University of North Carolina at Charlotte

Policy Report No. 14

Statewide Assessment of Adults' Experience with Medicaid Managed Care in North Carolina

Report of a 2012 Consumer Assessment of Health Providers and Systems Survey of Primary Care Case Managed Adult Enrollees

By
William P. Brandon, PhD, MPH, CHP
Galen H. Smith, III, PhD, MHA
Cicily Hampton, PhD, MPA
Keith J. Carnes, MHA
Hollie L. Tripp, MPA
University of North Carolina at Charlotte

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Correspondence regarding this report should be addressed to:
Dr. William P. Brandon
Metrolina Medical Foundation Distinguished Professor of Health Policy
Department of Political Science and Public Administration, UNC Charlotte
2901 University Blvd, Charlotte, NC 28223
Email: wilbrand@uncc.edu

Dr. Galen H. Smith III
Visiting Research Assistant Professor
Department of Political Science and Public Administration, UNC Charlotte
2901 University Blvd, Charlotte, NC 28223
Tel.: 704-621-6085; Email: ghsmith@uncc.edu or gsmithiii@carolina.rr.com

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It goes without saying, however, that any misunderstandings of Medicaid and its rules reflected in this document are due to our failure to ask the right questions or to understand the information that Betty explained so patiently to us!

Figure 2 is reprinted from *The North Carolina Atlas: Portrait for a New Century*, edited by A. Stuart and D. M. Orr (Chapel Hill, NC: University of North Carolina Press, 2000) with permission of the publisher. We should also explicitly acknowledge that *Policy Report 14* incorporates much material from the "Introduction" and "Methods" sections of *Policy Report 12*, which presents the results of a comparable survey administered in 2007 (Brandon, Schoeps, Sun, and Smith, 2008).

The authors also gratefully acknowledge funding from the N. C. Department of Health and Human Services, Division of Medical Assistance and the Metrolina Medical Foundation Research Fund. However, the views expressed in this report are those of the authors; they do not represent the views of the State of North Carolina, the Metrolina Medical Foundation Research Fund, or the University of North Carolina Charlotte.

A Guide for the Busy Reader

The authors recognize that the length of this final report of the Adult Survey of adult Medicaid recipients may be daunting for readers with many other demands on their time. The Executive Summary provides an overview of the report. In addition, busy readers who want a more complete synopsis of the content may find that Chapter 4, which interprets the results of the survey, provides the amount of detail that they desire.

Readers who then wish to access specific information in the chapter that reports the results of the surveys (Chapter 3) will find that using the sequential figure number will help them find the relevant graph and associated text. The question numbers are useful for looking up the exact wording of questions in Appendix F, where the reader can also find the answers in percentages that respondents provided.

EXECUTIVE SUMMARY

Background and Research Description (Part I, Chapters 1-2)

North Carolina Medicaid has adopted primary care case management (PCCM) in order to provide efficient and effective health care to many of its beneficiaries. In this form of managed care a primary care provider receives per member/per month fees to manage the health care of specific enrolled patients (including securing specialty referrals that they may need), but all health services are paid for on a fee-for-service basis. The N.C. Department of Health and Human Services periodically funds independent research to determine patient perceptions of this large health care program.

In May 2011 a 3-year contract between the Department and the University of North Carolina Charlotte to survey a representative sample of the Medicaid beneficiaries who were served by Carolina Access and Community Care of North Carolina (CCNC) took effect. The purpose of the surveys was to determine how adult beneficiaries and an adult responsible for a child's care regarded access to, utilization of and satisfaction with health care provided by Medicaid as well as the self-reported health status of the adult or child surveyed. The researchers used the standard instrument for Medicaid surveys, the Consumer Assessment of Health Providers and Systems (CAHPS) Survey. Consultation with Medicaid officials led to the decision to include additional questions that elicited attitudes about trust in the patient's primary care provider.

Thus, *Statewide Assessment of Adults' Experience with Medicaid Managed Care in North Carolina* constitutes the report of the findings of the Adult survey to evaluate Medicaid recipients' perception of access to, satisfaction with, and utilization of their health care, as well as the enrollee's health status. A subsequent volume will follow this report and examine respondents' trust in their health providers and specific aspects related to methods of computer use and communication. Representative samples of the target Medicaid populations of adults and children were surveyed and the answers were analyzed using what the authors call "demographic" and "context" variables to determine whether there were subpopulations that differed from the aggregated attitudes and experiences of the entire populations. Important features of the sampling, survey, and analysis include:

- The study sampling frame consisted of 148,140 adults who had been enrolled in a CCNC for 6 months or more;
    - 44.9% black, 45.4% white, and 8.8% "other" race;
    - From a number of Medicaid programs with participants in CCNCs, but excluding such groups as Medicaid for Pregnant Women and those institutionalized or receiving Adult Care Home Services, and Health Choice (North Carolina's SCHIP program);
- Stratified random samples were drawn to ensure sufficient numbers of enrollees in each of 14 CCNCs to permit them to be compared;
    - Target of 200 adult interviews from each CCNC;
    - Adults defined as 19 years of age or older,
- The survey was conducted by Clearwater Research Inc. of Boise, Idaho using a computer-assisted telephone interview methodology;
    - 3,202 interviews of adult recipients, July – September, 2012;

    - Problems: valid telephone numbers for only 3.3% of the sampling frame as initially provided by program administrators; this proportion was subsequently increased to 52.8% by the addition of supplemental data from other public assistance programs;
    - Response rate using American Association for Public Opinion Research standards: 34.8%;
- The analysis and reporting of results involved grouping the questions under the broad topics of access, satisfaction, health status, and utilization;
    - Analysis using IBM Statistical Package for the Social Sciences (SPSS) Statistics version 20 PC software employed the demographic and program variables age, gender, race and context variables CCNC, urbanicity, and region to discover any differences among subpopulations;
    - Construction of the variables urbanicity (3 values: urban, mixed and rural) and region (4 values: tidewater, coastal plain, Piedmont, and mountains) is described in Chapter 2 Methods;
    - Differences defined as 0.05 level of statistical significance using Chi-square tests;
    - Responses to all health-related questions are reported in the text of Policy Report 14 except for the trust and communication questions that will be the subject of a subsequent report;
    - Results of all differences that were statistically significant are reported unless the number of those responding was too small to permit valid inferences;
    - Responses to *all* questions are reported in Appendix F with coding indicating the variables that produced statistically significant differences;

Adult Survey Results

The most general findings that emerged from responses by adult enrollees to the 69 health-related questions that addressed issues of access, satisfaction, health status, and utilization were:

- Most respondents believed that they were getting the access to health care that was needed;
- Enrollees were satisfied with that care;
- Only 43% of respondents reported their overall health as "good," "very good," or "excellent;"
- Nearly one-in-five (21.1%) of respondents rated their overall health status as "poor:"
- Prescription medications were widely used with nearly 80% of respondents reporting that they had obtained a new or refilled prescription in the last 6 months;
- Among respondents needing some type of urgent service in the 6 months preceding the survey, almost 74% stated that they made at least one visit to the emergency room;
- Almost half (48.3%) of respondents reported that they needed assistance in obtaining transportation to get to a doctor's office visit or to pick up a prescription;
- However, only 56.8% of those who said they needed transportation assistance "always" received it while 31% only "sometimes" or "never" received it.

Responses to each question were analyzed to see whether important subpopulations held views or displayed tendencies that diverged from these overall population results. Analysis by the variables age, dual eligibility status, gender/sex, race, CCNC, urbanicity and region revealed that:

- Younger respondents reported better overall health than older respondents;
- Black respondents reported better health status than non-black respondents;
- Black respondents reported higher satisfaction ratings of their health plan compared to the other racial subpopulations;
- Satisfaction ratings were generally higher in the older age groups and among the dual eligibles;
- Smaller numbers of older respondents and the dual eligibles reported problems with access to care;
- Larger proportions of younger respondents reported that they had not visited a doctor's office or clinic when compared to older respondents;
- Relatively few bivariate relationships associated with the context variables (CCNC network, region, and urbanicity) were statistically significant.

PART I
BACKGROUND

Background materials comprise a general introduction to this assessment of the Medicaid program and an explanation of the methodology involved. The Introduction explains how the Medicaid program in North Carolina is structured and the background of this assessment project by the University of North Carolina at Charlotte. It explains the two kinds of primary care case management delivery organizations, Carolina ACCESS and Community Care of North Carolina (CCNC). (Because the differences between the two are not important for this assessment, the abbreviation CCNC in this Report generally refers to all the primary care case management organizations.)

The second chapter provides the relevant details of the conduct and analysis of the survey of the adults enrolled in North Carolina's primary care case management programs. It explains the definitions adopted, the sampling plan used and the variables employed in the extensive analysis that constitutes the bulk of this report. The variables describing the demographics of the individuals surveyed are the usual categories used to analyze large populations into subpopulations. However, the two variables referred to as "context variables" (region and urbanicity) were developed by the authors to characterize the settings in which the respondents live. The reader may want to read how the authors derived these context variables to better understand the study findings.

1 INTRODUCTION

Medicaid, a federal entitlement program jointly funded by the federal and state governments, pays for medical assistance to individuals and families with low incomes and low resources (Kaiser Family Foundation, 2014). Although each state has the option of participating, all states and the District of Columbia exercise that option with each state administering its own program and establishing its own eligibility standards and scope of services within a broad regulatory framework instituted by the federal government.

Since its inception in 1965 the Medicaid program has provided high-quality medical care to a steadily increasing number of eligible beneficiaries, despite the difficulties of constrained public budgets, conflicting values, and shifting public priorities. Nationally, 56 million Americans were enrolled in state Medicaid programs in 2012, a figure that constituted a 57.7% increase in enrollment since 2001 (Sanofi Aventis U.S. LLC, 2013). Estimates indicate that slightly less than 1.5 million people in North Carolina (15.4% of the state's population) were enrolled in the state's Medicaid program in July 2011 (North Carolina Office of State Management and Budget, 2014; U.S. Department of Health and Human Services, 2011).

Managed care, a strategy that promotes accountability for cost and quality through utilization measurement and management of health resources, has been widely adopted to address the challenges of increasing numbers of Medicaid enrollees, expanding benefits and services, and constrained public budgets. Nearly 78% of America's Medicaid recipients were enrolled in managed care organizations (MCOs) in 2012 (Sanofi-Aventis U.S. LLC, 2013). North Carolina has chosen the *primary care case management* (PCCM) as its form of organizing managed care. Kongstvedt (2007, p. 813) defines PCCM as the arrangement "designating PCPs [primary care providers] as case managers to function as 'gatekeepers,' but reimbursing those PCPs using traditional Medicaid fee-for-service, as well as paying the PCP a nominal management fee such as $2 to $5 PMPM [per member per month]."

The Medicaid-relevant subsection (Section H) of the Balanced Budget Act of 1997 (P.L. 105-33) defines PCCMs, specifies the nature of case management activity to include the "locating, coordinating, and monitoring of health care services provided by a primary care case manager" and explicitly permits nurse practitioners, physician assistants, and certified nurse mid-wives to serve as primary care providers. Although popular perceptions of the "gatekeeping" function in managed care commonly emphasize the negative role of denying care, especially unnecessary care, the primary care case manager should also play a critical role in securing specialty referrals for his or her patients. In light of past problems faced by Medicaid beneficiaries in securing access to specialty care under pure fee-for-service Medicaid, this facilitating role that makes a physician or other health provider an advocate for patient access may be the most important aspect of the PCCM form of managed medical care (Hurley and Somers, 2007). In North Carolina the CCNCs have also increasingly been the focus of disease management for those patients

Among all state Medicaid programs, North Carolina ranked tenth overall in the number of enrollees in Medicaid managed care in 2011 and second in terms of the most Medicaid MCO members enrolled in PCCMs (U.S. Department of Health and Human Services, 2011). The North Carolina statewide Medicaid managed care program consisted of two options in 2011. The first option, named Carolina ACCESS, was described in the 2006 Medicaid Annual Report as "a primary care case management model (PCCM), characterized by a primary care provider (PCP) gatekeeper" (North Carolina Department of Health and Human Services, Division of Medical

Assistance, 2007, p. 35). The second PCCM arrangement in North Carolina was named *Community Care of North Carolina (CCNC)*. CCNC, which was formerly known as ACCESS II and ACCESS III, was described in the 2006 Annual Report as "a demonstration program that began in July 1998 and aims to build upon Carolina ACCESS by working with community providers to better manage the enrolled Medicaid population" (North Carolina Department of Health and Human Services, Division of Medical Assistance, 2007, p. 35). In 2011 CCNC was composed of 14 local community networks involving local physicians, hospitals, and health and social services departments in each of the state's 100 counties. The North Carolina Department of Health and Human Services provides resources, information, and technical support to personnel at the level of the local networks. Capitated reimbursement mechanisms are used to pay providers who participate as care managers in the PCCM organizational arrangements.

The CCNC networks proactively address the overall health status of program enrollees by using such tools as risk stratification, disease management, and case management. Accountability is achieved by defining, tracking, and reporting performance measures that gauge the effectiveness of participating networks in achieving quality, utilization, and cost objectives (North Carolina Department of Health and Human Services, Division of Medical Assistance, 2007). Another way in which the Division of Medical Assistance monitors and evaluates the success of its programs is with periodic surveys of beneficiaries who receive Medicaid services. One survey instrument, the Consumer Assessment of Health Providers and Systems (CAHPS) Survey has become the standard instrument that is used in evaluations of Medicaid managed care programs throughout the nation. This survey elicits the opinions of Medicaid beneficiaries on their access to, utilization of, and satisfaction with health care. The CAHPS instrument does not directly measure the clinical quality of services delivered to patients, but the areas of access, utilization of needed care, satisfaction and trust in the health care system are considered to be important indicators of the quality of a health care delivery system (Donabedian, 1980 and 1985).

In May 2011 a three year contract between the NC Department of Health and Human Services, Division of Medical Assistance and the University of North Carolina Charlotte that funded UNC Charlotte researchers to conduct two statewide surveys of Medicaid beneficiaries in specific program categories who participated in Community Care of North Carolina took effect. One survey asked adults about the care that they received; the other asked a responsible and knowledgeable adult about the care of a child on Medicaid. Previously officials in the Office of Rural Health and Community Care asked the UNC Charlotte researcher team to add questions to the basic CAHPS survey instrument about beneficiaries' trust in their health providers and questions to help the Division evaluate enrollee computer use and communications with beneficiaries. Because of the length of the Report of the child and adult surveys, they will be presented in separate volumes and the analysis and reporting of the trust and computer use sections of both surveys will appear in a third, shorter volume.

2 METHODS

Statewide Assessment of Children's and Adults Experience with Medicaid Managed Care in North Carolina 2012, Policy Reports 13 and 14 summarize the experiences of child and adult Medicaid beneficiaries in terms of their health status and their access to, satisfaction with, and utilization of health services and care. The methods used to report these phenomena were applied to data collected from adult enrollees (the "adult survey") and the adult caregivers of child enrollees (the "child survey") who had been continuously enrolled for at least six months in the network programs of Community Care of North Carolina, the state Medicaid program's primary structural entity for organizing managed care.

Using the eligibility files provided by the state's Division of Medical Assistance, the authors of *Policy Report 13* and *Policy Report 14* drew random samples from the sampling frame of eligible adults and children enrolled in selected Medicaid programs. The drawn samples were submitted to Clearwater Research, Inc. of Boise, Idaho, a private survey research firm that was awarded a contract to conduct the telephone surveys following a competitive bidding process. Clearwater Research performed the two surveys using computer assisted telephone interview (CATI) methodology. The child survey was initiated on June 4, 2012 and concluded on August 26, 2012. The adult survey commenced on July 5, 2012 and concluded on September 20, 2012.

Population Inclusion Criteria, Demographic, and Context Variables

The eligibility file data provided by the North Carolina Division of Medical Assistance consisted of all North Carolina Medicaid beneficiaries who were enrolled in one of the following assistance programs on December 31, 2011:

- TANF (Temporary Assistance to Needy Families),
- M-AF (Medicaid to Families with Dependent Children),
- M-AB (Medicaid to the Blind),
- M-AD (Medicaid to the Disabled),
- MAA (Medicaid for the Aged, or the dual eligibles),
- MSB (Aid to the Blind Medicaid Assistance),
- SSI (Supplemental Security Income, the federal cash assistance program to the blind, aged, and disabled) under age 65,
- M-IC (Medicaid to Infants and Children),
- SSI (Supplemental Security Income) under age 19, and
- children under the age of 19 years with Title V (the health services safety net for all women and children enacted as part of the Social Security Act of 1935) block grant assistance.

The number of adults who were enrolled in at least one of these programs in the state-provided data was 522,748 while the number of children who met these inclusion criteria was 885,363.[1]

[1] Individuals enrolled in the following program categories were specifically excluded from the study populations: individuals enrolled in the Community Alternatives Program (CAP), including CAP-enrolled children eligible for hospital or nursing facility levels of care, disabled adults, persons with mental retardation and/or developmental disabilities and persons with AIDS; MPW (Medicaid for Pregnant Women) enrollees; foster kids; QMB (Qualified Medicare Beneficiaries - those who are partially eligible because they only receive premium support benefits as opposed to the "full duals" who are eligible for both Medicare and Medicaid); institutionalized enrollees receiving

This dataset was subsequently pared to include only those individuals who had been continuously enrolled in one of the CCNC care networks for at least six months prior to December 31, 2011. The resultant data set included 148,140 adult enrollees (the sampling frame of adults) and 455,960 child enrollees. One additional inclusion criterion – the date of birth after June 30, 1993 – was applied to the child population. The rationale for this inclusion criterion was to exclude those child enrollees who were likely to "age-out" of Medicaid coverage prior to fielding the survey in June 2012. The resultant data set represented the sampling frame for children and included 448,424 enrollees.

In terms of the demographic variables provided by the state eligibility file data, the differences between the adult and child sampling frames are noteworthy (see Appendix A, Demographic, Region, and Urbanicity Characteristics, Adult and Child)). For example, the proportion of male enrollees in the children's sampling frame (51.1%) slightly outnumbers that of female enrollees (48.9%). By contrast, females comprised nearly 67% of the adult sampling frame. The likely explanations for this difference are: (a) the targeting of Medicaid services to women and their children, (b) the differences in custodial parenting arrangements, or (c) the wage gap between women and men. An additional source of variation is the proportion of dual eligibles in each of the sampling frames. Forty percent of individuals in the adult sampling frame qualified for both Medicaid and Medicare benefits. Conversely, no child enrollees in the children's sampling frame were categorized as dually-eligible.

Variation was also present when comparing the racial makeup of the two sampling frames. For instance, the adult sampling frame was very balanced in terms of the proportions of whites and blacks. Blacks and whites comprised 44.9% and 45.4%, respectively, with those categorized by the eligibility files as "unreported" race representing 6.3% of the sampling frame. The remaining portion of this group was divided among the Asian, Native American, and Pacific Islander subgroups. By contrast, there was more variation in the racial makeup of the children's sampling frame with whites accounting for 42.4% of enrollees and blacks representing 36.0%. The proportion of child enrollees whose race was categorized as "unreported" by the state's eligibility files was 18.4%.

With regard to age, Medicaid eligibility standards require individuals to be at least 19 years of age or older to qualify as an adult.[2] Consequently, the youngest adult age interval begins at 19. Adults younger than 25 years constituted 10.8% of the sampling frame, followed by 17.3% in the 25 to 34-year old category, 16.3% in the 35 to 44-year old category, 18.9% in the 45 to 54-year old category, 17.8% in the 55 to 64-year old category, 10.3% in the 65 to 74-year old category, and 8.7% in the 75 years and older category.

The age intervals in the sampling frame of the child enrollees ranged between birth (0 years of age) and less than 19 years (although inclusion in the sampling frame required 6 months of enrollment in the CCNC, which eliminated newborns). The interval of 0 to less than 2-years of age contained 8.9% of the sampling frame with 32.3% in the 2 to less than 6-year age group,

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long-term care, nursing home, and Adult Care Home services; enrollees receiving end-stage renal dialysis services; and enrollees in the Health Choice (SCHIP) program.

[2] Medicaid for Families with Dependent Children "provides medical coverage for parent(s) or other caretaker/relative with child(ren) age 18 and under in the household and for children under age 21." (North Carolina Department of Human Services, 2012).

17.1% in the 6 to less than 9-year age group, 20.1% in the 9 to less than 13-year age group, and finally, 21.6% in the 13 years of age to the less than 19 category.

In addition to the demographic variables of sex, race, and age, the research team at UNC Charlotte also analyzed the eligibility file data in terms of three important context variables – the CCNC network in which the Medicaid beneficiary was enrolled, the region of North Carolina in which the enrollee resided, and the degree of urbanicity of the county in which the enrollee lived. Stratifying the data in terms of these context variables provides varying degrees of differentiation that might otherwise be masked when analyzing aggregated, statewide data.

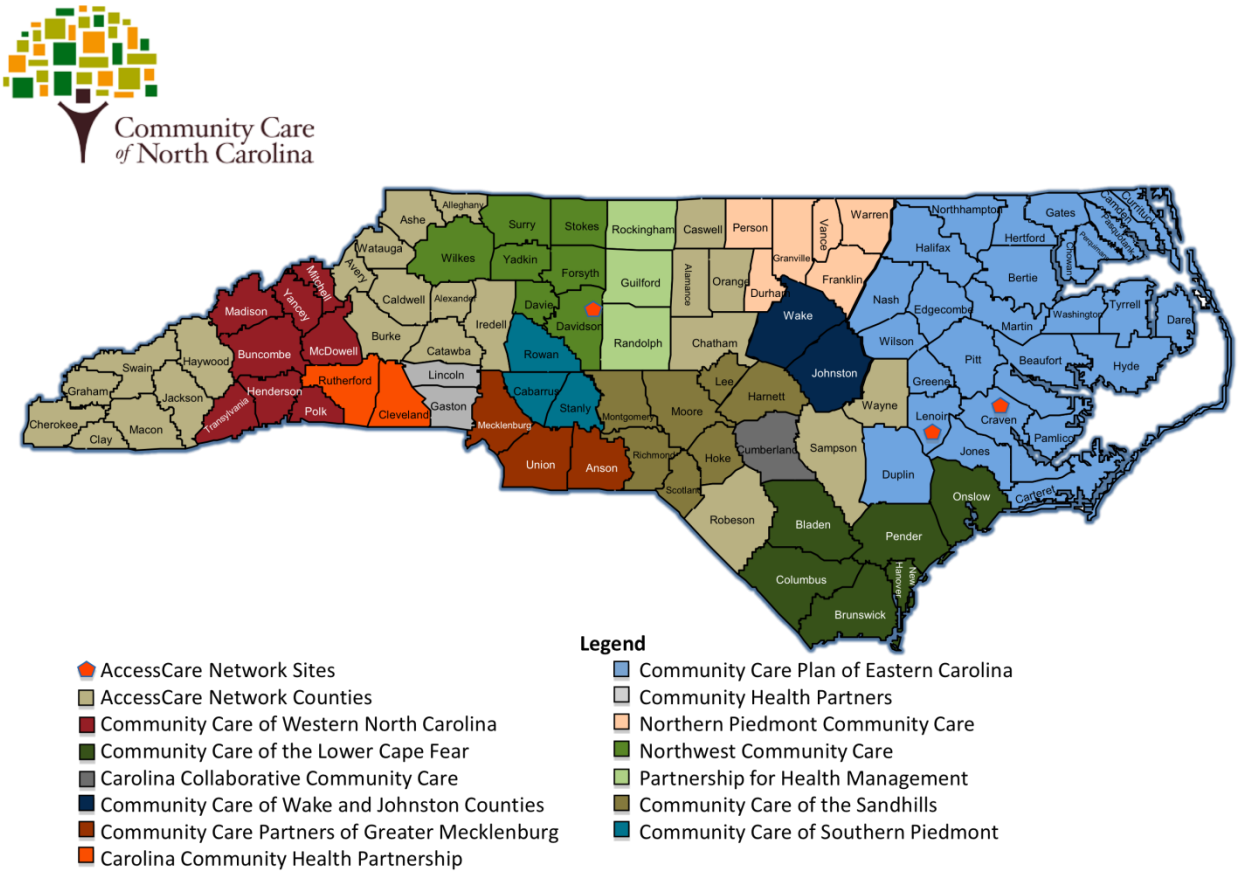
The care networks, or CCNCs, are the structural units by which primary care is delivered to Medicaid managed care beneficiaries. Table 2-1 provides the names and network numbers of the fourteen care networks and Figure 2-1 displays the care networks on a map of North Carolina's 100 counties. It should be noted that while most CCNC network sites are located in contiguous, multi-county areas, the AccessCare Network *counties* are non-contiguously distributed across the State and the AccessCare Network *sites* are located primarily in eastern North Carolina.

Table 2-1: Community Care of North Carolina Networks

AccessCare Network Sites and Counties (#1006)	Community Care Plan of Eastern North Carolina (#2000)
Community Care of Western North Carolina (#1007)	Community Health Partners (#1003)
Community Care of the Lower Cape Fear (#2004)	Northern Piedmont Community Care (#2007)
Carolina Collaborative Community Care (#1013)	Northwest Community Care Network (#2006)
Carolina Community Health Partnership (#1010)	Partnership for Health Management (#1012)
Community Care of Wake/Johnston Counties (#1011)	Community Care of the Sandhills (#2005)
Community Care Partners of Greater Mecklenburg (#1009)	Community Care of Southern Piedmont (#2003)

The *urbanicity* variable describes the enrollee's residence in terms of its urban or rural character: urban, rural or mixed. Because federal revisions of 2000 rurality measures were not available when analysis of the 2012 Medicaid survey was undertaken, this report uses the categories employed in our previous report (Brandon, Schoeps, Sun, and Smith, 2008). This continuity has the advantage of enhancing the comparability of findings of the two reports.

Figure 2-1. Community Care of North Carolina Network Map



Source: CCNC August 2012

Source: Community Care of North Carolina. 2012. [accessed on August 14, 2012]. Available at: https://www.communitycarenc.org/our-networks/ccnc-network-nc-county-maps/

Table 2-2 depicts the nine levels of urbanicity from the 2003 Rural-Urban Continuum Codes, along with the frequency distribution of North Carolina's 100 counties using 2000 Census data.[3]

Table 2-2: Frequency Distribution of N.C. Counties in the Nine-Level Classification of County Urbanicity

Code	***Defining Criteria***	***Number of N.C. Counties***
1	County in metropolitan area with population of 1 million or more	6
2	County in metropolitan area with population of 250,000 to 1 million	27
3	County in metropolitan area with population of fewer than 250,000	7
4	Nonmetropolitan county with urban population of 20,000 or more, adjacent to a metropolitan area	17
5	Nonmetropolitan county with urban population of 20,000 or more, not adjacent to a metropolitan area	2
6	Nonmetropolitan county with urban population of 2,500-19,999, adjacent to a metropolitan area	15
7	Nonmetropolitan county with urban population of 2,500-19,999, not adjacent to a metropolitan area	5
8	Nonmetropolitan county completely rural or less than 2,500 urban population, adjacent to metropolitan area	9
9	Nonmetropolitan county completely rural or less than 2,500 urban population, not adjacent to metropolitan area	12

Sources: U.S. Department of Agriculture, Economic Research Services. 2004. *Measuring Rurality: Rural-Urban Continuum Codes*. Economic Research Services, U.S. Department of Agriculture. Available at: http://webarchives.cdlib.org/wayback.public/UERS_ag_1/20110913215735/ http://www.ers.usda.gov/Briefing/Rurality/RuralUrbCon/. [Accessed on December 5, 2013].
U.S. Department of Agriculture, Economic Research Services. 2003. *Data sets: 2003 Rural-urban continuum codes for NC*. U.S. Department of Agriculture, August 18, 2003. Available at http://webarchives.cdlib.org/wayback.public/UERS_ag_1/20110914002101/http://www.ers.usda.gov/Data/RuralUrbanContinuumCodes/2003/LookUpRUCC.asp?C=R&ST=NC . [Accessed on October 21, 2014].

[3] Two anomalies related to the classification of North Carolina counties are worthy of comment. One is the designation of Currituck County as an urban area. This county, which is located along the Atlantic coast in the extreme northeastern portion of the state, has a Census 2000 population of approximately 18,000 inhabitants and a low density of 69.5 persons per square mile. (The average density in North Carolina was 165.2 people per square mile.) Currituck is classified as metropolitan due to its inclusion in the Virginia Beach-Norfolk-Newport News, VA-NC Metropolitan Statistical Area.
The second anomaly involves the designation of Anson County as an urban county. This county is located in the southern Piedmont region of the state and has a Census 2000 population slightly greater than 25,000 but a population density of only 47.5 people per square mile. However, it is included in the Charlotte-Gastonia-Concord Metropolitan Statistical Area (U.S. Census Bureau, 2003).

The data in Table 2-2 were aggregated into the three general categories of *urban*, *rura*l, and *mixed* as follows:

- codes 1, 2, and 3 constitute the "urban" category (counties located in metropolitan areas),
- codes 4 and 5 constitute the "mixed" category (counties located in non-metropolitan areas with populations of 20,000 or more),
- codes 6, 7, 8, and 9 comprise the "rural" category (counties located in non-metropolitan areas with populations less than 20,000).

Table 2-3 summarizes the number of North Carolina counties that fall within each of the three categories of urbanicity whereas Table 2-4 and Table 2-5 describe the categorical breakdown of urbanicity for the adult and child sampling frames, respectively.

Table 2-3: Frequency Distribution of N.C. Counties in the Three-Level Classification of County Urbanicity.

Code	*Number of Counties*
Urban (1); metropolitan area	40
Mixed (2); Non-metropolitan with population ≥ 20,000	19
Rural (3); Non-metropolitan with population < 20,000	41

Table 2-4: Frequency Distribution of Adult Sampling Frame Residence by Urbanicity

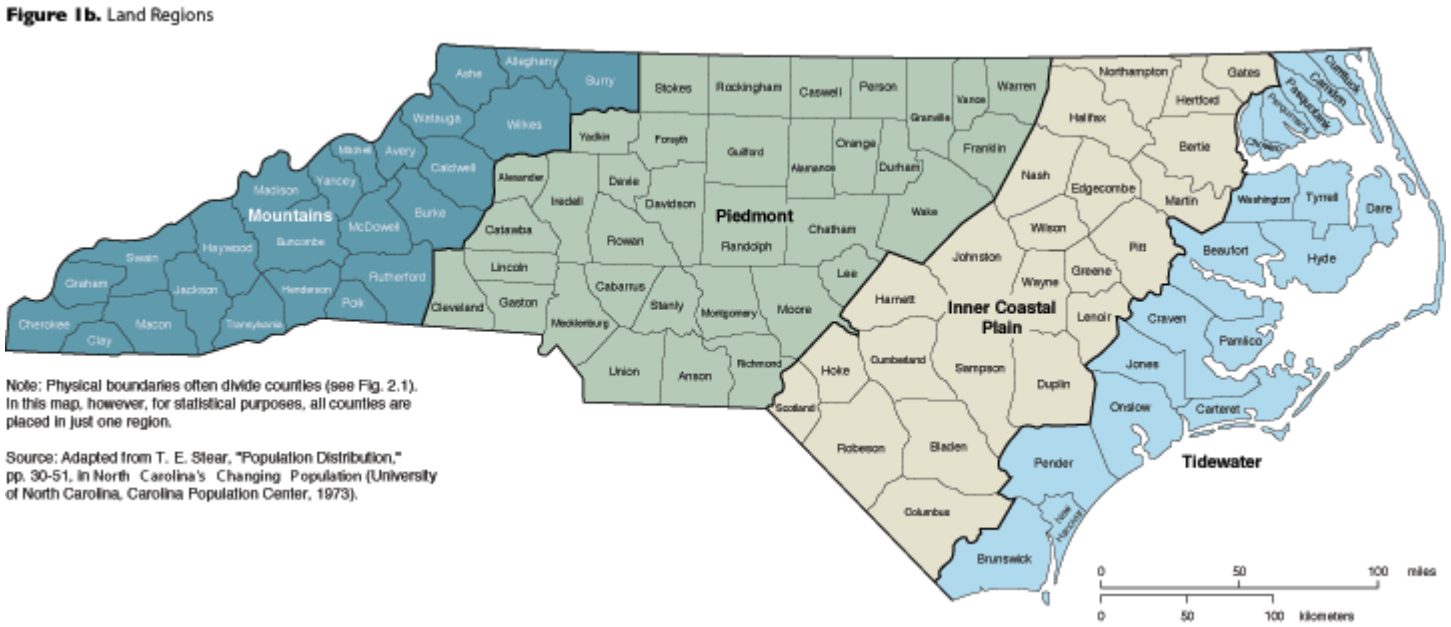
	(n =148,140)
Urban	58.9%
Mixed	22.7%
Rural	18.4%

Table 2-5: Frequency Distribution of Child Sampling Frame Residence by Urbanicity

	(n =448,424)
Urban	64.5%
Mixed	21.4%
Rural	14.1%

Region represents the geographic region of the state where the enrollee has established residence. Values of this variable were determined by the template established by Diemer and Bobyarchick (2000) in the most recent hardbound version of the North Carolina Atlas that divided the state into four distinct land regions. The specific land regions are operationalized by assigning counties to one of the following four categories: (1) the Mountain region, consisting of the Appalachian Mountains and foothills sections of western North Carolina, (2) the Piedmont region, which consists of the Piedmont Plateau located in the center of the state, (3) the Coastal Plain region, which includes the land area in eastern North Carolina that is not directly adjacent to or influenced by the Atlantic Ocean, and the Tidewater region, comprised of the land regions that lie adjacent to the Atlantic Ocean. A map that graphically depicts the specific land regions that define the region variable appears in Figure 2-2 and frequency distributions of the adult and child sampling frames by geographical region appear in Table 2-6 and Table 2-7, respectively.

Figure 2-2: North Carolina Land Regions by County



North Carolina Land Regions by County

Mountains

Alleghany, Ashe, Avery, Buncombe, Burke, Caldwell, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Surry, Swain, Transylvania, Watauga, Wilkes, Yancey

Piedmont

Alamance, Alexander, Anson, Cabarrus, Caswell, Catawba, Chatham, Cleveland, Davidson, Davie, Durham, Forsyth, Franklin, Gaston, Granville, Guilford, Iredell, Lee, Lincoln, Mecklenburg, Montgomery, Moore, Orange, Person, Randolph, Richmond, Rockingham, Rowan, Stanly, Stokes, Union, Vance, Wake, Warren, Yadkin

Coastal Plain

Bertie, Bladen, Columbus, Cumberland, Duplin, Edgecombe, Gates, Greene, Halifax, Harnett, Hertford, Hoke, Johnston, Lenoir, Martin, Nash, Northampton, Pitt, Robeson, Sampson, Scotland, Wayne, Wilson

Tidewater

Beaufort, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Hyde, Jones, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Tyrrell, Washington

Table 2-6: Frequency Distribution of Adult Sampling Frame Residence by Region

Region	*(n =148,140)*
Mountains	14.4%
Piedmont	45.3%
Coastal Plain	32.1%
Tidewater	8.2%

Table 2-7: Frequency Distribution of Child Sampling Frame Residence by Region

Region	*(n = 448,424)*
Mountains	12.8%
Piedmont	53.6%
Coastal Plain	25.7%
Tidewater	7.9%

Consumer Assessment of Healthcare Providers and Systems (CAHPS) Survey

The CAHPS project is a private-public partnership that originated in 1995 with governmental support from the Agency for Healthcare Research and Quality (AHRQ, formerly known as the Agency for Health Care Policy and Research, or AHCPR), an entity housed within the U.S. Public Health Service of the U.S. Department of Health and Human Services (U.S. Department of Health and Human Services, Agency for Health Research and Quality, 2002). Private research organizations that were involved in the earliest stages of the development of the CAHPS survey products included the Harvard Medical School in Boston, Massachusetts, the RAND Corporation, a global policy think tank headquartered in Santa Monica, California, the Research Triangle Institute (RTI), one of the world's leading research institutes located in Research Triangle Park, North Carolina, and Westat, a survey research firm with clients in both the private and public sectors and headquartered in Rockville, Maryland. The Health Care Financing Administration (HCFA, now known as the Centers for Medicare and Medicaid Services, or CMS) joined AHCPR as a CAHPS partner in January of 1996. The project officers from AHRQ and CMS, along with the contracting organizations (which now includes the American Institutes for Research, or AIR) and their partners and subcontractors constitute the CAHPS Consortium.

The *CAHPS Health Plan Survey 4.0, Adult Medicaid Questionnaire* and the *CAHPS Health Plan Survey 4.0, Child Medicaid Questionnaire* served as templates for the survey documents that were created by the UNC Charlotte research team and ultimately administered to program enrollees by the North Carolina Department of Health and Human Services. Both the adult and child survey instruments conformed to CAHPS guidelines that mandate the placement of various supplemental survey questions in relation to specific core questions.[4] In the case of the child survey, these questions included a number of items that evaluated the experience of children with chronic conditions. Additionally, a number of core and supplemental questions in both surveys were included to meet the criteria for *Health Home Experience of Care Assessment*, an initiative established by the Centers for Medicare and Medicaid Services to evaluate

[4] The sources for the supplemental questions were the *CAHPS Health Plan Survey 4.0, Supplemental Items for the Adult Questionnaires* and the *CAHPS Health Plan Survey 4.0, Supplemental Items for the Child Questionnaires*, respectively.

beneficiaries' care in a health home.[5] (see Appendix B, The Adult Survey). Moreover, the UNC Charlotte research team consulted various plan administrators and providers to ensure that any unique features pertinent to the experience of North Carolina Medicaid beneficiaries enrolled in CCNCs were integrated into the survey. As a result, several questions were slightly rephrased to reflect this variation (see Appendix C, Modifications of CAHPS Survey Items).

In the case of the child survey, the CAHPS protocol required that interviewers speak directly with a responsible adult who was knowledgeable about the health care of the child on Medicaid. Each CAHPS question surveying access, satisfaction, utilization, or health status was explicit in telling the adult respondent that the question relates to the child's experience.

In order to accommodate those households where English may not have been the primary language spoken in the home, Spanish versions of the adult and child surveys were created from the Spanish versions of the *CAHPS Health Plan Survey 4.0, Adult Medicaid Questionnaire* and the *CAHPS Health Plan Survey 4.0, Child Medicaid Questionnaire*, respectively. The corresponding supplemental items were appropriately positioned in accordance with CAHPS guidelines for item placement and skip patterns (see Appendix B). Questions that had been slightly modified in the English versions of the surveys by the UNC Charlotte research team were also modified in the Spanish versions. Translations were performed by a team of trained translators within the Department of Language and Culture Studies at UNC Charlotte and independently validated by Spanish speaking professors in UNC Charlotte's Political Science and Public Administration Department and in the College of Health and Human Sciences.

Sample

A number of references, including Babbie (2004) and Bowling (2002), describe the virtues of random selection as the best probability sampling strategy in terms of minimizing sampling error and threats to validity as well as ensuring representativeness of the population. Additionally, Babbie points to stratification as a mechanism for selecting adequate numbers of homogeneous groups that facilitate group comparisons. Therefore, in order to permit statistically valid comparisons among the fourteen North Carolina Medicaid CCNCs, the UNC Charlotte research team combined the principles of random sampling and stratification into a single strategy – a stratified random sampling technique. The basis for selecting the network affiliation variable as the stratification variable was to facilitate cross-network comparisons of access and consumer satisfaction of specific CCNC networks. State Medicaid officials instructed the UNC Charlotte researchers to design the study so that it would produce valid comparisons among the fourteen networks.

Adults: A stratified random sample of adults was obtained from the sampling frame created from the eligibility file data provided by the North Carolina Department of Health and Human Services. The stratification variable employed for this sampling procedure was *network affiliation*. A total of 3,000 adult enrollees in each network were randomly selected with the goal of obtaining 200 completed surveys in each of the fourteen care networks. The rationale for

[5] The health home as a model of service delivery "expands on the traditional medical home models that many states have developed in their Medicaid programs, by building additional linkages and enhancing coordination and integration of medical and behavioral health care to better meet the needs of people with multiple chronic illnesses." (Kaiser Family Foundation. 2011. p 1). See also U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services. 2013. *Health homes* at http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Support/Integrating-Care/Health-Homes/Health-Homes.html

selecting 200 completed surveys in each network is that this number conforms to pre-study power and sample calculations intended to facilitate inter-network comparisons and to detect relatively small effect sizes (U.S. Department of Health and Human Services, 2008). Moreover, the basis for selecting the relatively high number of 3,000 adult enrollees for the drawn sample was to provide a sufficient number of enrollees to obtain the requisite 200 completed surveys, given the relatively low proportion (~54%) of adult enrollees in the sampling frame with phone numbers and other well-documented difficulties in locating Medicaid respondents by telephone surveys (i.e., lower than average literacy levels, high levels of mobility; see Brown, Nederend, Hays, Short, and Farley; 1999). Appendices A, D1-D3, and E1-E3 provide descriptive detail of the demographic and context variables at various levels of the sampling process namely, the sampling frame (N), the drawn sample, and the surveyed sample (n, or the "respondents").

Children: The sampling goals and objectives for the child survey were similar to those in the adult survey. A stratified random sample of enrolled children was obtained from the children's sampling frame. The stratification variable employed for this sampling procedure was again *network affiliation*, which allowed comparison of care networks as described above. An initial target sample of n = 2,000 enrollees in each network was selected with the objective of obtaining approximately 200 completed surveys in each network. The drawn sample size of n = 2,000 enrollees in each network was selected to obtain 200 completed surveys, given that 87.9% of child enrollees in the sampling frame had phone numbers, and also to allow for the other potential pitfalls of contacting Medicaid respondents as described above.

Survey

Clearwater Research, Inc. conducted 3,199 computer-assisted telephone interviews (CATI) of the parents, guardians, or other knowledgeable adults from the drawn samples of enrolled children between June 4, 2012 and August 26, 2012. Additionally, Clearwater Research conducted 3,202 interviews of adult beneficiaries from the drawn samples of adults between July 5, 2012 and September 20, 2012. The child survey questionnaire, along with the percentage distributions of responses provided by survey respondents, appears in Appendix F, which is coded to indicate all statistically significant differences that emerged from the analysis conducted by the UNC Charlotte research team.

Research Involving Human Subjects. UNC Charlotte's Institutional Review Board found the research that is the subject of this report, IRB reference 11-05-03, to be exempt from review on the grounds that it provides a public benefit. The fact that it has been conducted at the behest of a public agency was central to that finding. Nonetheless, the researchers had to establish that participants in the survey provided consent by agreeing to be interviewed. No financial incentives were offered in exchange for participation in the survey.

Response Rates. Previous sections of this chapter have referenced the challenges of conducting telephone surveys of Medicaid populations and the implied difficulties associated with obtaining adequate response rates. These challenges were especially problematic in this study. The eligibility file data provided by the North Carolina Medicaid Division of Medical Assistance contained unsuitably small proportions of any potentially "workable" 10-digit phone numbers.[6] Specifically, only 62.9% of child enrollees in the child sampling frame and 3.3% of adult enrollees in the adult sampling frame had any workable 10-digit phone number recorded in

[6] "Workable" phone numbers do **no**t include "placeholder" phone numbers such as 000-000-0000, 111-111-1111, or 999-999-9999 or phone numbers with less than 10 digits. Phone numbers of this type comprised large proportions of the phone number fields in the eligibility file data sets.

the designated phone number fields of the Medicaid eligibility file data. The dearth of phone numbers prompted Medicaid plan administrators to contact state administrators of the federal Supplemental Nutrition Assistance Program (SNAP), or food stamp program, to extract and forward data to the UNC Charlotte research team for evaluation as a means of buttressing the phone number files. The UNC Charlotte research team merged the SNAP data with the Medicaid eligibility file data and determined that there was a considerable degree of beneficiary overlap between the two programs and that the quality of phone numbers in the SNAP database was far superior to that present in the Medicaid eligibility files. The result was a dramatic increase in the proportion of workable phone numbers to 87.9% (n = 394,151) for the child sampling frame and 52.8% (n = 78,270) for the adult sampling frame.

In a similar manner, state plan administrators contacted personnel within the North Carolina Division of Child Development and Early Education Services, a sister agency housed within the Department of Health and Human Services, to obtain additional telephone numbers of program participants who may also have been enrolled in a CCNC network. The net result of this strategy was a modest increase in the number of workable telephone numbers to 53.6% (n = 79,460) for the adult sampling frame. Appendix G describes the prevalence of workable phone numbers in both the adult and child sampling frames and compares those beneficiaries with phones to those without phones on selected key demographic variables.

The response rates reported for these two studies are based on responses to the telephone surveys when either a landline or wireless telephone number was available for the individual in the sample. The response rates were calculated in accordance with the standards and definitions employed by the American Association for Public Opinion Research, or AAPOR (2011). At the present time, there are no official AAPOR standards and definitions for CATI surveys, although this organization is seeking the cooperation of companies that perform CATI surveys to assist in the development and implementation of such standards. The standards and definitions presented below are specifically designed for random-digit dialing surveys but were adapted for use in this Medicaid telephone survey. The formula for calculating the response rate (RR) in this study is referred to as "Response Rate 2," or "RR2" by AAPOR and considers a number of "dispositions" which are described below:

$$RR = [(I+P) / [(I+P) + (R+NC+O) + (UH+UO)]] \times 100$$

where,

RR = the response rate, or "the number of complete interviews divided by the number of interviews (complete plus partial) plus the number of non-interviews (refusals and break-offs plus non-contacts plus others) plus all cases of unknown eligibility (unknown if household/occupied HU plus unknown, other)" (American Association for Public Opinion Research, p. 44),

I = the number of completed interviews (a form of an *eligible with response*),

P = the number of partial interviews (a second form of an *eligible with response*),[7]

[7] A survey was designated as "complete" if the respondent answered all questions relating to access, satisfaction, utilization, and health status but may have omitted the demographic and communication questions in the survey. A small percentage of respondents in both the adult (0.5%) and child (1.8%) surveys failed to complete the entire survey, yet responded to a sufficient number of these pre-determined sections of the surveys to consider their disposition as "complete."

R = the number of refusals or break-offs (forms of an *eligible, non-response*; a refusal "consists of cases in which some contact has been made with the telephone household and a responsible household member has declined to do the interview;" a break-off is defined as "a refusal sometime after the interview has commenced.") (American Association for Public Opinion Research, p. 13),
NC = the number of non-contacts (a second form of an *eligible, non-response*; includes "cases in which the [telephone] number is confirmed as an eligible household, but the selected respondent is never available or only a telephone answering device is reached with only its message confirming a residential household.") (American Association for Public Opinion Research, p. 14),
O = the number of other cases (a third form of an *eligible, non-response*; "other cases represent instances in which there is a respondent who did not refuse the interview, but no interview is obtainable. They include: a) death; b) the respondent's physical and/or mental inability to do an interview; c) language problems; d) sound quality too poor/intermittent; e) location/activity not permitting an interview; and f) miscellaneous other reasons.") (American Association for Public Opinion Research, p. 15),
UH = the number of cases of unknown household/occupied housing unit (a form of *unknown eligibility, non-interview*; cases "include situations in which it is not known if an eligible residential household exists at the sampled telephone number and those in which such a household exists, but it is unknown whether an eligible respondent resides there.")[8] (American Association for Public Opinion Research, p. 15). Examples include: "a) always busy; b) no answer; c) a telephone answering message (e.g. voicemail or a telephone answering machine) that does not conclusively indicate whether the number is for a residential household or not; d) call-screening, call-blocking, or other telecommunication technologies that create barriers to getting through to a number; e) technical phone problems, e.g., phone circuit overloads, bad phone lines, phone company equipment switching problems, etc.; and f) ambiguous operator's messages that do not make clear whether the number is associated with a household or not." (American Association for Public Opinion Research, p. 16),
UO = the number of cases of " a miscellaneous other category [that] should be used for highly unusual cases in which the eligibility of the [phone] number is undetermined and which do not clearly fit into one of the above designations." Examples include "a case in which a number dialed is answered but not by a responsible adult" or "a case in which not enough information is gathered to ascertain eligibility." (American Association for Public Opinion Research, p. 17).

Given the inclusion of each of these terms in the denominator of the response rate equation, it is clear that this formula is likely to lead to low response rates.[9]

Using the formula described above, the response rates calculated for the adult and child surveys were 34.8% and 36.6%, respectively. A large proportion of these figures is explained by the high refusal rate of 30.1% in the adult survey and 24.9% in the child survey, respectively. Fortunately, recent research suggests that surveys that can only obtain data on a small proportion of subjects included in a sample are still accurate representations of the underlying population so

[8]Multiple calls (≤10) were made before giving up on numbers that no one answered.
[9] It should be noted that the following situations are NOT included in the denominator of the response rate equation: non-working or disconnected numbers, dedicated fax or data lines, and special technological circumstances such as pagers.

long as there is no systematic bias determining who responds and who does not (Groves, 2006; Keeter et al., 2006; Stang and Jockel, 2004; Triplett, 2008; but see contrary evidence in Holle et al., 2006). Appendix H summarizes the final disposition codes for all cases of the adult and child surveys.

Data Analysis

Analysis of the quantitative data was conducted using IBM Statistical Package for the Social Sciences (SPSS) Statistics version 20.0 PC software. Most of the survey questions are formulated to generate nominal or ordinal-level data, but several questions produced interval/ratio-level responses. Examples of such interval/ratio-level data are the responses to the questions that ask about the number of doctor or emergency room visits.[10]

The Chi-square test was used to detect the overall statistical significance of the cross-tabulations. A statistical significance level of 0.05 was used after all "no response" or "don't know" answers were eliminated from the data.[11] In the case of evaluating the statistical significance of a specific cell within a table, the *adjusted residual* was employed by SPSS. Values of the adjusted residual can be interpreted "roughly as z-scores (look for values well below -2 or above +2) to identify cells that depart markedly from the model of independence" (SPSS Inc., 1999, p. 70-71). All of the survey questions, including those without statistically significant differences in the answers, and the corresponding frequencies of survey responses appear in Appendix F.

Chapter 3 reports the survey results by grouping the questions according to whether their focus is principally on access to care, satisfaction with care, health status, or utilization of care. These groupings become the section headings that organize the discussion in Chapter 4. Two other categories of questions, trust in the health care system and survey items relating to preferred communication modes and computer proficiency and use, are reported in a separate, forthcoming report. The trust and communication questions differ from the other four categories by reflecting the respondent's personal opinions.

In reporting the "Results" after grouping the questions by type, the authors begin by stating the question and providing the frequencies for each of its possible, multiple-choice answers without any analysis by independent variables. This form of univariate analysis is followed by providing bivariate analyses, where we cross-tabulate each question with the "demographic " variables (sex, race, dual-eligibility status, and age in the adult survey and sex, ethnicity, language and age in the child survey) and the "context" variables of CCNC care network, urbanicity of residence, and region of the state. Sufficient numbers of children were identified as "Hispanic" by the adult respondent to permit race to include ethnicity ("non-Hispanic whites," "non-Hispanic blacks," "Hispanics" and "other"). The adult survey respondents were much more homogenous with regards to ethnicity. Therefore, ethnicity was not considered in the analysis of the adult survey. However, the respondent's race was considered and included three values – white, black, and other. The adult population also included large numbers of "dual-eligible" Medicaid recipients, who received both Medicare and Medicaid.

[10] As a practical matter, Clearwater Research, Inc. programmed a maximum value of 30 visits into the CATI software questionnaire for these questions. Thus, in the highly unlikely event that the number of visits exceeded 30 in a six-month period, it is possible that the value of the ratio-level variable could be upper-censored at 30.

[11] A 0.05 significance level means that in 19 out of 20 times reported differences are most likely due to genuine differences in objective reality rather than random chance due to the fact that a sample is being used to generalize to a much larger population. Of course, probability dictates that in 1 of 20 analyses the results are due to chance variation in the data and its collection and do not indicate a genuine difference.

Because dual eligibles typically suffer from serious chronic illness or disability, identifying that population in the analysis allows readers to judge whether those adults who are sicker experience Medicaid differently from those who are not designed by this proxy for chronic illness.

In the chapters that follow we present only those bivariate analyses that show significant differences at the 0.05 level. Readers wishing to find the number of valid responses used in each analysis, the percentage giving each answer, and a summary of the significant bivariate relationships should also consult the appendices.

PART II

THE ADULT SURVEY

To provide a more coherent structure in presenting the findings, the research team grouped the questions into the categories of access, satisfaction, health status, and utilization, which are discussed in that order in each chapter that reports survey findings. The categories are somewhat loose and a number of questions overlap two or more categories. Sometimes we found it more meaningful to include a question in one group or another, because the survey had created a series of interrelated questions. Often whether a respondent was even asked a question depended on the answer to a prior question. (This relationship is sometimes termed the "skip pattern" in a survey.)

As was the case in Part I, Part II also contains 2 chapters. Chapter 3 reports how respondents answered every CAHPS question on the survey and illustrates the answers in a simple graph. That introduction to each question is followed by the presentation of all statistically significant differences (at the $p < 0.05$ level) that emerged when the answers to that question are examined by each of the individual demographic variables (age, gender/sex, race, dual eligibility status) and context variables (CCNC network to which the enrollee belongs, the degree of urbanicity of the county where the respondent lives, and the region of the state of respondent's residence). Each of the graphs is denoted with a unique figure number preceded by AA, AS, AHS, AU indicting that the graph represents findings of adult access, satisfaction, health status or utilization. It should be noted that only 03.9% of respondents self-identified as Hispanics (Appendix F, q79). The small number of adult Hispanic respondents made it impossible to examine responses by this measure of ethnicity.

The concluding chapter in Part II discusses the analysis and interpretation of the results of the adult survey. The only questions that have been omitted from consideration in *Policy Report 14* are the computer use and trust questions. Those questions were not part of the CAHPS instrument; they were added by the UNC Charlotte research team to capture information of particular interest to North Carolina Medicaid officials. The analysis and reporting of results of those questions will appear in a forthcoming volume.

3 RESULTS OF THE ADULT SURVEY

Access

In spite of the fact that access to the health care system is an absolutely necessary component in health care utilization, access to health care is seldom a focus of researchers when investigating health outcomes. Access has traditionally been operationalized in one of two ways: either characteristics of the delivery system (i.e. how many primary care physicians or hospitals exist in the system) or a patient's utilization or satisfaction rates as they encounter the delivery system (Aday & Andersen, 1974). According to Aday and Andersen (1974), these measures allow for "external validation" of both systemic and individual characteristics that affect access (p. 209).

Table AA-1. Access Questions

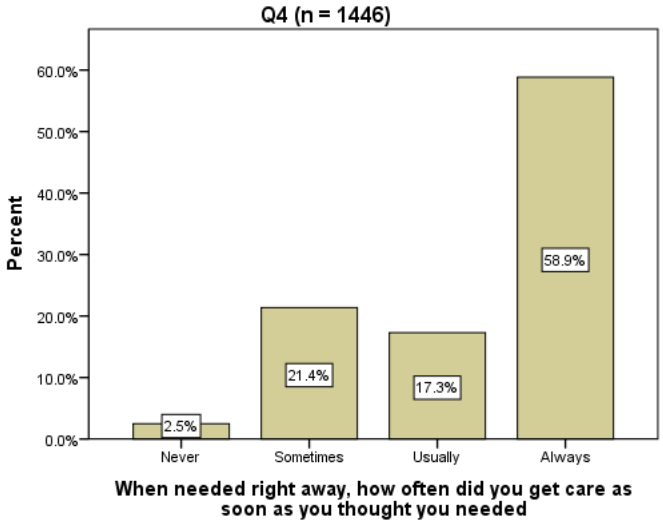
No.	Question
q4	In the last 6 months, when you needed care right away, how often did you get care as soon as you thought you needed?
q5	In the last 6 months, not counting the times you needed care right away, did you make any appointments for your health care at a doctor's office or clinic?
q6	In the last 6 months, not counting the times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?
q11	In the last 6 months, how often was it easy to get the medical equipment you needed through your health plan?
q13	In the last 6 months, how often was it easy to get the special therapy you needed through your health plan?
q15	In the last 6 months, how often was it easy to get home health care or assistance through your health plan?
q18	In the last 6 months, how often was it easy to get the treatment or counseling you needed through your health plan?
q19	An interpreter is someone who repeats or signs what one person says in a language used by another person. In the last 6 months, did you need an interpreter to help you speak with doctors or other health providers?
q20	In the last 6 months, when you needed an interpreter to help you speak with doctors or other health providers, how often did you get one?
q21	A personal health provider is the doctor or nurse who knows you best. This can be a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant. Your personal health provider is the one you would see if you need a check-up, want advice about a health problem, or get sick or hurt. Do you have a personal health provider?
q22	Is this person a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant?
q23	How many months or years have you been going to your personal health provider?
q36	In the last 6 months, did anyone from your doctor's office, clinic, or CAROLINA ACCESS/MEDICAID help coordinate your care from other health providers who were not your personal health provider?

q39	In the last 6 months, when you phoned after regular office hours, how often did you get the help or advice you needed?
q41	Did you have the same personal health provider before you joined CAROLINA ACCESS or MEDICAID?
q42	Since you joined CAROLINA ACCESS or MEDICAID, how often was it easy to get a personal health provider you are happy with?
q50	Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care. In the last 6 months, did you try to make any appointments to see a specialist?
q51	In the last 6 months, how often was it easy to get appointments with specialists?
q55	In the last 6 months, was the specialist you saw most often the same doctor as your personal doctor?
q56	In the last 6 months, did you try to get any kind of care, tests, or treatment through your health provider or health plan?
q57	In the last 6 months, how often was it easy to get the care, tests, or treatment you thought you needed through your health provider or health plan?
q58	In the last 6 months, did you try to get information or help from office staff at your health provider or health plan?
q63a	In the last 6 months, if you needed transportation help from a non-family member to get to a medical appointment or to get a prescription filled, did you get it?
q63b	In the last 6 months, if you needed transportation help from a non-family member to get to a medical appointment or to get a prescription filled, how often did you get it?
q65	In the last 6 months, how often was it easy to get your prescription medicine from your health plan?
q66	In the last 6 months, how often did you get the prescription medicine you needed through your health plan?

Timeliness of Care

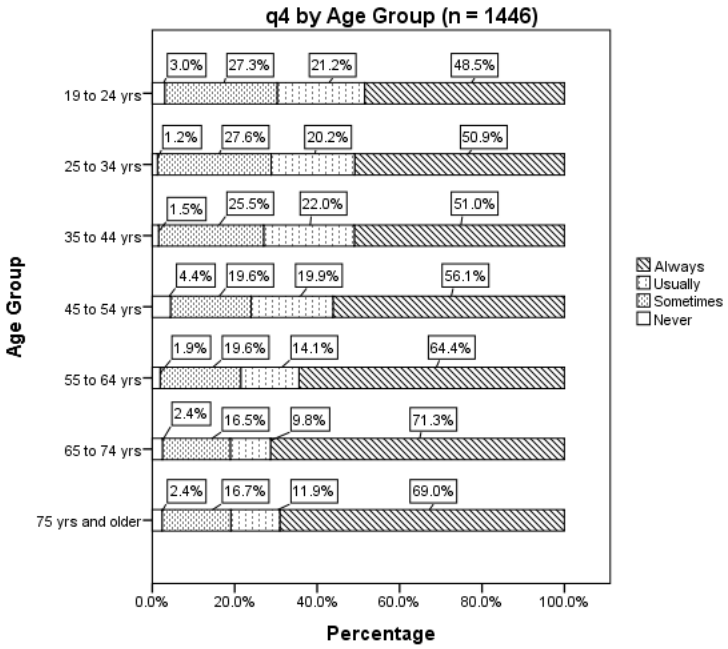
Most (58.9%) of the total number of adults responding to survey question #4 (n = 1446) reported that when they needed care right away they "always" got it. By contrast, 17.3%, 21.4%, and 2.5%, of respondents, respectively reported that they "usually," "sometimes," or "never" got care as soon as they thought they needed it (see Figure AA-1).

Figure AA-1. In the last 6 months, when you needed care right away, how often did you get care as soon as you thought you needed?



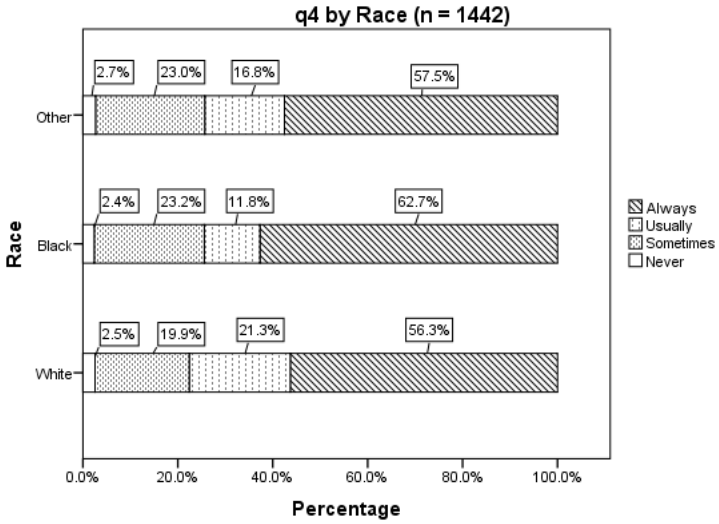
There was statistically significant variation between the various age groups with respect to whether or not they received care as soon as they thought they needed it when they needed care right away. Compared to the other age groups, those in the 45-to-54 year age group reported in larger proportions that they "never" received care as soon as they thought that they needed it when they needed care right away. On the other hand, those in the 65-to-74 year age group had the largest percentage of respondents reporting that they "always" received care as soon as they thought they needed it (see Figure AA-2).

Figure AA-2. In the last 6 months, when you needed care right away, how often did you get care as soon as you thought you needed?



There was also statistically significant variation amongst the races. A majority of Whites (56.3%), Blacks (62.7%), and "other" races (57.5%) responded that they "always" received care as soon as they thought they needed it. Whites reported in larger numbers that they "usually" received care as soon as they thought they needed it when they needed care right away while Blacks had the smallest percentage of respondents who stated that they "usually" received care as soon as they thought they needed it (see Figure AA-3).

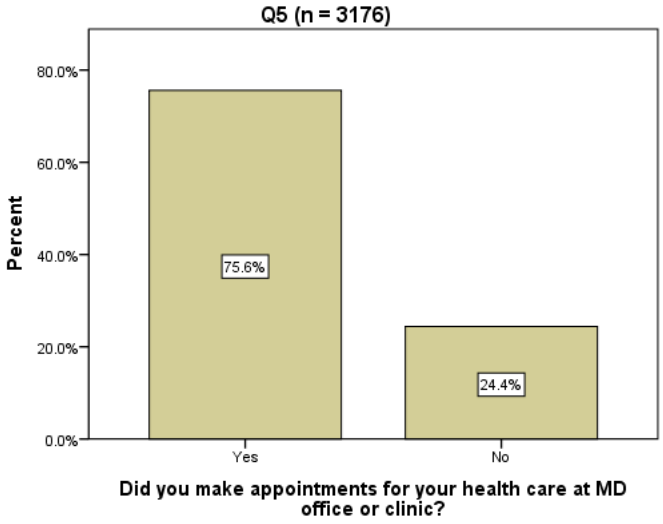
Figure AA-3. In the last 6 months, when you needed care right away, how often did you get care as soon as you thought you needed?



Making Appointments

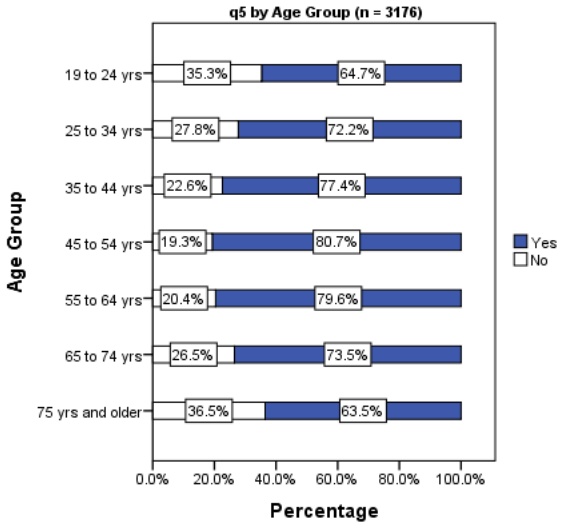
Overall, the vast majority (75.6%) of the total number of respondents to survey question #5 (n = 3176) made appointments for health care at a doctor's office or clinic in the 6 months preceding the survey (see Figure AA-4).

Figure AA-4. In the last 6 months, not counting the times you needed care right away, did you make any appointments for your health care at a doctor's office or clinic?



There was significant variation between the different age groups regarding whether or not they made appointments for health care at a doctor's office or clinic in the 6 months preceding the survey. Those in the age groupings 19 to 24 years of age and 75 years of age and older made appointments for health care at a doctor's office or clinic in smaller proportions than other age groups. On the other hand, those in the age groupings 45 to 54 years of age and 55 to 64 years of age made appointments for health care at a doctor's office or clinic in larger numbers (see Figure AA-5).

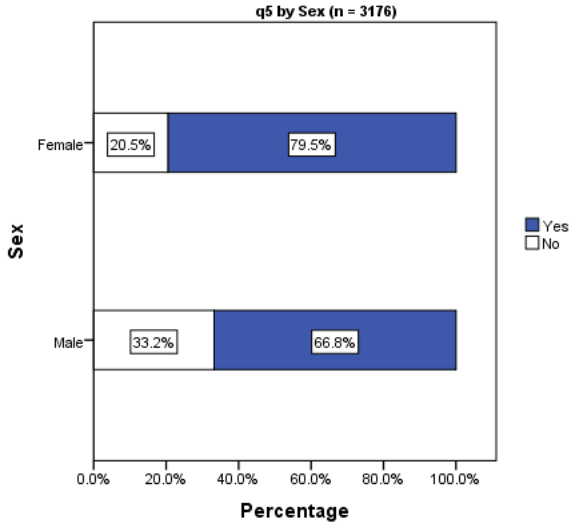
Figure AA-5. In the last 6 months, not counting the times you needed care right away, did you make any appointments for your health care at a doctor's office or clinic?



There was also significant variation between the sexes regarding whether or not respondents made appointments for health care at a doctor's office or clinic in the 6 months preceding the survey. While most males (66.8%) and females (79.5%) made appointments for

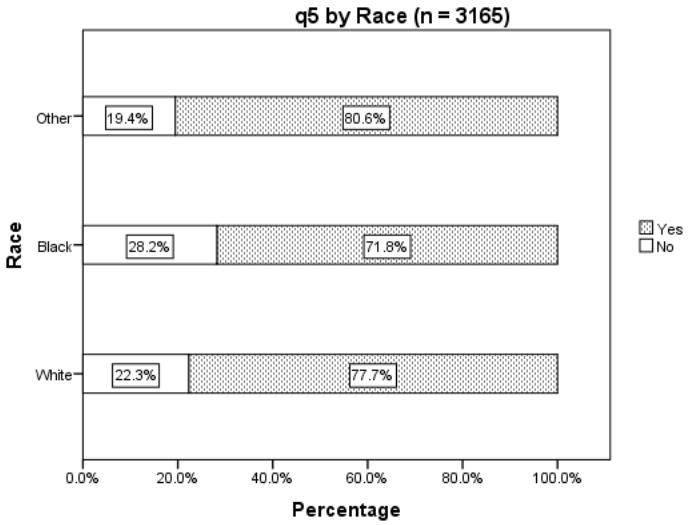
health care, the proportion of males who did so was significantly less than the percentage of females (see Figure AA-6).

Figure AA-6. In the last 6 months, not counting the times you needed care right away, did you make any appointments for your health care at a doctor's office or clinic?



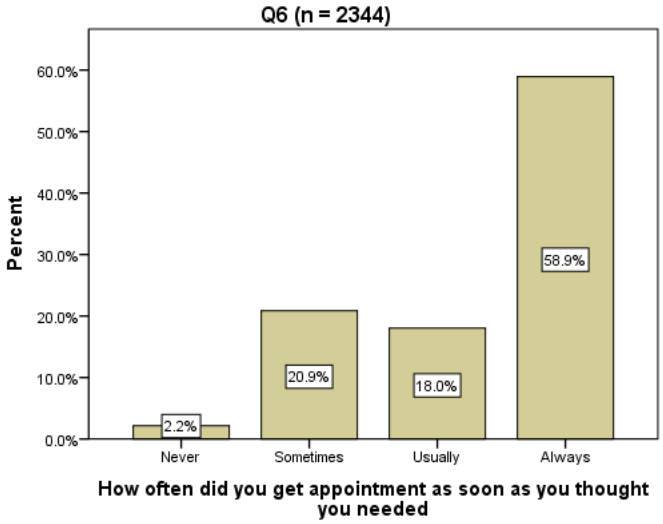
There was also significant variation in terms of the respondent's race as to whether or not they made appointments for health care at a doctor's office or clinic in the 6 months preceding the survey. Compared to white or "other" race respondents, the percentage of Blacks who reported that they made appointments for health care at a doctor's office or clinic was less (see Figure AA-7).

Figure AA-7. In the last 6 months, not counting the times you needed care right away, did you make any appointments for your health care at a doctor's office or clinic?



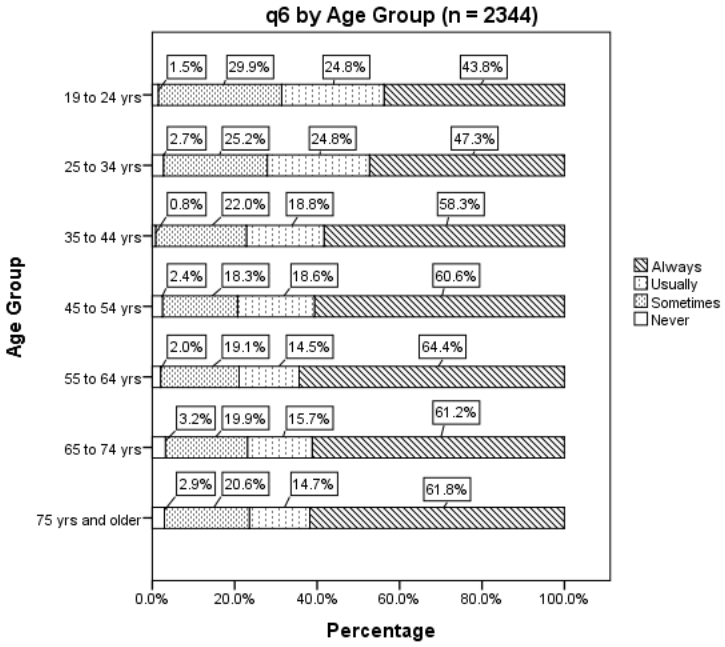
Most (58.9%) of the total number of respondents to survey question #6 (n = 2344) "always" got an appointment for health care at a doctor's office or clinic as soon as they thought they needed compared to 18%, 20.9%, and 2.2%, respectively, of respondents who "usually," "sometimes," and "never" got an appointment for health care at a doctor's office or clinic as soon as they thought they needed (see Figure AA-8).

Figure AA-8. In the last 6 months, not counting the times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?



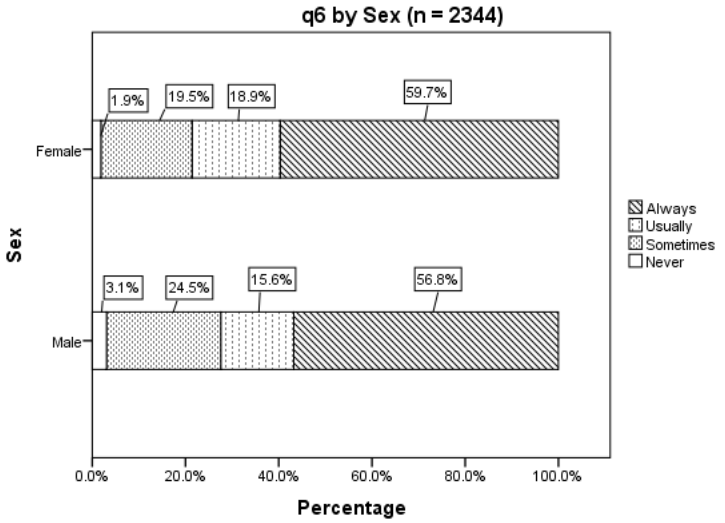
There was significant variation between the age groups of the survey respondents and their responses to q6. Compared to other age groups, those in the 19 to 24 year old grouping responded in greater numbers that they "sometimes" got an appointment as soon as they thought they needed one while reporting in smaller numbers that they "always" got an appointment as soon as they thought they needed one. Meanwhile, those aged 55 to 64 reported that they "usually" got an appointment as soon as they thought they needed one in considerably smaller proportions than respondents in the other age groupings (see Figure AA-9).

Figure AA-9. In the last 6 months, not counting the times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?



There was also significant variation in the responses in terms of the sex of the survey participants and their responses to q6. While the majority of both males (56.8%) and females (59.7%) responded that they always got an appointment as soon as they thought they needed it, males reported in greater proportions (24.5% vs. 19.5%) that they "sometimes" got an appointment for health care as soon as they thought they needed it compared to females (see Figure AA-10).

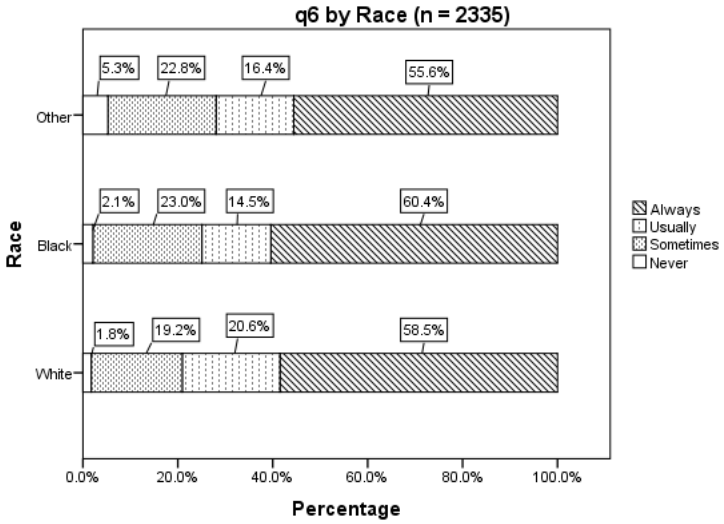
Figure AA-10. In the last 6 months, not counting the times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?



The responses of survey respondents of different races to question #6 also resulted in statistically significant variation. Whites responded in larger numbers that they "usually" got an

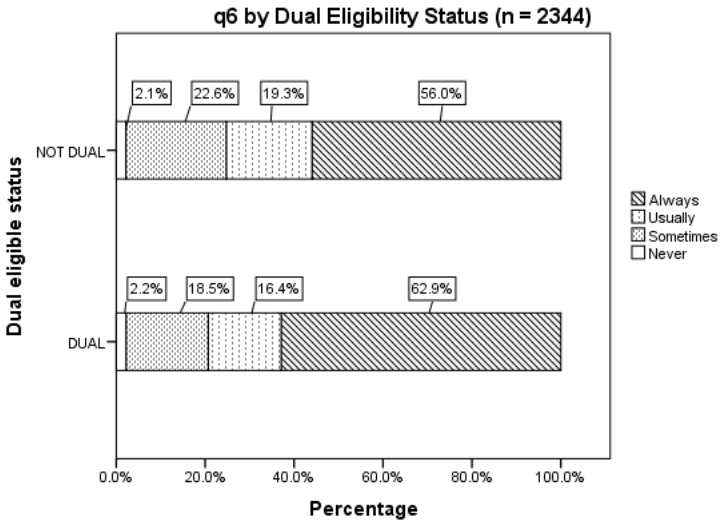
appointment for health care as soon as they thought they needed it while blacks indicated in smaller proportions that they got this appointment as soon as they thought they needed it. Those in the "other" racial category claimed that they "never" got an appointment as soon as they thought they needed it in significantly larger percentages than Whites or Blacks (see Figure AA-11).

Figure AA-11. In the last 6 months, not counting the times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?



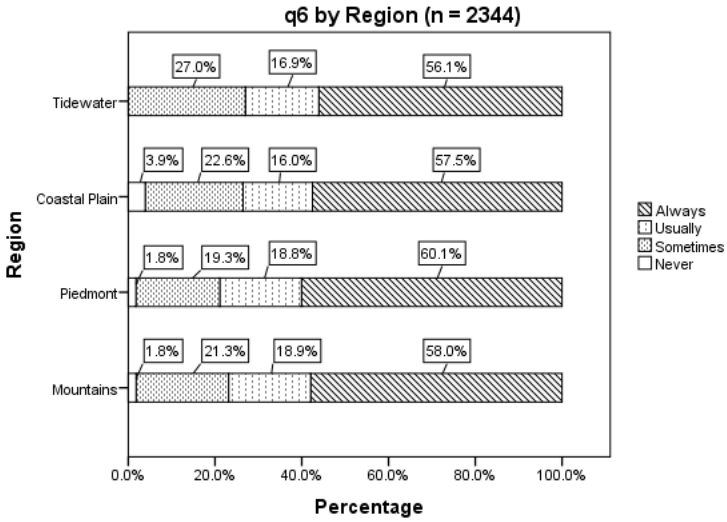
While the majority of both dually eligible (62.9%) and non-dually eligible (56.0%) respondents got an appointment for their health care at a doctor's office or clinic as soon as they thought they needed it, there was statistically significant variation between the responses based on their dual eligibility status (see Figure AA-12).

Figure AA-12. In the last 6 months, not counting the times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?



There was also variation between the responses of survey respondents in the various regions of North Carolina. The percentage of respondents in the Coastal Plain region (3.9%) who reported that they "never" got an appointment for health care as soon as they thought they needed was greater than that for respondents from the Mountain (1.8%), Piedmont (1.8%), or Tidewater (0.0%) regions (see Figure AA-13). This observation was statistically significant.

Figure AA-13. In the last 6 months, not counting the times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?

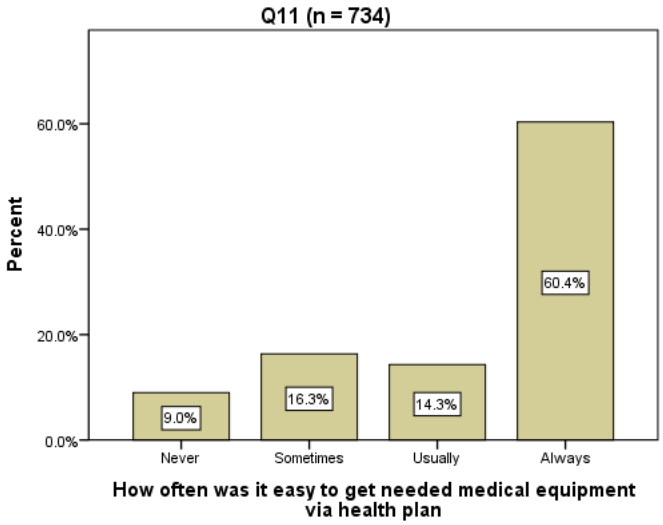


Ease of Getting Care, Tests, or Treatment

Overall, the majority (60.4%) of the total number of respondents who answered survey question #11 (n = 734) found that it was "always" easy to get needed medical equipment through their health plan in the six months preceding the survey compared to 14.3%, 16.3%, and 9.0%,

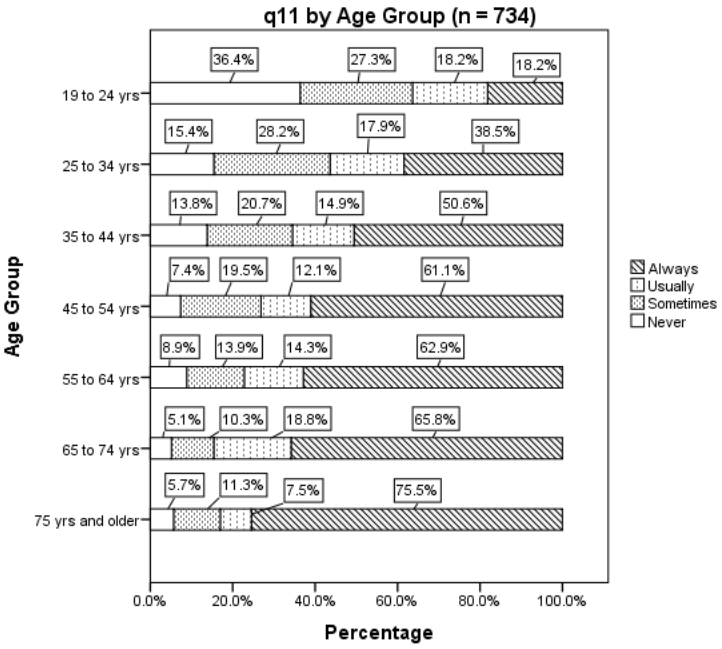
respectively, who found it “usually” easy, “sometimes” easy, and “never” easy to get needed medical equipment through their health plan. (see Figure AA-14).

Figure AA-14. In the last 6 months, how often was it easy to get the medical equipment you needed through your health plan?



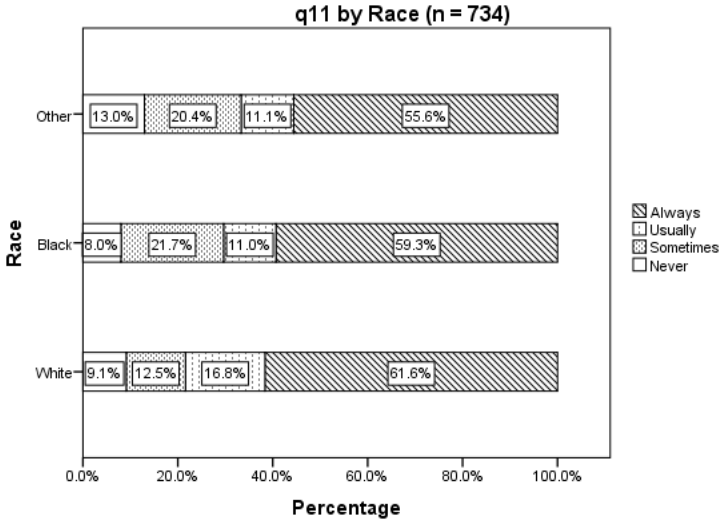
There was statistically significant variation between the various age groups regarding the ease with which they were able to get necessary medical equipment via their health plan. Compared to other age groups, adult respondents aged 19 to 24 years had the largest proportion (36.4%) of enrollees who reported that it was “never” easy to get necessary medical equipment via their health plan (see Figure AA-15). By contrast, the percentage of enrollees age 65 and older who indicated that it was “never” easy to get necessary medical equipment via their health plan was quite small (< 6%).

Figure AA-15. In the last 6 months, how often was it easy to get the medical equipment you needed through your health plan?



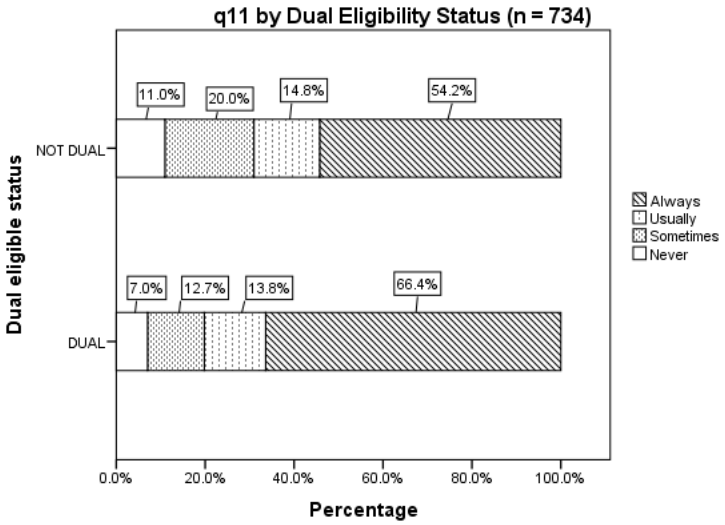
There was also significant variation in terms of the race of survey respondents and their responses to q11. The percentage of White adults (12.5%) who responded that it was "sometimes" easy to get necessary medical equipment via the health plan was significantly less than the percentages associated with blacks (21.7%) and other races (20.4%) (see Figure AA-16). In terms of those who indicated that it was "never" easy to get necessary medical equipment via the health plan, the experience of whites and blacks was similar (9.1% and 8.0%, respectively), but different from the experience of respondents categorized as "other race" (13.0%).

Figure AA-16. In the last 6 months, how often was it easy to get the medical equipment you needed through your health plan?



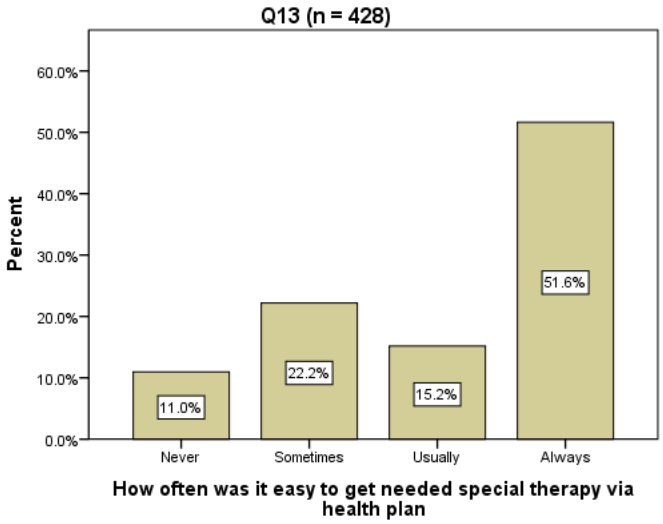
Lastly, there was statistically significant variation between respondents based on the respondent's dual eligibility status (see Figure AA-17). Nearly two-thirds (66.4%) of dual eligible individuals indicated that it was "always" easy to get medical equipment via the health plan while only 54.2% of non-dual eligible individuals reported that it was "always" easy.

Figure AA-17. In the last 6 months, how often was it easy to get the medical equipment you needed through your health plan?



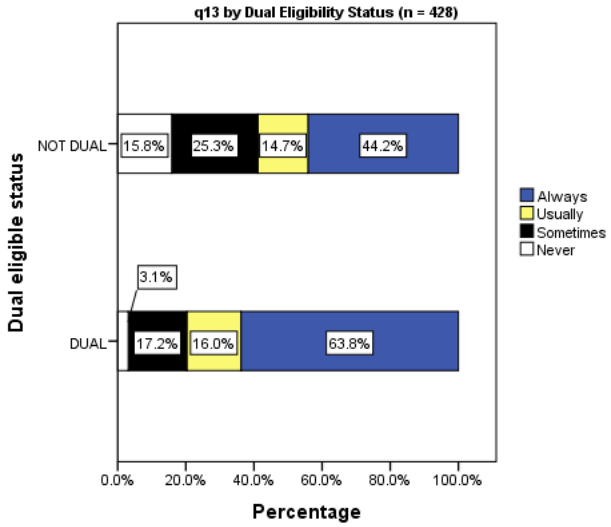
Overall, the majority (51.6%) of the total number of respondents to survey question #13 (n = 428) who needed special therapy found that it was "always" easy to get this therapy through their health plan in the six months preceding the survey. By contrast, 15.2%, 22.2%, and 11.0%, respectively, found it "usually" easy, "sometimes" easy, and "never" easy to get special therapy through their health plan in the six months preceding the survey (see Figure AA-18).

Figure AA-18. In the last 6 months, how often was it easy to get the special therapy you needed through your health plan?



There was significant variation in the responses of adult enrollees to question #13 based on their dual eligible status. Adults who were dually eligible reported in significantly greater numbers (63.8%) that it was "always" easy to get necessary special therapy via their health plan compared to those who were not in the dual eligible group (44.2%). By the same token, the proportion (3.1%) of dual eligible adults who indicated that it was "never" easy to get special therapy was significantly less than the proportion (15.8%) of those who were only eligible for Medicaid (see Figure AA-19).

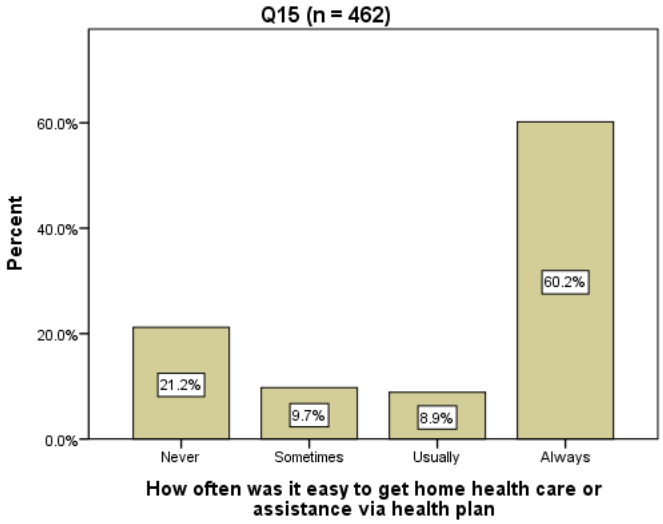
Figure AA-19. In the last 6 months, how often was it easy to get the special therapy you needed through your health plan?



Home Health Care

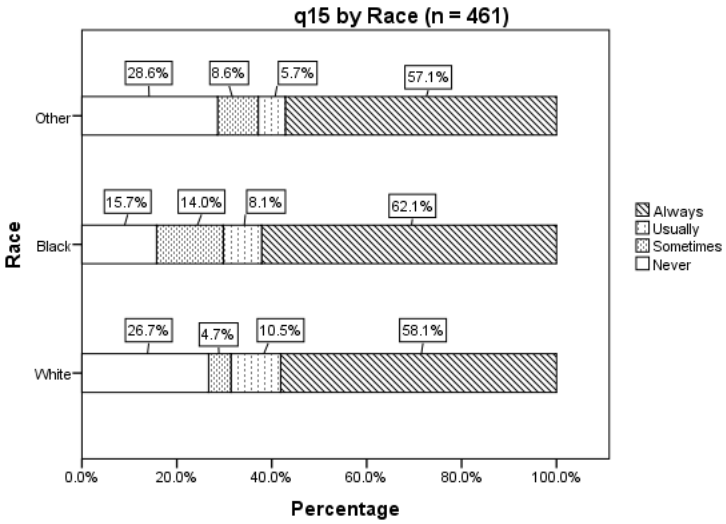
Overall, the majority (60.1%) of the total number of respondents to survey question #15 (n = 461) found that it was "always" easy to get home health care or assistance through their health plan in the six months preceding the survey compared to the 8.9%, 9.8%, and 21.3%, respectively, who found it "usually" easy, "sometimes" easy, and "never" easy to get home health care or assistance (see Figure AA-20).

Figure AA-20. In the last 6 months, how often was it easy to get home health care or assistance via your health plan?



There was significant variation in responses to question #15 based on the respondent's race. Compared to blacks, whites reported that they "never" received home health care or assistance in larger numbers. Specifically, 26.7% of whites reported that they "never" received this type of care via the health plan compared to just 15.7% of blacks. As a result, the percentage of blacks reporting that they "sometimes" received home health care or assistance was significantly greater than the percentage of whites reporting that they "sometimes" received this care (14.0% vs. 4.7%, respectively) (see Figure AA-21).

Figure AA-21. In the last 6 months, how often was it easy to get home health care or assistance via your health plan?

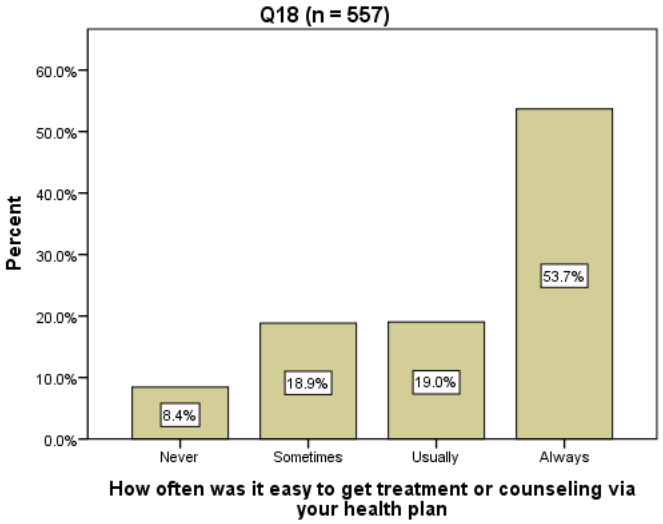


Ease of Getting Treatment or Counseling

Most (53.7%) of the total number of respondents to survey question #18 (n = 557) who needed treatment or counseling via their health plan found that it was "always" easy to get it compared to just 19.0%, 18.9%, and 8.4%, respectively, who found that it was "usually,"

"sometimes," and "never" easy to get it. There were no statistically significant bivariate relationships associated with the ease of getting treatment or counseling via the health plan (see Figure AA-22).

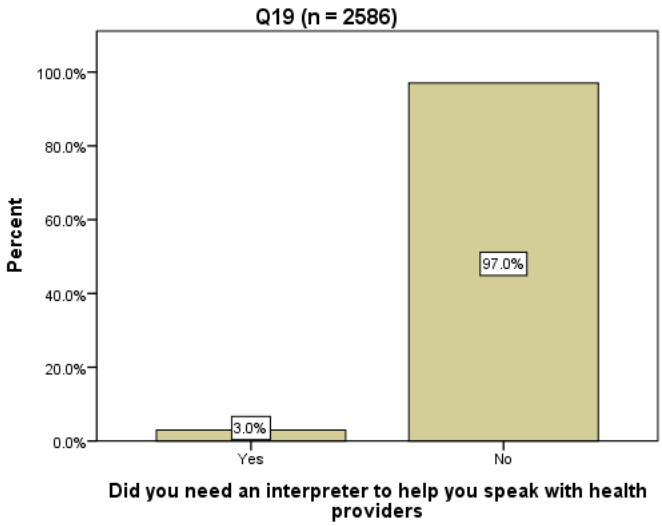
Figure AA-22. In the last 6 months, how often was it easy to get the treatment or counseling you needed through your health plan?



Use of an Interpreter

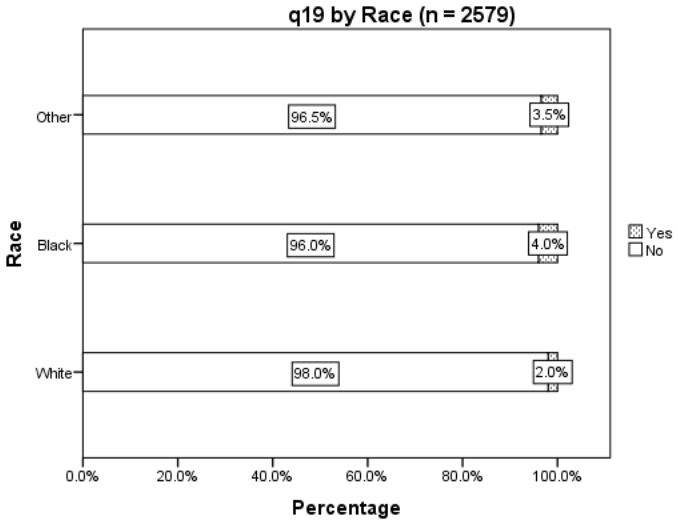
Overall, the vast majority (97.0%) of respondents to survey question #19 (n = 2586) did not need an interpreter to help them speak with health providers in the six months preceding the survey (see Figure AA-23).

Figure AA-23. In the last 6 months, did you need an interpreter to help you speak with doctors or other health providers?



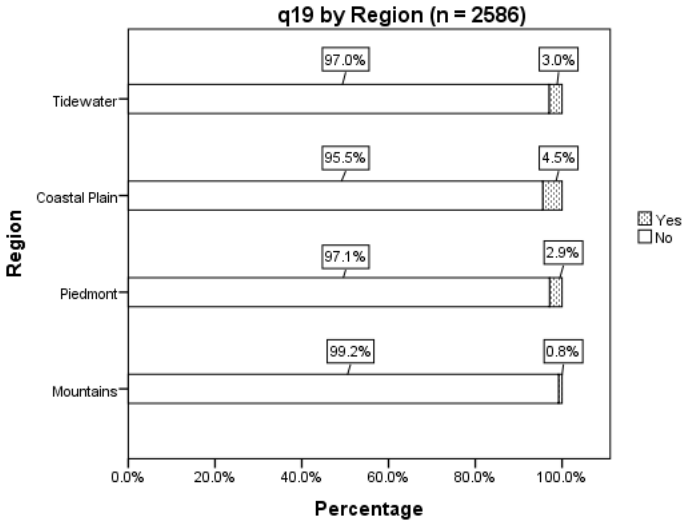
Although the margin was small, there was significant variation in responses to question #19 based on the respondent's race. A larger percentage of blacks (4.0%) reported that they had need for an interpreter to speak with their health provider compared to whites (2.0%). The percentage of adults in the "other" race category needing an interpreter fell between that of white and blacks at 3.5% (see Figure AA-24).

Figure AA-24. In the last 6 months, did you need an interpreter to help you speak with doctors or other health providers?



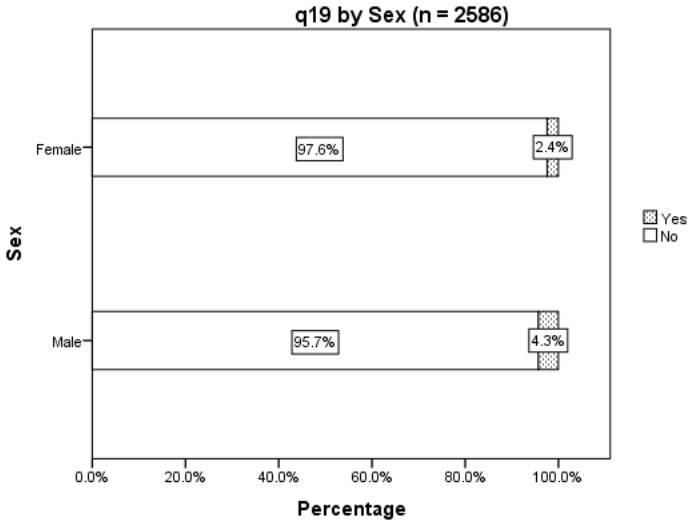
There was also significant variation in responses to question #19 based on the region of North Carolina where the respondent lived. Specifically, only 0.8% of respondents from the Mountain region reported needing an interpreter to speak with their health provider while the percentage of respondents needing an interpreter from the Piedmont, Tidewater, and Coastal Plain regions was 2.9%, 3.0%, and 4.5%, respectively (see Figure AA-25).

Figure AA-25. In the last 6 months, did you need an interpreter to help you speak with doctors or other health providers?



Despite the relatively small margin, the variation in response to question #19 based on the respondent's sex was also statistically significant. The percentage (4.3%) of male enrollees reporting that they needed an interpreter to help them speak with their health providers was nearly double that of female enrollees (2.4%) (see Figure AA-26).

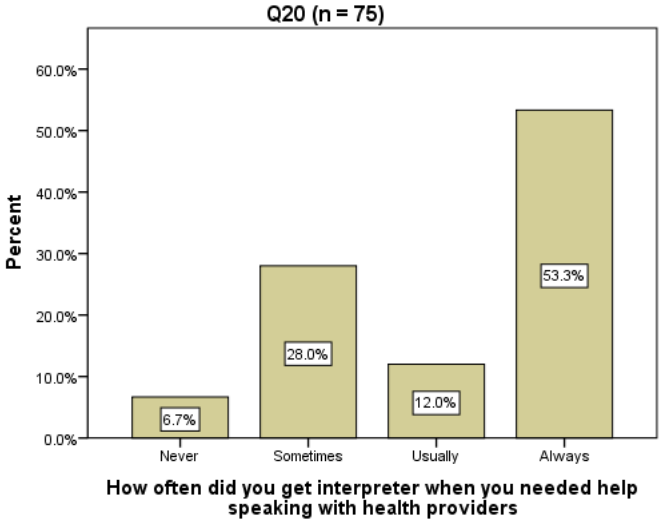
Figure AA-26. In the last 6 months, did you need an interpreter to help you speak with doctors or other health providers?



Most (53.3%) of the total number of respondents needing an interpreter (n = 75) were "always" able to get this service. By contrast, 12.0%, 28.0%, and 6.7%, respectively, of respondents were "usually," "sometimes," and "never" able to get an interpreter when they needed help speaking with health providers (see Figure AA-27). There were no statistically significant bivariate relationships associated with the ability to get an interpreter. However, the fact that the 46.7% of the people reporting a need for interpreting services experience at least

some difficulty in meeting that need suggests a real problem in the effective delivery of care to Medicaid recipients who may not be able to communicate well in English.

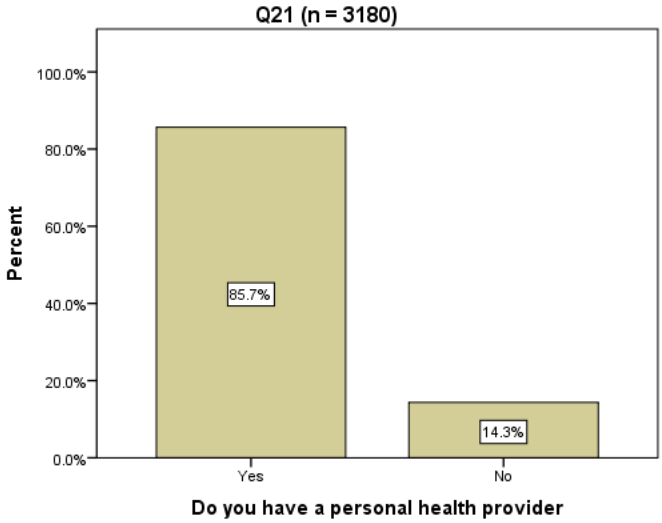
Figure AA-27. In the last 6 months, when you needed an interpreter to help you speak with doctors or other health providers, how often did you get one?



Personal Health Provider

Most (85.7%) of the adult respondents who responded to survey question #21 (n = 3180) reported that they had a personal health provider while 14.3% responded that they did not have a personal health provider (see Figure AA-28).

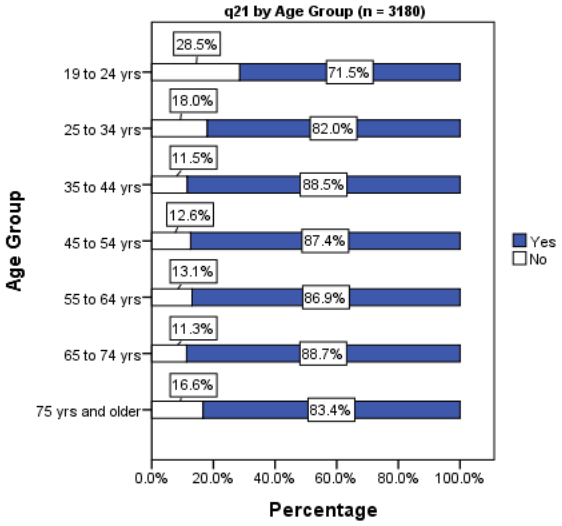
Figure AA-28. Do you have a personal health provider?



There were significant differences in whether or not adults reported that they had a personal health provider based on age. Individuals aged 19 to 24 years old responded that they

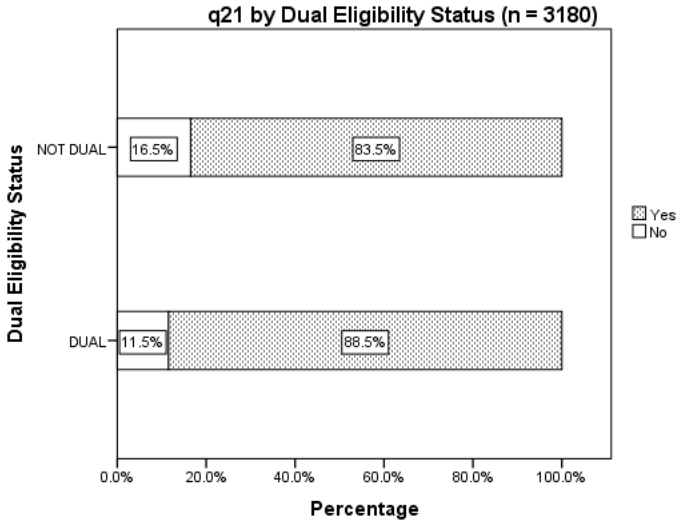
did not have a personal health provider in greater numbers than all other groups (see Figure AA-29).

Figure AA-29. Do you have a personal health provider?



In terms of dual eligibility, adult respondents who were dually eligible for both Medicaid and Medicare indicated in greater numbers that they had a personal health provider compared to those who were eligible for Medicaid alone (88.5% vs. 83.5%) (see Figure AA-30).

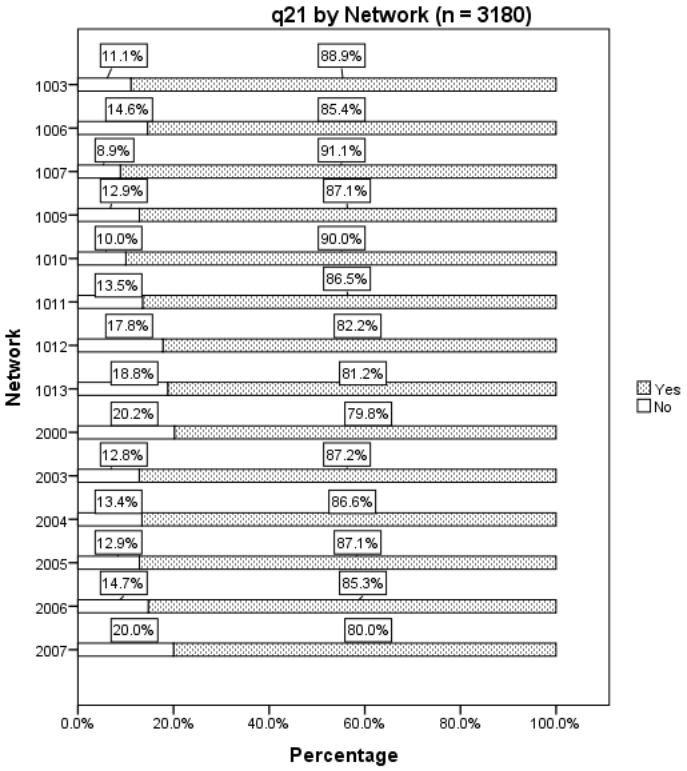
Figure AA-30. Do you have a personal health provider?



There was also significant variation in responses to question #21 based on the enrollee's care network. Respondents in the Community Care of Western North Carolina network (1007) reported the largest percentage (91.1%) of individuals who stated that they had a personal health provider. By contrast, respondents in the Community Care Plan of Eastern Carolina network

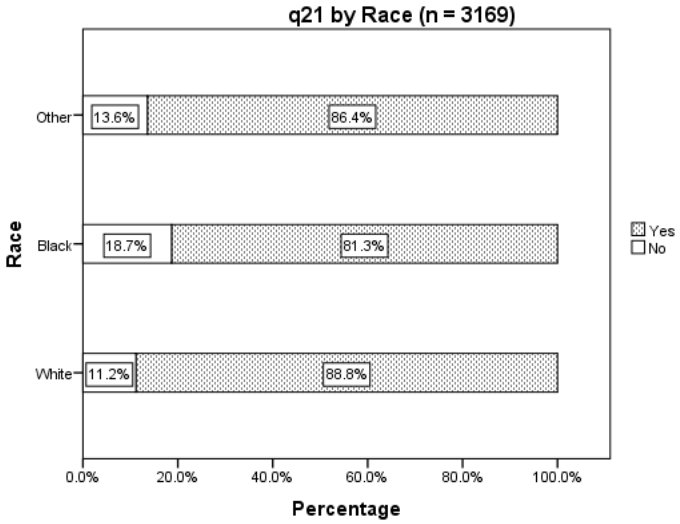
(2000) reported the lowest percentage (79.8%) of individuals claiming that they had a personal health provider (see Figure AA-31).

Figure AA-31. Do you have a personal health provider?



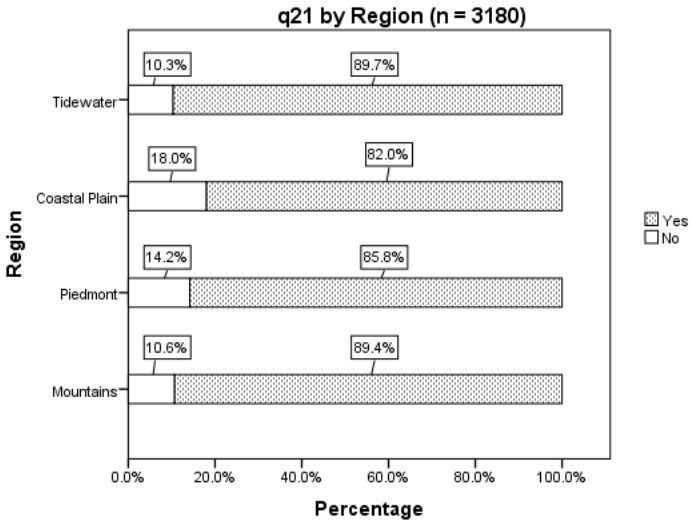
The respondent's race generated significant differences in the responses to question #21. The percentage of respondents in the White subpopulation claiming to have a personal health provider was nearly 89% compared to just 81% in the Black subpopulation. Meanwhile, 86.4% of those classified as "other" race reported that they had a personal health provider (see Figure AA-32).

Figure AA-32. Do you have a personal health provider?



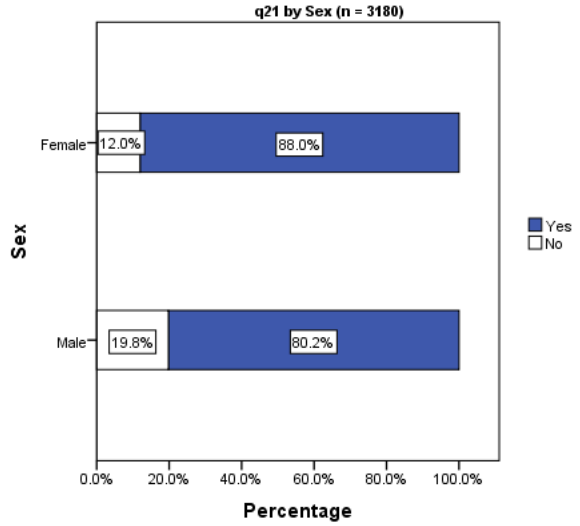
The enrollee's region of residence within the state also resulted in significant differences in responses to survey question #21. Respondents living in the Mountain region had the largest proportion (89.4%) claiming that they had a personal health provider whereas those living in the Coastal Plain had the smallest proportion (82.0%) (see Figure AA-33).

Figure AA-33. Do you have a personal health provider?



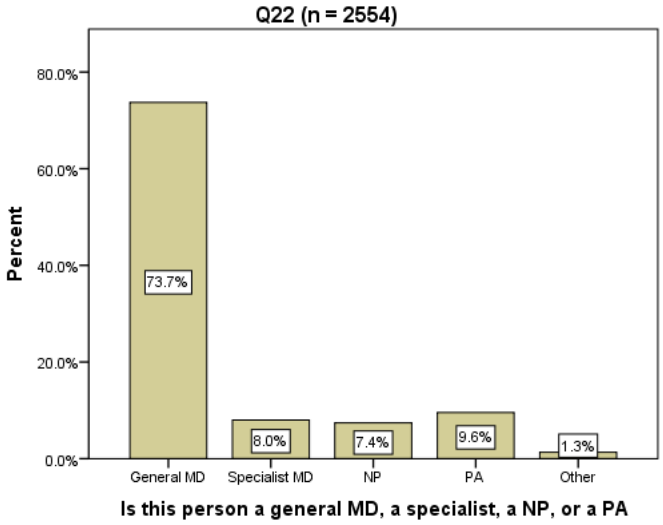
There were differences in the responses to survey question #21 based on the sex of the respondent. The percentage of males (19.8%) who reported that they did not have a personal health provider was significantly greater than that for females (12.0%) (see Figure AA-34).

Figure AA-34. Do you have a personal health provider?



Most (73.7%) of the total number of adult respondents to survey question #22 (n = 2554) saw a general MD as their personal health provider. By comparison, 8.0% of respondents saw a specialist MD, 7.4% saw a nurse practitioner, 9.6% saw a physician's assistant, and 1.3% saw some "other" kind of provider as their personal health provider (see Figure AA-35).

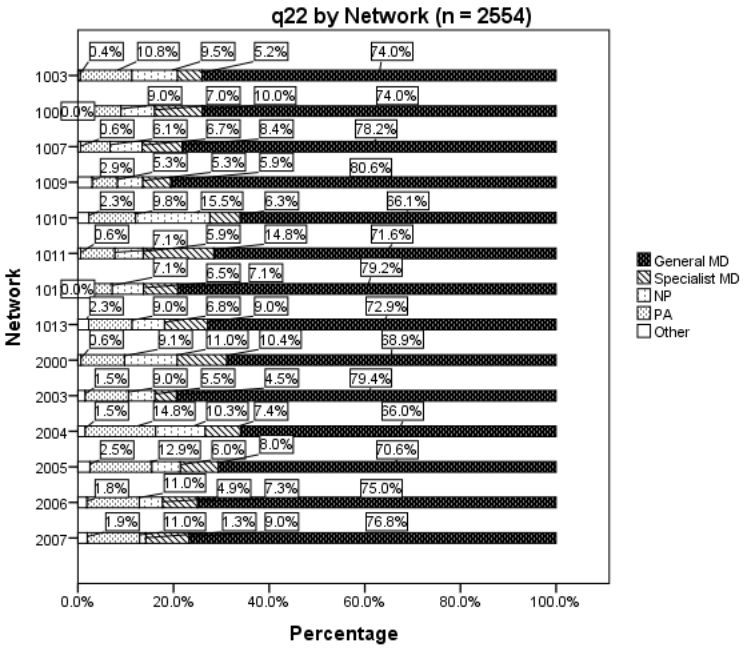
Figure AA-35. Is this person a general MD, a specialist MD, a nurse practitioner, or a physician's assistant?



There were significant differences in the responses to survey question #22 based on the respondent's care network. Respondents in the Community Care of Wake/Johnston Counties network (1011) reported a specialist physician as their personal health provider in greater proportions (14.8%) than respondents from the other care networks. By contrast, the percentage of respondents in the Carolina Community Health Partnership network (1010) who reported that a nurse practitioner was their personal health provider was greater compared to respondents in other care networks. Meanwhile, the percentage of respondents in the Northern Piedmont

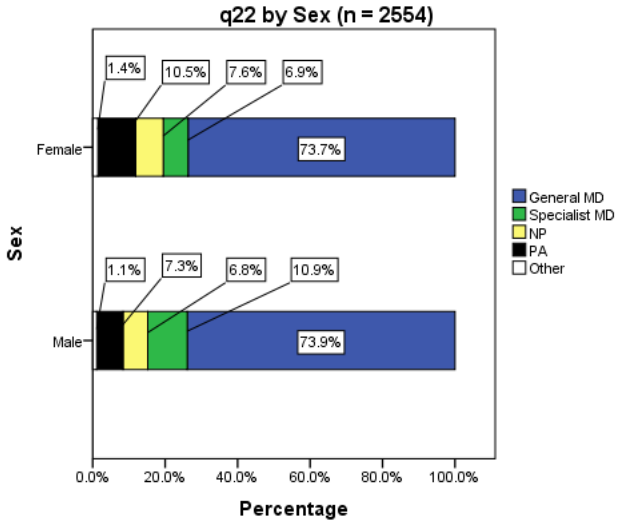
Community Care network (2007) who reported that a nurse practitioner was their personal care provider was lower than for other networks. Finally, enrollees in the Community Care of the Lower Cape Fear network (2004) reported that their personal health provider was a physician's assistant in greater numbers than respondents in all other networks (see Figure AA-36).

Figure AA-36. Is this person a general MD, a specialist MD, a nurse practitioner, or a physician's assistant?



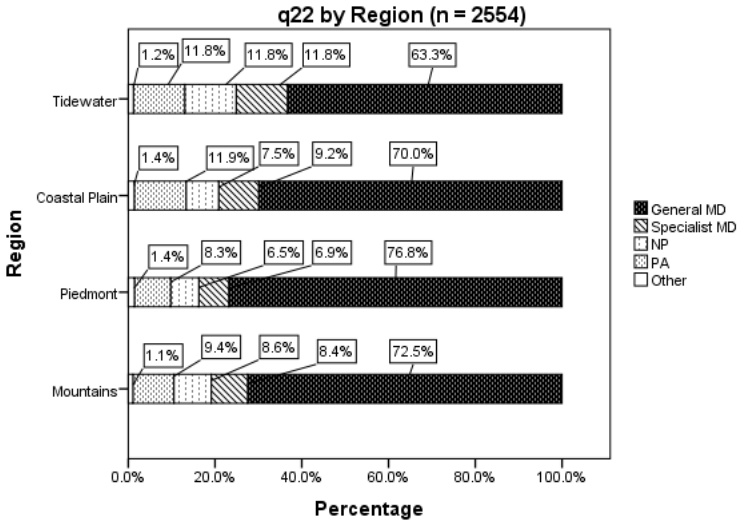
There was also significant variation in responses to question #22 based on the sex of the respondent. Males reported that a specialist physician was their personal health provider in greater numbers than females (10.9% vs. 6.9%). By contrast, males reported that a physician assistant was their personal provider in significantly lower numbers compared to females (7.3% vs. 10.5%) (see Figure AA-37).

Figure AA-37. Is this person a general MD, a specialist MD, a nurse practitioner, or a physician's assistant?



The respondent's region of residence within North Carolina generated differences in responses to question #22. Respondents in the Tidewater region reported that a nurse practitioner was their personal health provider in greater numbers (11.8%) compared to respondents in other regions. This observation was nested within a larger observation that the percentage (36.6%) of respondents claiming that their personal health provider was not a general practitioner was highest in the Tidewater region compared to other regions (see Figure AA-38).

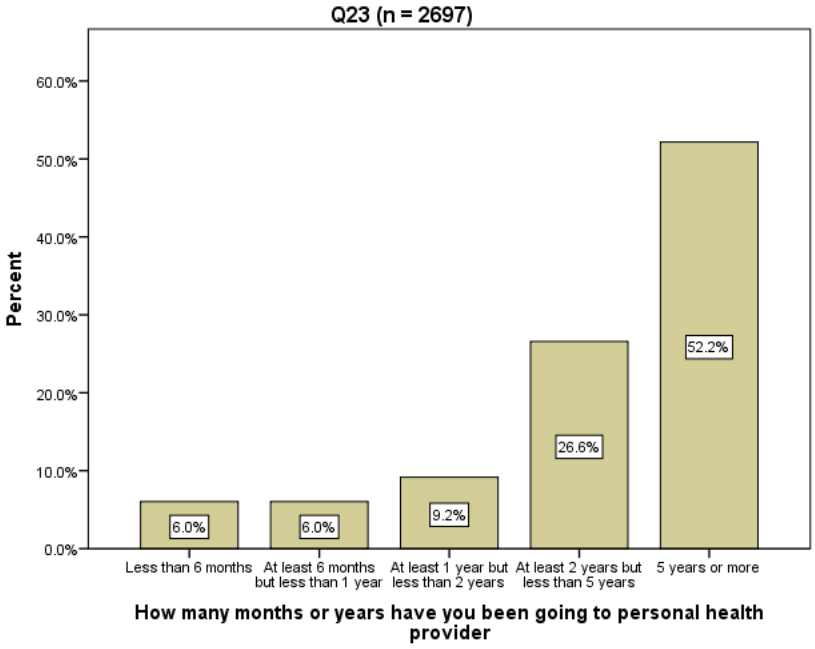
Figure AA-38. Is this person a general MD, a specialist MD, a nurse practitioner, or a physician's assistant?



The majority (52.2%) of the total number of adult respondents to survey question #23 (n = 2697) reported that they had seen their personal health provider for 5 years or more while another 26.2% of respondents reported that they had seen their personal health provider for at least 2 years but less than 5 years. Approximately one-fifth (21.2%) of respondents reported the

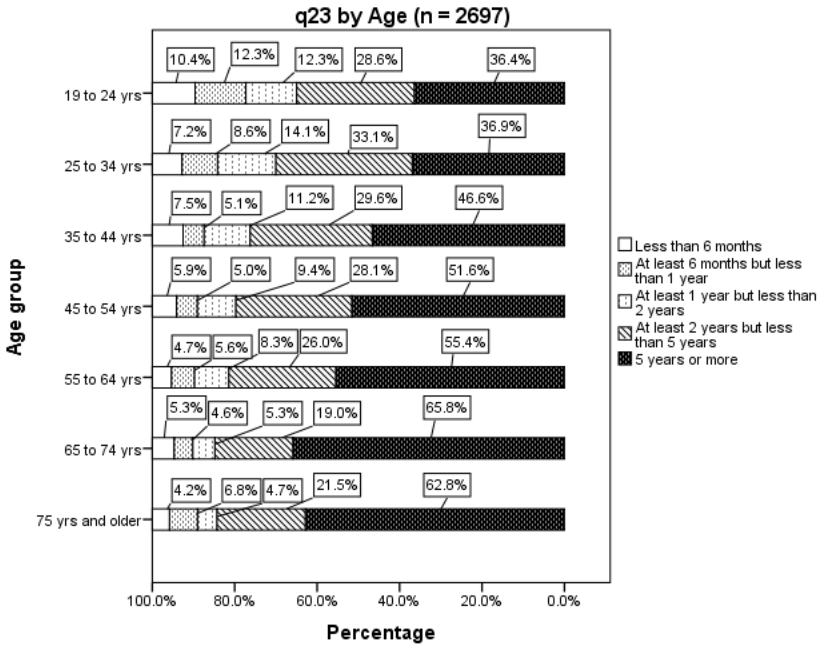
length of their relationship with their personal health provider at less than 2 years (see Figure AA-39).

Figure AA-39. How many months or years have you been going to your personal health provider?



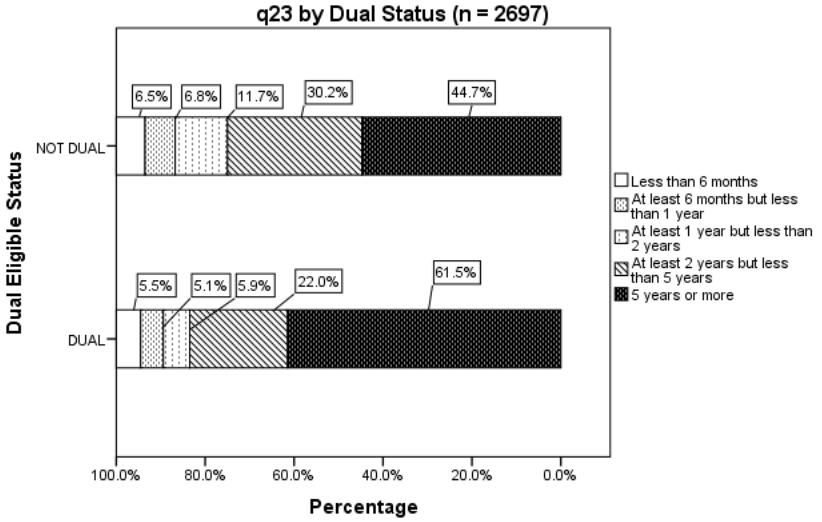
There were significant differences in the amount of time a respondent had seen their personal health provider based on the enrollee's age. Among the youngest respondents (19-to-24 years of age), the percentage (36.4%) of respondents claiming long relationships (5 years or more) with their personal health providers was less than for other age groups. However, as the age interval of respondents increased, the percentage of respondents claiming long relationships gradually increased as well, with nearly two-thirds of respondents aged 65 years or older indicating a long relationship (see Figure AA-40).

Figure AA-40. How many months or years have you been going to your personal health provider?



The respondent's dual eligible status also had a significant effect on responses to question #23. Respondents who were dually eligible for both Medicare and Medicaid reported having seen their personal health provider for 5 years or more in significantly larger numbers (61.5%) than those who were only eligible for Medicaid (44.7%) (see Figure AA-41).

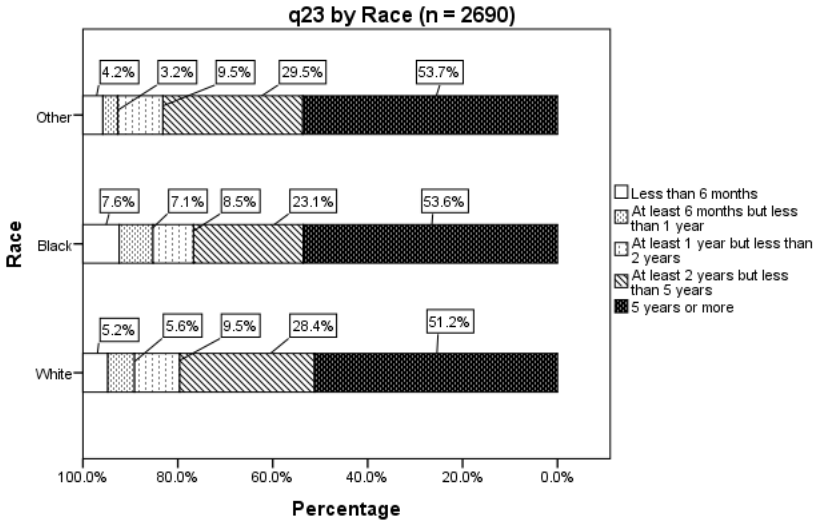
Figure AA-41 How many months or years have you been going to your personal health provider?



The enrollee's race also impacted the amount of time a respondent had been seeing their personal health provider. Black respondents reported long relationships with their providers in slightly larger proportions than white respondents (53.6% vs. 51.2%). Correspondingly, white respondents reported relationships with their personal health provider of 2-to-5 years in larger

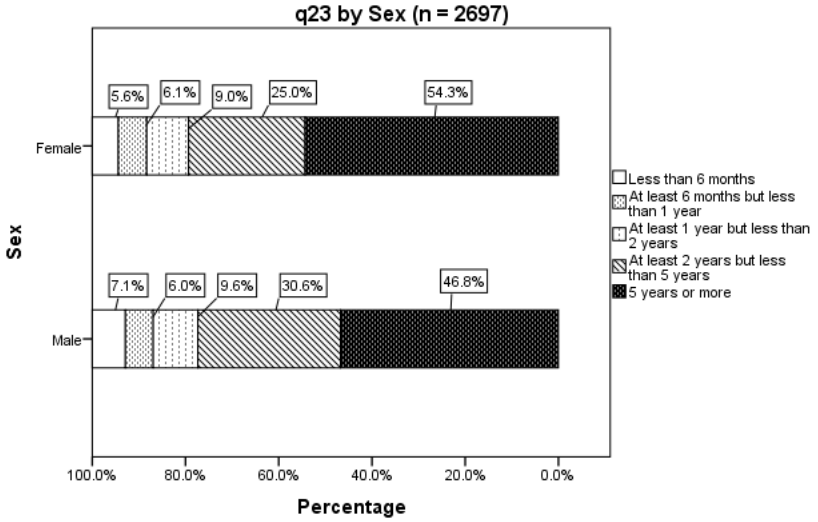
numbers than blacks (28.4% vs. 23.1%). The experience of "other race" respondents was very similar to that of whites. Although the inter-category differentials were small, the relationships were statistically significant (see Figure AA-42).

Figure AA-42. How many months or years have you been going to your personal health provider?



The respondent's sex significantly affected the amount of time a respondent had been seeing their personal health provider. Male respondents reported seeing their personal health provider at least 5 years in lower numbers than females (46.8% vs. 54.3%). On the other hand, male respondents reported a relationship with their personal health provider lasting 2-to-5 years in greater numbers than female respondents (30.6% vs. 25.0%) (see Figure AA-43).

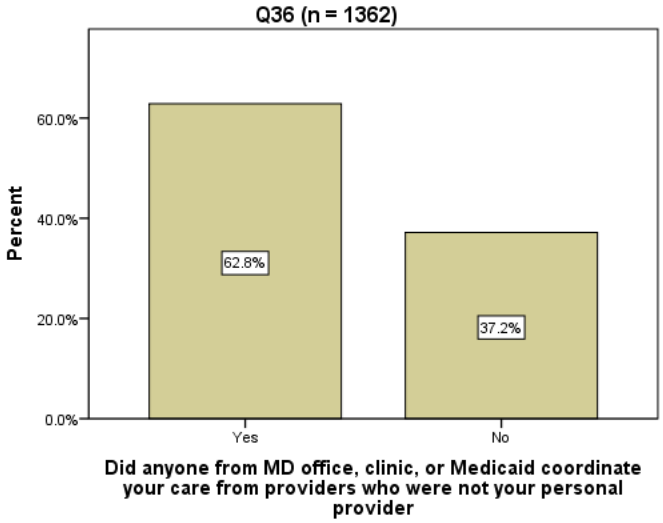
Figure AA-43. How many months or years have you been going to your personal health provider?



Care Coordination

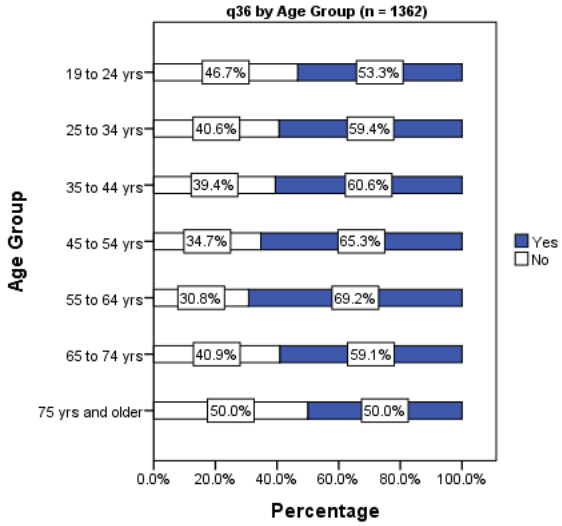
The vast majority (62.8%) of the respondents who answered survey question #36 (n = 1362) experienced care coordination efforts by someone at a physician's office, clinic, or Medicaid that helped them get care from a provider that was not their personal provider (see Figure AA-44).

Figure AA-44. Did anyone from MD office, clinic, or Medicaid coordinate your care from providers who were not your personal provider?



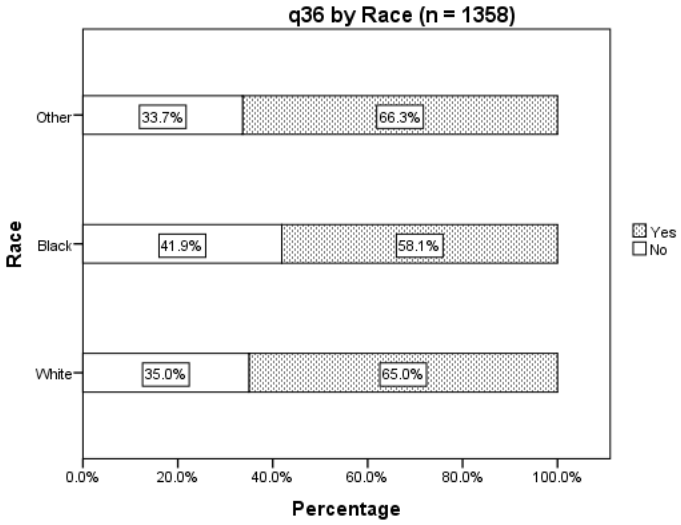
There were statistically significant bivariate differences with respect to the relationship between enrollee age and receipt of these care coordination efforts. Respondents in the 55-to-64 year old group reported that they received this type of care coordination in larger proportions compared to respondents in other age groups. The proportion of respondents claiming that they received this type of coordinated care gradually increased as the age group of the respondents increased, peaking with the 55-to-64 year old cohort, and then gradually decreased for those age groups 65 years old and older (see Figure AA-45).

Figure AA-45. Did anyone from MD office, clinic, or Medicaid coordinate your care from providers who were not your personal provider?



Race was also a significant predictor as to whether or not a respondent received care coordination efforts from someone in their MD's office, clinic, or Medicaid to coordinate care from providers who were not their personal provider. While the majority of respondents of all of the racial subpopulations received care coordination efforts, the proportion was smaller for blacks (58.1%) than that for whites (65.0%) and those in the "other" race category (66.3%) (see Figure AA-46).

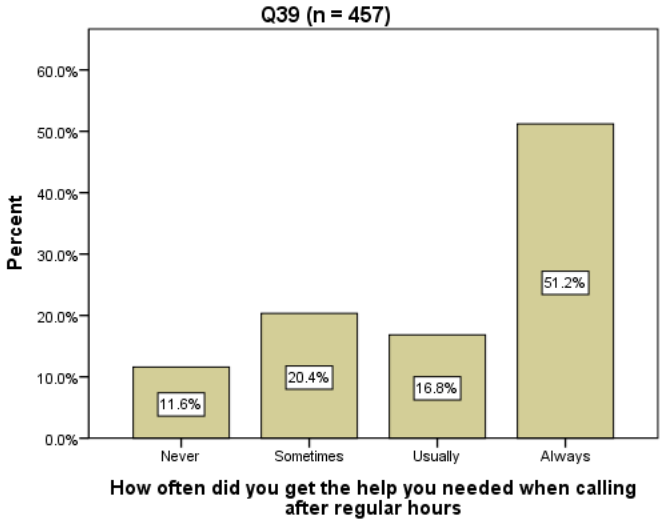
Figure AA-46. Did anyone from MD office, clinic, or Medicaid coordinate your care from providers who were not your personal provider?



After Hours Help

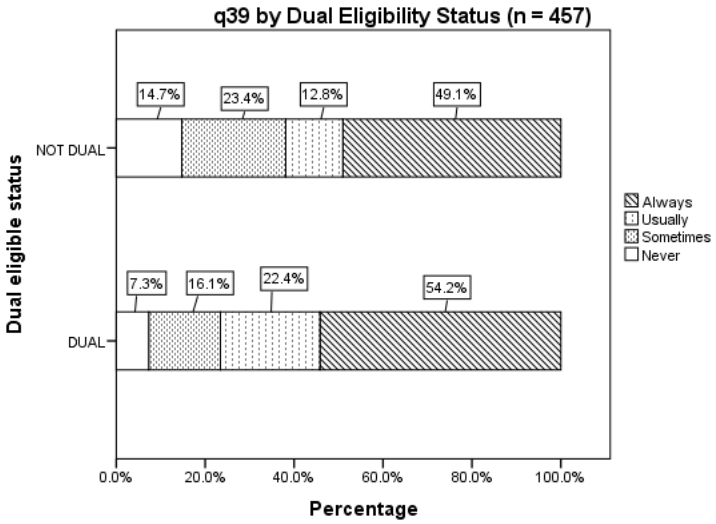
Although very few respondents needed help when calling their personal health provider's office after hours, most (51.2%) of those who did need this help (n = 457) "always" received it. Comparatively, 16.8%, 20.4%, and 11.6%, respectively, indicated that they "usually," "sometimes," and "never" received the help they needed when calling after hours (see Figure AA-47).

Figure AA-47. When you phoned after regular office hours, how often did you get the help or advice you needed?



Dual eligible respondents indicated in greater numbers (54.2%) that they "always" received the help that they needed when calling their personal health provider's office after hours compared to respondents who were only eligible for Medicaid (49.1%). By the same token, the proportion of dual eligibles who reported that they "usually" received this help (22.4%) was also greater than that reported among the Medicaid-only respondents (12.8%). Thus, nearly three-fourths (76.6%) of dual eligibles reported "always" or "usually" receiving after-hours help compared to just 61.9% among respondents only eligible for Medicaid (see Figure AA-48).

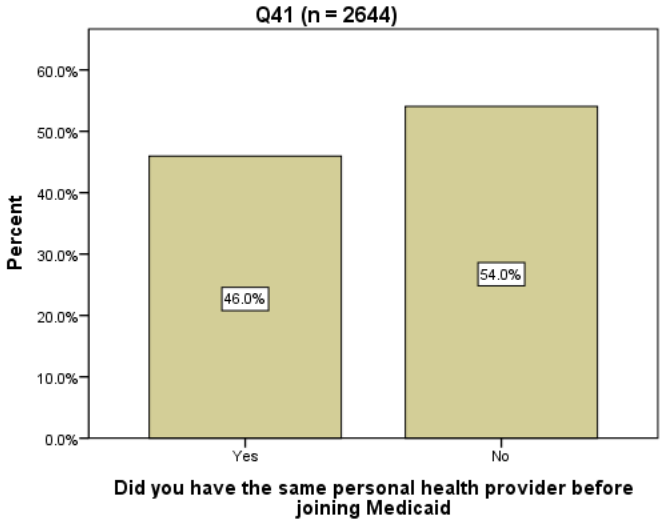
Figure AA-48. When you phoned after regular office hours, how often did you get the help or advice you needed?



Provider Continuity

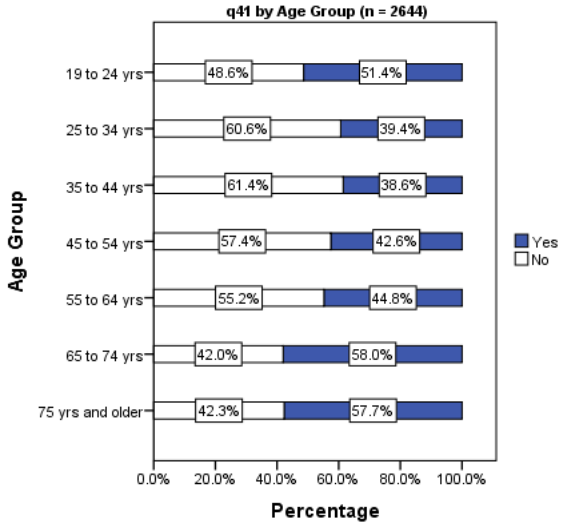
Most (54.0%) of the total number of respondents answering survey question #41 (n = 2644) did not have the same personal health provider at the time of the survey as before they joined Medicaid compared to a little less than half (46.0%) of respondents who did (see Figure AA-49).

Figure AA-49. Did you have the same personal health provider before you joined CAROLINA ACCESS or MEDICAID?



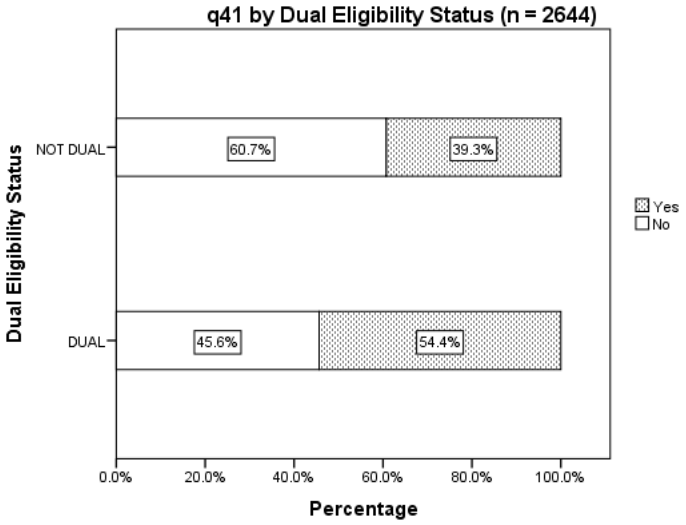
There were significant differences among the various age groups with respect to whether a respondent had the same personal health provider as before they joined Medicaid. Respondents in the 35-to-44 age group stated that they had the same personal health provider at the time of the survey as before they joined Medicaid in lower numbers than respondents in the other age groupings. Conversely, respondents in the oldest age groups (65-to-74 years and 75 years and older) reported in larger numbers that they had the same personal health provider at the time of the survey as they did before they enrolled in Medicaid (see Figure AA-50).

Figure AA-50. Did you have the same personal health provider before you joined CAROLINA ACCESS or MEDICAID?



There were significant differences in the bivariate relationship between dual eligibility status and whether or not a respondent had the same personal health provider at the time of the survey as before they joined Medicaid. Over one-half (54.4%) of dual eligible respondents reported that their personal health provider at the time of the survey was the same as before they joined Medicaid compared to just 39.3% of respondents only eligible for Medicaid (see Figure AA-51).

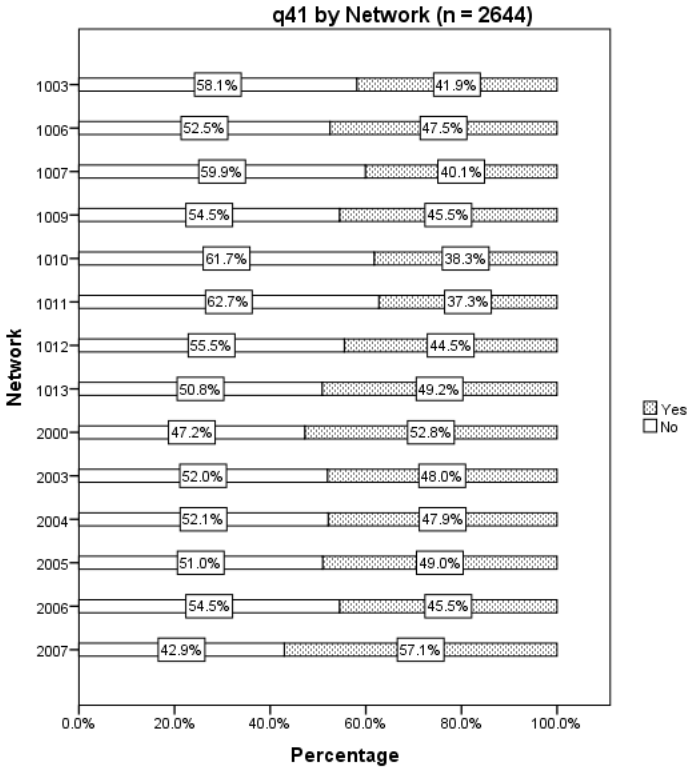
Figure AA-51. Did you have the same personal health provider before you joined CAROLINA ACCESS or MEDICAID?



The enrollee's care network was also associated with variation in terms of whether respondents had the same provider as they did before joining Medicaid. Nearly 6-in-10 (57.1%) respondents enrolled in the Northern Piedmont Community Care network (2007) reported having the same provider as before joining Medicaid than respondents in all other networks while just

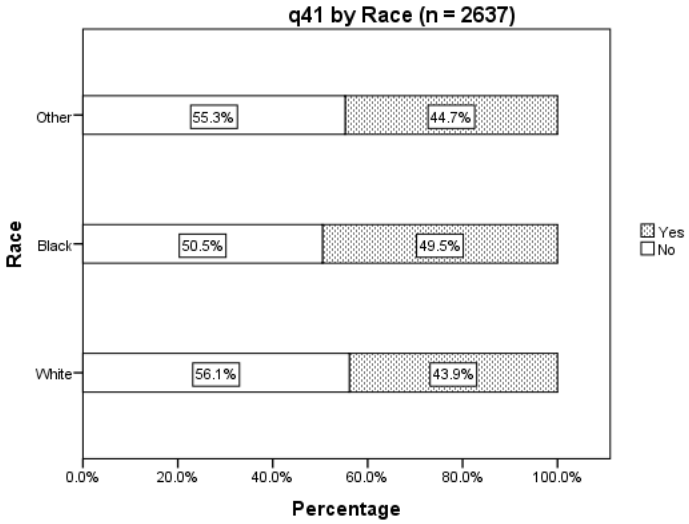
40.1% of the respondents enrolled in the Community Care of Western North Carolina network (1007) reported this to be the case (see Figure AA-52).

Figure AA-52. Did you have the same personal health provider before you joined CAROLINA ACCESS or MEDICAID?



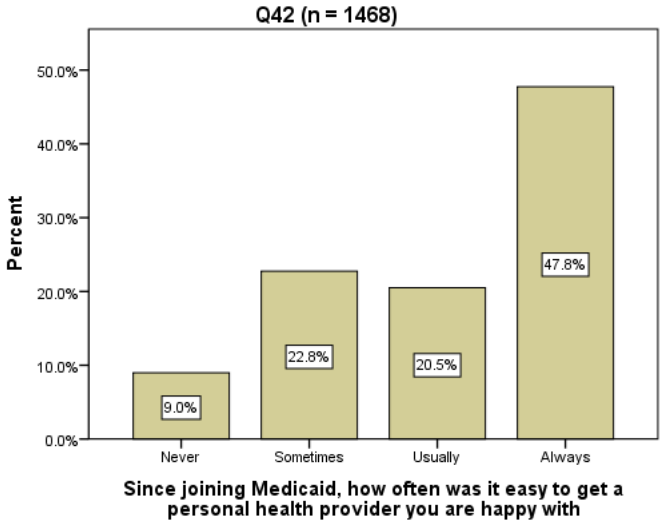
There were also statistically significant differences in the relationship between the enrollee's race and whether a respondent had the same personal health provider as before joining Medicaid by race. While the majority of respondents of all races reported that they did not have the same provider as before joining Medicaid, more blacks (49.5%) than whites (43.9%) and those in the "other" racial category (44.7%) reported that they had the same provider as before they joined Medicaid (see Figure AA-53).

Figure AA-53. Did you have the same personal health provider before you joined CAROLINA ACCESS or MEDICAID?



A plurality (47.8%) of the respondents answering survey question #42 (n = 1468) "always" found it easy to get a personal health provider that they were happy with since joining Medicaid. By comparison, 20.5%, 22.8%, and 9.0%, respectively, found it "usually," "sometimes," and "never" easy to get a personal health provider that they were happy with since joining Medicaid, respectively (see Figure AA-54).

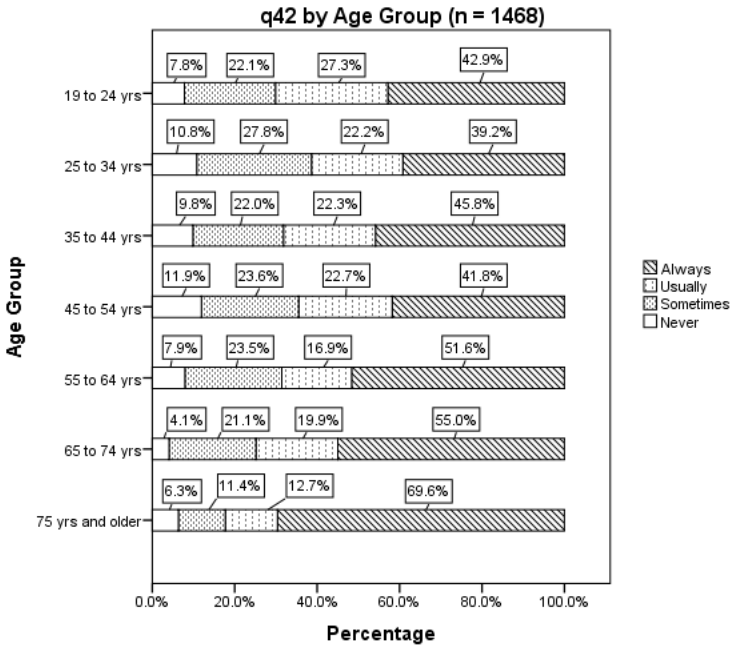
Figure AA-54. Since you joined CAROLINA ACCESS or MEDICAID, how often was it easy to get a personal health provider you are happy with?



The age group of the respondent generated variation in responses as to how often a respondent was able to find a personal health provider that they were happy with. Generally speaking, the percentage of respondents reporting that they "always" found it easy to find a personal health provider that they were happy with increased as the age of the respondent increased. For instance, the percentage of respondents in the youngest age groupings (19-to-34

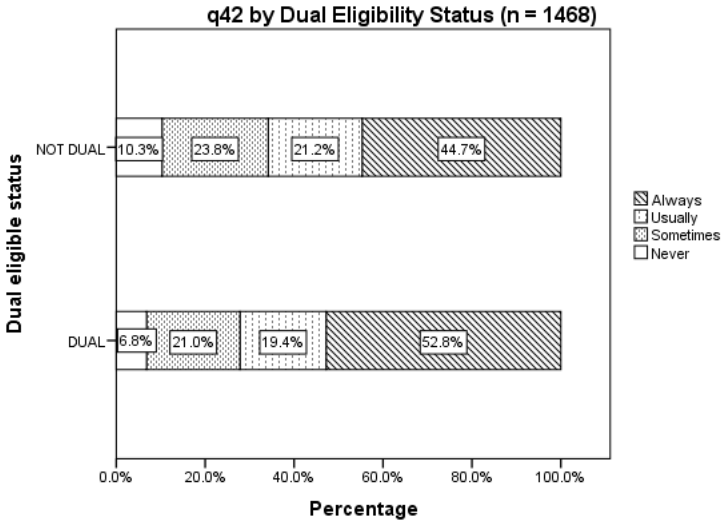
years of age) who "always" found it easy hovered around 40% compared to nearly 70% of respondents in the 75-year old and older group who "always" found it easy (see Figure AA-55).

Figure AA-55. Since you joined CAROLINA ACCESS or MEDICAID, how often was it easy to get a personal health provider you are happy with?



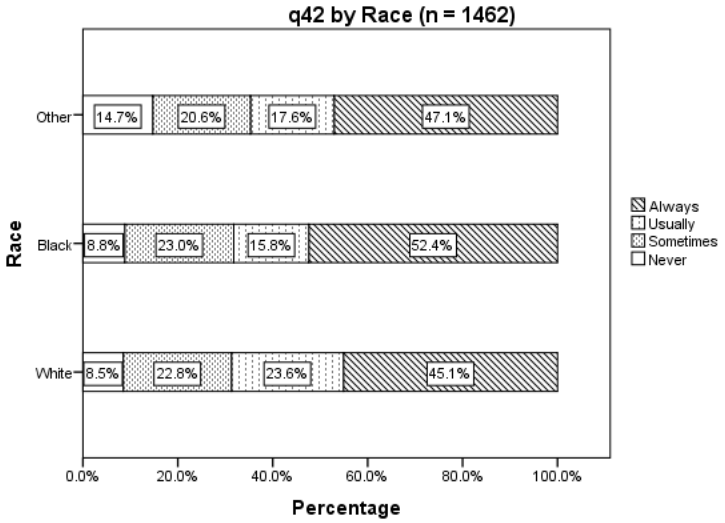
Respondents who were dually eligible for both Medicaid and Medicare reported in greater proportions (52.8%) that they "always" found it easy to get a personal health provider that they were happy with compared to those respondents who were only eligible for Medicaid (44.7%) (see Figure AA-56).

Figure AA-56. Since you joined CAROLINA ACCESS or MEDICAID, how often was it easy to get a personal health provider you are happy with?



There were also significant differences in how often respondents found it easy to get a personal health provider that they are happy with based on race. Black respondents reported that it was "always" easy in the greatest numbers (52.4%), but white respondents reported that it was "usually" easy in the greatest numbers (23.6%). However, when considering the sum of the "always" and "usually" percentages, there was little difference between white and black respondents (see Figure AA-57).

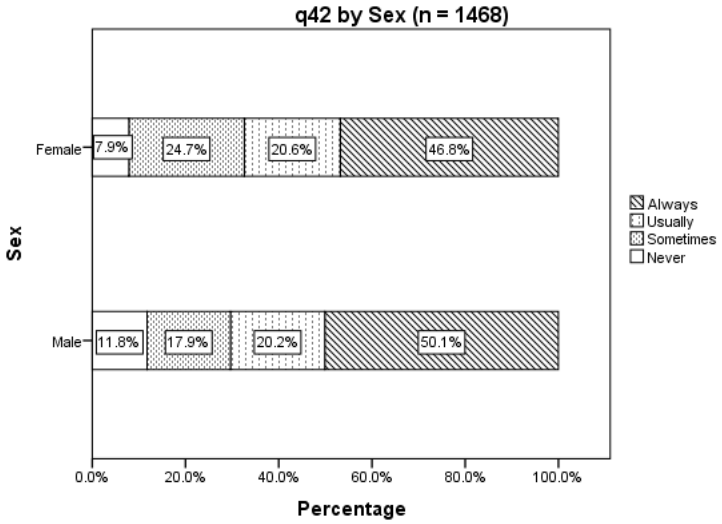
Figure AA-57. Since you joined CAROLINA ACCESS or MEDICAID, how often was it easy to get a personal health provider you are happy with?



There were statistically significantly differences in how often it was easy for respondents to get a personal health provider that they were happy with based on the enrollee's sex. More men reported that they "always" found it easy to get a personal health provider that they were

happy with compared to women (50.1% vs. 46.8%). Correspondingly, smaller percentages of men indicated that it was "sometimes" easy compared to women (17.9% vs. 24.7%) (see Figure AA-58).

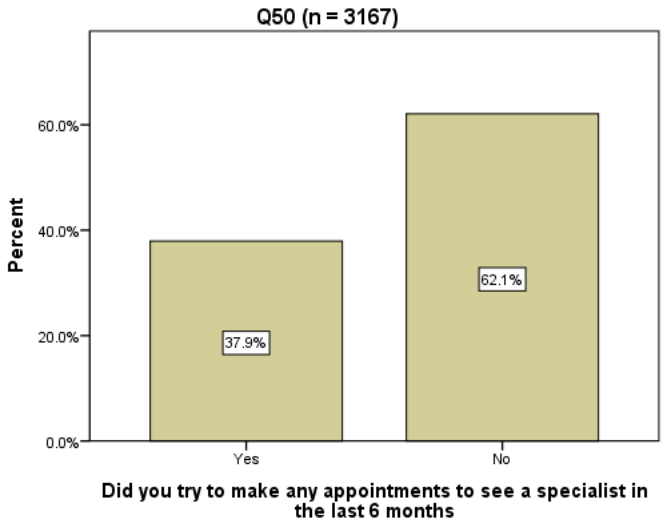
Figure AA-58. Since you joined CAROLINA ACCESS or MEDICAID, how often was it easy to get a personal health provider you are happy with?



Access to Specialists

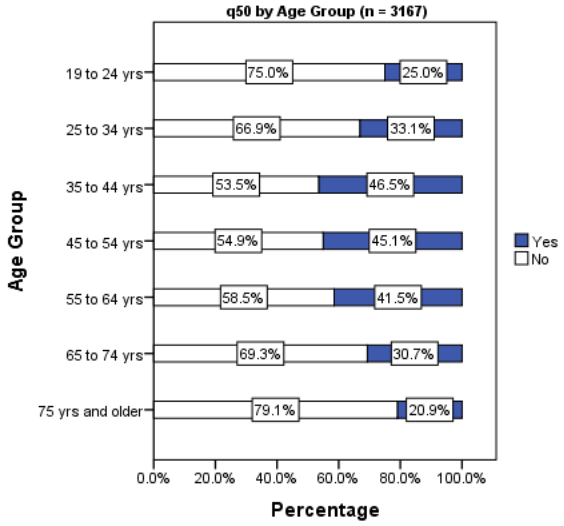
The majority (62.1%) of the total number of adult respondents who answered survey question #50 (n = 3167) did not try to make any appointments to see a specialist in the six months preceding the survey (see Figure AA-59).

Figure AA-59. Did you try to make any appointments to see a specialist in the last 6 months?



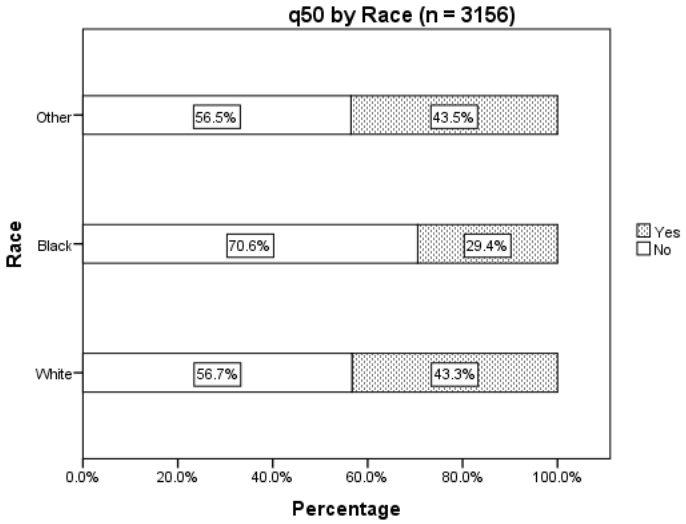
There were significant differences in whether or not a respondent tried to make an appointment with a specialist in the six months preceding the survey based on the respondent's age. Individuals in the youngest (19-to-24 year olds) and older age groups (65 years of age and older) reported the lowest percentages of trying to make appointments to see specialists. Conversely, respondents aged 35-to-54 years of age reported the highest percentages of trying to make appointments to see specialists (see Figure AA-60).

Figure AA-60. Did you try to make any appointments to see a specialist in the last 6 months?



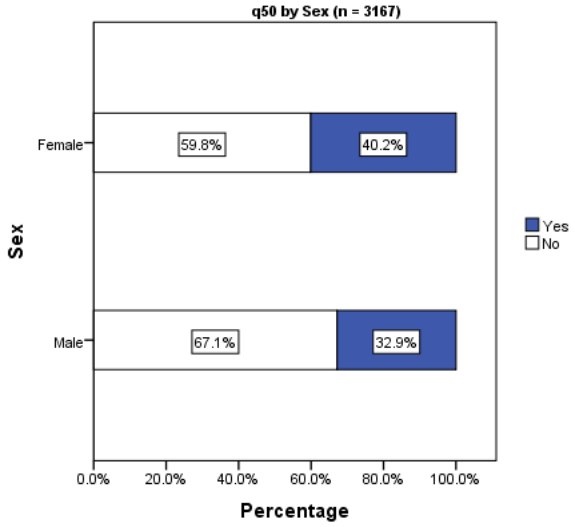
The enrollee's race also had a significant effect on whether or not respondents tried to make an appointment to see a specialist in the six months preceding the survey. The proportion (43.3%) of white respondents who tried to make an appointment to see a specialist in the six months preceding the survey was significantly greater than the proportion (29.4%) of black respondents. The experience of individuals categorized in the "other" race subpopulation mimicked that of the white respondents (see Figure AA-61).

Figure AA-61. Did you try to make any appointments to see a specialist in the last 6 months?



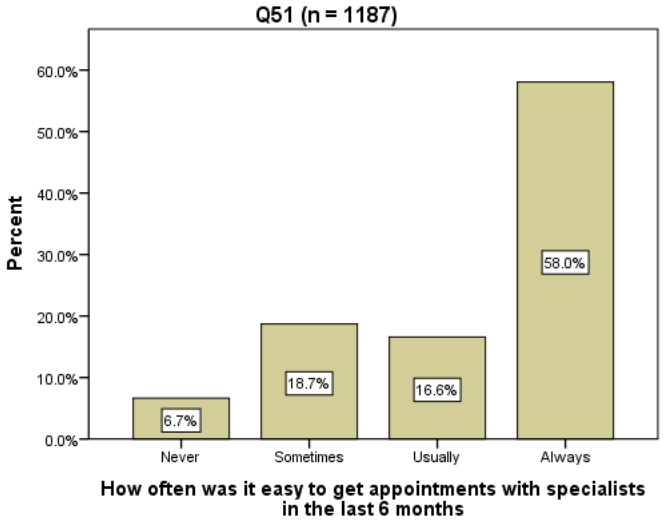
There were also significant differences in whether a respondent tried to make an appointment to see a specialist in the six months preceding the survey based on the respondent's sex. The percentage (40.2%) of female respondents who tried to make an appointment to see a specialist in the six months preceding the survey was greater than that observed for males (32.9%) (see Figure AA-62).

Figure AA-62. Did you try to make any appointments to see a specialist in the last 6 months?



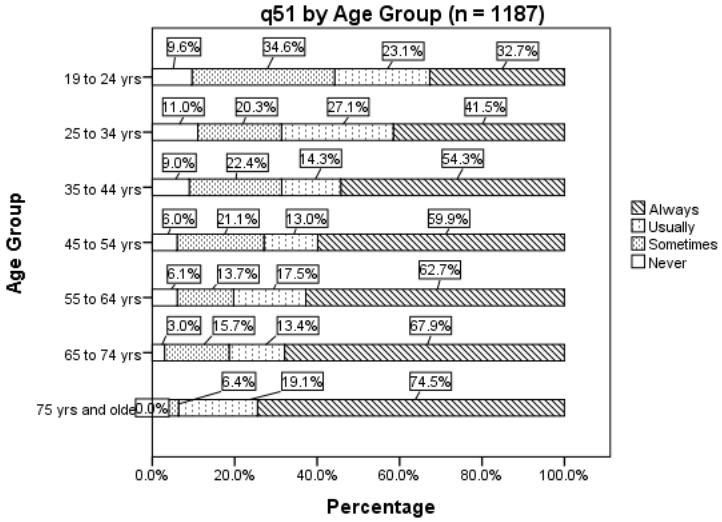
The majority (58.0%) of the total number of respondents answering survey question #51 (n = 1187) found that it was "always" easy to get an appointment with a specialist in the six months preceding the survey. By contrast, 16.6%, 18.7%, and 6.7% of respondents, respectively, found that it was "usually," "sometimes," and "never" easy to get an appointment with a specialist in the six months preceding the survey (see Figure AA-63).

Figure AA-63. In the last 6 months, how often was it easy to get appointments with specialists?



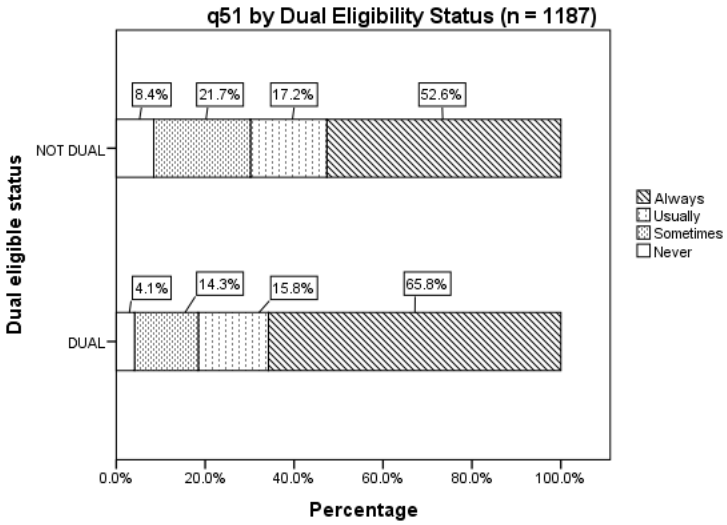
There were significant age-based differences in terms of how often respondents found it easy to get an appointment with a specialist in the six months preceding the survey. Generally speaking, the percentages of younger respondents who reported that it was "always" easy to get appointments with specialists were relatively small, but steadily increased as the age group of the respondent increased. In the oldest age group (age 75 years and older), nearly three-fourths of respondents reported that it was "always" easy to get appointments with specialists. When considering the percentage of respondents in this age group who responded that they "usually" got appointments with specialists, it becomes evident that this is not much of an issue in this age group. By contrast, only 56% of respondents in the 19-to-24 year old age group responded that they "always" or "usually" found it easy to get appointments with specialists (see Figure AA-64).

Figure AA-64. In the last 6 months, how often was it easy to get appointments with specialists?



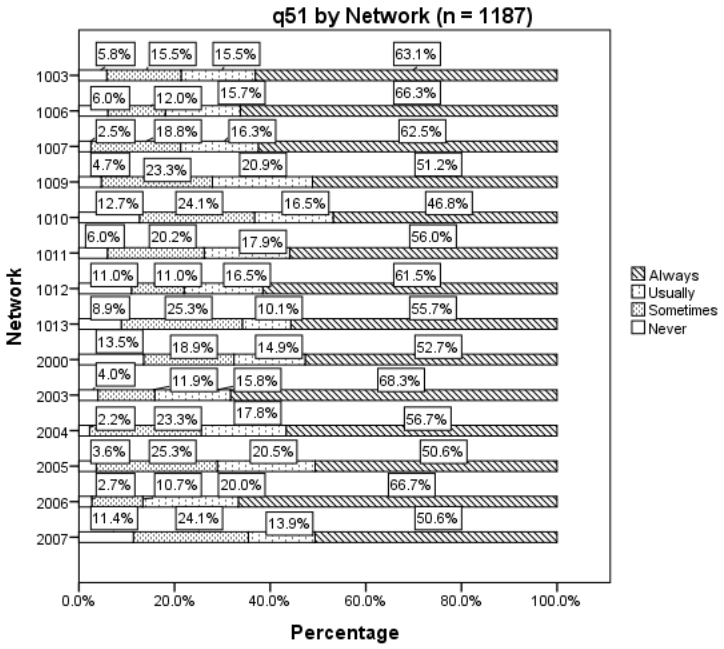
The dual eligibility status of the enrollee had a significant impact on the ease of getting appointments with specialists. Respondents who were eligible for both Medicaid and Medicare indicated that it was "always" easy to get an appointment with a specialist in greater numbers than those who were only eligible for Medicaid (65.8% vs. 52.6%). Likewise, the proportion of the non-dual eligible respondents who reported that it was "never" (8.4%) or "sometimes" (21.7%) easy to get appointments with specialists was significantly greater than the percentage of dual eligibles reporting that it was "never" (4.1%) or "sometimes" (14.3%) easy (see Figure AA-65).

Figure AA-65. In the last 6 months, how often was it easy to get appointments with specialists?



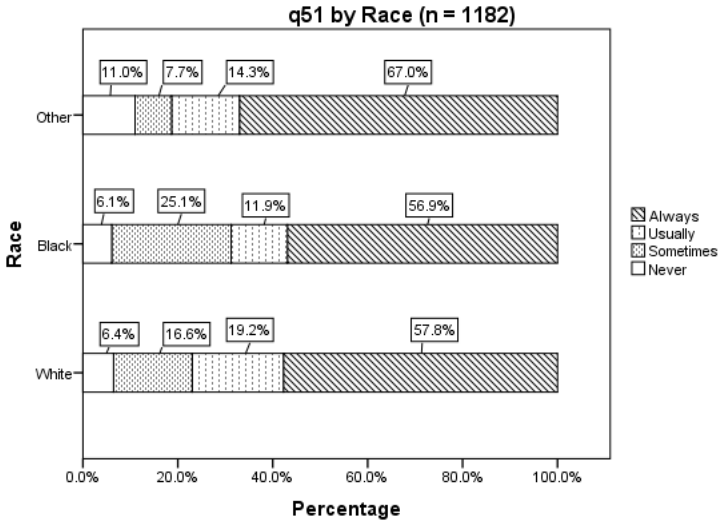
There was also significant variation in how often respondents found it easy to get appointments with specialists based on the enrollee's care network. Respondents in the Carolina Community Health Partnership network (1010) and the Community Care Plan of Eastern Carolina network (2000) stated that it was "never" easy to get an appointment with a specialist in greater numbers than respondents in other care networks. By the same token, respondents in the Carolina Community Health Partnership network (1010) reported that it was "always" easy to get these appointments in smaller numbers compared to respondents in other networks (see Figure AA-66).

Figure AA-66. In the last 6 months, how often was it easy to get appointments with specialists?



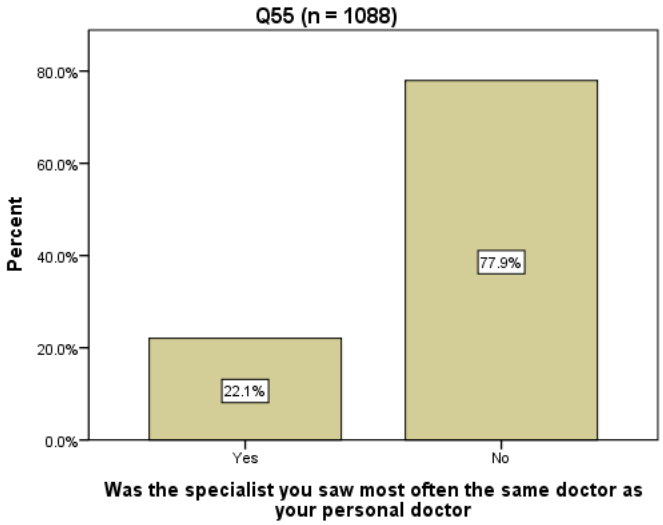
The respondent's race also played a role in the ease of obtaining appointments with specialists. The percentage of whites and blacks that reported that it was "always" easy was similar. However, the percentage of black respondents that stated that it was "sometimes" easy was greater than that for whites (25.1% vs. 16.6%). Additionally, the percentage of black respondents that stated that it was "usually" easy was smaller than that for whites (11.9% vs. 19.2%). The experience for respondents in the "other" race subpopulation was significantly different than that of black or white respondents, with a larger proportion of "other" race respondents stating that they "always" found it easy to get an appointment with a specialist (see Figure AA-67).

Figure AA-67. In the last 6 months, how often was it easy to get appointments with specialists?



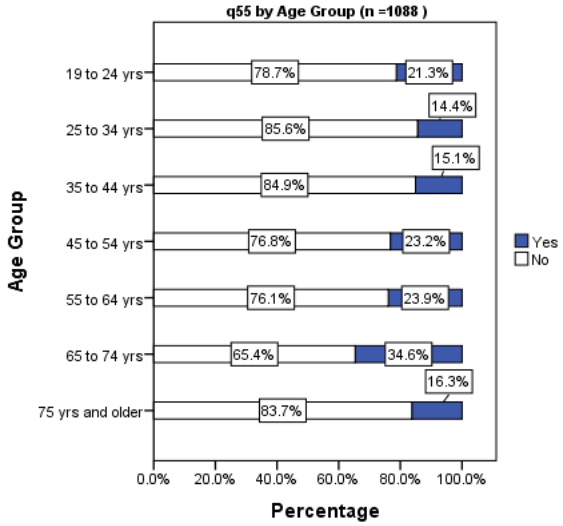
The vast majority (77.9%) of the total number of respondents to survey question #55 (n = 1088) saw a specialist that was different than their personal health provider (see Figure AA-68).

Figure AA-68. In the last 6 months, was the specialist you saw most often the same doctor as your personal doctor?



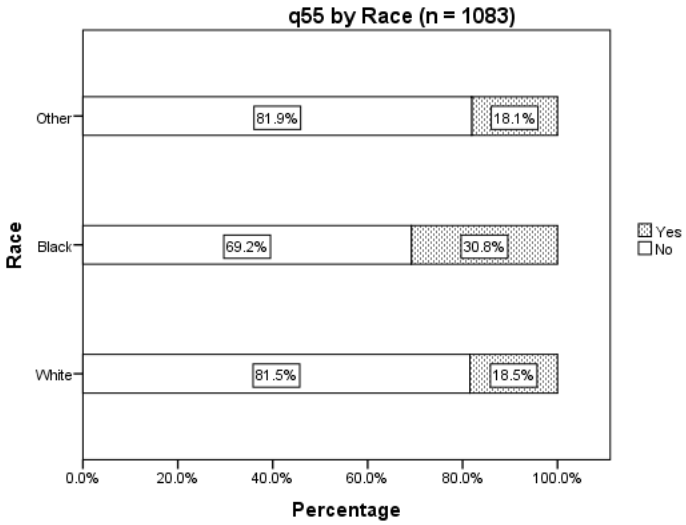
There were significant differences based on the enrollee's age in terms of whether or not the specialist the individual saw most often was the same as their personal health provider. Respondents in the 25-to-44 year old age groups had the largest percentage (~85%) of individuals who reported that the specialist they saw most often was not the same as their personal health provider. On the other hand, respondents in the 65-to-74 year old age group had the largest percentage (34.6%) of individuals who reported that the specialist they saw most often was the same as their personal health provider (see Figure AA-69).

Figure AA-69. In the last 6 months, was the specialist you saw most often the same doctor as your personal doctor?



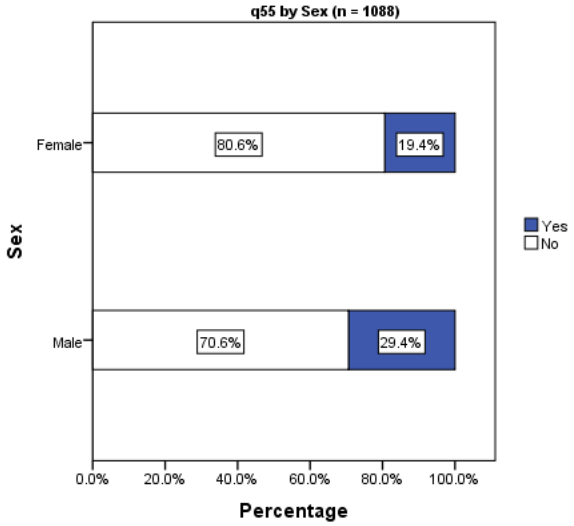
The enrollee's race also had an effect on whether the specialist that a respondent saw most often was the same as their personal health provider. The percentage of black respondents (30.8%) who reported that the specialist that they saw most often was the same doctor as their personal health provider was significantly greater than the percentage observed for white (18.5%) or other race (18.1%) respondents (see Figure AA-70).

Figure AA-70. In the last 6 months, was the specialist you saw most often the same doctor as your personal doctor?



The respondent's sex also impacted whether or not the specialist they saw most often was the same doctor as their personal health provider. The proportion of males (29.4%) who indicated that the specialist they saw most often was the same as their personal health provider was significantly greater than that reported by females (19.4%) (see Figure AA-71).

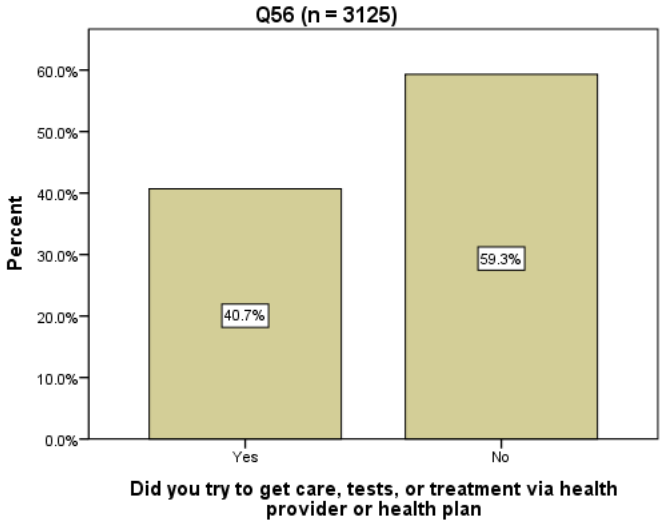
Figure AA-71. In the last 6 months, was the specialist you saw most often the same doctor as your personal doctor?



Access to care

Most (59.3%) of the total number of individuals who responded to survey question #56 (n = 3125) did not try to get care, tests, or treatments via their health provider or health plan in the six months preceding the survey (see Figure AA-72).

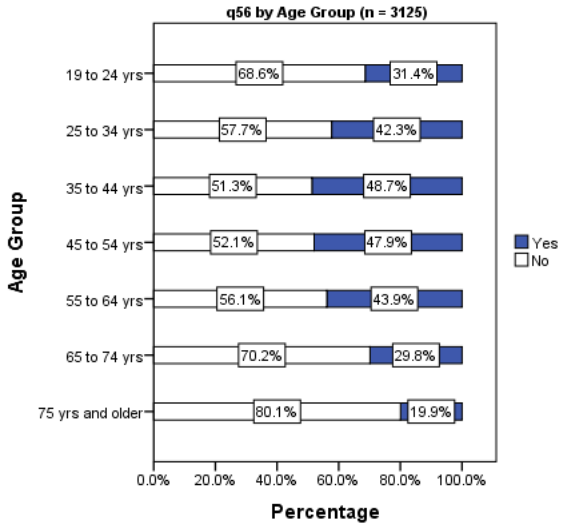
Figure AA-72. In the last 6 months, did you try to get any kind of care, tests, or treatment through your health provider or health plan?



There was significant variation as to whether or not respondents tried to get care, tests, or treatments via their health provider or health plan based on the respondent's age. The percentage of individuals in the 19-to-24 year old groups and for those older than age 65 who tried to get care, tests, or treatments via their health provider or health plan was smaller than that for other age groups. The proportion of individuals in individuals in the 35-to-54 year old age groups who

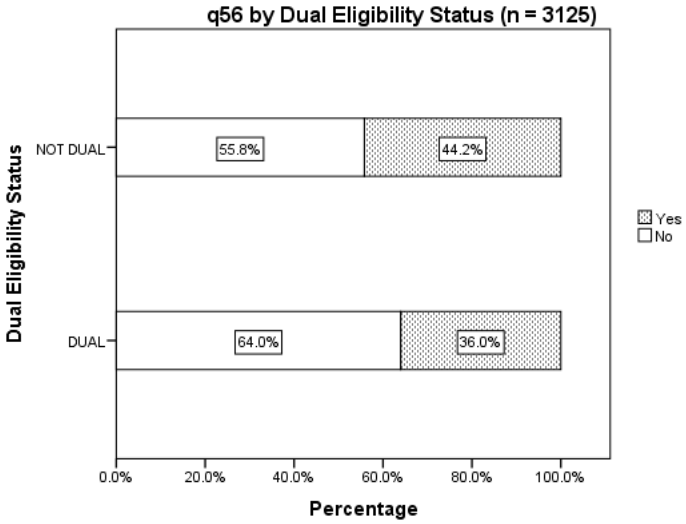
reported that they tried to get care, tests, or treatment via their health provider or health plan was significantly greater than that observed for other age groups (see Figure AA-73).

Figure AA-73. In the last 6 months, did you try to get any kind of care, tests, or treatment through your health provider or health plan?



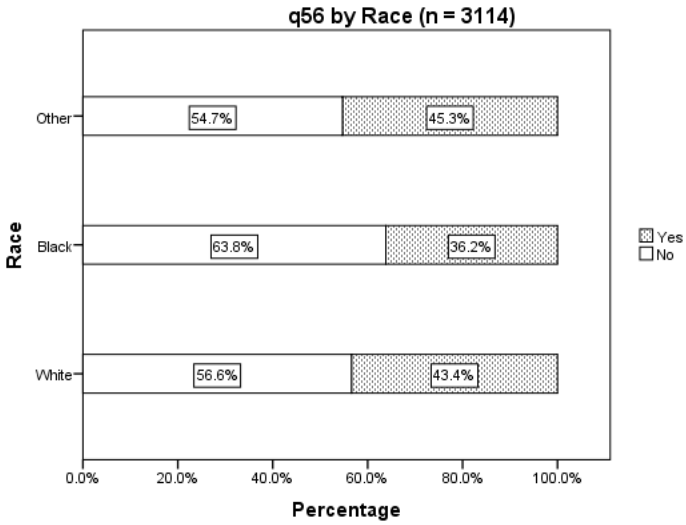
The enrollee's dual eligibility status impacted whether or not respondents tried to get care, tests, or treatment via their health provider or health plan in the six months preceding the survey. Individuals who were eligible for both Medicaid and Medicare reported in larger numbers (64.0%) that they did not try to get care, tests, or treatment via their health provider or health plan compared to respondents who were only eligible for Medicaid (55.8%) (see Figure AA-74).

Figure AA-74. In the last 6 months, did you try to get any kind of care, tests, or treatment through your health provider or health plan?



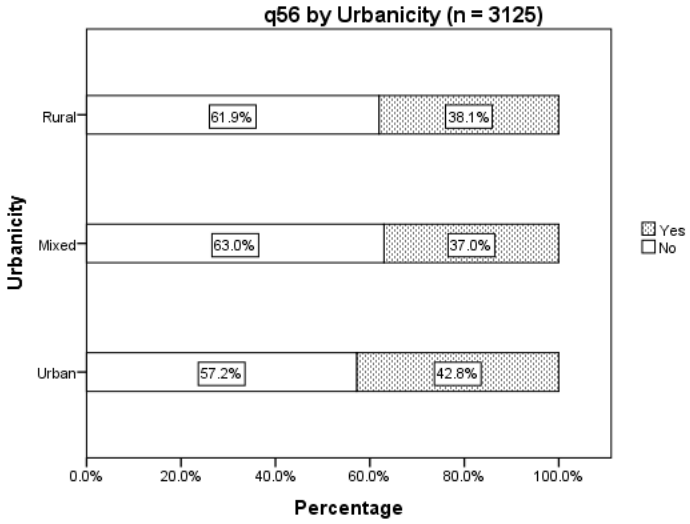
The race of the respondent also had an effect on whether or not enrollees tried to get care, tests, or treatment via their health provider or health plan in the six months preceding the survey. The percentage of black respondents (63.8%) who did not try to get these services via their health provider or health plan was significantly greater than that associated with white (56.6%) or other race (54.7%) respondents (see Figure AA-75).

Figure AA-75. In the last 6 months, did you try to get any kind of care, tests, or treatment through your health provider or health plan?



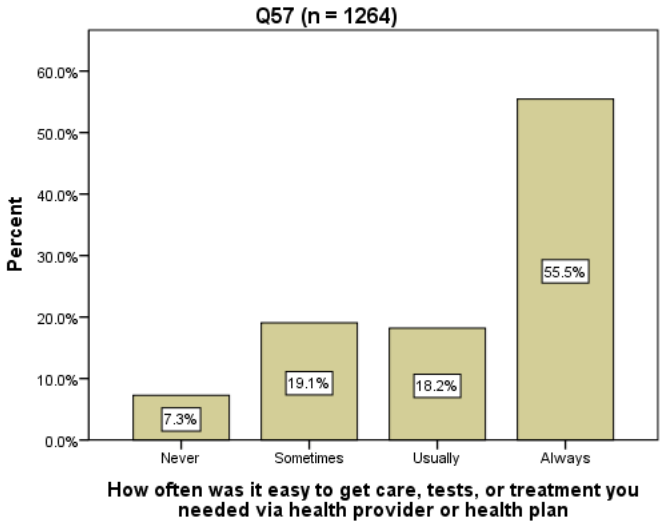
The urbanicity of the county where the respondent lived was associated with significant variation in terms of whether or not respondents tried to get care, tests, or treatment via their health provider or health plan in the six months preceding the survey. The percentage of respondents stating that they tried to get care, tests, or treatment via their health provider or health plan was greatest among respondents living in urban (42.8%) areas compared to those living in mixed (37.0%) or rural (38.1%) areas (see Figure AA-76).

Figure AA-76. In the last 6 months, did you try to get any kind of care, tests, or treatment through your health provider or health plan?



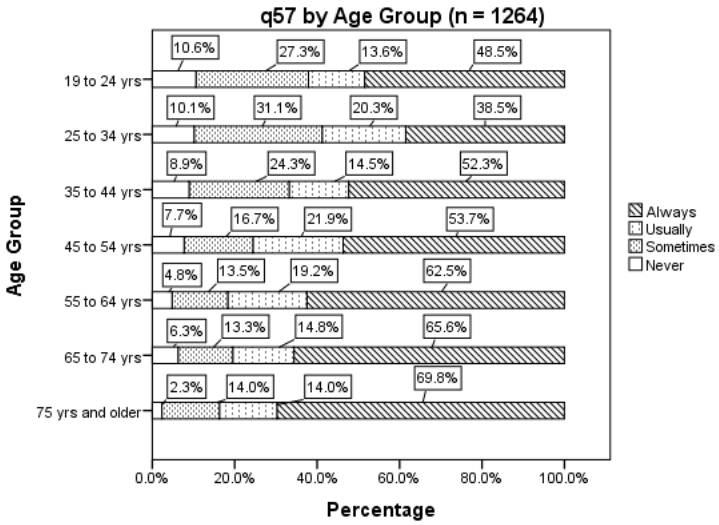
The majority (55.5%) of respondents to survey question #57 (n = 1264) found it was always easy to get the care, tests, or treatments they needed via their health provider or health plan in the six months preceding the survey compared to 18.2%, 19.1% and 7.3% of respondents who found it was usually, sometimes, and never east to get the care, tests, or treatments they needed via their health provider or health plan in the six months preceding the survey, respectively (see Figure AA-77).

Figure AA-77. In the last 6 months, how often was it easy to get the care, tests, or treatment you thought you needed through your health provider or health plan?



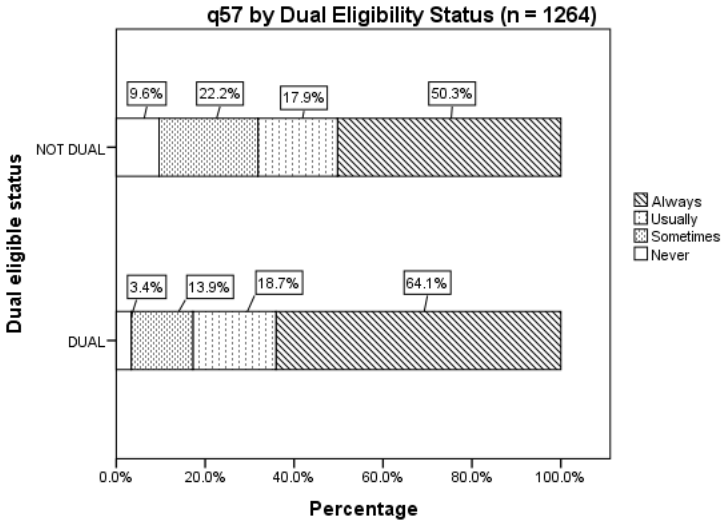
There was significant variation based on age as to how often respondents found it easy to get care, tests, or treatment they needed via their health provider or health plan in the six months preceding the survey. The percentage of respondents in the 25-to-34 year old age group who stated that it was "always" easy to get care, tests, or treatment they needed via their health provider or health plan was significantly less than the percentages reported by other age groups. As a result, the percentage of respondents in this age group who reported that it was "sometimes" easy to get care, tests, or treatment they needed via their health provider or health plan was significantly greater than that for other age groups (see Figure AA-78).

Figure AA-78. In the last 6 months, how often was it easy to get the care, tests, or treatment you thought you needed through your health provider or health plan?



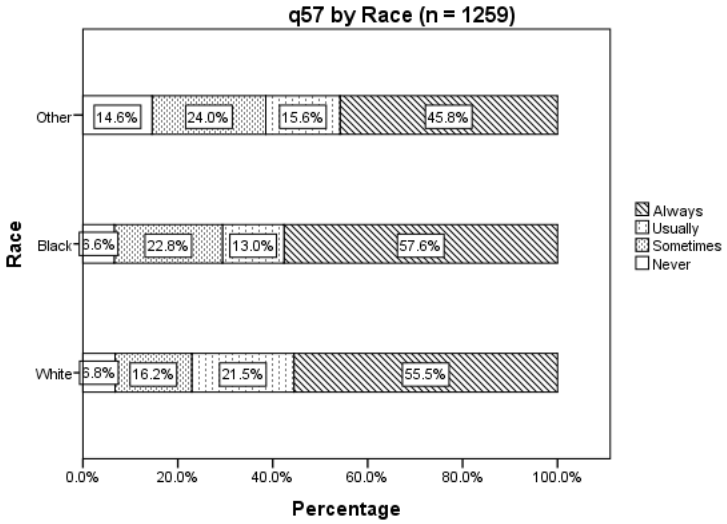
The enrollee's dual eligibility status also impacted how often it was easy to get care, tests, or treatment via respondent's health provider or health plan. The proportion of dual eligible respondents who reported that it was "always" easy to get these services was 64.1% compared to just 50.3% for individuals who were only Medicaid-eligible (see Figure AA-79).

Figure AA-79. In the last 6 months, how often was it easy to get the care, tests, or treatment you thought you needed through your health provider or health plan?



There was also significant variation based on the bivariate relationship between the respondent's race and responses to how easy it was to get care, tests, and treatment via their health provider or health plan. The percentages of black and white respondents who responded that it was "always" easy to obtain these services were quite comparable (57.6% and 55.5%, respectively). However, there were significant differences between whites and blacks with respect to the percentage of respondents who reported that it was "usually" easy. Approximately one-fifth (21.5%) of white respondents stated that it was "usually" easy compared to just 13.0% of black respondents who indicated that it was "usually" easy. The percentage of "other" race respondents who "never" and "sometimes" found it easy to get these services surpassed that of both whites and blacks (see Figure AA-80).

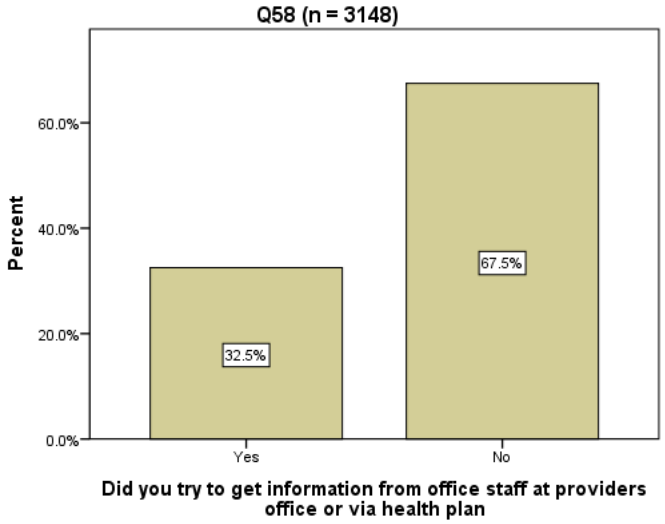
Figure AA-80. In the last 6 months, how often was it easy to get the care, tests, or treatment you thought you needed through your health provider or health plan?



Access to Information

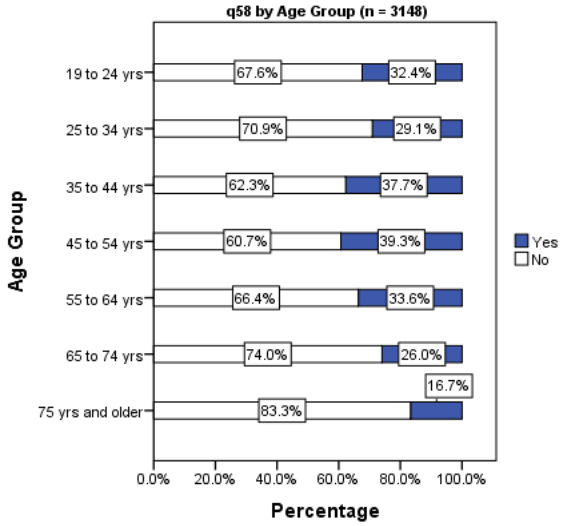
Approximately two-thirds (67.5%) of the total number of respondents to survey question #58 (n = 3148) did not try to get information from office staff at their provider's office or via their health plan (see Figure AA-81).

Figure AA-81. In the last 6 months, did you try to get information or help from office staff at your health provider or health plan?



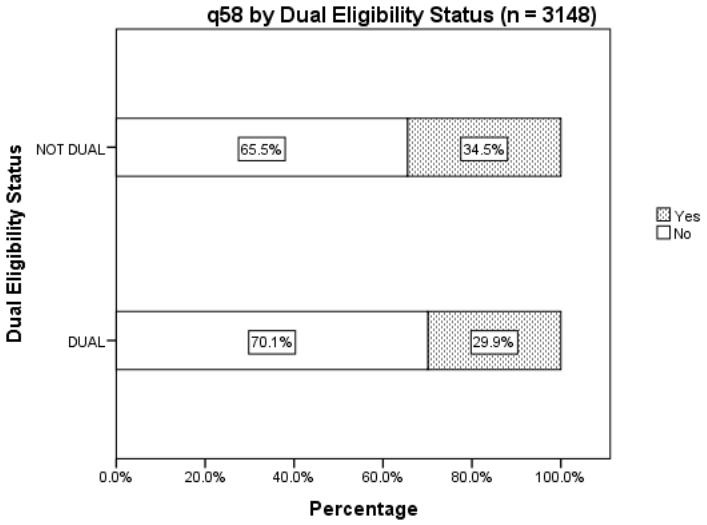
There was significant variation in the bivariate relationship between the respondent's age group and whether or not he or she tried to get information from office staff at their provider's office or via their health plan. The percentage of respondents who stated that they tried to get information from office staff at their provider's office or via their health plan was approximately 38% in the 35-to-54 year old age groups, significantly greater than that for other age groups. By contrast, the proportion of respondents in the 65 year old and older groups to report that they tried to get information from office staff at their provider's staff or via their health plan was significantly less than other age groups (see Figure AA-82).

Figure AA-82. In the last 6 months, did you try to get information or help from office staff at your health provider or health plan?



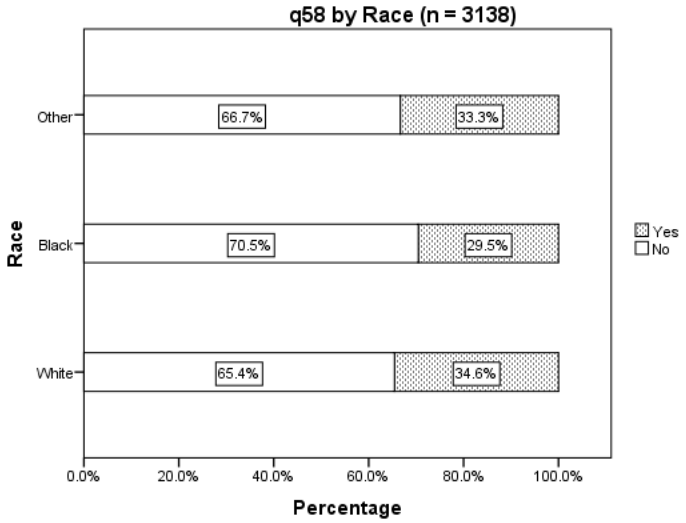
The dual eligibility status of the respondent had an impact on whether or not a respondent tried to get information from office staff at their provider's office or via their health plan in the six months prior to administering the survey. Although the percentage differences were fairly small, the proportion of dual eligibles (29.9%) who tried to get information from office staff at their provider's office or via their health plan was smaller than that associated with respondents only eligible for Medicaid (34.5%) (see Figure AA-83).

Figure AA-83. In the last 6 months, did you try to get information or help from office staff at your health provider or health plan?



There were differences as to whether or not a respondent tried to get information from office staff at their provider's office or via their health plan that were based on the enrollee's race. The percentage of blacks (29.5%) that tried to get information from office staff at their provider's office or via their health plan was significantly smaller than the percentage reported by whites (34.6%) or respondents categorized as "other" race (33.3%) (see Figure AA-84).

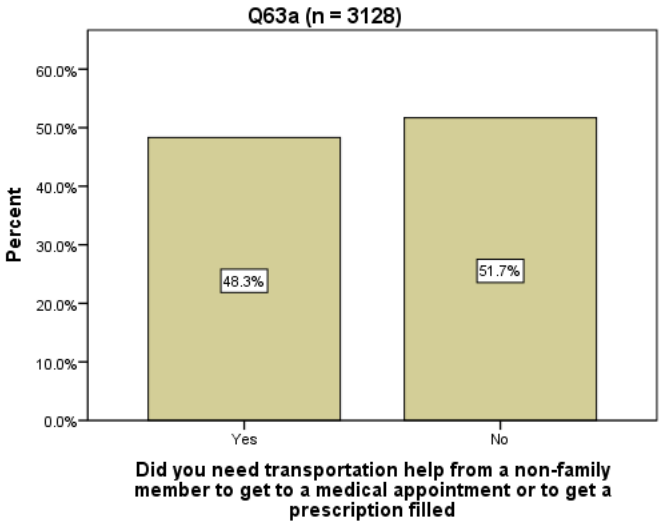
Figure AA-84. In the last 6 months, did you try to get information or help from office staff at your health provider or health plan?



Transportation Access

A slight majority (51.7%) of the total number of respondents to survey question #63a (n = 3128) did not need transportation help from a non-family member to get to a medical appointment or to get a prescription filled (see Figure AA-85).

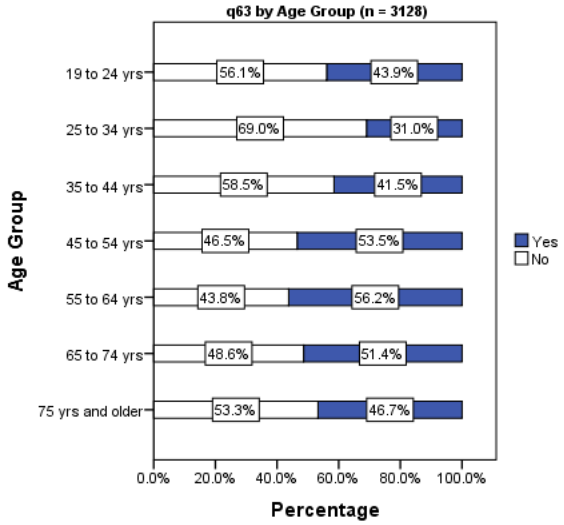
Figure AA-85. In the last 6 months, did you need transportation help from a non-family member to get to a medical appointment or to get a prescription filled?



The respondent's age impacted whether or not a respondent needed transportation help from a non-family member to get to a medical appointment or to get a prescription filled. The percentage of respondents in the 25-to-34 and 35-to-44 year old age groups that reported needing

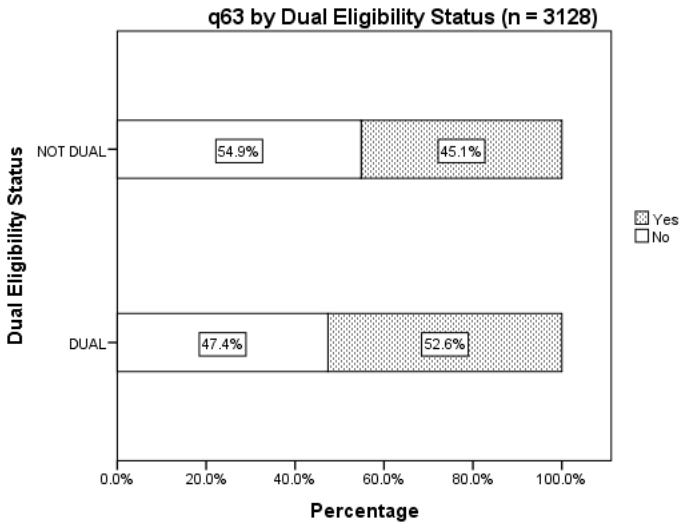
transportation assistance was significantly smaller than the percentages reported by respondents in other age groups. By contrast, the majority of respondents in all age groups 45 years and older reported needing this assistance at some point in the six months preceding the (see Figure AA-86).

Figure AA-86. In the last 6 months, did you need transportation help from a non-family member to get to a medical appointment or to get a prescription filled?



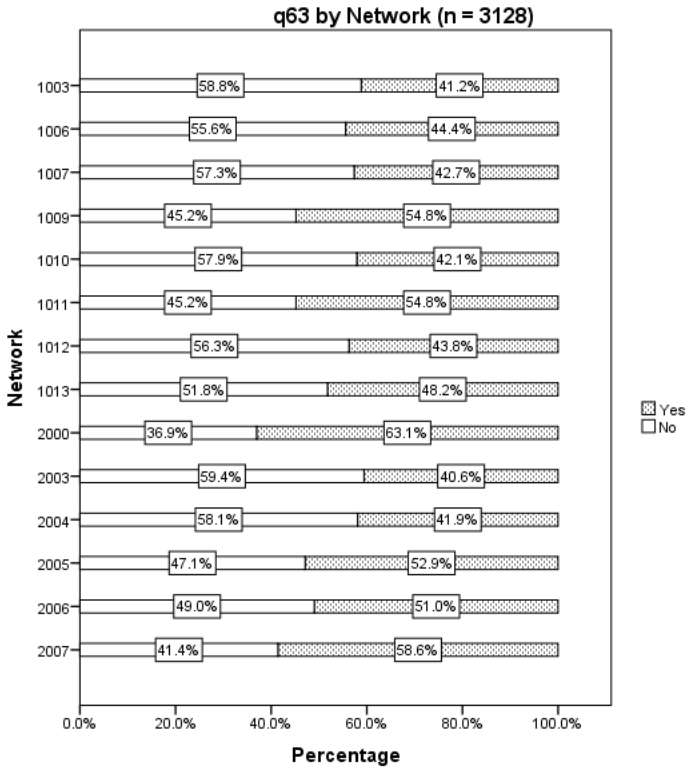
The enrollee's dual eligibility status had an impact on whether or not respondents needed transportation help from a non-family member to get to a medical appointment or to get a prescription filled. The proportion of individuals who were eligible for both Medicaid and Medicare that need transportation help was significantly greater than the percentage of the non-dual eligible enrollees (52.6% vs. 45.1%) (see Figure AA-87).

Figure AA-87. In the last 6 months, did you need transportation help from a non-family member to get to a medical appointment or to get a prescription filled?



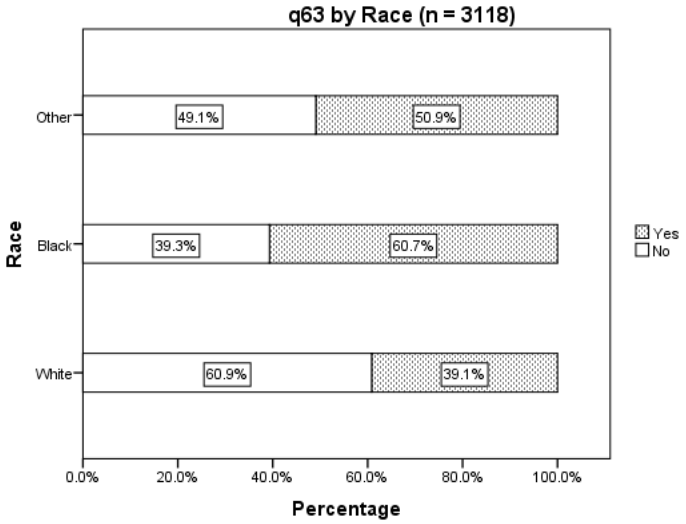
There was significant variation in the bivariate relationship between the enrollee's care network affiliation whether or not respondents needed help from a non-family member to get to a medical appointment or to get a prescription filled. Nearly two-thirds (63.1%) of respondents in the Community Care Plan of Eastern Carolina network (2000) reported that they needed this kind of assistance while nearly 6-in-10 (58.6%) of respondents in the Northern Piedmont Community Care network (2007) stated that they needed it. Less than half of the respondents in 8 of the 14 care networks indicated that they needed help from a non-family member to get to a medical appointment or to get a prescription filled (see Figure AA-88).

Figure AA-88. In the last 6 months, did you need transportation help from a non-family member to get to a medical appointment or to get a prescription filled?



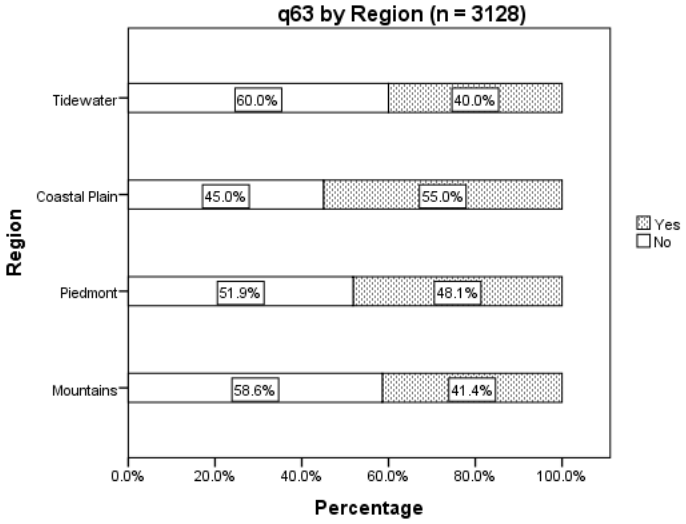
The enrollee's race was associated with significant variation in terms of whether or not a respondent needed transportation help from a non-family member to get to a medical appointment or to get a prescription filled. Approximately 60% of black respondents indicated that they needed this type of assistance compared to just 39.1% of whites. The percentage of "other" race respondents who needed this assistance was evenly balanced, with 50.9% reporting that they did need this assistance (see Figure AA-89).

Figure AA-89. In the last 6 months, did you need transportation help from a non-family member to get to a medical appointment or to get a prescription filled?



There was significant variation in the bivariate relationship between the enrollee's region of residence within North Carolina and whether a respondent needed transportation help from a non-family member to get to a medical appointment or to get a prescription filled. The percentage of respondents living in the Coastal Plain region who needed this assistance (55.0%) was greater then that reported by survey participants in all of the other regions. Correspondingly, the percentage of respondents living in each of the other regions who needed this assistance failed to exceed 50% (see Figure AA-90).

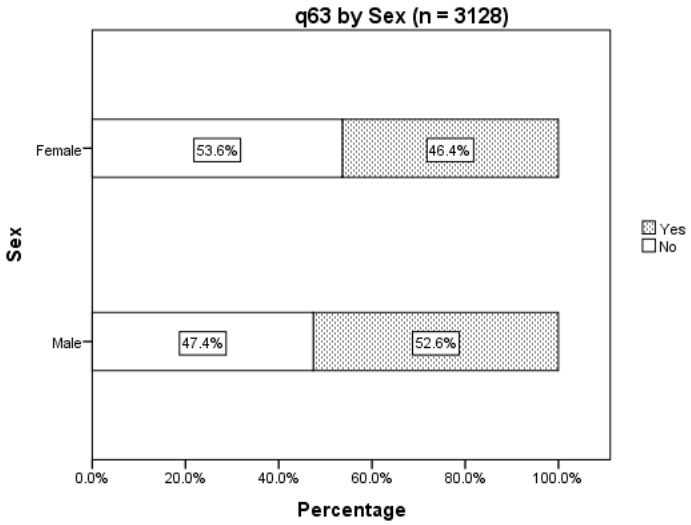
Figure AA-90. In the last 6 months, did you need transportation help from a non-family member to get to a medical appointment or to get a prescription filled?



The respondent's sex had an effect on whether a respondent needed transportation help from a non-family member to get to a medical appointment or to get a prescription filled. A higher proportion of males responded that they needed transportation help to get to a medical

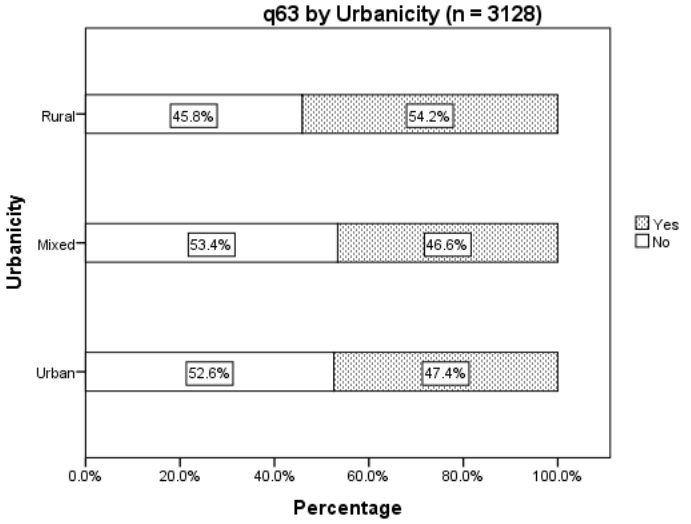
appointment or to get a prescription filled in the six months preceding the survey compared to females (52.6% vs. 46.4%) (see Figure AA-91).

Figure AA-91. In the last 6 months, did you need transportation help from a non-family member to get to a medical appointment or to get a prescription filled?



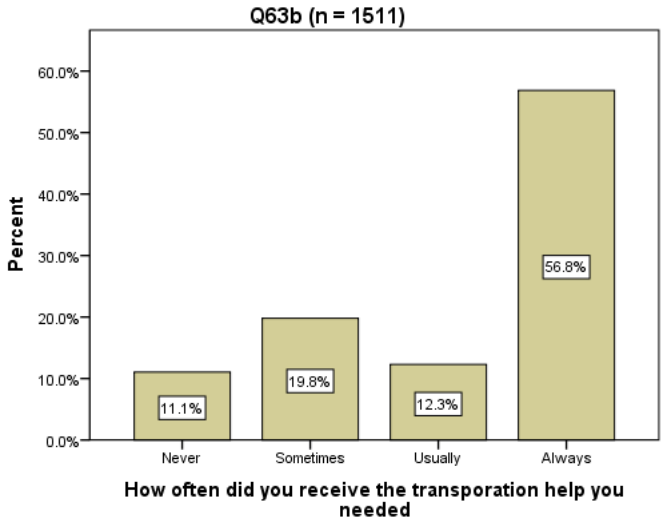
There were significant differences in whether a respondent needed transportation help from a non-family member to get to a medical appointment or to get a prescription filled based on the urbanicity of the county where the enrollee lived. A larger percentage of "rural" residents (54.2%) responded that they needed this type of assistance compared to residents living in "urban" or "mixed" areas (see Figure AA-92).

Figure AA-92. In the last 6 months, did you need transportation help from a non-family member to get to a medical appointment or to get a prescription filled?



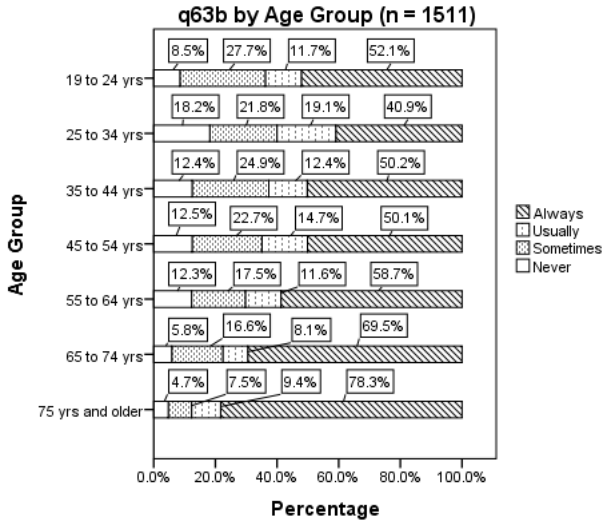
A majority (56.8%) of the total number of respondents to survey question #63b (n = 1511) reported that they "always" received the transportation help that they needed from a non-family member to get to a medical appointment or to get a prescription filled. At the other extreme, 11.1% of respondents to this question indicated that they "never" received this assistance (see Figure AA-93).

Figure AA-93. In the last 6 months, how often did you receive the transportation help you needed?



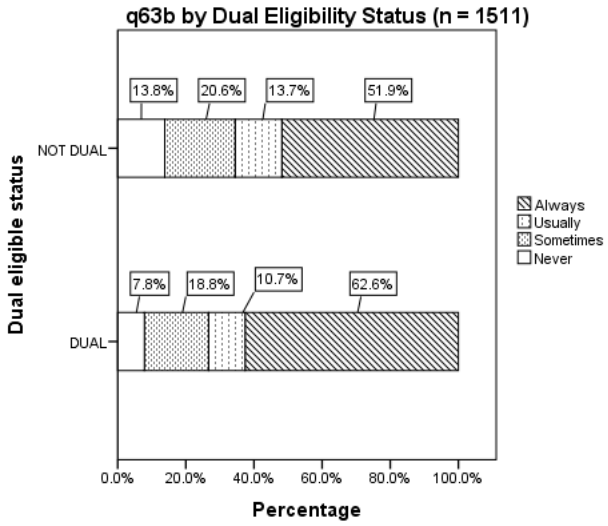
There was significant variation in the bivariate relationship between the enrollee's age and how often the respondent received the transportation assistance that they needed to get to a medical appointment or have a prescription filled. Generally speaking, the proportion of respondents who indicated that they "always" received this type of assistance increased as the age group of the respondent increased. For example, less than 50% of respondents in the 19-to-34 year old age group reported that they "always" received this assistance compared to more than 70% of respondents in the 65 years of age and older age group.

Figure AA-94. In the last 6 months, how often did you receive the transportation help you needed?



The dual eligibility status of the enrollee also had a significant impact on how often survey participants received the transportation assistance that they needed. Individuals who were eligible for both Medicare and Medicaid stated that they "always" received this assistance in greater numbers than those individuals who were only eligible for Medicaid (62.6% vs. 51.9%). At the other extreme, 13.8% of respondents only eligible for Medicaid reported that they "never" received the transportation assistance that they needed compared to just 7.8% of respondents who were dual eligible.

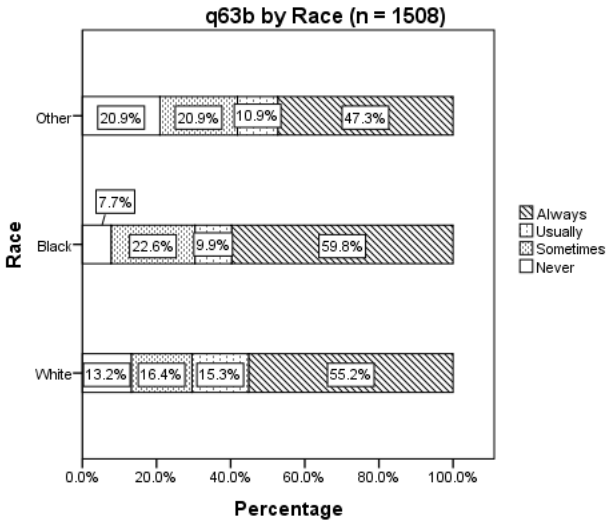
Figure AA-95. In the last 6 months, how often did you receive the transportation help you needed?



The bivariate relationship between the enrollee's race and responses as to how often respondents received the transportation assistance that they needed resulted in significant variation. Specifically, the percentage of black respondents who reported that they "never"

received the transportation help that they needed was small compared to the percentage of white and other race respondents (7.7% compared to 13.2% and 20.9, respectively). In light of this observation, it's not surprising that blacks reported the highest percentage (59.8%) of "always" receiving the transportation assistance that they needed.

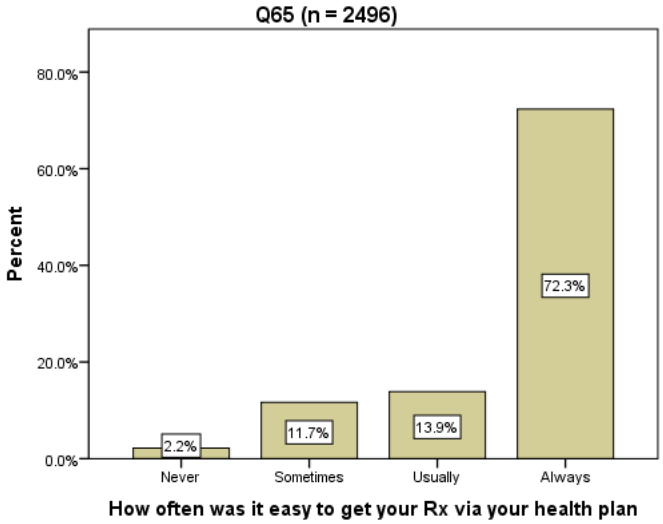
Figure AA-96. In the last 6 months, how often did you receive the transportation help you needed?



Prescription Drug Access

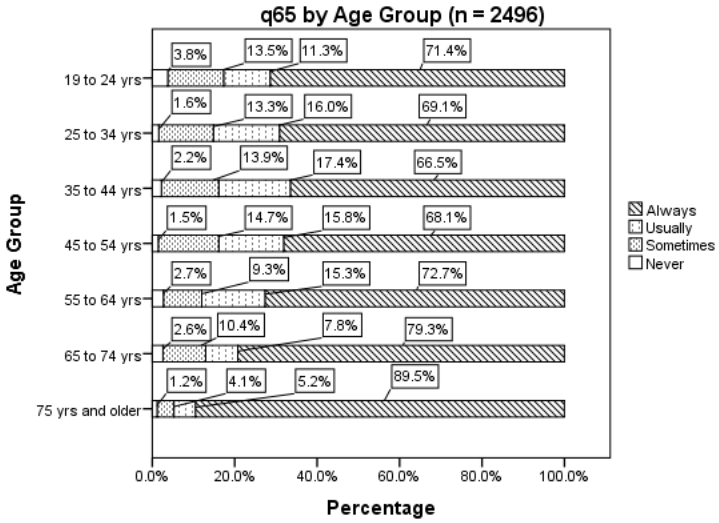
The vast majority (72.3%) of the total number of respondents to survey question #65 (n = 2496) found that it was "always" easy to get their prescription via their health plan in the six months preceding the survey compared to the proportions of respondents who found it "usually" (13.9%), "sometimes" (11.7%), and "never" (2.2%) easy to get their prescriptions via their health plan (see Figure AA-97).

Figure AA-97. How often was it easy to get your prescription via your health plan?



There was statistically significant variation with regard to how often the respondents found it easy to get their prescriptions via their health plan in the six months preceding the survey and the respondent's age. The percentage of individuals reporting that it was "always" easy was greatest in the youngest age group (19-to-24 year olds) and in the older age groups (55 years of age and older). At least 70% of respondents in these age groups indicated that it was "always" easy, with the percentage in the oldest age group (75 years of age and older) approaching 90%. At the other extreme, nearly 4% of respondents in the 19-to-24 year old group reported that they "never" found it easy to get their prescriptions via their health plan, which was almost double the percentage that characterized the remaining age groups (see Figure AA-98).

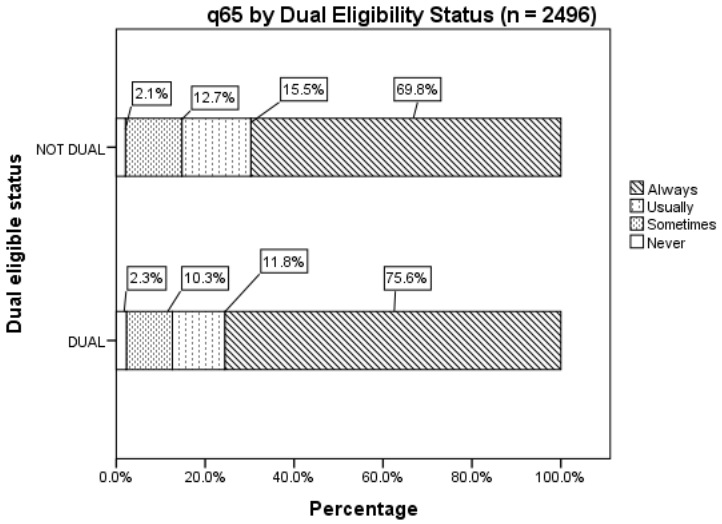
Figure AA-98. How often was it easy to get your prescription via your health plan?



The dual eligibility status of enrollees had an impact on how often a respondent found it easy to get their prescriptions via their health plan in the six months preceding the survey. A higher proportion of respondents dually eligible for both Medicaid and Medicare found it

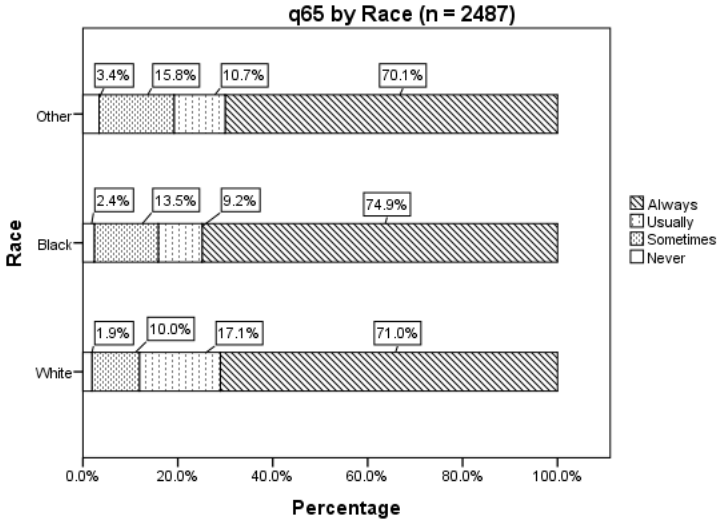
"always" easy to get their prescriptions via their health plan compared to those respondents only eligible for Medicaid (75.6% vs. 69.8%) (see Figure AA-99).

Figure AA-99. How often was it easy to get your prescription via your health plan?



There was significant variation in the bivariate relationship between the enrollee's race and how often a respondent found it easy to get their prescription via their health plan. The percentage of black respondents (74.9%) who "always" found it easy to get their prescription exceeded that of white (71.0%) and other race (70.1%) respondents. However, the percentage of whites (88.1%) who responded that they either "always" or "usually" found it easy to get their prescription surpassed that of blacks (84.1%) and individuals in the other race category (80.8%) (see Figure AA-100).

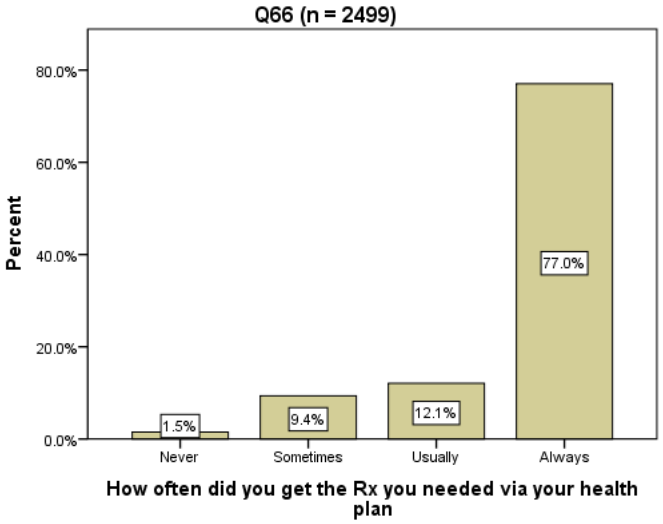
Figure AA-100. How often was it easy to get your prescription via your health plan?



Over three-fourths (77.0%) of the total number of respondents to survey question #66 (n = 2499) "always" got the prescriptions they needed via their health plan compared to 12.1%,

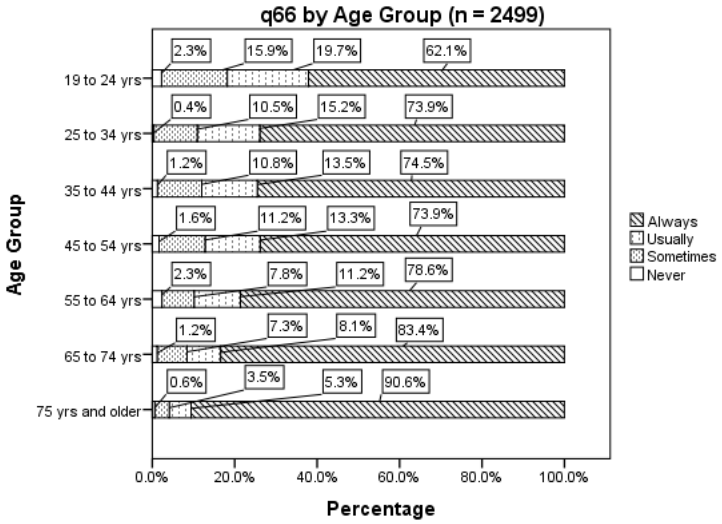
9.4%, and 1.5%, respectively, of respondents who "usually," "sometimes," and "never" got the prescriptions they needed via their health plan (see Figure AA-101).

Figure AA-101. How often did you get the prescription you needed via your health plan?



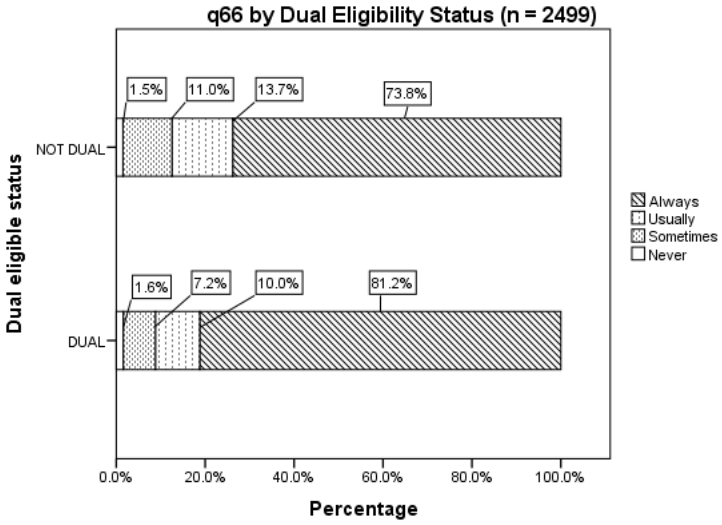
There was significant variation in how often respondents got the prescriptions they needed via their health plan based on the enrollee's age. The percentage (62.1%) of respondents in the 19-to-24 year old age group reporting that they "always" got the prescriptions that they needed via their health plan was lower than any other age group. By contrast, 90.6% of respondents who were 75 years of age or older indicated that they "always" got needed prescriptions via their health plan. The overall profile of responses was characterized by increases in the proportion of respondents who stated that they "always" received needed prescriptions as the age group of the respondent increased (see Figure AA-102).

Figure AA-102. How often did you get the prescription you needed via your health plan?



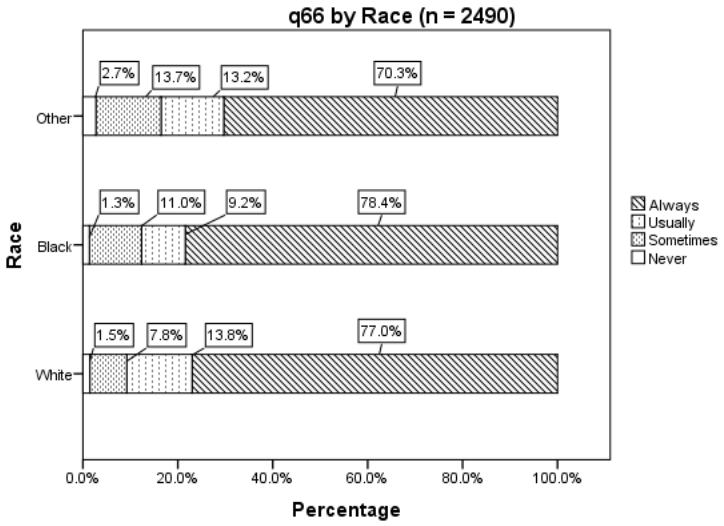
The enrollee's dual eligibility status impacted how often a respondent got the prescriptions they needed via their health plan in the six months preceding the survey. The proportion of respondents who were eligible for both Medicaid and Medicare who "always" got the prescription that they needed was greater than that observed for individuals who were enrolled exclusively in Medicaid (81.2% vs. 73.8%) (see Figure AA-103).

Figure AA-103. How often did you get the prescription you needed via your health plan?



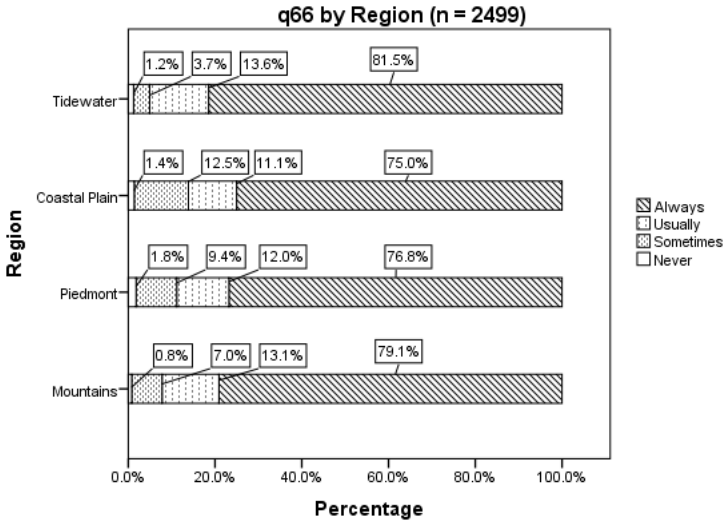
There were also significant differences in how often respondents got the prescriptions they needed via their health plan based on the participant's race. The percentage of black respondents who reported that they "always" got the prescriptions they needed via their health plan in the six months preceding the survey was nearly identical to that of white respondents, but both were greater than that of "other" race respondents (78.4%, 77.0%, and 70.3%, respectively). However, the percentage of white enrollees who responded that they either "always" or "usually" got the prescriptions that they needed was slightly greater than that of black respondents and respondents in the "other" racial category (90.8%, 87.6%, and 83.5%) (see Figure AA-104).

Figure AA-104. How often did you get the prescription you needed via your health plan?



The enrollee's region of residence within North Carolina had an effect on how often a respondent got the prescriptions they needed via their health plan in the six months preceding the survey. The percentage (25.0%) of respondents in the Coastal Plain region who reported that they did not "always" get the prescriptions that they needed was greater than that observed for respondents from each of the other regions. The region with the largest proportion of respondents stating that they "always" got the prescriptions that they needed via their health plan was the Tidewater, where 81.5% of respondents answered accordingly (see Figure AA-105).

Figure AA-105. How often did you get the prescription you needed via your health plan?



Satisfaction

Measuring patient satisfaction with care is critical for evaluating a health care delivery system. Avedis Donabedian (1980) regarded patient satisfaction as an outcome measure, not just a process variable. In general, the ultimate outcomes of care—does treatment *X* work?—are the most difficult measures to determine; process variables, which are usually measured in units of care administered, are typically easier to gauge in clinical settings.

The nineteen questions classified as "satisfaction" items by the research team focus in particular on CAHPS questions relating to the quality of communication between patients and their health providers. There are also four important overall rating questions that ask respondents to assign a number from 0 (worst possible) to 10 (best possible) to assess "all your health care," "your personal health provider," "the specialist you saw most often in the last 6 months," and the organizational entity (Carolina Access/ Medicaid) delivering the care.

Perceptions of ease of health care access and of satisfaction with care provided may be different for those without continuing health problems and those who suffer from chronic conditions or disability that result in repeated use of the health care system (Schlesinger, Druss, and Thomas, 1999). Six of the questions in this section asked about health care problems or disabilities; respondents were not asked directly whether they suffered chronic illness or disability. During the development of the survey instrument in 2011 and early 2012 the North Carolina Division of Medical Assistance asked for help developing CAHPS questions that would provide feedback for the Health Home Program that State was establishing with federal help. This program was designed to build on the disease management focus of the CCNCs. The UNC Charlotte researchers and the relevant State officials decided that the dual eligible program category—Medicare beneficiaries who were also fully eligible for Medicaid—could be used to approximate those in the population to be surveyed who had chronic illness and persisting disability. The decision to consider dual eligibles as a proxy for those with chronic illness and disability appeared to be vindicated by the fact that dual eligibles were found to have statistically significantly greater health problems than Medicaid-only respondents. This profile of dual eligibles as needing more care was also reflected in the subsequent sections on health status and utilization. However, no final conclusions about the health problems, health status or utilization of dual eligibility should be drawn from the bivariate analyses reported in this chapter. Because the dual eligibles were predominantly in age intervals 45 and above, the effect ascribed to dual eligibility may be a result of the age of this Medicaid program category. (As Appendix A-2 shows, only 11.4% of survey respondents were dual eligibles aged 19-44.)

Table AS-1. Satisfaction Questions

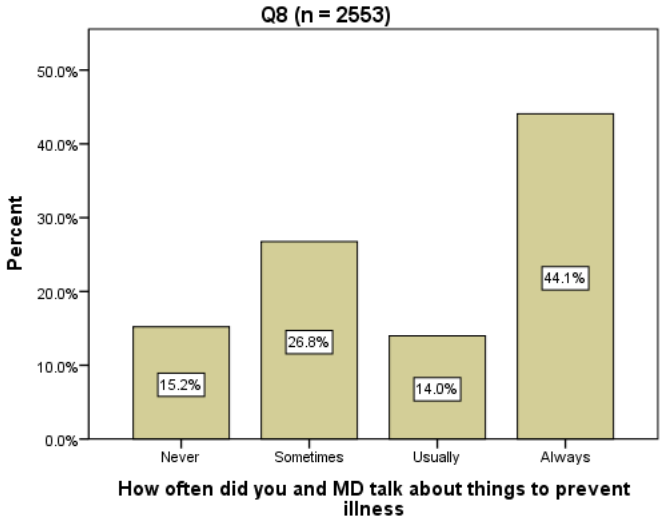
No.	Question
q8	In the last 6 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?
q9	Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate all your health care in the last 6 months?
q25	Does your personal health provider understand how any health problems you have affect your day-to-day life?
q27	In the last 6 months, how often did your personal health provider explain things in a way that was easy to understand?
q28	In the last 6 months, how often did your personal health provider listen carefully to you?
q29	In the last 6 months, how often did you have a hard time speaking with or understanding

	your personal health provider because you spoke different languages?
q30	In the last 6 months, how often did your personal health provider show respect for what you had to say?
q31	In the last 6 months, how often did your personal health provider spend enough time with you?
q32	We want to know how you, your doctors, and other health providers make decisions about your health care. In the last 6 months, were any decisions made about your health care?
q33	In the last 6 months, how often were you involved as much as you wanted in these decisions about your health care?
q34	In the last 6 months, how often was it easy to get your doctors or other health providers to agree with you on the best way to manage your health conditions or problems?
q37	How satisfied are you with the help you received to coordinate your care in the last 6 months?
q40	Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate your personal health provider?
q54	We want to know your rating of the specialist you saw most often in the last 6 months. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate the specialist?
q59	In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic give you the information or help that you needed?
q60	In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic treat you with courtesy and respect?
q61a	In the last 6 months, did you fill out any forms from your health provider or health plan?
q61b	In the last 6 months, how often were any forms from your health provider or health plan easy to fill out?
q62	Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate Carolina Access or Medicaid now?

Illness Prevention

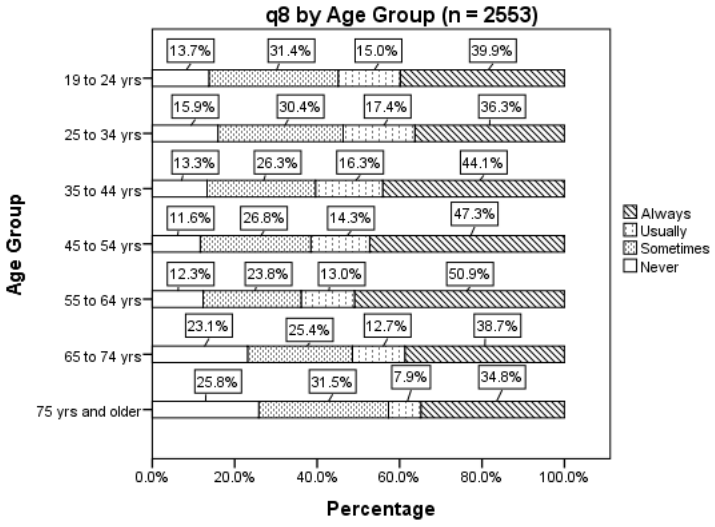
Nearly half (44.1%) of the adult respondents to survey question #8 (n = 2553) reported that they "always" spoke with their health provider about how to prevent illness compared to 15.2%, 26.8% and 14.0%, respectively, of respondents who "never," "sometimes," and "usually" spoke with their health provider about how to prevent illness (see Figure AS-1).

Figure AS-1. In the last 6 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?



Significant variation was observed among the different age groups in their responses to question #8. The percentage of respondents who "always" spoke with their health provider about the things that they could do to prevent illness was smallest in the oldest age groups (65-to-74 years of age and 75 years of age and older) and in the youngest age group (19-to-24 year olds). By contrast, more than half (50.9%) of respondent in the 55-to-64 year old age group stated that they "always" spoke with their health provider about such matters (see Figure AS-2).

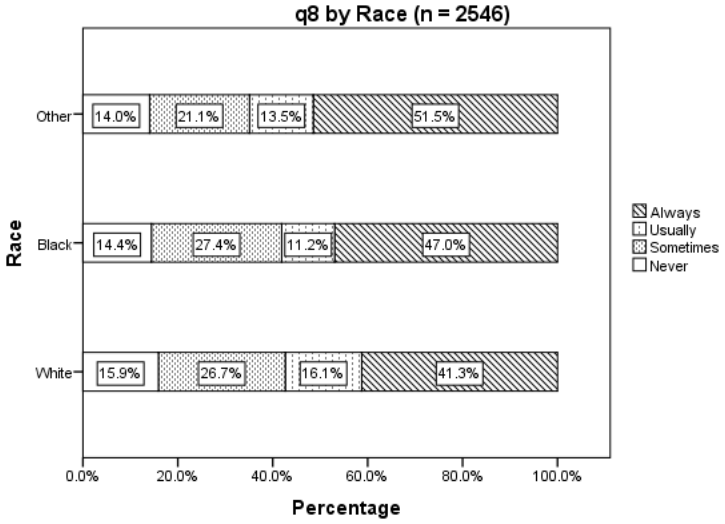
Figure AS-2. In the last 6 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?



There was also significant variation based on the enrollee's race as to whether a respondent spoke with their health provider about ways to prevent illness. The percentage of whites who "always" spoke with their health provider about things that could be done to prevent illness was smaller than that for blacks or "other" race individuals, probably because the

percentage of whites who "usually" engaged in this conversation was larger than that of the other racial groups (see Figure AS-3).

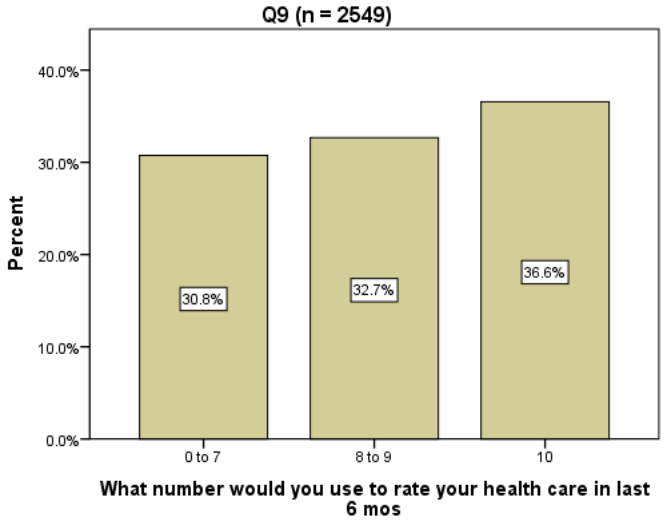
Figure AS-3. In the last 6 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?



Overall Satisfaction

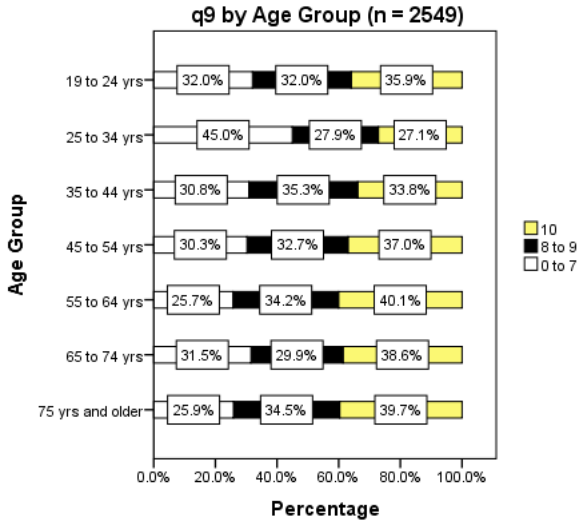
Overall, the respondents to survey question #9 (n = 2549) were satisfied with the care that they had received in the six months preceding the survey with 36.6% of respondents giving their health care a score of 10, 32.7% indicating a score of 8 or 9, and 30.8% rating their health care with a score of 0 to 7 (see Figure AS-4).

Figure AS-4. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate all your health care in the last 6 months?



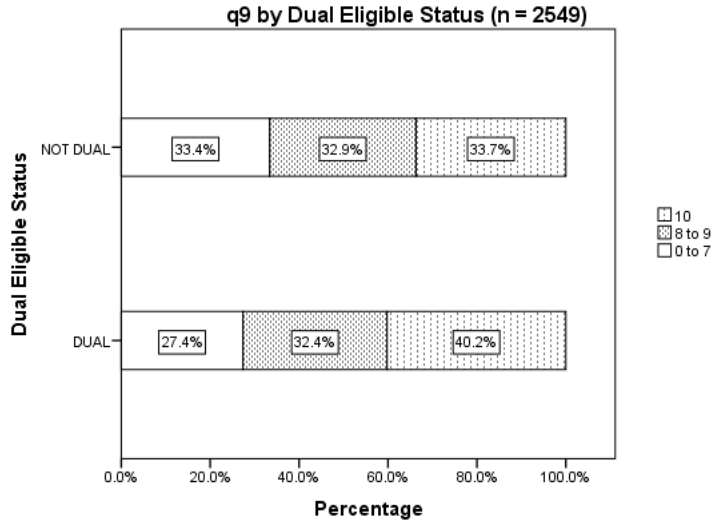
Statistically significant variation occurred among the different adult age groupings in relation to the way that respondents answered question #9. Generally speaking, younger respondents were less inclined to rate their health care with a score of 10 compared to older adults. This was particularly true for respondents in the 25-to-34 year old age group, where 27.1% gave their health care a score of 10. By contrast, nearly 40% of all respondents 55 years of age and older assigned their health care a score of 10 (see Figure AS-5).

Figure AS-5. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate all your health care in the last 6 months?



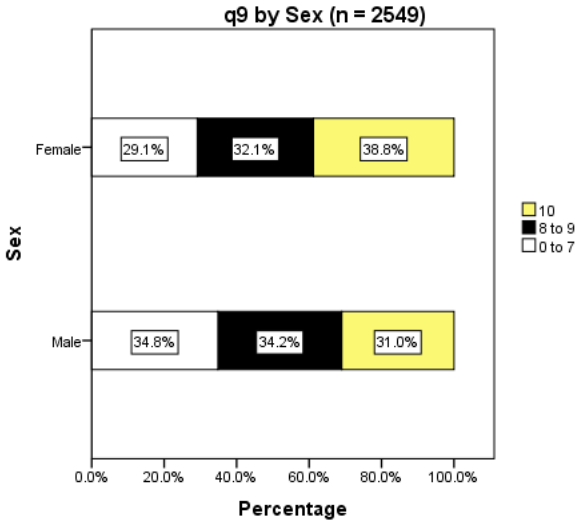
The enrollee's dual eligibility status also impacted responses to question #9. Although the differential was not especially large, dual eligible enrollees rated their health care a score of 10 in greater numbers than those respondents who were only eligible for Medicaid (40.2% vs. 33.7%) (see Figure AS-6).

Figure AS-6. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate all your health care in the last 6 months?



There was significant variation in the bivariate relationship between the respondent's sex and the rating of their health care. The percentage of males who rated their health care with a score of 10 was significantly less than that reported by females (31.0% v. 38.8%). Correspondingly, more males assigned their health care a score of 0 to 7 than females (34.8% vs. 29.1%) (see Figure AS-7).

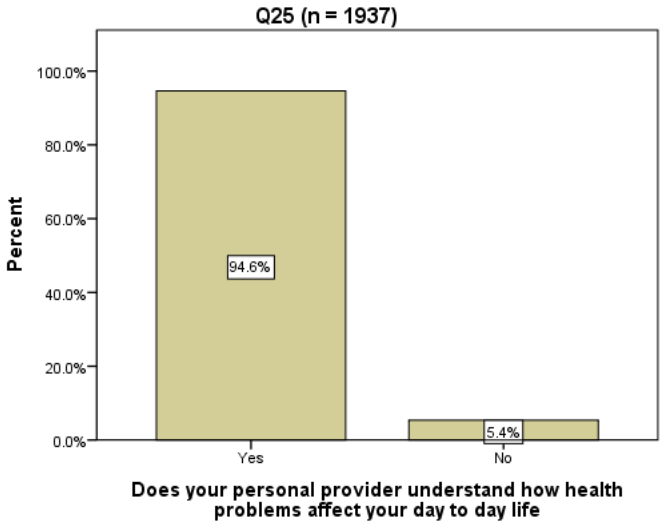
Figure AS-7. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate all your health care in the last 6 months?



Patient/Provider Understanding

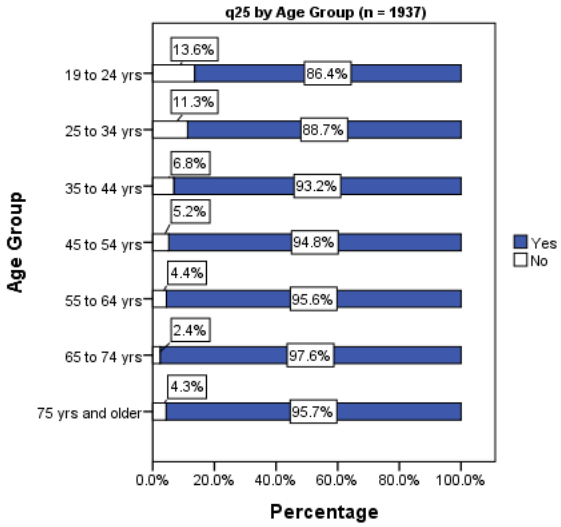
The vast majority (94.6%) of adult respondents to survey question #25 (n = 1937) reported that their personal health provider understood how the respondent's health problems affected their day-to-day life (see Figure AS-8).

Figure AS-8. Does your personal health provider understand how any health problems you have affect your day-to-day life?



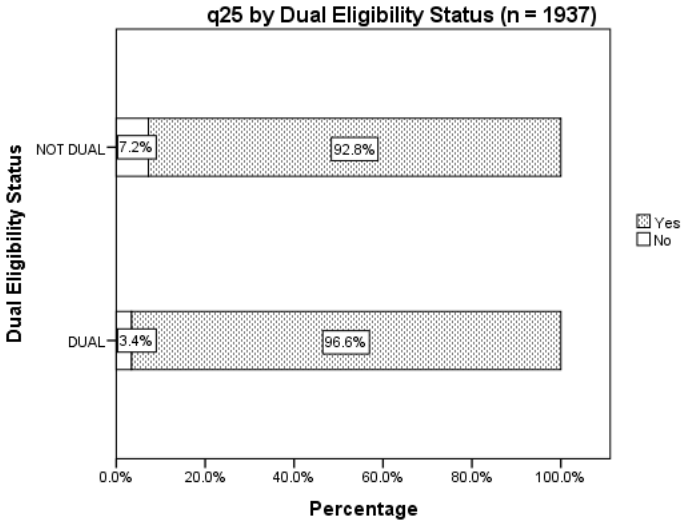
The respondent's age had a significant impact on responses related to whether the individual's personal health provider understood how health problems affected the respondent's daily life. The percentage of individuals who responded that the health provider did not understand the impact health problems on the respondent's daily life was highest in the younger age groups and generally declined as the age group of the respondent increased. For example, 13.6% of 19-to-24 year olds reported that their personal health provider did not understand the impact of the their health problems compared to just 2.4% of enrollees in the 65-to-74 year old group (see Figure AS-9).

Figure AS-9. Does your personal health provider understand how any health problems you have affect your day-to-day life?



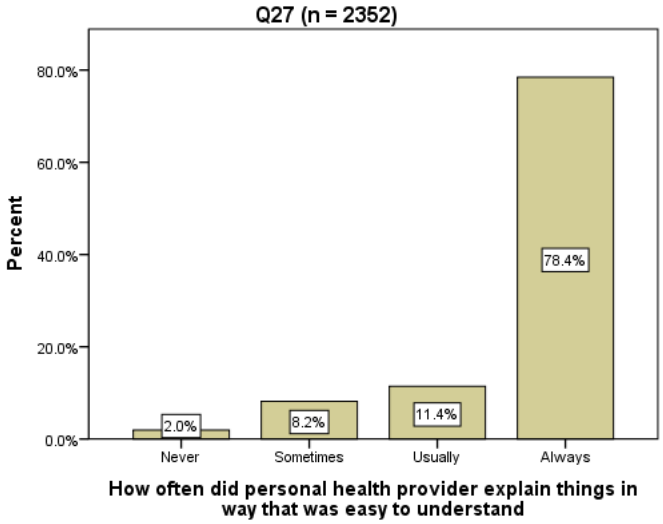
The respondent's dual eligibility status demonstrated significant variation as to whether personal health providers understood the gravity of the enrollee's health problems. The percentage of respondents who were only eligible for Medicaid who reported that their health provider did not understand these problems was more than double the percentage observed for individuals who were eligible for both Medicare and Medicaid (7.2% vs. 3.4%) (see Figure AS-10).

Figure AS-10. Does your personal health provider understand how any health problems you have affect your day-to-day life?



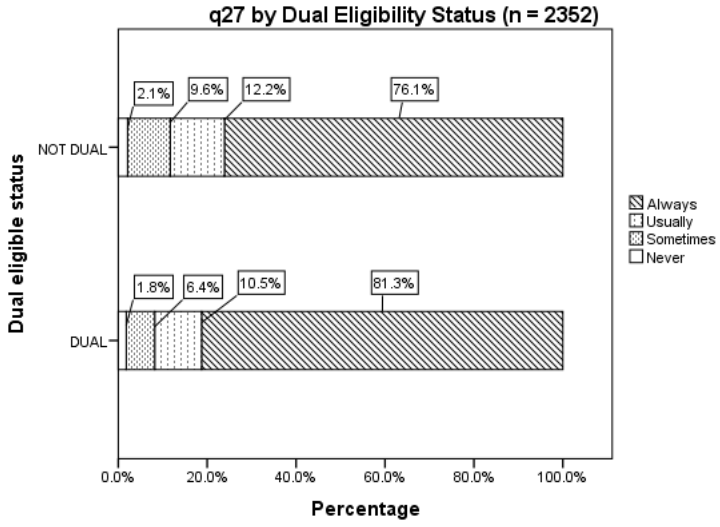
More than three-fourths (78.4%) of the total number of adult respondents answering survey question #27 (n=2352) reported that their personal heath provider "always" explained things in a way that was easy to understand. This compared to 11.4%, 8.2%, and 2.0%, respectively, who reported that their provider "usually," "sometimes," and "never" explained things in a way that was easy to understand (see Figure AS-11).

Figure AS-11. In the last 6 months, how often did your personal health provider explain things in a way that was easy to understand?



The enrollee's dual eligibility status was associated with significant variation in terms of how often the respondent's personal health provider explained things in a way that was easy to understand. Specifically, the percentage of dual eligible individuals who reported that this was "always" the case was significantly greater than that for individuals who were only eligible for Medicaid (81.3% vs. 76.1%) (see Figure AS-12).

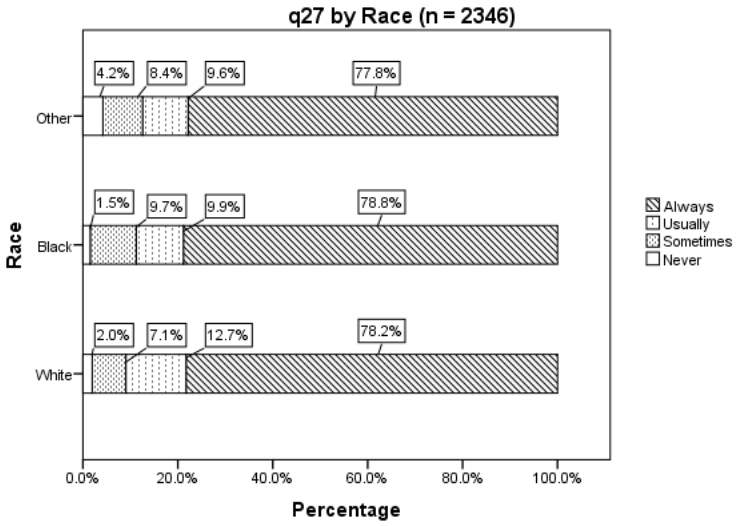
Figure AS-12. In the last 6 months, how often did your personal health provider explain things in a way that was easy to understand?



Although the differentials were relatively small, there was also significant variation in the bivariate relationship between the enrollee's race and how often their personal health providers explained things in a way that was easy to understand. The percentage of respondents reporting that their health provider "always" explained things was remarkably similar in each of the racial sub-populations. The proportion of whites that reported that their health provider "usually" did

this was slightly greater than that reported by blacks or other race individuals (12.7% compared to 9.9% and 9.6%, respectively). Correspondingly, the percentage of other race individuals who stated that this "never" occurred was larger than that for whites or blacks (4.2% compared to 2.0% and 1.5%, respectively) (see Figure AS-13).

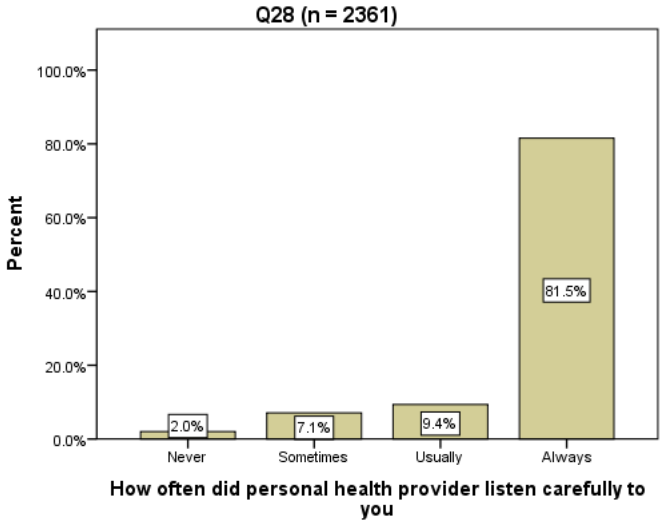
Figure AS-13. In the last 6 months, how often did your personal health provider explain things in a way that was easy to understand?



Patient/Provider Communication

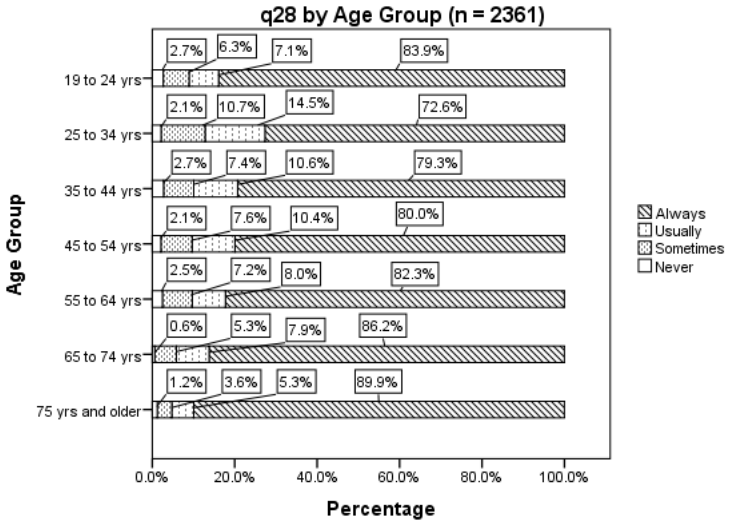
The vast majority (81.5%) of adult respondents responding to survey question #28 (n = 2361) reported that their personal health provider always listened carefully to them compared to 9.4%, 7.1%, and 2.0%, respectively, who reported that their health provider usually, sometimes, and never listened carefully to them (see Figure AS-14).

Figure AS-14. In the last 6 months, how often did your personal health provider listen carefully to you?



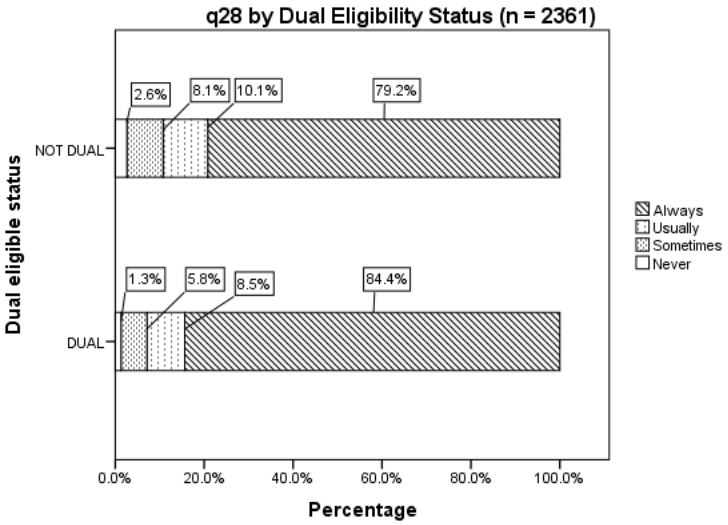
Generally speaking, the percentage of respondents that reported that their personal health provider "always" listened carefully to them increased as the age group of respondents increased. The exception was the 83.9% of respondents in the 19-to-24 year old age group who stated that their personal health provider "always" listened carefully to them. Comparatively, just 72.6% of respondents in the 25-to-34 year old age group answered this way. However, respondents in the 25-to-34 year old group reported in greater numbers that their health provider "usually" or "sometimes" listened carefully to them (see Figure AS-15).

Figure AS-15. In the last 6 months, how often did your personal health provider listen carefully to you?



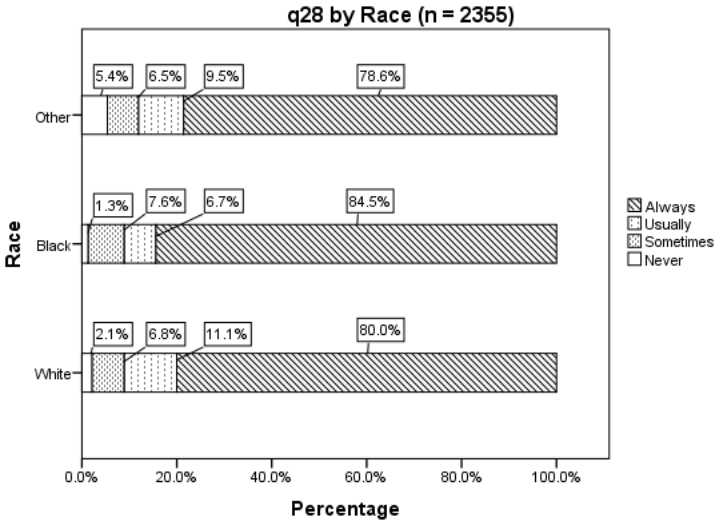
A higher percentage of dually eligible adults reported that their health provider "always" listened carefully to them than those adults only eligible for Medicaid (84.4% vs. 79.2%) (see Figure AS-16).

Figure AS-16. In the last 6 months, how often did your personal health provider listen carefully to you?



Statistically significant variation occurred across the different racial categories and individuals' responses to survey question #28. Individuals in the "other" race category reported that their health provider "never" listened carefully to them in greater numbers than whites or blacks (5.4% vs. 2.1% and 1.3%, respectively). Black respondents had the highest percentage of "always" responses while white respondents had the highest percentage of individuals stating that their personal health provider "usually" listened carefully (see Figure AS-17).

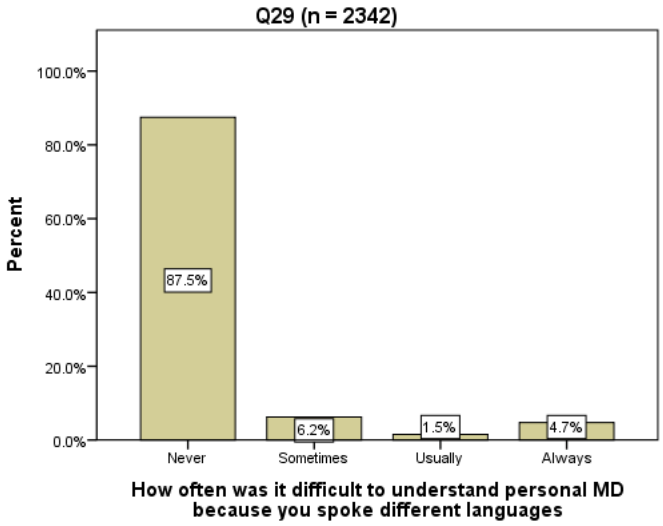
Figure AS-17. In the last 6 months, how often did your personal health provider listen carefully to you?



Most (87.5%) adult respondents to survey question #29 (n = 2342) reported that they "never" had difficulty understanding their personal health provider because the two of them

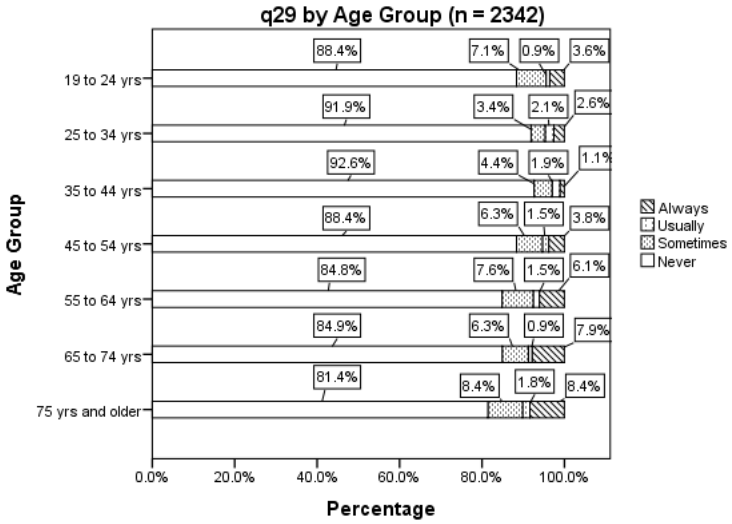
spoke different languages. Small percentages of respondents reported that they "sometimes" (6.2%), "usually" (1.5%), or "always" (4.7%) had difficulty understanding their personal health provider because the two of them spoke different languages (see Figure AS-18).

Figure AS-18. In the last 6 months, how often did you have a hard time speaking with or understanding your personal health provider because you spoke different languages?



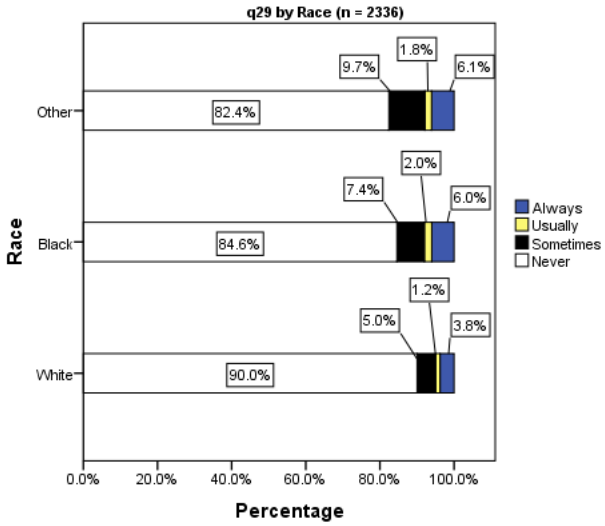
The age of the enrolled adult had a significant effect on how often it was difficult to understand their personal health provider because different languages were spoken. Specifically, older adults (aged 65 and older) reported in greater numbers that it was "always" difficult to understand their personal health provider because the patient and the health care provider spoke different languages (see Figure AS-19).

Figure AS-19. In the last 6 months, how often did you have a hard time speaking with or understanding your personal health provider because you spoke different languages?



There was also statistically significant variation in terms of the enrollee's race, with 6.0% of blacks and 6.1% of those in the "other" racial category responding that they "always" had difficulty understanding their personal health provider because the two spoke different languages while only 3.8% of whites "always" reported these difficulties. This observation was mirrored among those who reported that they "never" experienced these difficulties, with 90% of whites stating that they "never" encountered these difficulties compared to 84.6% of blacks and 82.4% of individuals in the other race category (see Figure AS-20).

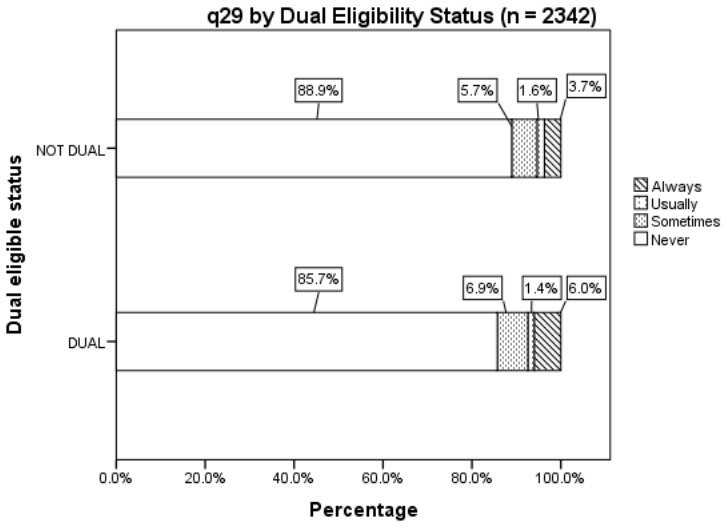
Figure AS-20. In the last 6 months, how often did you have a hard time speaking with or understanding your personal health provider because you spoke different languages?



There was significant variation in the relationship between dual eligibility status and how often respondents had difficulty understanding their personal health provider because they spoke different languages. A higher percentage of non-dually eligible adults responded that they "never" had difficulty understanding their personal health provider because the two spoke

different languages compared to the percentage of dual eligible adults (88.9% vs. 85.7%) (see Figure AS-21).

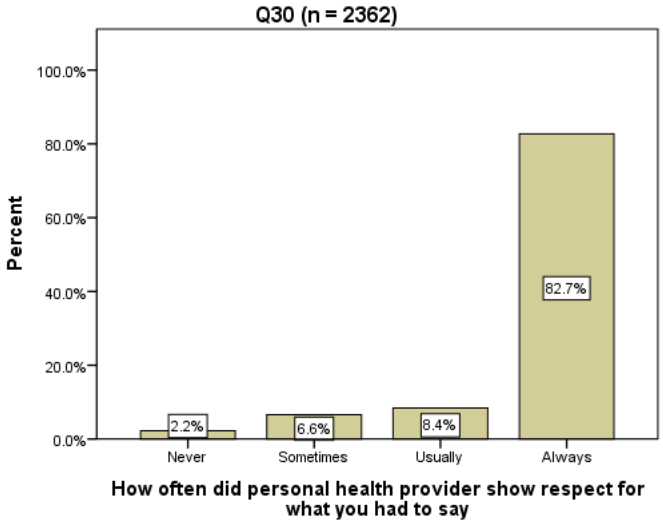
Figure AS-21. In the last 6 months, how often did you have a hard time speaking with or understanding your personal health provider because you spoke different languages?



Respect

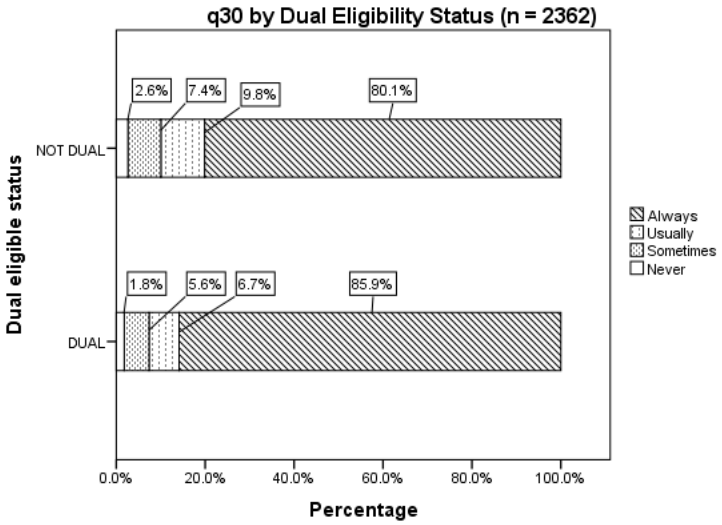
The vast majority (82.7%) of adult respondents to survey question #30 (n = 2362) reported that their personal health provider "always" showed respect for what they had to say compared to 8.4%, 6.6%, and 2.2%, respectively, who reported that their personal health provider "usually," "sometimes," or "never" showed respect for what they had to say (see Figure AS-22).

Figure AS-22. In the last 6 months, how often did your personal health provider show respect for what you had to say?



The respondent's dual eligibility status had an impact in terms of how often their personal health provider showed respect for what they had to say. Compared to non-dual eligible adults, a higher percentage of dual eligibles responded that their personal health provider "always" showed respect for what they had to say (85.9% vs. 80.1%) (see Figure AS-23).

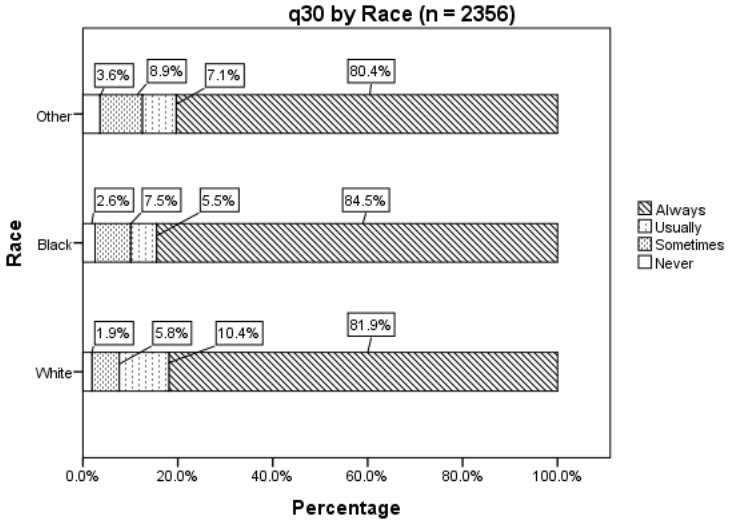
Figure AS-23. In the last 6 months, how often did your personal health provider show respect for what you had to say?



There was significant variation between the racial subpopulations in terms of respondents' perceptions of how often their personal health providers showed respect for what they had to say. Blacks had the highest percentage of respondents claiming that they were "always" shown respect (84.5% compared to 81.9% for whites and 80.4% for other races), but whites had the highest percentage of respondents claiming that they were "always" and/or

"usually" shown respect (92.3% compared to 90% for blacks and 87.5% for whites) (see Figure AS-24).

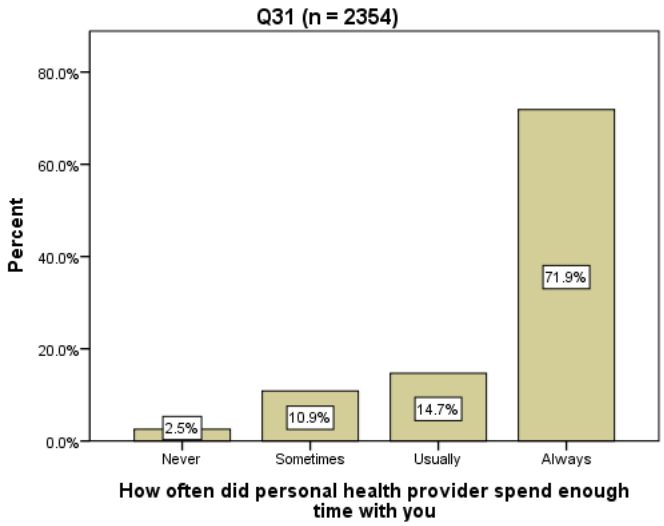
Figure AS-24. In the last 6 months, how often did your personal health provider show respect for what you had to say?



Time Spent

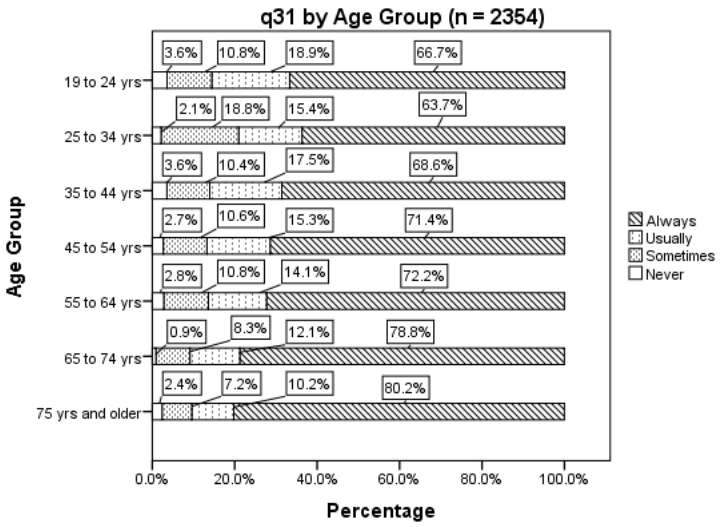
The majority (71.9%) of adult respondents who answered survey question #31 (n = 2354) reported that their personal health provider "always" spent enough time with them compared to 14.7%, 10.9% and 2.5%, respectively, who reported that their personal health provider "usually," "sometimes," or "never" spent enough time with them (see Figure AS-25).

Figure AS-25. In the last 6 months, how often did your personal health provider spend enough time with you?



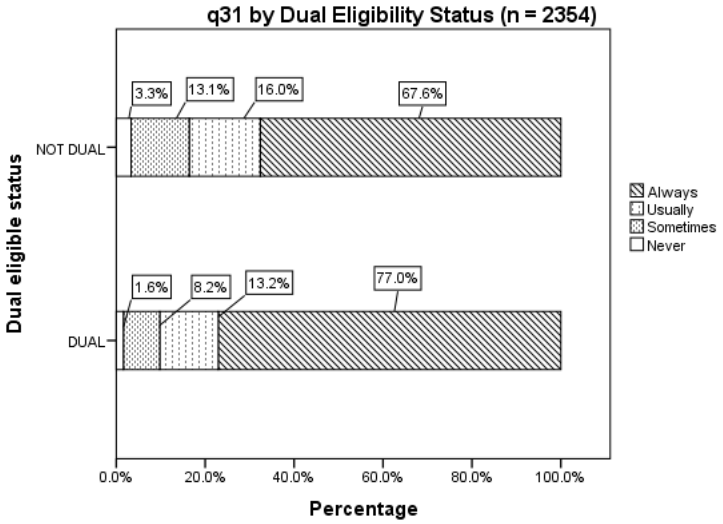
There was significant variation in terms of the different age groupings and respondents' perceptions of how often their personal health provider spent time with them. As is shown in Figure AS-26, adults aged 25 to 34 years responded that their personal health provider "sometimes" spent enough time with them in greater numbers than each of the other age groups. As a result, the proportion (63.7%) of respondents in this age group who stated that their personal health provider "always" spent enough time was smaller than each of the other age groups.

Figure AS-26. In the last 6 months, how often did your personal health provider spend enough time with you?



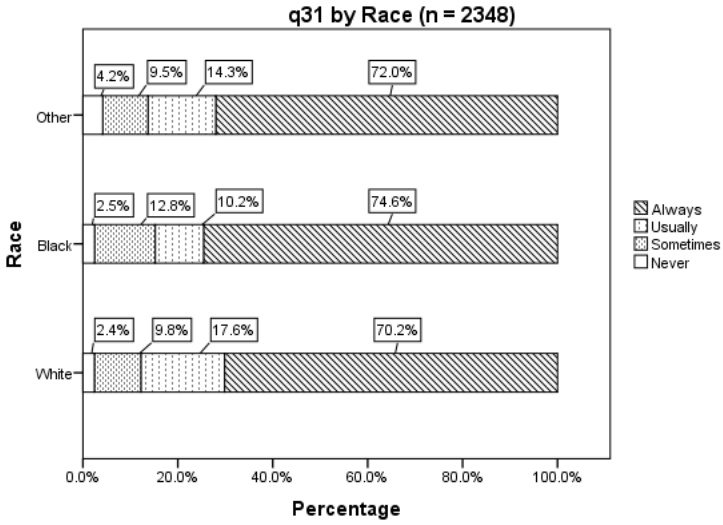
There was significant variation stemming from the relationship between dual eligibility status and responses to question #31. A larger percentage of dual eligible adults reported that their personal health provider "always" spent enough time with them compared to those individuals who were eligible only for Medicaid (77.0% vs. 67.6%) (see Figure AS-27).

Figure AS-27. In the last 6 months, how often did your personal health provider spend enough time with you?



Significant variation was also observed in the relationship between the enrollee's race and responses to question #31. Blacks had the largest percentage of respondents reporting that their personal provider "always" spent enough time with them (74.6% compared to 72.0% for other races and 70.2% for whites), but whites had the largest percentage of respondents reporting that their personal provider either "always" or "usually" spent enough time with them (87.8% compared to 86.3% for other races and 84.8% for blacks) (see Figure AS-28).

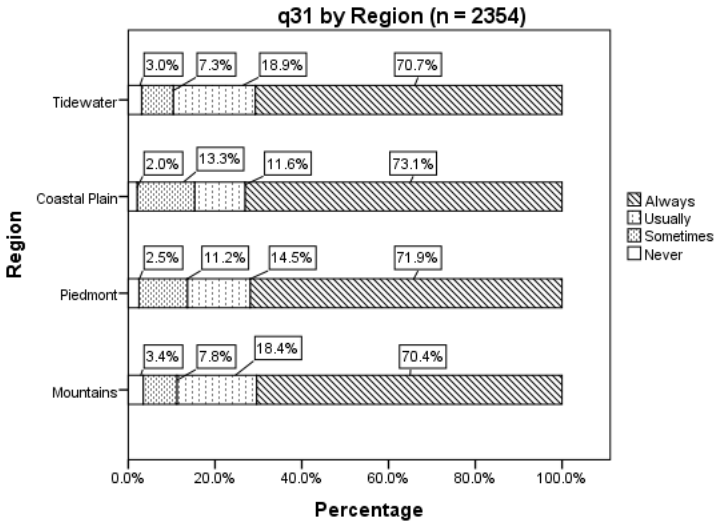
Figure AS-28. In the last 6 months, how often did your personal health provider spend enough time with you?



The respondent's region of residence within North Carolina resulted in significant variation in how respondents answered survey question #31. The Tidewater and Mountain regions had a much higher percentage of respondents who reported that their personal health provider "usually" spent enough time with them while the Coastal Plain and Piedmont regions

had higher percentages of respondents who reported that their personal health provider "sometimes" spent enough time with them (see Figure AS-29).

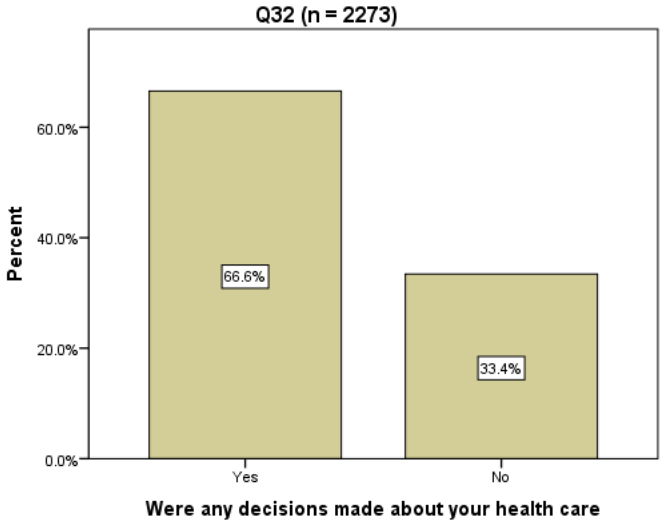
Figure AS-29. In the last 6 months, how often did your personal health provider spend enough time with you?



Healthcare Decision Making

Two-thirds of the adult respondents who answered survey question #32 (n = 2273) claimed that they made a decision about their health care in the six months preceding the survey (see Figure AS-30).

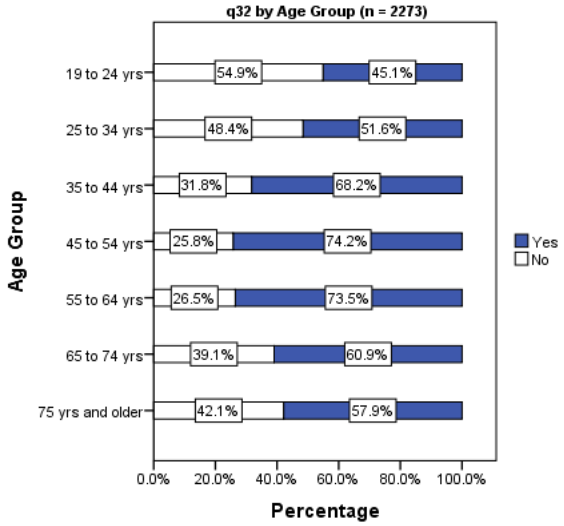
Figure AS-30. In the last 6 months, were any decisions made about your health care?



There were statistically significant differences as to whether or not decisions were made about a respondent's health care in the six months preceding the survey based on age. Compared

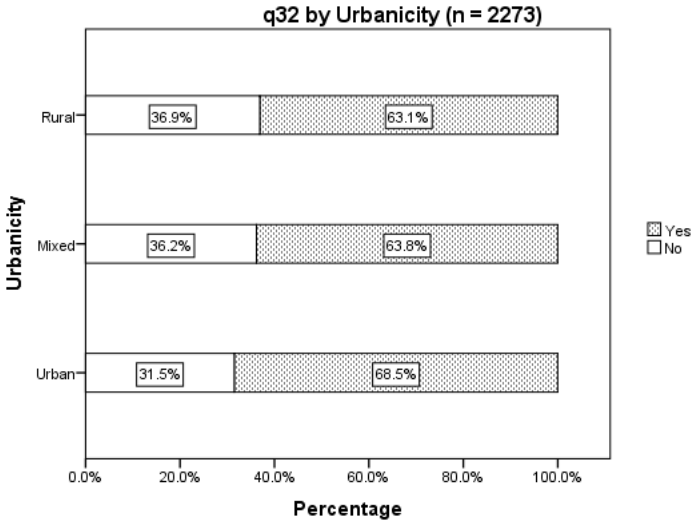
to other age groups, adults aged 19 to 34 years responded in greater numbers that no decisions had been made about their health care while adults aged 45 to 64 years responded in greater numbers that a decision had been made about their health care (see Figure AS-31).

Figure AS-31. In the last 6 months, were any decisions made about your health care?



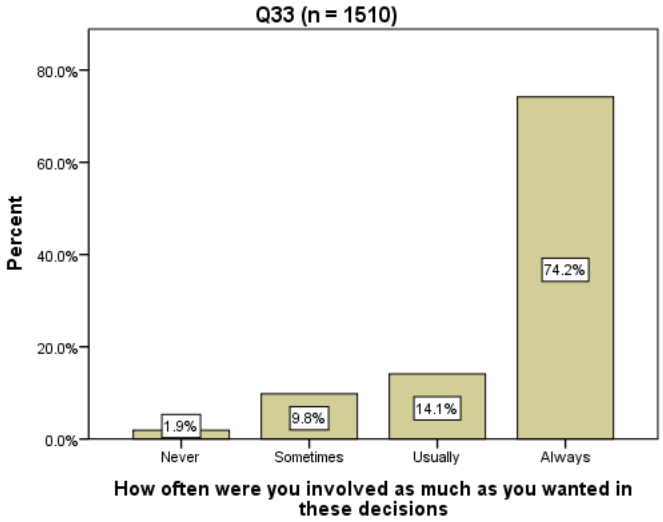
There was significant variation as to whether or not decisions were made about a respondent's health care based on the degree of urbanicity of the respondent's county of residence. A higher percentage of respondents in urban areas made decisions about their health in the six months preceding the survey than did respondents in rural or mixed areas (68.5% compared to 63.1% and 63.8%, respectively) (see Figure AS-32).

Figure AS-32. In the last 6 months, were any decisions made about your health care?



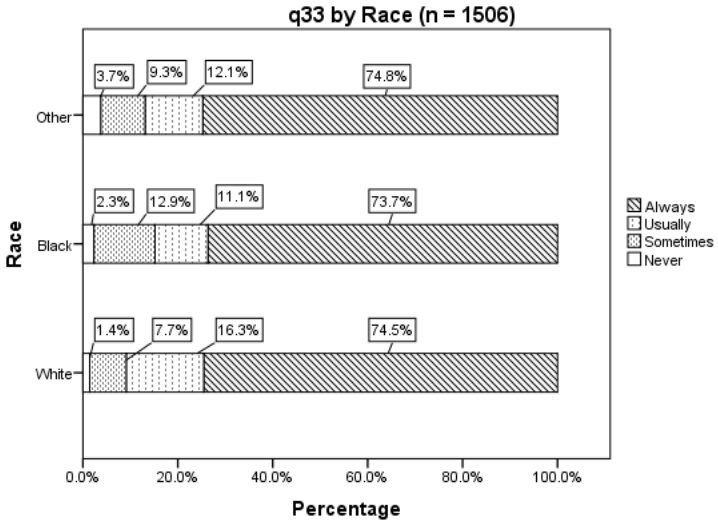
Nearly three-fourths (74.2%) of the adult respondents who answered survey question #33 (n = 1510) reported that they were always involved as much as they wanted in decisions concerning their health care (see Figure AS-33).

Figure AS-33. In the last 6 months, how often were you involved as much as you wanted in these decisions about your health care?



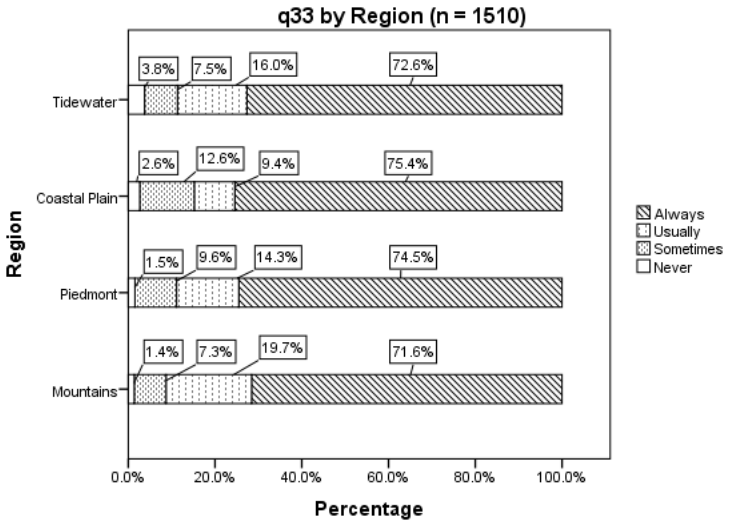
There was significant variation as to how often a patient was involved in decisions about their health care as much as they would have liked that was based on the enrollee's race. The proportion of respondents in each of the racial subpopulations who stated that they were "always" involved in these decisions was remarkably similar. However, a larger percentage of whites responded that they were "usually" involved in these decisions compared to that of blacks and those classified as other race. On the other hand, a larger percentage of blacks responded that they were "sometimes" involved in these decisions compared to the smaller numbers attributable to whites and those in the other race category (see Figure AS-34).

Figure AS-34. In the last 6 months, how often were you involved as much as you wanted in these decisions about your health care?



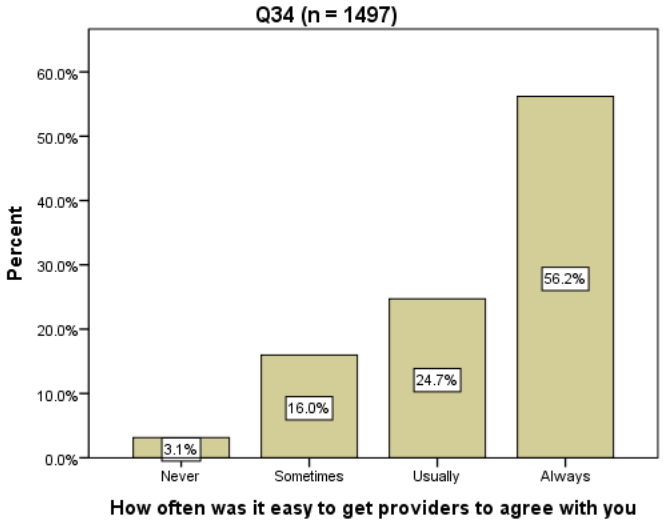
The enrollee's region of residence within North Carolina impacted how often a respondent was involved in decisions about their health care as often as they liked. Compared to other regions, respondents living in the Mountains reported the largest percentage of individuals who were "usually" involved in their health care decisions as much as they wanted while respondents in the Coastal Plain reported the smallest percentage of individuals who were "usually" involved in decisions about their health care as much as they would have liked (see Figure AS-35).

Figure AS-35. In the last 6 months, how often were you involved as much as you wanted in these decisions about your health care?



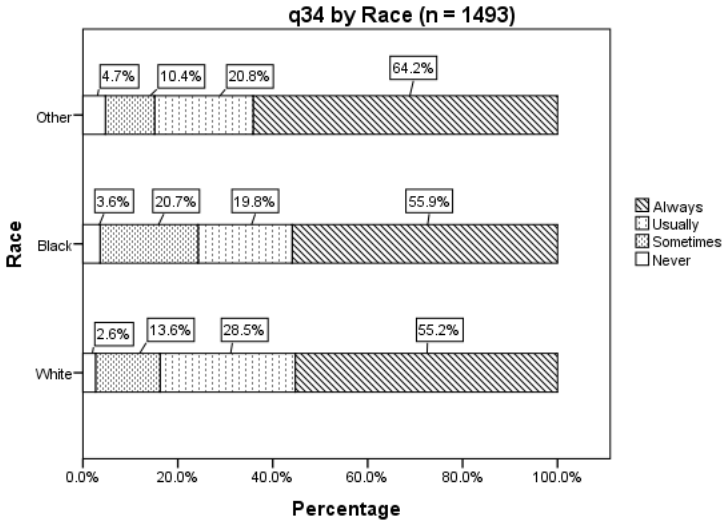
When making decisions about their health care, most (56.1%) respondents who answered survey question #34 (n = 1493) reported that it was always easy to get their health provider to agree with them while 24.7%. 16.0%, and 3.1%, respectively, reported that it was "usually," "sometimes," and "never" easy to get providers to agree with them (see Figure AS-36).

Figure AS-36. In the last 6 months, how often was it easy to get your doctors or other health providers to agree with you on the best way to manage your health conditions or problems?



The respondent's race had an effect on how often it was easy to get their health provider to agree with them when making decisions about their health care. White respondents stated that it was "usually" easy to get their health provider to agree with them in greater numbers compared to the other racial subpopulations, while black respondents stated that it was "sometimes" easy to get their provider to agree with them in markedly greater numbers than the other racial groups (see Figure AS-37).

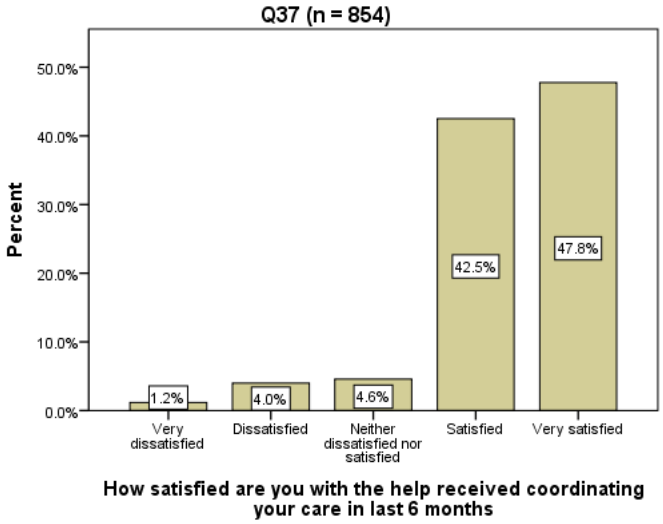
Figure AS-37. In the last 6 months, how often was it easy to get your doctors or other health providers to agree with you on the best way to manage your health conditions or problems?



Care Coordination

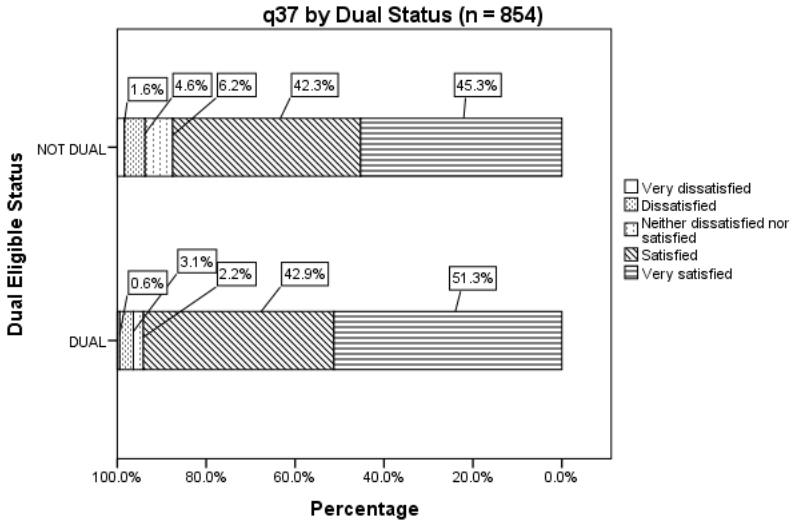
A plurality (47.8%) of the adult respondents who responded to survey question #37 (n = 854) were "very satisfied" with the help they received coordinating their care in the six months preceding the survey while 42.5%, 4.6%, 4.0%, and 1.2%, respectively, responded that they were "satisfied," "neither dissatisfied or satisfied," "dissatisfied," or "very dissatisfied" (see Figure AS-38).

Figure AS-38. How satisfied are you with the help received coordinating your care in the last six months?



There was significant variation as to how satisfied a respondent was that hinged on the respondent's dual eligibility status. Compared to those who were eligible only for Medicaid, a larger percentage of respondents who were dually eligible for both Medicaid and Medicare reported that they were "very satisfied" with the help they received coordinating their care in the six months preceding the survey (51.3% vs. 45.3%) (see Figure AS-39).

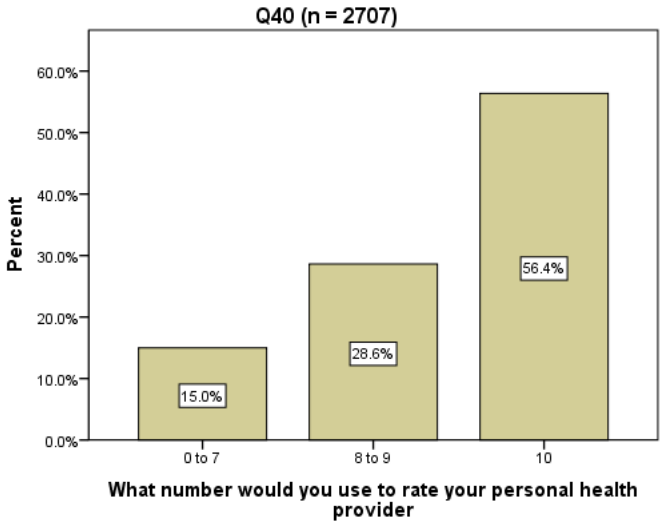
Figure AS-39. How satisfied are you with the help received coordinating your care in the last six months?



Satisfaction with Personal Health Provider

Most (56.4%) of the adult enrollees prompted to respond to survey question #40 (n = 2707) gave their personal health provider a rating of "10" while 28.6% and 15.0%, respectively, gave their personal health provider a rating in the range of "8 to 9" and "0 to 7" (see Figure AS-40).

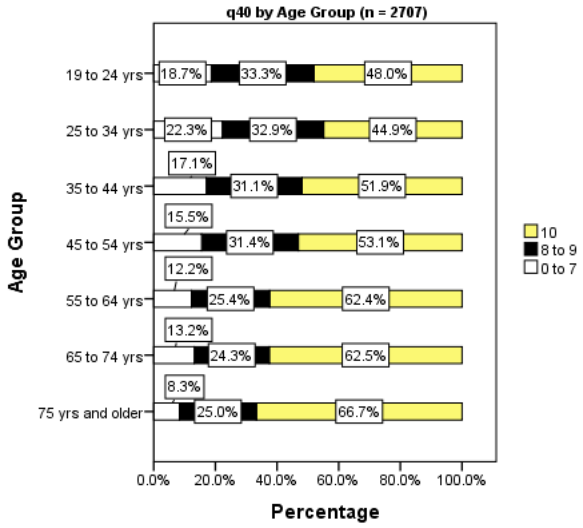
Figure AS-40. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate your personal health provider?



The age group of the respondent was associated with significant variation in terms of the responses offered for question #40. Compared to other age groups, respondents in the 25-to-34 years old group rated their personal health provider with a score of "0 to 7" in larger numbers. By the same token, the percentage of respondents who rated their personal health provider a score of "10" increased as the value of the age group increased. For example, less than 45% of respondents in the 25-to-34 year age group offered their personal health provider a score of "10"

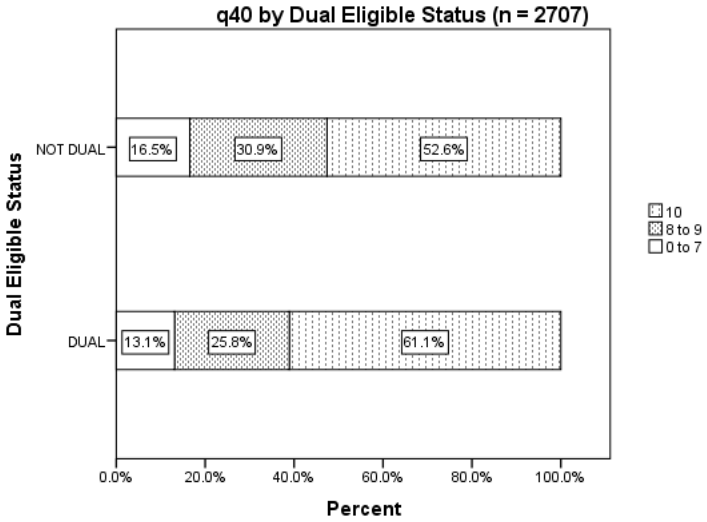
compared to the two-thirds of respondents in the 75-year old and older age group who assigned their personal health provider a score of "10" (see Figure AS-41).

Figure AS-41. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate your personal health provider?



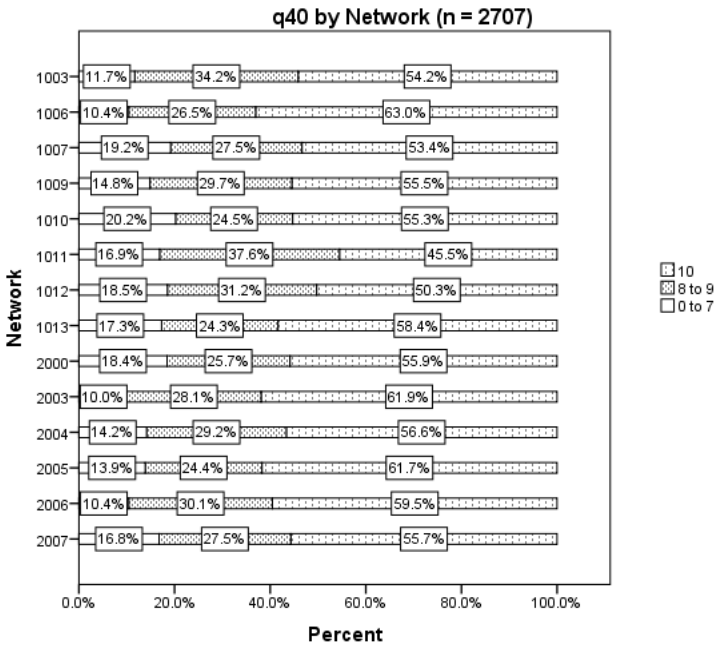
There was significant variation in the bivariate relationship between dual eligible status and respondents' ratings of their personal health providers. The proportion of respondents who rated their personal health provider with a score of "10" was significantly greater for dual eligible enrollees compared to individuals who were only eligible for Medicaid (61.1% vs. 52.6%) (see Figure AS-42).

Figure AS-42. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate your personal health provider?



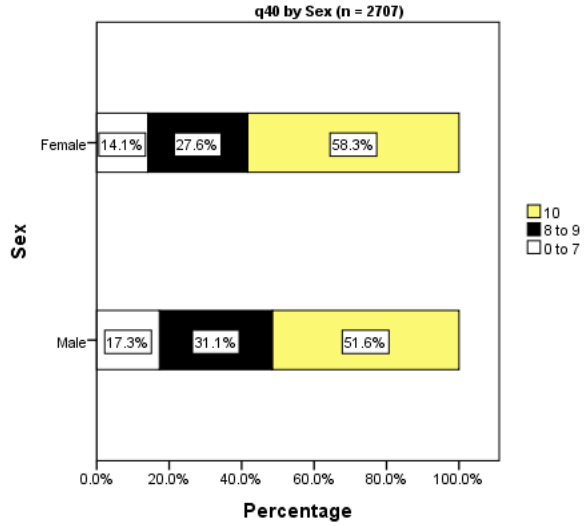
There was also statistically significant variation associated with the care network that enrolled respondents and their ratings of their personal care providers. Less than half (45.5%) of respondents enrolled in the Community Care of Wake/Johnston Counties (1011) network rated their personal care provider with a score of "10." On the other hand, more than half of the respondents in each of the other care networks offered a "10" rating. Correspondingly, the percentage of respondents who rated their personal health provider with a score of "8 or 9" was largest in the Community Care of Wake/Johnston Counties network (see Figure AS-43).

Figure AS-43. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate your personal health provider?



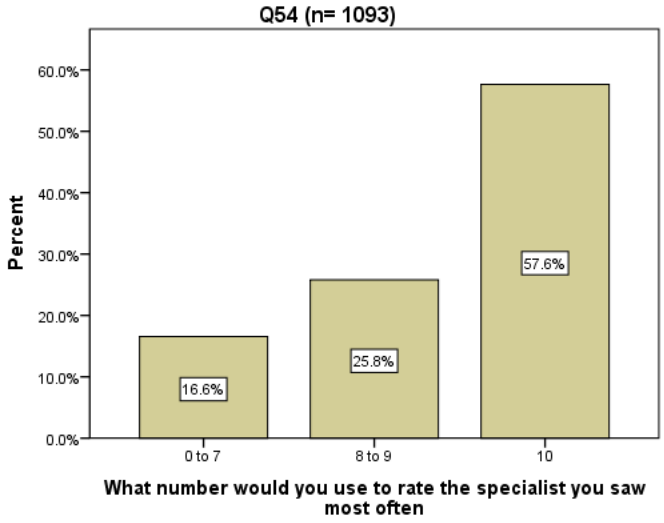
The sex of the respondent impacted enrollees' ratings of their personal health providers. The percentage of women who rated their personal health provider with a score of "10" was greater than that observed among men (58.3% vs. 51.6%). Not surprisingly, the proportion of men who gave their personal health providers a rating in the ranges of "0 to 7" and "8 to 9" was greater than that observed for women (see Figure AS-44).

Figure AS-44. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate your personal health provider?



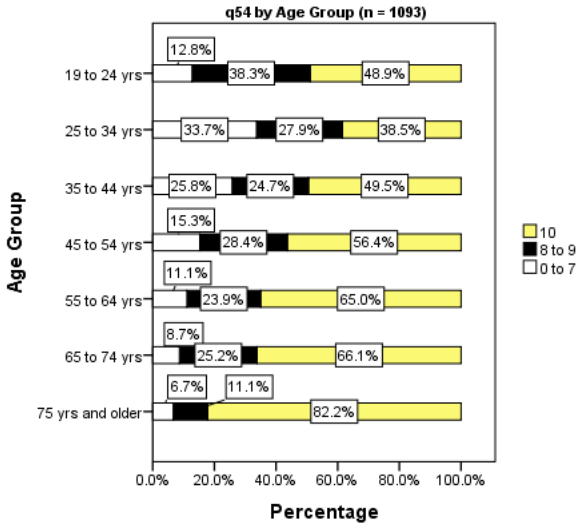
Most (57.6%) of the adult respondents to answered survey question #54 (n = 1093) gave the specialist they saw most often a rating of "10," while 25.8% and 16.6%, respectively, rated the specialist they saw most often in the range of "8 to 9" and "0 to 7" (see Figure AS-45).

Figure AS-45. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate the specialist that you saw most often?



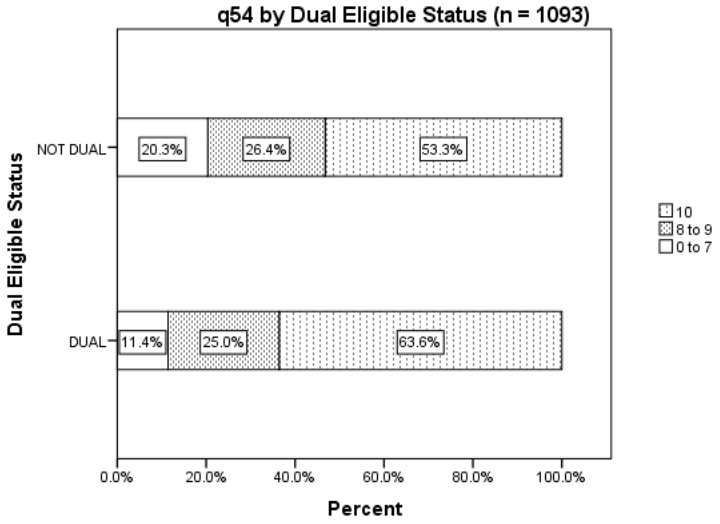
The age group of the respondent resulted in variation as to how individuals rated the specialist that they saw most often. The percentage of respondents who assigned a rating of "0 to 7" was greatest among individuals in the 25-to-34 year old group. On the other hand, ratings of "0 to 7" were much less prevalent in the older age groups (55 years of age and older). Correspondingly, scores of "10" were quite commonplace in the older age groups and much less frequent among the younger age cohorts. In fact, less than half of the respondents who were less than 45 years old rated their specialist with a score of "10" (see Figure AS-46).

Figure AS-46. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate the specialist?



The dual eligibility status of the respondent had a significant impact on specialists' ratings. Dual eligible adults rated their specialty provider with a score of "10" in greater numbers than those who were only eligible for Medicaid (63.6% vs. 53.3%). The corresponding compensatory effect occurred in the "0 to 7" score range, with 20.3% of non-dual eligibles assigning their specialist a score of "0 to 7" compared to just 11.4% of the dual eligibles (see Figure AS-47).

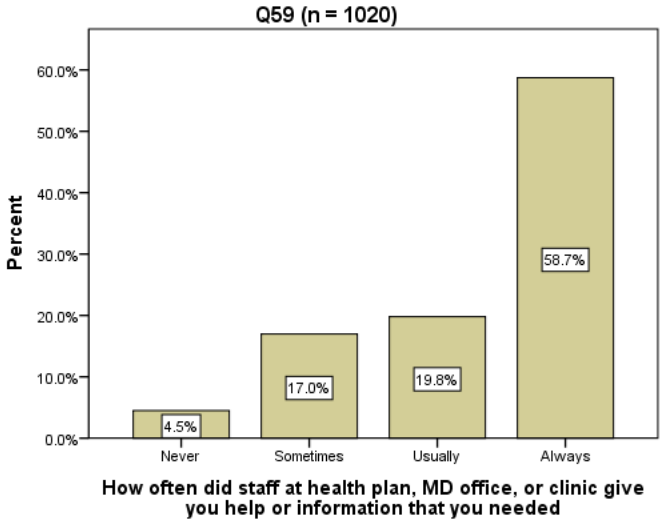
Figure AS-47. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate the specialist you saw most often?



Satisfaction with staff help

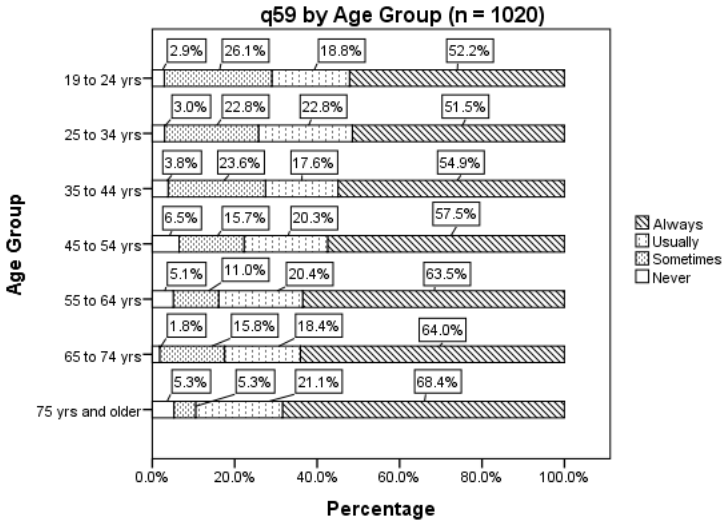
Most (58.7%) of the respondents who answered survey question #59 (n = 1020) reported that office staff at their health plan, doctor's office, or clinic "always" gave them the information or help that they needed, while an additional 19.8% stated that they "usually" received this information or help. Additionally, 17.0% reported that they "sometimes" received this assistance and 4.5% stated that they "never" received it (see Figure AS-48).

Figure AS-48. In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic give you the information or help that you needed?



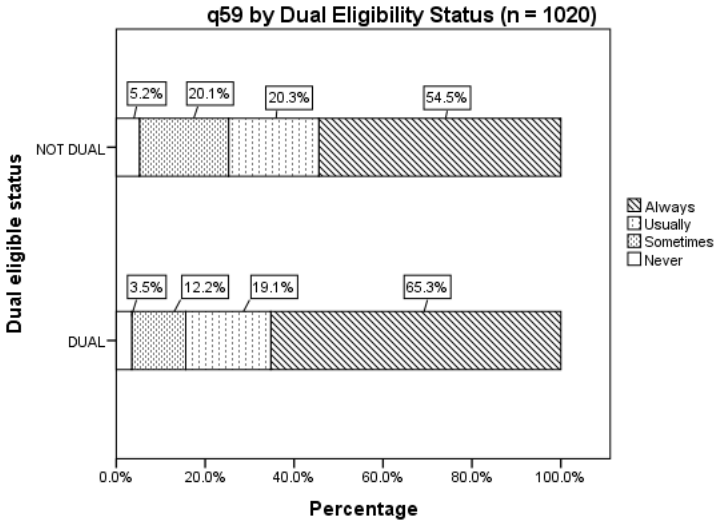
The age group of the respondent led to variation in perceptions as to how often staff at the health plan, doctor's office, or clinic provided needed information or assistance. Generally speaking, the percentage of respondents reporting that they "always" received this assistance increased as the age of the sub-group increased. Consequently, the percentage of respondents reporting that they "sometimes" received this assistance was greater in the younger age groups (see Figure AS-49).

Figure AS-49. In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic give you the information or help that you needed?



The enrollee's dual eligibility status also had an impact on the responses to question #59. Dual eligibles reported that they "always" received this assistance or information in greater numbers than those individuals who were only enrolled in Medicaid (65.3% vs. 54.5%). The dual eligibles also reported in significantly smaller numbers that they "sometimes" received this assistance compared to their non-dual eligible counterparts (12.2% vs. 20.1%) (see Figure AS-50).

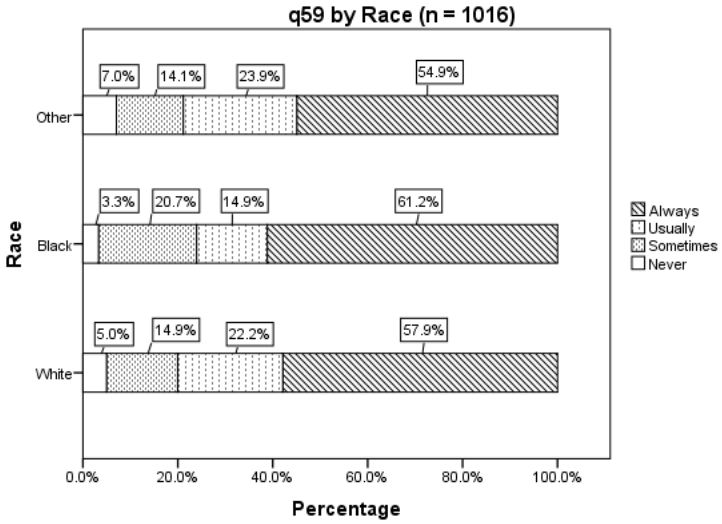
Figure AS-50. In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic give you the information or help that you needed?



There was significant variation in responses to question #59 based on the respondent's race. Black respondents reported that they "always" got the help or information that they needed from the staff at the health plan, physician's office, or clinic in larger numbers than whites or other race respondents (61.2% compared to 57.9% and 54.9%, respectively). However, these black respondents reported that they "usually" received this help in significantly smaller numbers

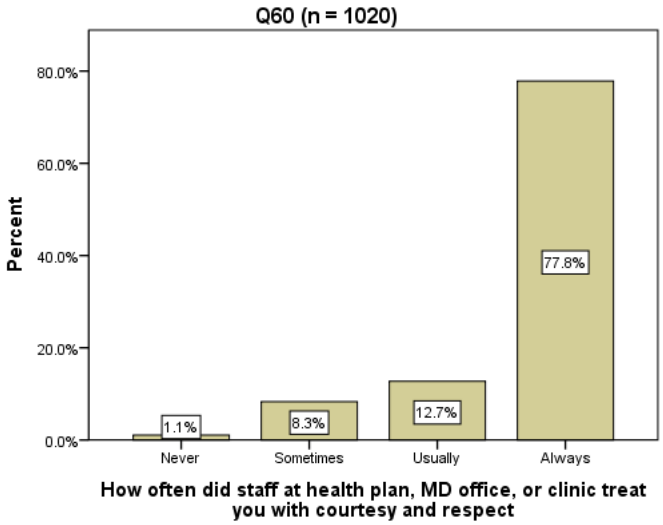
than the other racial subpopulations (14.9% compared to 22.2% and 23.9%, respectively), resulting in lower overall satisfaction among blacks as measured by the combined percentage of "always" and "usually" responses (see Figure AS-51).

Figure AS-51. In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic give you the information or help that you needed?



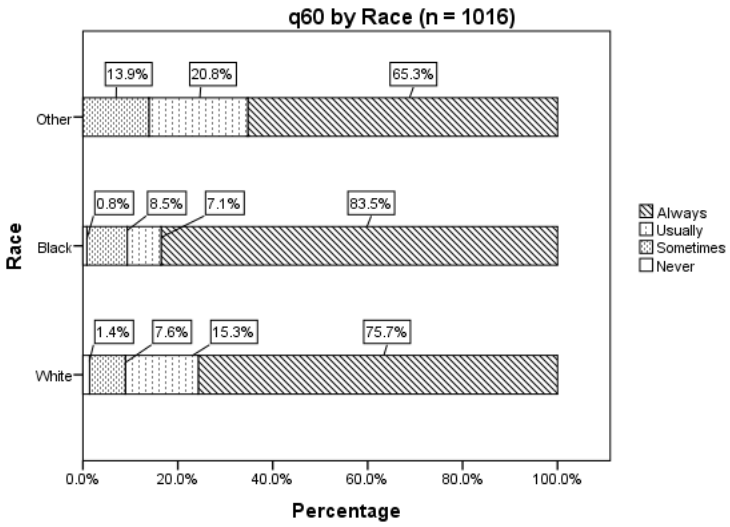
More than three-fourths (77.8%) of the respondents who answered survey question #60 (n = 1020) reported "always" being treated with courtesy and respect by the staff at their health plan, physician's office, or clinic, while 12.7%, 8.3%, and 1.1%, respectively, reported that they were "usually," "sometimes," and "never" treated in this manner (see Figure AS-52).

Figure AS-52. In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic treat you with courtesy and respect?



There was significant variation based on the enrollee's race and their responses to question #60. The percentage of black respondents who reported that they were "always" treated with courtesy and respect by staff at their health plan, physician's office or clinic was greater than that observed in the white and other race subpopulations (83.5% compared to 75.7% and 65.3%, respectively). However, the percentage of blacks claiming that they were "usually" treated in this manner was much smaller than that for whites and other race respondents (7.1% compared to 15.3% and 20.8%, respectively) (see Figure AS-53).

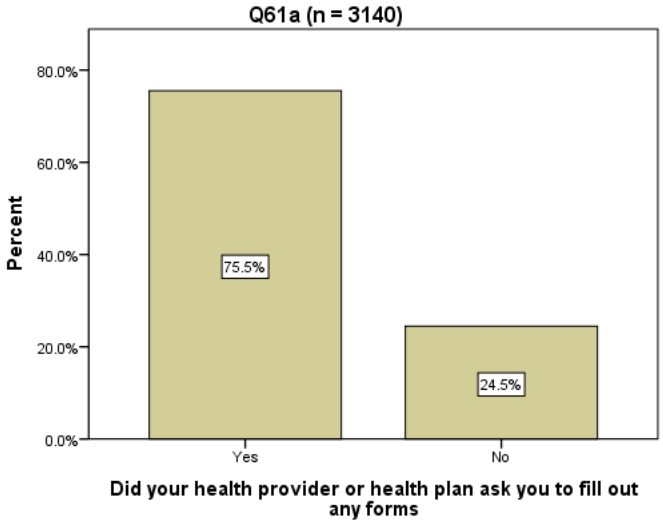
Figure AS-53. In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic treat you with courtesy and respect?



Forms

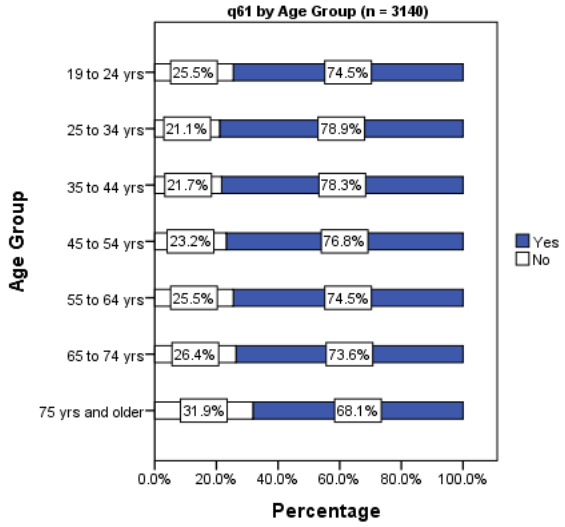
The vast majority (75.5%) of the adults who responded to survey question #61 (n = 3140) stated that they were asked to fill out forms from their health provider or health plan (see Figure AS-54).

Figure AS-54. In the last 6 months, did you fill out any forms from your health provider or health plan?



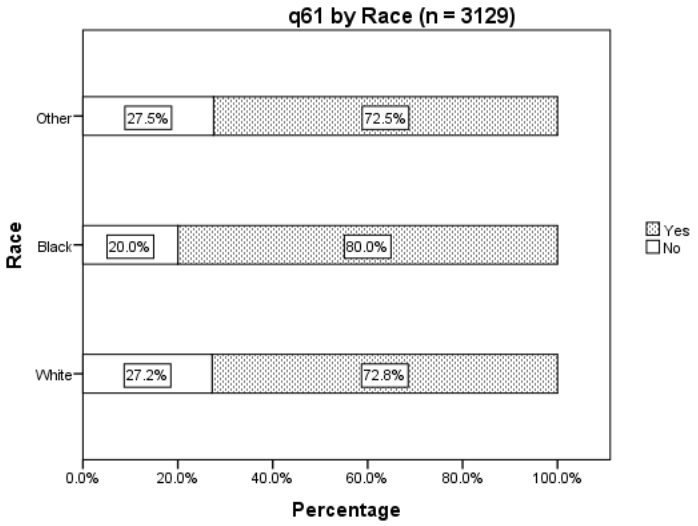
There was slight, yet significant, variation in the bivariate relationship between the enrollee's age and whether or not they had been asked to fill out any forms. Overall, the percentage of respondents who reported that they were asked to fill out forms decreased as the age group of the respondent increased. For example, nearly 79% of respondents in the 25-to-34 year old group stated that they were asked to fill out forms compared to just 68.1% in the 75-year and older group (see Figure AS-55).

Figure AS-55. In the last 6 months, did you fill out any forms from your health provider or health plan?



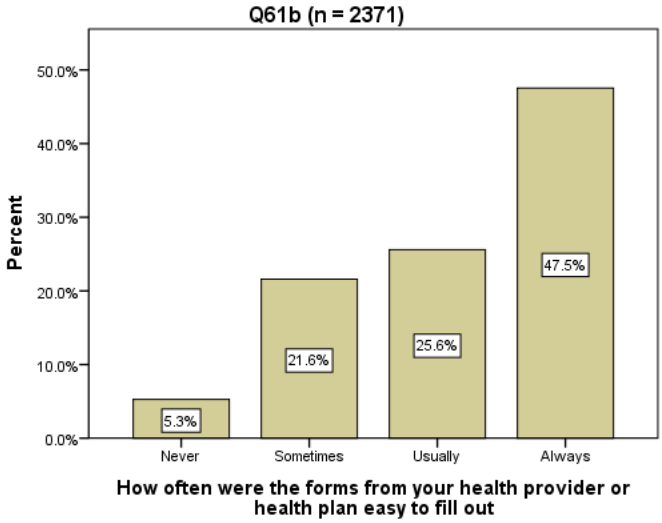
There was also significant variation in the responses to question #61 based on the respondent's race. The percentage of white and other race respondents who reported that they did not fill out any forms from their health provider or health plan was greater than that observed for blacks (27.2% and 27.5% compared to 20.0%) (see Figure AS-56).

Figure AS-56. In the last 6 months, did you fill out any forms from your health provider or health plan?



A plurality (47.5%) of respondents who answered the "b" section of survey question #61 (n = 2371) claimed that the forms from their health provider or health plan were "always" easy to fill out, while 25.6%, 21.6%, and 5.3%, respectively, said that the forms from their health provider or health plan were "usually," "sometimes," or "never" easy to fill out (see Figure AS-57).

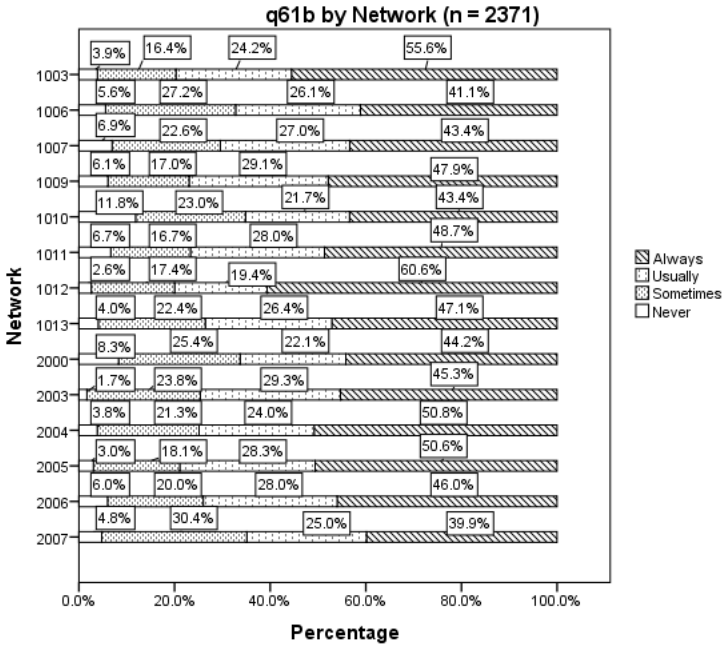
Figure AS-57. In the last 6 months, how often were the forms from your health provider or health plan easy to fill out?



The respondent's care network had an impact on how often the forms from the health provider or health plans were easy to fill out. The percentage (11.8%) of enrollees in the Carolina Community Health Partnership network (1010) who responded that it was "never" easy to fill out

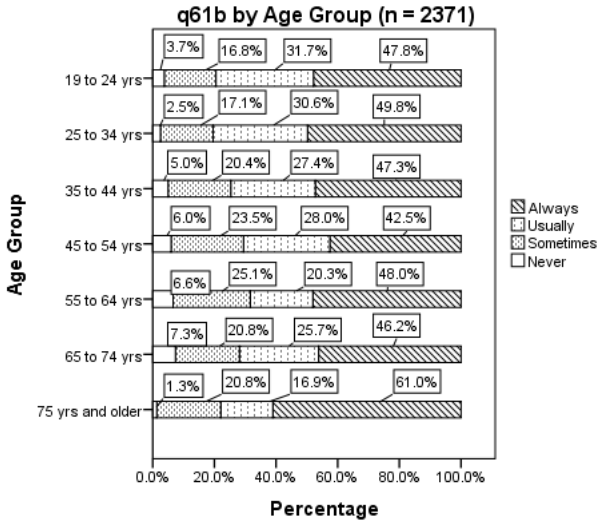
these forms was much greater than that observed in other networks. By contrast, only 1.7% of respondents in the Community Care of Southern Piedmont network (2003) reported that the forms were "never" easy to fill out. At the other end of the scale, more than 60% of respondents enrolled in the Partnership for Health Management network (1012) stated that it was "always" easy to fill out forms from their health provider or health plan (see Figure AS-58).

Figure AS-58. In the last 6 months, how often were the forms from your health provider or health plan easy to fill out?



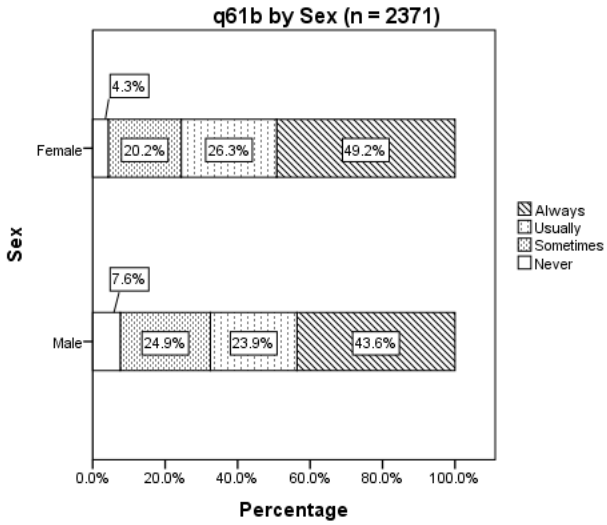
There was significant variation in the relationship between the respondent's age group and responses to question #61b. With the exception of respondents in the 75-years and older group, the profile of responses for respondents in all of the other age groups was quite similar. However, the experience in the 75-years and older group was highlighted by a relatively large percentage (61.0%) of respondents who stated that it was "always" easy to fill out forms from the provider or health plan. By contrast, less than half of respondents in each of the other age groups agreed that it was "always" easy. At the opposite end of the measurement scale, only 1.3% of respondents in the 75-years and older group and 2.5% of respondents in the 25-to-34 year old group reported that it was "never" easy, which was significantly less than that observed in other age groups (see Figure AS-59).

Figure AS-59. In the last 6 months, how often were the forms from your health provider or health plan easy to fill out?



The enrollee's sex also had an effect on responses to question 61b. The proportion of females who responded that it was "always" easy to complete forms from their providers or health plan was greater than that reported by males (49.2% vs. 43.6%). Correspondingly, only 4.3% of females reported that the forms were "never" easy to complete compared to 7.6% of males (see Figure AS-60).

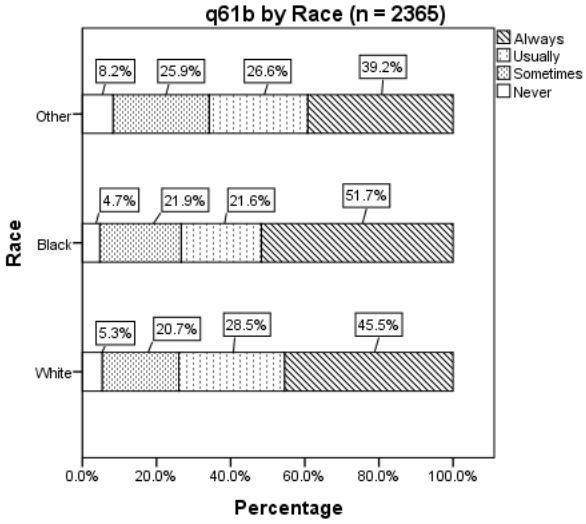
Figure AS-60. In the last 6 months, how often were the forms from your health provider or health plan easy to fill out?



The race of the respondent had a significant impact on the responses to question #61b. The percentage of blacks that reported that it was "always" easy to fill out forms from their health provider or health plan was 51.7% compared to 45.5% for whites and 39.2% for individuals in the other race category. However, the percentage of whites that responded that it was "usually" easy surpassed that of blacks (28.5% vs. 21.6%). Thus, the percentage of whites

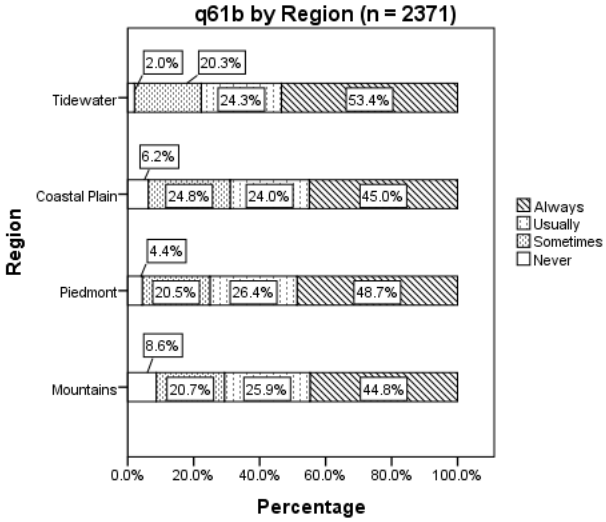
that “always” or “usually” found it easy to fill out forms slightly exceeded that of blacks and other race respondents (74.0% vs. 73.3% and 65.8%, respectively) (see Figure AS-61).

Figure AS-61. In the last 6 months, how often were the forms from your health provider or health plan easy to fill out?



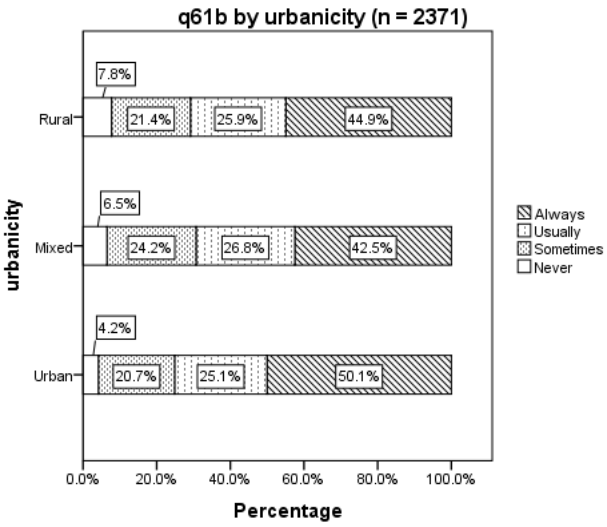
The region of North Carolina where the enrollee lived resulted in a significant variation in terms of how often it was easy for enrollees to fill out forms from the patient’s health provider or health plan. Nearly one-in-ten (8.6%) of respondents living in the Mountains region reported that it was “never” easy to fill out the forms which was statistically greater than that reported for the other regions. For instance, only 2.0% of respondents in the Tidewater region reported that it was “never” easy while 53.4% of Tidewater respondents claimed that it was “always” easy, the highest percentage of “always” responses recorded in any of the regions (see Figure AS-62).

Figure AS-62. In the last 6 months, how often were the forms from your health provider or health plan easy to fill out?



There was significant variation in responses to question #61b based on the urbanicity of the county where the respondent lived. Respondents living in urban counties reported that it was "always" easy to fill out forms from their provider or health plan in greater numbers than those living in counties designated as rural or mixed (50.1% compared to 44.9% and 42.5%, respectively). The largest percentage of "never" easy to fill out the forms responses was recorded among respondents living in rural areas (see Figure AS-63).

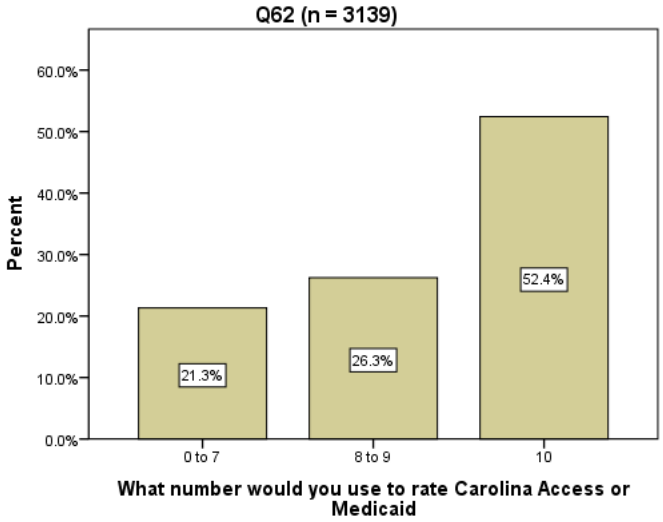
Figure AS-63. In the last 6 months, how often were the forms from your health provider or health plan easy to fill out?



Overall Satisfaction

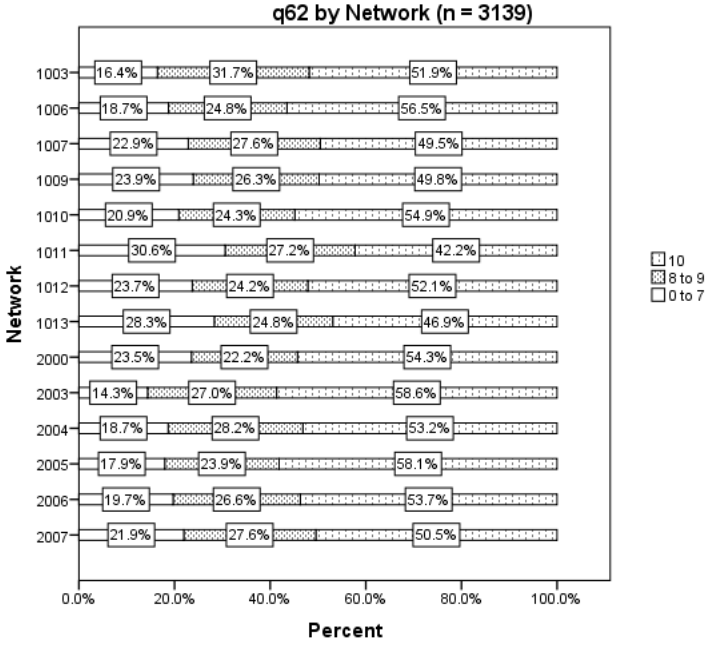
Overall, a majority (52.4%) of enrollees responding to survey question #62 (n = 3139) gave the state Medicaid program a rating of "10" on a 0-to-10 scale, while 26.3% and 21.3%, respectively, scored the Medicaid program with a rating in the range of "8 to 9" and "0 to 7" (see Figure AS-64).

Figure AS-64. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate Carolina Access or Medicaid now?



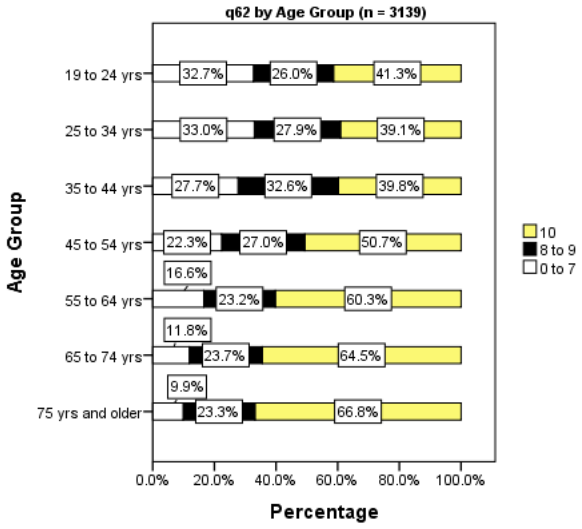
The enrollee's affiliated care network was the source of significant variation in the ratings of the Medicaid program. The largest percentages of "0 to 7" responses were recorded among respondents in the Community Care of Wake/Johnston Counties network (1011) and the Carolina Collaborative Community Care network (1013) at 30.6% and 28.3%, respectively. Meanwhile, the smallest percentage of "0 to 7" responses occurred among enrollees in the Community Care of Southern Piedmont network (2003) at 14.3%. The care network with the greatest percentage of "10" responses was the Community Care of Southern Piedmont network (2003) at 58.6% while the smallest percentage of "10" scores occurred among respondents in the Community Care of Wake/Johnston Counties network (1011) at 42.2% (see Figure AS-65).

Figure AS-65. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate Carolina Access or Medicaid now?



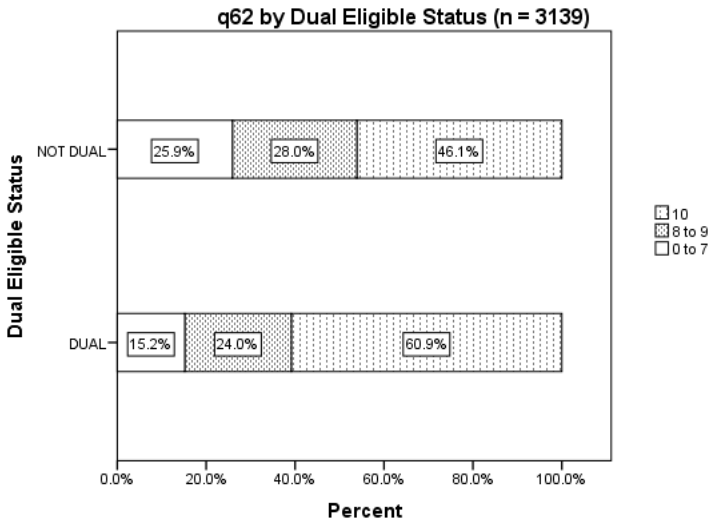
There were statistically significant differences in Medicaid ratings among the different age groups. Younger respondents were generally less satisfied with the Medicaid program while older adults were generally more satisfied. Adults aged 19-to-44 years recorded higher proportions of "0 to 7" scores and lower proportions of "10" responses compared to adults in the older age groups. Adults aged 35-to-44 years had the largest percentage of "8 to 9" ratings at 32.6% of respondents in this age group. Adults aged 55 years and older claimed both the largest percentages of "10" scores and the smallest percentages of "0 to 7" ratings (see Figure AS-66).

Figure AS-66. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate Carolina Access or Medicaid now?



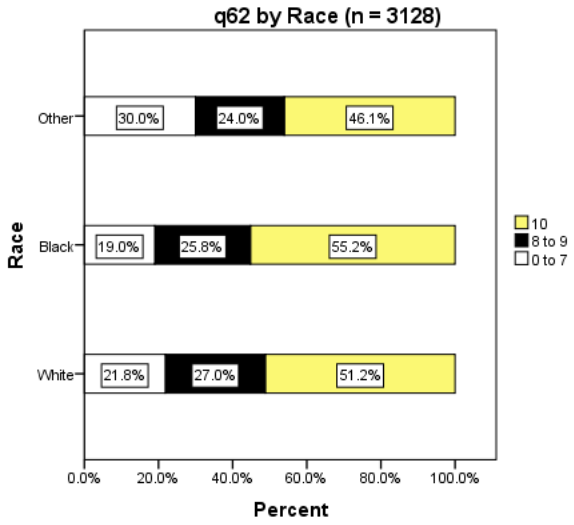
The respondent's dual eligibility status impacted responses related to satisfaction with the Medicaid program. Individuals who were eligible for both Medicaid and Medicare reported scores of "10" in greater numbers than those who were only eligible for Medicaid (60.9% vs. 46.1%). By the same token, scores of "0 to 7" were less prevalent among the dual eligibles compared to the non-dual eligibles (15.2% vs. 25.9%) (see Figure AS-67).

Figure AS-67. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate Carolina Access or Medicaid now?



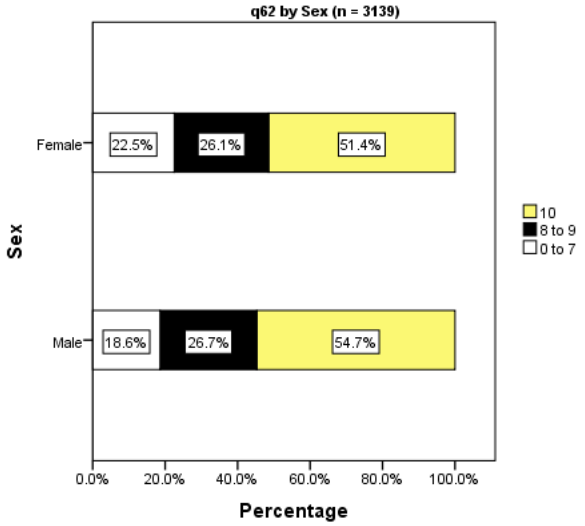
There was significant variation in the ratings of Medicaid based on the respondent's race. Scores of "10" were most prevalent among blacks, with 55.2% assigning a rating of "10" compared to 51.2% of whites and 46.1% in the other race group. Meanwhile, ratings of "0 to 7" occurred most frequently in the other race group at 30.0% compared to 21.8% for whites and 19.0% for blacks (see Figure AS-68).

Figure AS-68. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate Carolina Access or Medicaid now?



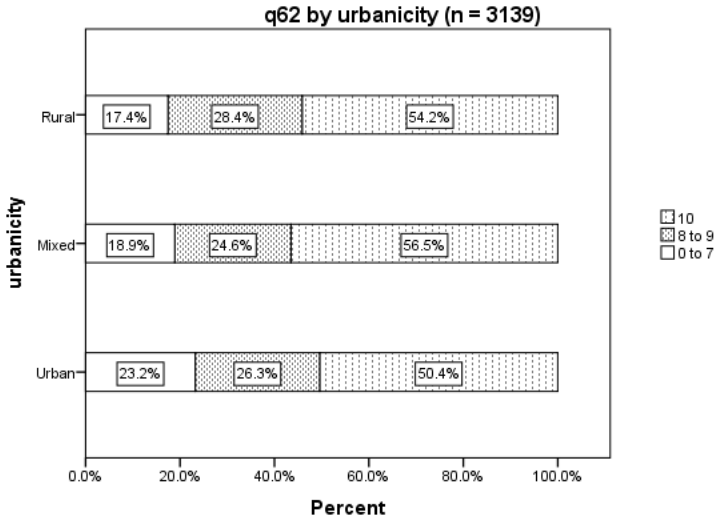
There was slight, but significant, variation in the Medicaid program ratings based on the sex of the respondent. The percentage of males rating the Medicaid program with a score of "10" was 54.7% compared to 51.4% for females. Correspondingly, females rated the Medicaid program in the "0 to 7" range in greater numbers than males (22.5% vs. 18.6%) (see Figure AS-69).

Figure AS-69. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate Carolina Access or Medicaid now?



There was variation in the ratings assigned to the Medicaid program based on the degree of urbanicity of the county where the respondent lived. The largest percentage of "0 to 7" scores were recorded by urban respondents at 23.2% compared to 18.9% among residents in mixed areas and 17.4% in rural counties. Residents living in mixed areas reported the largest percentage of "10" scores at 56.5% compared to 54.2% of rural residents and 50.4% of urban residents (see Figure AS-70).

Figure AS-70. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate Carolina Access or Medicaid now?



Health Status

The results reported in this section show that dual eligibles do report needs and care related to "physical or medical conditions" (q24) and self-ratings of "overall health" (q67) that are significantly statistically greater than those of non-duals. The mental health of the dual eligibles appears to be much better than their "physical or medical condition" relative to the entire Medicaid population surveyed. The responses of dual eligibles and non-duals that rated "overall mental or emotional health" (q16) and need for "treatment or counseling for a personal or family problem" (q17) did not show dual eligible to suffer worse health status. Indeed, statistically the Medicaid only respondents had a significantly greater need for "treatment or counseling for a personal or family problem."

Also noteworthy is the fact that Blacks rated their "overall mental and emotional health" (q16) and their "overall health" (q67) as better than the responses given by Whites and Other races. Blacks also gave responses that were significantly more positive to many of the specific questions about needs and problems. Although this pattern might be considered surprising in light of the conventional wisdom that Blacks suffer greater health disparities than whites, the finding only serves to confirm an apparently enduring characteristic of the North Carolina Medicaid population observed in the previous CAHPS report (Sun, 2010; Brandon et al., 2008; see also Hampton, 2014).

Table AHS-1. Health Status Questions

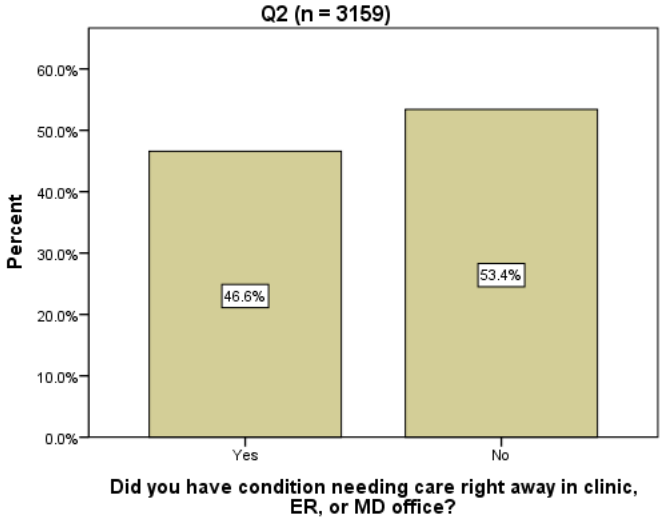
No.	Question
q2	In the last 6 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?
q10	In the last 6 months, did you have a health problem for which you needed special medical equipment, such as a cane, a wheelchair, or oxygen equipment?
q12	In the last 6 months, did you have any health problems that needed special therapy, such as physical, occupational, or speech therapy?
q14	In the last 6 months, did you need someone to come into your home to give you home health care or assistance?
q16	In general, how would you rate your overall mental or emotional health?
q17	In the last 6 months, did you need any treatment or counseling for a personal or family problem?
q24	Do you have a physical or medical condition that seriously interferes with your ability to work, attend school, or manage your day-to-day activities?
q64	In the last 6 months, did you get any new prescription medicines or refill a prescription?
q67	In general, how would you rate your overall health?
q68	Because of any impairment or health problem, do you need the help of other persons with your personal care needs, such as eating, dressing, or getting around the house?
q69	Because of any impairment or health problem, do you need help with your routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?
q70	Do you have a physical or medical condition that seriously interferes with your independence, participation in the community, or quality of life?
q72	In the past 6 months, have you seen a health provider 3 or more times for the same

	condition or problem?
q73	Is this a condition or problem that has lasted for at least 3 months? Do not include pregnancy or menopause.
q74	Do you now need or take medicine prescribed by a doctor? Do not include birth control.
q75	Is this medicine to treat a condition that has lasted for at least 3 months? Do not include pregnancy or menopause.

Condition Needing Care Right Away

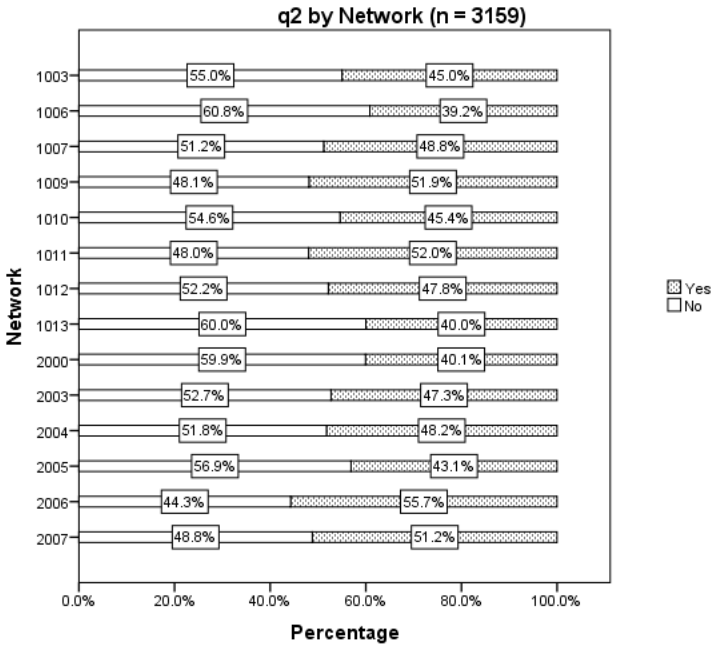
The majority (53.4%) of respondents who answered survey question #2 (n = 3159) did not have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office in the six months preceding the survey (see Figure AHS-1).

Figure AHS-1. In the last 6 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?



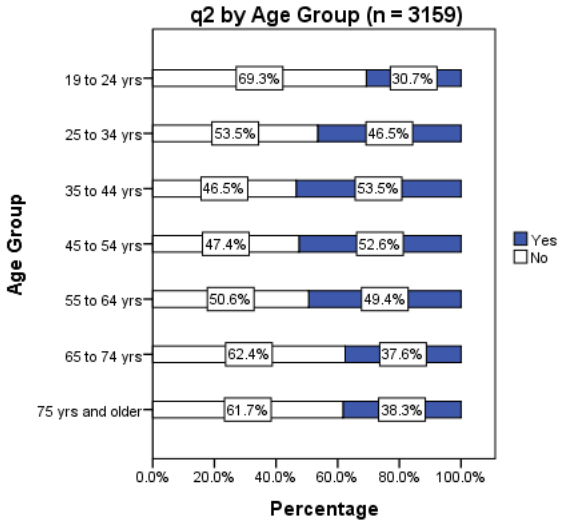
Among the significant bivariate relationships related to survey question #2, there were interesting findings at the network level. The majority of respondents in the Community Care Partners of Greater Mecklenburg (1009), Community Care of Wake/Johnston Counties (1011), Northwest Community Care Network (2006), and Northern Piedmont Community Care (2007) networks reported having an illness, injury, or condition that needed care right away (see Figure AHS-2).

Figure AHS-2. In the last 6 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?



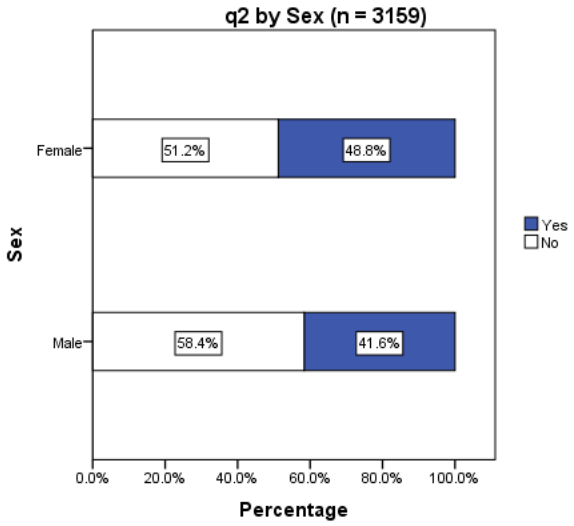
Significant variation was observed among the different age groupings in regards to whether or not respondents had an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office. The percentages of adults aged 19-to-24 years and 65 years and older who reported that they had an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office were less than that observed in other age groups. By contrast, the largest percentages of respondents who indicated that they had an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office occurred in the 35-to-54 year old age groups (see Figure AHS-3).

Figure AHS-3. In the last 6 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?



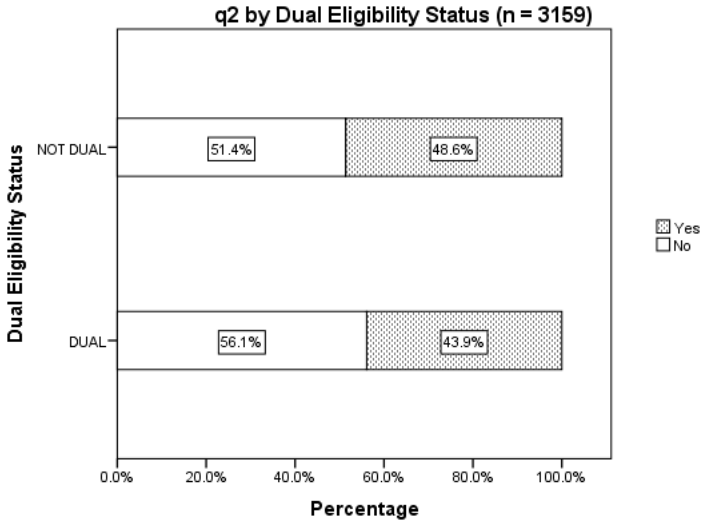
The sex of the respondent had a significant effect on whether or not a respondent had an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office. The percentage of males who responded that they had such a condition was less than that observed for females (41.6% vs. 48.8%) (see Figure AHS-4).

Figure AHS-4. In the last 6 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?



Those respondents <u>not</u> dually eligible for both Medicaid and Medicare responded that they had an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office in the six months preceding the survey in greater proportions than those respondents who were eligible for both Medicare and Medicaid (48.6% compared to 43.9%, respectively) (see Figure AHS-5).

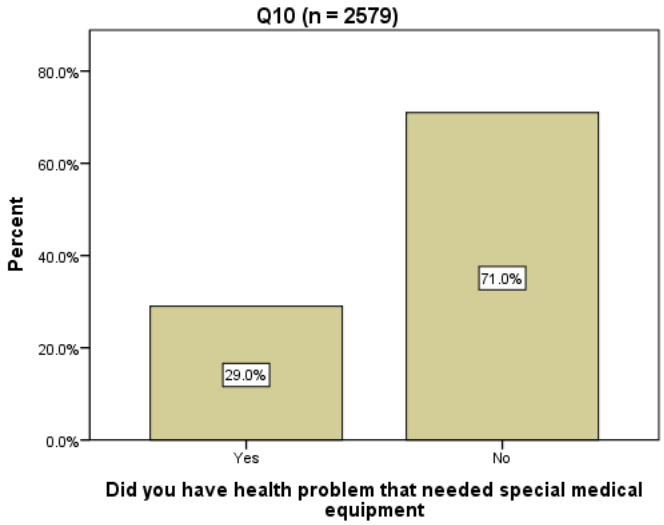
Figure AHS-5. In the last 6 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?



Special Medical Equipment and Therapy

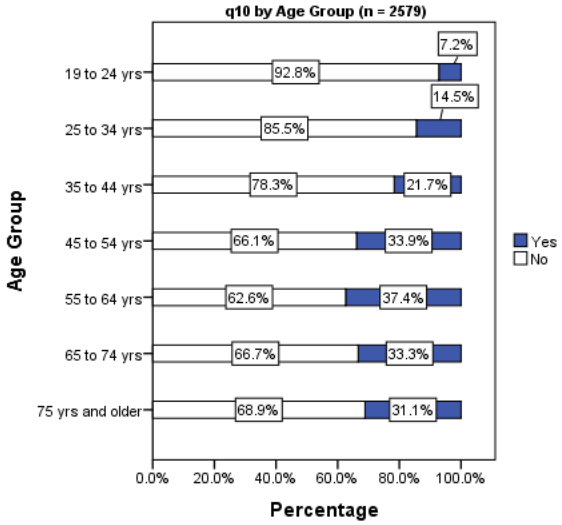
The vast majority (71.0%) of respondents to survey question #10 (n = 2579) did not have a health problem that needed special medical equipment such as a cane, a wheelchair, or oxygen equipment (see Figure AHS-6).

Figure AHS-6. In the last 6 months, did you have a health problem for which you needed special medical equipment, such as a cane, a wheelchair, or oxygen equipment?



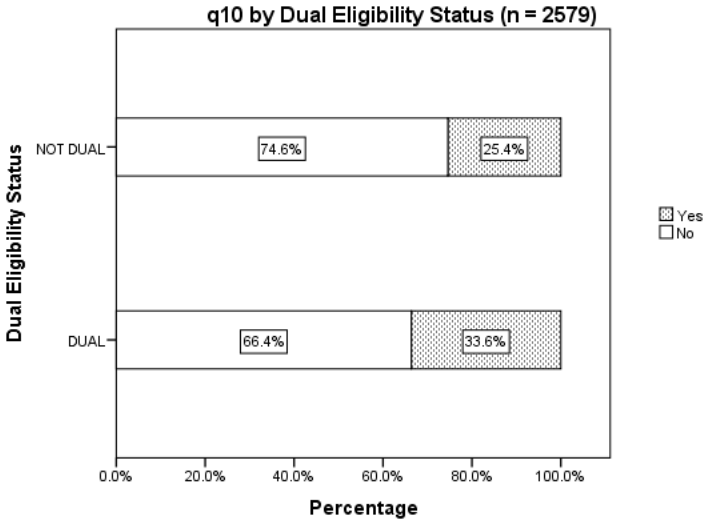
There was significant variation in the bivariate relationship between the respondent's age and whether the enrollee had a health problem that required the use of special medical equipment such as a cane, wheelchair, or oxygen equipment. As expected, smaller percentages of young respondents reported that they had these types of health problems. Specifically, less than 30% of respondents between the ages of 19 and 44 years of age stated that they had this type of health problem whereas more than 30% of respondents 45 years and older indicated that they had the problem (see Figure AHS-7).

Figure AHS-7. In the last 6 months, did you have a health problem for which you needed special medical equipment, such as a cane, a wheelchair, or oxygen equipment?



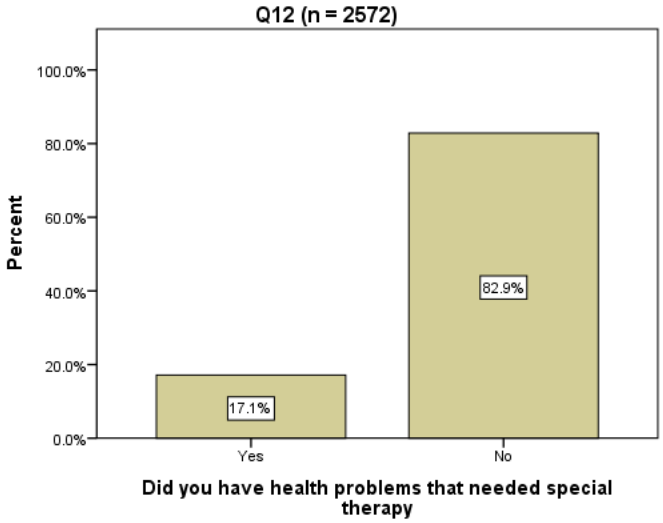
The enrollee's dual eligibility status affected whether a respondent had a condition that required special medical equipment such as a cane, wheelchair, or oxygen equipment. One-third (33.6%) of dual eligible respondents reported that they had this type of health problem compared to approximately one-fourth (25.4%) of those respondents who were only eligible for Medicaid (see Figure AHS-8).

Figure AHS-8. In the last 6 months, did you have a health problem for which you needed special medical equipment, such as a cane, a wheelchair, or oxygen equipment?



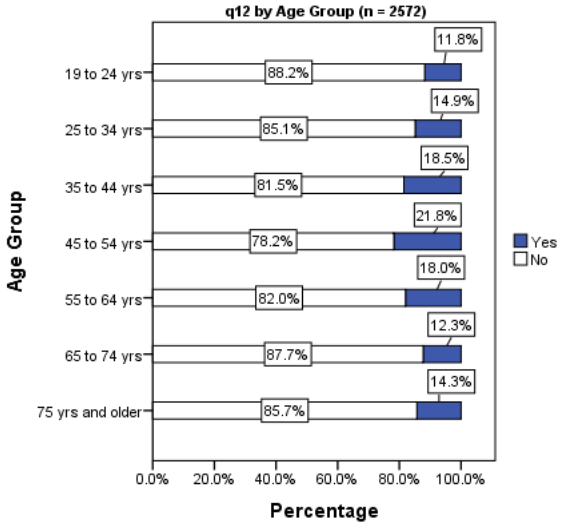
The vast majority (82.9%) of respondents who answered survey question #12 (n = 2572) did not have any health problems that needed special therapy such as physical, occupational, or speech therapy (see Figure AHS-9).

Figure AHS-9. In the last 6 months, did you have any health problems that needed special therapy, such as physical, occupational, or speech therapy?



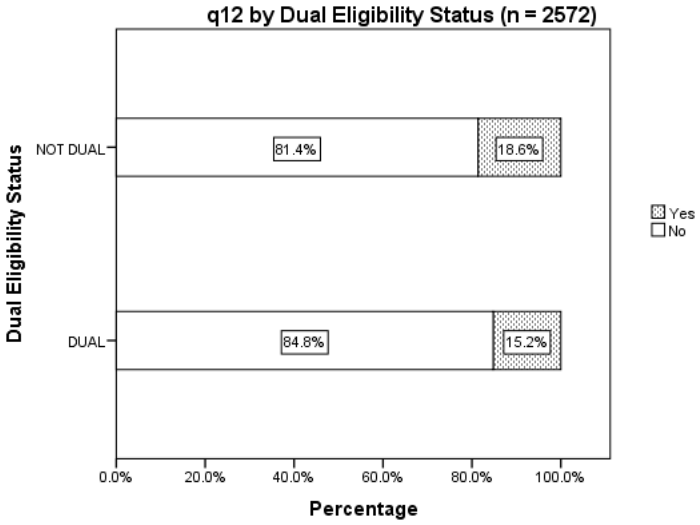
The respondent's age was associated with variation as to whether a respondent had a health problem that needed special therapy such as physical, occupational, or speech therapy. The percentage of respondents aged 45-to-54 years old who had a health problem that required special therapy was 21.8%, the largest for any age group. On the other hand, only 11.8% of respondents in the 19-to-24 year old group reported that they had this type of problem. Somewhat surprisingly, the experience reported by respondents in the oldest age cohorts mimicked that of the younger respondents with 12.3% of respondents of the 65-to-74 years olds and 14.3% of respondents aged 75 years and older indicating that they had a health problem requiring special therapy (see Figure AHS-10).

Figure AHS-10. In the last 6 months, did you have any health problems that needed special therapy, such as physical, occupational, or speech therapy?



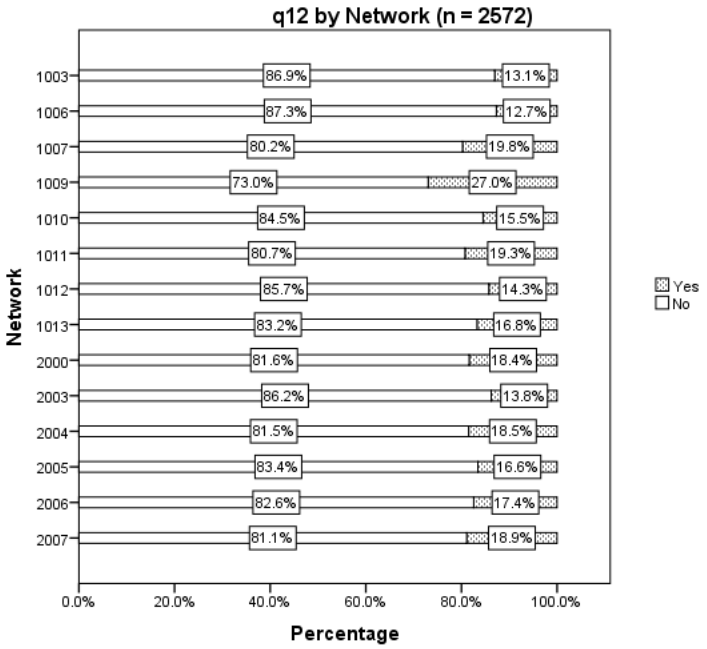
In terms of the respondent's dual eligibility status, a significantly higher percentage of respondents who were not eligible for Medicaid and Medicare responded that they had a health problem that required special therapy such as physical, occupational, or speech therapy than did the dual eligibles (18.8% vs. 15.2%) (see Figure AHS-11).

Figure AHS-11. In the last 6 months, did you have any health problems that needed special therapy, such as physical, occupational, or speech therapy?



There was significant variation in the relationship between the enrollee's care network and whether respondents had health problems that needed special therapy. The proportion of respondents in the Community Care Partners of Greater Mecklenburg network (1009) who stated that they had a health problem that needed special therapy was larger than that observed for any of the other care networks (see Figure AHS-12).

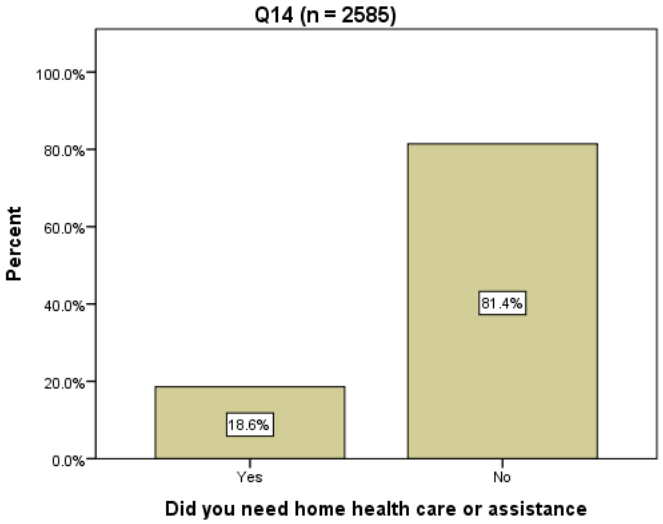
Figure AHS-12. In the last 6 months, did you have any health problems that needed special therapy, such as physical, occupational, or speech therapy?



Home Health Care

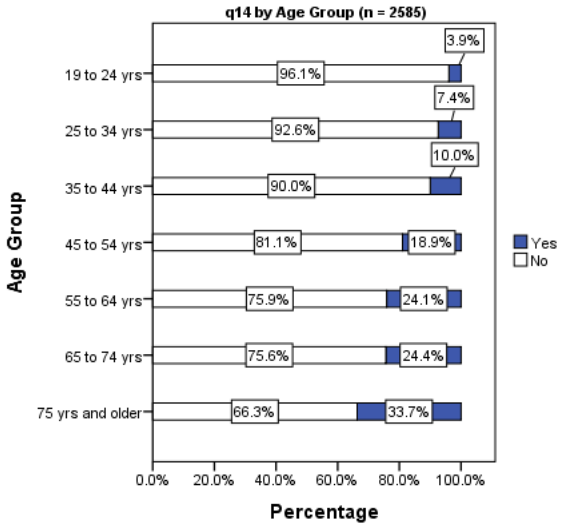
The vast majority (81.4%) of respondents who answered survey question #14 (n = 2585) reported that they did not need for someone to come into their homes to provide home health care or assistance (see Figure AHS-13).

Figure AHS-13. In the last 6 months, did you need someone to come into your home to give you home health care or assistance?



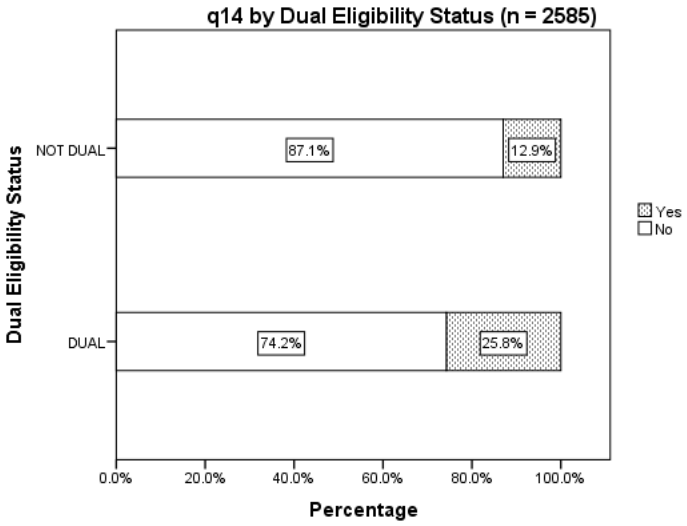
The respondent's age group had a significant impact on responses as to whether Medicaid recipients needed someone to come into their homes to provide care or assistance. Not surprisingly, the percentage of respondents who claimed to need this care or assistance increased as the age group of the respondent increased. For instance, only 3.9% of 19-to-24 year olds indicated that they needed home care whereas nearly one-third (33.7%) of those 75 years and older needed this care (see Figure AHS-14).

Figure AHS-14. In the last 6 months, did you need someone to come into your home to give you home health care or assistance?



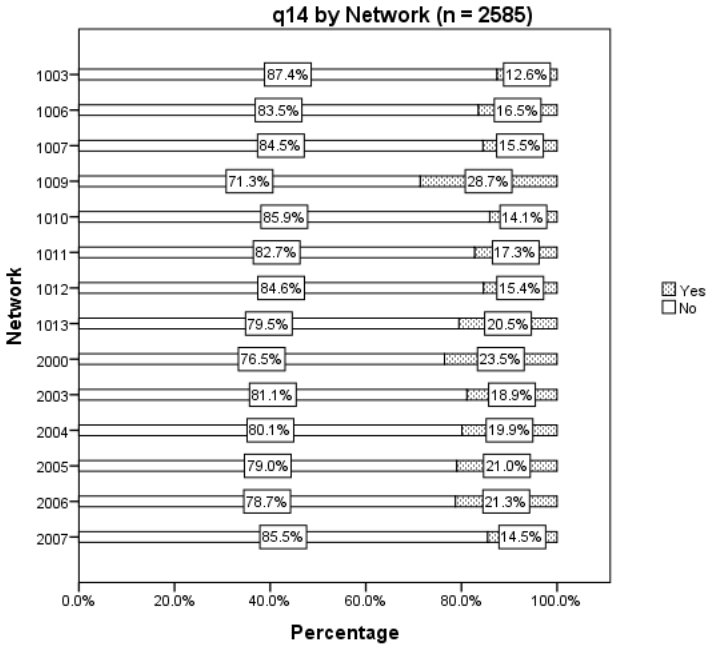
The bivariate relationship between dual eligibility status and responses to question #14 achieved statistical significance. Approximately one-fourth (25.8%) of dual eligibles needed someone to come into their homes to provide home care compared to just 12.9% of respondents who were only eligible for Medicaid (see Figure AHS-15).

Figure AHS-15. In the last 6 months, did you need someone to come into your home to give you home health care or assistance?



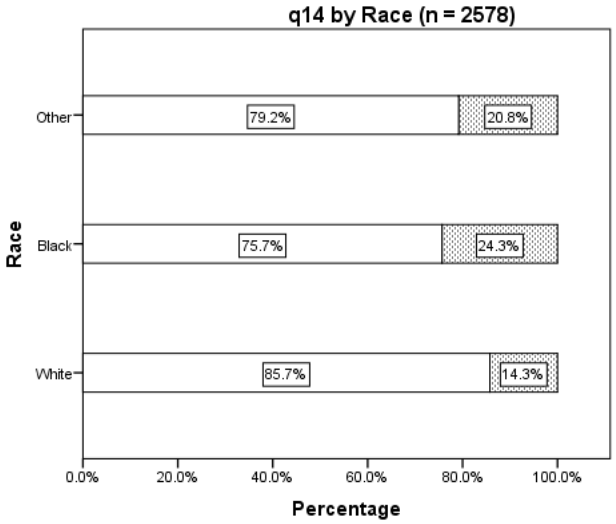
Statistically significant variation in responses to question #14 occurred across the care networks. The proportion of respondents in the Community Care Partners of Greater Mecklenburg (#1009) who indicated that they needed someone to come into their homes to provide home care was 28.7%, which was the largest value among the fourteen care networks. By contrast, the percentage of enrollees needing this assistance was less than 20% in nine of the fourteen networks (see Figure AHS-16).

Figure AHS-16. In the last 6 months, did you need someone to come into your home to give you home health care or assistance?



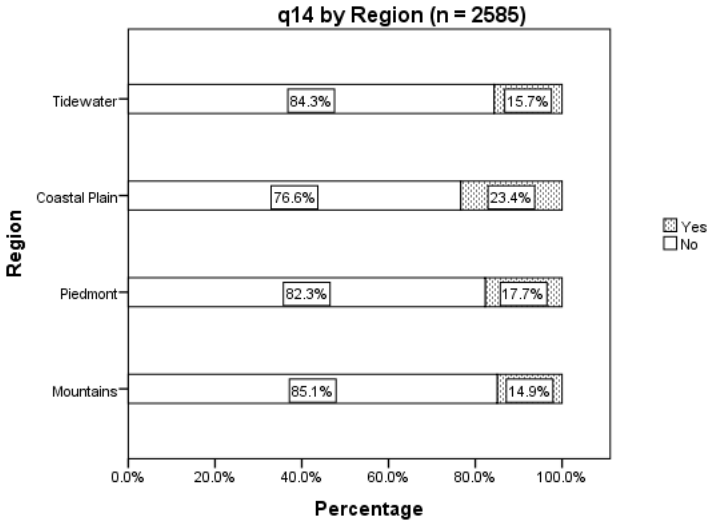
There was significant variation as to whether respondents needed someone to come into their homes to provide care or assistance based on the enrollee's race. The percentage of black respondents who stated that they needed this assistance was 24.3%, the largest among the racial sub-populations. On the other hand, whites reported the smallest percentage needing home care at 14.3% (see Figure AHS-17).

Figure AHS-17. In the last 6 months, did you need someone to come into your home to give you home health care or assistance?



The region of North Carolina where the respondent lived impacted responses to question #14. Specifically, the percentage of Coastal Plain residents who stated that they needed someone to come into their homes to offer home health care or assistance was 23.4% - the largest percentage for any region. The percentages of enrollees needing this assistance in the other regions were clustered around 15-18%, with the 14.9% reported in the Mountain region the smallest value for any region (see Figure AHS-18).

Figure AHS-18. In the last 6 months, did you need someone to come into your home to give you home health care or assistance?

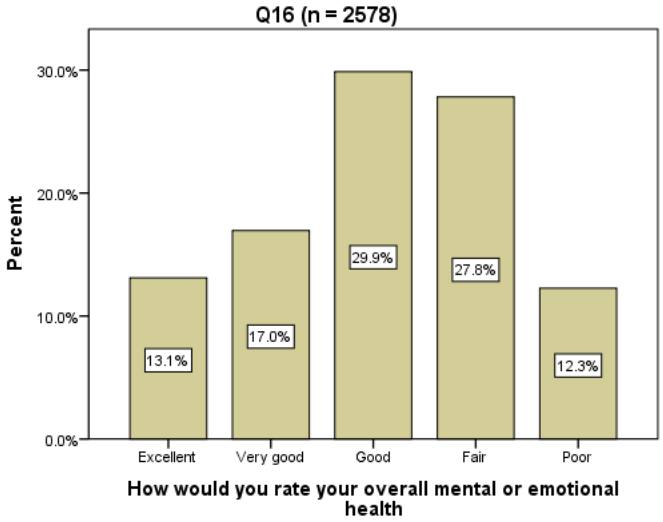


Mental or Emotional Health and Treatment

Survey question #16 asked respondents to evaluate their overall mental or emotional health. The pattern of responses provided by those respondents (n = 2578) who were asked this question conformed to a "normal distribution," with most responses clustered around the "good"

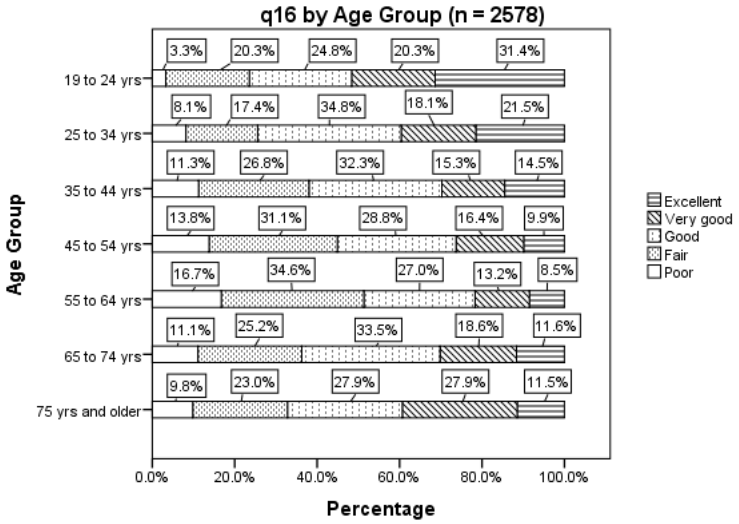
and “fair” values and a relatively small number of responses at the extremes of “excellent” and “poor.” Nonetheless, 60% of respondents rated their overall mental or emotional health as “good” or better (see Figure AHS-19). Although 40% is a large proportion who consider their mental or emotional health to be less than “good,” it is much better than the 57% who rate their overall health status a “poor” or “fair” (q67; see Figure AHS-40).

Figure AHS-19. In general, how would you rate your overall mental or emotional health?



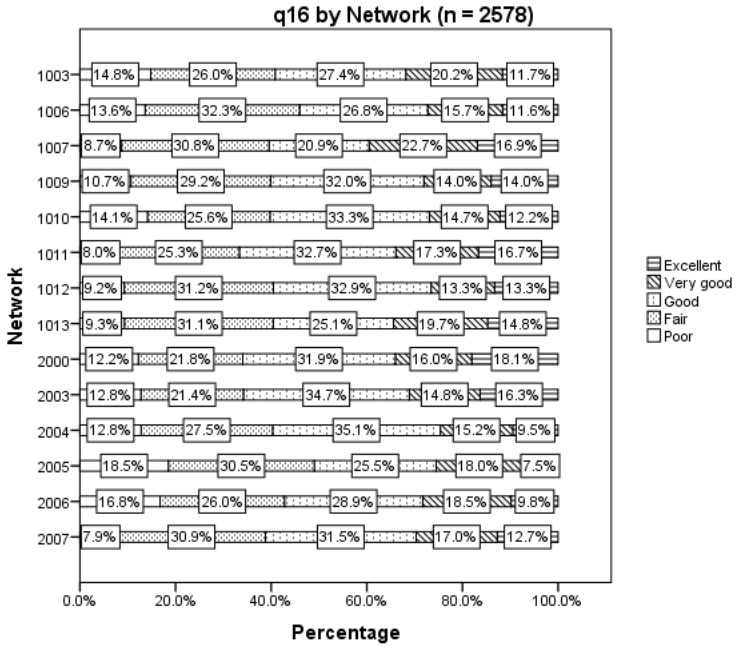
The respondent’s age was associated with significant variation in terms of how respondents rated their mental or emotional health. Large numbers (~ 40-50%) of the youngest respondents (19-to-34 years of age) rated their mental or emotional health as either “very good” or “excellent.” On the other hand, respondents in the 55-to-64 year old group reported the lowest percentages of “very good” or “excellent” responses (21.7%). Percentages of “very good” or “excellent” self-reported ratings of mental or emotional health in the oldest age groups approached a combined 40% (see Figure AHS-20).

Figure AHS-20. In general, how would you rate your overall mental or emotional health?



Statistically significant variation occurred across networks with respect to respondents' ratings of their mental or emotional health. Respondents in the Community Care of Western North Carolina network (#1007) had the highest percentage of "very good" or "excellent" responses at 39.6%. By contrast, respondents in the Community Care of the Lower Cape Fear network (2004) had the lowest percentage of "very good" or "excellent" responses at 24.7% (see Figure AHS-21).

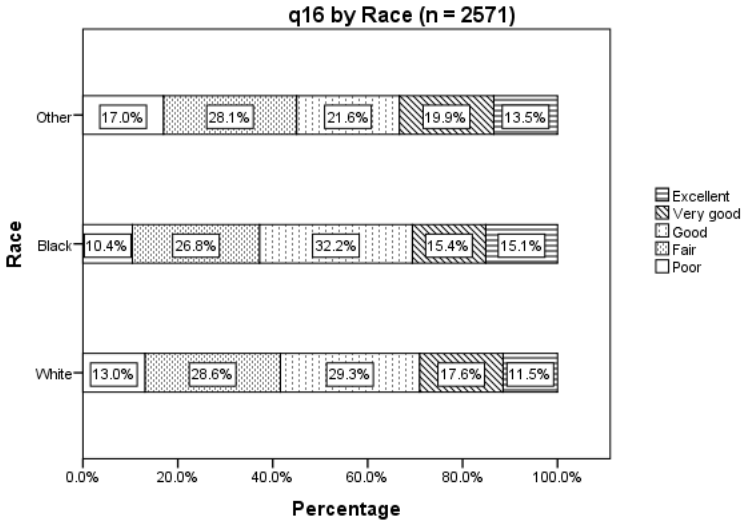
Figure AHS-21. In general, how would you rate your overall mental or emotional health?



There was significant variation in the bivariate relationship between the enrollee's race and how respondents evaluated their overall mental or emotional health. Although the marginal differences were relatively small, the percentage of blacks that reported that their mental health was either "excellent," "very good," or "good" was greater than that reported by whites or

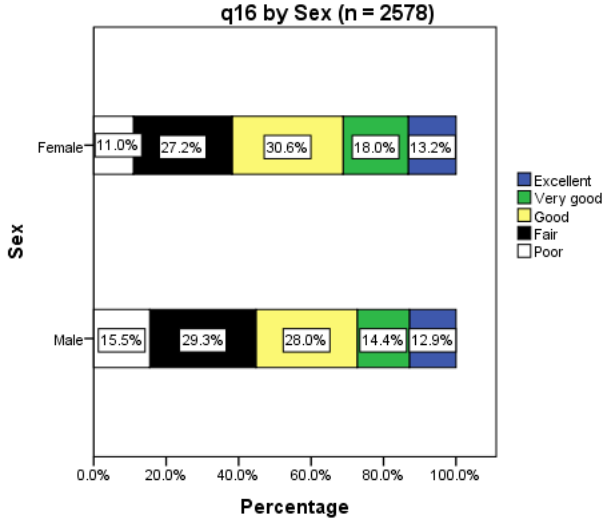
individuals in the other race category (62.7% compared to 58.4% and 55.0%, respectively) (see Figure AHS-22)

Figure AHS-22. In general, how would you rate your overall mental or emotional health?



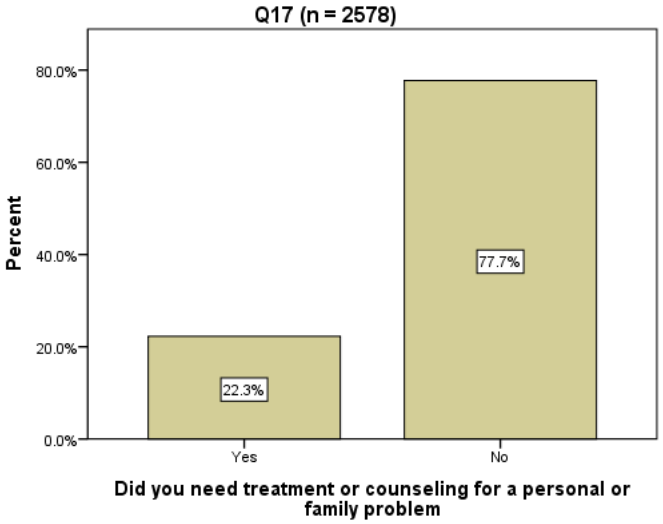
There was also statistically significant variation as to how respondents evaluated their mental or emotional health that was based on the enrollee's sex. The percentage of females who rated their overall mental health as "excellent," "very good," or "good" exceeded that reported by males (61.8% vs. 55.3%) (see Figure AHS-23).

Figure AHS-23. In general, how would you rate your overall mental or emotional health?



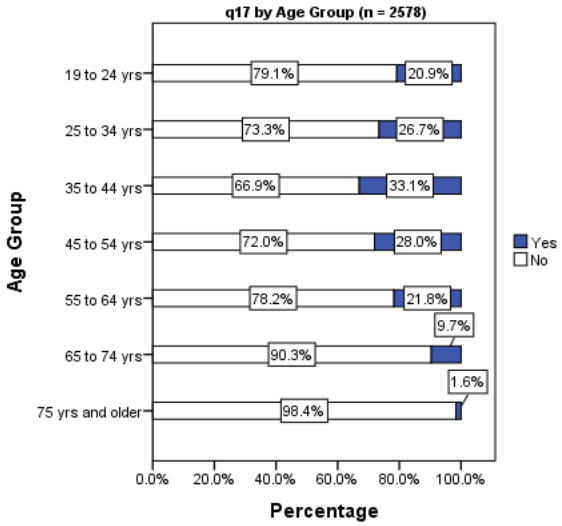
A large majority (77.7%) of the respondents to survey question #17 (n = 2578) did not need any treatment or counseling for a personal or family problem in the six months preceding the survey (see Figure AHS-24).

Figure AHS-24. In the last 6 months, did you need any treatment or counseling for a personal or family problem?



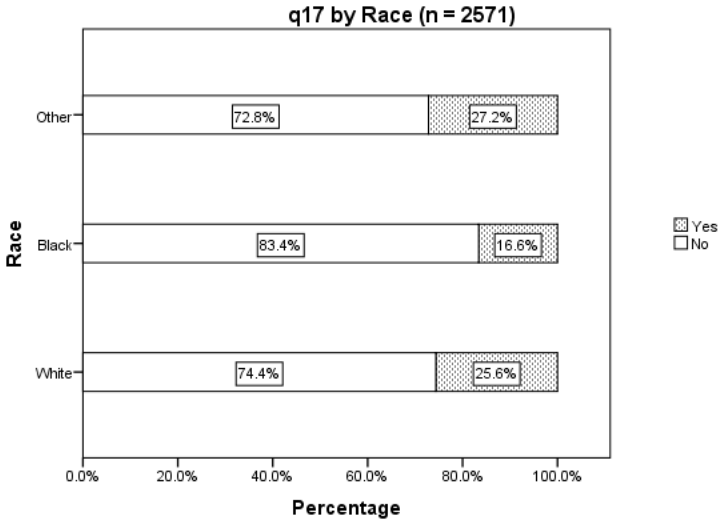
Statistically significant variation occurred in the responses to question #17 that were based on the respondent's age. The percentage of adults aged 35-to-54 years old who stated that they needed treatment or counseling for a personal or family problem was 33.1%, which was greater than that for any of the other age groups. By contrast, only 9.7% of 65-to-74 year olds and 1.6% of those 75 years of age and older stated that they needed any treatment or counseling for a personal or family problem (see Figure AHS-25).

Figure AHS-25. In the last 6 months, did you need any treatment or counseling for a personal or family problem?



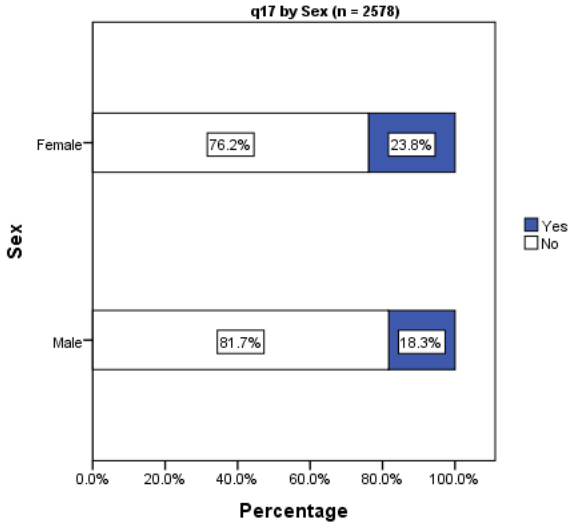
The enrollee's race also had an impact on whether or not individuals needed treatment or counseling for a personal or family problem. Approximately 83% of blacks reported that they did not need this treatment or counseling compared to 74.4% of whites and 72.8% of individuals in the other race category (see Figure AHS-26).

Figure AHS-26. In the last 6 months, did you need any treatment or counseling for a personal or family problem?



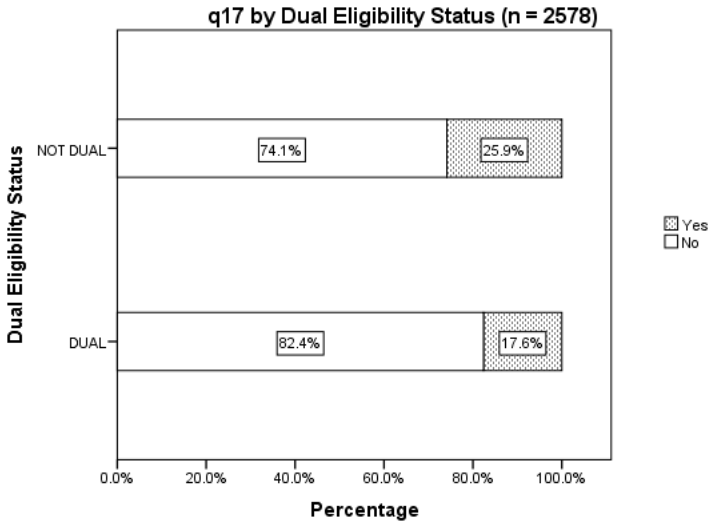
There was significant variation in the respondents' sex and their responses to question #17. The percentage of females who reported that they needed treatment or counseling for a personal or family problem was 23.8%, which was statistically different from the 18.3% observed for male respondents (see Figure AHS-27).

Figure AHS-27. In the last 6 months, did you need any treatment or counseling for a personal or family problem?



There was also significant variation as to whether or not a respondent needed treatment or counseling for a personal or family problem based on their dual eligible status. Individuals not classified as dual eligibles reported needing treatment or counseling for a personal or family problem in greater numbers than respondents who were classified as dual eligibles (25.9% vs. 17.6%) (see Figure AHS-28).

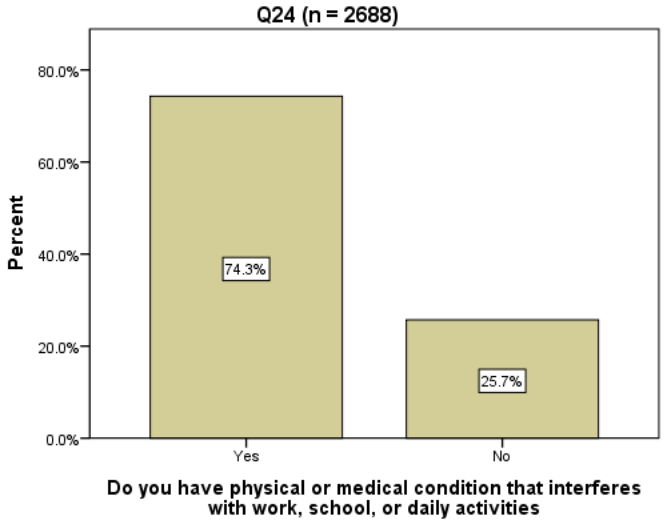
Figure AHS-28. In the last 6 months, did you need any treatment or counseling for a personal or family problem?



Condition that Interferes with Activities of Daily Living

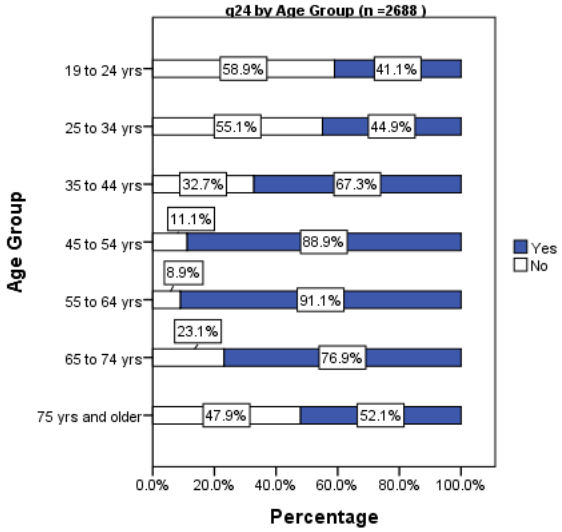
Nearly three-quarters (74.3%) of the respondents who answered survey question #24 (n = 2688) had a physical or medical condition that interferes with work, school, or daily activities (see Figure AHS-29).

Figure AHS-29. Do you have a physical or medical condition that seriously interferes with your ability to work, attend school, or manage your day-to-day activities?



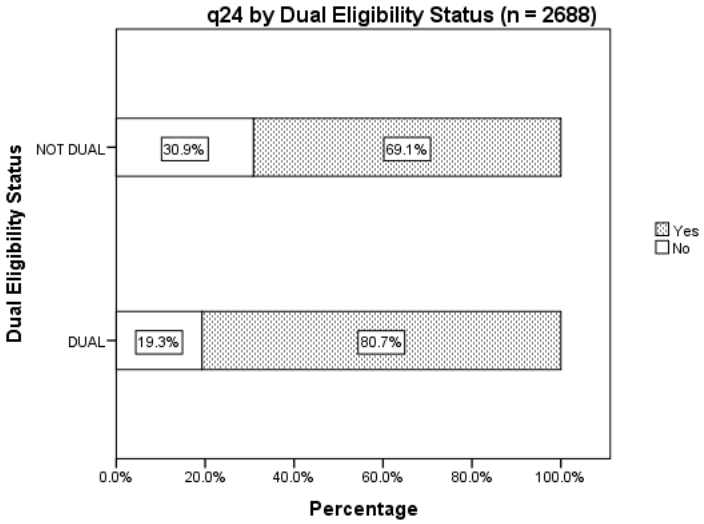
The respondent's age group impacted responses to question #24. The largest percentages of respondents who reported that they had a physical or medical condition that interfered with their ability to work, attend school, or manage day-to-day activities occurred in the 35-to-74 year old age groupings. In fact, nearly 90% of respondents aged 45-to-64 years of age reported that they had this type of condition. On the other hand, less than 45% of individuals in the 19-to-34 year old age groups reported that they had such a condition (see Figure AHS-30).

Figure AHS-30. Do you have a physical or medical condition that seriously interferes with your ability to work, attend school, or manage your day-to-day activities?



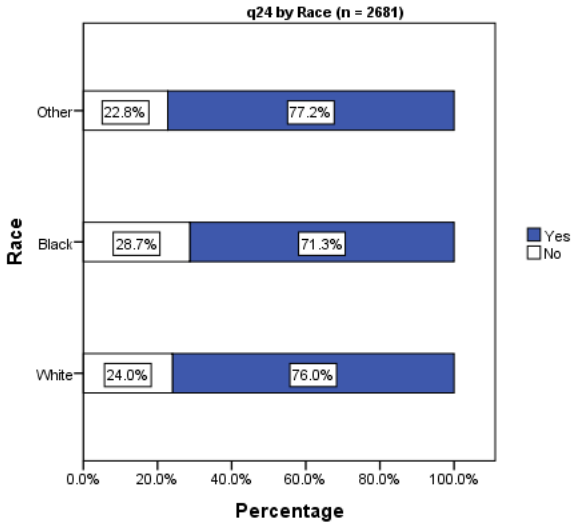
An individual's dual eligible status played a role in responses to question #24. A larger percentage of dual eligibles reported that they had this type of condition compared to individuals who were only eligible for Medicaid (80.7% vs. 69.1%) (see Figure AHS-31).

Figure AHS-31. Do you have a physical or medical condition that seriously interferes with your ability to work, attend school, or manage your day-to-day activities?



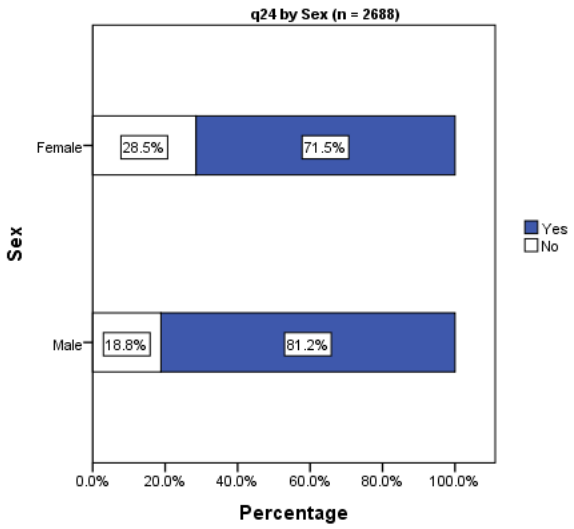
The respondent's race was a statistically significant predictor of whether or not a respondent reported having a physical or medical condition that interferes with work, school, or daily activities. Fewer blacks reported having this type of condition compared to whites or individuals in the other race category (71.3% vs. 76.0% and 77.2%, respectively) (see Figure AHS-32).

Figure AHS-32. Do you have a physical or medical condition that seriously interferes with your ability to work, attend school, or manage your day-to-day activities?



There were statistically significant differences in the responses to question #24 between male and female respondents, with a higher percentage of males than females reporting that they have a physical or medical condition that interferes with work, school, or daily activities (81.2% vs. 71.5%) (see Figure AHS-33).

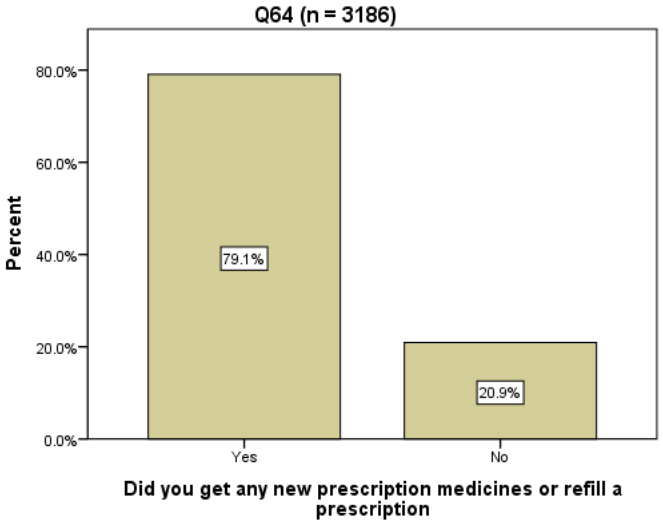
Figure AHS-33. Do you have a physical or medical condition that seriously interferes with your ability to work, attend school, or manage your day-to-day activities?



New Prescription Medicines

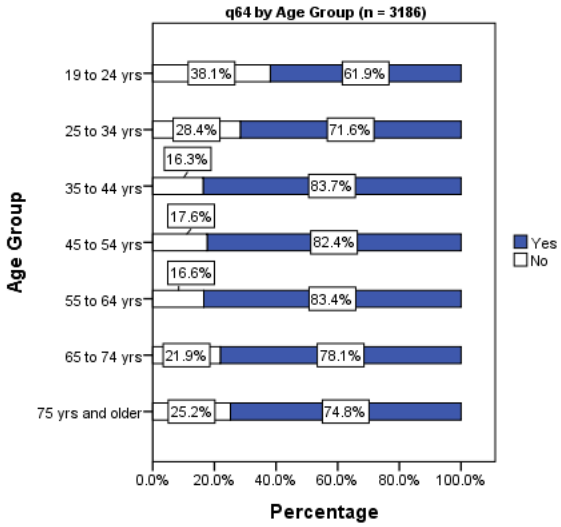
The vast majority (79.1%) of the total number of respondents who answered survey question #64 (n = 3186) got a new prescription medicine or refilled a prescription medicine in the six months preceding the survey (see Figure AHS-34).

Figure AHS-34. In the last 6 months, did you get any new prescription medicines or refill a prescription?



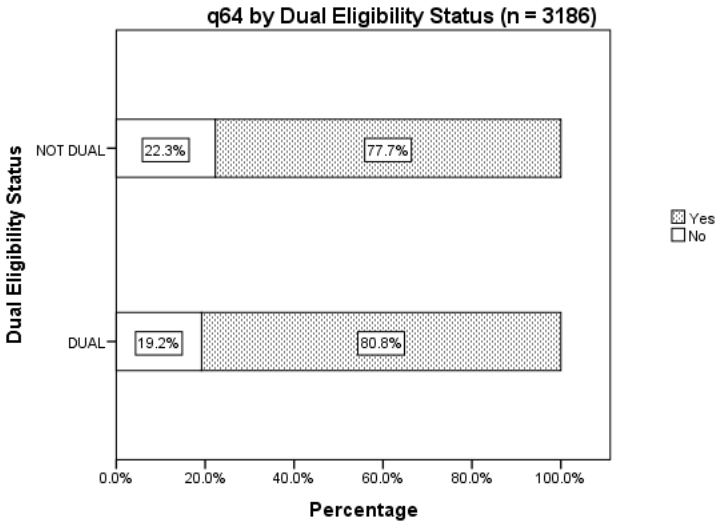
The respondent's age had an impact on whether or not a new prescription or refilled prescription was obtained. Approximately 83% of adults in the 35-to-64 year old age groups reported that they had obtained a new or refilled prescription in the 6 months preceding the survey. On the other hand, only 61.9% of 19-to-24 year olds and 71.6% of 25-to-34 year olds reported that they had filled prescriptions in this 6-month period (see Figure AHS-35).

Figure AHS-35. In the last 6 months, did you get any new prescription medicines or refill a prescription?



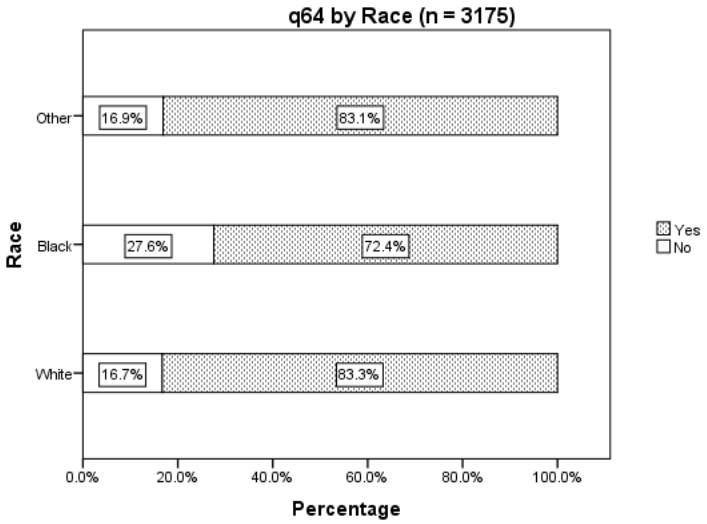
The respondent's dual eligibility status significantly impacted whether or not the respondent had a prescription filled. Although the margin was small, the percentage of respondents who were eligible for both Medicaid and Medicare who reported that they had a prescription filled exceeded that of those who were only enrolled in Medicaid (80.8% vs. 77.7%) (see Figure AHS-36).

Figure AHS-36. In the last 6 months, did you get any new prescription medicines or refill a prescription?



The enrollee's race affected responses to question #64. Almost 28% of blacks indicated that they did not get any new or refilled prescriptions. On the other hand, fewer (approximately 17%) of whites and respondents in the other race category reported that they did not get a prescription filled (see Figure AHS-37).

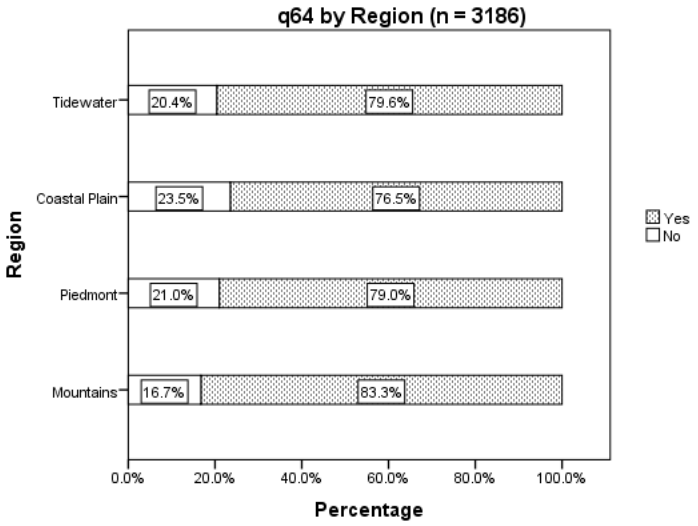
Figure AHS-37. In the last 6 months, did you get any new prescription medicines or refill a prescription?



There was also significant variation in the propensity to obtain a new or refilled prescription based on the enrollee's region of residence within the state. More respondents living in the Mountain region indicated that they had obtained a new or refilled prescription in the six

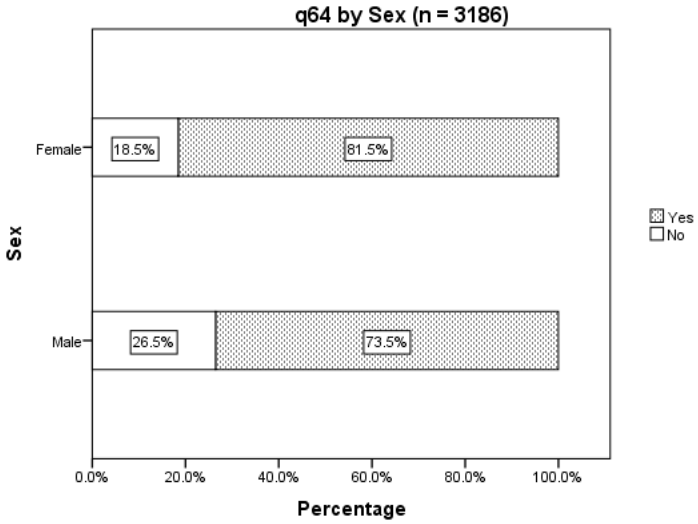
months preceding the survey than was reported by respondents in the other regions (see Figure AHS-38).

Figure AHS-38. In the last 6 months, did you get any new prescription medicines or refill a prescription?



The sex of the respondent had a significant effect on whether or not a new or refilled prescription was obtained in the six months preceding the survey. The percentage of females reporting that they filled a prescription was significantly greater than that reported by males (81.5% vs. 73.5%) (see Figure AHS-39).

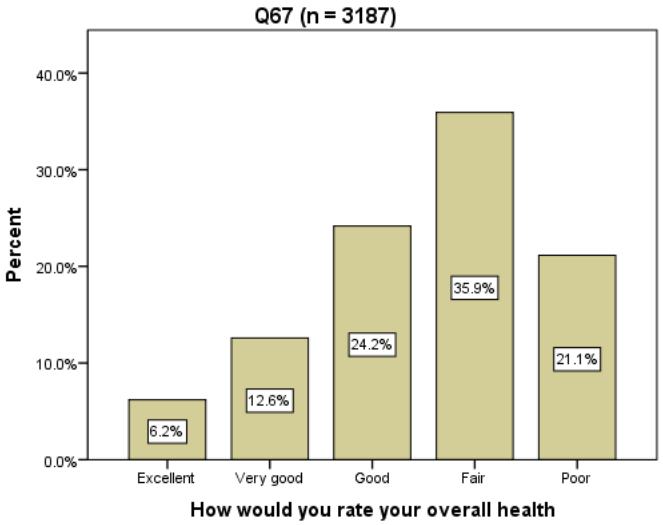
Figure AHS-39. In the last 6 months, did you get any new prescription medicines or refill a prescription?



Overall Health Status

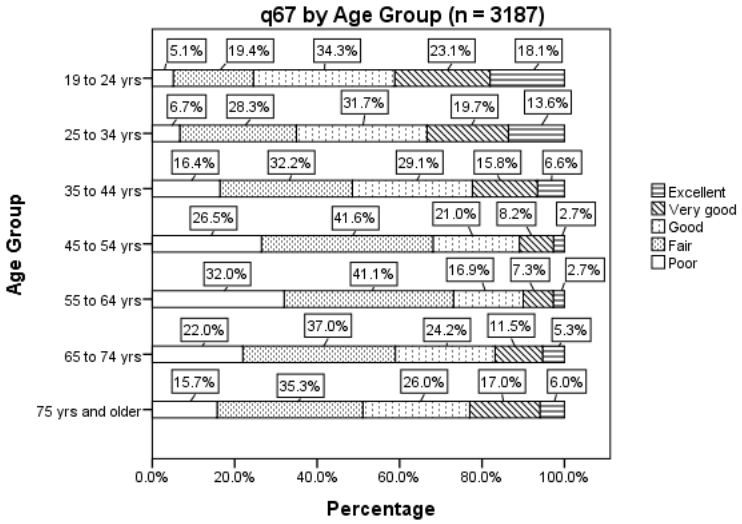
Survey question #67 asked respondents to evaluate their overall health status. Among the five possible choices, a plurality of the total number of respondents to the question (n = 3187) reported their overall health status as "fair" (35.9%). Only 6.2% stated that their health was "excellent", while 12.6% claimed that it was "very good" and 24.2% said that it was "good." More than one-in-five (21.1%) indicated that their overall health status was "poor" and a solid majority of 57% described their health as "poor" or "fair" (see Figure AHS-40). Mental and emotional health, which presumably is a component of overall health, fared somewhat better with 40% self-rating their mental or emotional health as "poor" or "fair" (q16, Figure AHS-19).

Figure AHS-40. In general, how would you rate your overall health?



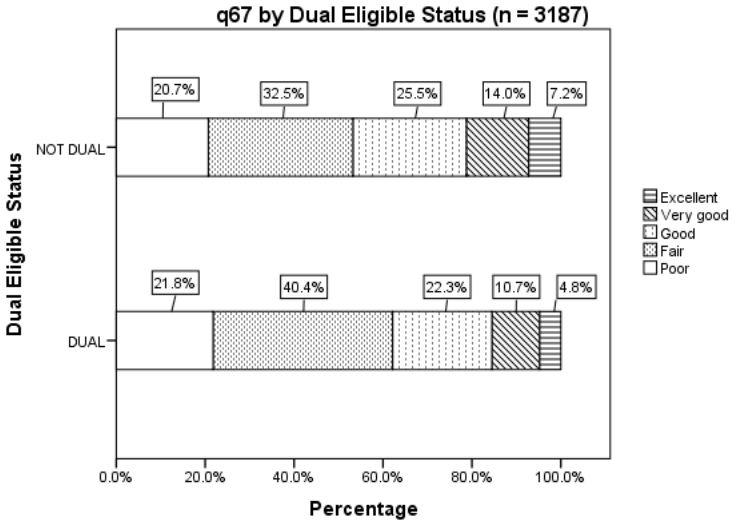
Significant variation in overall health status was observed in responses to question #67 based upon the respondent's age. Generally speaking, better overall health was reported in greater numbers in the younger age groups. Respondents in the 19-to-34 year old groups stated that they were in "excellent," "very good," or "good" health in greater proportions than respondents in the other age groups. Conversely, respondents in the 45-to-64 year old groups reported "fair" or "poor" health in greater numbers than was observed in other age groups. Respondents aged 35 to 44 years were more "moderate" in their responses with a more balanced profile of responses that mirrored the percentages associated with the aggregated frequency distribution described in Figure AHS-40 (see Figure AHS-41).

Figure AHS-41. In general, how would you rate your overall health?



Dual eligibility status was significantly associated respondents' poorer perceptions of their health status. The percentage of dual eligibles that rated their health as "good," "very good," or "excellent" was smaller than that observed for individuals only eligible for Medicaid (37.8% vs. 46.7%). The greatest single differential was registered by the greater percentage (40.4%) of dual eligibles who characterized their health as "fair" compared to 32.5% of the non-dual eligibles (see Figure AHS-42).

Figure AHS-42. In general, how would you rate your overall health?

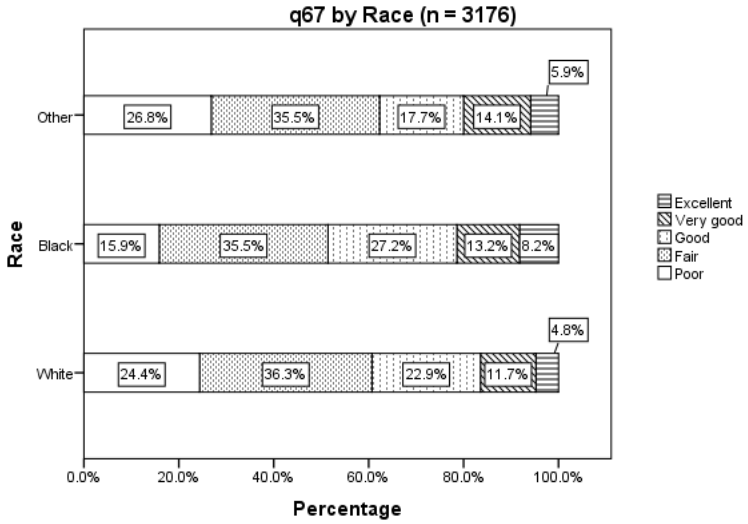


The race of the enrollee played a significant role in determining respondents' evaluations of their overall health. The percentage of blacks that rated their overall health as "good," "very good," or "excellent" was greater than that of whites and other race enrollees (48.6% compared to 39.4% and 37.7%, respectively).[12] Consequently, the percentage of whites and those in the

[12] For analyses of the findings that Blacks in the CCNC Medicaid population have better health status, see Hampton (2014) and Sun (2010).

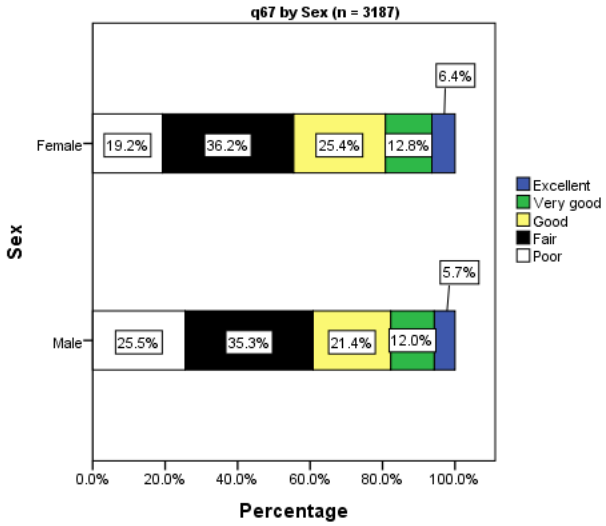
other race category who scored their health as “poor” or “fair” was greater than that reported by blacks (see Figure AHS-43).

Figure AHS-43. In general, how would you rate your overall health?



The sex of the respondent affected the individual’s assessment of his or her overall health. The proportion of males who reported that their health was “poor” or “fair” exceeded that reported by females (60.8% vs. 55.4%) (see Figure AHS-44).

Figure AHS-44. In general, how would you rate your overall health?

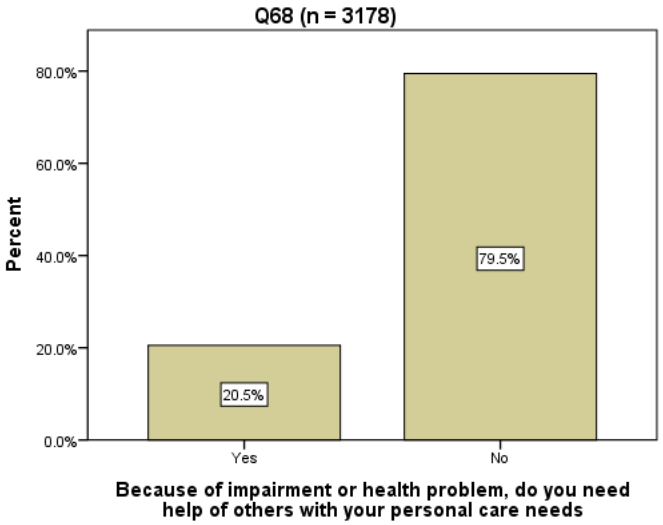


Help with Activities of Daily Living

Despite the large number of respondents that have a physical or medical condition that seriously interferes with their ability to work, attend school, or manage their day-to-day

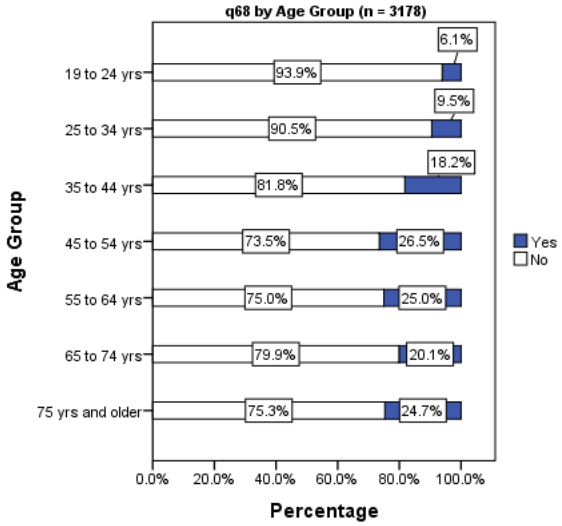
activities, the majority (79.5%) of respondents who answered survey question #68 (n = 3178) reported that they did not need the help of other persons with their personal care needs, such as eating, dressing or getting around the house due to an impairment or health problem (see Figure AHS-45).

Figure AHS-45 Because of any impairment or health problem, do you need the help of other persons with your personal care needs, such as eating, dressing, or getting around the house?



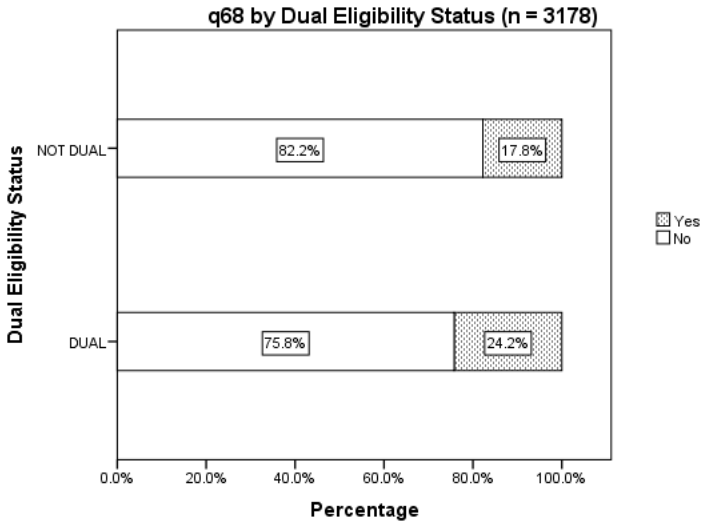
There was significant variation in responses to question #68 based on the age group of the respondent. Respondents in the younger age groups reported needing the help of others for these personal care needs in smaller numbers than their older counterparts. This was particularly true among the 19-to-24 year olds and the 25-to-34 year olds. The age group with the largest proportion stating that individuals needed the help of others to eat, dress, or get around the house was the 45-to-54 year old group at 26.5% (see Figure AHS-46).

Figure AHS-46. Because of any impairment or health problem, do you need the help of other persons with your personal care needs, such as eating, dressing, or getting around the house?



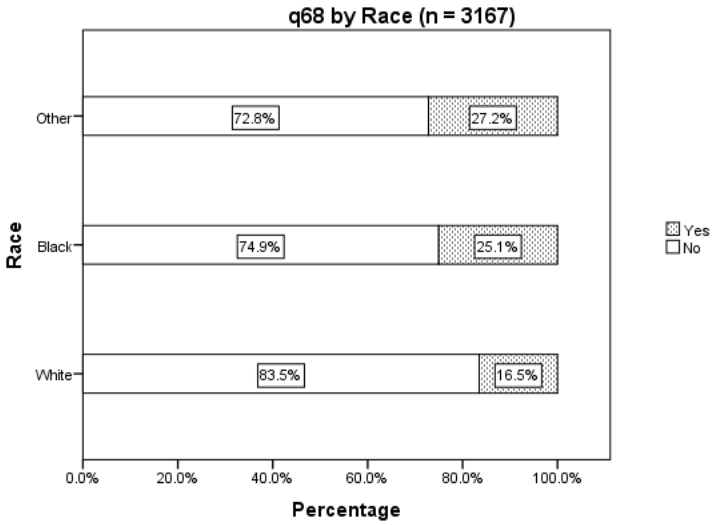
There was significant variation in the responses to question #68 based on the respondent's dual eligibility status. The percentage of dual eligibles who reported needing the help of others with their personal care needs was greater than that reported by those who were exclusively enrolled in Medicaid (24.2% vs. 17.8%) (see Figure AHS-47).

Figure AHS-47. Because of any impairment or health problem, do you need the help of other persons with your personal care needs, such as eating, dressing, or getting around the house?



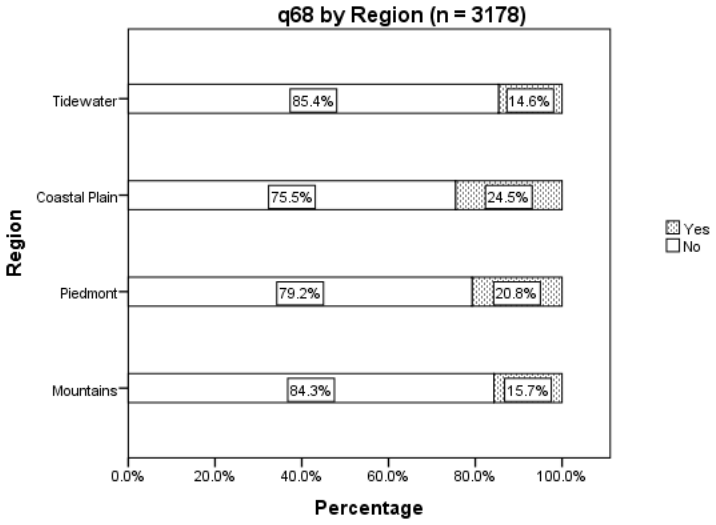
There was also significant variation in responses to question #68 based on the respondent's race. The percentage of whites that reported that they did not need the help of other persons to eat, dress, or get around the house was greater than that reported by blacks or individuals classified as other race (83.5% vs. 74.9% and 72.8%, respectively) (see Figure AHS-48).

Figure AHS-48. Because of any impairment or health problem, do you need the help of other persons with your personal care needs, such as eating, dressing, or getting around the house?



The region of the state where the respondent lived affected whether enrollees needed the help of other persons with their personal care needs. The percentage of respondents living in the Coastal Plain region who stated that they needed this help was greater than that reported by individuals living in other regions. The Tidewater and Mountain regions had the smallest proportions of respondents who stated that they needed the help of other persons with their personal care needs (see Figure AHS-49).

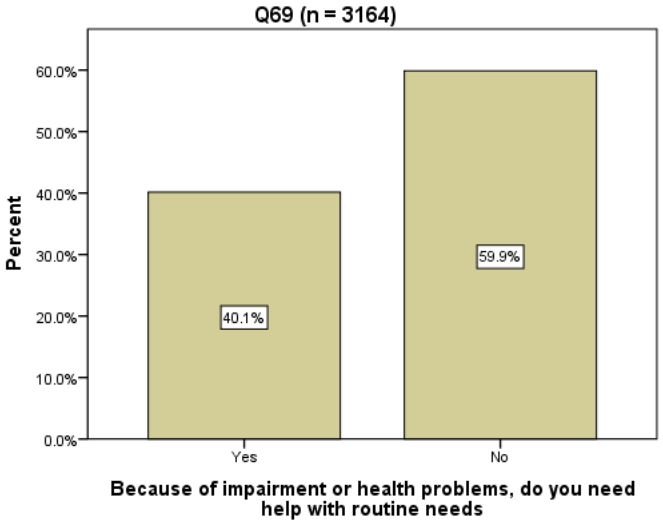
Figure AHS-49. Because of any impairment or health problem, do you need the help of other persons with your personal care needs, such as eating, dressing, or getting around the house?



Nearly 6-in-10 (59.9%) respondents to survey question #69 (n = 3164) did not need help with their routine needs, such as everyday household chores, doing necessary business, shopping,

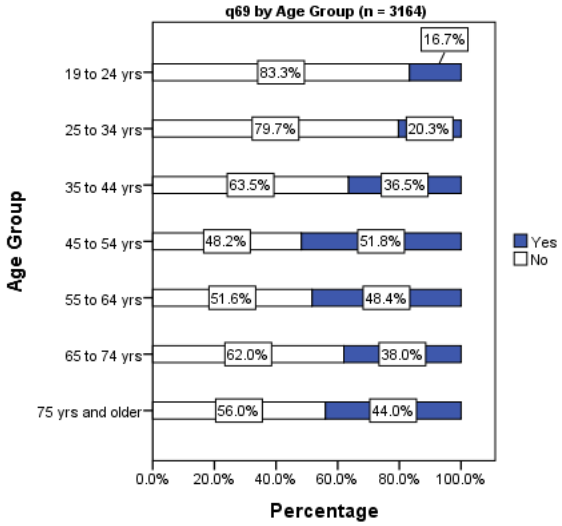
or getting around for other purposes, that were attributable to an impairment or health problem (see Figure AHS-50).

Figure AHS-50. Because of any impairment or health problem, do you need help with your routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?



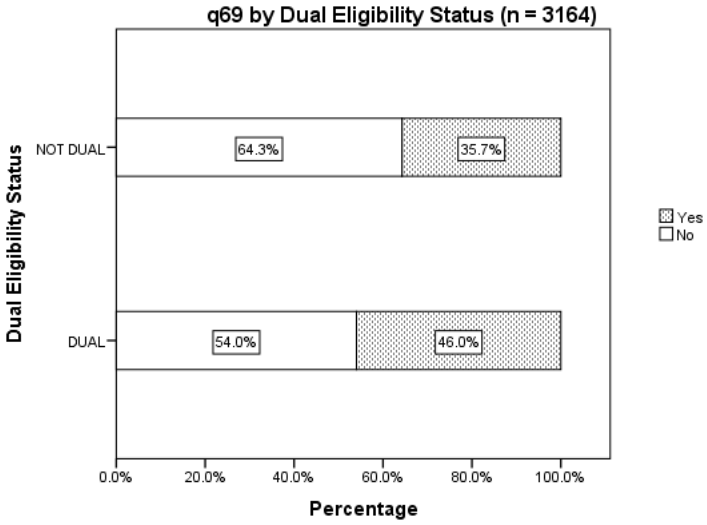
The respondent's age had a significant impact on the responses to question #69. Not surprisingly, the youngest respondents reported that they needed help with everyday, routine needs in smaller number than older respondents. The observed trend was a gradual increase in the proportion of respondents needing help as age increased to about 45 years of age, at which point the proportion needing this help leveled off at about 40-50% for the remaining, older age groups (see Figure AHS-51).

Figure AHS-51. Because of any impairment or health problem, do you need help with your routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?



The enrollee's dual eligibility status impacted whether or not respondents needed help with routine needs such as everyday household chores, doing necessary business, shopping, or getting around for other purposes. The percentage of dual eligible enrollees that needed this help was greater than that reported by individuals who were only enrolled in Medicaid (46.0% vs. 35.7%) (see Figure AHS-52).

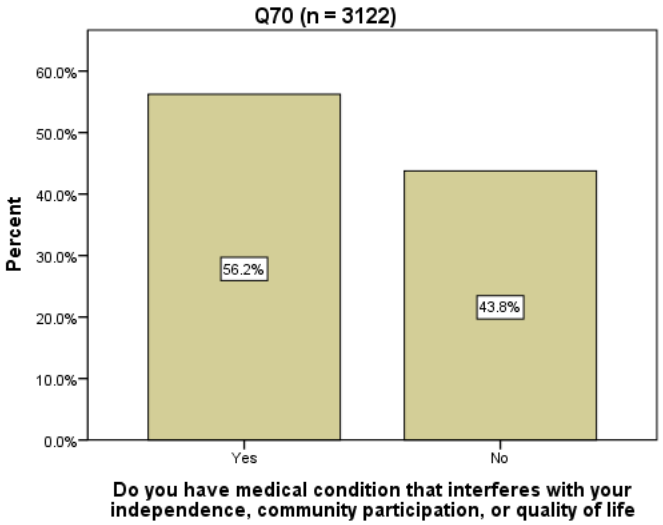
Figure AHS-52. Because of any impairment or health problem, do you need help with your routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?



Condition that Interferes with Independence or Quality of Life

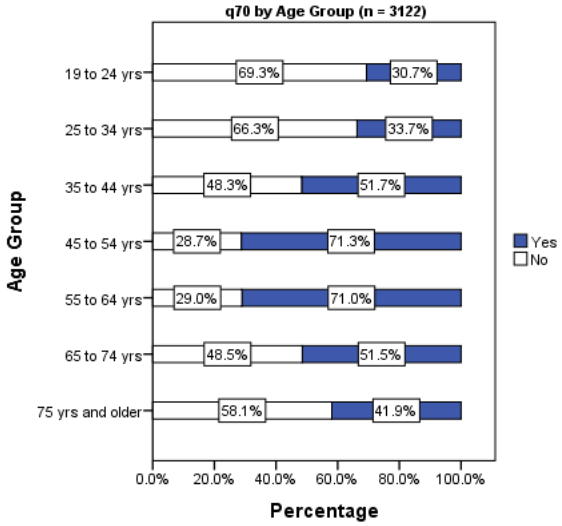
The majority (56.2%) of respondents to survey question #70 (n = 3122) had a medical condition that interfered with their independence, community participation, or quality of life (see Figure AHS-53).

Figure AHS-53. Do you have a physical or medical condition that seriously interferes with your independence, participation in the community, or quality of life?



The enrollee's age was a statistically significant predictor of having a physical or medical condition that interfered with independence, participation in the community, or quality of life. The proportion of respondents in the 19-to-34 year old groups reporting that they had such a physical or medical condition was smaller than that observed in the older age groups. Approximately 3-in-10 respondents in these age groups reported that they had this type of condition. By contrast, nearly 7-in-10 respondents in the 45-to-64 year old groups reported having this condition (see Figure AHS-54).

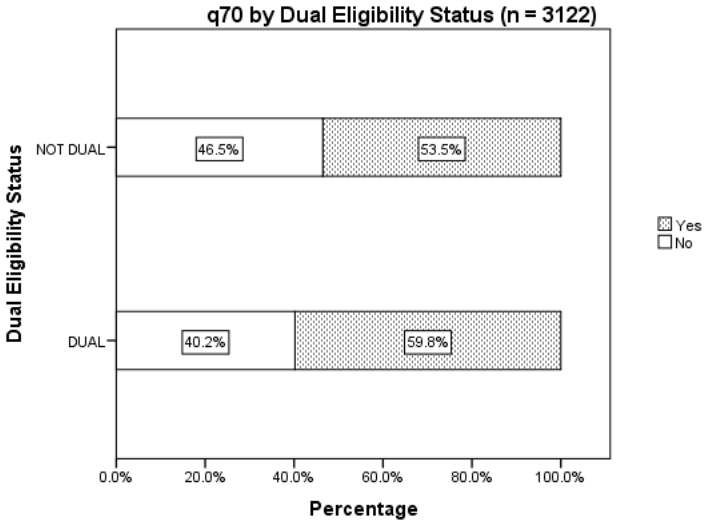
Figure AHS-54. Do you have a physical or medical condition that seriously interferes with your independence, participation in the community, or quality of life?



There was significant variation in the responses to question #70 based on the enrollee's dual eligibility status. Individuals eligible for both Medicaid and Medicare responded that they

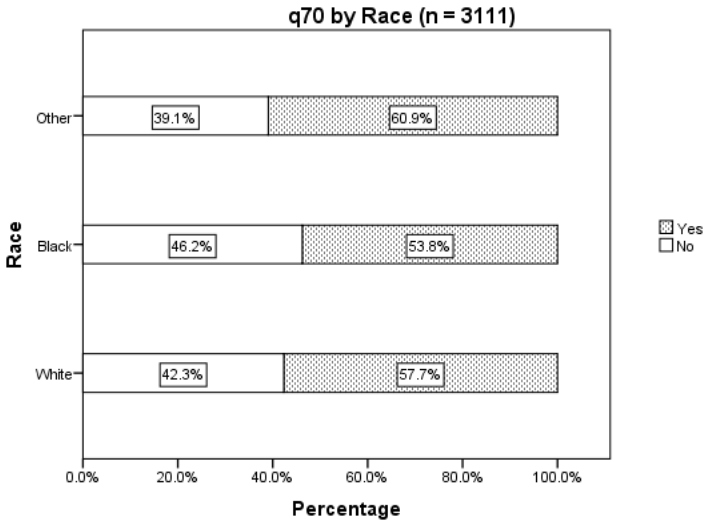
had a physical or medical condition that interfered with their independence, participation in the community, or quality of life in greater numbers than those who were only eligible for Medicaid (59.8% vs. 53.5%) (see Figure AHS-55).

Figure AHS-55. Do you have a physical or medical condition that seriously interferes with your independence, participation in the community, or quality of life?



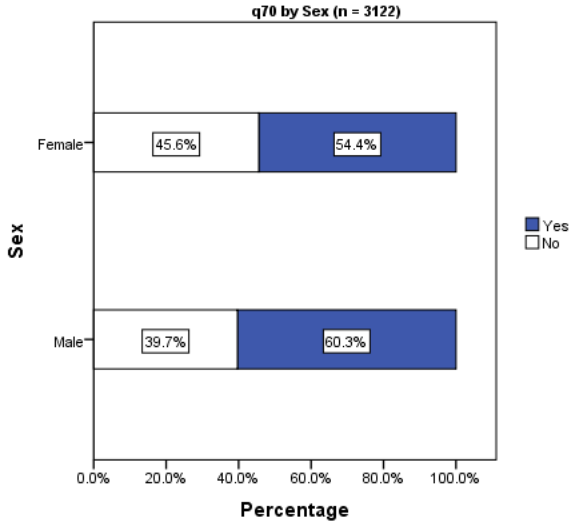
The enrollee's race affected responses to question #70. Compared to the other racial subpopulations, black respondents had the smallest percentage indicating that they had a physical or medical condition that interfered with their independence, participation in the community, or quality of life. On the other hand, individuals in the other race group had the largest percentage responding that they had a physical or medical condition of this type (see Figure AHS-56).

Figure AHS-56. Do you have a physical or medical condition that seriously interferes with your independence, participation in the community, or quality of life?



The enrollee's sex was a significant predictor of having a physical or medical condition that interfered with their independence, community participation, or quality of life. The percentage of males that reported having this type of condition exceed that attributable to females (60.3% vs. 54.4%) (see Figure AHS-57).

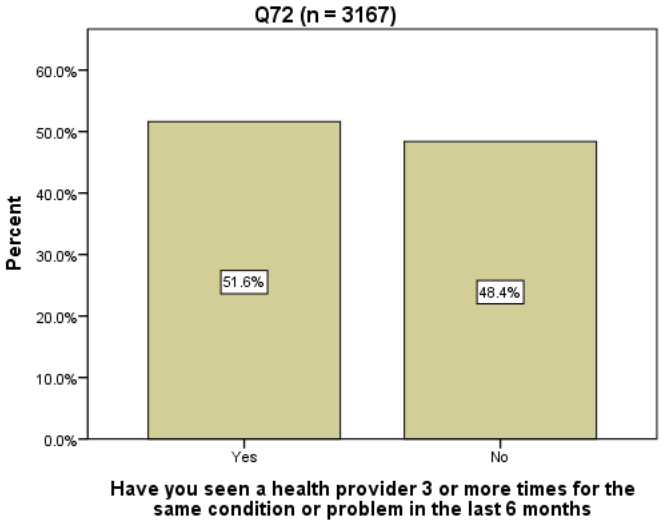
Figure AHS-57. Do you have a physical or medical condition that seriously interferes with your independence, participation in the community, or quality of life?



Chronic Conditions or Illness

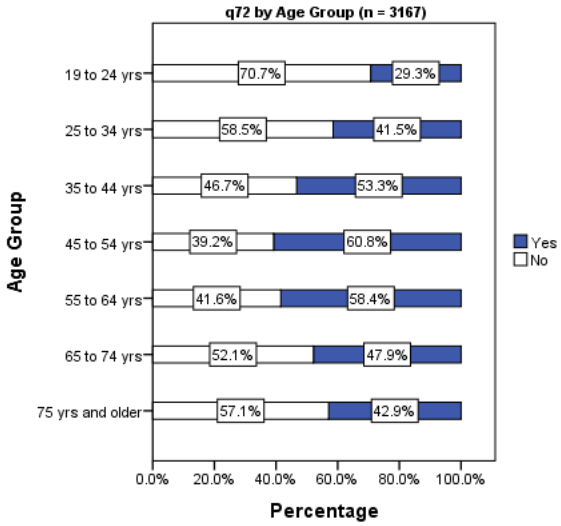
The majority (51.6%) of respondents who answered survey question #72 (n = 3167) reported seeing a health provider three or more times for the same condition or problem in the six months preceding the survey (see Figure AHS-58).

Figure AHS-58. In the past 6 months, have you seen a health provider 3 or more times for the same condition or problem?



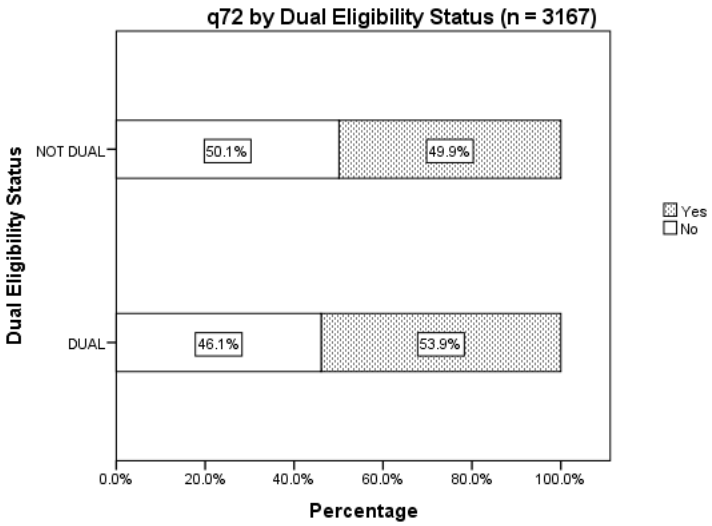
Significant variation resulted in the bivariate relationship between the respondent's age and if they had seen a health provider three or more times for the same condition or problem. Nearly 30% of respondents in the 19-to-24 year old group stated that they had seen a health provider three or more times for the same condition or problem, but this proportion gradually increased to a peak of approximately 60% as the age group increased to the 45-to-54 year olds. The percentage subsequently declined to about 40% among individuals in the 75 years and older group (see Figure AHS-59).

Figure AHS-59. In the past 6 months, have you seen a health provider 3 or more times for the same condition or problem?



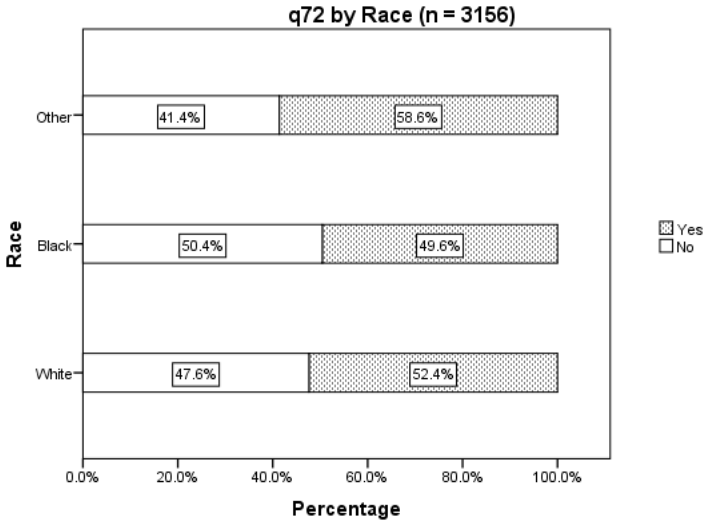
There was significant variation in responses to question #72 based on the respondent's dual eligible status. In terms of percentages, more dual eligible adults (53.9%) than non-dual eligible adults (49.9%) responded that they had seen a health provider three or more times for the same condition or problem in the six months preceding the survey (see Figure AHS-60).

Figure AHS-60. In the past 6 months, have you seen a health provider 3 or more times for the same condition or problem?



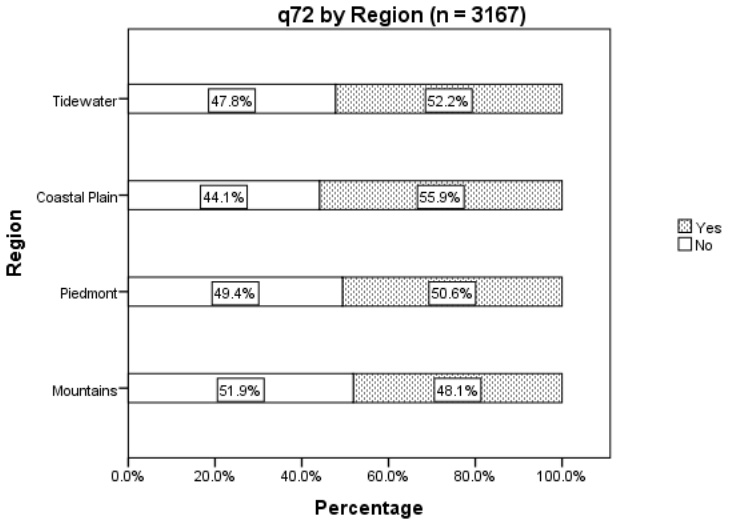
The respondent's race was associated with significant variation in terms of whether the individual had seen a health provider three or more times for the same condition or problem in the six months preceding the survey. The percentage of other race enrollees reporting that they had seen a health provider as described above was 58.6% - the highest percentage among the racial subgroups - followed by whites (52.4%) and blacks (49.6%) (see Figure AHS-61).

Figure AHS-61. In the past 6 months, have you seen a health provider 3 or more times for the same condition or problem?



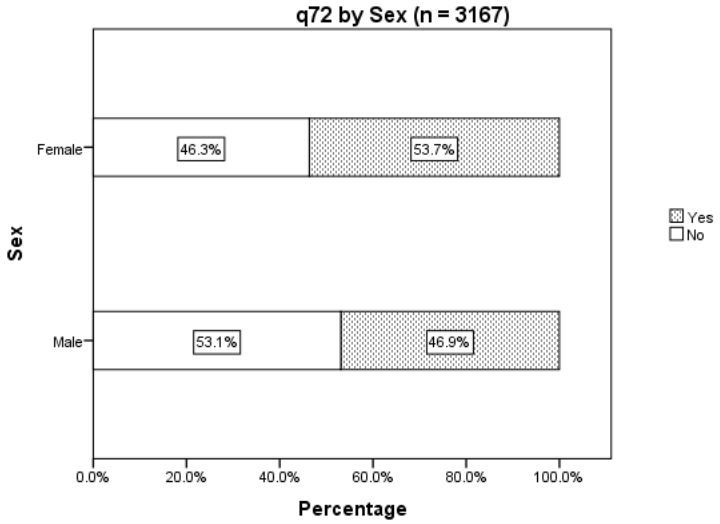
The region of North Carolina where the respondent lived led to a significant bivariate relationship with survey question #72. The percentage of respondents living in the Coastal Plain region reporting that they had seen a health provider three or more times for the same condition or problem in the previous six months was 55.9%, followed by the Tidewater region at 52.2%, the Piedmont region at 50.6%, and the Mountain region at 48.1% (see Figure AHS-62).

Figure AHS-62. In the past 6 months, have you seen a health provider 3 or more times for the same condition or problem?



The enrollee's sex led to significant differences in the responses to question #72. The percentage of females who had seen a health provider three or more times for the same condition or problem in the six months preceding the survey was greater than that recorded by males (53.7% vs 46.9%) (see Figure AHS-63).

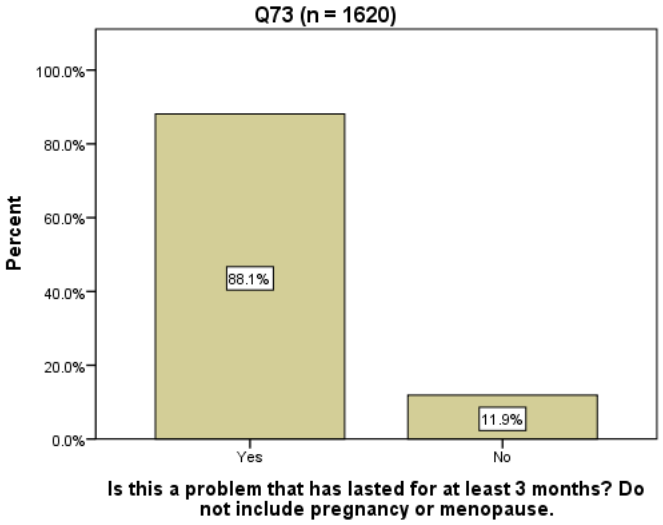
Figure AHS-63. In the past 6 months, have you seen a health provider 3 or more times for the same condition or problem?



Length of Chronic Condition or Illness

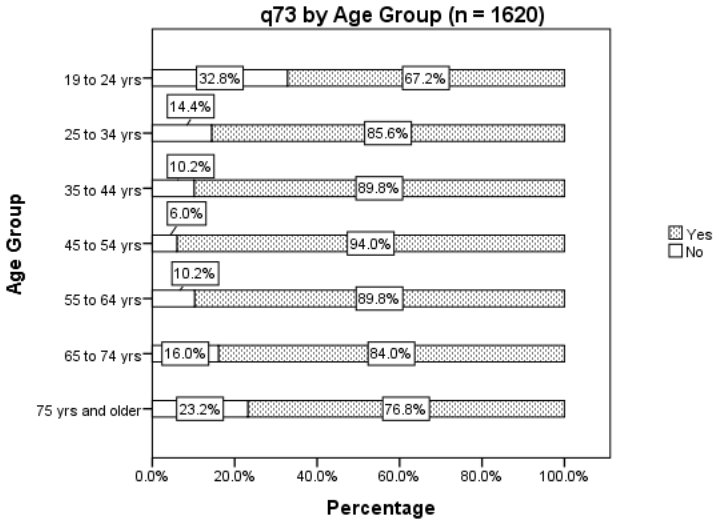
The vast majority (88.1%) of respondents who saw a health provider three or more times in the six months preceding the survey for the same problem or condition (n = 1620) reported that this condition or problem lasted at least three months (see Figure AHS-64).

Figure AHS-64. Is this a condition or problem that has lasted for at least 3 months? Do not include pregnancy or menopause.



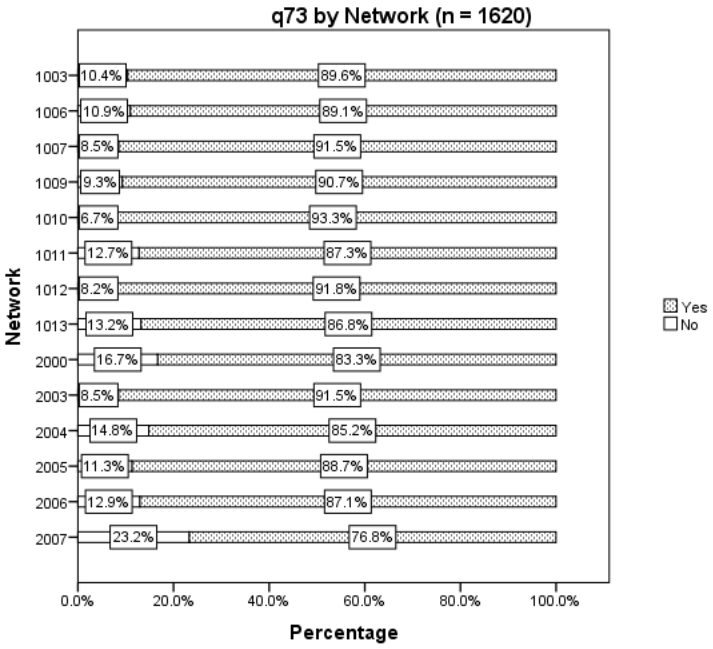
Significant variation resulted in the bivariate relationship between the respondent's age group and if the condition led to visits to a health provider had persisted for at least three months. The youngest (19-to-24 year old) and oldest (75 years and older) age groups reported the smallest percentages of the condition or problem lasting at least three months (67.2% and 76.8%, respectively). The percentage equaled or exceeded 84.0% in each of the other age groups, with a maximum value of 94.0% of 45-to-54 year olds claiming that the condition outlined in question #72 lasted at least three months (see Figure AHS-65).

Figure AHS-65. Is this a condition or problem that has lasted for at least 3 months? Do not include pregnancy or menopause.



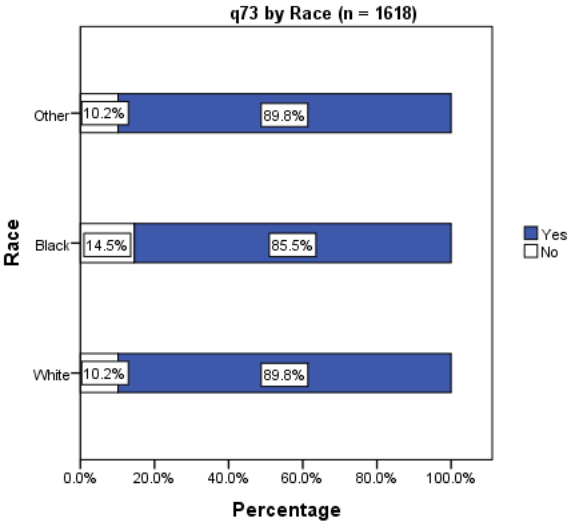
Statistically significant bivariate differences occurred in terms of the length of the condition or problem and the care network that enrolled the respondent. As depicted in Figure AHS-66, the vast majority of respondents in every network who had seen their health provider three or more times in the six months preceding the survey saw that health provider for a condition that lasted at least three months. Eight networks – Community Health Partners (1003), Access Care Network Sites and Counties (1006), Community Care of Western North Carolina (1007), Community Care Partners of Greater Mecklenburg (1009), Carolina Community Health Partnership (1010), Partnership for Health Management (1012), Community Care of Southern Piedmont (2003), and Community Care of the Sandhills (2005) - had percentages that exceeded the 88.1% reported in the aggregate and previously described in Figure AHS-64. The low value occurred in the Northern Piedmont Community Care network (2007) where 76.8% of the respondents in this network reported that the condition or problem lasted at least three months.

Figure AHS-66. Is this a condition or problem that has lasted for at least 3 months? Do not include pregnancy or menopause.



The respondent's race had an impact on responses to question #73. The percentage of individuals that stated that the condition or problem described in question #72 had lasted at least three months was identical for the white and other race subpopulations (89.8%). Comparatively, fewer blacks reported that the condition or problem lasted at least three months (85.5%) (see Figure AHS-67).

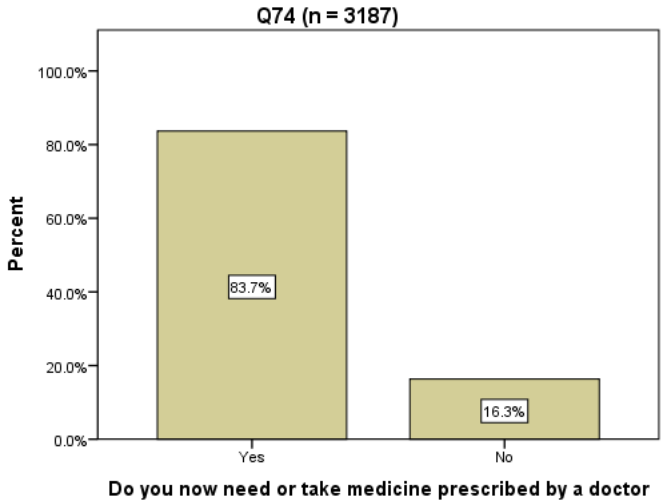
Figure AHS-67. Is this a condition or problem that has lasted for at least 3 months? Do not include pregnancy or menopause



Prescription Medications

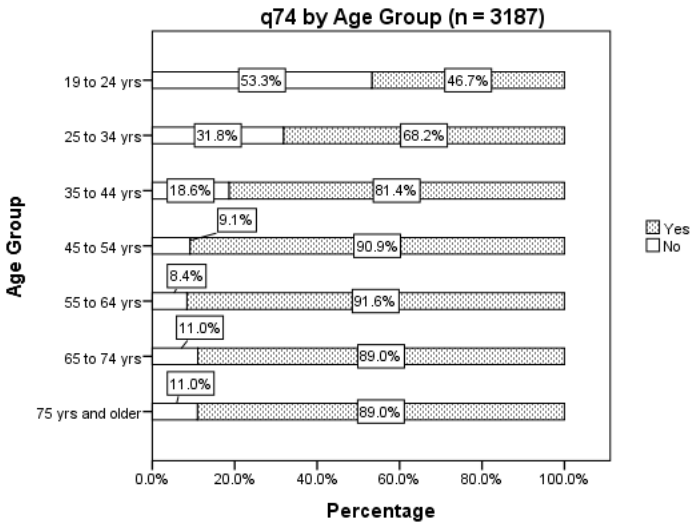
The vast majority (83.7%) of respondents who answered survey question #74 (n=3187) reported needing or taking medicine prescribed by a doctor (see Figure AHS-68).

Figure AHS-68. Do you now need or take medicine prescribed by a doctor? Do not include birth control.



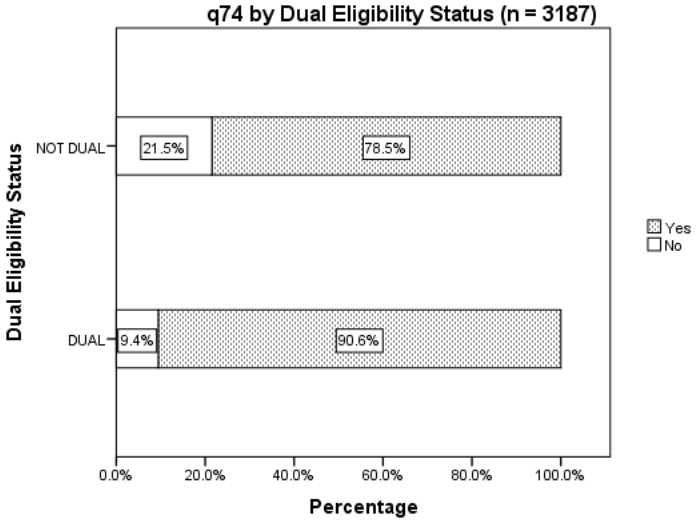
The respondent's age had a significant impact on whether the enrollee needed or took medicine prescribed by a doctor. The proportion of respondents who indicated that they needed or took prescribed medication was smallest in the younger age groups. For instance, 46.7% of 19-to-24 year olds and 68.2% of 25-to-34 year olds reported that they needed or took prescribed medication. By contrast, the percentage of respondents needing or taking prescribed medication in groups aged 35 years and older was at least 80% and approached 90% in several of the oldest age groups (see Figure AHS-69).

Figure AHS-69. Do you now need or take medicine prescribed by a doctor? Do not include birth control.



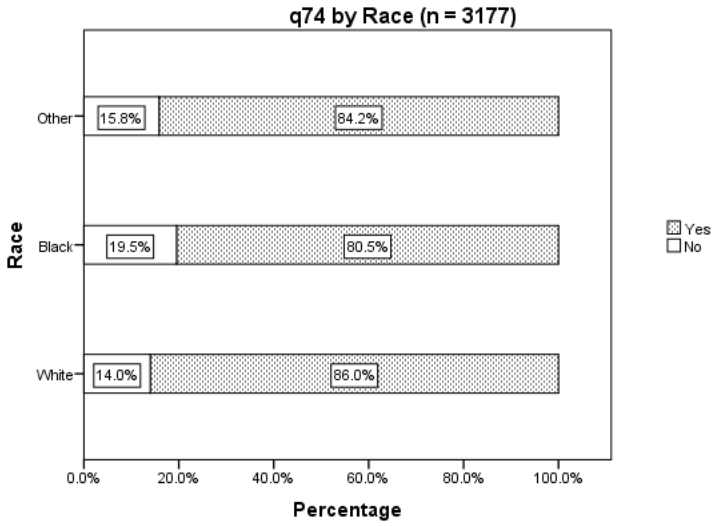
The respondent's dual eligibility status affected whether or not the enrollee needed or took medicine prescribed by a doctor. The percentage of dual eligible respondents who stated that they needed or took medicine prescribed by a doctor was 90.6%. By comparison, the percentage of individuals who were enrolled exclusively in Medicaid who reported needing or taking medicine prescribed by a doctor was only 78.5% (see Figure AHS-70).

Figure AHS-70. Do you now need or take medicine prescribed by a doctor? Do not include birth control.



There was significant variation in responses to question #74 and the respondent's race. More whites reported needing or taking prescribed medication than either blacks or individuals in the other race category (86.0% vs. 80.5% and 84.2%, respectively) (see Figure AHS-71).

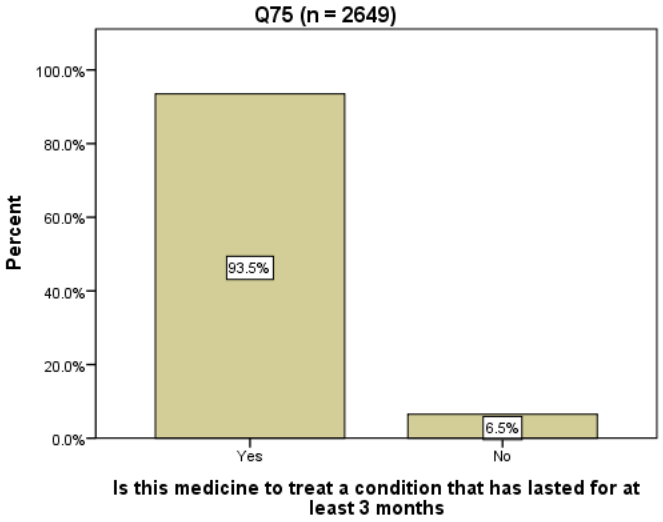
Figure AHS-71. Do you now need or take medicine prescribed by a doctor? Do not include birth control.



Medications for Chronic Conditions or Illnesses

The vast majority (93.5%) of respondents to survey question #75 (n = 2649) who needed or took a medicine prescribed by a doctor took it to treat a condition that lasted longer than three months (see Figure AHS-72).

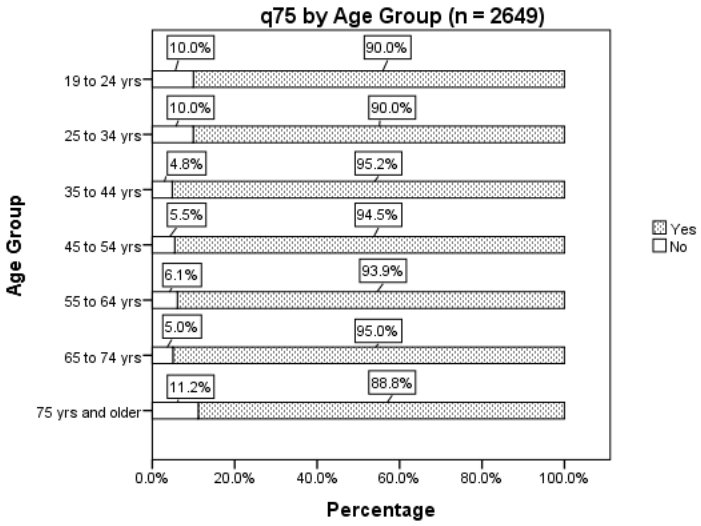
Figure AHS-72. Is this medicine to treat a condition that has lasted for at least 3 months? Do not include pregnancy or menopause.



The bivariate relationship between the respondent's age and whether or not prescribed medicine was used to treat a condition that has lasted for at least three months was statistically significant. One-in-ten respondents in the 19-to-24 year old and 25-to-34 year old groups indicated that prescribed medicine was not used to treat a condition that had lasted at least three months. This pattern was also true among respondents 75 years of age and older where 11.2% of

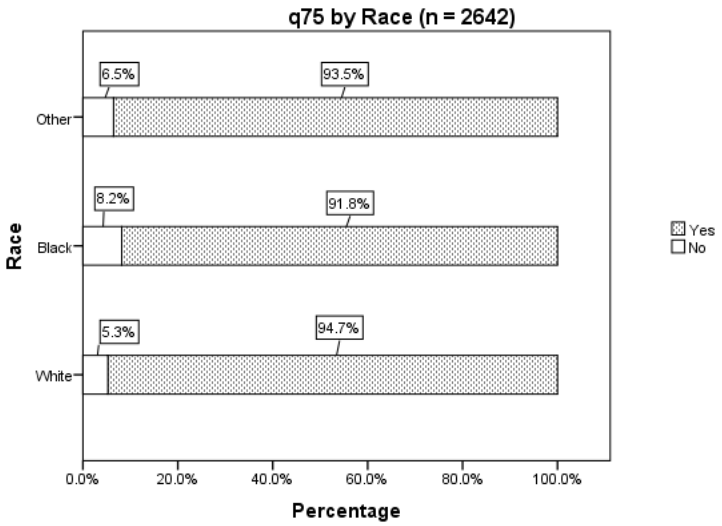
respondents reported that prescribed medicine was not used to treat a condition lasting at least three months. On the other hand, the percentage of respondents that reported that prescribed medicine was not used to treat a condition lasting at least three months in each of the other age groups was significantly less (~ 5-6%) (see Figure AHS-73).

Figure AHS-73. Is this medicine to treat a condition that has lasted for at least 3 months? Do not include pregnancy or menopause.



The final bivariate relationship explored in the health status domain examines the relationship between the enrollee's race and his or her response to question #75. The percentage of whites that stated that prescribed medicine was used to treat a condition that had lasted longer than three months was greatest in the white subpopulation, where 94.7% of respondents indicated that the condition predicating use of the prescribed medication had lasted at least three months. Although the percentage of blacks was marginally smaller (91.8%), the difference was statistically significant (see Figure AHS-74).

Figure AHS-74. Is this medicine to treat a condition that has lasted for at least 3 months? Do not include pregnancy or menopause.


q75 by Race (n = 2642)
6.5%
93.5%
Other
8.2%
91.8%
Black
5.3%
94.7%
White
Race
0.0%
20.0%
40.0%
60.0%
80.0%
100.0%
Percentage
Yes
No

Utilization

After gauging health status the next logical step in evaluating a health care system is to ascertain whether those groups with the greatest needs used health care to a greater extent than those with fewer needs and problems. The eight utilization questions that conclude this chapter reporting survey results elicit information about the types and volume of health care resources that respondents used. Although many of the questions showed no statistically significant differences among the groups of interest, Blacks generally used less care where race was significant and dual eligibles used more care than non-duals when statistical significance was achieved.

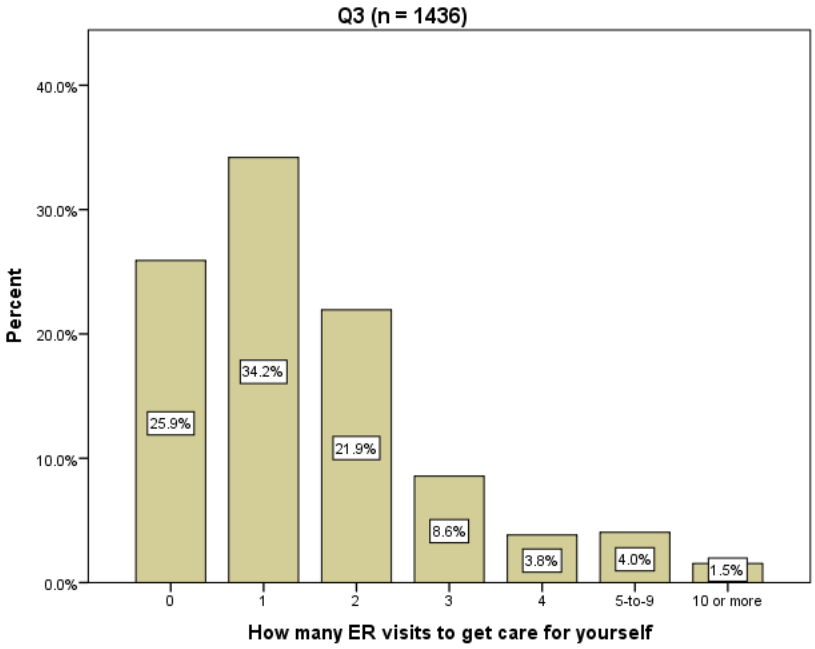
Table AU-1. Utilization Questions

No.	Question
q3	In the last 6 months, how many times did you go to an emergency room to get care for yourself?
q7	In the last 6 months, **not** counting the times you went to an emergency room, how many times did you go to a doctor's office or clinic to get health care for yourself?
q26	In the last 6 months, how many times did you visit your personal health provider to get care for yourself?
q35	In the last 6 months, did you get care from a doctor or other health provider besides your personal doctor?
q38	In the last 6 months, did you phone your personal health provider's office **after** regular office hours to get help or advice for yourself?
q52	How many specialists have you seen in the last 6 months?
q53	In the last 6 months, how many times did you go to specialists for care for yourself?
q71	In the last 6 months, have you been a patient in a hospital overnight or longer?

Emergency Room Visits

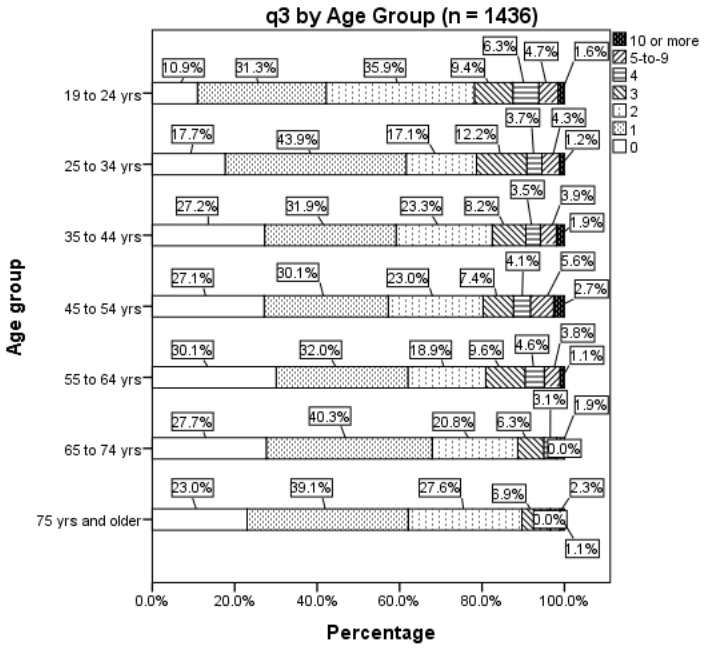
Nearly three-fourths (74.1%) of the adult respondents to survey question #3 (n = 1436) reported that they had gone to the emergency room at least one time to get care for themselves during the six months preceding the survey. Approximately one-third (34.2%) of the total number of respondents stated that they visited the emergency room only once, while 1.5% visited the emergency room more than ten times in the six months before the survey was administered (see Figure AU-1).

Figure AU-1. In the last 6 months, how many times did you go to an emergency room to get care for yourself?



The respondent's age led to statistically significant variation in the number of emergency room visits that they made to get care for themselves. The percentage of respondents who had not visited the emergency room in the six months prior to the survey was largest in the older age groups. For instance, 30.1% of respondents aged 55-to-64 years and 27.7% of those aged 65-to-74 years stated that they had not visited the emergency room. On the other hand, only 10.9% of respondents in the 19-to-24 year old group and 17.7% of those in 25-to-34 year old group indicated that they had not visited the emergency room. Also noteworthy was: (a) the relatively large percentage of 19-to-24 years olds who made two or more visits to the emergency room (57.8%) - which was the largest proportion among all of the age groups - and (b) the relatively small proportion of 65-to-74 year olds who made two or more visits (32.0%) - the smallest percentage of all age groups (see Figure AU-2).

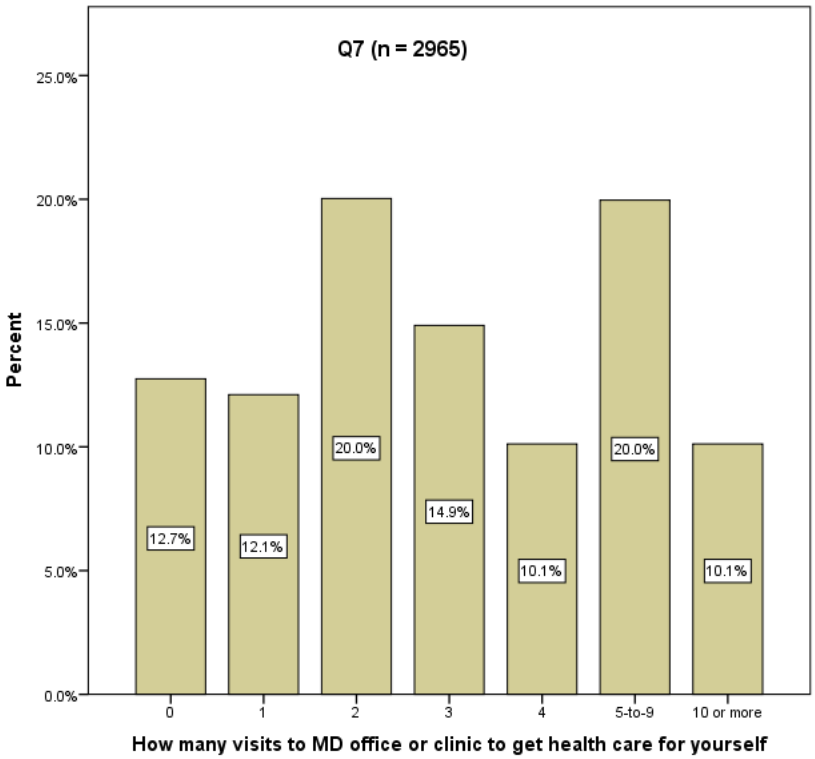
Figure AU-2. In the last 6 months, how many times did you go to an emergency room to get care for yourself?



Doctor's Office Visits

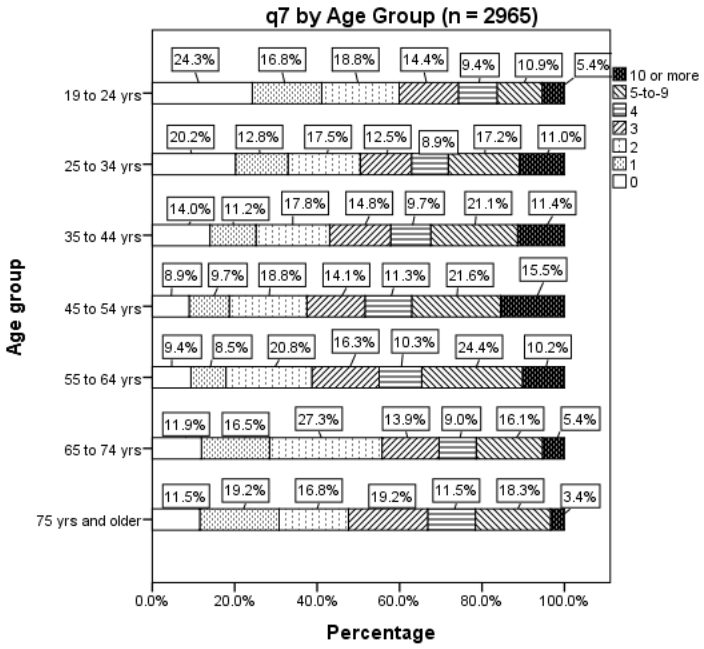
The vast majority (87.3%) of adult respondents who answered survey question #7 (n = 2965) reported having at least one visit to a doctor's office or clinic to get care for themselves during the six months preceding the survey. Of these adult respondents, 12.1% reported having visited a doctor's office or clinic only once during the six months prior to fielding the survey while 10.1% reported having visited a doctor's office or clinic 10 or more times to get care for themselves (see Figure AU-3).

Figure AU-3. In the last 6 months, **not** counting the times you went to an emergency room, how many times did you go to a doctor's office or clinic to get health care for yourself?



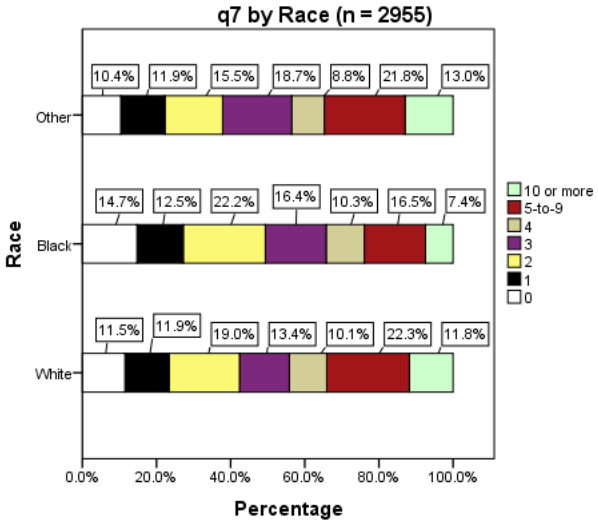
Significant variation by respondent's age occurred in the number of visits that respondents made to a doctor's office or clinic. The percentage of enrollees in the 19-to-24 and 25-to-34 year old groups who reported not making a visit to a doctor's office or clinic was greater than that reported by respondents in other age groups. Meanwhile, relatively large numbers of respondents in the 45-to-54 and the 55-to-64 year old groups indicated that they had visited a doctor's office or clinic two or more times in the previous six months. Also worth noting was the relatively small number of respondents in the 19-to-24 and 65 years and older groups who reported ten or more visits to a doctor's office or clinic (see Figure AU-4).

Figure AU-4. In the last 6 months, **not** counting the times you went to an emergency room, how many times did you go to a doctor's office or clinic to get health care for yourself?



The race of the respondent was a significant predictor of visits to a doctor's office or clinic. Blacks had the largest percentage of respondents who did not visit a doctor's office or clinic and the smallest percentage of respondents who visited a doctor's office five or more times. Also, enrollees in the other race category had the largest percentage of respondents who visited a doctor's office ten or more times and the smallest proportion of respondents who did not visit a doctor's office or clinic (see Figure AU-5).

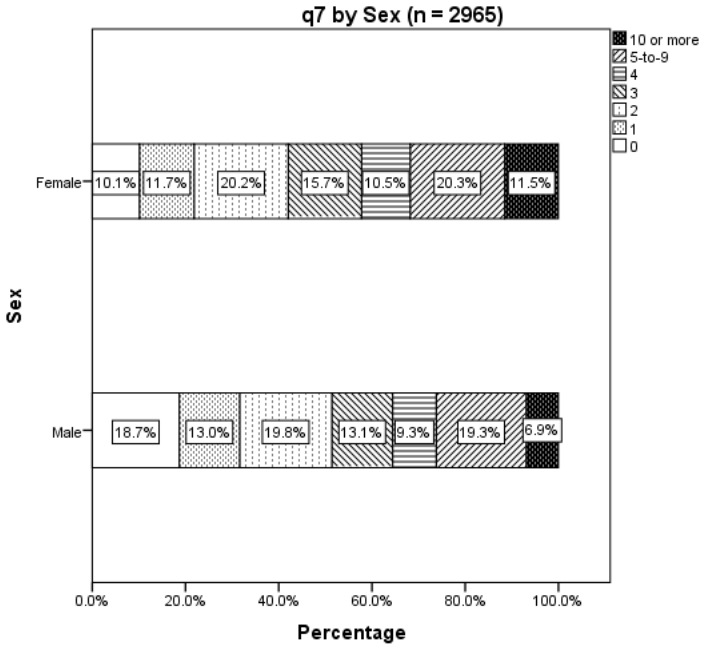
Figure AU-5. In the last 6 months, **not** counting the times you went to an emergency room, how many times did you go to a doctor's office or clinic to get health care for yourself?



There was significant variation in the number of visits to a doctor's office or clinic based on the enrollee's sex, most of which occurred at opposite ends of the measurement scale.

Compared to males, a larger percentage of females reported at least one visit in the six months prior to fielding the survey (89.9% vs. 81.3%). Females also reported visiting a doctor's office or clinic ten or more times in greater numbers than did males (11.5% vs. 6.9%) (see Figure AU-6).

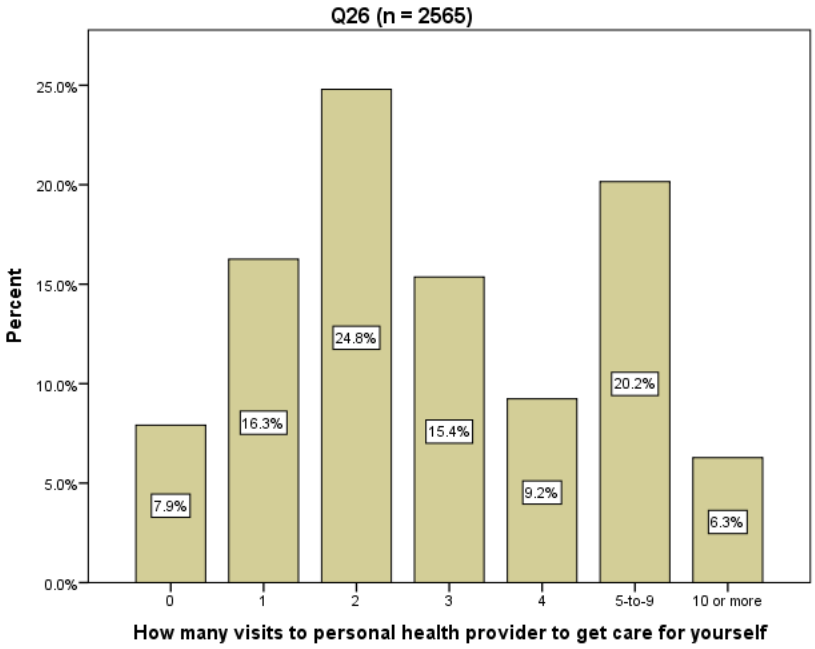
Figure AU-6. In the last 6 months, **not** counting the times you went to an emergency room, how many times did you go to a doctor's office or clinic to get health care for yourself?



Personal Health Provider

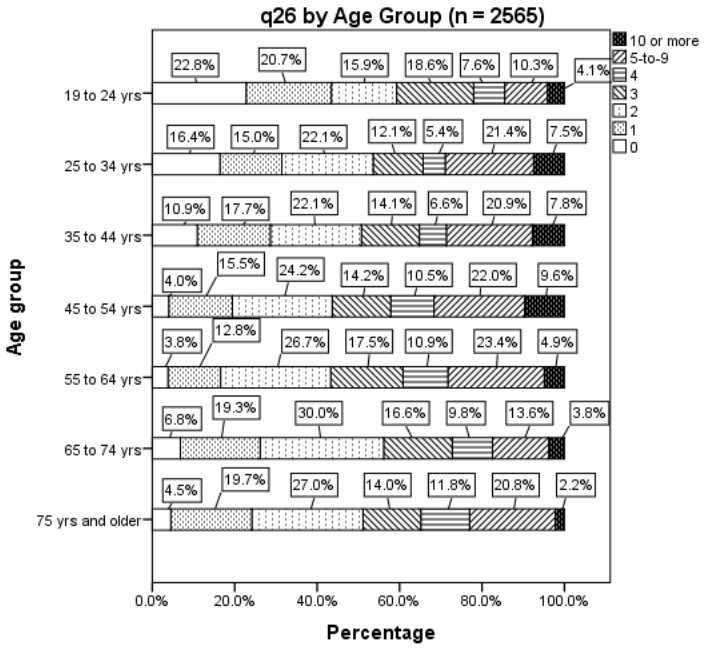
The vast majority (92.1%) of adult respondents to survey question #26 (n = 2565) reported visiting their personal health provider at least once to get care for themselves in the six months preceding the survey. Among all respondents to the question, 16.3% reported having seen their personal health provider exactly once, while 6.3% reported seeing their personal health provider more than 10 times to get care for themselves in the six months preceding the survey (see Figure AU-7).

Figure AU-7. In the last 6 months, how many times did you visit your personal health provider to get care for yourself?



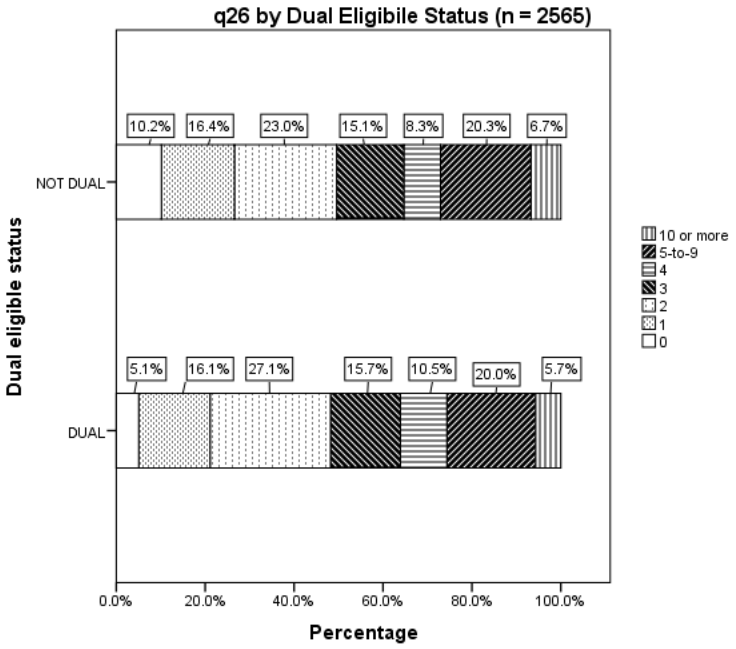
There was significant variation in the number of visits to one's personal health provider based on the respondent's age. Figure AU-8 clearly shows that the percentage of 19-to-34 year olds that did not visit their personal health provider in the six months preceding the survey exceeded that of other, older age groups. Similarly, the age group with the smallest share of respondents reporting two or more visits to the personal health provider was the 19-to-24 year old group. On the other hand, respondents in the 45-to-54 year old group reported the largest percentage of ten or more visits to their personal health provider (see Figure AU-8).

Figure AU-8. In the last 6 months, how many times did you visit your personal health provider to get care for yourself?



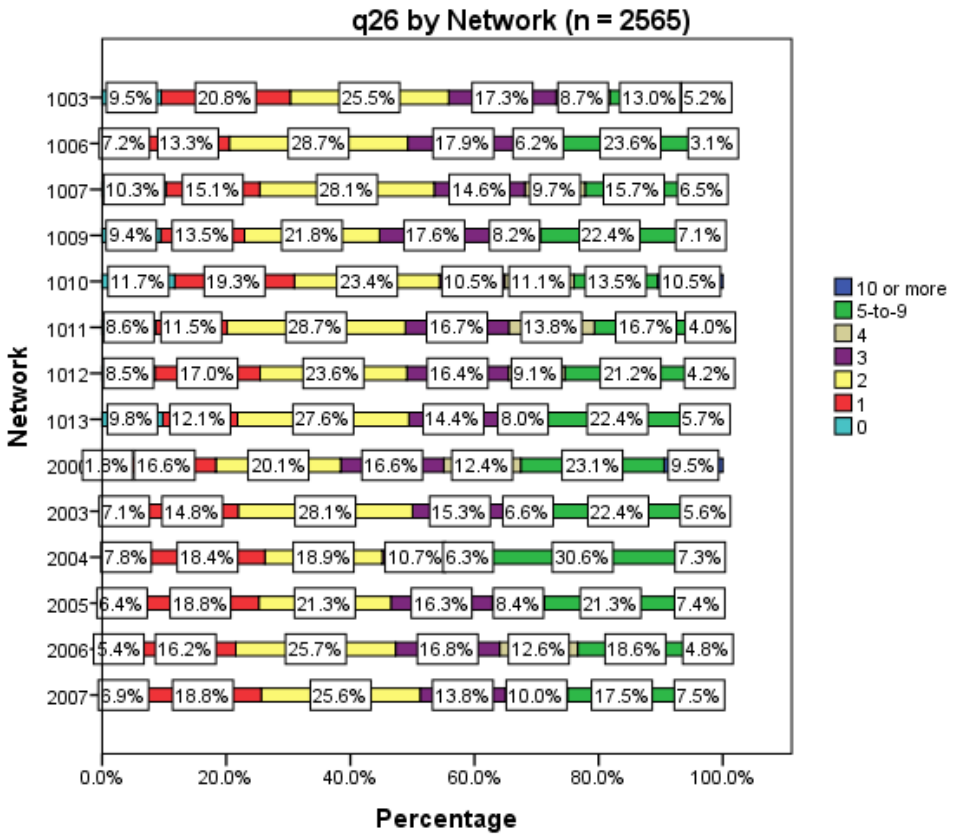
The respondent's dual eligibility status also had an effect on the number of times that respondents visited their personal health providers. Variation occurred in two distinct categories of visits – those who reported no visits and those reporting two visits. Specifically, the percentage of dual eligibles reporting that they did not visit their personal health provider was smaller than that reported by those enrolled exclusively in Medicaid (5.1% vs. 10.2%). Consequently, the percentage of dual eligibles reporting two visits to their personal health provider in the preceding six months exceeded that reported by the non-dual eligible subpopulation (27.1% vs. 23.0%) (see Figure AU-9).

Figure AU-9. In the last 6 months, how many times did you visit your personal health provider to get care for yourself?



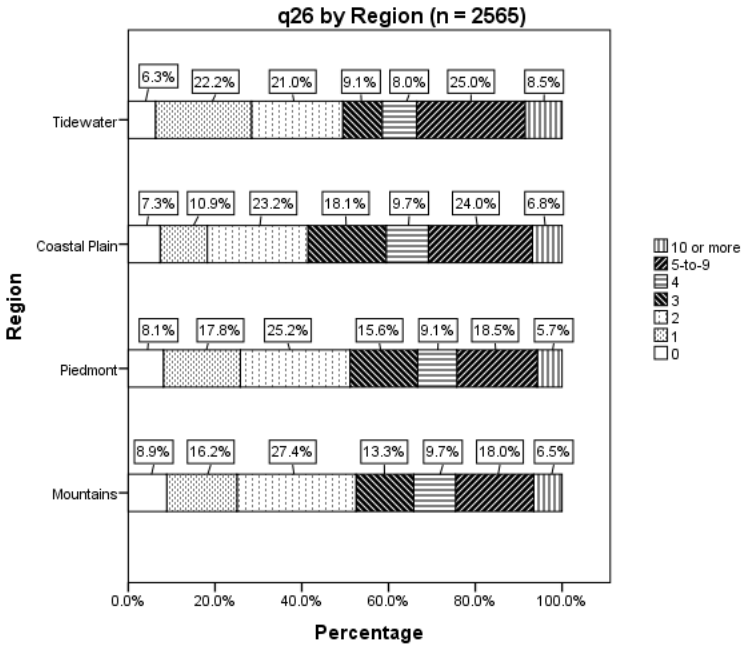
Significant variation in the number of visits to respondent's personal health providers occurred across networks. As is shown in Figure AU-10, nearly all (98.2%) of the respondents in the Community Care Plan of Eastern North Carolina network (2000) visited their personal health provider at least once and nearly 1 in 10 (9.5%) visited their personal health provider more than ten times in the six months preceding the survey. The Carolina Community Health Partnership network (1010) had the highest percentage (11.7%) of respondents who never visited their personal health provider as well as the highest percentage (10.5%) of respondents who visited their personal health provider more than ten times in the six months preceding the survey.

Figure AU-10. In the last 6 months, how many times did you visit your personal health provider to get care for yourself?



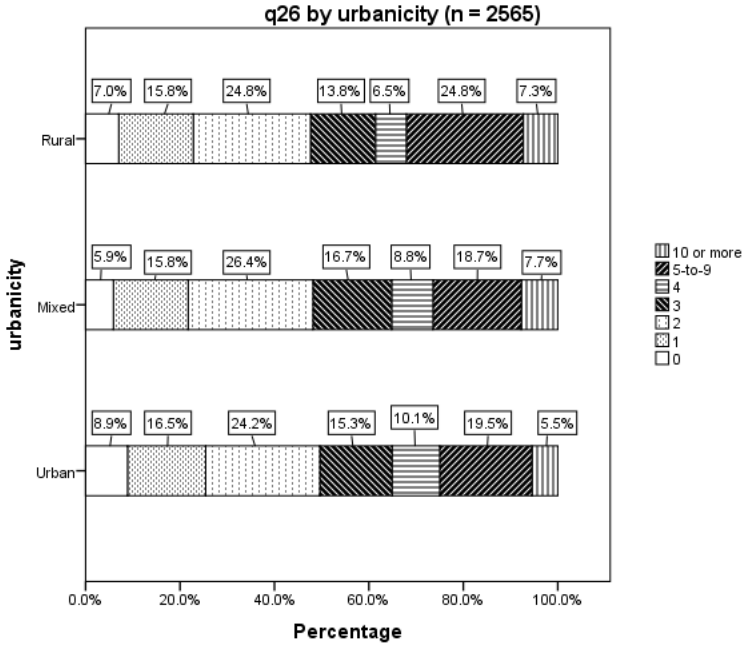
The region of North Carolina where the respondent lived affected responses to question #26. Overall, those in the Eastern regions responded that they visited their personal health provider at least once in greater numbers than those in the Piedmont or Mountain regions. The Tidewater region had the highest percentage (93.7%), followed by the Coastal Plain region (92.7%), the Piedmont region (91.9%), and the Mountain region (91.1%). Also of note was the observation that respondents from the Coastal Plain reported the largest percentage of two or more visits. The Tidewater region had the largest percentage of respondents who visited their personal provider ten or more times (see Figure AU-11).

Figure AU-11. In the last 6 months, how many times did you visit your personal health provider to get care for yourself?



The degree of urbanicity of the respondent's county of residence had a small, but statistically significant, impact on the number of visits made to respondents' personal care providers. Respondents living in counties categorized as "mixed" reported the largest percentage having at least one visit (94.1%) compared to those living in rural (93.0%) and urban (91.1%) counties. However, rural counties were associated with the largest percentage of respondents with five or more visits (see Figure AU-12).

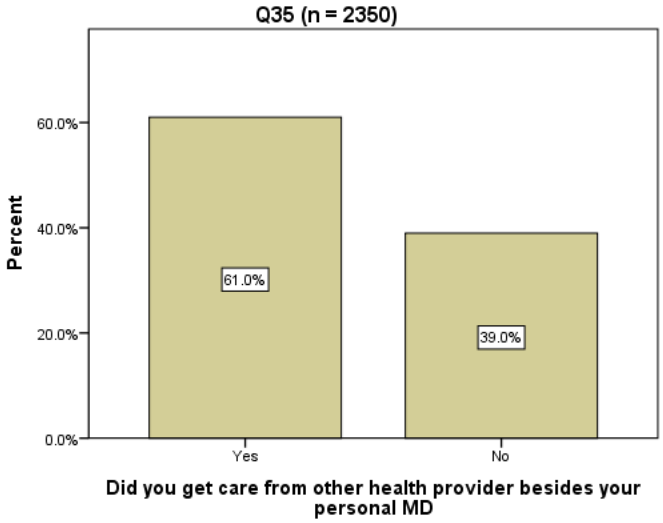
Figure AU-12. In the last 6 months, how many times did you visit your personal health provider to get care for yourself?



Other Care

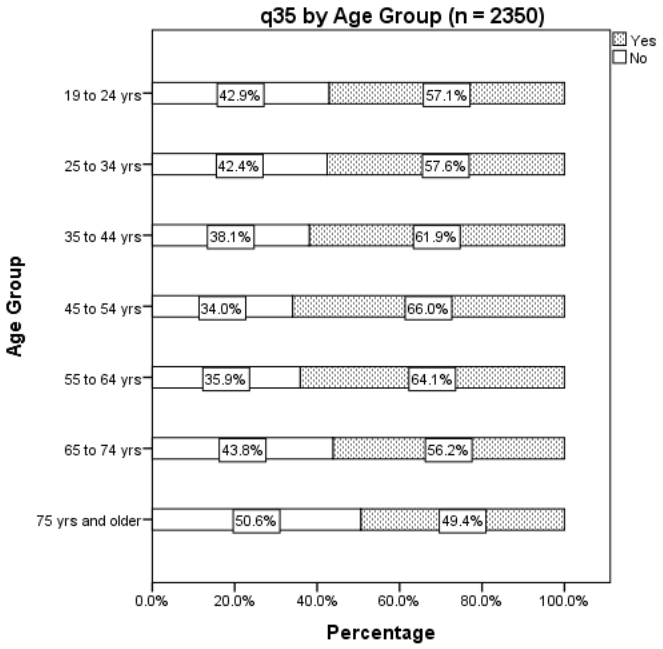
Nearly three-fifths (61.0%) of the respondents who answered survey question #35 (n = 2350) reported that they had received care from a health provider that was someone other than their personal health provider in the previous six months (see Figure AU-13).

Figure AU-13. In the last 6 months, did you get care from a doctor or other health provider besides your personal doctor?



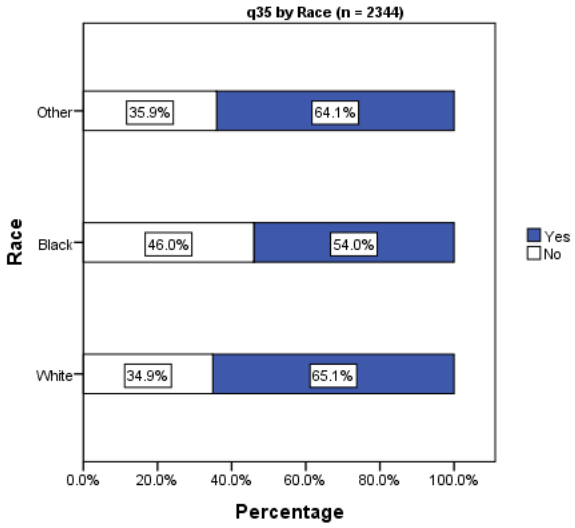
The respondent's age had a significant effect as to whether or not enrollees received care from providers other than their personal provider. In a pattern resembling that observed for other utilization questions (q7 and q38), the percentage of adults who received care from providers other than their personal health provider increased with age until age 65. At age 65 and older, the percentage of those having seen someone other than their personal health provider declined when compared to other age groups (see Figure AU-14).

Figure AU-14. In the last 6 months, did you get care from a doctor or other health provider besides your personal doctor?



The respondent's race was associated with variation in responses about receiving care from a provider other than their personal doctor. Whites, followed by those in the "other" racial category, reported the largest percentages of having received care from someone other than their personal health provider (65.1% vs. 64.1%). Blacks (54.0%) reported the smallest percentage of respondents who received care from someone other than their personal health provider (see Figure AU-15).

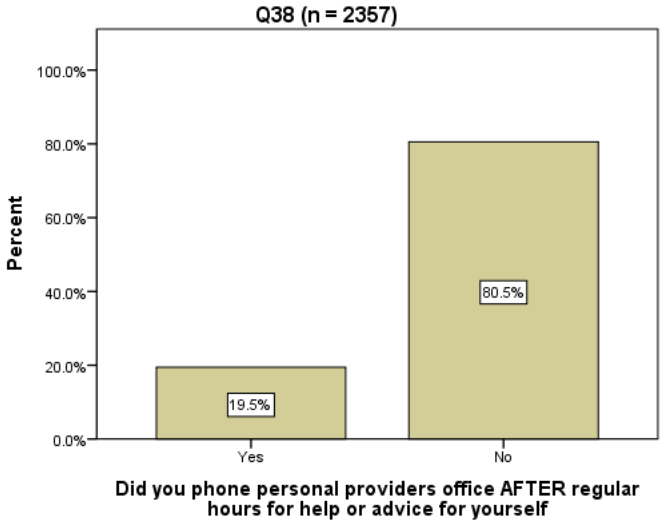
Figure AU-15. In the last 6 months, did you get care from a doctor or other health provider besides your personal doctor?



After Hours Help

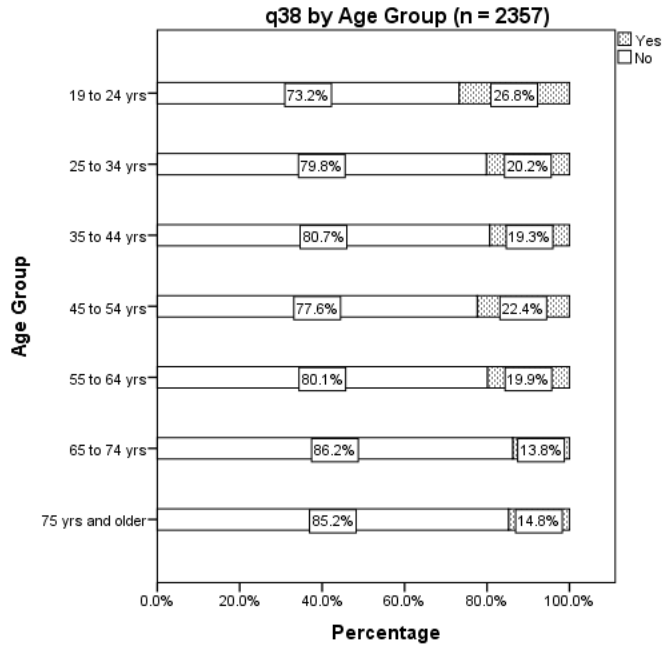
Less than one-fifth (19.5%) of the enrollees who responded to survey question #38 (n = 2357) reported that they called their personal health provider after regular office hours to get help or advice for themselves in the six months prior to fielding the survey (see Figure AU-16).

Figure AU-16. In the last 6 months, did you phone your personal health provider's office **after** regular office hours to get help or advice for yourself?



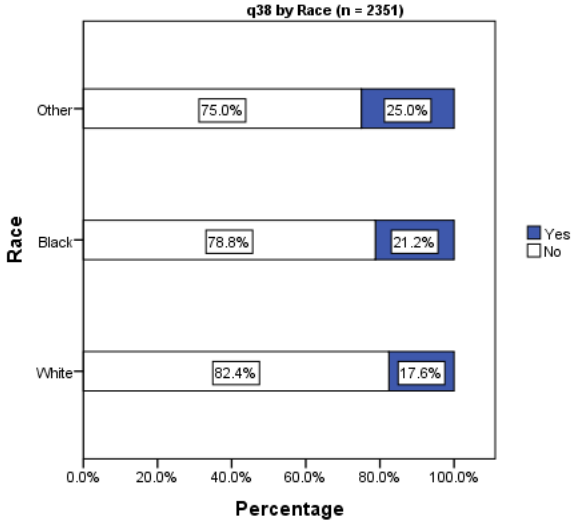
Significant variation based on the enrollee's age occurred in terms of whether enrollees called their personal health provider after regular hours for help or advice. The highest percentage of those reporting having phoned their personal health provider's office after regular office hours was found in the 19-to-24 year old age group: just over one-fourth (26.8%) of them reported calling after hours. Those adults aged 65-to-74 years reported the smallest proportion (13.8%) of respondents who phoned their personal health providers after regular business hours to get help or advice for themselves (see Figure AU-17).

Figure AU-17. In the last 6 months, did you phone your personal health provider's office **after** regular office hours to get help or advice for yourself?



The individual's race resulted in a significant bivariate relationship with responses to question #38. Individuals in the other race category reported the highest percentage (25.0%) of respondents indicating that they called their personal health provider's office after regular office hours. The percentage of blacks and whites that reported making these calls was 21.2% and 17.6%, respectively (see Figure AU-18).

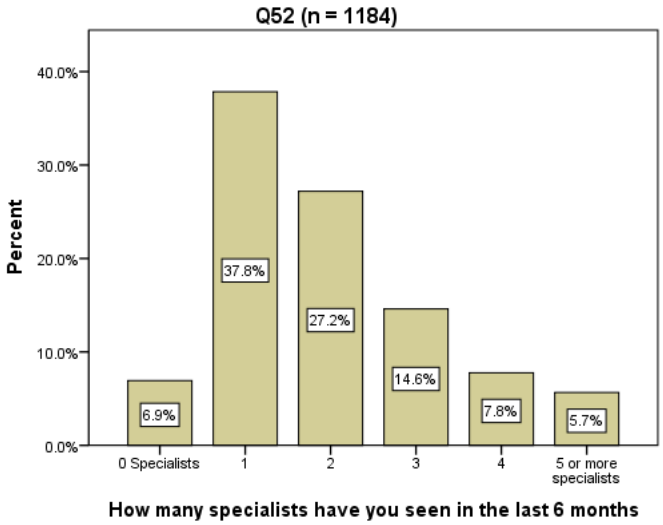
Figure AU-18. In the last 6 months, did you phone your personal health provider's office **after** regular office hours to get help or advice for yourself?



Specialists

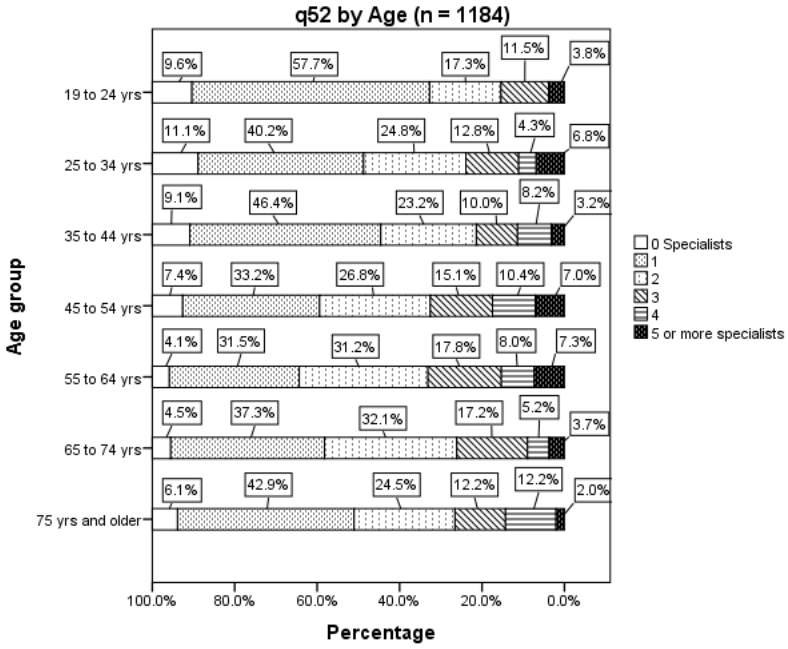
The vast majority (93.1%) of respondents who answered survey question #52 (n = 1184) reported having seen at least one specialist in the six months preceding the survey (see Figure AU-19).

Figure AU-19. How many specialists have you seen in the last 6 months?



There was statistically significant variation in the number of specialists seen based on the age of the respondent. As is shown in Figure AU-20, in all of the age groups it was most common for respondents to have seen only one specialist. Those respondents aged 55-to-65 years reported the highest percentage of adults (64.4%) who saw two or more specialists in the six months preceding the survey.

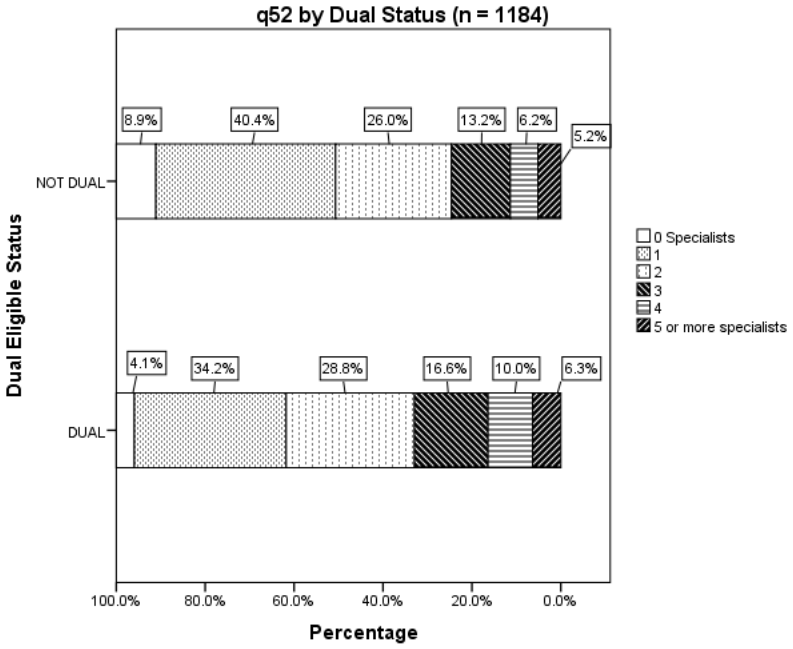
Figure AU-20. How many specialists have you seen in the last 6 months?



The enrollee's dual eligibility status had an effect on the number of specialists seen by survey participants. Almost 96% of individuals who were only enrolled in both Medicaid and

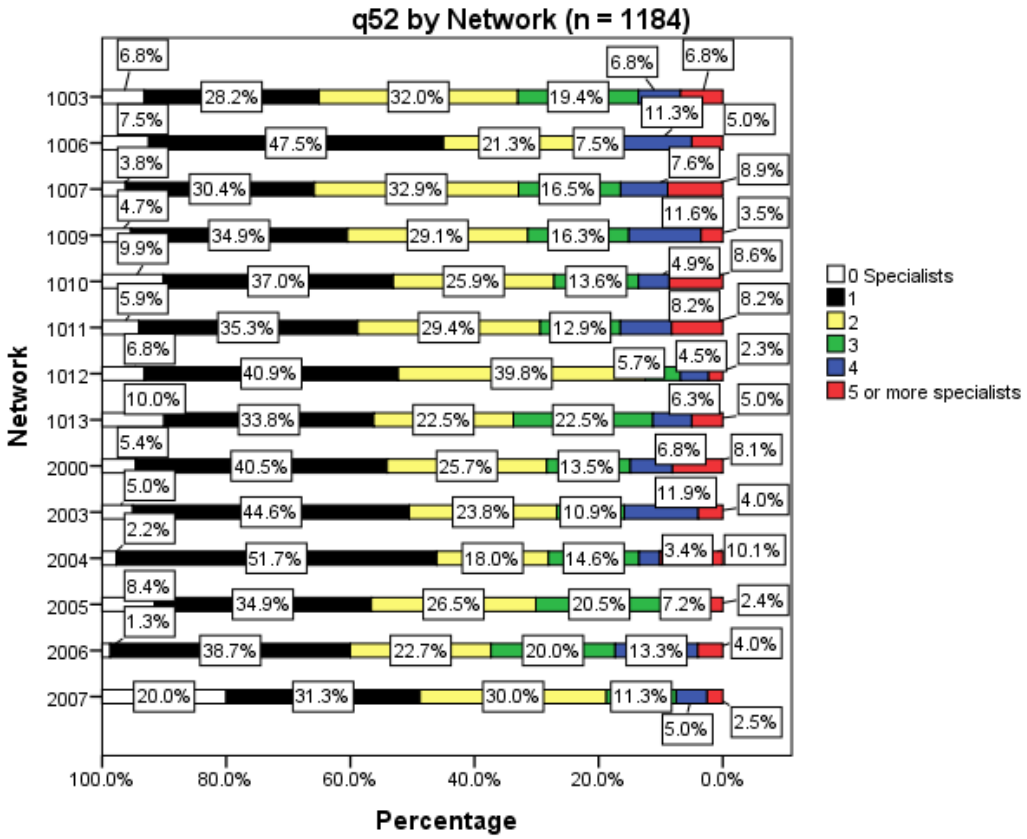
Medicare saw at least one specialist in the six months preceding the survey compared to the 91.1% observed for respondents who were only eligible for Medicaid (see Figure AU-21).

Figure AU-21. How many specialists have you seen in the last 6 months?



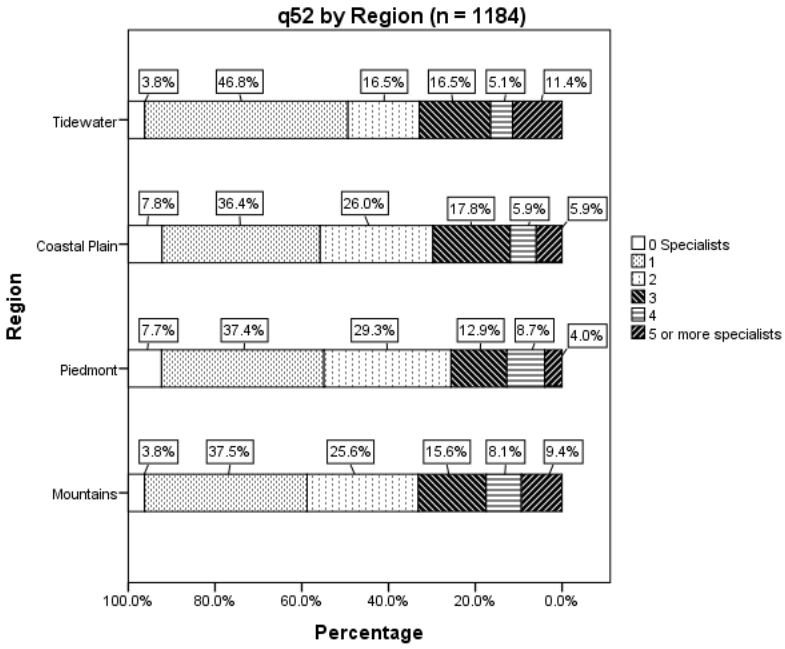
Significant variation in the number of specialists that were seen occurred across networks. As is shown in Figure AU-22, nearly all (98.7%) of the respondents in the Northwest Community Care Network (2006) reported visiting at least one specialist while 20% of those respondents in the Northern Piedmont Community Care Network (2007) reported that they had not visited at least one specialist in the six months preceding the survey. This is double the percentage (10.0%) of respondents in the Carolina Collaborative Community Care Network (1013), the network with the next largest percentage of respondents that had not visited a specialist in the six months preceding the survey.

Figure AU-22. How many specialists have you seen in the last 6 months?



The region of North Carolina where the respondent lived impacted the number of specialists seen by enrollees. The Tidewater and Mountain regions had the highest percentage (96.2%) of respondents who saw at least one specialist in the six months preceding the survey. These regions were followed by the Piedmont and Coastal Plains regions with 92.2% and 92.3%, respectively, of respondents having reported seen at least one specialist. The Tidewater and Mountain regions also had the highest percentages of respondents who saw five or more specialists in the six months preceding the survey (11.4% and 9.4%, respectively) (see Figure AU-23).

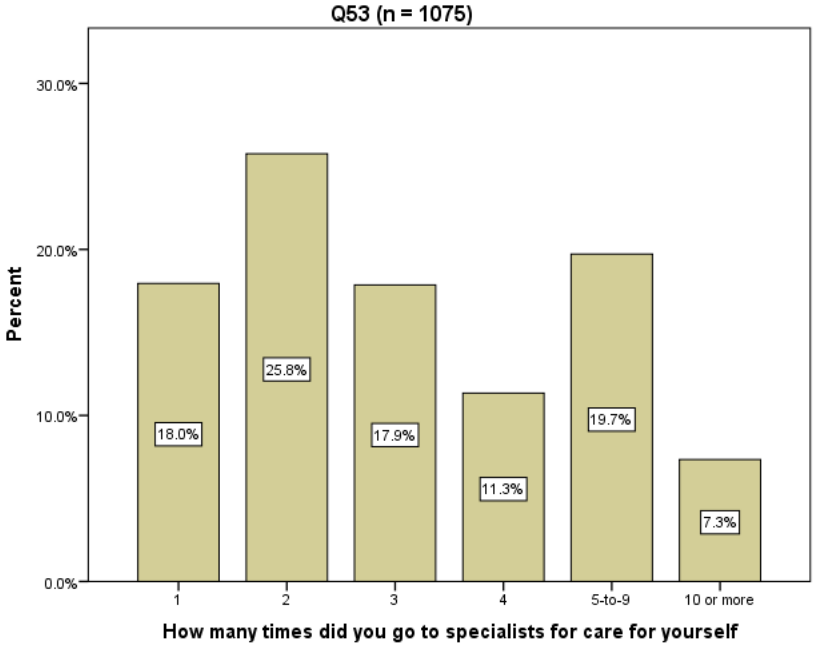
Figure AU-23. How many specialists have you seen in the last 6 months?



Specialist Visits

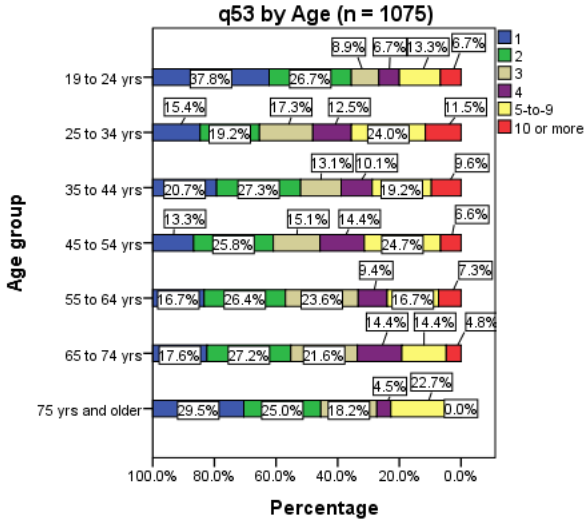
Of the adult respondents reporting that they had been to a specialist at least once in the six months preceding the survey (n = 1075), 18.0% reported that they had visited a specialist on one occasion while 7.3% reported having ten or more specialist visits (see Figure AU-24).

Figure AU-24. In the last 6 months, how many times did you go to specialists for care for yourself?



There were statistically significant differences in the number of specialist visits based on the different adult age groups, with adults aged 19-to-24 years having the highest percentage of respondents (37.8%) that reported visiting a specialist only one time in the six months preceding the survey. Interestingly, the age group with the next highest percentage of adults (29.5%) having made one visit to a specialist was the age 75 years and older group. The 75 and older age category was also the only age category that reported no respondents having visited a specialist more than ten times in the six months preceding the survey (see Figure AU-25).

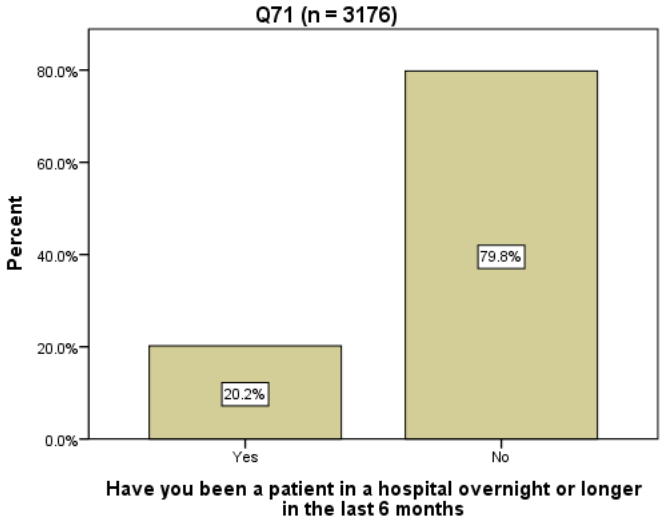
Figure AU-25. In the last 6 months, how many times did you go to specialists for care for yourself?



Hospitalization

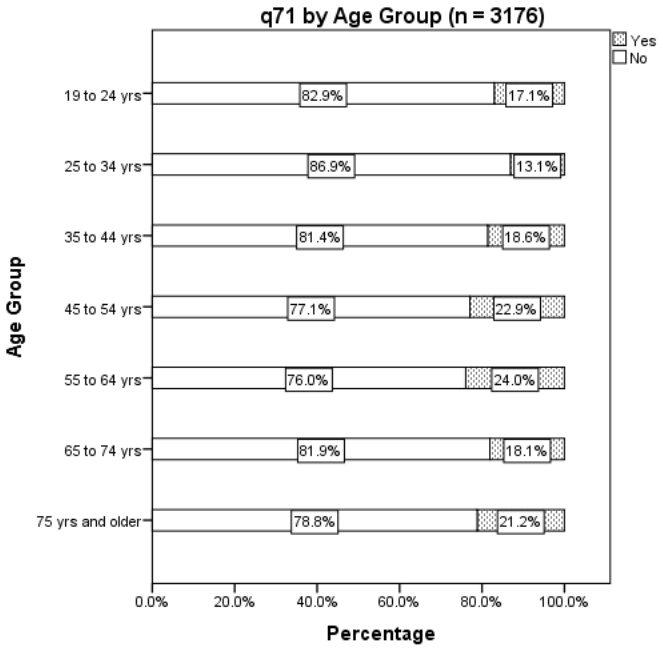
Most (79.8%) of the respondents who answered survey question # 71 (n = 3176) reported that they had not been hospitalized as a patient in a hospital overnight or longer in the six months preceding the survey (see Figure AU-26).

Figure AU-26. In the last 6 months, have you been a patient in a hospital overnight or longer?



The respondent's age had an effect on whether or not he or she had been hospitalized overnight or longer in the six months preceding the survey. Nearly one-quarter (24.0%) of respondents aged 55-to-64 years reported that they were hospitalized overnight or longer – the largest percentage for any of the specified age groups. By contrast, individuals in the 25-to-34 year old group reported the smallest percentage of respondents who indicated that they had been hospitalized overnight or longer (13.1%) (see Figure AU-27).

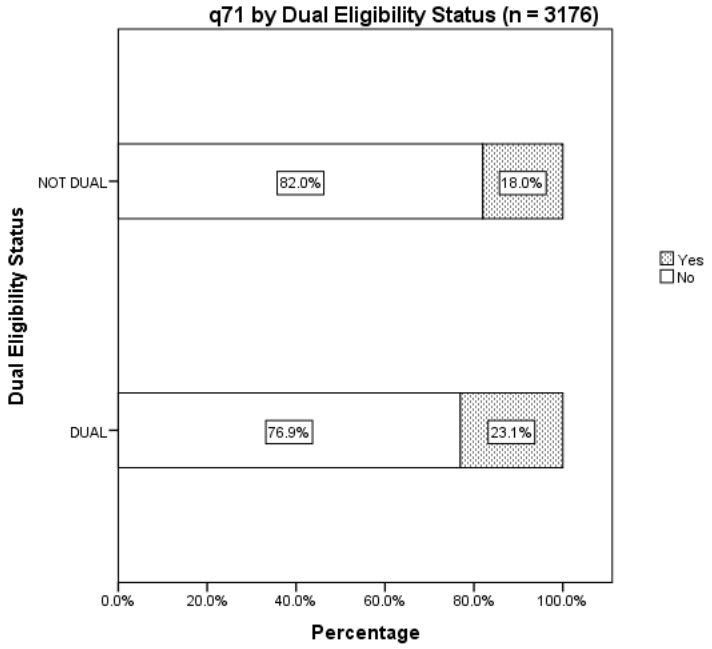
Figure AU-27. In the last 6 months, have you been a patient in a hospital overnight or longer?



The enrollee's dual eligibility status was also associated with significant variation in responses to question #71. Respondents who were dually eligible for Medicaid and Medicare

reported having been a patient in a hospital at a higher percentage (23.1%) than those who were only eligible for Medicaid alone (18.0%) (see Figure AU-28).

Figure AU-28. In the last 6 months, have you been a patient in a hospital overnight or longer?



4 INTERPRETING THE RESULTS OF THE ADULT SURVEY

A total of sixty-nine survey questions across four major dimensions – access to care, satisfaction with care, health status, and utilization of health services – evaluated adult enrollees' experiences with North Carolina Medicaid's Community Care of North Carolina (CCNC) delivery system.[13] The access dimension represented the largest proportion of survey items with twenty-six questions (37.7%), followed in descending order by the nineteen satisfaction questions (27.5%), sixteen health status questions (23.2%) and eight utilization questions (11.6%). Each of the survey questions was subsequently analyzed in terms of its bivariate statistical significance with a handful of demographic and context variables. These variables included the enrollee's age, sex, race, care network, dual eligibility status, region of residence within North Carolina, and the degree of urbanicity of the county of residence.

The results of the analyses of the responses that have been reported in the previous chapter indicate that the majority of the adult survey respondents believed that they received the care that they needed with minimal problems and a high degree of satisfaction. Slightly fewer than 80% of these respondents indicated that they either usually or always received timely care and 85% gave their personal health provider a score of 8 or better on a 0 through 10 scale. In terms of the bivariate relationships, the age, dual eligibility status, and race variables demonstrated most of the variation throughout each of the major domains of the survey.

Access

Twenty-six survey questions asked respondents about various aspects related to what the authors characterized as access to care or services. Twenty-one (80.8%) of these questions achieved bivariate significance with the enrollee's race, while nineteen (73.1%) were significant when cross-tabulated with the enrollee's age. A substantial number of the access questions (16 of 26, or 61.5%) attained bivariate significance with the enrollee's dual eligibility status. The respondent's sex, region of residence within the state, CCNC care network, and the degree of urbanicty of the county where they lived tallied the fewest number of significant bivariate relationships within the access domain.

The patterns of responses offered by the adult respondents to the access questions suggest that access for most recipients was generally not a problem. For example:

- Slightly more than three-quarters of respondents (76.2%) reported that they were "always" or "usually" able to secure care when they thought that they needed it right away (q4).
- Nearly 70% of those respondents who needed someone to come into their homes to give home health care or assistance "always" or "usually" found it easy to get this care through their health plan (q15).
- Overall, only 3% of respondents reported that they needed an interpreter to assist them when speaking with their health providers. Among these respondents, 65.3% indicated that they "always" or "usually" received this assistance when needed (q19 and q20).

[13] The survey also included five questions that evaluated the respondent's "trust" in the provider as well as three questions that assessed the respondent's use of computers, the internet, and social media, respectively. The analysis of these questions will appear in a separate, subsequent volume.

- Approximately 38% of survey respondents tried to make appointments to see a specialist physician in the 6 months preceding the survey. Nearly three-fourths (74.6%) of these respondents indicated that it was "always" or "usually" easy to do so (q50 and q51).
- Although very few respondents needed help when calling their personal health provider's office after hours, most (68%) of those who did "always" or "usually" received it (q39).
- Approximately two-thirds of survey respondents indicated that they "always" or "usually" found it easy to get a personal health provider that they were happy with since joining Medicaid (q42).
- Nearly 70% of respondents who reported that they needed help from a non-family member to get to a medical appointment or to get a prescription filled reported that they "always" or "usually" received this help.

On the other hand, the survey revealed several potential concerns related to individuals' access to and continuity of care. For instance,

- Nearly one-in-four respondents reported that they "never" or only "sometimes" received timely care (q4) or got timely appointments at a doctor's office or clinic (q6).
- Only 46% of the survey respondents reported that they had a personal health provider who was the same provider that they had prior to enrolling in Medicaid (q41).
- Approximately one-in-five of the pertinent survey respondents who needed home health care or assistance through their health plan found it "never" easy to get this assistance (q15).
- Just over 10% of respondents who indicated that they needed help from a non-family member to get to a medical appointment or to get a prescription filled reported that they "never" received this assistance.

In terms of the bivariate relationships pertaining to access to care, the race, age, and dual eligibility status variables accounted for most of the statistically significant variation. The outcomes related to the age and dual status variables were remarkably similar in terms of which groups had the largest percentages of a given response. For example, the older age groups reported that: they always received care as soon as they thought they needed it when care was needed right away; they always got an appointment with their personal health provider as soon as they thought they needed it; they always found it easy to get medical equipment via their health plan; it was always easy to get personal health providers they were happy with; they always found it easy to get an appointment with specialist; they needed transportation assistance; they always received transportation assistance; and that it was always easy to get prescriptions via their health plan in greater number than the younger age groups. Similarly, the experience of dual eligibles mirrored that of the older age groups, with the percentages of dual eligibles exceeding that of the non-dual eligibles on many of the same survey items.

The bivariate relationships between the enrollee's race and the access questions were a bit more nuanced. Compared to whites, fewer blacks made appointments at a doctor's office or clinic. On the other hand, blacks reported: always receiving care as soon as they thought they needed it when care was needed right away; needing an interpreter; having the same provider as

before joining Medicaid; needing transportation assistance; always receiving transportation assistance; it was always easy to find a personal health provider that they were happy with; and that it was always easy to get a prescription via their health plan in greater numbers than whites. Furthermore, whites always or usually got appointments as soon as they thought they needed it in greater numbers than blacks; whites "always" or "usually" found it easy to get medical equipment via their health plan in greater numbers; whites reported that it was never easy to get home care in greater numbers than blacks; whites reported having a personal health provider in greater numbers; whites reported care coordination in greater numbers than blacks; the percentage of whites seeking appointments with specialists was greater than that of blacks; and whites reported that it was always or usually easy to get appointments with specialists in greater numbers.

Satisfaction

The research team identified nineteen survey questions that focused on enrollees' satisfaction with their providers and health plan. Four of these items (q9, q40, q54, q62) were structured on a 0-to-10 rating scale (0 worst and 10 best) to elicit respondent ratings of satisfaction with regard to their health care, their personal health provider, their specialist provider (if applicable), and their health plan. The remaining questions elicited information with respect to respondent satisfaction in terms of: (a) the health provider's willingness to communicate and the effectiveness of that communication, (b) the health provider's ability to empathize with the respondent's needs and concerns, and (c) the interactions between respondents and their health plan or office staff.

Generally speaking, respondents rendered favorable ratings for their health providers and health plan. In terms of the statistically significant bivariate relationships, the enrollee's race and age resulted in the greatest number of occurrences within the group, with thirteen survey questions (68.4%) achieving this level for each variable. As was the case for the access questions, the dual eligibility status was next with twelve occurrences (63.2%).

The results of the 2012 satisfaction survey are positive in a number of ways. For example, when asked to rate their health care, greater than 69% of respondents reported a rating of 8 or higher on the 0-to-10 scale. Similarly, 85% of survey participants rated their personal health provider with a score of 8 or more and 83.4% reported similar ratings for the specialist seen most often. In terms of the health plan's ratings, 78.6% of respondents reported a rating of 8 or greater. These 2012 findings regarding satisfaction are generally similar to the responses reported in the 2007 survey.

Satisfaction with care and with the delivery system continues to be fairly high in the population at-large. However, the experience within the various age subgroups was characterized by some variability. Ratings of 10 for several of these questions occurred in smaller proportions in the younger groups compared to the older groups. Similarly, ratings of 0-to-7 for these questions were more prevalent in the younger groups. This trend was also evident when the enrollee's dual eligibility status was analyzed, with dual eligibles reporting satisfaction ratings of 8 or better in greater numbers than those individuals enrolled exclusively in Medicaid. On the other hand, the enrollee's race had a significant impact on only one of these four survey items. Specifically, blacks reported higher satisfaction ratings of their health plan compared to the other racial subpopulations.

Eleven survey items (q8, q27, q28, q29, q30, q31, q33, q34, q59, q60, q61b) were structured with an answer set of "Never," "Sometimes," "Usually," and "Always" and focus on

the frequencies of satisfaction reported by the respondent. With two notable exceptions, all questions of this type revealed favorable ("always" or "usually") responses of satisfaction by at least 70% of respondents (several of these questions were rated favorably by nearly 90% of respondents). The two exceptions were q8 and 29. Question #29 was scaled in such a way that a "never" response was actually favorable in the sense that respondents never had difficulty understanding their personal health provider if they spoke different languages. Almost 88% of respondents reported never having this difficulty. Thus, the lone "outlier" was q8, which asked respondents if they discussed illness prevention with their health provider. Overall, slightly more than 40% of respondents indicated that these discussions "sometimes" or "never" occurred. However, this proportion was significantly larger in the youngest and oldest age groupings and among whites.

Three satisfaction questions (q25, q32, q61a) were structured with "Yes/No" answer choices. The results associated with two questions (q25, q32) clearly point to high degrees of satisfaction. Large majorities of respondents reported (a) that their health providers understood how health problems affected their daily lives and (b) that decisions were made about their health care. The enrollee's age (q25, q32) and dual eligibility status (q25) had a significant impact, with younger enrollees and those enrolled exclusively in Medicaid displaying lower levels of satisfaction. The third satisfaction item conforming to this question format indicated that three-fourths of respondents were asked to fill out forms.

The satisfaction portion of the survey reveals at least one rather striking observation. Specifically, overall satisfaction levels were fairly comparable to those reported in the 2006-2007 survey of CCNC enrollees. However, the 2006-2007 survey excluded dual eligible individuals. The 2012 survey included dual eligible individuals who generally reported higher satisfaction levels in larger numbers than those enrolled exclusively in Medicaid. Thus, overall satisfaction levels would have been lower in the 2012 survey had the dual eligible subpopulation been excluded. Therefore, it seems plausible that satisfaction among the *non-dual eligible* subpopulation may have diminished between 2007 and 2012.

Health Status

Sixteen of the survey questions were designated by the UNC Charlotte research team as pertaining to the enrollee's health status. In terms of the number of statistically significant bivariate relationships, the enrollee's age ranked first with sixteen (100%). The enrollee's dual eligibility status (81.3%) and race (75%) also registered a number of statistically significant occurrences.

Respondents did not rate their health status very favorably. For example, when asked to rate their health as "excellent," "very good," "good," "fair," or "poor," only 6.2% stated that their health was "excellent", while 12.6% claimed that it was "very good" and 24.2% said that it was "good" (q67). Nearly one-in-five (21.1%) indicated that their overall health status was "poor." This distribution of responses was consistent with responses observed for a similar question in the 2006-2007 Adult Survey.

The survey provided a snapshot of enrollees' functional status and the degree of chronicity of their ailments. Nearly three-quarters (74.3%) of the respondents who were directed to survey question #24 reported that they had a physical or medical condition that interfered with work, school, or daily activities while 56% of survey participants stated that they had a medical condition that interfered with their independence, community participation, or quality of life (q70). Despite these findings, nearly 80% of respondents reported that they did not need the help

of other persons with their personal care needs, such as eating, dressing or getting around the house due to an impairment or health problem (q68) and nearly six-in-ten stated that they did not need help with their routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes, that were attributable to an impairment or health problem (q69). In terms of chronicity, 52% of respondents reported that they saw a health provider three or more times for the same condition or health problem in the six months preceding the survey (q72) and that the overwhelming majority (88.1%) of these individuals stated that the condition or health problem had lasted at least three months (q73).

The statuses of the respondent's mental or emotional health and their need for prescription drugs represent additional ways to evaluate overall health status. Sixty percent of respondents rated their overall mental or emotional health as "good," "very good," or "excellent" (q16), while nearly 80% indicated that they filled or refilled a prescription medicine in the 6 months preceding the survey (q64). It is important to note, however, that 40% of respondents rated their overall mental health as less than good.

Several patterns emerged from the bivariate relationships associated with the health status items in the survey. As was the case for questions in the access and satisfaction dimensions, the age, dual eligibility status, and race variables generated the most frequent statistically significant relationships. The key findings with these variables are summarized as follows:

- Compared to their respective comparison groups, larger percentages of younger, non-dual eligible, male, and black respondents reported "good," "very good," or "excellent" overall health (q67).
- Compared to their respective comparison groups, larger percentages of 45-to-64 year old, dual eligible, male, and white respondents reported that they had a physical or medical condition that interfered with their ability to work, attend school, or manage day-to-day activities (q24).
- Compared to their respective comparison groups, larger proportions of 35-to-64 year old, dual eligible, female, and white respondents reported that they had obtained a new or refilled prescription in the 6 months preceding the survey (q64).
- Compared to their respective comparison groups, larger numbers of older, dual eligible, and black respondents reported that they needed the help of other persons with their personal care needs, such as eating, dressing, or getting around the house (q68).
- Compared to their respective comparison groups, larger proportions of older and dual eligible respondents reported that they needed help with their routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes, that were attributable to an impairment or health problem (q69).
- Compared to their respective comparison groups, larger percentages of older, dual eligible, male, and non-black respondents reported that they had a physical or medical condition that seriously interfered with their independence, participation in the community, or quality of life (q70).
- Compared to their respective comparison groups, larger numbers of older, dual eligible, female, and non-black respondents reported seeing a health provider three or more times for the same condition or problem (q72).
- Compared to their respective comparison groups, larger proportions of 25-to-54 year old and non-black respondents reported that the condition that resulted in three or more visits to a health provider in the preceding 6 months had persisted for at least 3 months (q73).

These findings reveal that the *physical* health status of the dual eligible subpopulation is worse than that of those individuals exclusively eligible for Medicaid and support the presupposition that dual eligibility status may be a valid proxy measure of chronic *physical* illness.[14] However, it is important to note that the age of the survey respondent may confound this assertion as 47% of the dual eligible enrollees who responded to the survey were 65 years of age or older compared to just 2.2% for the non-dual eligible subpopulation (see Appendix A-2). The survey findings also suggest that blacks perceive their health status to be better than the perceptions reported by non-blacks.

Utilization

The research team identified eight survey items pertaining to service utilization. Five questions (q3, q7, q26, q52, q53) required the respondent to report a count of the number of times the respondent used the service (emergency room, a doctor's office or clinic, visits to the personal health provider, the number of specialists seen in the previous 6 months, and how many visits were made to specialists for care). The remaining questions were structured with the "Yes/No" answer format and asked respondents if they got care from a doctor or other health provider besides their personal doctor, if they phoned their personal health provider's office after regular office hours to get help or advice for themselves, and if they had been a patient in a hospital overnight or longer.

Among respondents who needed some type of urgent service in the previous 6 months, the responses for number of emergency room visits were clustered at the lowest numbers of visits, with 26% reporting that they made no emergency room visits and 34% stating that they made one visit to the emergency room. As expected, the proportion of respondents reporting that they had visited the emergency room decreased as the number of emergency room visits increased. However, it is worth noting that of the 1,436 respondents (or ~ 45% of all survey respondents) who responded that they needed some type of urgent service in the previous 6 months, almost 74% reported they made one or more visits to the emergency room. This observation, coupled with the fact that approximately 22% of respondents who visited a doctor's office or clinic at least once in the previous 6 months also reported that they sought treatment or counseling for a behavioral or emotional problem, warrants further examination. Perhaps the use of medical claims data would answer the question whether the emergency room was utilized as a source of care for emergency mental health care – a phenomenon that is especially prevalent in recent years in some areas of the state (Gordon, 2013).

A different pattern from that associated with emergency room utilization was observed with regard to the number of visits made to *any* doctor's office or clinic and also when respondents were questioned about the number of visits to their *specific* personal health provider. Unlike the pattern that characterized emergency room utilization, the proportion of respondents reporting that they had visited a doctor's office did not decrease as the number of doctor's office visits increased. Almost 90% of survey respondents reported that they made at least one visit to a doctor's office in the 6-month period prior to the survey (q7) while nearly 92% of respondents who stated that they had one provider that they considered to be their personal health provider

[14] It is also important to note that although the physical health of the dual eligible respondents is perceived to be worse than that of their non-dual eligible counterparts, the data fail to show worse status among the dual eligibles in terms of their mental or emotional health.

had at least one visit (q26). The respondent's age played a role in these observations, with the youngest respondents (19-to-34 year olds) reporting the largest proportion of zero visits to a doctor's office or clinic. Additionally, non-dual eligible respondents reported zero visits in greater proportions than their dual eligible counterparts. On the other hand, the percentage of white respondents who made at least one visit to a doctor's office or clinic outpaced that of blacks.

With regards to the context variables, very few generated statistically significant bivariate relationships when paired with the utilization questions. The care network variable provided an interesting observation where nearly all (98.2%) of the adult respondents enrolled in the Community Care Plan of Eastern North Carolina (2000) visited their personal health provider at least once and nearly 1 in 10 (9.5%) visited their personal health provider more than ten times in the six months preceding the survey. The Carolina Community Health Partnership network (1010) had the highest percentage (11.7%) of respondents who never visited their personal health provider as well as the highest percentage (10.5%) of respondents who visited their personal health provider more than ten times in the six months preceding the survey. Additionally, the region and urbanicity variables were also significant predictors of visiting respondents' personal care providers with respondents in the Eastern regions reporting that they visited their personal health provider at least once in greater numbers than those in the Piedmont or Mountain regions. In fact, the Tidewater region had the largest percentage of respondents who visited their personal provider ten or more times. Meanwhile, the rural counties were associated with the largest percentage of respondents stating that they had visited their personal health provider five or more times.

The final discussion points in the utilization section concern the use of specialists and inpatient hospitalization. Among respondents who tried to make appointments to see a specialist, 93.1% of these respondents reported having seen at least one specialist in the six months preceding the survey (q52). The respondent's age played a role in this observation with respondents aged 55-to-65 years reporting the highest percentage of adults (64.4%) who saw two or more specialists in the six months preceding the survey. Dual eligibility status also impacted the number of specialists seen with the percentage of those enrolled in both Medicaid and Medicare reporting having seen at least one specialist in the six months preceding the survey exceeding that of respondents who were only eligible for Medicaid.

Of the adult respondents reporting that they had been to a specialist at least once in the six months preceding the survey (n = 1075), 18.0% reported that they had visited a specialist on one occasion while 7.3% reported having ten or more specialist visits. Again, age played a significant role in this relationship with adults aged 19-to-24 years having the highest percentage of respondents (37.8%) that reported visiting a specialist only one time in the six months preceding the survey. Interestingly, the age group with the next highest percentage of adults (29.5%) having made one visit to a specialist was the age 75 years and older group. The 75 and older age category was also the only age category that reported no respondents having visited a specialist more than ten times in the six months preceding the survey

Nearly 80% of the survey respondents reported that they had <u>not</u> been hospitalized as a patient in a hospital overnight or longer in the six months preceding the survey (q71). The respondent's age and dual eligibility status impacted this relationship with nearly one-quarter (24.0%) of respondents aged 55-to-64 years reporting that they were hospitalized overnight or longer – the largest percentage for any of the specified age groups. By contrast, individuals in the 25-to-34 year old group reported the smallest percentage of respondents who indicated that they

had been hospitalized overnight or longer at 13.1%. Respondents who were dually eligible for Medicaid and Medicare reported having been a patient in a hospital overnight or longer at a higher percentage (23.1%) than those who were only eligible for Medicaid alone (18.0%).

Closing Remarks

Statewide Assessment of Adults' Experience with Medicaid Managed Care in North Carolina, Policy Report No. 14 documents the experience of individuals enrolled in North Carolina's Medicaid managed care network delivery system across four major domains – access to care, satisfaction with care, enrollee health status, and utilization of health services. The report analyzed a number of univariate and bivariate relationships associated with survey questions administered to beneficiaries enrolled in Medicaid during the summer of 2012. The variables included in the bivariate analyses were the enrollee's age, dual eligibility status, care network, race, region of residence within North Carolina, sex, and the degree of urbanicity of the county where the enrollee lived. The age, dual eligibility, and race variables accounted for most of the statistically significant bivariate relationships.

The report finds that very few adult enrollees experience "excellent" or "very good" health status and that chronic illness is fairly common. However, the report also indicates relatively high degrees of access to care and satisfaction with care. Some findings, especially those documenting good health status and high marks for satisfaction among blacks and the high satisfaction scores reported by the dual eligible enrollees, appear counterintuitive at first glance, but corroborate observations reported in previous research endeavors – much of that research originating in previous satisfaction surveys conducted with North Carolina Medicaid enrollees and analyzed by UNC Charlotte researchers. However, the report also identifies some areas where opportunities may exist to improve service delivery that should resonate with plan administrators. These are summarized in the ensuing paragraphs.

The first area is focused on the observation that a substantial proportion of respondents – approximately 25% - reported that they "never" or only "sometimes" reported that they received timely care or got timely appointments at a doctor's office or clinic. The possible implications of this finding are two-fold. On one hand, implementing measures that improve provider responsiveness may be required to improve the status quo. These measures might include heightening provider awareness to this finding or the addition of human or technological resources to improve responsiveness. Redesigning response or workflow protocols may also be in order. On the other hand, the numbers may reflect inflated expectations on the part of beneficiaries that might be tempered with special education or communication initiatives targeted to enrollees.

A second area for service improvement results from the intersection of enrollee responses to several of the survey items relating to activities of daily living (ADLs) and instrumental activities of daily living (IADLs). Specifically, the survey identifies a potential unfulfilled need by virtue of the relatively large number of respondents (~20%) who claim that they need the help of other persons with their personal care needs, such as eating, dressing, or getting around the house (ADLs) due to a health problem or impairment and the large number of respondents (~40%) who claim that they need assistance with household chores, business, or shopping (IADLs). Yet, approximately 20% of surveyed respondents stated that it was "never" easy to get home health care or assistance. It is important to note that the number of respondents making this latter claim was small due to the survey's skip pattern. Nonetheless, plan administrators should be mindful of these findings and respond accordingly.

Another finding that may warrant the attention of plan administrators is that 11% of respondents who needed transportation assistance to get to a medical appointment or to fill a prescription stated that they "never" got this assistance and an additional 20% reported that they only "sometimes" received this assistance. Thus, almost one-third of those needing transportation assistance reported some difficulty obtaining this assistance. This gap between the availability of health benefits extended to beneficiaries by virtue of their enrollment in the Medicaid program and the inability of some to access these benefits underscores the difference between "potential access" and "realized access" (Andersen 1995). Potential access is defined as those "enabling resources" that make care possible (e.g., health personnel and facilities near where people live and work, income, health insurance, a regular source of care, travel and waiting times) whereas realized access is equated with the actual use of services. Plan administrators should consider strategies that improve transportation service for those in need in order to bridge this gap and ensure that access is realized.

Another important finding was that nearly 40% of survey respondents rated their mental or emotional health as either "fair" or "poor" (q16). The potential consequences of this observation – both direct and indirect – cannot be understated. The relatively large proportion of enrollees reporting uneasiness about their mental or emotional health may lead to the direct consequence of increased utilization of mental or behavioral health services, thereby imposing additional pressure on constrained mental health budgets. The indirect consequences, however, may be equally deleterious in terms of the contribution of mental stressors to the "allostatic load"[15] and the role that chronic elevations of allostatic load plays in the development and perpetuation of chronic, physical diseases and ailments (Barr 2008).

In terms of the respondents' ratings of satisfaction, it bears repeating that the inclusion of dual eligible individuals in the 2012 survey may mask a drop-off in satisfaction among the *non-dual* eligible population, at least in relation to the 2006-2007 survey of CCNC enrollees. Recall that the 2012 survey included dual eligible individuals who generally reported higher satisfaction levels in larger numbers than those enrolled exclusively in Medicaid. Given that the overall satisfaction results in 2012 mirrored those reported in 2006-2007 – when dual eligibles were not surveyed – it seems plausible that overall satisfaction levels would have been lower in the 2012 survey had the dual eligible subpopulation been excluded.

Raising the profile of illness prevention and elaborating upon the various treatment and care options appears to be an area where improvement in communication between provider and patient may improve service delivery. Overall, slightly more than 40% of respondents indicated that these discussions "sometimes" or "never" occurred (q8). However, this proportion was significantly larger in the youngest and oldest age groupings and among whites.

Finally, priority should be assigned to maintenance of the database of telephone numbers employed by state administrators to contact both adult and child beneficiaries. In its current state, this database is plagued with a number of missing or invalid telephone numbers. This is particularly important for this population as the telephone was identified by respondents in the

[15] "Allostatic load" refers to the level at which the brain's allostatic control mechanism – consisting of the hypothalamic-pituitary-adrenal (HPA) axis – is functioning. Briefly, the HPA axis is a physiologic biofeedback mechanism that helps to regulate the body's response to stress with stress sensed by the hypothalamus, hormones released by the pituitary gland in response to stress, and the release of the "fight or flight" chemical mediators – epinephrine, norepinephrine, and cortisol – from the adrenal gland. The higher the level of these chemical mediators circulating in the blood, the higher the allostatic load.

2006-2007 survey as the preferred method of communicating with plan administrators in the event of an emergency (Brandon, Schoeps, Smith, 2008).

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Appendix A-1

Demographic, Region, and Urbanicity Characteristics, Adult and Child

	Adult			Child		
Gender/Sex	Sampling Frame	Sample	Respondents	Sampling Frame	Sample	Child Enrollees (Survey)
Female	66.9%	67.3%	69.3%	48.9%	49.1%	48.7%
Male	33.1%	32.7%	30.7%	51.1%	50.9%	51.3%
N/n =	***148,140***	***42,000***	***3,202***	***448,424***	***28,000***	***3,199***
Age Group	Sampling Frame	Sample	Respondents	Adult Respondents		%age
19-24	10.8%	11.3%	6.7%	<=24		6.9%
25-34	17.3%	18.0%	11.2%	25-34		40.3%
35-44	16.3%	16.9%	15.3%	35-44		33.5%
45-54	18.9%	18.7%	20.9%	45-54		11.5%
55-64	17.8%	17.6%	24.2%	55-64		5.4%
65-74	10.3%	9.7%	14.1%	>=65		2.4%
>=75	8.7%	7.8%	7.4%			
N/n =	***148,140***	***42,000***	***3,202***			***3,130***
Age Group				Sampling Frame	Sample	Child Enrollees (Survey)
0-1 yrs	**N/A**			8.9%	8.7%	3.6%
2-5 yrs				32.3%	31.5%	30.9%
6-8 yrs				17.1%	17.3%	19.8%
9-12 yrs				20.1%	20.8%	21.9%
13+ yrs				21.6%	21.7%	23.9%
N/n =				***448,424***	***28,000***	***3,199***
Race	Sampling Frame	Sample	Respondents	Sampling Frame	Sample	Child Enrollees (Survey)
Black	44.9%	41.8%	39.1%	36.0%	45.2%	29.6%
Other	8.8%	9.0%	7.0%	21.6%	19.7%	14.5%
White	45.4%	49.2%	54.0%	42.4%	35.1%	56.0%
N/n =	***148,140***	***42,000***	***3,191***	***448,424***	***28,000***	***3,059***
Region	Sampling Frame	Sample	Respondents	Sampling Frame	Sample	Child Enrollees (Survey)
Mountains	14.4%	14.3%	14.3%	12.8%	13.6%	14.2%
Piedmont	45.3%	55.8%	55.2%	53.6%	56.9%	55.5%
Inner Coastal Plain	26.6%	24.3%	24.1%	25.7%	22.3%	23.5%
Tidewater	9.3%	5.6%	6.5%	7.9%	7.2%	6.8%
N/n =	***148,140***	***42,000***	***3,202***	***448,424***	***28,000***	***3,199***
Urbanicity	Sampling Frame	Sample	Respondents	Sampling Frame	Sample	Child Enrollees (Survey)
Urban	58.9%	61.7%	60.8%	64.5%	64.4%	62.5%
Mixed	22.7%	23.9%	23.5%	21.4%	22.8%	23.4%
Rural	18.4%	14.4%	15.7%	14.1%	12.8%	14.1%
N/n =	***148,140***	***42,000***	***3,202***	***448,424***	***28,000***	***3,199***

Appendix A-2

Demographic, Region, and Urbanicity Characteristics- Dual and Non-Dual Eligibles

	Dual			Non-Dual		
Gender	Sampling Frame	Sample	Respondents	Sampling Frame	Sample	Respondents
Female	65.6%	65.8%	72.8%	67.8%	68.2%	66.7%
Male	34.4%	34.2%	27.8%	32.2%	31.8%	33.3%
N/n =	***59,239***	***16,024***	***1,381***	***88,901***	***25,976***	***1,821***
Age Group	Sampling Frame	Sample	Respondents	Sampling Frame	Sample	Respondents
19-24	2.1%	2.1%	1.1%	16.5%	17.0%	11.0%
25-34	6.9%	7.3%	3.1%	24.2%	24.6%	17.4%
35-44	9.8%	10.5%	7.2%	20.7%	20.9%	21.5%
45-54	16.7%	17.0%	17.2%	20.3%	19.7%	23.7%
55-64	17.5%	17.8%	24.4%	17.9%	17.5%	24.1%
65-74	25.4%	25.0%	30.1%	0.2%	0.2%	2.0%
>=75	21.5%	20.3%	16.9%	0.1%	0.1%	0.2%
N/n =	***59,239***	***16,024***	***1,381***	***88,901***	***25,976***	***1,821***
Race	Sampling Frame	Sample	Respondents	Sampling Frame	Sample	Respondents
Black	43.8%	40.5%	42.6%	45.6%	42.5%	36.4%
Other	11.8%	11.3%	5.8%	8.3%	7.6%	7.8%
White	44.4%	48.2%	51.6%	46.1%	49.9%	55.8%
N/n =	***59,239***	***16,024***	***1,379***	***88,901***	***25,976***	***1,812***
Region	Sampling Frame	Sample	Respondents	Sampling Frame	Sample	Respondents
Mountains	15.8%	15.7%	15.1%	13.5%	13.5%	13.7%
Piedmont	41.8%	53.1%	53.2%	47.5%	57.4%	56.7%
Coastal Plain	34.1%	25.4%	25.3%	30.8%	23.7%	23.2%
Tidewater	8.2%	5.8%	6.4%	8.2%	5.4%	6.5%
N/n =	***59,239***	***16,024***	***1,381***	***88,901***	***25,976***	***1,821***
Urbanicity	Sampling Frame	Sample	Respondents	Sampling Frame	Sample	Respondents
Urban	57.1%	60.0%	59.6%	60.1%	62.7%	61.7%
Mixed	21.8%	22.9%	22.4%	23.3%	24.6%	24.3%
Rural	21.1%	17.1%	18.0%	16.6%	12.7%	14.1%
N/n =	***59,239***	***16,024***	***1,381***	***88,901***	***25,976***	***1,821***

Appendix B: The Adult Survey

2012 North Carolina Medicaid Survey

Version: CAHPS 4.0 Adult Medicaid Questionnaire

Language: English

INTRODUCTION: “Hello, this is _____ and I am calling from the University of North Carolina at Charlotte on behalf of North Carolina Medicaid in connection with an effort to improve health care.

Is this the home of _____?
target respondent

IF NOT, say, “Do you know the phone number where I might reach *target respondent*? (record new phone number and then call.

IF YES, say, “I’d like to talk with *target respondent* about his/her healthcare, is *he/she* available?”

IF PERSON AVAILABLE: When selected person answers, repeat introduction and continue.

IF PERSON NOT AVAILABLE: “Can you tell me a convenient time to call back to speak with (him/her)?” RECORD CALL BACK NOTES

Let me tell you a little about the study before we continue. This interview will last approximately 20 minutes. We want you to know that your answers are confidential. You are a volunteer and may stop at any time. Your Medicaid benefits will not be affected in any way by your participation in the survey. No one at the doctor’s office or Medicaid will see any names or know how you answered. May I continue with the interview?

1. YES – Start Interview
2. NO – “Thank you for your time.”

1. Our records show that you are now in Carolina Access or Medicaid? Is that right?

   [1] ☐ Yes → **If Yes, go to question #2**
   [2] ☐ No → **If No, "Thank you for your time."**

Your Health Care in the Last 6 Months

These questions ask about your own health care. Do **not** include care you got when you stayed overnight in a hospital. Do **not** include the times you went for dental care visits.

2. In the last 6 months, did you have an illness, injury, or condition that **needed care right away** in a clinic, emergency room, or doctor's office?

   [1] ☐ Yes
   [2] ☐ No → **If No, go to question #5**

3. In the last 6 months, how many times did you go to an emergency room to get care for yourself?

   [0] ☐ None
   [1] ☐ 1
   [2] ☐ 2
   [3] ☐ 3
   [4] ☐ 4
   [5] ☐ 5 to 9
   [6] ☐ 10 or more

4. In the last 6 months, when you **needed care right away**, how often did you get care as soon as you thought you needed?

   [1] ☐ Never
   [2] ☐ Sometimes
   [3] ☐ Usually
   [4] ☐ Always

5. In the last 6 months, **not** counting the times you needed care right away, did you make any appointments for your health care at a doctor's office or clinic?

   [1] ☐ Yes
   [2] ☐ No → **If No, go to question #7**

6. In the last 6 months, **not** counting the times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?

[1]☐ Never
[2]☐ Sometimes
[3]☐ Usually
[4]☐ Always

7. In the last 6 months, **not** counting the times you went to an emergency room, how many times did you go to a doctor's office or clinic to get health care for yourself?

[0]☐None → **If None, go to question #21**
[1]☐1
[2]☐2
[3]☐3
[4]☐4
[5]☐5 to 9
[6]☐10 or more

8. In the last 6 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?

[1]☐ Never
[2]☐ Sometimes
[3]☐ Usually
[4]☐ Always

9. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate all your health care in the last 6 months?

[00]☐ 0 Worst health care possible
[01]☐ 1
[02]☐ 2
[03]☐ 3
[04]☐ 4
[05]☐ 5
[06]☐ 6
[07]☐ 7
[08]☐ 8
[09]☐ 9
[10]☐ 10 Best health care possible

10. In the last 6 months, did you have a health problem for which you needed special medical equipment, such as a cane, a wheelchair, or oxygen equipment?

[1]☐ Yes
[2]☐ No → **If No, go to question #12**

11. In the last 6 months, how often was it easy to get the medical equipment you needed through your health plan?

[1] ☐ Never
[2] ☐ Sometimes
[3] ☐ Usually
[4] ☐ Always

12. In the last 6 months, did you have any health problems that needed special **therapy**, such as physical, occupational, or speech therapy?

[1] ☐ Yes
[2] ☐ No → **If No, go to question #14**

13. In the last 6 months, how often was it easy to get the special therapy you needed through your health plan?

[1] ☐ Never
[2] ☐ Sometimes
[3] ☐ Usually
[4] ☐ Always

14. Home health care or assistance means home nursing, help with bathing or dressing, and help with basic household tasks.

In the last 6 months, did you need someone to come into your home to give you home health care or assistance?

[1] ☐ Yes
[2] ☐ No → **If No, go to question #16**

15. In the last 6 months, how often was it easy to get home health care or assistance through your health plan?

[1] ☐ Never
[2] ☐ Sometimes
[3] ☐ Usually
[4] ☐ Always

16. In general, how would your rate your overall **mental or emotional health**?

[1] ☐ Excellent
[2] ☐ Very good
[3] ☐ Good
[4] ☐ Fair
[5] ☐ Poor

17. In the last 6 months, did you need any treatment or counseling for a personal or family problem?
    [1] ☐ Yes
    [2] ☐ No → **If No, go to question #19**

18. In the last 6 months, how often was it easy to get the treatment or counseling you needed through your health plan?
    [1] ☐ Never
    [2] ☐ Sometimes
    [3] ☐ Usually
    [4] ☐ Always

19. An interpreter is someone who repeats or signs what one person says in a language used by another person.
    In the last 6 months, did you need an interpreter to help you speak with doctors or other health providers?
    [1] ☐ Yes
    [2] ☐ No → **If No, go to question #21**

20. In the last 6 months, when you needed an interpreter to help you speak with doctors or other health providers, how often did you get one?
    [1] ☐ Never
    [2] ☐ Sometimes
    [3] ☐ Usually
    [4] ☐ Always

Your Personal Doctor (Health Provider)

A personal health provider is the doctor or nurse who knows you best. This can be a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant. Your personal health provider is the one you would see if you need a check-up, want advice about a health problem, or get sick or hurt.

21. Do you have a personal health provider?
    [1] ☐ Yes
    [2] ☐ No → **If No, go to question #50**

22. Is this person a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant?
    [1] ☐ General doctor (Family practice or internal medicine)
    [2] ☐ Specialist doctor
    [3] ☐ Nurse Practitioner

[4]☐ Physician Assistant

23. How many months or years have you been going to your personal health provider?

[1]☐ Less than 6 months
[2]☐ At least 6 months but less than 1 year
[3]☐ At least 1 year but less than 2 years
[4]☐ At least 2 years but less than 5 years
[5]☐ 5 years or more

24. Do you have a physical or medical condition that seriously interferes with your ability to work, attend school, or manage your day-to-day activities?

[1]☐ Yes
[2]☐ No → **If No, go to question #26**

25. Does your personal health provider understand how any health problems you have affect your day-to-day life?

[1]☐ Yes
[2]☐ No

26. In the last 6 months, how many times did you visit your personal health provider to get care for yourself?

[0]☐None → **If None, go to question #40**
[1]☐1
[2]☐2
[3]☐3
[4]☐4
[5]☐5 to 9
[6]☐10 or more

27. In the last 6 months, how often did your personal health provider explain things in a way that was easy to understand?

[1]☐ Never
[2]☐ Sometimes
[3]☐ Usually
[4]☐ Always

28. In the last 6 months, how often did your personal health provider listen carefully to you?

[1]☐ Never
[2]☐ Sometimes
[3]☐ Usually

4☐ Always

29. In the last 6 months, how often did you have a hard time speaking with or understanding your personal health provider because you spoke different languages?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

30. In the last 6 months, how often did your personal health provider show respect for what you had to say?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

31. In the last 6 months, how often did your personal health provider spend enough time with you?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

32. We want to know how you, your doctors, and other health providers make decisions about your health care.

In the last 6 months, were any decisions made about your health care?

1☐ Yes
2☐ No → **If No, go to question #35**

33. In the last 6 months, how often were you involved as much as you wanted in these decisions about your health care?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

34. In the last 6 months, how often was it easy to get your doctors or other health providers to agree with you on the best way to manage your health conditions or problems?

1☐ Never
2☐ Sometimes
3☐ Usually

4☐ Always

35. In the last 6 months, did you get care from a doctor or other health provider besides your personal doctor?

1☐ Yes
2☐ No → **If No, go to question #38**

36. In the last 6 months, did anyone from your doctor's office, clinic, or CAROLINA ACCESS/MEDICAID help coordinate your care from other health providers who were not your personal health provider?

1☐ Yes
2☐ No → **If No, go to question #38**

37. How satisfied are you with the help you received to coordinate your care in the last 6 months?

1☐ Very dissatisfied
2☐ Dissatisfied
3☐ Neither dissatisfied nor satisfied
4☐ Satisfied
5☐ Very satisfied

38. In the last 6 months, did you phone your personal health provider's office **after** regular office hours to get help or advice for yourself?

1☐ Yes
2☐ No → **If No, go to question #40**

39. In the last 6 months, when you phoned after regular office hours, how often did you get the help or advice you needed?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

40. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate your personal health provider?

00☐ 0 Worst personal health provider possible
01☐ 1
02☐ 2
03☐ 3
04☐ 4
05☐ 5

06☐ 6
07☐ 7
08☐ 8
09☐ 9
10☐10 Best personal health provider possible

41. Did you have the same personal health provider **before** you joined CAROLINA ACCESS or MEDICAID?

1☐ Yes → **If Yes, go to question #43**
2☐ No

42. Since you joined CAROLINA ACCESS or MEDICAID, how often was it easy to get a personal health provider you are happy with?

1☐ Never
2☐ Sometimes
3☐ Usually
4☐ Always

Trust in Your Health Provider

Please think about the health provider you usually see when you are sick or need advice about your health.

43. Is this personal health provider a male or female?

1☐ Male
2☐ Female

44. What is the race of this health provider?

1☐ White
2☐ Black or African-American
3☐ Asian
4☐ Native Hawaiian or other Pacific Islander
5☐ American Indian or Alaska Native
6☐ Other

45. I think my personal health provider may not refer me to a specialist when needed.

1☐ Strongly Agree
2☐ Somewhat Agree
3☐ Neither Agree/Disagree
4☐ Somewhat Disagree
5☐ Strongly Disagree

46. I trust my personal health provider to put my medical needs above all other considerations when treating my medical problems.

[1] ☐ Strongly Agree
[2] ☐ Somewhat Agree
[3] ☐ Neither Agree/Disagree
[4] ☐ Somewhat Disagree
[5] ☐ Strongly Disagree

47. I sometimes think that my personal health provider might perform unnecessary tests or procedures.

[1] ☐ Strongly Agree
[2] ☐ Somewhat Agree
[3] ☐ Neither Agree/Disagree
[4] ☐ Somewhat Disagree
[5] ☐ Strongly Disagree

48. My personal health provider's medical skills are not as good as they should be.

[1] ☐ Strongly Agree
[2] ☐ Somewhat Agree
[3] ☐ Neither Agree/Disagree
[4] ☐ Somewhat Disagree
[5] ☐ Strongly Disagree

49. My personal health provider always pays full attention to what I am trying to tell him or her.

[1] ☐ Strongly Agree
[2] ☐ Somewhat Agree
[3] ☐ Neither Agree/Disagree
[4] ☐ Somewhat Disagree
[5] ☐ Strongly Disagree

Getting Health Care From Specialists

When you answer the next questions, do **not** include dental visits or care you got when you stayed overnight in a hospital.

50. Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care. In the last 6 months, did you try to make any appointments to see a specialist?

[1] ☐ Yes
[2] ☐ No → **If No, go to question #56**

51. In the last 6 months, how often was it easy to get appointments with specialists?

[1]☐ Never
[2]☐ Sometimes
[3]☐ Usually
[4]☐ Always

52. How many specialists have you seen in the last 6 months?

[0]☐ None → **If None, go to question #56**
[1]☐ 1 specialist
[2]☐ 2
[3]☐ 3
[4]☐ 4
[5]☐ 5 or more specialists

53. In the last 6 months, how many times did you go to specialists for care for yourself?

[1]☐1
[2]☐2
[3]☐3
[4]☐4
[5]☐5 to 9
[6]☐10 or more

54. We want to know your rating of the specialist you saw most often in the last 6 months. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate the specialist?

[00]☐ 0 Worst specialist possible
[01]☐ 1
[02]☐ 2
[03]☐ 3
[04]☐ 4
[05]☐ 5
[06]☐ 6
[07]☐ 7
[08]☐ 8
[09]☐ 9
[10]☐ 10 Best specialist possible

55. In the last 6 months, was the specialist you saw most often the same doctor as your personal doctor?

[1]☐ Yes
[2]☐ No

Your Health Plan

The next questions ask about your experience with your health plan.

56. In the last 6 months, did you try to get any kind of care, tests, or treatment through your health provider or health plan?

[1] ☐ Yes
[2] ☐ No → **If No, go to question #58**

57. In the last 6 months, how often was it easy to get the care, tests, or treatment you thought you needed through your health provider or health plan?

[1] ☐ Never
[2] ☐ Sometimes
[3] ☐ Usually
[4] ☐ Always

58. In the last 6 months, did you try to get information or help from office staff at your health provider or health plan?

[1] ☐ Yes
[2] ☐ No → **If No, go to question #61**

59. In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic give you the information or help that you needed?

[1] ☐ Never
[2] ☐ Sometimes
[3] ☐ Usually
[4] ☐ Always

60. In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic treat you with courtesy and respect?

[1] ☐ Never
[2] ☐ Sometimes
[3] ☐ Usually
[4] ☐ Always

61. In the last 6 months, how often were any forms from your health provider or health plan easy to fill out?

[1] ☐ Did not fill out forms
[2] ☐ Filled out forms and it was <u>never</u> easy
[3] ☐ Filled out forms and it was <u>sometimes</u> easy
[4] ☐ Filled out forms and it was <u>usually</u> easy

[5] ☐ Filled out forms and it was always easy

62. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate Carolina Access or Medicaid now?

[00] ☐ 0 Worst Carolina Access or Medicaid now
[01] ☐ 1
[02] ☐ 2
[03] ☐ 3
[04] ☐ 4
[05] ☐ 5
[06] ☐ 6
[07] ☐ 7
[08] ☐ 8
[09] ☐ 9
[10] ☐ 10 Best Carolina Access or Medicaid now

63. In the last 6 months, if you needed transportation help from a non-family member to get to a medical appointment or to get a prescription filled, how often did you get it?

[1] ☐ Did not need any assistance
[2] ☐ Needed assistance and never received it
[3] ☐ Needed assistance and sometime received it
[4] ☐ Needed assistance and usually received it
[5] ☐ Needed assistance and always received it

64. In the last 6 months, did you get any new prescription medicines or refill a prescription?

[1] ☐ Yes
[2] ☐ No → **If No, go to question #67**

65. In the last 6 months, how often was it easy to get your prescription medicine from your health plan?

[1] ☐ Never
[2] ☐ Sometimes
[3] ☐ Usually
[4] ☐ Always

66. In the last 6 months, how often did you get the prescription medicine you needed through your health plan?

[1] ☐ Never
[2] ☐ Sometimes
[3] ☐ Usually
[4] ☐ Always

About You

67. In general, how would you rate your overall health?

[1] ☐ Excellent
[2] ☐ Very good
[3] ☐ Good
[4] ☐ Fair
[5] ☐ Poor

68. Because of any impairment or health problem, do you need the help of other persons with your personal care needs, such as eating, dressing, or getting around the house?

[1] ☐ Yes
[2] ☐ No

69. Because of any impairment or health problem, do you need help with your routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?

[1] ☐ Yes
[2] ☐ No

70. Do you have a physical or medical condition that seriously interferes with your independence, participation in the community, or quality of life?

[1] ☐ Yes
[2] ☐ No

71. In the last 6 months, have you been a patient in a hospital overnight or longer?

[1] ☐ Yes
[2] ☐ No

72. In the past 6 months, have you seen a health provider 3 or more times for the same condition or problem?

[1] ☐ Yes
[2] ☐ No → **If No, go to question #74**

73. Is this a condition or problem that has lasted for at least 3 months? Do **not** include pregnancy or menopause.

[1] ☐ Yes
[2] ☐ No

74. Do you now need or take medicine prescribed by a doctor? Do **not** include birth control.

[1] ☐ Yes
[2] ☐ No → **If No, go to question #76**

75. Is this medicine to treat a condition that has lasted for at least 3 months? Do not include pregnancy or menopause.

[1] ☐ Yes
[2] ☐ No

76. What is your age?

[1] ☐ 18 to 24
[2] ☐ 25 to 34
[3] ☐ 35 to 44
[4] ☐ 45 to 54
[5] ☐ 55 to 64
[6] ☐ 65 to 74
[7] ☐ 75 or older

77. Are you male or female?

[1] ☐ Male
[2] ☐ Female

78. What is the highest grade or level of school that you have completed?

[1] ☐ 8th grade or less
[2] ☐ Some high school, but did not graduate
[3] ☐ High school graduate or GED
[4] ☐ Some college or 2-year degree
[5] ☐ 4-year college graduate
[6] ☐ More than 4-year college degree

79. Are you of Hispanic or Latino origin or descent?

[1] ☐ Yes, Hispanic or Latino
[2] ☐ No, Not Hispanic or Latino

80. What is your race? Please indicate one or more.

[1] ☐ White
[2] ☐ Black or African-American
[3] ☐ Asian
[4] ☐ Native Hawaiian or other Pacific Islander
[5] ☐ American Indian or Alaska Native
[6] ☐ Other

81. What language do you **mainly** speak at home?

[1]☐ English
[2]☐ Spanish
[3]☐ Some other language

82. What language do you **mainly** speak when talking with your personal doctor or health provider?

[1]☐ English
[2]☐ Spanish
[3]☐ Some other language

Communication and Computer Use

83. Do you use the internet on a regular basis by using a computer or "smart" cell phone?

[1]☐ Yes, use computer
[2]☐ Yes, use "smart" cell phone
[3]☐ Yes, use both computer and "smart" cell phone
[4]☐ No, do not use the internet on a regular basis

84. Why do you use the internet on a regular basis? Choose all answers that describe your internet use.

[1]☐ To play games
[2]☐ To send and receive e-mail
[3]☐ To send and receive text messages on a cell phone
[4]☐ To send and receive instant messages
[5]☐ To find news and current events
[6]☐ To communicate on Facebook, Twitter, Linked-In, MySpace or other social media
[7]☐ Other

85. In general, how often do you use the internet?

[1]☐ Daily
[2]☐ Several Times/Week
[3]☐ Once/Week
[4]☐ A few times/month
[5]☐ Once/month or less often

"Thank you for your participation."

Appendix C: Modifications of CAHPS Survey Items

Adult survey

"personal health provider" substituted for " personal doctor" in Q21, Q23, Q25, Q26, Q27, Q28, Q29, Q30, Q31, Q38, Q40, Q41, Q42.

"nurse practitioner" and "physician assistant" added as options in Q22.

"Did anyone from your doctor's office, clinic, or CAROLINA ACCESS/MEDICAID help coordinate your care from other health providers who were not your personal health provider?" substituted for "did anyone from your health plan, doctor's office, or clinic help coordinate your care among these doctors or other health providers?" in Q36.

"health provider or health plan" substituted for "health plan" in Q56, Q57, Q61.

"help from office staff at your health provider or health plan" substituted for "help from your health plan's customer service" in Q58.

"office staff at your health plan, doctor's office, or clinic" substituted for "your health plan's customer service" in Q59, Q60.

Merged "did your health plan give you any forms to fill out" and "how often were the forms from your health plan easy to fill out" to read "how often were any forms from your health provider or health plan easy to fill out" in Q61.

"health provider" substituted for "doctor or health provider" in Q72.

Child survey

"Do you have one person you think of as your child's personal health provider? If your child has more than one personal doctor or nurse, choose the person your child sees most often" substituted for "does your child have a personal doctor?" in Q38.

"personal health provider" substituted for "personal doctor" in Q39, Q40, Q41, Q42, Q43, Q45, Q47, Q48, Q51, Q52, Q53, Q55, Q56.

"doctors or other health providers" substituted for "personal doctor" in Q46.

"call your child's personal health provider's" substituted for "phone your child's personal doctor's" in Q49.

"called" substituted for "phoned" in Q50.

"among these specialists" substituted for "among these doctors or health providers" in Q59.

"health provider or health plan" substituted for "health plan" in Q63, Q64, Q65.

"office staff" substituted for "customer service" in Q65, Q66, Q67.

"health plan, doctor's office, or clinic" substituted for "health plan" in Q66, Q67.

Merged "did your child's health plan give you any forms to fill out" and "how often were the forms easy to fill out" to read "how often were any forms from your child's health provider or health plan easy to fill out" in Q68.

"doctor, nurse, or physician assistant" substituted for "doctor" in Q82.

Appendix D-1 CCNC Networks by Region (Adult Survey Sampling Frame)

Network	***Sampling Frame***	Mountain	Piedmont	Coastal Plain	Tidewater
Community Health Partners (1003)	*4,702*	0.1%	99.9%	0.0%	0.0%
Access Care Network Sites and Counties (1006)	*22,657*	32.6%	35.6%	30.8%	1.0%
Community Care of Western North Carolina (1007)	*8,669*	99.7%	0.2%	0.0%	0.0%
Community Care Partners of Greater Mecklenburg (1009)	*14,882*	0.1%	99.8%	0.0%	0.0%
Carolina Community Health Partnership (1010)	*3,827*	35.2%	64.7%	0.1%	0.0%
Community Care of Wake/Johnston Counties (1011)	*7,378*	0.1%	68.4%	31.4%	0.0%
Partnership for Community Care (1012)	*4,976*	0.1%	99.7%	0.1%	0.0%
Carolina Collaborative Community Care (1013)	*7,434*	0.1%	0.8%	99.1%	0.0%
Community Care Plan of Eastern Carolina (2000)	*27,149*	0.0%	1.8%	78.3%	19.9%
Community Care of Southern Piedmont (2003)	*5,856*	0.4%	99.4%	0.2%	0.1%
Community Care of the Lower Cape Fear (2004)	*11,317*	0.1%	0.8%	42.0%	57.2%
Community Care of the Sandhills (2005)	*8,820*	0.0%	45.8%	54.0%	0.2%
Northwest Community Care (2006)	*12,150*	32.1%	67.6%	0.2%	0.1%
Northern Piedmont Community Care (2007)	*8,323*	0.1%	98.5%	1.2%	0.2%
N =	***148,140***				

Appendix D-2 CCNC Networks by Region (Adult Survey Sample)

Network	***Sample***	Mountain	Piedmont	Coastal Plain	Tidewater
Community Health Partners (1003)	*3,000*	0.1%	99.9%	0.0%	0.0%
Access Care Network Sites and Counties (1006)	*3,000*	33.2%	35.0%	30.6%	1.3%
Community Care of Western North Carolina (1007)	*3,000*	99.8%	0.1%	0.0%	0.0%
Community Care Partners of Greater Mecklenburg (1009)	*3,000*	0.0%	99.9%	0.1%	0.0%
Carolina Community Health Partnership (1010)	*3,000*	35.3%	64.7%	0.1%	0.0%
Community Care of Wake/Johnston Counties (1011)	*3,000*	0.1%	67.0%	32.9%	0.0%
Partnership for Community Care (1012)	*3,000*	0.2%	99.7%	0.1%	0.0%
Carolina Collaborative Community Care (1013)	*3,000*	0.0%	0.9%	99.0%	0.0%
Community Care Plan of Eastern Carolina (2000)	*3,000*	0.0%	1.5%	79.6%	18.9%
Community Care of Southern Piedmont (2003)	*3,000*	0.4%	99.4%	0.2%	0.0%
Community Care of the Lower Cape Fear (2004)	*3,000*	0.1%	0.7%	42.3%	56.9%
Community Care of the Sandhills (2005)	*3,000*	0.1%	45.5%	54.2%	0.2%
Northwest Community Care (2006)	*3,000*	31.4%	68.2%	0.2%	0.2%
Northern Piedmont Community Care (2007)	*3,000*	0.1%	98.5%	1.2%	0.2%
n =	***42,000***				

Appendix D-3 CCNC Networks by Region (Adult Survey Respondents)

Network	***Survey***	Mountain	Piedmont	Coastal Plain	Tidewater
Community Health Partners (1003)	*272*	0.0%	100.0%	0.0%	0.0%
Access Care Network Sites and Counties (1006)	*248*	36.7%	36.3%	26.6%	0.4%
Community Care of Western North Carolina (1007)	*215*	100.0%	0.0%	0.0%	0.0%
Community Care Partners of Greater Mecklenburg (1009)	*212*	0.0%	99.5%	0.5%	0.0%
Carolina Community Health Partnership (1010)	*211*	37.4%	62.6%	0.0%	0.0%
Community Care of Wake/Johnston Counties (1011)	*208*	0.0%	56.7%	43.3%	0.0%
Partnership for Community Care (1012)	*214*	0.0%	100.0%	0.0%	0.0%
Carolina Collaborative Community Care (1013)	*231*	0.4%	0.4%	99.1%	0.0%
Community Care Plan of Eastern Carolina (2000)	*229*	0.0%	0.0%	75.5%	24.5%
Community Care of Southern Piedmont (2003)	*243*	0.0%	100.0%	0.0%	0.0%
Community Care of the Lower Cape Fear (2004)	*257*	0.4%	0.8%	40.5%	58.4%
Community Care of the Sandhills (2005)	*241*	0.0%	56.4%	43.6%	0.0%
Northwest Community Care (2006)	*207*	33.8%	66.2%	0.0%	0.0%
Northern Piedmont Community Care (2007)	*214*	0.0%	98.6%	1.4%	0.0%
n =	***3,202***				

Appendix E-1 CCNC Networks by Degree of Urbanicity (Adult Sampling Frame)

Network	***Sampling Frame***	Urban	Mixed	Rural
Community Health Partners (1003)	*4,702*	79.1%	20.9%	0.0%
Access Care Network Sites and Counties (1006)	*22,657*	47.4%	33.0%	19.6%
Community Care of Western North Carolina (1007)	*8,669*	68.2%	0.6%	31.2%
Community Care Partners of Greater Mecklenburg (1009)	*14,882*	99.1%	0.7%	0.2%
Carolina Community Health Partnership (1010)	*3,827*	8.0%	91.3%	0.7%
Community Care of Wake/Johnston Counties (1011)	*7,378*	96.7%	2.7%	0.7%
Partnership for Community Care (1012)	*4,976*	98.5%	1.2%	0.2%
Carolina Collaborative Community Care (1013)	*7,434*	93.6%	4.6%	1.8%
Community Care Plan of Eastern Carolina (2000)	*27,149*	35.7%	32.0%	32.3%
Community Care of Southern Piedmont (2003)	*5,856*	38.1%	42.3%	19.6%
Community Care of the Lower Cape Fear (2004)	*11,317*	58.2%	1.7%	40.1%
Community Care of the Sandhills (2005)	*8,820*	17.5%	59.3%	23.2%
Northwest Community Care (2006)	*12,150*	64.6%	19.1%	16.3%
Northern Piedmont Community Care (2007)	*8,323*	59.4%	24.0%	16.6%
N =	***148,140***			

Appendix E-2 CCNC Networks by Degree of Urbanicity (Adult Sample)

Network	***Sample***	Urban	Mixed	Rural
Community Health Partners (1003)	*3,000*	79.1%	20.9%	0.0%
Access Care Network Sites and Counties (1006)	*3,000*	47.0%	33.0%	20.0%
Community Care of Western North Carolina (1007)	*3,000*	68.4%	0.4%	31.2%
Community Care Partners of Greater Mecklenburg (1009)	*3,000*	99.1%	0.7%	0.2%
Carolina Community Health Partnership (1010)	*3,000*	8.0%	91.3%	0.7%
Community Care of Wake/Johnston Counties (1011)	*3,000*	96.5%	2.8%	0.7%
Partnership for Community Care (1012)	*3,000*	98.5%	1.2%	0.3%
Carolina Collaborative Community Care (1013)	*3,000*	93.7%	4.6%	1.7%
Community Care Plan of Eastern Carolina (2000)	*3,000*	35.3%	33.5%	31.2%
Community Care of Southern Piedmont (2003)	*3,000*	38.3%	42.1%	19.6%
Community Care of the Lower Cape Fear (2004)	*3,000*	57.8%	1.7%	40.5%
Community Care of the Sandhills (2005)	*3,000*	16.6%	60.4%	23.0%
Northwest Community Care (2006)	*3,000*	65.6%	18.2%	16.2%
Northern Piedmont Community Care (2007)	*3,000*	59.5%	24.2%	16.3%
n =	***42,000***			

Appendix E-3 CCNC Networks by Degree of Urbanicity (Adult Survey Respondents)

Network	***Survey***	Urban	Mixed	Rural
Community Health Partners (1003)	*272*	78.7%	21.3%	0.0%
Access Care Network Sites and Counties (1006)	*248*	49.2%	28.6%	22.2%
Community Care of Western North Carolina (1007)	*215*	67.9%	1.4%	30.7%
Community Care Partners of Greater Mecklenburg (1009)	*212*	98.1%	1.9%	0.0%
Carolina Community Health Partnership (1010)	*211*	8.5%	91.0%	0.5%
Community Care of Wake/Johnston Counties (1011)	*208*	96.2%	3.4%	0.5%
Partnership for Community Care (1012)	*214*	98.6%	3.4%	0.5%
Carolina Collaborative Community Care (1013)	*231*	95.2%	2.6%	2.2%
Community Care Plan of Eastern Carolina (2000)	*229*	32.8%	33.2%	34.1%
Community Care of Southern Piedmont (2003)	*243*	39.1%	38.3%	22.6%
Community Care of the Lower Cape Fear (2004)	*257*	58.4%	1.6%	40.1%
Community Care of the Sandhills (2005)	*241*	10.8%	60.2%	29.0%
Northwest Community Care (2006)	*207*	61.8%	20.8%	17.4%
Northern Piedmont Community Care (2007)	*214*	62.1%	22.0%	15.9%
n =	***3,202***			

Appendix F: Adult Survey Frequencies

(Frequencies exclude "don't know" responses and refusals)

Italics indicate variables that demonstrate statistically significant bivariate relationships at $p < 0.05$ with the survey question, where A = enrollee's age, D = enrollee's dual eligibility status, N = care network, Ra = enrollee's race, Re = geographical region of North Carolina where the enrollee resides, S = enrollee's sex/gender, and U = degree of urbanicity of the enrollee's county of residence.

Language of conducted survey (n = 3201)

English	99.1%
Spanish	0.9%

Question 1: Our records show that you are now in Carolina Access or Medicaid? Is that right? (n = 3202)

Yes	100%
No	0%

Question 2: In the last 6 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office? (n = 3159) *A, D, N, S*

Yes	46.6%
No	53.4%

Question 3: In the last 6 months, how many times did you go to an emergency room to get care for yourself? (n = 1436) *A*

None	25.9%
1	34.2%
2	21.9%
3	8.6%
4	3.8%
5 to 9	4.0%
10 or more	1.5%

Question 4: In the last 6 months, when you needed care right away, how often did you get the care as soon as you thought you needed? (n = 1446) *A, Ra*

Never	2.5%

Sometimes	21.4%
Usually	17.3%
Always	58.9%

Question 5: In the last 6 months, not counting the times you needed care right away, did you make any appointments for your health care at a doctor's office or clinic? (n = 3176) *A, Ra, S*

Yes	75.6%
No	24.4%

Question 6: In the last 6 months, not counting the times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed? (n = 2344) *A, D, Ra, Re, S*

Never	2.2%
Sometimes	20.9%
Usually	18.0%
Always	58.9%

Question 7: In the last 6 months, not counting the times you went to an emergency room, how many times did you go to a doctor's office or clinic to get health care for yourself? (n = 2965) *A, Ra, S*

None	12.7%
1	12.1%
2	20.0%
3	14.9%
4	10.1%
5 to 9	20.0%
10 or more	10.1%

Question 8: In the last 6 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness? (n = 2553) *A, Ra*

Never	15.2%
Sometimes	26.8%
Usually	14.0%
Always	44.1%

Question 9: Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate all your health care in the last 6 months? (n = 2549) *A, D, S*

0 Worst Health care possible	1.1%
1	0.7%
2	1.2%
3	1.5%
4	1.9%
5	8.0%
6	6.2%
7	10.2%
8	20.6%
9	12.1%
10 Best health care possible	36.6%

Question 10: In the last 6 months, did you have a health problem for which you needed special medical equipment, such as a cane, a wheelchair, or oxygen equipment? (n = 2579) *A, D*

Yes	29.0%
No	71.0%

Question 11: In the last 6 months, how often was it easy to get the medical equipment you needed through your health plan? (n = 734) *A, D, Ra*

Never	9.0%
Sometimes	16.3%
Usually	14.3%
Always	60.4%

Question 12: In the last 6 months, did you have any health problems that needed special therapy, such as physical, occupational, or speech therapy? (n = 2572) *A, D, N*

Yes	17.1%
No	82.9%

Question 13: In the last 6 months, how often was it easy to get the special therapy you needed through your health plan? (n = 428) *D*

Never	11.0%
Sometimes	22.2%
Usually	15.2%
Always	51.6%

Question 14: Home health care or assistance means home nursing, help with bathing or dressing, and help with basic household tasks.

In the last 6 months, did you need someone to come into your home to give you home health care or assistance? (n = 2585) *A, D, N, Ra, Re*

Yes	18.6%
No	81.4%

Question 15: In the last 6 months, how often was it easy to get home health care or assistance through your health plan? (n = 462) *Ra*

Never	21.2%
Sometimes	9.7%
Usually	8.9%
Always	60.2%

Question 16: In general, how would you rate your overall mental or emotional health? (n = 2578) *A, N, Ra, S*

Excellent	13.1%
Very Good	17.0%
Good	29.9%
Fair	27.8%
Poor	12.3%

Question 17: In the last 6 months, did you need any treatment or counseling for a personal or family problem? (n = 2578) *A, D, Ra, S*

Yes	22.3%
No	77.7%

Question 18: In the last 6 months, how often was it easy to get the treatment or counseling you needed through your health plan? (n = 557)

Never	8.4%
Sometimes	18.9%
Usually	19.0%
Always	53.7%

Question 19: An interpreter is someone who repeats or signs what one person says in a language used by another person.

In the last 6 months, did you need an interpreter to help you speak with doctors or other health providers? (n = 2586) *Ra, Re, S*

Yes	3.0%
No	97.0%

Question 20: In the last 6 months, when you needed an interpreter to help you speak with doctors or other health providers, how often did you get one? (n = 75)

Never	6.7%
Sometimes	28.0%
Usually	12.0%
Always	53.3%

Question 21: A personal health provider is the doctor or nurse who knows you best. This can be a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant. Your personal health provider is the one you would see if you need a check-up, want advice about a health problem, or get sick or hurt.

Do you have a personal health provider? (n = 3180) *A, D, N, Ra, Re, S*

Yes	85.7%
No	14.3%

Question 22: Is this person a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant? (n = 2554) *N, Re, S*

General Doctor (Family practice or internal medicine)	73.7%
Specialist Doctor	8.0%
Nurse Practitioner	7.4%
Physician Assistant	9.6%
Other	1.3%

Question 23: How many months or years have you been going to your personal health provider? (n = 2697) *A, D, Ra, S*

Less than 6 months	6.0%
At least 6 months but less than 1 year	6.0%
At least 1 year but less than 2 years	9.2%
At least 2 years but less than 5 years	26.6%
5 years or more	52.2%

Question 24: Do you have a physical or medical condition that seriously interferes with your ability to work, attend school, or manage your day to day activities? (n = 2688) *A, D, Ra, S*

Yes	74.3%
No	25.7%

Question 25: Does your personal health provider understand how any health problems you have affect your day-to-day life? (n = 1937) *A, D*

Yes	94.6%
No	5.4%

Question 26: In the last 6 months, how many times did you visit your personal health provider to get care for yourself? (n = 2565) *A, D, N, Re, U*

None	7.9%
1	16.3%
2	24.8%
3	15.4%
4	9.2%
5 to 9	20.2%
10 or more	6.3%

Question 27: In the last 6 months, how often did your personal health provider explain things in a way that was easy to understand? (n = 2352) *D, Ra*

Never	2.0%
Sometimes	8.2%
Usually	11.4%
Always	78.4%

Question 28: In the last 6 months, how often did your personal health provider listen carefully to you? (n = 2361) *A, D, Ra*

Never	2.0%
Sometimes	7.1%
Usually	9.4%
Always	81.5%

Question 29: In the last 6 months, how often did you have a hard time speaking with or understand your personal health provider because you spoke different languages? (n = 2342) *A, D, Ra*

Never	87.5%
Sometimes	6.2%

Usually	1.5%
Always	4.7%

Question 30: In the last 6 months, how often did your personal health provider show respect for what you had to say? (n = 2362) *D, Ra*

Never	2.2%
Sometimes	6.6%
Usually	8.4%
Always	82.7%

Question 31: in the last 6 months, how often did your personal health provider spend enough time with you? (n = 2354) *A, D, Ra, Re*

Never	2.5%
Sometimes	10.9%
Usually	14.7%
Always	71.9%

Question 32: We want to know how you, your doctors, and other health providers make decisions about your health care.

In the last 6 months, were any decisions made about your health care? (n = 2273) *A, U*

Yes	66.6%
No	33.4%

Question 33: In the last 6 months, how often were you involved as much as you wanted in these decisions about your health care? (n = 1510) *Ra, Re*

Never	1.9%
Sometimes	9.8%
Usually	14.1%
Always	74.2%

Question 34: In the last 6 months, how often was it easy to get your doctors or other health providers to agree with you on the best way to manage your health conditions or problems? (n = 1497) *Ra*

Never	3.1%
Sometimes	16.0%
Usually	24.7%
Always	56.2%

Question 35: In the last 6 months, did you get care from a doctor or other health provider besides your personal doctor? (n = 2350) *A, Ra*

Yes	61.0%
No	39.0%

Question 36: In the last 6 months, did anyone from your doctor's office, clinic, or CAROLINA ACCESS/ MEDICAID help coordinate your care from other health providers who were not your personal health provider? (n = 1362) *A, Ra*

Yes	62.8%
No	37.2%

Question 37: How satisfied are you with the help you received to coordinate your care in the last 6 months? (n = 854) *D*

Very dissatisfied	1.2%
Dissatisfied	4.0%
Neither dissatisfied nor satisfied	4.6%
Satisfied	42.5%
Very satisfied	47.8%

Question 38: In the last 6 months, did you phone your personal health provider's office **after** regular office hours, to get help or advice for yourself? (n = 2357) *A, Ra*

Yes	19.5%
No	80.5%

Question 39: In the last 6 months, when you phoned after regular office hours, how often did you get the help or advice you needed? (n = 457) *D*

Never	11.6%
Sometimes	20.4%
Usually	16.8%
Always	51.2%

Question 40: Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use t rate your personal health provider? (n = 2707) *A, D, N, S*

0 Worst personal health provider possible	0.8%
1	0.6%
2	0.7%
3	0.8%

4	0.9%
5	3.7%
6	2.9%
7	4.7%
8	15.6%
9	13.0%
10 Best personal health provider possible	56.4%

Question 41: Did you have the same personal health provider **before** you joined CAROLINA ACCESS or MEDICAID? (n = 2644) *A, D, N, Ra,*

Yes	46.0%
No	54.0%

Question 42: Since you joined CAROLINA ACCESS or MEDICAID, how often was it easy to get a personal health provider you are happy with? (n = 1468) *A, D, Ra, S*

Never	9.0%
Sometimes	22.8%
Usually	20.5%
Always	47.8%

Question 43: Please think about the health provider you usually see when you are sick or need advice about your health?

Is this personal health provider a male or female? (n = 2705)

Male	55.4%
Female	44.6%

Question 44: What is the race of this health provider? (n = 2519)

White	68.8%
Black	19.6%
Asian	4.5%
Native Hawaiian or other Pacific Islander	0.2%
American Indian or Alaska Native	3.0%
Other/multi	3.9%

Question 45: I think my personal health provider may not refer me to a specialist when needed. (n = 2450) *A, S*

Strongly Agree	14.7%
Somewhat Agree	10.0%

Neither Agree/Disagree	2.7%
Somewhat Disagree	14.7%
Strongly Disagree	57.9%

Question 46: I trust my personal health provider to put my medical needs above all other considerations when treating my medical problems. (n = 2687) *A, D*

Strongly Agree	71.4%
Somewhat Agree	18.4%
Neither Agree/Disagree	1.7%
Somewhat Disagree	3.7%
Strongly Disagree	4.8%

Question 47: I sometimes think that my personal health provider might perform unnecessary tests or procedures. (n = 2603) *A, Ra, Re, S, U*

Strongly Agree	7.9%
Somewhat Agree	6.9%
Neither Agree/Disagree	1.7%
Somewhat Disagree	13.9%
Strongly Disagree	69.7%

Question 48: My personal health provider's medical skills are not as good as they should be. (n = 2518) *A, Ra, S*

Strongly Agree	10.1%
Somewhat Agree	7.3%
Neither Agree/Disagree	2.2%
Somewhat Disagree	12.4%
Strongly Disagree	68.0%

Question 49: My personal health provider always pays full attention to what I am trying to tell him or her. (n = 2686) *N, U*

Strongly Agree	80.1%
Somewhat Agree	10.8%
Neither Agree/Disagree	0.6%
Somewhat Disagree	3.9%
Strongly Disagree	4.6%

Question 50: When you answer the next questions, do not include dental visits or care you got when you stayed overnight in a hospital.

Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care. In the last 6 months, did you try to make any appointments to see a specialist? (n = 3167) *A, Ra, S*

Yes	37.9%
No	62.1%

Question 51: In the last 6 months, how often was it easy to get appointments with specialists? (n = 1187) *A, D, N, Ra*

Never	6.7%
Sometimes	18.7%
Usually	16.6%
Always	58.0%

Question 52: How many specialists have you seen in the last 6 months? (n = 1184) *A, D, N, Re*

None	6.9%
1 specialist	37.8%
2	27.2%
3	14.6%
4	7.8%
5 or more specialists	5.7%

Question 53: In the last 6 months, how many times did you go to specialists for care for yourself? (n = 1075) *A*

1	18.0%
2	25.8%
3	17.9%
4	11.3%
5 to 9	19.7%
10 or more	7.3%

Question 54: We want to know your rating of the specialist you saw most often in the last 6 months. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate the specialist? (n = 1093) *A, D*

0 Worst specialist possible	1.4%
1	0.5%
2	0.8%
3	1.0%
4	1.0%

5	3.8%
6	2.2%
7	5.8%
8	12.7%
9	13.1%
10 Best specialist possible	57.6%

Question 55: In the last 6 months, was the specialist you saw most often the same doctor as your personal doctor? (n = 1088) *A, Ra, S*

Yes	22.1%
No	77.9%

Question 56: In the last 6 months, did you try to get any kind of care, tests, or treatment through your health provider or health plan? (n = 3125) *A, D, Ra, U*

Yes	40.7%
No	59.3%

Question 57: In the last 6 months, how often was it easy to get the care, tests, or treatment you thought you needed through your health provider or health plan? (n = 1264) *A, D, Ra*

Never	7.3%
Sometimes	19.1%
Usually	18.2%
Always	55.5%

Question 58: In the last 6 months, did you try to get information or help from office state at your health provider or health plan? (n = 3148) *A, D, Ra*

Yes	32.5%
No	67.5%

Question 59: In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic give you the information or help that you needed? (n = 1020) *A, D, Ra*

Never	4.5%
Sometimes	17.0%
Usually	19.8%
Always	58.7%

Question 60: In the last 6 months, how often did office staff at your health plan, doctor's

office, or clinic treat you with courtesy and respect? (n = 1020) *Ra*

Never	1.1%
Sometimes	8.3%
Usually	12.7%
Always	77.8%

Question 61a: In the last 6 months, did your health provider or health plan ask you to fill out any forms? (n = 3140) *A, Ra*

Yes	75.5%
No	24.5%

Question 61b: In the last 6 months, how often were any forms from your health provider or health plan easy to fill out? (n = 2371) *A, N, Ra, Re, S, U*

Filled out forms and it was never easy	5.3%
Filled out forms and it was sometimes easy	21.6%
Filled out forms and it was usually easy	25.6%
Filled out forms and it was always easy	47.5%

Question 62: Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate Carolina Access or Medicaid now? (n = 3139) *A, D, N, Ra, S, U*

0 Worst Carolina Access or Medicaid now	1.1%
1	0.8%
2	0.9%
3	1.0%
4	1.5%
5	5.4%
6	3.3%
7	7.3%
8	14.6%
9	11.6%
10 Best Carolina Access or Medicaid now	52.4%

Question 63a: In the last 6 months, did you need transportation help from a non-family member to get to a medical appointment or to get a prescription filled? (n = 3128) *A, D, N, Ra, Re, S, U*

Yes	48.3%
No	51.7%

Question 63b: In the last 6 months, if you needed transportation help from a non-family member to get to a medical appointment or to get a prescription filled, how often did you get it? (n = 1511) *A, D, Ra*

Needed assistance and never received it	11.1%
Needed assistance and sometimes received it	19.8%
Needed assistance and usually received it	12.3%
Needed assistance and always received it	56.8%

Question 64: In the last 6 months, did you get any new prescriptions or refill a prescription? (n = 3186) *A, D, Ra, Re, S*

Yes	79.1%
No	20.9%

Question 65: In the last 6 months, how often was it easy to get your prescription medicine from your health plan? (n = 2496) *A, D, Ra*

Never	2.2%
Sometimes	11.7%
Usually	13.9%
Always	72.3%

Question 66: In the last 6 months, how often did you get the prescription medicine you needed through your health plan? (n = 2499) *A, D, Ra, Re*

Never	1.5%
Sometimes	9.4%
Usually	12.1%
Always	77.0%

Question 67: In general, how would you rate your overall health? (n = 3187) *A, D, Ra, S*

Excellent	6.2%
Very good	12.6%
Good	24.2%
Fair	35.9%
Poor	21.1%

Question 68: Because of any impairment or health problem, do you need the help of other persons with your personal care needs, such as eating, dressing, or getting around the house? (n = 3178) *A, D, Ra, Re*

Yes	20.5%
No	79.5%

Question 69: Because of any impairment or health problem, do you need the help with your routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes? (n = 3164) *A, D*

Yes	40.1%
No	59.9%

Question 70: Do you have a physical or medical condition that seriously interferes with your independence, participation in the community, or quality of life? (n = 3122) *A, D, Ra*

Yes	56.2%
No	43.8%

Question 71: In the last 6 months, have you been a patient in a hospital overnight or longer? (n = 3176) *A, D*

Yes	20.2%
No	79.8%

Question 72: In the last 6 months, have you seen a health provider 3 or more times for the same condition or problem? (n = 3167) *A, D, Ra, Re, S*

Yes	51.6%
No	48.4%

Question 73: Is this a condition or problem that has lasted for at least 3 months? Do not include pregnancy or menopause. (n = 1620) *A, N, Ra*

Yes	88.1%
No	11.9%

Question 74: Do you now need or take medicine prescribed by a doctor? Do not include birth control. (n = 3187) *A, D, Ra*

Yes	83.7%
No	16.3%

Question 75: Is this medicine to treat a condition that has lasted for at least 3 months? Do not include pregnancy or menopause. (n = 2649) *A, Ra*

Yes	93.5%
No	6.5%

Question 76: What is your age? (n = 3202)

19 to 24	6.7%
25 to 34	11.2%
35 to 44	15.3%
45 to 54	20.9%
55 to 64	24.2%
65 to 74	14.1%
75 or older	7.4%

Question 77: Are you male or female? (n = 3202)

Male	30.7%
Female	69.3%

Question 78: What is the highest grade or level of school that you have completed? (n = 3178)

8^{th} grade or less	14.3%
Some high school, but did not graduate	28.0%
High school graduate or GED	33.7%
Some college or 2 year degree	19.9%
4-year college graduate	2.8%
More than 4-year college degree	1.3%

Question 79: Are you of Hispanic or Latino origin or descent? (n = 3202)

Yes, Hispanic or Latino	3.9%
No, Not Hispanic or Latino	96.1%

Question 80: What is your race? Please indicate one or more. (n = 3191)

White	54.0%
Black or African American	39.1%
Asian	0.2%
Native Hawaiian or Pacific Islander	0.1%
American Indian or Alaska Native	2.9%
Other	3.8%

Question 81: What language do you mainly speak at home? (n = 3166)

English	98.3%

Spanish	1.2%
Some other language	0.5%

Question 82: What language do you mainly speak when talking with your personal health provider? (n = 3175)

English	99.1%
Spanish	0.8%
Some other language	0.1%

Question 83: Do you use the internet on a regular basis by using a computer or "smart" cell phone? (n = 3176)

Yes, use computer	19.4%
Yes, use 'smart' cell phone	4.5%
Yes, use both computer and "smart" cell phone	11.1%
No, do not use the internet on a regular basis	65.0%

Question 84: Why do you use the internet on a regular basis? Choose all answers that describe your internet use. (n = 1106)

To play games	46.4%
To send and receive e-mail	81.7%
To send and receive text messages on a cell phone	55.2%
To send and receive instant messages	42.7%
To find news and current events	73.2%
To communicate on Facebook, Twitter, Linked-In, MySpace or other social media	67.7%
Other	31.7%

Question 85: In general, how often do you use the internet? (n = 2984)

Daily	20.7%
Several Times/Week	10.3%
Once/Week	3.6%
A few times/month	4.9%
Once/month or less often	60.6%

Appendix G. Comparison of Enrollees With Phone Numbers to those Without Phone Numbers for Selected Demographic Variables (Adult and Child Sampling Frames)

	Adult Sampling Frame				Child Sampling Frame			
	With Phone		Without Phone		With Phone		Without Phone	
Gender (Sex)	n	%	n	%	n	%	n	%
Male	27,365	34.4	21,612	31.5	201,484	51.1	27,690	51.0
Female	52,095	65.6	47,068	68.5	192,667	48.9	26,583	49.0
	79,460		68,680		394,151		54,273	
Race								
Asian	1,141	1.4	810	1.2	4,848	1.2	1,412	2.6
Black	32,791	41.3	33,659	49.0	147,900	37.5	13,373	24.6
Native American	1.638	2.1	1,444	2.1	7,380	1.9	389	0.7
Pacific Islander	75	0.1	24	0.0	558	0.1	92	0.2
Unreported	5,194	6.5	4,068	5.9	70,755	18.0	11,587	21.3
White	38,621	48.6	28,675	41.8	162,710	41.3	27,420	50.5
	79,460		68,680		394,151		54,273	
Ethnicity								
Hispanic	2,318	2.9	1,128	1.6	72,336	18.4	11,875	21.9
Not Hispanic	57,385	72.2	43,655	63.6	253,494	64.3	30,408	56.0
Unreported	19,757	24.9	23,897	34.8	68,321	17.3	11,990	22.1
	79,460		68,680		394,151		54,273	
Age								
19-24 yrs	10,689	13.5	5,265	7.7				
25-34 yrs	13,114	16.5	12,524	18.2				
35-44 yrs	12,990	16.3	11,165	16.3				
45-54 yrs	14,087	17.7	13,895	20.2				
55-64 yrs	13,579	17.1	12,734	18.5				
65-74 yrs	8,600	10.8	6,644	9.7				
75 yrs and older	6,401	8.1	6,453	9.4				
	79,460		68,680					
Age								
0 to < 2 yrs					31,732	8.1	8,182	15.1
2 to < 6 yrs					126,683	32.1	18,290	33.7
6 to < 9 yrs					69,013	17.5	7,729	14.2
9 to < 13 yrs					80,876	20.5	9,223	17.0
13 to < 19 yrs					85,847	21.8	10,849	20.0
					394,151		54,273	
Status								
Dual	29,151	36.7	30,088	43.8	0	0.0	0	0.0
Not dual	50,309	63.3	38,592	56.2	394,151	100.0	54,273	100.0
	79,460		68,680		394,151		54,273	
Region								
Mountains	12,302	15.5	9,057	13.2	50,101	12.7	7,111	13.1
Piedmont	36,884	46.4	30,151	43.9	207,246	52.6	33,320	61.4
Coastal Plain	23,906	30.1	23,670	34.5	106,232	27.0	8,810	16.2
Tidewater	6,368	8.0	5,802	8.4	30,572	7.8	5,032	9.3
	79,460		68,680		394,151		54,273	

Appendix H. Distribution of Survey Disposition Codes and Response Rates

	Final Disposition Codes	ADULT Survey (n)	CHILD Survey (n)
Interview (Category 1)			
Complete interviews	1100	3202	3199
Partial interviews	1200	0	0
Eligible, non-interview (Category 2)			
Refusal	2110	0	1964
Household-level refusal (hard refusal)	2111	2400	0
Break off (hard termination)	2120	368	207
Unknown eligibility, non-interview (Category 3)			
Wrong number	3110	1628	1742
Always busy	3120	53	109
Answering machine-don't know if household is private residence	3140	1258	1372
Unknown phone number	3313	192	71
Language barrier	3900	104	68
Not eligible (Category 4)			
Fax/data line	4200	7	9
Disconnected/Non-working number	4310	3994	2387
Number changed	4410	827	1022
Secondary cell phone (cell phone)	4420	1	3
Business, government office, other organizations	4510	85	0
No eligible respondent/not qualified	4700	1780	1123
Total phone numbers used		12697	10077
I = Complete Interviews (1100)		3202	3199
P = Partial Interviews (1200)		0	0
R = Refusal and break off (2110, 2120)		2768	2171
NC = Non Contact (2200)		0	0
O = Other (2300)		0	0
UH = Unknown Household (3100)		2939	3223
UO = Unknown other (3200-3900)		296	139
Response Rate (I+P)/(I+P) + (R+NC+O) + (UH+UO)		0.348	0.366
Cooperation Rate (I+P)/(I+P)+R+O)		0.536	0.596
Refusal Rate R/((I+P)+(R+NC+O) + UH + UO))		0.301	0.249
Contact Rate (I+P)+R+O / (I+P)+R+O+NC+ (UH + UO)		0.649	0.615

Appendix I: Frequency Distribution of Statistically Significant Bivariate Relationships by Survey Question Dimension/Domain

	Age	*Dual Status*	*Network*	*Race*	*Region*	*Sex*	*Urbanicity*
Access	19	16	5	21	6	10	2
total = 26	73.1%	61.5%	19.2%	80.8%	23.1%	38.5%	7.7%
Satisfaction	13	12	3	13	3	4	3
total = 19	68.4%	63.2%	15.8%	68.4%	15.8%	21.1%	15.8%
Health Status	16	13	5	12	4	7	0
total = 16	100.0%	81.3%	31.3%	75.0%	25.0%	43.8%	0.0%
Utilization	8	3	2	3	2	1	1
total = 8	100.0%	37.5%	25.0%	37.5%	25.0%	12.5%	12.5%