of access: <u>Homeless Adults</u> • Membership to a fitness facility cost prohibitive • Healthy foods- dependent on whatever food is available at the shelter Health Literacy: • More value should be placed on healthy foods & exercise Resources: • Food stamps • Homeless shelter Challenges: • High cost of living impacts healthy choices	West End Market YMCA	*practice wellness & prevention. Diabetes is preventable and need to focus on prevention. Food stamp recipients should be encouraged to buy healthy food. Junk food should not be allowed with SNAP.* *Eating healthy costs more. There are so many people that can't afford health foods.* *I go to shops and the West End Market. I like it in the summer time because of the variety of produce.* *The Rescue Mission does not have anything (food) for diabetics. They have only had stuff for me once.* *Exercise will change your life! It will help with stress. Walking will help and make you healthy. Drinking water. The key to health is exercise.* *Wells Fargo (employer) tries to encourage prevention through our health insurance. You can get incentives if you do an online assessment. Also they will help with wellness visits and put money into an account for out of pocket expense.*

	Seniors	Sources of Care	Comments
Primary Care & Specialty Care	Access: • All participants had health insurance (Medicaid, Medicare, & some supplemental plans) • All participants had access to a regular primary care provider • Use emergency room or urgent care if unable to get an appointment with their provider • Carilion Medication Assistance Program • New Horizons Healthcare Medication Assistance Program Lack of access: • Difficulty getting appointments with specialists and/or timely appointments with other providers ◦ The majority of senior participants see at least one specialist. Need for additional services: • Care coordination • Medication assistance when the Medicare Part D donut hole is reached Health literacy: • Difficulty understanding how to navigate the system • Lack of awareness of available community resources • Lack of understanding of information presented by provider	• Carilion Clinic Riverside • Carilion Family Medicine (CFM)- various sites • CFM- Southeast & Roanoke/Salem (Family Medicine Residency Training Practices) • Carilion Clinic Medication Assistance Program • Doctor's office • Emergency Department • Lewis Gale Medical Center • New Horizons Healthcare • Veterans Administration	*I go to Southeast medical. I see another doctor each time. How do you know anything about me? How can you establish a relationship with a doctor or even understand what they are saying?* *I keep falling through the cracks at Carilion. Can't get meds and nurses never called me. Coordination of care is terrible. Nobody called me to increase my medicine. I fall between the cracks and I am very verbal and I let them all know but I still fall through the cracks.* *Doctors are busy but there is a law and MDs have to give you 15 min to talk to you. I am the type of person to tell the MD to talk to me on a level that I understand. You have to take that responsibility. The doctor is surprised and will come down and talk to you.* *I have a great doctor. He wants to know how you are doing.* *If you have questions (about your health) is there some place to ask?* Regarding specialty services: *You usually get to see helpers (NP, PA) and not them (doctors).* *I tried to get an (Pulmonology)*

	Challenges: • Lack of continuity of care in Family Medicine Residency practices • High cost of living and preference for necessities leaves little money for health care expenses.		*appointment but I have to wait until June (3 months)*
Dental Care	All senior participants were edentulous or had missing teeth. Some participants had dentures. Access dependent on insurance status • The majority of participants did not have dental insurance Access with dental insurance: • Bi-annual to annual cleanings (Southeastern Care supplemental insurance) • Extractions deemed medically necessary by Medicaid provider Access without dental insurance: • Medicare/Medicaid does not pay for preventive or restorative care. • Use dental hygiene program at Virginia Western Community College • No affordable dental care or safety net services for seniors • Go without care • Cannot afford dentures • Self-treat and/or delay treatment • Use Emergency Department for pain/infection	• Affordable Dentures (Bedford, Christiansburg) • Carilion Dental Clinic • Dentist office • Dr. Mark Turner • Emergency Department • Virginia Western Community College School of Dental Hygiene	*I don't go (for cleanings) 'cuz I ain't got none (teeth)* *I had an abscess and it was so bad they (Emergency Department) had to get surgery (oral surgery consult). They worked it out so I can go to the rehab (Carilion Dental Care). There is nothing for us. One of the doctors at the hospital told me it was very lucky that they worked on me. The have had to send people to UVA (*Participant recently discharged from Carilion Roanoke Memorial Hospital due to a dental abscess*)* *I have a supplemental insurance through Medicare South eastern; they have two cleaning and a free x-ray.* *I have dental (insurance) with Southeastern Care but they send you to the most expensive dentist and you have to pay a lot.* *We paid out of pocket for dentures for*

	Health literacy: • Value not placed on preventive care for self. • Perception that dental care is "specialty care". Dental care is disease/problem-oriented (i.e. pain, infection). • Lack of understanding of dental insurance coverage Challenges: • Out-of-pocket expenses are prohibitive for uninsured. Dental care is a luxury. • Out-of-pocket expenses for co-pays, deductibles are prohibitive at times for the insured		*$350. Went to Affordable Dentures (Bedford)* *Medicaid will take care of you for dental; I had teeth taken out in order to operate for cancer.* *We had had our teeth pulled by Mark Turner. He has his own office. (Accepts adult Medicaid)*

Mental Health & Substance Abuse Care	Access:
	• Rely on a support network
	  • Family, friends
	  • Church
	• Deal with problems alone
	• Community services
	
	Health literacy:
	• Unaware of community resources
		• Blue Ridge Behavioral Healthcare
		• East Mental Health
		• Staff at Melrose Towers
			That's what friends are for!

Transportation	Access: • Majority of participants relied on public and community resources for transportation • Family and friends for rides Challenges: • Dependent on public/community transport schedules. • When relying on public transportation, sometimes difficult to get a ride back to	• VA Premier Patient Transport • Cabs (Salem Taxi) • LOA (Local Office on Aging) • Logisticare • Magisticare • RADAR • Valley Metro Bus • Own vehicle	*We use to get 3 free cab rides and that has hurt a lot of people. Cab prices are going up.*

	residence after an appointment. • Increasing cost of bus and cab transport • Sidewalks do not have ramps for wheelchair accessibility in the participants' neighborhoods	• Wheelchair	
Wellness	Access: • Some insurance pays for fitness facility membership (Southeastern Care, Virginia Premier • Home exercise equipment • Walk around the neighborhood Challenges: • Fixed income and increasing cost of living impacts healthy choices, ability to purchase healthy foods • No grocery store in walking distance. Must rely on others or bus for ride to the store and/or rely on convenience stores within walking distance.	• Green Ridge Recreation Center • Gold's Gym	*I have an exercise bike but you have to be respectful about the people that live underneath you. I also walk but have to be considerate of others.*

Appendix 8: Roanoke Valley Community Health Survey

ROANOKE COMMUNITY HEALTH SURVEY

ACCESS and BARRIERS TO HEALTHCARE

1. Where do you go for medical care? (*Check <u>all</u> that apply)*

- ❐ Doctor's office
- ❐ Emergency Room
- ❐ Urgent Care
- ❐ New Horizons Healthcare
- ❐ Project Access
- ❐ Health Department (Ex. Roanoke City, Roanoke County, etc.)
- ❐ Free Clinic (Ex. Bradley Free Clinic, Rescue Mission, Mental Health America)
- ❐ Craig County Community Health Center
- ❐ I do not go to the doctor for regular care
- ❐ Other: ___________________________

2. Where do you go for dental care? (*Check <u>all</u> that apply)*

- ❐ Dentist's office
- ❐ Emergency Room
- ❐ Urgent Care
- ❐ Free Clinic (Ex. Bradley Free Clinic, Rescue Mission)
- ❐ Mission of Mercy Project
- ❐ Project Access
- ❐ Craig County Community Health Center
- ❐ I do not go to the dentist for regular care
- ❐ Other: __________________________

3. Where do you go for mental health, alcohol, or drug problems? (*Check <u>all</u> that apply)*

- ❐ Doctor/Counselor's Office
- ❐ Bradley Free Clinic
- ❐ Family Services of Roanoke Valley
- ❐ Other: ___________________________
- ❐ Emergency Room
- ❐ Rescue Mission
- ❐ New Horizon Healthcare
- ❐ Blue Ridge Behavioral Healthcare
- ❐ Mental Health America
- ❐ I do not use these services

4. Which health care services are hard to get in our community? (*Check <u>all</u> that apply)*

- ❐ Alternative therapy (ex. herbal, acupuncture)
- ❐ Substance abuse services –drug and alcohol
- ❐ Preventive care (ex. yearly check-ups)
- ❐ Medication / medical supplies
- ❐ Specialty care (ex. heart doctor)
- ❐ Ambulance services
- ❐ Adult dental care
- ❐ Emergency room care
- ❐ Inpatient hospital
- ❐ Chiropractic care
- ❐ End of life care / hospice
- ❐ Other: ______________________________
- ❐ Child dental care
- ❐ Family Doctor
- ❐ Vision care
- ❐ Lab work
- ❐ Physical therapy
- ❐ Women's health services
- ❐ X-rays / mammograms
- ❐ Urgent care / walk in clinic
- ❐ Mental health / counseling
- ❐ Family Planning/Birth control

5. What do you feel prevents you from getting the healthcare you need? (*Check <u>all</u> that apply)*

- ❐ Have no regular source of healthcare
- ❐ Don't like accepting government assistance
- ❐ Can't find providers that accept my insurance
- ❐ Lack of evening and weekend services
- ❐ Don't know what types of services are available
- ❐ Don't trust doctors / clinics
- ❐ Afraid to have check-ups
- ❐ Long waits for appointments
- ❐ No transportation
- ❐ Location of offices
- ❐ Childcare
- ❐ Cost
- ❐ Language services
- ❐ High co-pay
- ❐ Other:_________________

GENERAL HEALTH QUESTIONS

6. Please check one of the following for each statement	**Yes**	**No**	**Not applicable**
I have had a dental exam or cleaning within the past 12 months.	❐	❐	❐
I have had an eye exam within the past 12 months.	❐	❐	❐
My doctor has told me that I have a long-term or chronic illness.	❐	❐	❐
I take the medicine my doctor tells me to take to control my chronic illness.	❐	❐	❐
I have had a counseling visit within the last 12 months.	❐	❐	❐
I have been to the emergency room in the last 12 months.	❐	❐	❐
My child or dependent has had a dental exam or cleaning within the past 12 months.	❐	❐	❐
My child or dependent has had an eye exam within the past 12 months.	❐	❐	❐
My child or dependent has a long-term or chronic illness.	❐	❐	❐
My child or dependent takes the medicine the doctor tells them to take to control their chronic illness.	❐	❐	❐
My child or dependent has had a counseling visit within the last 12 months.	❐	❐	❐
My child or dependent has been to the emergency room in the last 12 months.	❐	❐	❐

7. Have you ever been told by a doctor that you have… (*Check <u>all</u> that apply)*

- ❐ High blood pressure or hypertension
- ❐ High blood sugar or diabetes
- ❐ Mental health / substance abuse
- ❐ Heart disease
- ❐ High cholesterol
- ❐ I have no health problems
- ❐ Asthma
- ❐ Obesity
- ❐ Other: ________________________________
- ❐ Cancer
- ❐ Depression or anxiety

8. **How long has it been since you last visited a doctor for a routine checkup?** ***(Please check one)***

❒ Within the past year (1 to 12 months ago) ❒ Within the past 2 years (1 to 2 years ago)
❒ Within the past 5 years (2 to 5 years ago) ❒ 5 or more years ago

If applicable, how long has it been since your child or dependent visited a doctor for a routine checkup? ***(Please check one)***

❒ Within the past year (1 to 12 months ago) ❒ Within the past 2 years (1 to 2 years ago)
❒ Within the past 5 years (2 to 5 years ago) ❒ 5 or more years ago

9. **What do you think are the three most important factors for a "healthy community"? (*Please check three*)**

❒ Good place to raise children ❒ Low crime / safe neighborhoods ❒ Low level of child abuse ❒ Good schools
❒ Access to health care ❒ Healthy behaviors and lifestyles ❒ Clean environment ❒ Affordable housing
❒ Arts and cultural events ❒ Good jobs and healthy economy ❒ Strong family life ❒Religious or spiritual values
❒ Parks and recreation ❒ Access to healthy food ❒ Other _________________

10. **What do you think are the three most important "health problems" in our community?**
(*Please check three*)

❒ Alcohol and illegal drug use ❒ Aging problems ❒ Prescription drug abuse ❒ Teenage pregnancy
❒ Motor vehicle crash injuries ❒ Sexual assault ❒ High blood pressure ❒ Lung disease
❒ Child abuse / neglect ❒ Infant death ❒ Mental health problems ❒ Gang activity
❒ Heart disease and stroke ❒ HIV / AIDS ❒ Dental problems ❒ Overweight / obesity
❒ Domestic violence ❒ Cancers ❒ Diabetes ❒ Suicide
❒ Homicide ❒ Other _________________

11. **What do you think are the three most important "risky behaviors" in our community?**
(*Please check three*)

❒ Alcohol abuse ❒ Poor eating habits ❒ Not getting "shots" to prevent disease ❒ Lack of exercise
❒ Drug abuse ❒ Not using birth control ❒ Not using seat belts / child safety seats ❒ Unsafe sex
❒ Tobacco use ❒ Dropping out of school ❒ Cell phone use and driving ❒ Other _________________

DEMOGRAPHIC INFORMATION and HEALTH INSURANCE

12. **Which of the following describes your current type of health insurance? (*Check all that apply*)**

❒ Employer Provided Insurance ❒ Private Insurance ❒ Mental Health Insurance
❒ Government (VA, Champus) ❒ Medicaid ❒ Medicare
❒ Health Savings Account ❒ Medicare Supplement ❒ Dental Insurance
❒ No Mental Health Insurance ❒ No Dental Insurance ❒ No Health Insurance

13. **If you have no health insurance, why don't you have insurance? (*Check all that apply*)**
❒ Unemployed ❒ Laid off ❒ Too expensive ❒ Not available at my job ❒ Not applicable- I have health insurance
❒ Other: ______________________________

14. **What is your ZIP code?** __________________________
15. **What is your age?** __________________________
16. **What is your sex?** ❒ Male ❒ Female
17. **How many people live in your home?**
Number who are 0 – 17 years of age __________________________
Number who are 18 – 64 years of age __________________________
Number who are 65 years of age or older __________________________
18. **What is your highest education level completed?**
❒ Less than high school ❒ Some high school ❒ High school diploma ❒ Bachelors ❒ Masters / PhD
19. **What is your primary language?** ❒ English ❒ Spanish ❒ Other__________________________
20. **What is your race / ethnicity? (*Check all that apply*)**
❒ Native Hawaiian / Pacific Islander ❒ Asian ❒ Black / African American ❒ White ❒ Hispanic
❒ American Indian / Alaskan Native ❒ Other ❒ More than one race ❒ Decline to answer
21. **What is your marital status?** ❒ Married ❒Single ❒Divorced ❒Widowed
22. **What is your yearly household income?**
❒ $0 – $10,000 ❒ $10,001 to $20,000 ❒ $20,001 – $30,000 ❒ $30,001 – $40,000 ❒ $40,001 – $50,000
❒ $50,001 – $60,000 ❒ $60,001 – $70,000 ❒ $70,001 – $100,000 ❒ $100,001 and above
23. **What is your current employment status?**
❒ Full-time ❒ Part-time ❒ Unemployed ❒ Self-employed ❒ Retired ❒ Homemaker
24. **Is there anything else we should know about your (or someone living in your home) health care needs in the Roanoke Valley?**
____
____

ENCUESTA DE SALUD DE LA COMUNIDAD DE ROANOKE

ACCESO Y BARRERAS DE ATENCIÓN MÉDICA

1. ¿Donde recibe su atención médica? (*Marque todas las que apliquen*)

❒ Clínica médica
❒ Sala de emergencias
❒ Clínica de urgencias
❒ Clínica de *New Horizons Healthcare*
❒ *Project Access*
❒ Departamento de salud (Ej. ciudad, condado de Roanoke, etc.)
❒ Una clínica gratuita (Ej. *Bradley Free Clinic*, *Rescue Mission*, *Mental Health America*)
❒ Centro de Salud del condado de Craig
❒ No recibe atención médica regularmente con un médico
❒ Otro: ___________________________

2. ¿Donde recibe atención dental? (*Marque todas las que apliquen*)

❒ Clínica Dental
❒ Sala de emergencias
❒ Clínica de urgencias
❒ Una clínica gratuita (Ex. *Bradley Free Clinic, Rescue Mission*)
❒ *Mission of Mercy Project*
❒ *Project Access*
❒ Centro de Salud del condado de Craig
❒ No voy al dentista regularmente
❒ Otro: ________________________

3. ¿A donde va por cuidado de salud mental o de problemas con alcohol o drogas? (*Marque todas las que apliquen*)

❒ Clínica/Consejero
❒ *Bradley Free Clinic*
❒ *Family Services of Roanoke Valley*
❒ Otro: _______________________
❒ Sala de emergencias
❒ *Rescue Mission*
❒ Clínica de *New Horizon Healthcare*
❒ *Blue Ridge Behavioral Healthcare*
❒ *Mental Health America*
❒ No utilizo estos servicios

4. ¿Cuales servicios de salud son difícil de recibir en nuestra comunidad? (*Marque todas las que apliquen*)

❒ Terapia alternativa (ej. de hierbas, acupuntura)
❒ Servicios por abuso de drogas y alcohol
❒ Cuidados preventivos (ej. exámenes anuales)
❒ Medicamentos / suministros médicos
❒ Atención por un especialista (ej. cardiológo)
❒ Servicios de ambulancia (auxilios)
❒ Atención dental para adultos
❒ Atención de emergencias
❒ Hospital (paciente internado)
❒ Atención quiropráctica
❒ Cuidados finales de vida/Hospicio
❒ Otro: ______________
❒ Atención dental para niños
❒ Médico familiar
❒ Atención de vista
❒ Análisis de laboratorio
❒ Terapia física
❒ Servicios de salud para mujeres
❒ Radiografías/Mamografías
❒ Atención de urgencias
❒ Salud mental/psicoterapia
❒ Planificación familiar/ Anticonceptivos

5. ¿Qué le previene a usted en recibir la atención médica que necesita? (*Marque todas las que apliquen*)

❒ Falta en recursos de atención médica
❒ No me agrada recibir asistencia del gobierno
❒ Falta de encontrar proveedores que acepten mi seguro de salud
❒ Falta de servicios por la noche o fin de semanas
❒ No sé qué clase de servicios están disponibles
❒ Falta de confianza en doctores/clínicas
❒ Temor a los examenes médicos
❒ Larga espera en obtener citas
❒ Falta de transporte
❒ Localidad de oficinas
❒ Cuidado de niños
❒ Gastos
❒ Falta de servicios de un intérprete
❒ Co-pagos costosos
❒ Otro:_______________

PREGUNTAS GENERALES ACERCA DE LA SALUD

6. Por favor, marque solo una respuesta de cada pregunta.	**Sí**	**No**	**No me aplica**
Yo tuve un examen dental o limpieza en los últimos 12 meses.	❒	❒	❒
Yo tuve un examen de la vista en los últimos 12 meses.	❒	❒	❒
Mí doctor me aviso que tengo una enfermedad crónica.	❒	❒	❒
Yo tomo medicamentos que mi doctor me recetó para el control de mi enfermedad crónica.	❒	❒	❒
Yo he tenido una consulta de consejería en los últimos 12 meses.	❒	❒	❒
Yo he tenido una visita a la sala de emergencias en los últimos 12 meses.	❒	❒	❒
Mi hijo(a) o dependiente ha tenido un examen dental o limpieza en los últimos 12 meses.	❒	❒	❒
Mi hijo(a) o dependiente ha tenido un examen de vista en los últimos 12 meses.	❒	❒	❒
Mi hijo(a) o dependiente tiene una condición crónica o requiere cuidados a largo plazo.	❒	❒	❒
Mi hijo(a) o dependiente toma medicamentos recetados por el médico para mantener su enfermedad crónica.	❒	❒	❒
Mi hijo(a) o dependiente ha tenido una consulta de consejeria en los últimos meses.	❒	❒	❒
Mi hijo(a) o dependiente ha tenido una visita a la sala de emergencias en los últimos meses.	❒	❒	❒

7.¿Alguna vez el médico le ha dicho que tiene… (*Marque todas las que apliquen*)

❒ Alta presión o hipertensión
❒ Alta azúcar o diabetes
❒ Problemas de salud mental o abuso de drogas / alcohol
❒ No tengo problemas de salud; Soy saludable.
❒ Enfermedad del corazón
❒ Colesterol elevado
❒ Asma
❒ Obesidad
❒ Otros: ______________________________
❒ Cáncer
❒ Depresión o ansiedad

8. ¿Cuánto tiempo hace que usted ha tenido un chequeo médico rutinario por un doctor?

(Marque una respuesta solomente)

❐ Dentro del último año (1 a 12 meses atrás) ❐ Dentro de los últimos 2 años (1 a 2 años atrás)
❐ Dentro de los últimos 5 años (2 a 5 años atrás) ❐ 5 o más años atrás

Si se aplica, ¿Cuánto tiempo desde cuando su hijo(a) o dependiente ha tenido un chequeo médico rutinario por un doctor? ***(Marque una respuesta solamente)***

❐ Dentro del último año (1 a 12 meses atrás) ❐ Dentro de los últimos 2 años (1 a 2 años atrás)
❐ Dentro de los últimos 5 años (2 a 5 años atrás) ❐ 5 o más años atrás

9. ¿Cuáles son los tres factores más importante para usted de una "comunidad saludable"? (*Eliga tres*)

❐ Buen lugar donde criar niños ❐ Vecindarios de bajo crimen y seguros ❐ Nivel bajo en abuso de niños ❐ Buenas escuelas
❐ Acceso a servicios médicos ❐ Estilo de vida saludable ❐ Ambiente saludable ❐ Viviendas económicas
❐ Eventos culturales y artes ❐ Buenos empleos y economía estable ❐ Buena vida familiar ❐ Religión o valores espirituales
❐ Parques y recreación ❐ Acceso a alimentos saludables ❐ Otro ________________

10. ¿Cuáles son los tres "problemas de salud" más importantes en nuestra comunidad? (*Eliga tres*)

❐ Alcohol y uso de drogas ilegables ❐ Problemas de vejez ❐ Abuso de medicamentos recetados ❐ Embarazos juveniles
❐ Lesiones de accidentes automovilistico ❐ Asalto sexual ❐ Alta presión ❐ enfermedades del pulmon
❐ Abuso infantil /negligencia ❐ Muerte infantil ❐ Problemas de salud mental ❐ pandillas / bandas
❐ Enfermedad del corazón y derrame cerebral ❐ VIH / SIDA ❐ Problemas dental ❐ Sobrepeso / obesidad
❐ Violencia domestica ❐ Cáncer ❐ Diabetes ❐ Suicido
❐ Homicidio ❐ Otro________________

11. ¿Cuáles son los tres "hábitos más riesgozos" en nuestra comunidad? (*Eliga tres*)

❐ Abuso de alcohol ❐ Malos hábitos de alimentación ❐ No "vacunarse" para prevenir enfermedades ❐ Falta de hacer ejercicio
❐ Abuso de drogas ❐ Falta de uso de anticonceptivos ❐ Falta de uso de cinturón y sillas de seguridad ❐ Tener relaciones sin protección
❐ Uso de tabaco ❐ Dejar los estudios escolares ❐ Uso de celular cuando maneja el auto ❐ Otro ________________

INFORMACIÓN DEMOGRAFICA y SEGURO MÉDICO

12. ¿Cuál de los siguientes describe mejor su seguro médico?

(*Marque todas las que apliquen*)

❐ Seguro médico por empleo ❐ Seguro médico de salud privado ❐ Seguro médico de salud mental
❐ Seguro médico del gobierno (ej., *VA, Champus*) ❐ *Medicaid* ❐ *Medicare*
❐ Cuenta de ahorros para gastos médicos ❐ Suplemento de *Medicare* ❐ Seguro dental
❐ No tengo seguro médico de salud mental ❐ No tengo seguro dental ❐ No tengo seguro médico

13. Si usted no tiene seguro médico, porque no lo tiene? (*Marque todas las que apliquen*)

❐ Sin empleo ❐ Desempleado ❐ Muy costoso ❐ Mi empleo no lo ofrece ❐ Otro: _________________________

14. ¿Cuál es su código postal? _________________________

15. ¿Cuál es su edad? _________________________

16. ¿Cuál es su sexo? Masculino Femenino

17. ¿Cuántas personas viven con usted?

Número de personas de 0 – 17 años _________________________
Número de personas de 18 – 64 años_________________________
Número de personas de 65 años o mayor _____________________

18. ¿Cuál es su nivel escolaridad completado?

❐ Primaria	❐ Secundaria	❐ Título secundaria	❐ Licenciatura	❐ Postgrado / Maestría / Doctorado

19. ¿Cuál es su idioma principal? Inglés Español Otro_________________________

20. ¿Cuál es su raza / etnicidad? (*Marque todas las que apliquen*)

❐ Nativo de Hawaii / de las islas del Pacífico	❐ Asiático	❐ Negro / Afroamericano	❐ Blanca / Caucásico ❐ Hispano
❐ Nativo Americano / Nativo de Alaska	❐ Otra	❐ Más que una raza	❐ No responde

21. ¿Cuál es su estado civil? ❐ Casado ❐ Soltero ❐ Divorciado ❐ Vuido

22. ¿Cual es su ingreso familiar anual?

❐ \$0 – \$10,000 ❐ \$10,001 to \$20,000 ❐ \$20,001 – \$30,000 ❐ \$30,001 – \$40,000 ❐ \$40,001 – \$50,000
❐ \$50,001 – \$60,000 ❐ \$60,001 – \$70,000 ❐ \$70,001 – \$100,000 ❐ \$100,001 and above

23. ¿Cuál es su situación del trabajo?

❐ *Full-time* / Tiempo completo	❐ *Part-time* / Tiempo parcial	❐ Desempleado	❐ Trabajador independiente	❐ Retirado	❐ Ama de casa

24.¿Hay otras situaciones acerca de las necesidades médicas de usted (o de otras personas que viven con usted) aquí en Roanoke?

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Appendix 9: Location and Distribution of Community Surveys

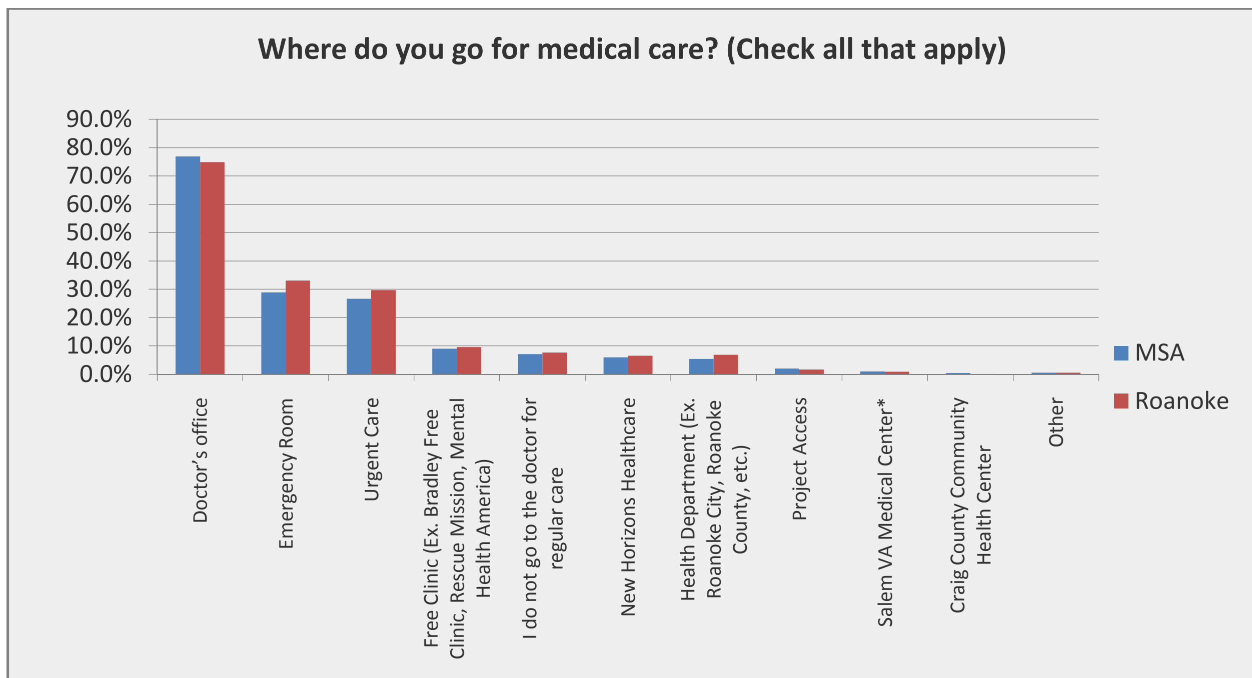
	Distribute Fliers for Survey Monkey	Link Survey Monkey on Agency Website	Face-to-face (Volunteers)	Distribute to Clients by Staff
Anchor of Hope Community Center			✓	
Bethany Hall	✓	✓		✓
Blue Ridge Behavioral Healthcare		✓		✓
Blue Ridge Independent Living Center	✓	✓		✓
Bradley Free Clinic	✓	✓		✓
Carilion Clinic	✓	✓		✓
CHIP of Roanoke Valley	✓	✓	✓	✓
City of Roanoke	✓	✓		✓
Commonwealth Catholic Charities	✓	✓	✓	✓
Council of Community Services	✓	✓		✓
Family Service of Rke Valley		✓		✓
Family Wize Clients	✓	✓		
Good Samaritan Hospice	✓	✓		✓
Jefferson College of Health Sciences	✓			
Lead Safe Roanoke	✓	✓		✓
LEAP	✓	✓	✓	✓
Local Office on Aging			✓	✓
Loudon Christian Church	✓		✓	
Mental Health America- RV				✓
Metropolitan Community Church of the Blue Ridge	✓	✓		
Mission of Mercy	✓		✓	✓
New Horizons Healthcare	✓	✓	✓	✓
Presbyterian Community Center	✓	✓	✓	✓
Project Access	✓	✓	✓	✓
Rescue Mission Fralin Free Clinic	✓		✓	✓
Roanoke Chamber of Commerce		✓		
Roanoke City Department of Social Services	✓	✓	✓	
Roanoke City Economic Development		✓		
Roanoke City Employee Wellness	✓			
Roanoke City Health Department			✓	
Roanoke City Homeless Assistance Team	✓		✓	✓
Roanoke City Public Schools				✓
Roanoke Community Garden Association	✓			✓
Roanoke Natural Foods Co-op		✓		
Roanoke Neighborhood Services	✓	✓	✓	
Roanoke Prevention Council, RAYSAC		✓		
Roanoke Public Libraries	✓			

	Distribute Fliers for Survey Monkey	Link Survey Monkey on Agency Website	Face-to-face (Volunteers)	Distribute to Clients by Staff
Roanoke Redevelopment & Housing Authority	✓			✓
Roanoke Speech & Hearing Center		✓		✓
Roanoke Valley Alleghany Regional Commission	✓	✓		
Roanoke Valley Healthcare Connection	✓			✓
TAP Head Start				✓
United Way of Roanoke Valley	✓	✓		
Urgent Care- Carilion Rke Community	✓	✓	✓	✓
Valley Metro Depot	✓			
Virginia Cooperative Extension	✓	✓	✓	✓
Virginia Western Community College- Dental Hygiene	✓		✓	✓
VT Translational Obesity	✓			✓
WSLS		✓		
YMCA- Roanoke	✓	✓	✓	
YMCA- Salem	✓		✓	
YMCA- Gainsboro	✓		✓	
Sweet Union Baptist Church	✓			✓

Appendix 10: Roanoke Valley Community Health Survey Results

Question 1

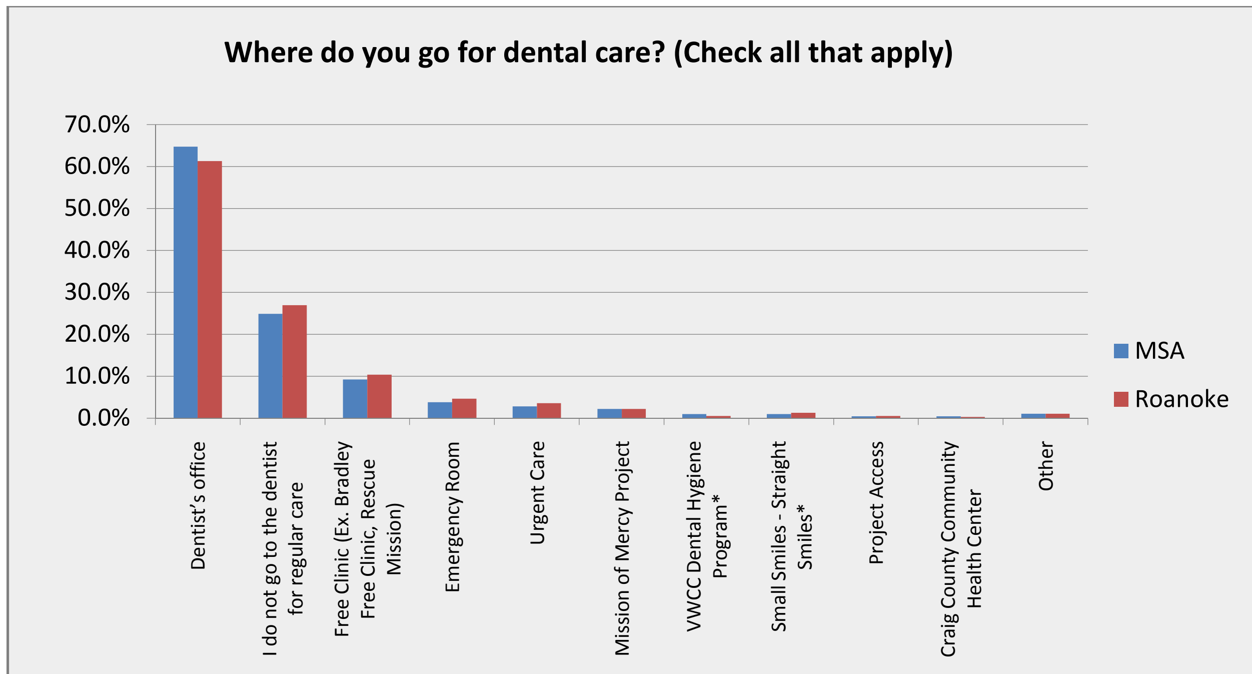
Where do you go for medical care? (Check all that	MSA		Roanoke		Difference
Answer Options	**%**	**#**	**%**	**#**	**(Rke-MSA)**
Doctor's office	76.9%	2856	74.	2043	-2.1%
Emergency Room	28.9%	1073	33.	904	4.2%
Urgent Care	26.6%	988	29.	812	3.1%
Free Clinic (Ex. Bradley Free Clinic, Rescue Mission, Mental Health America)	9.0%	336	9.6 %	262	0.5%
I do not go to the doctor for regular care	7.2%	266	7.7	210	0.5%
New Horizons Healthcare	6.0%	223	6.5	178	0.5%
Health Department (Ex. Roanoke City, Roanoke County, etc.)	5.5%	203	6.9 %	189	1.5%
Project Access	2.1%	77	1.7	47	-0.4%
Salem VA Medical Center*	1.1%	39	1.0	26	-0.1%
Craig County Community Health Center	0.5%	17	0.1	4	-0.3%
Other	0.6%	22	0.5	14	-0.1%
answered question		**3713**		**2730**	
skipped question		**11**		**7**	



Question 2

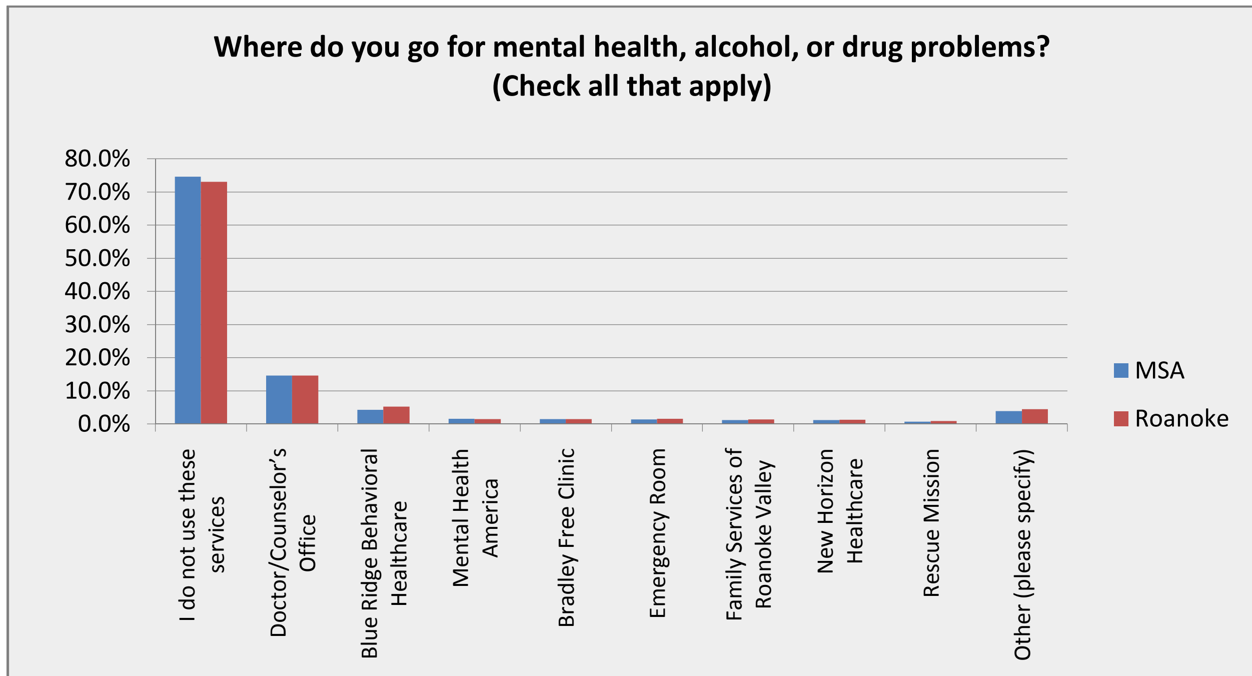
Where do you go for dental care? (Check all that apply)	MSA		Roanoke		Difference
Answer Options	**%**	**#**	**%**	**#**	**(Rke-MSA)**
Dentist's office	64.7%	2376	61.3%	1655	-3.4%
I do not go to the dentist for regular care	24.9%	914	26.9%	727	2.0%
Free Clinic (Ex. Bradley Free Clinic, Rescue Mission)	9.2%	339	10.4%	281	1.2%
Emergency Room	3.8%	141	4.7%	126	0.8%
Urgent Care	2.8%	104	3.6%	97	0.8%
Mission of Mercy Project	2.2%	81	2.2%	60	0.0%
VWCC Dental Hygiene Program*	1.0%	37	0.6%	15	-0.5%
Small Smiles - Straight Smiles*	1.0%	36	1.3%	36	0.4%
Project Access	0.5%	18	0.6%	15	0.1%
Craig County Community Health Center	0.4%	16	0.3%	8	-0.1%
Other	1.0%	38	1.1%	29	0.0%
answered question		**3671**		**2701**	
skipped question		**44**		**36**	

*Response was not in original survey and was taken out of the "other"



Question 3

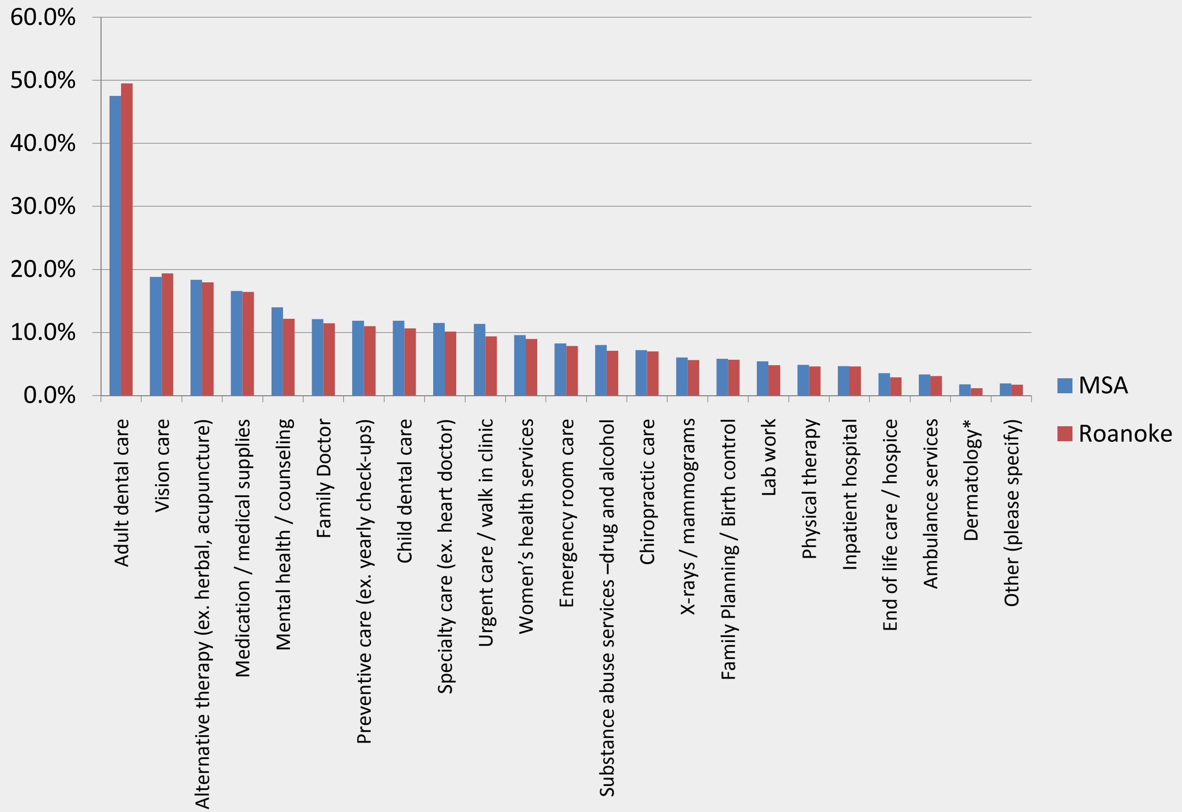
Where do you go for mental health, alcohol, or drug problems? (Check all that apply)	MSA		Roanoke		Difference
Answer Options	**%**	**#**	**%**	**#**	**(Rke-MSA)**
I do not use these services	74.6%	2681	73.1%	1917	-1.5%
Doctor/Counselor's Office	14.6%	526	14.6%	382	-0.1%
Blue Ridge Behavioral Healthcare	4.3%	154	5.2%	136	0.9%
Mental Health America	1.6%	56	1.4%	37	-0.1%
Bradley Free Clinic	1.4%	51	1.5%	39	0.1%
Emergency Room	1.3%	47	1.6%	41	0.3%
Family Service of Roanoke Valley	1.1%	40	1.3%	35	0.2%
New Horizon Healthcare	1.1%	40	1.3%	33	0.1%
Rescue Mission	0.7%	25	0.9%	24	0.2%
Other (please specify)	3.9%	139	4.4%	116	0.6%
answered question		**3594**		**2623**	
skipped question		**131**		**114**	



Question 4

Which health care services are hard to get in our community? (Check all that apply)	MSA		Roanoke		Difference
Answer Options	**%**	**#**	**%**	**#**	**(Rke-MSA)**
Adult dental care	47.5%	1331	49.5%	1050	1.9%
Vision care	18.8%	527	19.4%	411	0.5%
Alternative therapy (ex. herbal, acupuncture)	18.4%	514	18.0%	381	-0.4%
Medication / medical supplies	16.6%	465	16.4%	349	-0.2%
Mental health / counseling	14.0%	392	12.2%	258	-1.8%
Family Doctor	12.1%	339	11.5%	243	-0.7%
Preventive care (ex. yearly checkups)	11.9%	333	11.0%	234	-0.9%
Child dental care	11.9%	332	10.7%	226	-1.2%
Specialty care (ex. heart doctor)	11.5%	323	10.1%	215	-1.4%
Urgent care / walk in clinic	11.4%	318	9.4%	199	-2.0%
Women's health services	9.6%	269	9.0%	190	-0.7%
Emergency room care	8.3%	232	7.9%	167	-0.4%
Substance abuse services –drug and alcohol	8.0%	224	7.1%	151	-0.9%
Chiropractic care	7.2%	202	7.0%	148	-0.2%
X-rays / mammograms	6.0%	169	5.6%	119	-0.4%
Family Planning / Birth control	5.8%	163	5.7%	121	-0.1%
Lab work	5.4%	152	4.8%	102	-0.6%
Physical therapy	4.9%	137	4.6%	98	-0.3%
Inpatient hospital	4.7%	131	4.6%	98	-0.1%
End of life care / hospice	3.6%	100	2.9%	61	-0.7%
Ambulance services	3.4%	94	3.1%	66	-0.2%
Dermatology*	1.8%	50	1.2%	25	-0.6%
Other (please specify)	1.9%	54	1.7%	37	-0.2%
answered question		**2800**		**2122**	
skipped question		**865**		**615**	

*Response was not in original survey and was taken out of the "other"

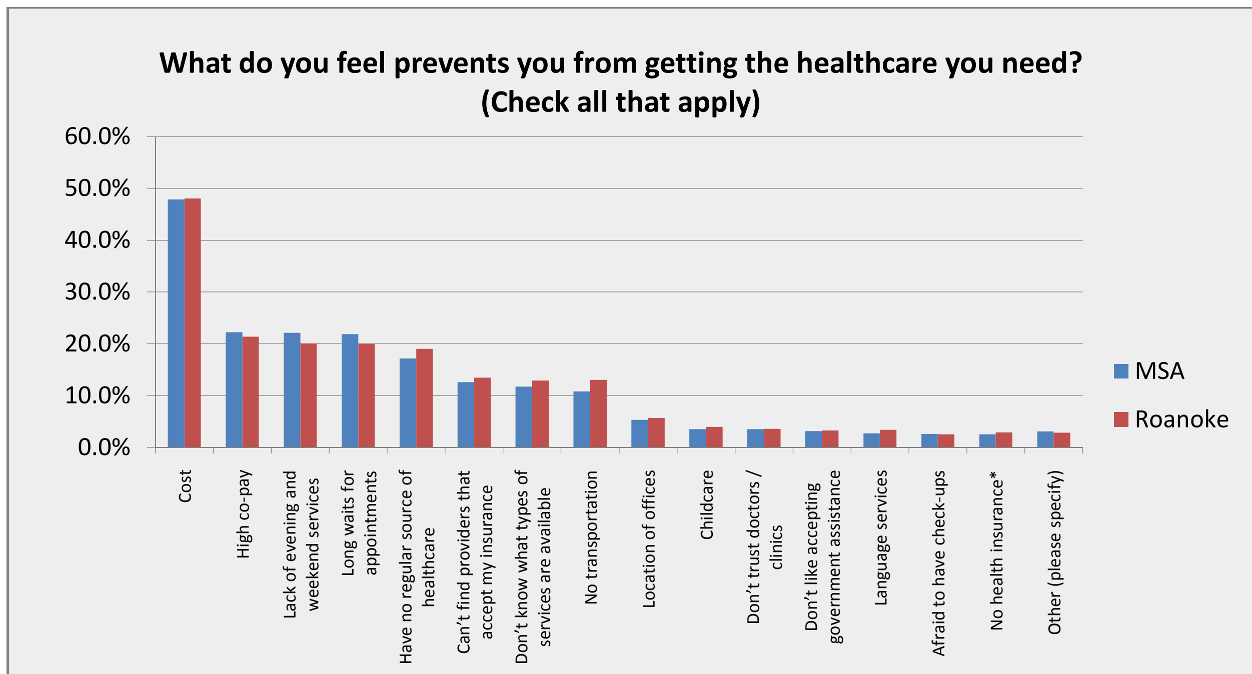


Which health care services are hard to get in our community?
(Check all that apply)
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
Adult dental care
Vision care
Alternative therapy (ex. herbal, acupuncture)
Medication / medical supplies
Mental health / counseling
Family Doctor
Preventive care (ex. yearly check-ups)
Child dental care
Specialty care (ex. heart doctor)
Urgent care / walk in clinic
Women's health services
Emergency room care
Substance abuse services –drug and alcohol
Chiropractic care
X-rays / mammograms
Family Planning / Birth control
Lab work
Physical therapy
Inpatient hospital
End of life care / hospice
Ambulance services
Dermatology*
Other (please specify)
MSA
Roanoke

Question 5

What do you feel prevents you from getting the healthcare you need? (Check all that apply)	MSA		Roanoke		Difference
Answer Options	%	#	%	#	(Rke-MSA)
Cost	47.9%	1465	48.1%	1094	0.2%
High co-pay	22.2%	680	21.4%	486	-0.9%
Lack of evening and weekend services	22.1%	677	20.1%	457	-2.1%
Long waits for appointments	21.9%	669	20.0%	455	-1.9%
Have no regular source of health care	17.2%	526	19.0%	433	1.8%
Can't find providers that accept my insurance	12.6%	385	13.4%	306	0.9%
Don't know what types of services are available	11.7%	359	12.9%	294	1.2%
No transportation	10.8%	331	13.0%	297	2.2%
Location of offices	5.3%	162	5.7%	130	0.4%
Childcare	3.5%	108	4.0%	90	0.4%
Don't trust doctors / clinics	3.5%	108	3.6%	81	0.0%
Don't like accepting government assistance	3.2%	97	3.3%	75	0.1%
Language services	2.7%	83	3.4%	77	0.7%
Afraid to have checkups	2.6%	79	2.5%	57	-0.1%
No health insurance*	2.5%	77	2.9%	66	0.4%
Other (please specify)	3.1%	95	2.9%	65	-0.3%
answered question		3058		2276	
skipped question		667		461	

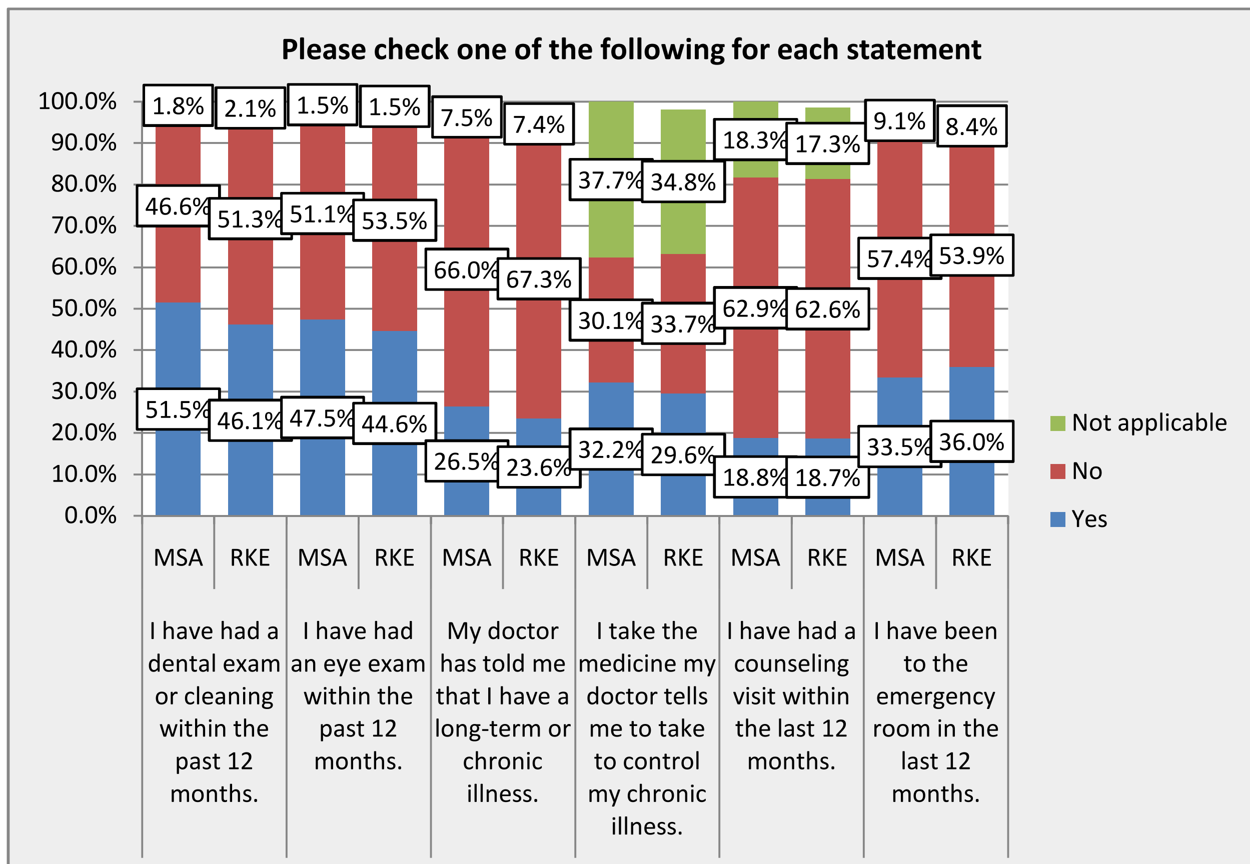
*Response was not in original survey and was taken out of the "other"



Question 6a

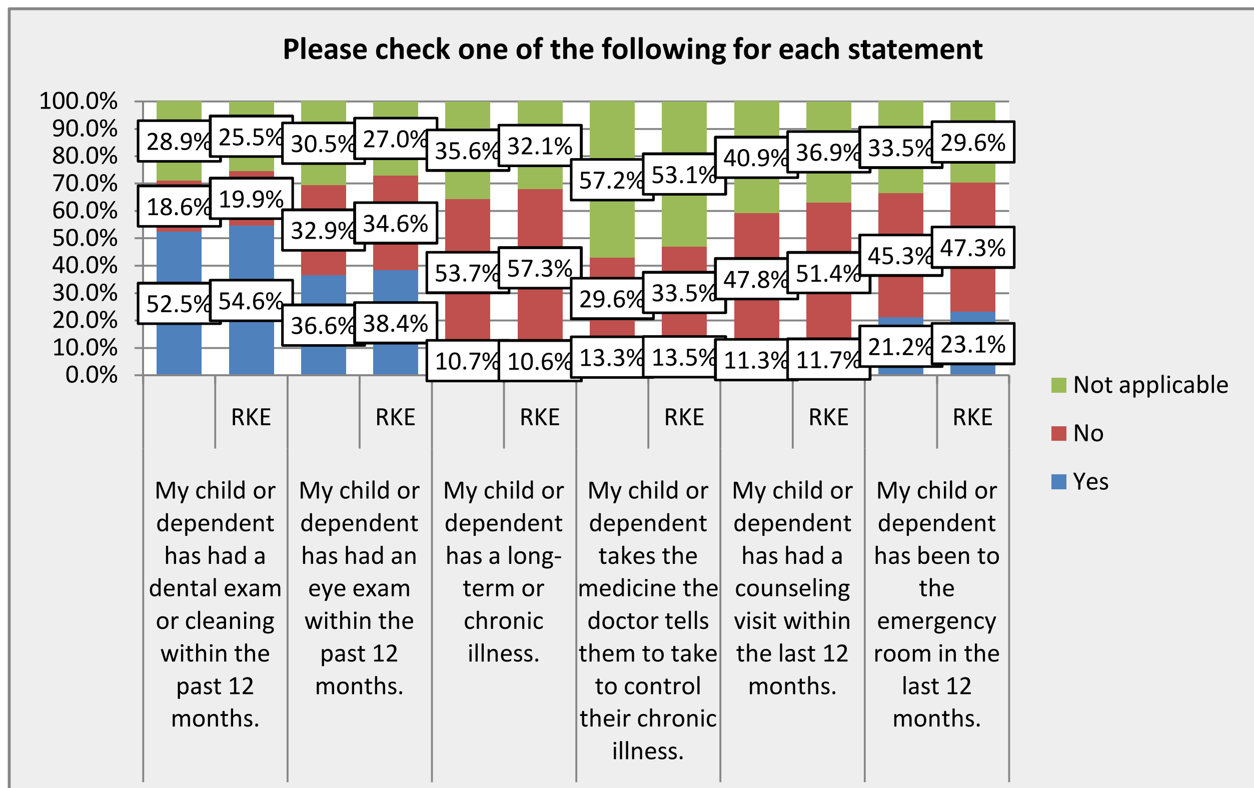
Answer Options	Yes		No		Not applicable		Response Count	
	MSA	RKE	MSA	RKE	MSA	RKE	MSA	RKE
I have had a dental exam or cleaning within the past 12 months.	51.5%	46.1%	46.6%	51.3%	1.8%	2.1%	3707	2721
I have had an eye exam within the past 12 months.	47.5%	44.6%	51.1%	53.5%	1.5%	1.5%	3709	2724
My doctor has told me that I have a long-term or chronic illness.	26.5%	23.6%	66.0%	67.3%	7.5%	7.4%	3664	2688
I take the medicine my doctor tells me to take to control my chronic illness.	32.2%	29.6%	30.1%	33.7%	37.7%	34.8%	3661	2683
I have had a counseling visit within the last 12 months.	18.8%	18.7%	62.9%	62.6%	18.3%	17.3%	3670	2695
I have been to the emergency room in the last 12 months.	33.5%	36.0%	57.4%	53.9%	9.1%	8.4%	3659	2689
answered question							3721	2735
skipped question							4	2

Table title: Please check one of the following for each statement



Question 6b

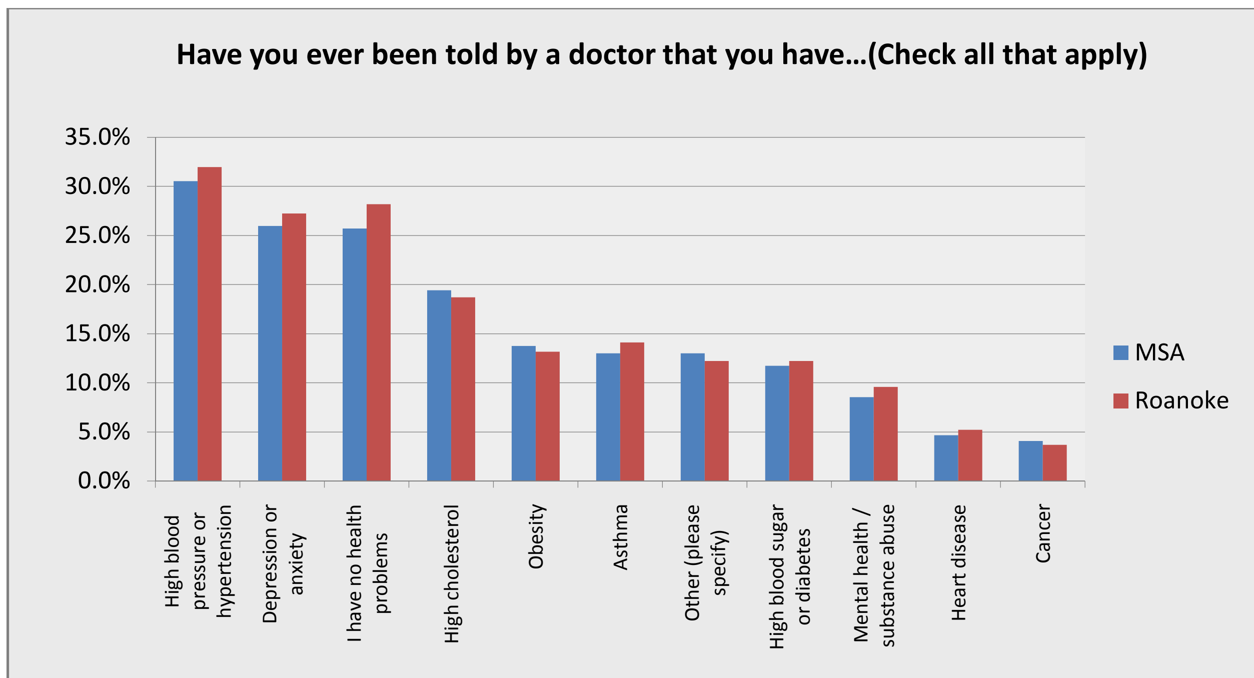
Please check one of the following for each statement								
Answer Options	Yes		No		Not applicable		Response Count	
	MSA	RKE	MSA	RKE	MSA	RKE	MSA	RKE
My child or dependent has had a dental exam or cleaning within the past 12 months.	52.5%	54.6%	18.6%	19.9%	28.9%	25.5%	3626	2654
My child or dependent has had an eye exam within the past 12 months.	36.6%	38.4%	32.9%	34.6%	30.5%	27.0%	3628	2656
My child or dependent has a long-term or chronic illness.	10.7%	10.6%	53.7%	57.3%	35.6%	32.1%	3607	2639
My child or dependent takes the medicine the doctor tells them to take to control their chronic illness.	13.3%	13.5%	29.6%	33.5%	57.2%	53.1%	3599	2633
My child or dependent has had a counseling visit within the last 12 months.	11.3%	11.7%	47.8%	51.4%	40.9%	36.9%	3606	2639
My child or dependent has been to the emergency room in the last 12 months.	21.2%	23.1%	45.3%	47.3%	33.5%	29.6%	3602	2640
answered question							3721	2735
skipped question							4	2



Question 7

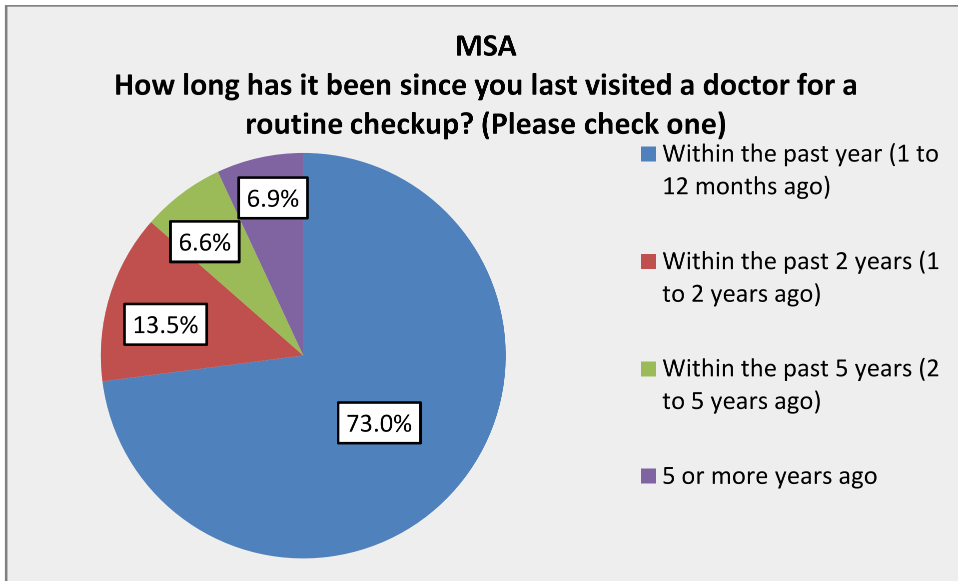
Have you ever been told by a doctor that you have...(Check all that apply)	MSA	Roanoke	Difference

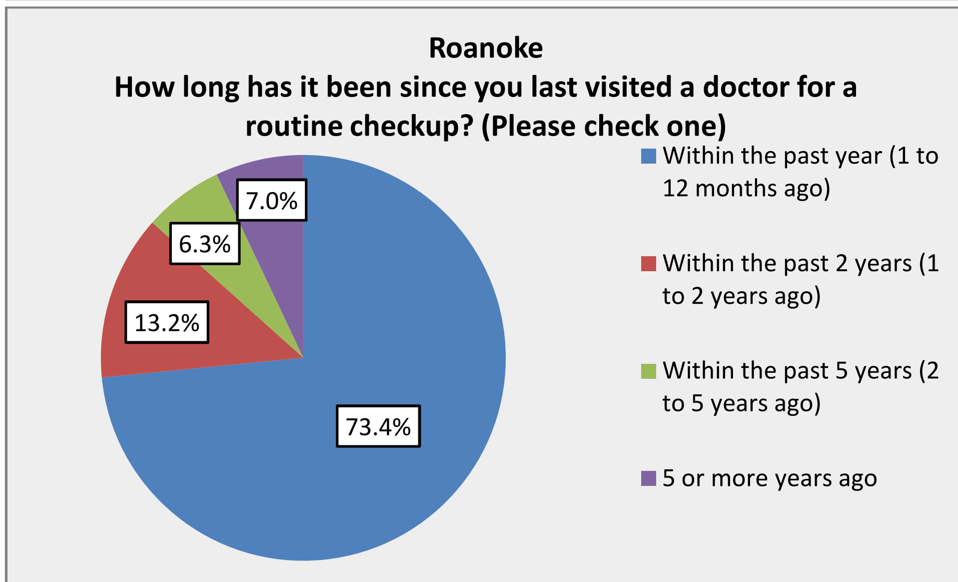
Answer Options	%	#	%	#	(Rke-MSA)
High blood pressure or hypertension	30.5%	1151	32.0%	846	1.5%
Depression or anxiety	26.0%	979	27.3%	721	1.3%
I have no health problems	25.7%	970	28.2%	746	2.5%
High cholesterol	19.4%	732	18.7%	495	-0.7%
Obesity	13.8%	519	13.2%	348	-0.6%
Asthma	13.0%	490	14.1%	373	1.1%
Other (please specify)	13.0%	490	12.2%	323	-0.8%
High blood sugar or diabetes	11.7%	442	12.2%	323	0.5%
Mental health / substance abuse	8.5%	322	9.6%	253	1.0%
Heart disease	4.7%	176	5.2%	138	0.6%
Cancer	4.1%	153	3.7%	97	-0.4%
answered question		3771		2645	
skipped question		118		92	



Question 8

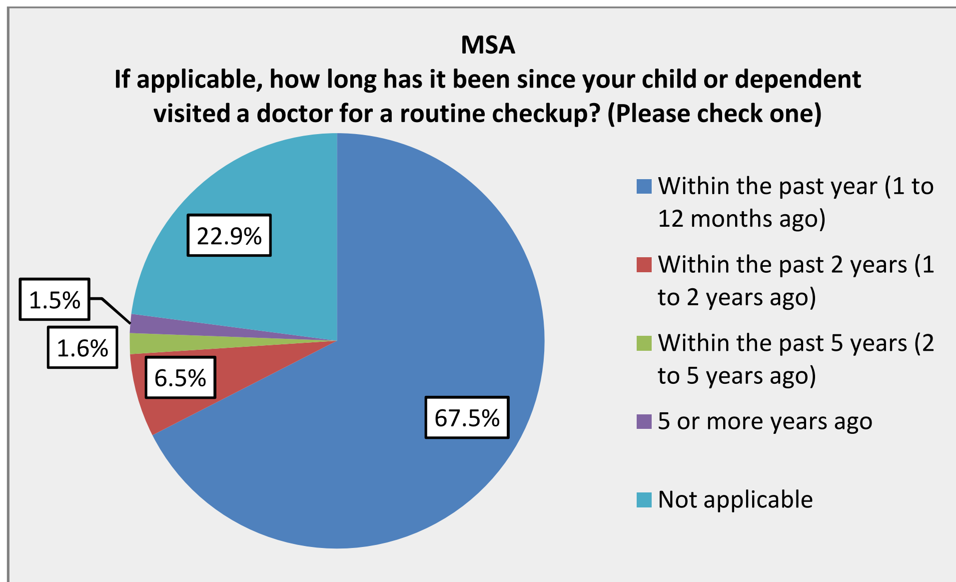
How long has it been since you last visited a doctor for a routine checkup? (Please check one)	MSA		Roanoke		Difference
Answer Options	%	#	%	#	(Rke-MSA)
Within the past year (1 to 12 months ago)	73.0%	2684	73.4%	1980	0.5%
Within the past 2 years (1 to 2 years ago)	13.5%	496	13.2%	355	-0.3%
Within the past 5 years (2 to 5 years ago)	6.6%	243	6.3%	171	-0.3%
5 or more years ago	6.9%	255	7.0%	190	0.1%
answered question		**3678**		**2696**	
skipped question		**47**		**41**	

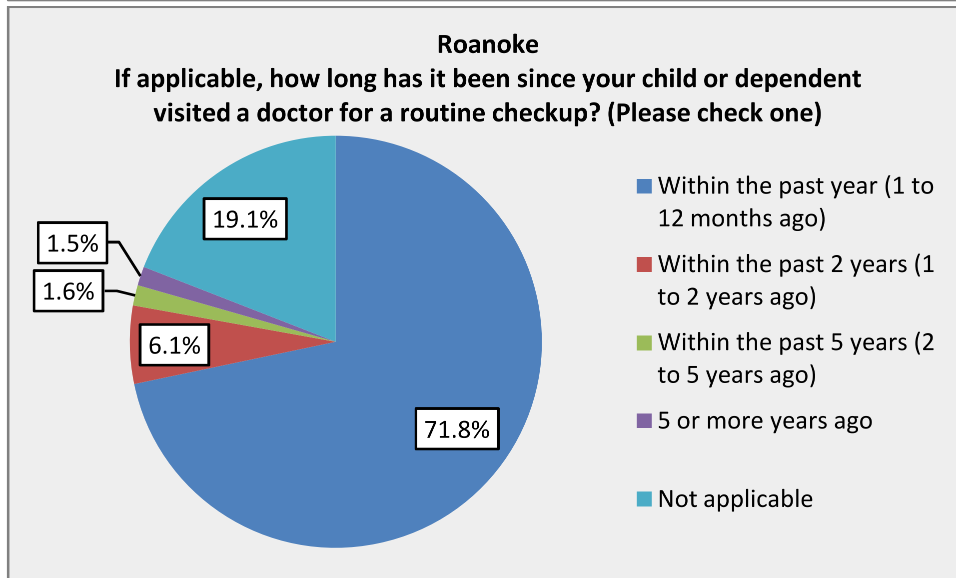




Question 9

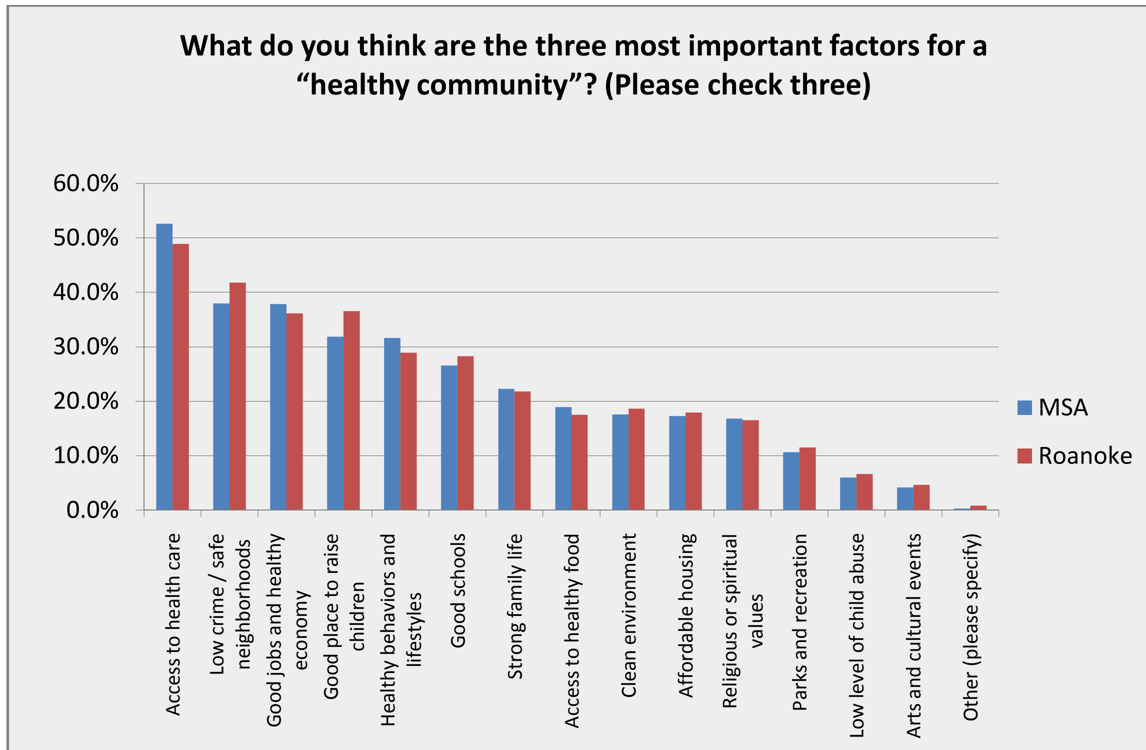
If applicable, how long has it been since your child or dependent visited a doctor for a routine checkup? (Please check one)	MSA		Roanoke		Difference
Answer Options	%	#	%	#	(Rke-MSA)
Within the past year (1 to 12 months ago)	67.5%	2150	71.8%	1657	4.3%
Within the past 2 years (1 to 2 years ago)	6.5%	206	6.1%	140	-0.4%
Within the past 5 years (2 to 5 years ago)	1.6%	52	1.6%	37	0.0%
5 or more years ago	1.5%	47	1.5%	34	0.0%
Not applicable	22.9%	730	19.1%	441	-3.8%
answered question		3185		2309	
skipped question		540		428	





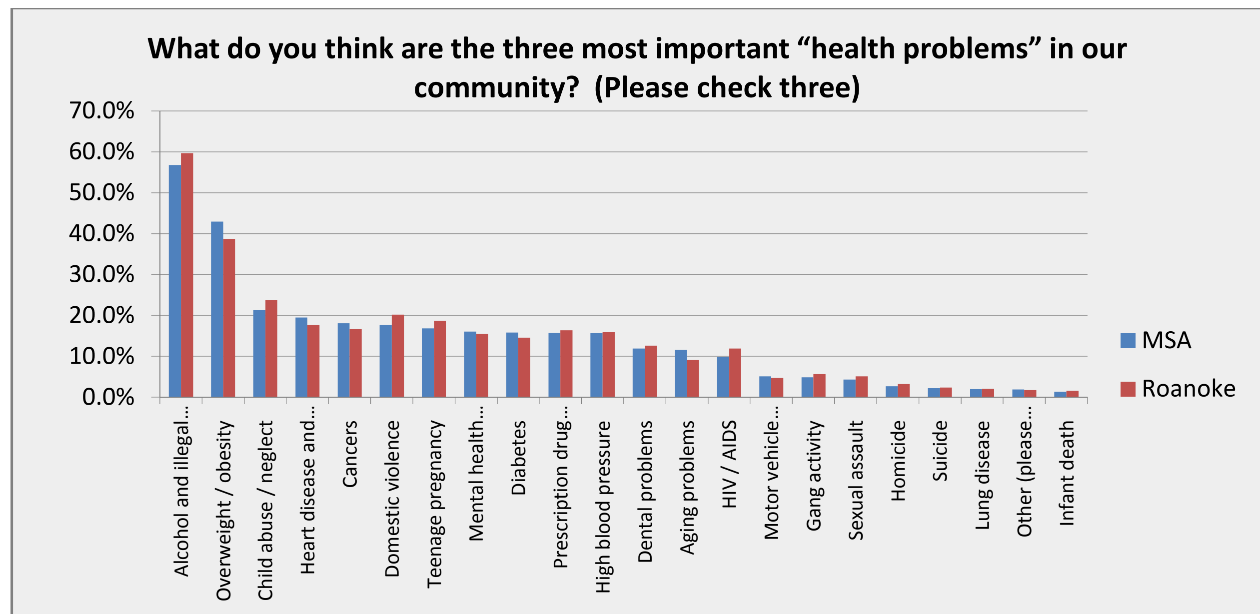
Question 10

What do you think are the three most important factors for a "healthy community"? (Please check three)	MSA		Roanoke		Difference
Answer Options	%	#	%	#	(Rke-MSA)
Access to health care	52.6%	1940	48.9%	1322	-3.7%
Low crime / safe neighborhoods	37.9%	1399	41.8%	1130	3.9%
Good jobs and healthy economy	37.9%	1396	36.2%	978	-1.7%
Good place to raise children	31.8%	1174	36.6%	989	4.7%
Healthy behaviors and lifestyles	31.6%	1166	28.9%	782	-2.7%
Good schools	26.5%	979	28.3%	765	1.7%
Strong family life	22.3%	822	21.8%	589	-0.5%
Access to healthy food	18.9%	698	17.5%	474	-1.4%
Clean environment	17.5%	647	18.6%	504	1.1%
Affordable housing	17.3%	637	17.9%	485	0.7%
Religious or spiritual values	16.8%	619	16.5%	446	-0.3%
Parks and recreation	10.6%	392	11.5%	312	0.9%
Low level of child abuse	6.0%	222	6.7%	180	0.6%
Arts and cultural events	4.2%	154	4.6%	125	0.4%
Other (please specify)	0.3%	10	0.9%	23	0.6%
answered question		3688		2704	
skipped question		37		33	



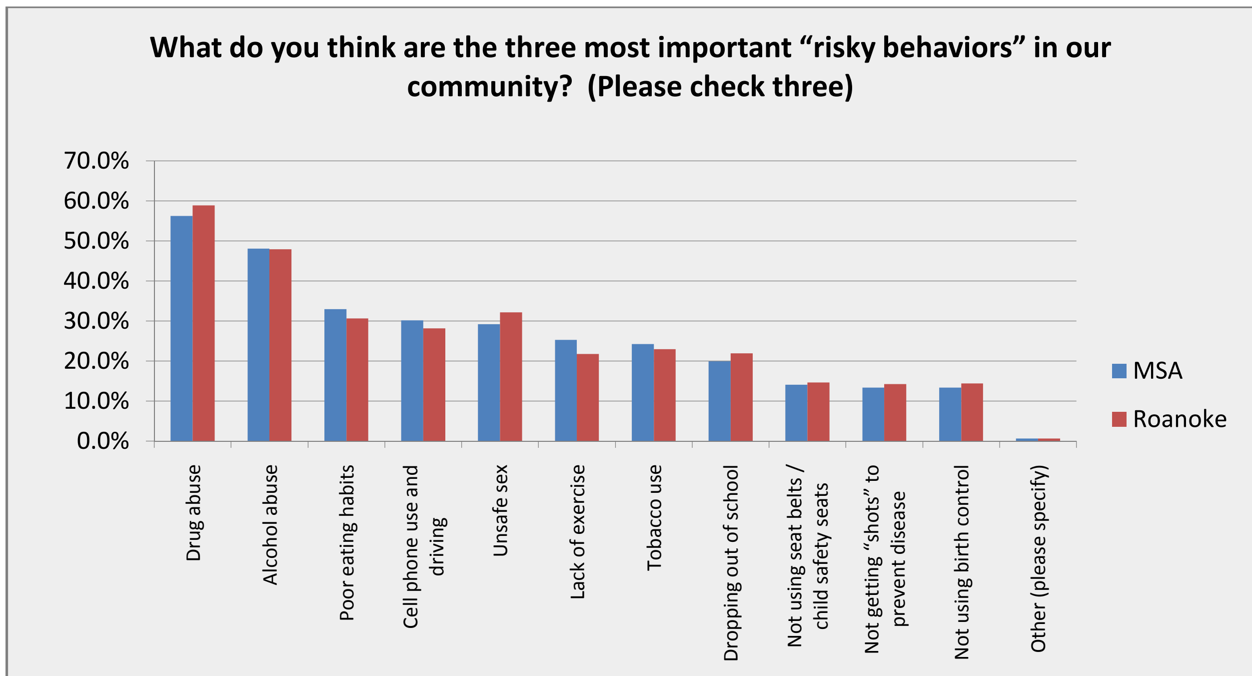
Question 11

What do you think are the three most important "health problems" in our community? (Please check three)	MSA		Roanoke		Difference
Answer Options	%	#	%	#	(Rke-MSA)
Alcohol and illegal drug use	56.8%	2084	59.7%	1609	2.9%
Overweight / obesity	43.0%	1577	38.7%	1043	-4.3%
Child abuse / neglect	21.4%	785	23.7%	639	2.3%
Heart disease and stroke	19.4%	714	17.7%	476	-1.8%
Cancers	18.1%	663	16.7%	450	-1.4%
Domestic violence	17.7%	649	20.1%	543	2.5%
Teenage pregnancy	16.8%	617	18.7%	504	1.9%
Mental health problems	16.0%	589	15.5%	418	-0.5%
Diabetes	15.8%	581	14.5%	392	-1.3%
Prescription drug abuse	15.7%	577	16.4%	441	0.6%
High blood pressure	15.6%	574	15.8%	427	0.2%
Dental problems	11.8%	435	12.6%	339	0.7%
Aging problems	11.6%	425	9.1%	244	-2.5%
HIV / AIDS	9.9%	363	11.9%	321	2.0%
Motor vehicle crash injuries	5.1%	188	4.7%	126	-0.4%
Gang activity	4.9%	179	5.6%	152	0.8%
Sexual assault	4.3%	158	5.1%	138	0.8%
Homicide	2.7%	98	3.2%	86	0.5%
Suicide	2.2%	81	2.4%	64	0.2%
Lung disease	1.9%	71	2.0%	54	0.1%
Infant death	1.4%	50	1.6%	42	0.2%
Other (please specify)	1.9%	68	1.7%	46	-0.1%
answered question		3671		2695	
skipped question		54		42	



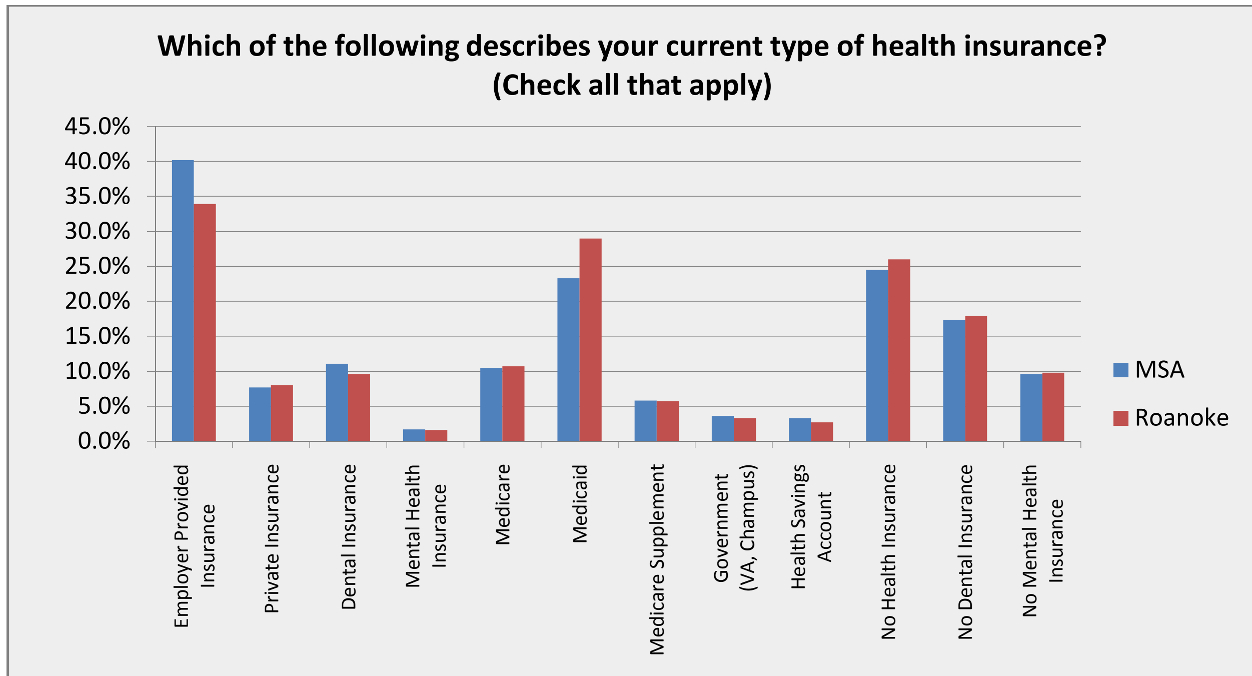
Question 12

What do you think are the three most important “risky behaviors” in our community? (Please check three)	MSA		Roanoke		Difference
Answer Options	%	#	%	#	(Rke-MSA)
Drug abuse	56.2%	2070	58.9%	1592	2.7%
Alcohol abuse	48.1%	1772	47.9%	1296	-0.2%
Poor eating habits	32.9%	1213	30.6%	828	-2.3%
Cell phone use and driving	30.2%	1111	28.1%	761	-2.0%
Unsafe sex	29.2%	1075	32.2%	870	3.0%
Lack of exercise	25.3%	930	21.7%	588	-3.5%
Tobacco use	24.2%	893	22.9%	620	-1.3%
Dropping out of school	20.0%	735	21.9%	593	2.0%
Not using seat belts / child safety seats	14.1%	519	14.6%	396	0.6%
Not getting “shots” to prevent disease	13.4%	493	14.2%	384	0.8%
Not using birth control	13.4%	492	14.4%	390	1.1%
Other (please specify)	0.6%	23	0.7%	18	0.0%
answered question		3683		2704	
skipped question		42		33	



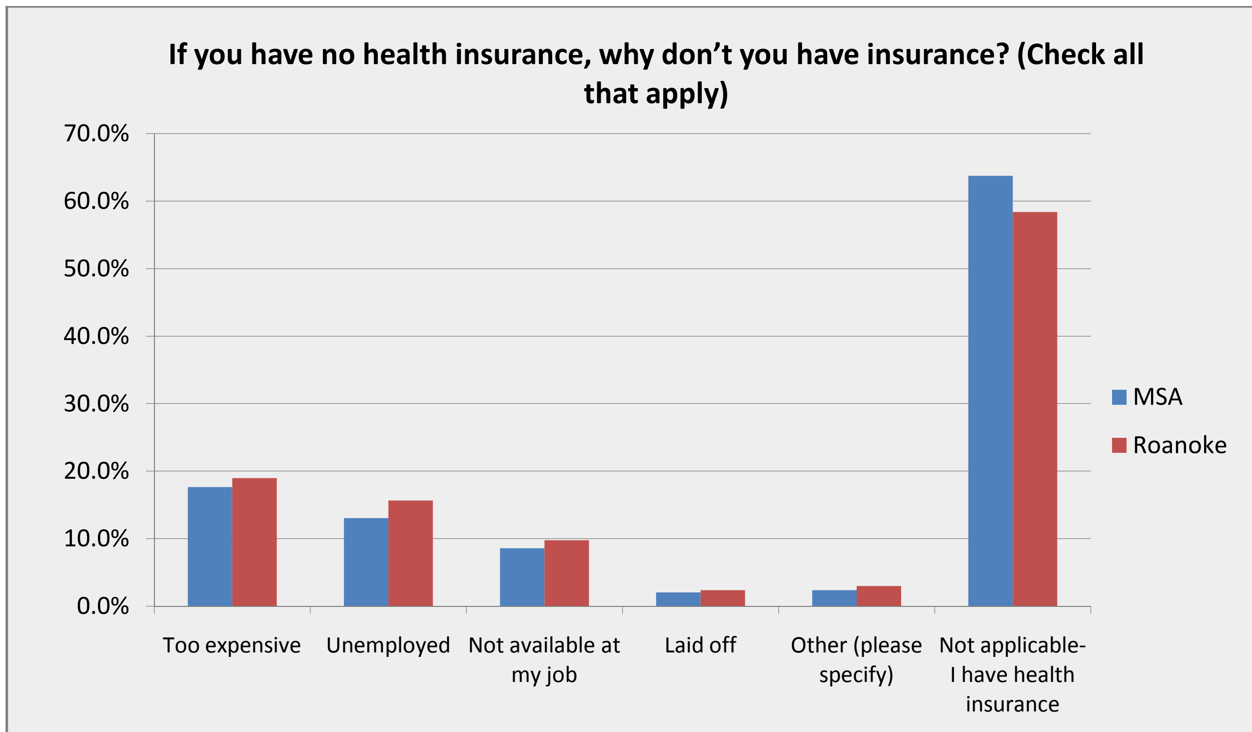
Question *13*

Which of the following describes your current type of health insurance? (Check all that apply)	MSA		Roanoke		Difference
Answer Options	%	#	%	#	(Rke-MSA)
Employer Provided Insurance	40.2%	1479	33.9%	914	-6.3%
Private Insurance	7.7%	285	8.0%	217	0.3%
Dental Insurance	11.1%	408	9.6%	259	-1.5%
Mental Health Insurance	1.7%	64	1.6%	43	-0.1%
Medicare	10.5%	385	10.7%	288	0.2%
Medicaid	23.3%	858	29.0%	783	5.7%
Medicare Supplement	5.8%	213	5.7%	155	0.0%
Government (VA, Champus)	3.6%	133	3.3%	88	-0.4%
Health Savings Account	3.3%	120	2.7%	74	-0.5%
No Health Insurance	24.5%	900	26.0%	701	1.5%
No Dental Insurance	17.3%	638	17.9%	482	0.5%
No Mental Health Insurance	9.6%	355	9.8%	265	0.2%
answered question		3680		2698	
skipped question		45		39	



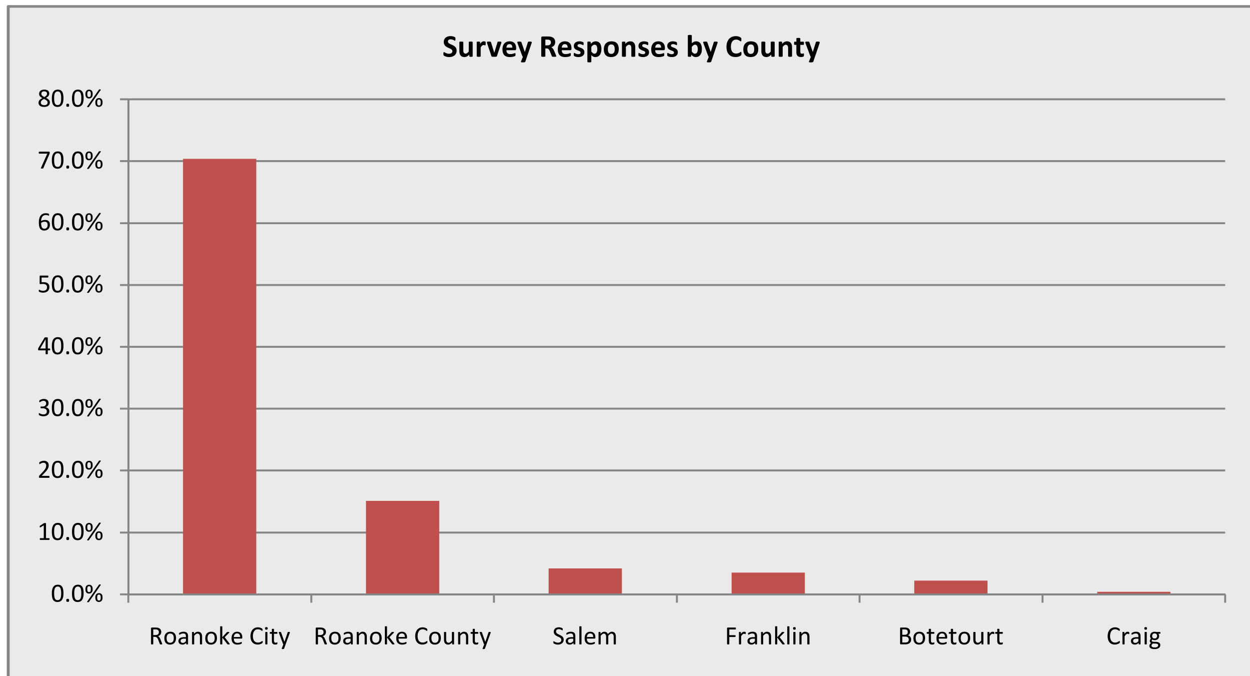
Question 14

If you have no health insurance, why don't you have insurance? (Check all that apply)	MSA		Roanoke		Difference
Answer Options	%	#	%	#	(Rke-MSA)
Too expensive	17.6%	559	19.0%	421	1.3%
Unemployed	13.1%	414	15.6%	347	2.6%
Not available at my job	8.6%	272	9.8%	217	1.2%
Other (please specify)	2.4%	75	3.0%	66	0.6%
Laid off	2.1%	65	2.4%	53	0.3%
Not applicable- I have health insurance	63.7%	2020	58.4%	1295	-5.4%
answered question		**3169**		**2219**	
skipped question		**556**		**435**	



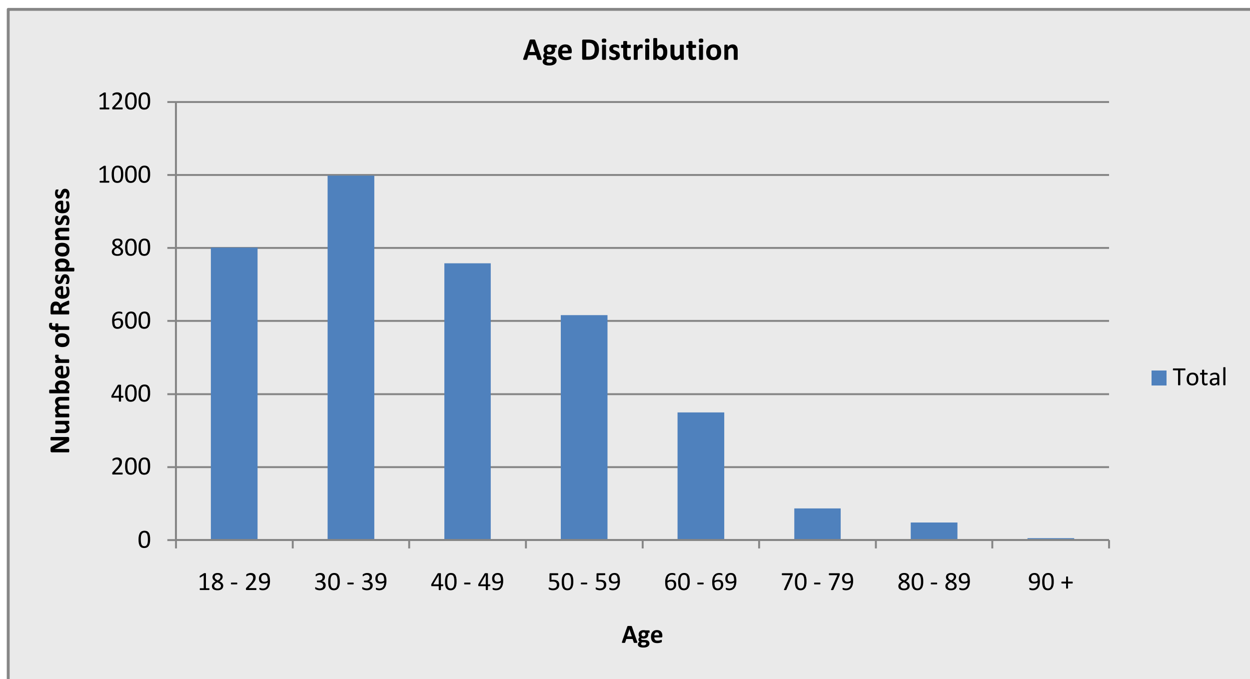
Survey Responses by County

County	#	%
Roanoke City	2737	70.40%
Roanoke County	586	15.10%
Salem	164	4.20%
Franklin	136	3.50%
Botetourt	87	2.20%
Craig	15	0.40%
Rke MSA Total	3889	100.00%



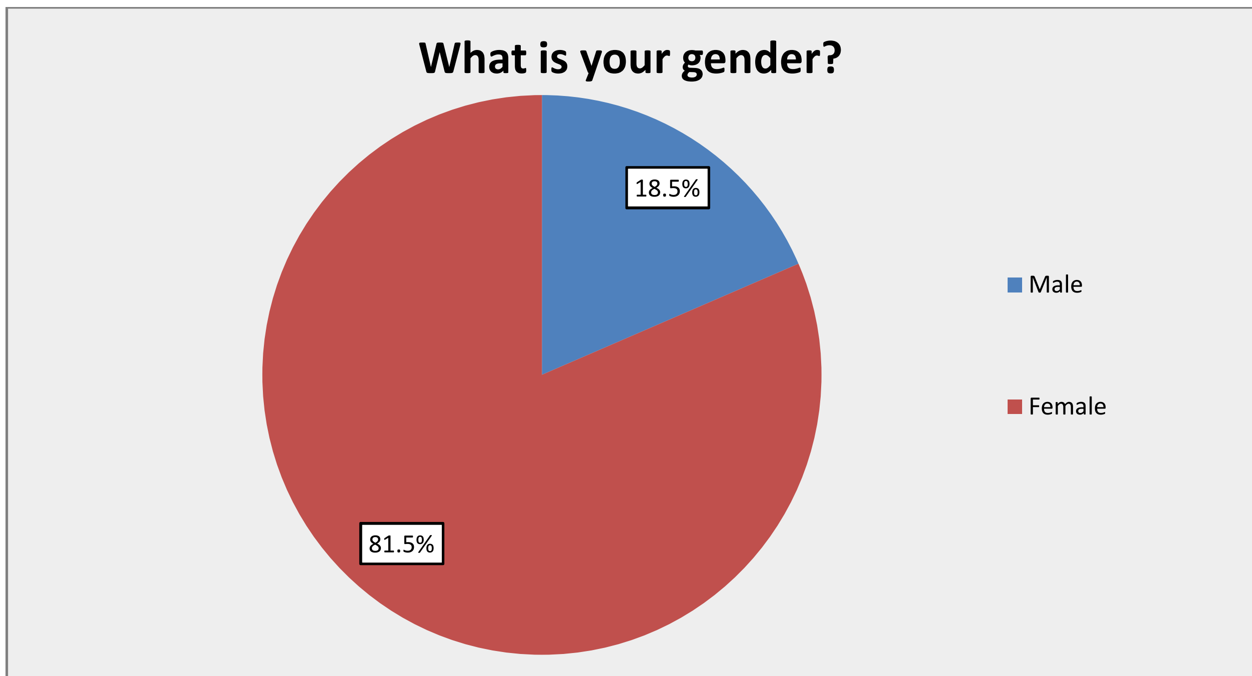
Survey Responses by Age

Age Group	Sum of Number
18 - 29	801
30 - 39	998
40 - 49	758
50 - 59	616
60 - 69	350
70 - 79	87
80 - 89	48
90 +	5
Grand Total	**3663**



Survey Responses by Gender

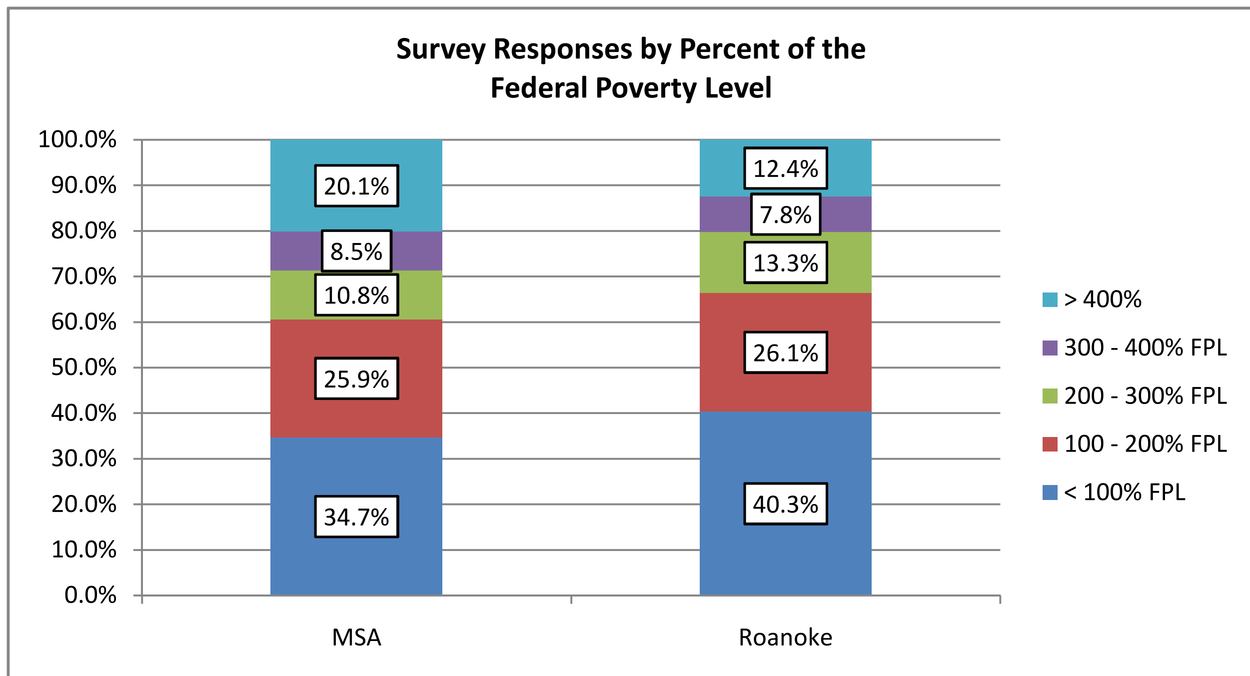
What is your gender?		
Answer Options	Response Percent	Response Count
Male	18.5%	667
Female	81.5%	2978
	answered question	3645
	skipped question	80



Survey Responses by the Federal Poverty Level*

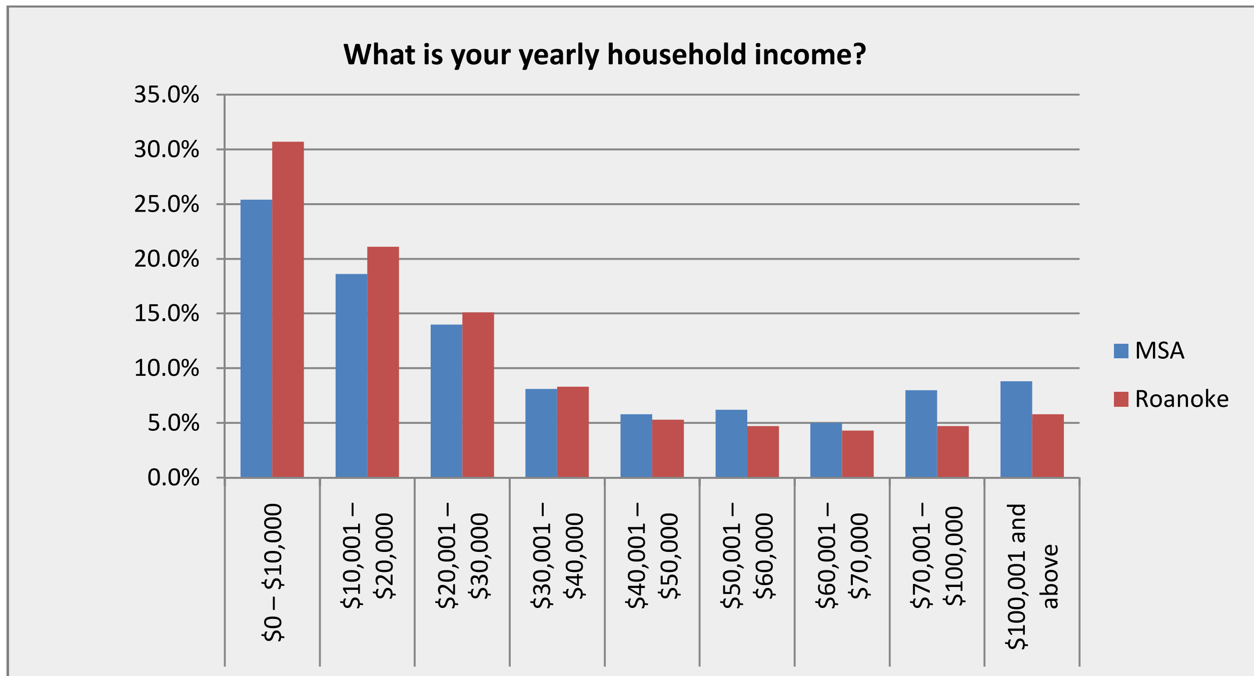
Federal Poverty Level is estimated and based on the 2012 Federal Poverty Guidelines

Poverty Level	MSA	Roanoke
< 100% FPL	34.7%	40.3%
100 - 200% FPL	25.9%	26.1%
200 - 300% FPL	10.8%	13.3%
300 - 400% FPL	8.5%	7.8%
> 400%	20.1%	12.4%



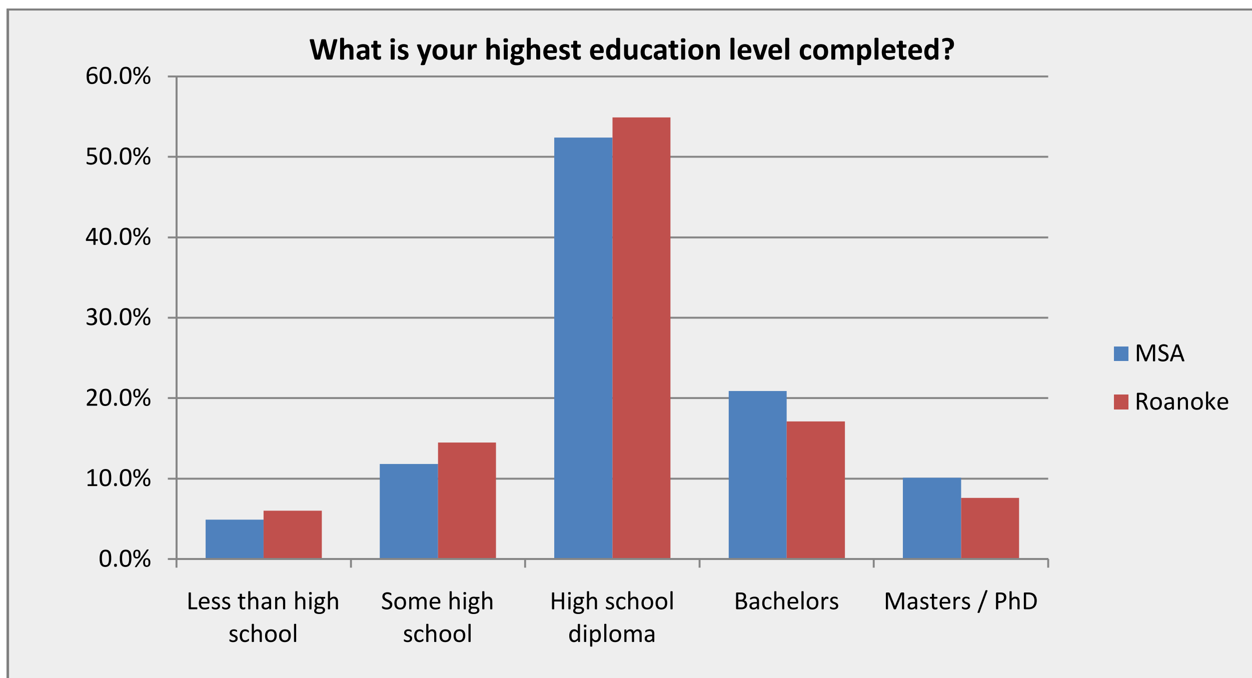
Survey Responses by Income

What is your yearly household income?	MSA		Roanoke	
Answer Options	%	#	%	#
$0 - $10,000	25.4%	917	30.7%	797
$10,001 - $20,000	18.6%	670	21.1%	547
$20,001 - $30,000	14.0%	499	15.1%	393
$30,001 - $40,000	8.1%	287	8.3%	215
$40,001 - $50,000	5.8%	199	5.3%	138
$50,001 - $60,000	6.2%	211	4.7%	122
$60,001 - $70,000	5.0%	179	4.3%	111
$70,001 - $100,000	8.0%	274	4.7%	123
$100,001 and above	8.8%	307	5.8%	150
answered question		**3543**		**2596**
skipped question		**182**		**141**



Survey Responses by Education

What is your highest education level completed?	MSA		Roanoke	
Answer Options	%	#	%	#
Less than high school	4.9%	181	6.0%	161
Some high school	11.8%	438	14.5%	391
High school diploma	52.4%	1928	54.9%	1480
Bachelors	20.9%	761	17.1%	460
Masters / PhD	10.1%	370	7.6%	205
answered question		3678		2697
skipped question		47		40

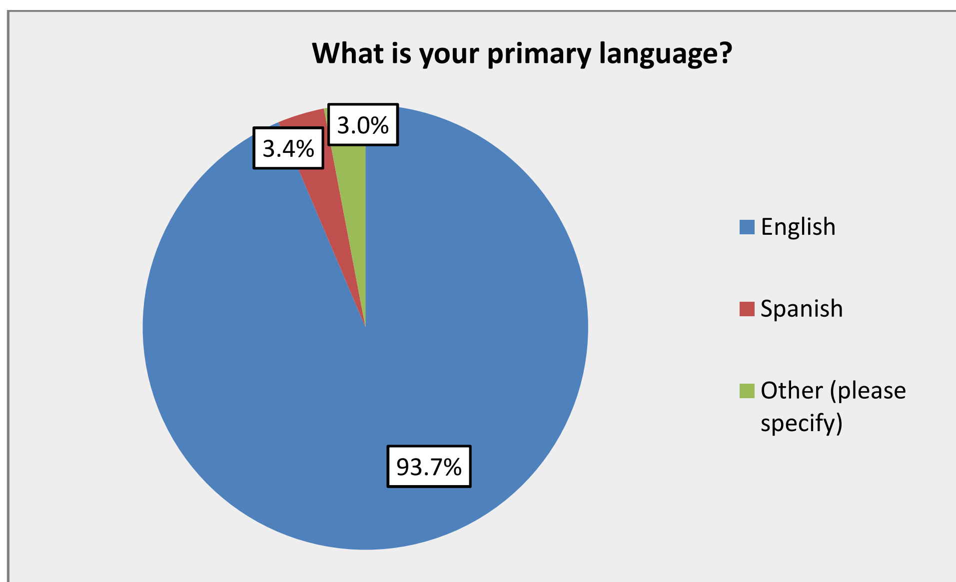


Survey Responses by Language

What is your primary language?		
Answer Options	Response Percent	Response Count
English	93.7%	3367
Spanish	3.4%	127
Other (please specify)	3.0%	112
	answered question	3606
	skipped question	119

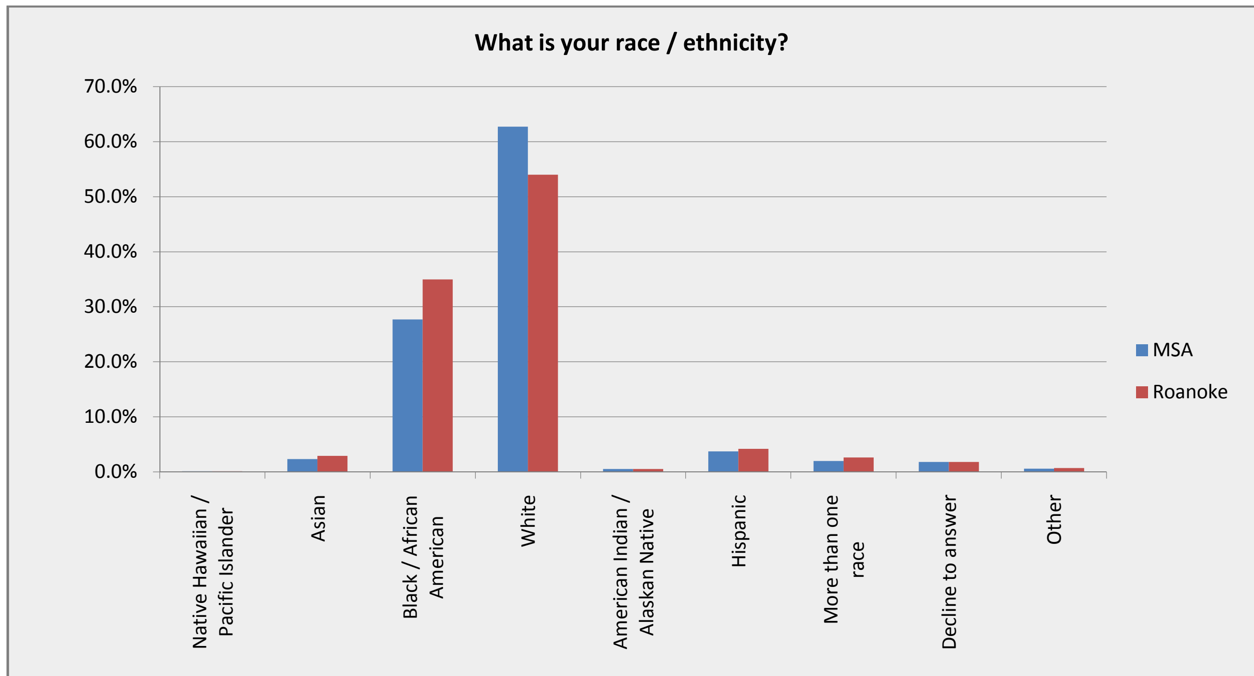
Other Languages

Language	Number of Responses	Language	Number of Responses
Albanian	2	Khmer	1
Amharic	1	Kirundi	3
Arabic	5	Korean	1
Bosnian	3	Mongolian	1
Burmese	5	Nepali	40
Cebuano and Tagalog	1	Polish	1
Chinese	2	Polish and Russian	1
Creole	5	Portuguese	1
English and Spanish	4	Russian	1
Filipino	2	Somali	5
French	2	Swahili	1
Gujarati	1	Urdu	2
Hakha-Chin	5	Vietnamese	1
Karen	4		



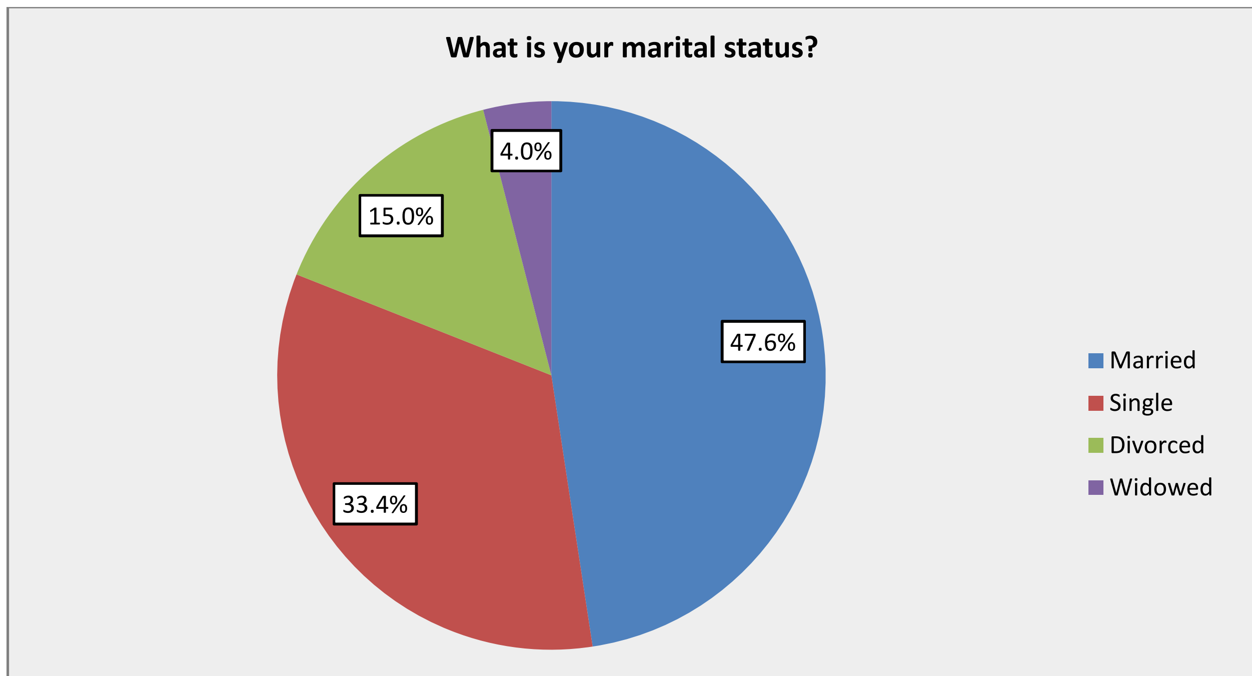
Survey Responses by Race / Ethnicity

What is your race / ethnicity?	MSA		Roanoke	
Answer Options	%	#	%	#
Native Hawaiian / Pacific Islander	0.1%	5	0.1%	3
Asian	2.3%	88	2.9%	78
Black / African American	27.7%	1054	35.0%	949
White	62.7%	2280	54.0%	1465
American Indian / Alaskan Native	0.5%	18	0.5%	13
Hispanic	3.7%	142	4.2%	113
More than one race	2.0%	77	2.6%	71
Decline to answer	1.8%	67	1.8%	49
Other	0.6%	21	0.7%	19
answered question		**3862**		**2714**
skipped question		**27**		**23**



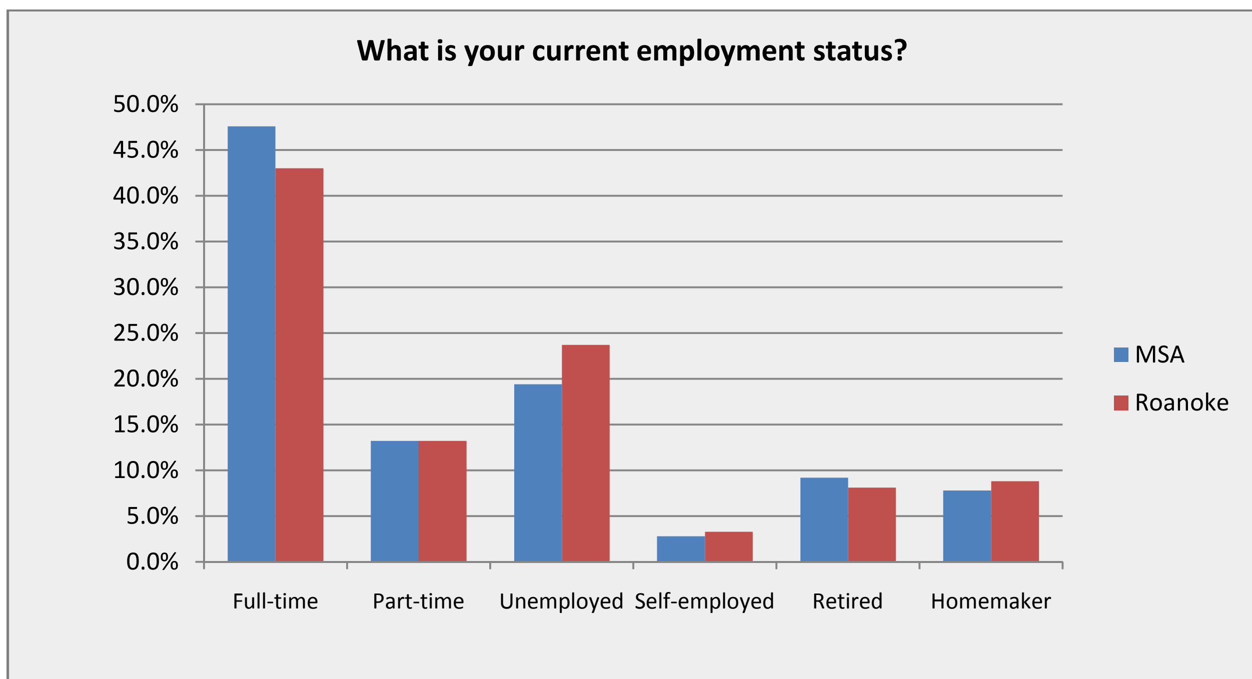
Survey Responses by Marital Status

What is your marital status?		
Answer Options	Response Percent	Response Count
Married	47.6%	1671
Single	33.4%	1222
Divorced	15.0%	544
Widowed	4.0%	142
	answered question	3579
	skipped question	146



Survey Responses by Employment

What is your current employment status?	MSA		Roanoke	
Answer Options	%	#	%	#
Full-time	47.6%	1726	43.0%	1141
Part-time	13.2%	480	13.2%	350
Unemployed	19.4%	718	23.7%	628
Self-employed	2.8%	102	3.3%	87
Retired	9.2%	313	8.1%	215
Homemaker	7.8%	290	8.8%	234
answered question		3629		2655
skipped question		96		82



Appendix 11: Strategic Planning Retreat Participants

Please check	Individual	Organization	Email
		Access to Services	
✓	Bishop, Dr. Nathaniel L.	Jefferson College of Health Sciences	nlbishop@carilionclinic.org
✓	Fitzpatrick, BT	City of Roanoke	bt.fitzpatrick@roanokeva.gov
✓	Fortuna, Tim	Carilion Clinic	tjfortuna@carilionclinic.org
✓	Garber, Sam (Facilitator)	Carilion Clinic	psgarber@carilionclinic.org
✓	Holland, Keith	City of Roanoke, Planning, Building & Development Department	Keith.Holland@RoanokeVa.gov
✓	Kelly, Diane	Mental Health America	mharv@infionline.net
✓	Lee, Dr. Bill	New Horizons Healthcare; Loudon Christian Church	rev.wlee@gmail.com
✓	Murphy-Stephenson, Kathy	Carilion Clinic	kxmurphystephen@carilionclinic.org
✓	Ostrander, Wanda	Carilion Clinic- Childrens' Hospital, School Nurse Program	wkostrander@carilionclinic.org
✓	Roe, Kim	Carilion Clinic- Emergency Department	keroe@carilionclinic.org
✓	Steller, Tim	Blue Ridge Behavioral Health	tsteller@brbh.org
✓	Wells, Catherine	Roanoke Redevelopment & Housing Authority	cwells@rkehousing.org
✓	Wonson, Lee	Roanoke City Health Department	Lee.Wonson@vdh.virginia.gov
✓	Young, Pat (Roaming Facilitator)	CommunityWorks- Project Manager	pat@communityworks4you.com
		Coordination of Care	
✓	Avner, Estelle	Bradley Free Clinic	Estelle@bradleyfreeclinic.com

✓	Derbyshire, Mark	Carilion Clinic	mhderbyshire@carilionclinic.org
✓	Ellmann, Kate	Project Access	projectaccess@projectaccessroanoke.org
✓	Ferguson, Helen	Rescue Mission Ministries- Fralin Clinic	helen.ferguson@rescuemission.net
✓	Haldiman, Robin	CHIP of the Roanoke Valley	Robin.Haldiman@chiprv.org
✓	Harris-Boush, Aaron	Carilion Clinic	amharrisboush@carilionclinic.org
✓	Holmes, Alison	Lewis Gale Medical Center	Alison.Holmes@hcahealthcare.com
✓	Lepro, Eileen (Facilitator)	New Horizons Healthcare	elepro@newhorizonshealthcare.org
✓	Merenda, Dan	Council of Community Services	danm@councilofcommunityservices.org
✓	Williams, Susan	LOA Area Agency on Aging	sbwloa@loaa.org
		Wellness	
✓	Cain, Tom	Impact + Amplify	roanokeimpact@earthlink.net
✓	Chappell, Deb	Virginia Cooperative Extension	dchappel@vt.edu
✓	Gilmer, Jake	RV-Alleghany Commission	jgilmer@rvarc.org
✓	Harper, Dr. Stephanie	Roanoke City Health Department	Stephanie.harper@vdh.virginia.gov
✓	Hofford, Dr. Roger	Carilion Clinic, Family Medicine	rahofford@carilionclinic.org
✓	Holland, Shirley (Facilitator)	Carilion Clinic- Project Director	sbholland@carilionclinic.org
✓	Jaworski, Hannah	Carilion Clinic- Pediatric Hospital	hcjaworski@carilionclinic.org
✓	Johnson, Cal	YMCA	cjohnson@ymcaroanoke.org
✓	MacMichael, Tom	Presbyterian Community Center	tcmacm1@cox.net

✓	Pendarvis, John	Family Service of the Roanoke Valley	jpendarvis@fsrv.org
✓	Powell, Mark	Roanoke Community Garden Association; Southeast Action Forum	markdouglaspowell@hotmail.com
✓	Quintana, Heather	Happy Healthy Cooks	hqhq@cox.net
✓	Rhea, Dr. Randy	Bradley Free Clinic; Carilion Clinic- Family Medicine	rrrhea@carilionclinic.org
✓	Walker, Sally	Planned Parenthood Health Systems, Inc.	sally.walker@pphsinc.org
✓	Webb, Marie	Carilion Clinic- Community Outreach	mariew@carilionclinic.org
		Additional Guests	
✓	Heim, Jas	United Way of the Roanoke Valley	jas@uwrv.org
✓	Smith, Pat	Carilion Clinic	pnsmith@carilionclinic.org
✓	Verdillo, Abby	United Way of the Roanoke Valley	abby@uwrv.org

Appendix 12: Strategic Plan Goals Summaries

Access to Health Services

Goal:

Expand access to affordable, comprehensive, primary care services for underserved populations in the Roanoke Valley.

Healthy People 2020 Objectives

- AHS-3: Increase the proportion of persons with a usual primary care provider (**Leading Health Indicator**)
- AHS-4: Increase the number of practicing primary care providers
- AHS-5: Increase the proportion of persons who have a specific source of ongoing care
- AHS-6: Reduce the proportion of individuals who are unable to obtain or delay in obtaining necessary medical care, dental care, or prescription medicines

Expected Outcomes (Success Measure):

- Decrease Emergency Department utilization rates for primary care services.

Evaluation Measures (Metrics for Goal):

Suggested Strategies:

- Investigate best practice models that work (i.e. PCAN)
- Consider "satellite clinics" in underserved neighborhoods vs. a centralized center offering comprehensive services under one roof (i.e. Medical Mall)

Resources Available:

- Bradley Free Clinic
- Carilion clinic
- CHIP
- G. Wayne Fralin Free Clinic for the Homeless
- New Horizons Healthcare
- Project Access
- Roanoke City & Alleghany Health Departments

Barriers and Factors that Impact Primary Care Services:

- Demographic and cultural changes in the community
- High poverty rates, unemployment & lack of jobs
- High cost of services and insurance status
- Inappropriate utilization of ED/Urgent Care for Primary Care
- Need for weekend & extended hours
- Need for urgent care services
- Risky behaviors
- Health literacy, cultural competency and language barriers
- Lack of reliable transportation for underserved populations

# Oral Health	**Goal:** *Improve access to preventive services and dental care for uninsured and underserved adults in the Roanoke Valley.*
Healthy People 2020 Objectives • OH-3: Reduce the proportion of adults with untreated dental decay • OH-4: Reduce the proportion of adults who have ever had a permanent tooth extracted because of dental caries or periodontal disease • OH-7: Increase the proportion of children, adolescents, and adults who used the oral health care system in the past 12 months. (**Leading Health Indicator**) • OH-10: Increase the proportion of local health departments and Federally Qualified Health Centers (FQHCs) that have an oral health component	**Expected Outcomes (Success Measure):** • Decrease Emergency Department utilization rates for dental care. **Evaluation Measures (Metrics for Goal):** **Suggested Strategies:** • Maximize existing resources/services for affordable dental services • Involve dental providers in community plan • Educate faith-based organizations to help promote oral health. ○ Recommend using health workforce training programs/students to work with faith-based organizations.
Resources Available: • Bradley Free Clinic • Carilion Clinic Dental General Practice Residency Program • Community Based Healthcare Coalition • G. Wayne Fralin Free Clinic for the Homeless • New Horizons Healthcare • Project Access • Roanoke City Health Department • Roanoke Mission of Mercy Project • Virginia Western Community College School of Dental Hygiene	**Barriers and Factors that Impact Oral Health:** • Demographic and cultural changes in the community • High poverty rates, unemployment & lack of jobs • High cost of services and insurance status • Low reimbursement rates for Medicaid services. Limited Medicaid dental coverage for adults. • Inappropriate utilization of ED/Urgent Care for dental services • Need for additional adult dental safety net providers • Risky behaviors (not accessing regular preventive care) • Health literacy, cultural competency and language barriers

Mental Health & Substance Abuse

Goal:

Improve mental health and reduce substance abuse by increasing access to appropriate and coordinated mental health and substance abuse services including prevention services.

Healthy People 2020 Objectives

- MHMD-1: Reduce the suicide rate (**Leading Health Indicator)**
- MHMD-4: Reduce the proportion of persons who experience major depressive (**Leading Health Indicator)**
- MHMD-5: Increase the proportion of primary care facilities that provide mental health treatment onsite or by paid referral
- MHMD-6: Increase the proportion of children with mental health problems that receive treatment
- MHMD-9: Increase the proportion of adults with mental health disorders who receive treatment
- MHMD-10: Increase the proportion of persons with co-occurring substance abuse and mental disorders who receive treatment for both disorders
- MHMD-11: Increase depression screening by primary care providers
- SA-9: Increase the proportion of persons who are referred for follow-up care for alcohol problems, drug problems after diagnosis, or treatment for one of these conditions in a hospital emergency department
- SA-10: Increase the number of Level I and Level II trauma centers and primary care settings that implement evidence-based alcohol Screening & Brief Intervention (SBI)

Expected Outcomes (Success Measure):

- Decrease in Emergency Department visits for mental health and substance abuse services.

Evaluation Measures (Metrics for Goal):

Suggested Strategies:

- Develop a central access point for all patients who require mental health /substance abuse services with a central intake/screening process and referral network.
- Include primary care providers and law enforcement in initiative.
- Conduct mental health screenings in primary care settings
- Investigate best practice models that address coordination of care (i.e. PCAN)
- Investigate best practice models that integrate primary care and mental health services.
- Develop strategies to increase reimbursement for services.

Resources Available:	Barriers and Factors that Impact Mental Health & Substance Abuse:
• Blue Ridge Behavioral Health Care • Bradley Free Clinic • Carilion Clinic Behavioral Health Services • Carilion Clinic Emergency Department • Catawba Hospital • Family Service of Roanoke Valley • G. Wayne Fralin Free Clinic for the Homeless • Mental Health America of Roanoke Valley • New Horizons Healthcare • Recovery & Resources Service Program	• Demographic and cultural changes in the community • High poverty rates, unemployment & lack of jobs • Cost of services and insurance status • Inappropriate utilization of ED/Urgent Care for mental health & substance abuse services • Waiting list for existing services • Need for additional providers including psychiatrists • Risky behaviors (substance abuse, child abuse/neglect, domestic violence) • Health literacy, cultural competency and language barriers • Social stigma associated with mental health and substance abuse disorders

Coordination of Care

Goal:

Improve coordination of care and ensure access to available resources and services that address the healthcare needs of the community.

Healthy People 2020 Objectives

- AHS-3: Increase the proportion of persons with a usual primary care provider (**Leading Health Indicator**)
- AHS-5: Increase the proportion of persons who have a specific source of ongoing care
- AHS-6: Reduce the proportion of individuals who are unable to obtain or delay in obtaining necessary medical care, dental care, or prescription medicines
- HC/HIT-1: Improve the health literacy of the population
- HC/HIT-8: Increase the proportion of quality, health-related Websites
- HC/HIT-10: Increase the proportion of medical practices that use electronic health records
- HC/HIT-11: Increase the proportion of meaningful users of health information technology (HIT)

Expected Outcomes (Success Measure):

- Reduce hospital readmissions
- Increase the number of people with a primary care medical home
- Increase the number of people who "effectively use" health care safety net providers (i.e. proper utilization of Emergency Departments)
- Increase the sharing of electronic medical records and the percent of individuals registered in shared database.

Evaluation Measures (Metrics for Goal):

- Readmission rates for CHF, AMI, PNEU, COPD, and Diabetes
- Number of people with a primary care medical home (% change)
- Emergency Department utilization rates for inappropriate primary care visits
- Establishment of community/regional Health Information Exchange (HIE)
- Percent of organizations participating in HIE

Suggested Strategies:

- Establish an inter-organizational /interdisciplinary work group to

Resources Available:

- Alliance for Care Transitions Program
- Bradley Free Clinic
- Carilion Clinic
- CHIP
- EACH (Education Access for Community Health)
- G. Wayne Fralin
- LGMC
- New Horizons Healthcare
- Project Access
- Recovery & Resources Service Program (RSSP)
- VAMC

Barriers and Factors that Impact Coordination of Care:

- Demographic and cultural changes in the community
- High poverty rates, unemployment & lack of jobs
- Cost of services and insurance status
- Inappropriate utilization of ED/Urgent Care for primary care, dental, mental health & substance abuse services
- Health literacy, cultural competency and language barriers

address coordination of care

- Centralize process / organization to improve coordination of care / eligibility of resources and services
- Create a community health resource center
- Care coordinator(s)
    - Person that follows patient into the community
    - Does home visit and follow up phone calls
- Coordinate health education in the community between hospital systems and independent organizations
    - Tie programs back to the Roanoke Community Health Needs Assessment
- Improve health literacy in the community by using standardized home based approach
- Establish "pathways" to navigate the continuum of care
- Expand RSSP model/Catawba Hospital partnership
- Integrate oral health screenings into health care programs and develop and oral health / medical partnership
- Development of centralized EMR database or possibly a health information exchange
- Legislative reform
    - Allow PCP to write home visits
    - Make the nursing home able to do their own UAI rather than having to go to the nursing home / ED
- Update and increase the number of providers in the 211 directory

Wellness- Nutrition, Weight Status, & Physical Activity

Goal:

Create a culture of wellness and manage chronic disease by promoting a healthy lifestyle, consuming a nutritious diet and achieving an optimal body weight.

Healthy People 2020 Objectives

- NWS-2: Increase the proportion of schools that offer nutritious foods and beverages outside of school meals
- NWS-4: Increase the proportion of Americans who have access to a food retail outlet that sells a variety of foods that are encouraged by the *Dietary Guidelines for Americans*
- NWS-5: Increase the proportion of primary care physicians who regularly measure the body mass index of their patients
- NWS-6: Increase the proportion of physician office visits that include counseling or education related to nutrition or weight
- NWS-7: Increase the proportion of worksites that offer nutrition or weight management classes or counseling
- NWS-9: Reduce the proportion of adults who are obese (**Leading Health**

Expected Outcomes (Success Measure):

- Improve cardio-vascular health by decreasing heart disease, diabetes, and obesity / overweight

Evaluation Measures (Metrics for Goal):

- BMI
- Disease incidence rates
- Healthy behaviors

Indicator) • NWS-10: Reduce the proportion of children and adolescents who are considered obese (**Leading Health Indicator**) • NWS-14: Increase the contribution of fruits to the diets of the population aged 2 years and older • NWS-15: Increase the variety and contribution of vegetables to the diets of the population aged 2 years and older • PA-1: Reduce the proportion of adults who engage in no leisure-time physical activity • PA-2.4: Increase the proportion of adults who meet the objectives for aerobic physical activity and for muscle-strengthening activity (**Leading Health Indicator)** • PA-3: Increase the proportion of adolescents who meet current Federal physical activity guidelines for aerobic physical activity and for muscle-strengthening • PA-11: Increase the proportion of physician office visits that include counseling or education related to physical activity • PA-13: Increase the proportion of trips made by walking	**Suggested Strategies:** • Identify neighborhoods and other “community” groups / resources / services (inventory, GAP analysis) to influence behaviors • Identify and align with best practice wellness programs • Impact local policy and practice re: choices of foods in schools, funding for wellness programs (smoking /soda tax) • Increase access to affordable healthy food and how to use it • Encourage activity, use of greenways, trails • As a community, focus efforts on a particular wellness aspect or platform for impact
Resources Available: • Parks and Recreation • Gyms – YMCA, Gold’s, Planet Fitness, RAC/BAC, LifeWise • Pools – Gator Aquatic Center • Roanoke Valley Greenways • VA Cooperative Extension Family and Consumer Sciences– and Family Nutrition Program • Carilion Speakers Bureau • Diabetes Self-management programs – Carilion, Lewis-Gale and Liberty • Community Health Promoter program • Happy Healthy Cooks • Community Garden Association • Roanoke Outdoors (website) • Biking Clubs • Appalachian Trail Club • Registered Dietitians • LOA • EACH (Education and Access to Community Health) • Food For Thought	**Barriers and Factors that Impact Wellness, Nutrition, and Body Weight:** • Demographic and cultural changes in the community • High poverty rates, unemployment & lack of jobs • High cost of living impacting healthy choices • Access to affordable healthy foods • Value not placed on preventive care and disease management • Lack of knowledge of health