

University of North Carolina at Charlotte

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**Trust and Communication Between North Carolina Medicaid Recipients and their
Providers**

Report of a 2012 Survey

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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 15* 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).

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A Guide for the Busy Reader

The authors recognize that the length of this final report of the Trust and Communication Between North Carolina Medicaid Recipients and their Providers 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 E, 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 primary 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, *Trust and Communication Between North Carolina Medicaid Recipients and their Providers* examines respondents' trust in their health providers and specific aspects related to methods of internet 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 child study sampling frame consisted of 448,424 children who had been enrolled in a CCNC for 6 months or more;
 - 36.0% black, 42.4% white, and over 21% "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);
- The adult survey 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 telephone interviews with 200 adult recipients and adult

- caregivers of 200 sampled children in each CCNC;
 - Children defined as less than 19 years of age;
 - 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;
 - Child survey:
 - 3,199 interviews of an adult responsible for a Medicaid child's care, June – August, 2012;
 - Problems: valid telephone numbers for only 62.9% of the sampling frame as initially provided by program administrators; this proportion was subsequently increased to 87.9% by the addition of supplemental data from other public assistance programs;
 - Response rate using American Association for Public Opinion Research standards: 36.6%;
 - Adult survey:
 - 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;
 - 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 the trust and communication questions are reported in Appendix E with coding indicating the variables that produced statistically significant differences;

Survey of Trust and Communication Results

The most general findings that emerged from responses by the adult caregivers of child enrollees and the adult enrollees to the 5 trust-related and 3 communication-related questions were:

- Large majorities of respondents reported favorable responses to the survey questions designed to measure the respondent's trust in their (or their child's) primary health providers;
- The percentage of favorable responses to the trust question asking respondents whether they agreed or disagreed that their (or their child's) personal health provider may not refer them to a specialist when needed was smallest among all trust questions and was observed in both the Child and Adult surveys;
- Nearly two-thirds (65%) of the adult respondents in the Adult survey reported that they did not use the internet on a regular basis; by comparison, approximately 41% of the adult caregiver respondents in the Child survey reported that they did not use the internet on a regular basis;
- The most common reasons for using the internet cited by respondents in both surveys was to send and receive e-mail, to find news and current events, and to communicate via social media. The order and magnitude of these observations was similar in both surveys;
- The adult caregiver respondents to the Child survey reported more frequent use of the internet than the adult respondents to the Adult survey.

Responses to most questions were analyzed to see whether important subpopulations held views or displayed tendencies that diverged from these overall population results. Bivariate analysis for the child survey included the variables age, ethnicity, the respondent's preferred language, gender/sex, CCNC, urbanicity, and region; the adult survey was analyzed with the variables age, dual eligibility status, gender/sex, race, CCNC, urbanicity and region revealed that:

- Respondents in the youngest age groups in both surveys offered less favorable responses to the trust questions in greater numbers than respondents in the oldest age groups;
- Female respondents to the Adult survey generally reported favorable responses to the trust questions in larger proportions than their male counterparts;
- Compared to white respondents in the Adult survey, larger percentages of blacks reported less favorable responses to several of the trust questions;
- The adult caregivers of Hispanic children offered less favorable responses to the trust questions in the Child survey than their non-Hispanic counterparts;
- In the Child survey, the adult caregiver respondents with children living in the Piedmont region consistently reported less favorable responses to the trust questions than their counterparts with children living in other regions of the state. However, this observation may be confounded by the enrollee's ethnicity;
- Younger respondents to the Adult survey reported more frequent use of the internet in larger numbers than older respondents;
- Compared to black respondents, white respondents to the Adult survey reported in larger numbers that they used the internet on a daily basis;
- Nearly 60% of the caregivers of Hispanic children responding to the Child survey reported they did not use the internet – the largest percentage among the ethnic subgroups in that survey;
- The percentage of men responding to the Adult survey who regularly used the internet was significantly less than that reported by women;

- In the Child survey, respondents with children living in rural areas reported the highest percentage of “low frequency” (once per month or less) internet use and the lowest percentage of daily use;
- In the Child survey, caregivers with children living in the Piedmont region reported the smallest percentage of daily internet use and the largest percentage of “low frequency” (once per month or less) utilization. However, this observation may be confounded by the enrollee’s ethnicity.

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 individuals 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 midwives 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 were previously presented in separate volumes and the analysis and reporting of the trust and computer use sections of both surveys appears in this 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. *Trust and Communication Between North Carolina Medicaid Recipients and their Providers, Policy Report 15* examines respondents' trust in their health providers and specific aspects related to methods of computer use and communication. 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. This third volume of the three Policy Reports that constitute the final report of UNC Charlotte's 3-year Medicare Project reports results of 8 questions on both the adult and child surveys. These questions differed in important ways from the standard CAHPS questions that were the focus in our two previous volumes.

Three differences between the survey questions and responses reported in this volume and those in Policy Reports 13 and 14 are noteworthy. First, the questions and answers reported and analyzed here reveal respondents' beliefs and attitudes about their health providers instead of asking for an objective, factual account of the care rendered to their child or themselves (for sampled adult recipients), And the computer-use questions ask about aspects of respondents' lives beyond health care. Secondly, these questions were inserted and often developed by the UNC Charlotte researchers at the request of Medicaid officials in previous iterations of the survey and therefore are not found in the national CAHPS template. Thirdly, all of the questions (with appropriate wording modifications) are asked of both sampled adults receiving care and the adult respondents for sampled children receiving Medicaid care. (Some of the standard CAHPS questions appear on either the adult or child survey, but not on both.)

Using the eligibility files provided by the state's Division of Medical Assistance, the authors of *Policy Report 13, Policy Report 14, and Policy Report 15* 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 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%.

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 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.

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, 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

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).

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



- Legend**
- ◆ AccessCare Network Sites
 - AccessCare Network Counties
 - Community Care of Western North Carolina
 - Community Care of the Lower Cape Fear
 - Carolina Collaborative Community Care
 - Community Care of Wake and Johnston Counties
 - Community Care Partners of Greater Mecklenburg
 - Carolina Community Health Partnership
 - Community Care Plan of Eastern Carolina
 - Community Health Partners
 - Northern Piedmont Community Care
 - Northwest Community Care
 - Partnership for Health Management
 - Community Care of the Sandhills
 - Community Care of Southern Piedmont

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/>

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. 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

<i>Code</i>	<i>Defining Criteria</i>	<i>Number of N.C. Counties</i>
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*, *rural*, 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.

<i>Code</i>	<i>Number of Counties</i>
<i>Urban</i> (1); metropolitan area	40
<i>Mixed</i> (2); Non-metropolitan with population \geq 20,000	19
<i>Rural</i> (3); Non-metropolitan with population $<$ 20,000	41

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

	<i>(n = 148,140)</i>
Urban	58.9%
Mixed	22.7%
Rural	18.4%

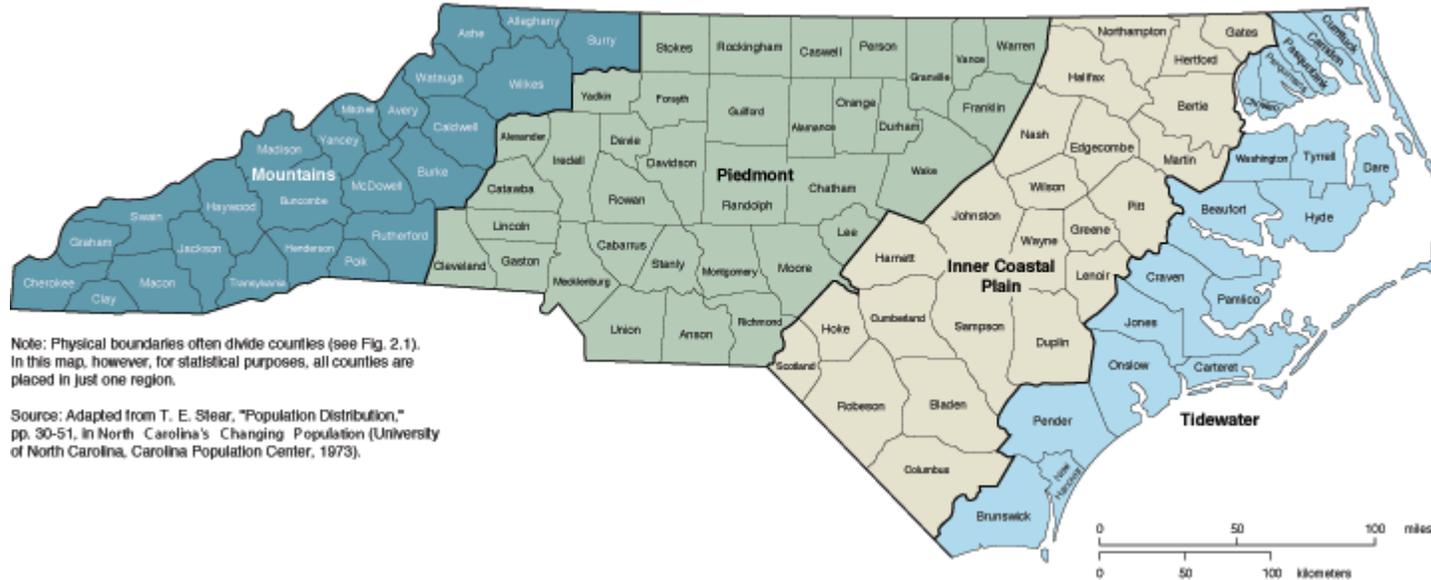
Table 2-5: Frequency Distribution of Child Sampling Frame Residence by Urbanicity

	<i>(n = 448,424)</i>
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

Figure 1b. Land Regions



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

From THE NORTH CAROLINA ATLAS: PORTRAIT FOR A NEW CENTURY edited by Alfred Stuart and Douglas M. Orr.

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

<i>Region</i>	<i>(n = 148,140)</i>
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

<i>Region</i>	<i>(n = 448,424)</i>
Mountains	12.8%
Piedmont	53.6%
Coastal Plain	25.7%
Tidewater	7.9%

The Survey Questions

Both the adult and child surveys asked a series of 5 questions meant to elicit respondents' attitudes regarding trust or confidence in the Medicaid health providers rendering care and 3 questions about computer and internet use (Appendix E). The latter represent the winnowing out of a larger number of questions asked on the 2006 Medicaid survey at the request of Medicaid officials who wanted to determine how best to communicate with Medicaid recipients. After examining the results of the 2006 survey, the Medicaid research team decided that the pertinent information could be obtained with only 3 questions.

The trust questions are the only items on the two long surveys that provided respondents with a statement and asked them to react by choosing among 5 answers ranging from strongly agree to strongly disagree. All of these questions were presented to respondents in the 2006-2007 surveys, with one ("I trust my personal health provider to put my medical needs above all other considerations when treating my medical problems") representing an exact replication of an item appearing in the Trust in Physician Scale (Anderson and Dedrick, 1990).

In order to accommodate those households where English may not have been the primary language spoken in the home, a team of trained translators within the Department of Language and Culture Studies at UNC Charlotte generated Spanish translations of these questions. They were then 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 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, C1-C6, and D1-D6 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. A listing of the eight pertinent child and adult survey questions, along with the percentage distributions of responses provided by survey respondents, appears in Appendix E, 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.⁴ 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 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 F describes the prevalence of valid 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

⁴ “Workable” phone numbers do **not** 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.

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*),⁵

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.”)⁶ (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).

⁵ 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.”

⁶ Multiple calls (≤ 10) were made before giving up on numbers that no one answered.

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.⁷

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 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 G 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. The survey questions were formulated to generate nominal or ordinal-level data.

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.⁸ 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 E.

Chapter 3 reports the survey results by grouping the questions according to whether their focus is principally on trust in one’s provider or respondents’ internet use behaviors. These groupings become the section headings that organize the discussion in Chapter 4. The trust and internet use questions differ from the other four categories by reflecting the respondent’s personal attitudes towards the Medicaid providers rendering care for themselves or the child and their own computer use. 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. With one exception, 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. The lone exception to this bivariate analysis is the internet use question that asks respondents to provide multiple, non-mutually exclusive responses when prompted as to how or why they use the internet.

⁷ 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.

⁸ 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.

The race, ethnicity, and dual eligibility status of recipients enrolled in North Carolina Medicaid's CCNCs who were the subjects of the telephone interviews represented unique analytical challenges. Specifically, 35.5% of enrolled children were reported to be of Hispanic or Latino descent by their adult caregivers in the Child Survey. Thus, there were sufficient numbers of children identified as "Hispanic" by the adult respondent to permit the inclusion of ethnicity in the description of race (i.e., "non-Hispanic whites," "non-Hispanic blacks," "Hispanics" and "other") and thereby facilitating analytical comparisons. By contrast, the Adult Survey respondents were much more homogeneous with regards to ethnicity with only 3.9% of respondents reporting that they were of Hispanic or Latino descent. Therefore, ethnicity was not considered when conducting the analysis of Adult Survey respondents. However, the Adult Survey 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. 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 TRUST AND COMMUNICATION SURVEY

To provide a more coherent structure in presenting the findings, the research team grouped the questions into the categories of trust and internet use. Respondents were prompted to answer all of the trust questions and two of the three communication questions. Respondents were prompted to answer the second internet/communication question only if they indicated that they used a computer, smart phone, or combination of the two to regularly access the internet. (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 trust and internet use 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 (enrollee’s age, enrollee’s gender/sex, adult’s race, child’s ethnicity, adult’s dual eligibility status, caregiver’s preferred language) 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 trust and internet-use graphs is denoted with a unique figure number. The syntax and interpretation of this figure number is described as follows:

Consider a graph numbered as **“Figure T1.0a”**

- The “T” in this figure number refers to the type, or category, of question under consideration. “T” indicates that the figure is referring to a trust question; “C” indicates that the figure is referring to a communication question.
- The “1” in this figure number refers to the question number under the heading of either Trust or Communication. “T1” refers to the first of five trust questions, whereas “C2” refers to the second of three communication questions appearing in the survey.
- The “.0” in this figure number refers to the first graph presented in conjunction with a specific category and question number. For example, “T1.0” refers to the first graph presented in conjunction with Trust Question #1 and “T1.1” refers to the second graph presented in conjunction with Trust Question #1.
- Finally, the “a” in this figure number refers to the Adult survey. Therefore, “T1.0a” refers to the first graph associated with Trust Question #1 that appeared in the Adult survey. “T1.0c” refers to the first graph associated with Trust Question #1 that appeared in the Child survey.

The concluding chapter in Part II discusses the analysis and interpretation of the results of the trust and internet use survey questions. These questions were not part of the larger CAHPS instrument; they were added by the UNC Charlotte research team to capture information of particular interest to North Carolina Medicaid officials.

3 RESULTS OF THE TRUST AND COMMUNICATION QUESTION SURVEYS

Trust

A good provider-patient relationship is critical to the provision of high quality health care. One of the central tenets of a good relationship between a provider and his or her patients is the level of trust that the patient has in the provider (Doescher, Saver, Franks, & Fiscella, 2000). Adequate trust in the provider-patient relationship allows for an open discussion of health conditions and facilitates an environment where patients are empowered in their health care decision-making (Mollborn, Stepanikova, & Cook, 2005). Additional research shows an association between the level of trust in the provider-patient relationship and compliance with the provider’s prescribed regimen and better health outcomes (Altice, Mostashari, & Friedman, 2001; Safran, Taira, Rogers, Kosinski, Ware & Tarlov, 1998; Thom, Ribisl, Stewart, & Luke, 1999). Each of the demographic and context variables was involved in a number of statistically significant bivariate relationships with the array of trust questions that appeared in both the adult survey and the survey of the adult caregivers of enrolled children.

Table 1-1 provides the trust domain questions asked in both surveys. The adult survey question appears first and is followed by the corresponding question that was asked in the child survey.

Table 1-1 – Trust Questions

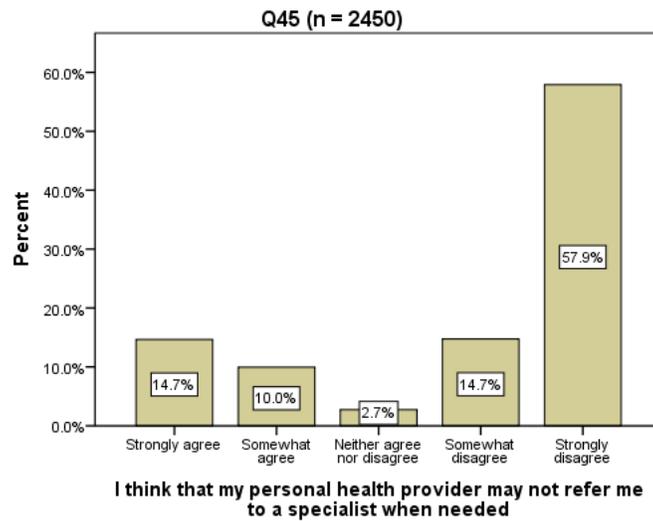
No.	Question
A-q45	I think my personal health provider may not refer me to a specialist when needed.
C-q76	I think my child’s health provider may not refer him/her to a specialist when needed.
A-q46	I trust my personal health provider to put my medical needs above all other considerations when treating my medical problems.
C-q77	I trust my child’s health provider to put my child’s medical needs above all other considerations when treating my child’s medical problems.
A-q47	I sometimes think that my personal health provider might perform unnecessary tests or procedures.
C-q78	I sometimes think that my child’s health provider might perform unnecessary tests or procedures.
A-q48	My personal health provider’s medical skills are not as good as they should be.
C-q79	My child’s health provider’s medical skills are not as good as they should be.
A-q49	My personal health provider always pays full attention to what I am trying to tell him or her.
C-q80	My child’s health provider always pays full attention to what I am trying to tell him or her.

Specialist Referral (adult survey question #45 and child survey question #76)

Adults (q45)

Most (57.9%) of the adult respondents to survey question # 45 (n = 2450) “strongly disagreed” with the statement that their personal health provider may not refer them to a specialist when needed while nearly 15% “strongly agreed” with the statement (see Figure T1.0a).

Figure T1.0a I think my personal health provider may not refer me to a specialist when needed.



There was statistically significant variation between the various age groups regarding their personal health provider’s willingness to refer them to a specialist when needed, as demonstrated in Figure T1.1a. In each of the age categories, a majority of adults disagreed with the statement that their personal health provider did not refer them to a specialist when needed. This sentiment was most pronounced among adults aged 35-44 years, where nearly 65% of respondents indicated that they “strongly disagreed” with the statement that their personal health provider was not referring them to specialists when needed.

Figure T1.1a I think my personal health provider may not refer me to a specialist when needed.

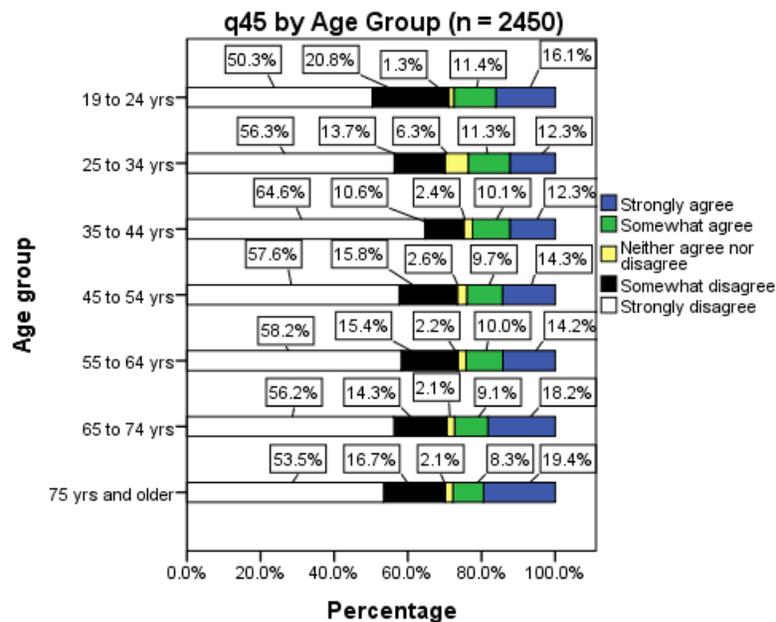
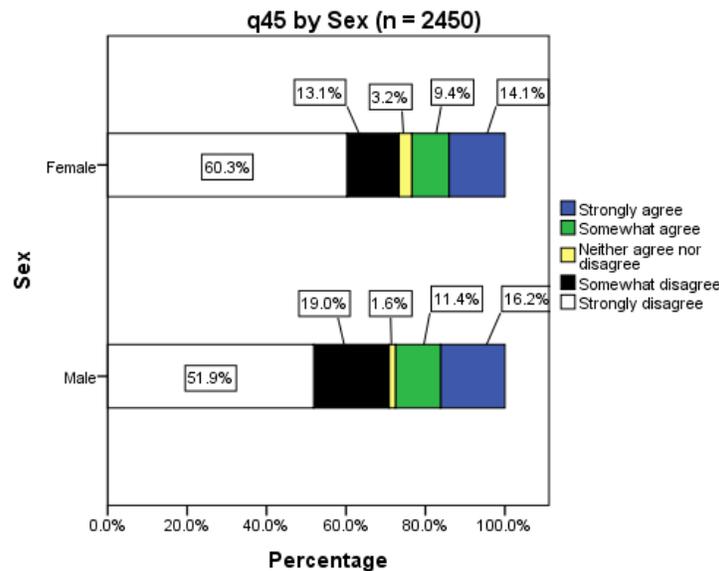


Figure T1.2a describes the statistically significant variation observed amongst the sexes. Approximately 71% of the male respondents to question #45 (n = 686) disagreed with the statement that their personal health provider may not refer them to a specialist when needed. Meanwhile, 73.4% of the female respondents to the question (n = 1764) disagreed with the statement that their personal health provider may not refer them to a specialist when needed. However, the difference was more pronounced among those who “strongly disagreed,” with approximately 60% of females responding that they “strongly disagreed” with the premise of q45 compared to approximately 52% of males who “strongly disagreed.”

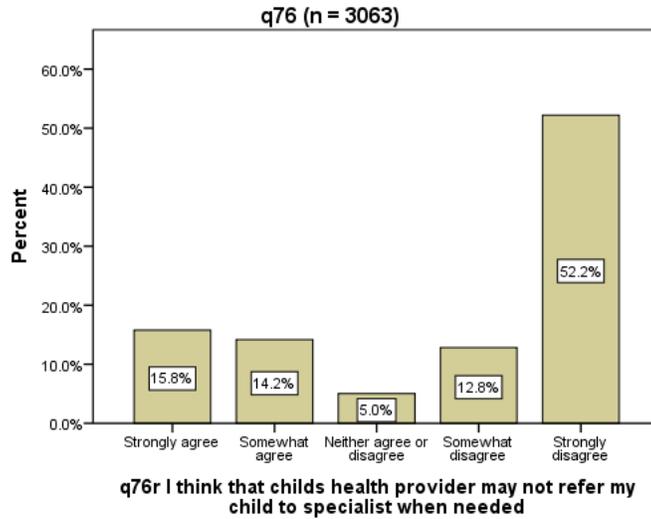
Figure T1.2a I think my personal health provider may not refer me to a specialist when needed.



Child Survey (q76)

Question 76 asked caregivers if they believed that their child’s health provider referred their child to a specialist when needed. The univariate results (n = 3,063) are shown in Figure T1.0c and indicate that 65.0% of caregivers disagreed with the suggestion that their child’s provider may not refer to a specialist when needed. Thirty percent of caregivers reported the other extreme in agreeing with the statement.

Figure T1.0c - I think my child’s health provider may not refer him/her to a specialist when needed.



The relationship between q76 responses and the child’s age is shown in Figure T1.1c. The plurality of respondents within each age grouping “strongly disagreed” with the statement that their child’s primary care provider might not refer their children to specialists when needed. As the child’s age increased, the proportion of respondents who “strongly disagreed” with the statement also increased, ranging from 47.7% in the 0-2 year-old age group to 56.3% in the 13-18 year-old group.

Figure T1.1c - I think my child’s health provider may not refer him/her to a specialist when needed.

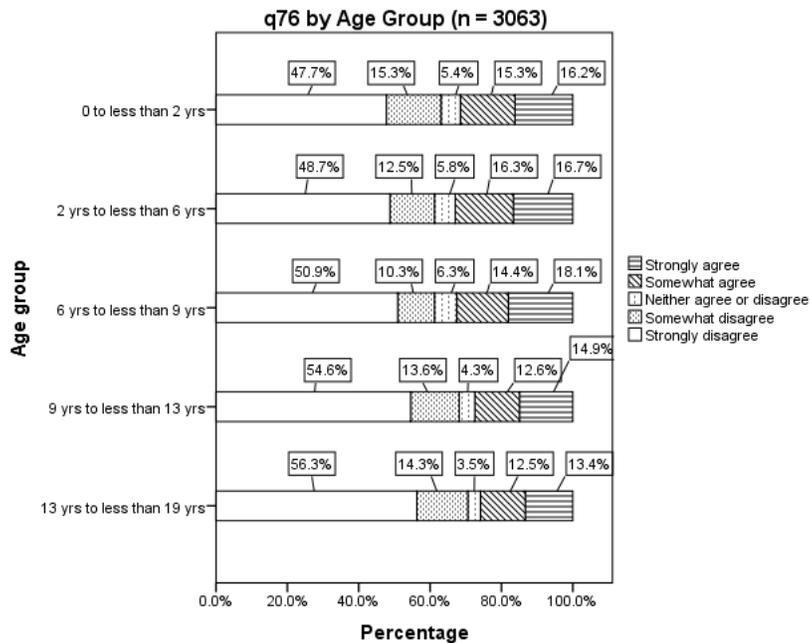
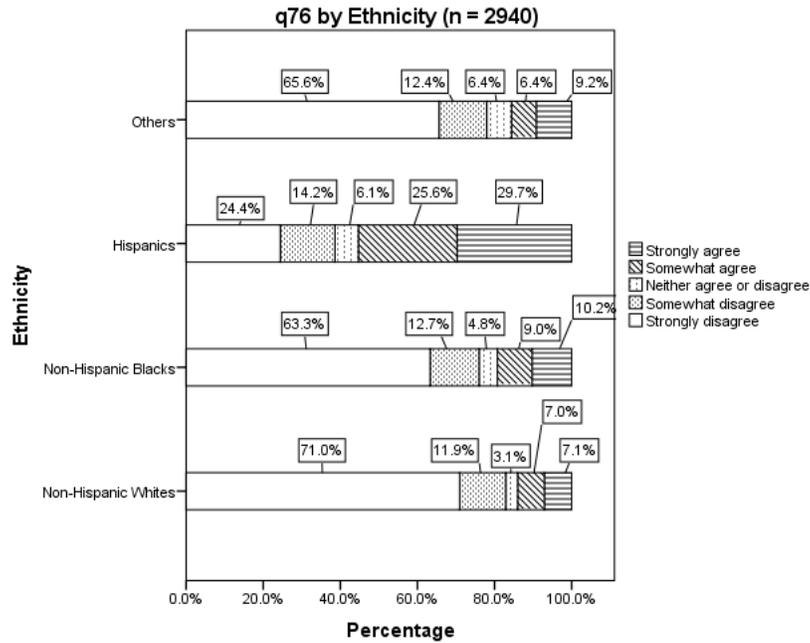


Figure T1.2c shows the relationship between q76 responses and the child’s ethnicity, with wide extremes seen across ethnic groups. For instance, caregivers of non-Hispanic white, non-Hispanic black, and “other” ethnicity children reported similar proportions of disagreement with

the suggestion in q76 (82.9%, 76.0%, and 78.0% of respondents, respectively). On the other hand, only 38.6% of the caregivers of Hispanic children “somewhat” or “strongly disagreed” with the statement that their child’s primary care provider may not refer the child to a specialist when one was needed.

Figure T1.2c - I think my child’s health provider may not refer him/her to a specialist when needed.



Although the relationships in Figure T1.3c were not statistically significant, a very strong English/Spanish language dichotomy was observed. Nearly two-thirds (66.9%) of the caregivers who preferred English “strongly disagreed” with the statement that providers may not refer the child to a specialist when needed, whereas nearly 63% of caregivers who preferred Spanish agreed that specialist referrals might be inadequate.

Figure T1.3c – I think my child’s health provider may not refer him/her to a specialist when needed.

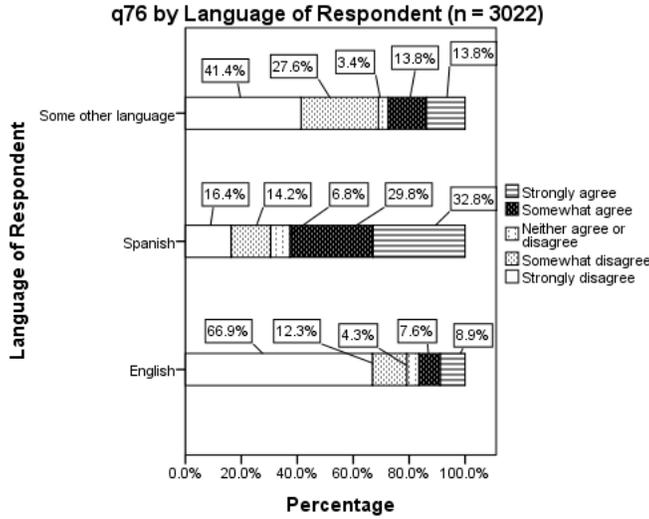


Figure T1.4c shows the relationship between q76 and the geographic region of the state in which the enrolled child lives. Nearly 18% of respondents with children living in the Piedmont region “strongly agreed” with the statement that their child’s health provider did not refer the child to a specialist when needed. This was significantly higher than for other regions of the state.

Figure T1.4c - I think my child’s health provider may not refer him/her to a specialist when needed.

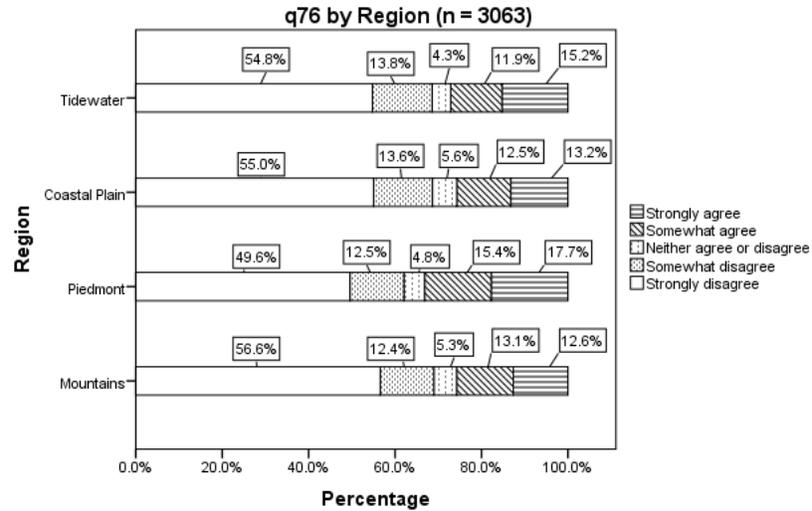


Figure T1.5c describes the relationship between q76 and the CCNC network from which the child receives his/her care. The Community Care Partners of Greater Mecklenburg (1009) had the greatest proportion of respondents (43.0%) that agreed that their child might not have received specialist referrals when needed, whereas Carolina Collaborative Community Care (1013) had the smallest proportion that “strongly agreed” (10.2%). Carolina Community Health Partnership (1010) had the greatest proportion (63.3%) that “strongly disagreed” with q76’s

statement whereas Community Care Partners of Greater Mecklenburg (1009) had the lowest proportion (42.1%) that “strongly disagreed.”

Figure T1.5c - I think my child’s health provider may not refer him/her to a specialist when needed.

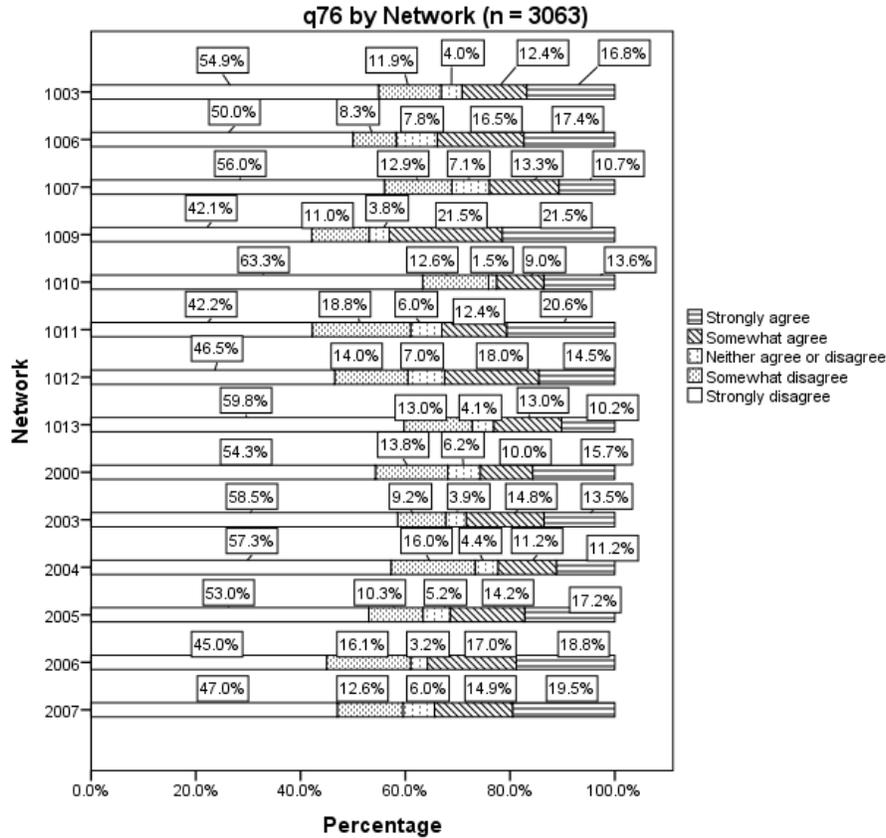
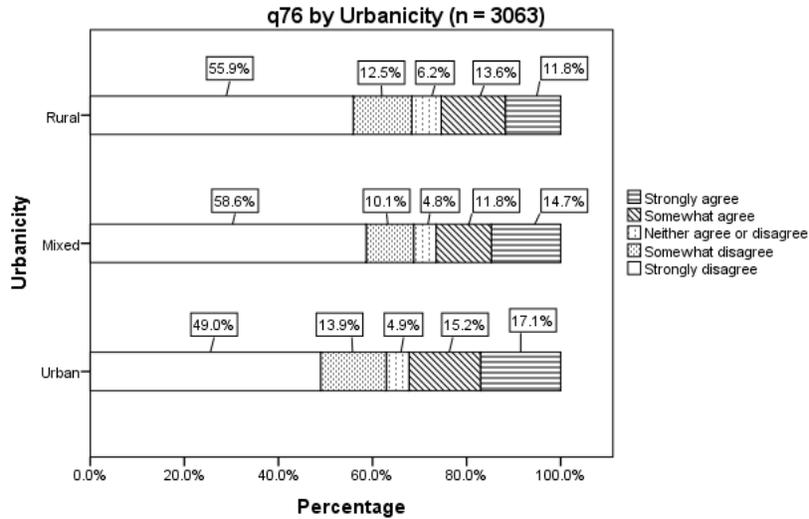


Figure T1.6c describes the relationship between q76 and the urbanicity of the county in which the child lived. Respondents who had children that were “mixed” and “urban” county dwellers had the highest and lowest proportions that “strongly disagreed” that specialist referral might be inadequate at 58.6% and 49.0%, respectively. Respondents with children living in rural counties had the lowest proportion (11.8%) that “strongly agreed” with q76’s suggestion of inadequate specialist referral. Those with children living in urban counties had the greatest proportion (17.1%) that “strongly agreed” with the sentiment expressed in q76.

Figure T1.6c - I think my child’s health provider may not refer him/her to a specialist when needed.

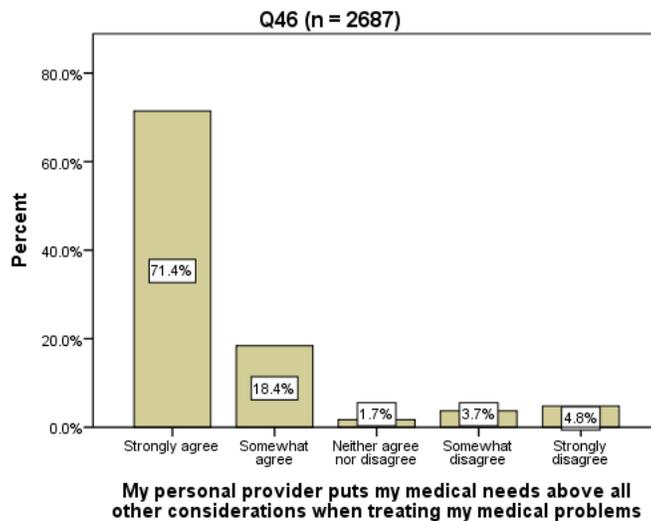


Medical Needs vs. All Other Considerations (adult survey question #46 and child survey question #77)

Adult Survey (q46)

Figure T2.0a indicates that the vast majority (89.8%) of adult respondents to this question (n = 2687) agreed with the statement that their medical provider put their medical needs above all other considerations when treating their medical problems while only 8.5% disagreed with that statement.

Figure T2.0a I trust my personal health provider to put my medical needs above all other considerations when treating my medical problems.



While most respondents to the adult survey agreed with the statement that their medical provider put their medical needs above all other considerations when treating their medical

problems, Figure T2.1a demonstrates variations in responses amongst the various age groups. The proportion of respondents who reported that they “strongly agreed” with the statement generally increased as the age group of the respondent increased.

Figure T2.1a I trust my personal health provider to put my medical needs above all other considerations when treating my medical problems.

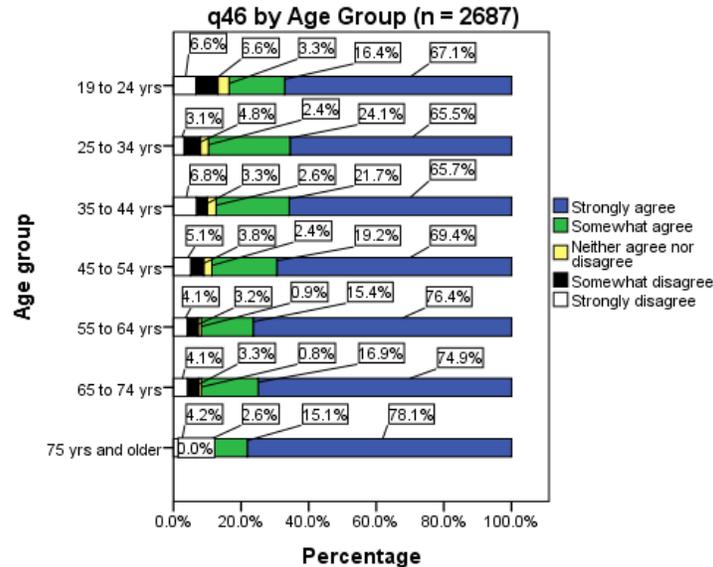
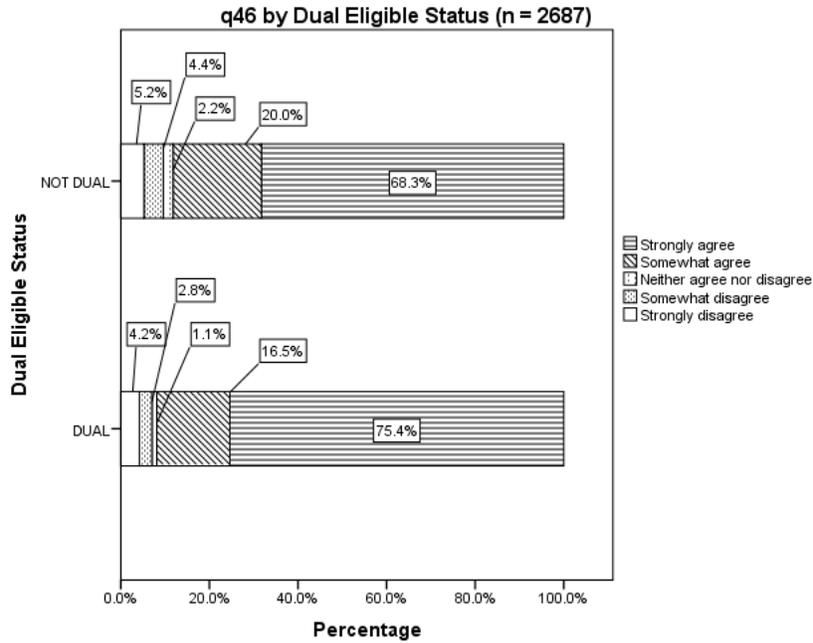


Figure T2.2a indicates that there were also statistically significant differences in the responses between those dually eligible for Medicaid and Medicare and those only eligible for Medicaid. Nearly all (91.9%) of the dual eligible respondents (n = 1194) reported that they agreed with the statement that their medical provider put their needs above all other considerations while this number was 88.3% for those respondents only eligible for Medicaid (n = 1493). The difference, however, was more pronounced among those who “strongly agreed” where 75.4% of dual eligible respondents “strongly agreed” that their health provider put their needs above all other considerations compared to just 68.3% among those only eligible for Medicaid.

Figure T2.2a I trust my personal health provider to put my medical needs above all other considerations when treating my medical problems.



Child Survey (q77)

Question 77 asked caregivers in the child survey whether they trusted their child’s health provider to put the child’s needs above all others when treating the child’s medical problems. Of the 3,148 responses, 93.1% agreed that their child’s health provider put the child’s medical needs first in all considerations. Figure T2.0c shows the distribution of responses.

Figure T2.0c –I trust my child’s health provider to put my child’s medical needs above all other considerations when treating my child’s medical problems.

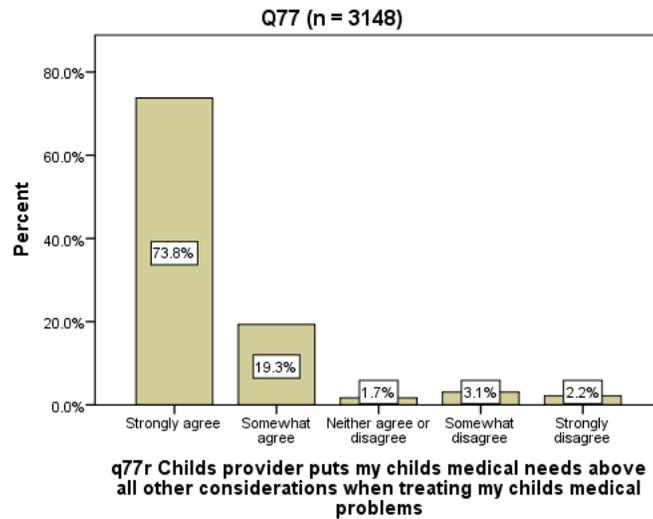
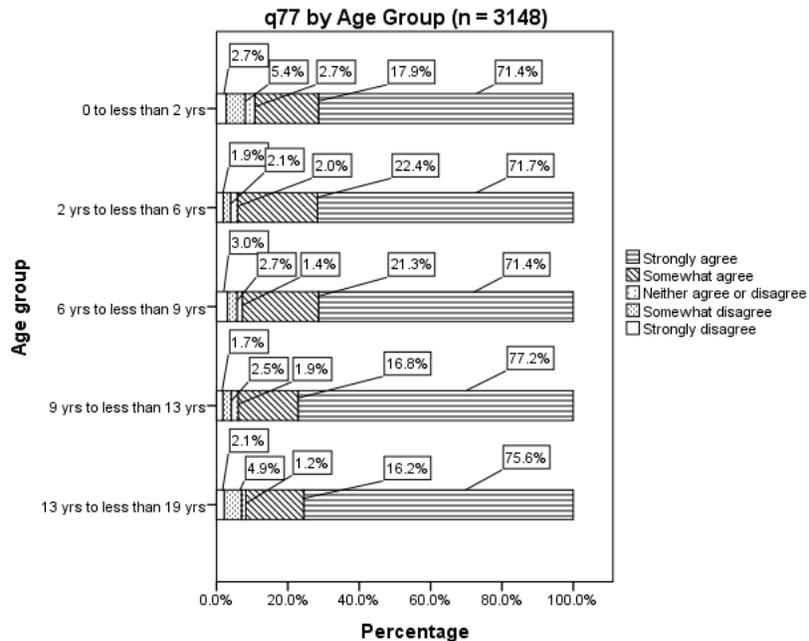


Figure T2.1c shows the relationship between the age of the child and the caregiver’s response to q77. Caregivers of 2-5 year-olds reported the greatest proportion (22.4%) that they “somewhat agreed” that the provider assigned the child’s medical needs as most important while caregivers of 13-18 year-olds had a large proportion (4.9%) that “somewhat disagreed” with the

q77 statement. General agreement with q77's statement was common across all age groups with a range of 89.3% for 0-1 year-olds to 94.1% for the 2-5 year-olds.

Figure T2.1c –I trust my child’s health provider to put my child’s medical needs above all other considerations when treating my child’s medical problems.



The relationship between the child’s sex and caregiver responses to q77 is shown in Figure T2.2c. The margin between sexes was small in terms of percentages with the caregivers of 92.6% of male enrollees and 93.5% of female enrollees agreed that providers put their child’s medical needs above all other considerations. The major differences between the two groupings was observed in the split between respondents who “strongly agreed” with q77 and those who “somewhat agreed.” The caregivers of male children were more likely to “strongly agree” with q77 than caregivers of female children (74.8% compared to 72.6%), but less likely to “somewhat agree” with q77 (17.8% compared to 20.9%).

Figure T2.2c –I trust my child’s health provider to put my child’s medical needs above all other considerations when treating my child’s medical problems.

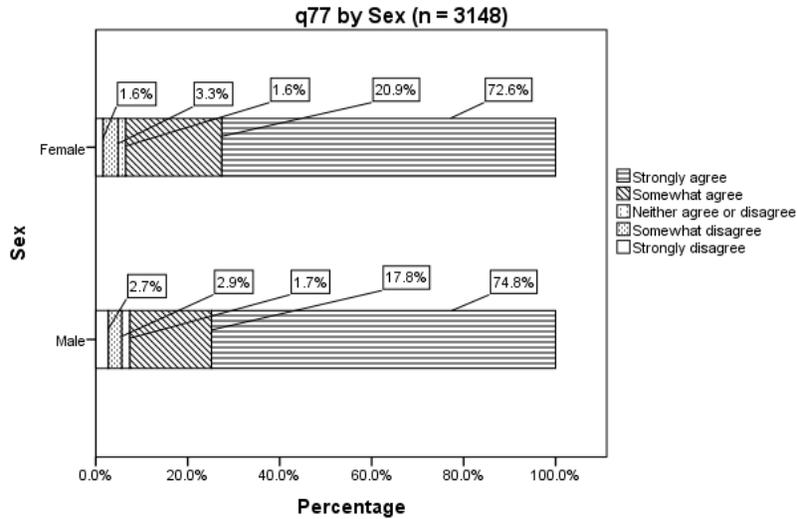


Figure T2.3c shows the relationship between the child’s ethnicity and q77. The observation that 96.1%, 91.6%, and 91.5% of caregivers of non-Hispanic white, non-Hispanic black, and Hispanic children, respectively, agreed that providers gave sufficient importance to their child’s medical needs bolsters the argument that respondents hold providers in high regard in this area of trust. However, upon further examination, caregivers of Hispanic children showed an appreciably different split between “somewhat” and “strong agreement” (31.6% and 59.9%) vs. that of non-Hispanic whites (11.2% and 84.9%). These observations were statistically significant and indicate that the commitment to this statement was less for caregivers of Hispanic children. The experience of non-Hispanic blacks was similar to that of non-Hispanic whites. However, the caregivers of non-Hispanic black children had the greatest proportion (3.2%) that “strongly disagreed” with the q77 statement.

Figure T2.3c –I trust my child’s health provider to put my child’s medical needs above all other considerations when treating my child’s medical problems.

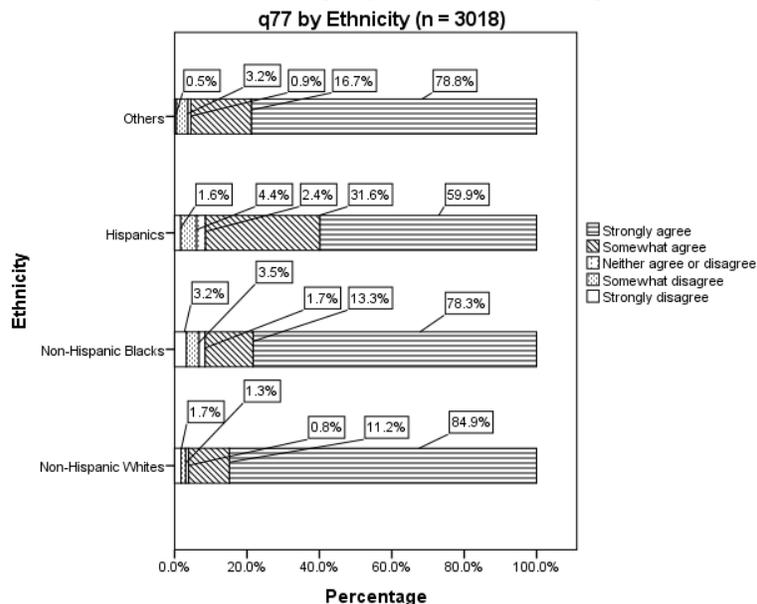
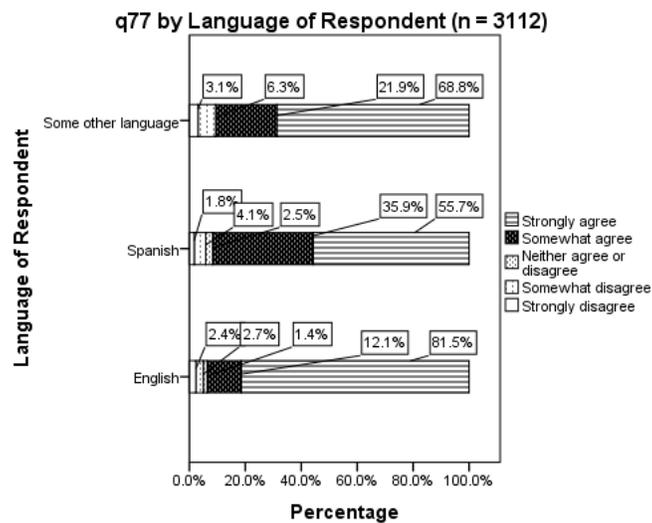


Figure T2.4c describes the relationship between the language preferred by the adult caregiver respondent and q77. The results of this bivariate relationship are not statistically significant, but informative, nonetheless. In many ways, the proportions that characterize the Spanish/English language distribution of responses mimic those that were observed in the previously described variation between Hispanic and non-Hispanic children. Similarly, collapsing the “somewhat agree” and “strongly agree” responses produces a value that closely overlaps the overall sample population’s belief that providers give sufficient weight to the child’s medical problems.

Figure T2.4c – I trust my child’s health provider to put my child’s medical needs above all other considerations when treating my child’s medical problems.

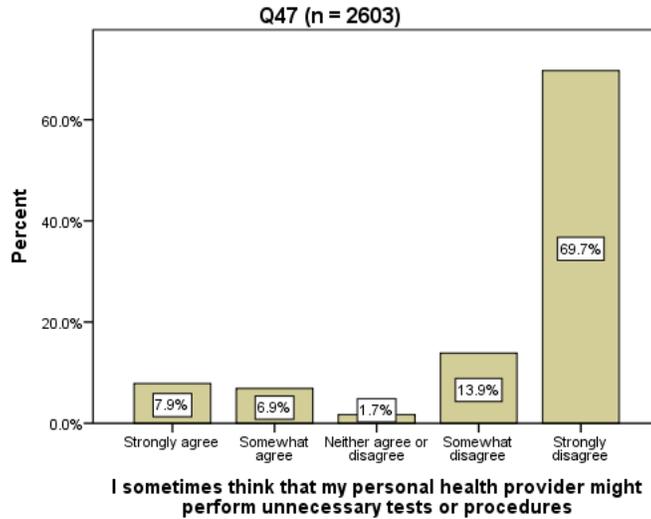


Concerns about Unnecessary Tests or Procedures (adult survey question #47 and child survey question #78)

Adult Survey (q47)

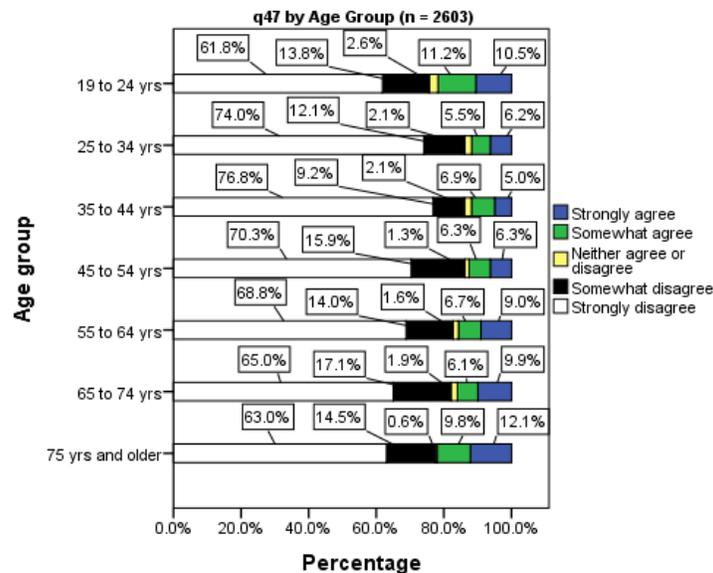
The vast majority (83.6%) of adult respondents to question #47 in the adult survey (n = 2603) disagreed with the statement that they sometimes think their medical provider might perform unnecessary tests or procedures while nearly 15% responded that they agreed with the statement (see Figure T3.0a).

Figure T3.0a I sometimes think that my personal health provider might perform unnecessary tests or procedures.



While most adult respondents disagreed with the statement that they sometimes think their personal health provider might perform unnecessary tests or procedures, Figure T3.1a indicates that there were statistically significant differences in the responses between the age groups. Those adult respondents aged 19-24 were more likely to respond that they “somewhat agreed” with the statement while those adults aged 75 years and older were more likely to respond that they “strongly agreed” with the statement. Those adults aged 35 to 44 years were least likely to respond that they “strongly agreed” with the statement and by a considerable margin were most likely to “strongly disagree.”

Figure T3.1a I sometimes think that my personal health provider might perform unnecessary tests or procedures.



Doescher et al. (2000) found racial differences in the level of trust exhibited by patients toward their health providers. The results of that study were reinforced here among the adult respondents to q47 (n = 2597) (see Figure T3.2a). A relatively small proportion of whites (13.1%) agreed with the statement that their personal health provider might perform unnecessary tests or procedures. However, nearly one in five blacks (18.1%) agreed with the statement that their personal health provider might perform unnecessary tests or procedures. Blacks were also statistically more likely than all other racial groups to respond that they “strongly agreed” with the statement. Among respondents in the “other” race category, 11.0% of respondents agreed with the statement while the majority (85.7%) of those in the “other” racial category disagreed with the statement.

Figure T3.2a I sometimes think that my personal health provider might perform unnecessary tests or procedures.

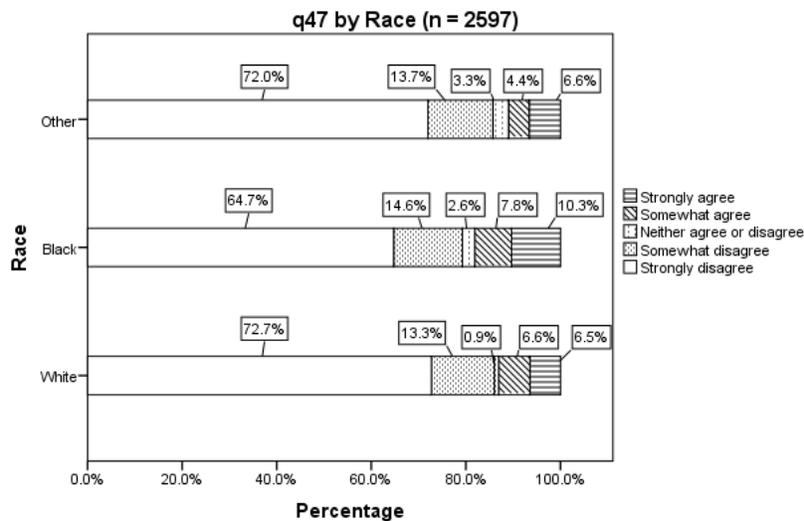
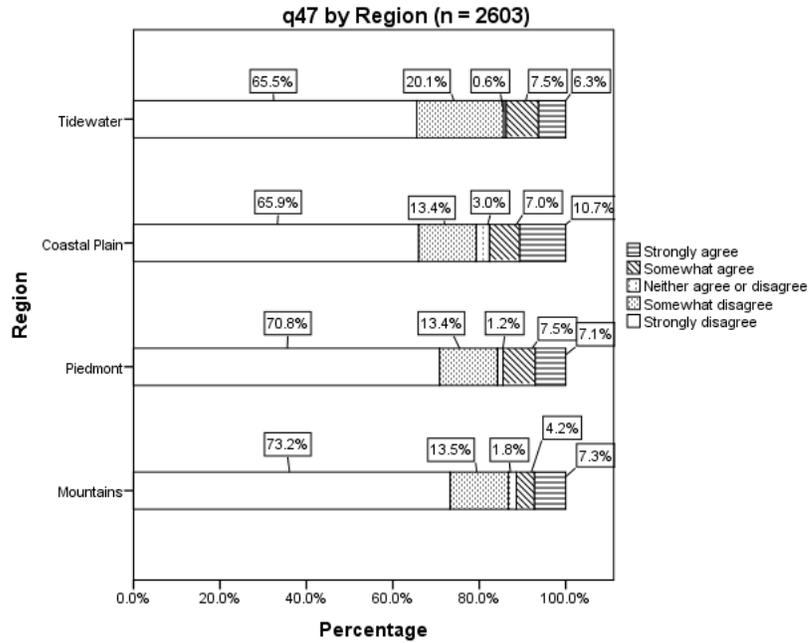


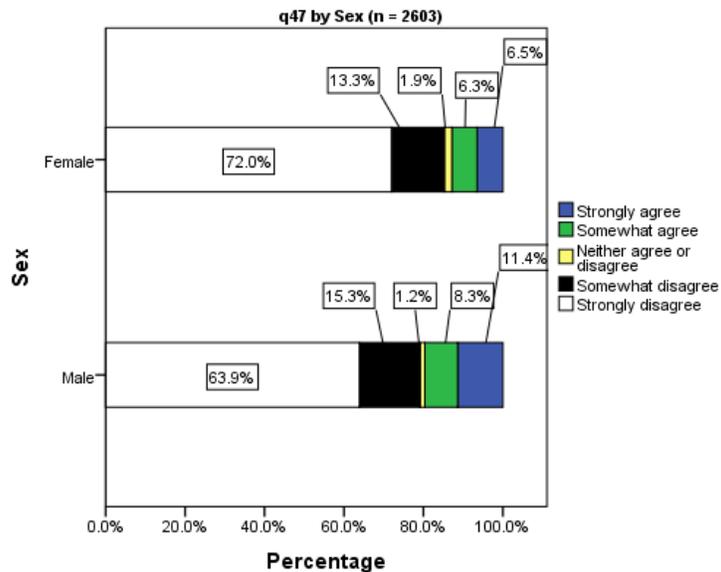
Figure T3.3a indicates that there was also significant variation among the adult respondents responding to q47 (n = 2603) with respect to the different regions of North Carolina. Nearly three-fourths (73.2%) of respondents living in the Mountain region reported that they “strongly disagreed” with the statement that they sometimes think that their personal health provider might perform unnecessary tests or procedures. The percentage of respondents that “strongly disagreed” with the statement was significantly lower for the Piedmont, Coastal Plain, and Tidewater regions at 70.8%, 65.9%, and 65.5%, respectively.

Figure T3.3a I sometimes think that my personal health provider might perform unnecessary tests or procedures.



There were significant differences in the responses to q47 with respect to the enrollee’s sex (see Figure T3.4a). Male respondents reported in greater numbers that they “strongly agreed” with the statement that they sometimes think that their personal health provider might perform unnecessary tests or procedures compared to female respondents (11.4% vs. 6.5%, respectively).

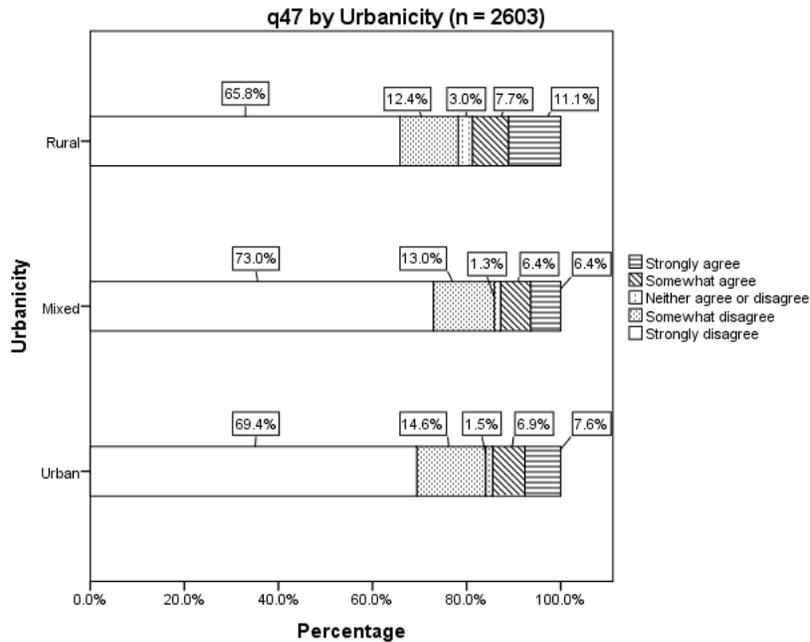
Figure T3.4a I sometimes think that my personal health provider might perform unnecessary tests or procedures.



The degree of urbanicity of the county where the respondent lived resulted in significant differences among the adults responding to q47 (n = 2603). Figure T3.5a demonstrates that 18.8% of rural respondents agreed with the statement that their personal health provider might

perform unnecessary tests or procedures. This compares to 14.5% and 12.8%, respectively, for respondents living in urban and mixed urbanicity counties. This observation was primarily attributable to the relatively large proportion (11.1%) of respondents in the rural category reporting that they “strongly agreed” with the statement.

Figure T3.5a I sometimes think that my personal health provider might perform unnecessary tests or procedures.



Child Survey (q78)

Question 78 of the Child survey asked caregivers whether they thought their child’s health provider might perform unnecessary tests or procedures. Figure T3.0c reveals that 76.6% of the 3,117 adult respondents answering the question reported that they disagreed with this sentiment while 20.2% agreed that this concern might be valid.

Figure T3.0c –I sometimes think that my child’s health provider might perform unnecessary tests or procedures.

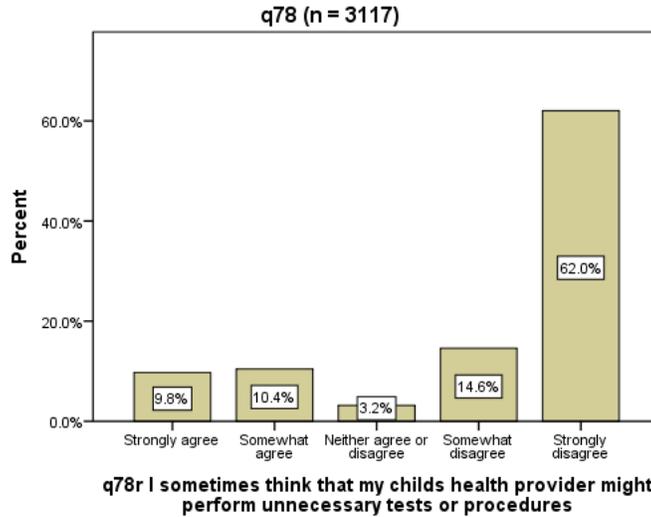


Figure T3.1c shows the relationship between the child's age and the caregiver's response to q78. In general, it was less likely for a caregiver to agree that unnecessary tests or procedures were being recommended as the child's age increased. Caregivers of 2-5 year-olds and 13-18 year-olds were most likely to report extreme views. For instance, 24.2% of the caregivers of 2-5 year-olds agreed with the statement, whereas only 14.0% of caregivers of 13-18 year-olds agreed that unnecessary tests or procedures were being recommended. Alternately, 71.7% of the caregivers of 13-18 year-olds "strongly disagreed" that the premise of q7 was a concern compared to 55.7% of the caregivers of 2-5 year-olds. It should be noted that the experience of adult respondents with children in the 0-1 year age group must be tempered by the fact that this group may be somewhat under-represented due to the nature of the sample draw and timelines associated with fielding the survey.

Figure T3.1c – I sometimes think that my child's health provider might perform unnecessary tests or procedures.

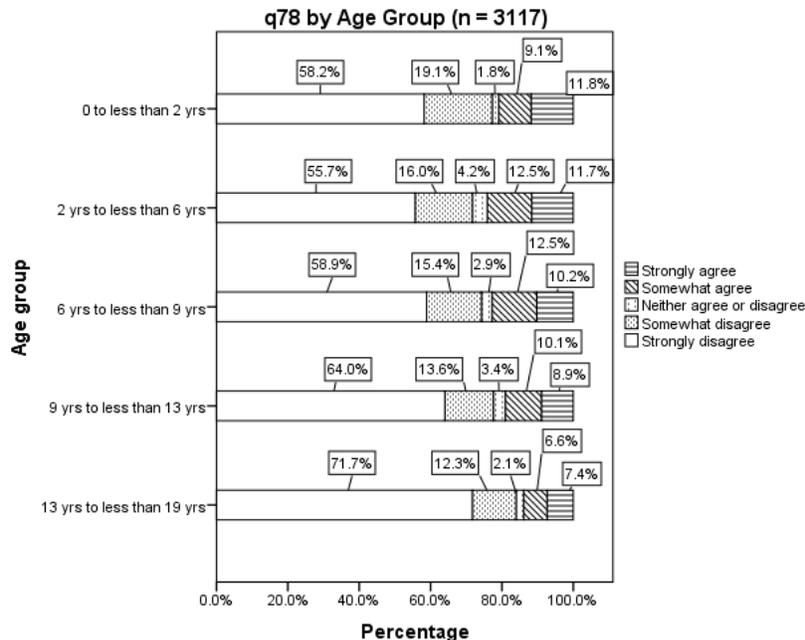


Figure T3.2c shows the relationship between the child’s ethnicity and q78. In this case, the distribution of responses of the caregivers of non-Hispanic white and non-Hispanic black children were closely aligned and were consistently at odds with those of the caregivers of Hispanic children. For instance, only 8.7% of the caregivers of non-Hispanic white children and 9.5% of the caregivers of non-Hispanic black children agreed that unnecessary tests or procedures might be a problem, whereas the proportion was 40.9% among the caregivers of Hispanic children. Also, 90.1% of the caregivers of non-Hispanic white children and 88.9% of the caregivers of non-Hispanic black children disagreed with q78’s suggestion compared to only 52.9% among the caregivers of Hispanic children. The results obtained from the adult respondents of children in the “other” category must be cautiously interpreted due to the small number of cases included in this sub-population.

Figure T3.2c –I sometimes think that my child’s health provider might perform unnecessary tests or procedures.

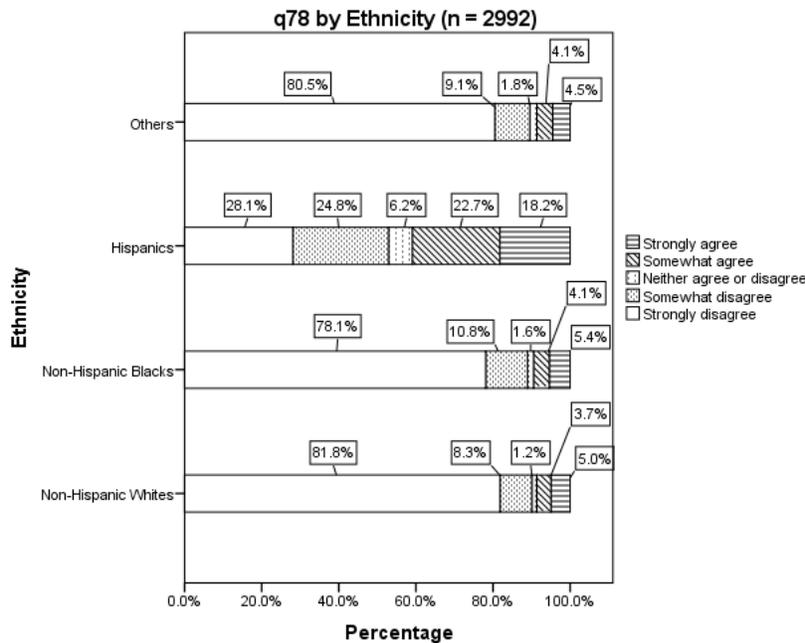


Figure T3.3c shows the relationship between the caregiver’s language preference and his/her response to q78. Although the variation in responses was not statistically significant, large differences were seen between those who preferred English and Spanish. For caregivers who preferred English, 89.6% disagreed that unnecessary tests or procedures may be recommended whereas 8.9% agreed. By contrast, among the caregivers who reported that Spanish was their preferred language, the distribution was more balanced with 46.7% agreeing and 46.3% disagreeing that recommendation of these services was greater than needed.

Figure T3.3c –I sometimes think that my child’s health provider might perform unnecessary tests or procedures.

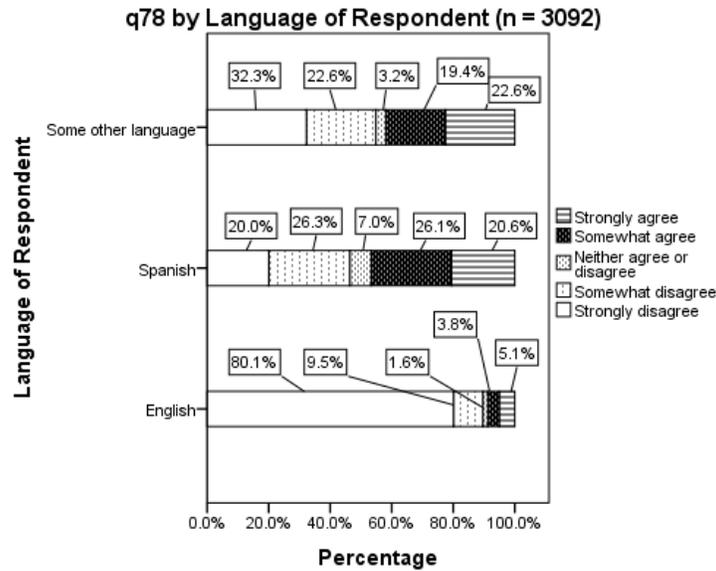


Figure T3.4c shows the relationship between the NC region in which the child lived and the caregiver’s response to q78. Caregivers of children living in the Piedmont region reported agreeing that unnecessary tests or procedures may be recommended in the greatest proportion (24.3%), whereas only 13.1% respondents with children living in the Tidewater region agreed. With respect to children living in the Coastal Plain, 71.8% of caregivers “strongly disagreed” with the idea that unnecessary tests and procedures may be recommended while only 56.1% of caregivers with children living in the Piedmont region echoed that sentiment.

Figure T3.4c – I sometimes think that my child’s health provider might perform unnecessary tests or procedures.

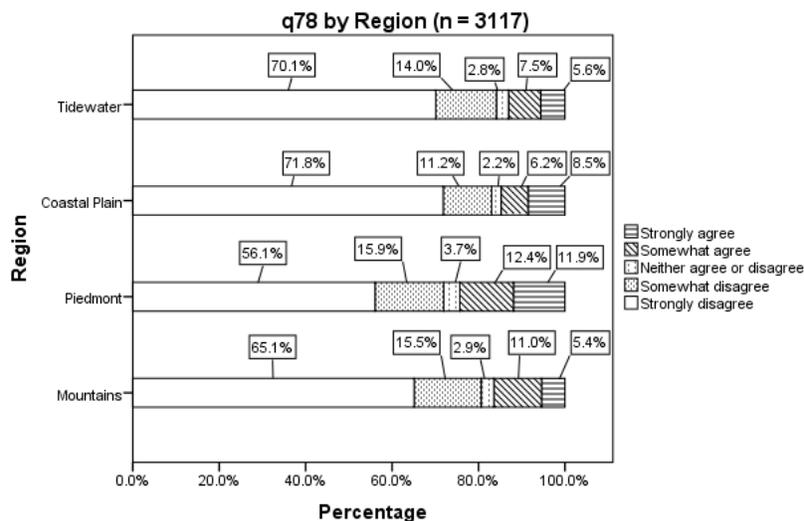
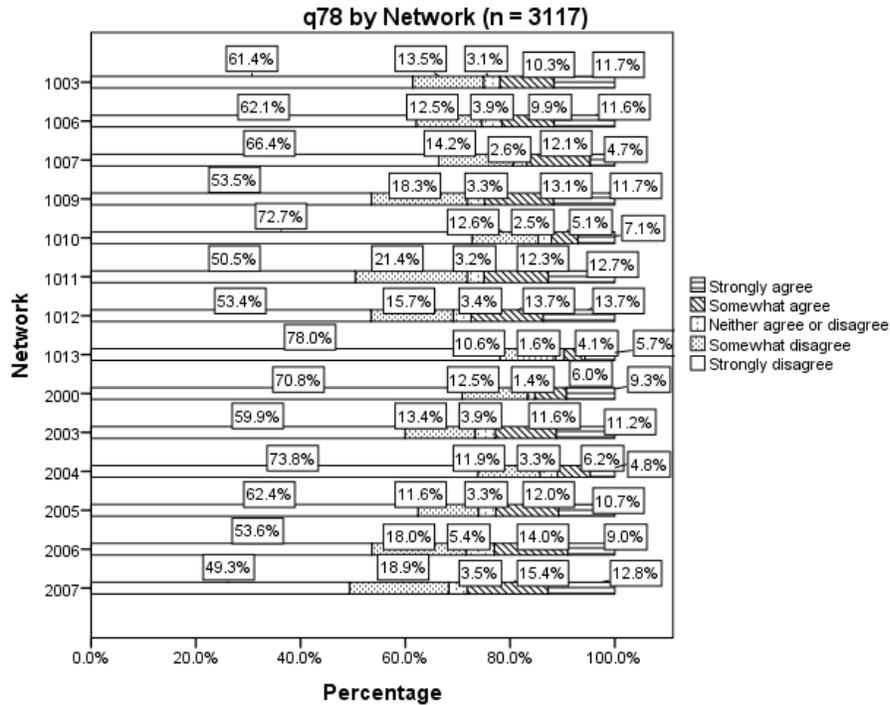


Figure T3.5c shows how caregivers’ responses to q78 varied across the CCNC networks to which the children belonged. Respondents of children receiving care via the Carolina Collaborative Community Care network (1013) and the Northern Piedmont Community Care

network (2007) recorded the largest (78.0%) and smallest (49.3%) proportions, respectively, that “strongly disagreed” with q78’s suggestion. Caregivers of children enrolled in the Community Care of Western North Carolina network (1007) reported the smallest proportion of “strong agreement.” On the other hand, the adult respondents with children receiving care in the Partnership for Community Care network (1012) had the greatest proportion (13.7%) that “strongly agreed.”

Figure T3.5c – I sometimes think that my child’s health provider might perform unnecessary tests or procedures.

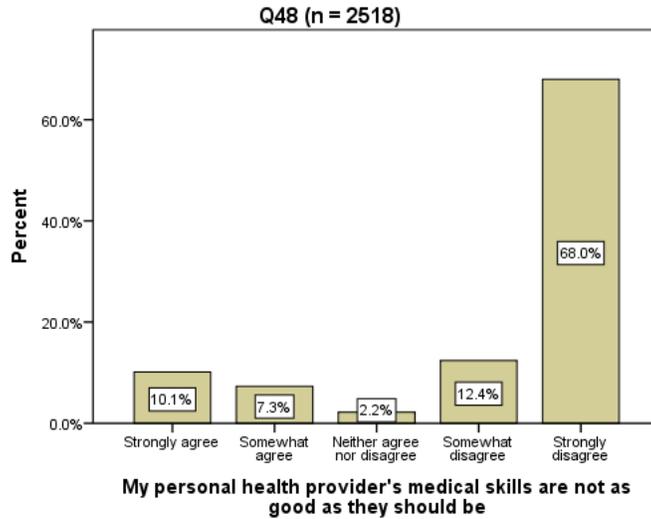


Medical Skills (adult survey question #48 and child survey question #79)

Adult Survey (q48)

Figure T4.0a reveals that a large majority (80.4%) of the adults responding to q48 in the Adult survey (n = 2518) disagreed with the statement that their personal health provider’s medical skills are not as good as they should be while nearly one-fifth (17.4%) agreed with the statement.

Figure T4.0a My personal health provider’s medical skills are not as good as they should be.



The age group of the adult respondent was associated with significant variation in terms of how the individual responded to survey question #48. Adults aged 65 to 74 years were more likely to agree with the statement that their medical provider's skills were not as good as they should be with nearly one-quarter (23.5%) of these adults agreeing with the statement. Additionally, nearly one in five (20.4%) adults aged 75 and older agreed with the statement. Younger respondents disagreed with the premise that their provider's skills were not as good as they should be in larger numbers than their older counterparts (see Figure T4.1a).

Figure T4.1a My personal health provider's medical skills are not as good as they should be.

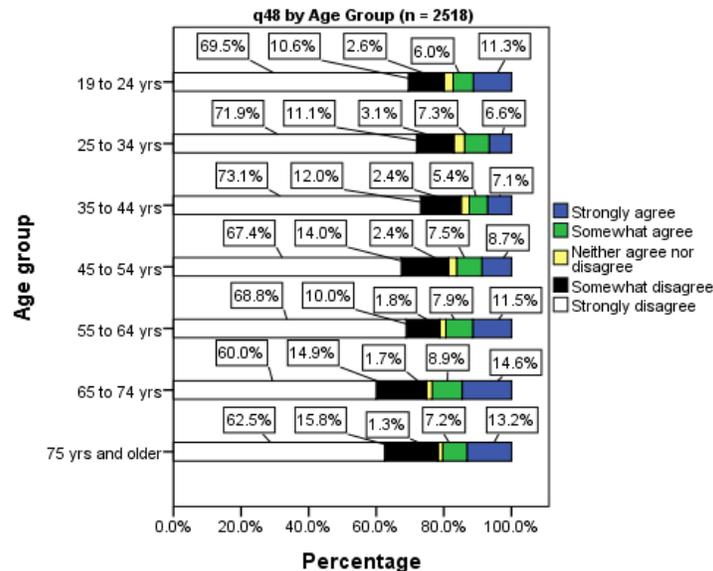
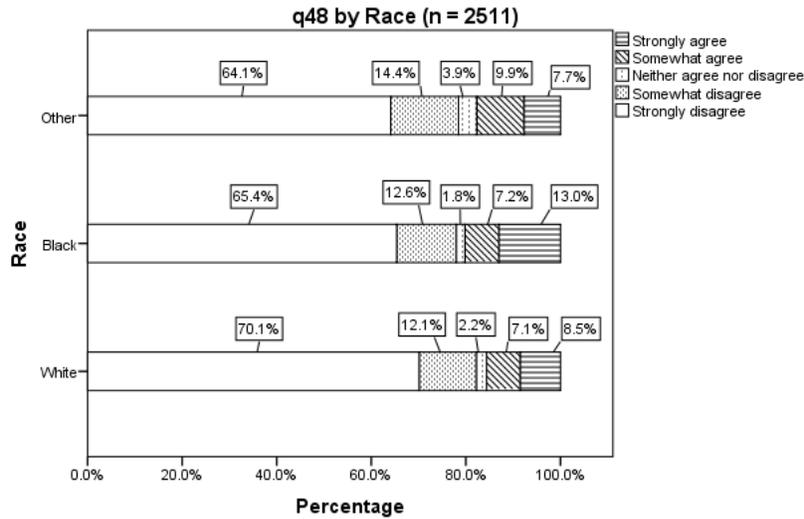


Figure T4.2a illustrates that there were significant differences based on the respondent's race in terms of the responses to the statement that their personal health provider's medical skills are not as good as they should be. The majority of adults in the black (78.0%), white (82.2%),

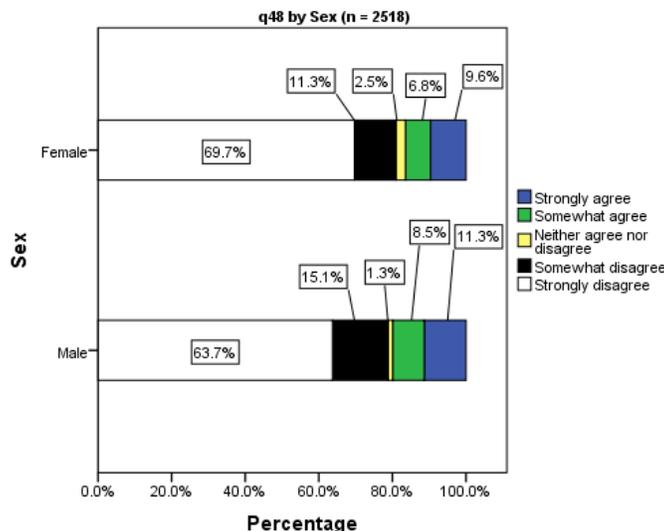
and other (78.5%) racial categories disagreed with the statement, but more than one-fifth (20.2%) of blacks agreed with the statement that their personal health provider’s medical skills are not as good as they should be. Compared to other racial sub-populations, blacks were also significantly more likely to “strongly agree” with the statement that their personal health provider’s medical skills are not as good as they should be.

Figure T4.2a My personal health provider’s medical skills are not as good as they should be.



The sex of the respondent also generated significant differences in terms of responses to the statement that the respondent’s personal health provider’s medical skills are not as good as they should be. Figure T4.3a reveals that 19.8% of males agreed with the statement compared to 16.4% for females. Similarly, females disagreed with the statement asked in q48 in larger proportions than males; however, the proportion of males who “somewhat disagreed” (15.1%) was larger than the proportion of females who “somewhat disagreed” (11.3%).

Figure T4.3a My personal health provider’s medical skills are not as good as they should be.



Child Survey (q79)

Question 79 asked caregivers if they thought that their child’s health provider’s medical skills were not as good as they should be. Figure T4.0c shows the distribution of the 3,085 responses by caregivers to this survey question and reveals that 78.7% of caregivers disagreed that skills were inadequate while only 18.2% agreed with the statement, indicating a high level of trust in provider’s skills.

Figure T4.0c –My child’s health provider’s skills are not as good as they should be.

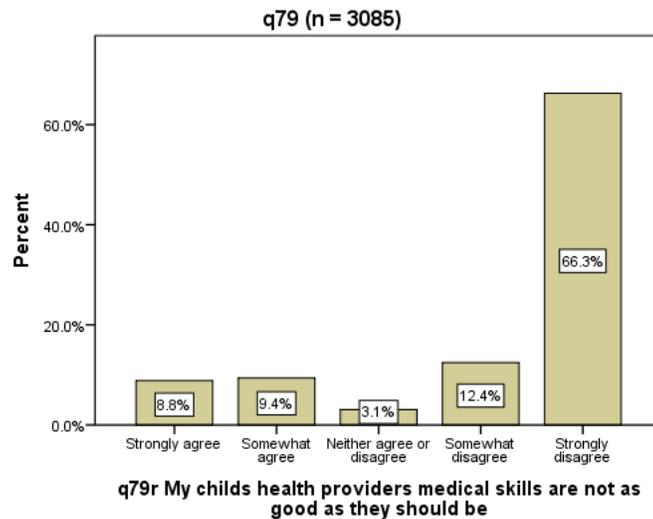


Figure T4.1c shows the relationship between the child’s age and the caregiver’s response to q79. The primary finding of this bivariate relationship was that the caregivers of 13-18 year-olds had the lowest proportion (14.4%) that agreed that the provider’s skills were inadequate. At the other extreme, 22.4% of the caregivers of 0-2 year-olds agreed with this premise. Sixty-two percent of caregivers of 2-5 year-olds “strongly disagreed” with the statement that their provider’s skills were not what they should be whereas 71.8% of the caregivers of 13-18 year-olds “strongly disagreed.” The large percentages of respondents rejecting the premise of q79 indicate high levels of trust, at least in terms of using attitudes about medical skills as a proxy measure of trust.

Figure T4.1c –My child’s health provider’s skills are not as good as they should be.

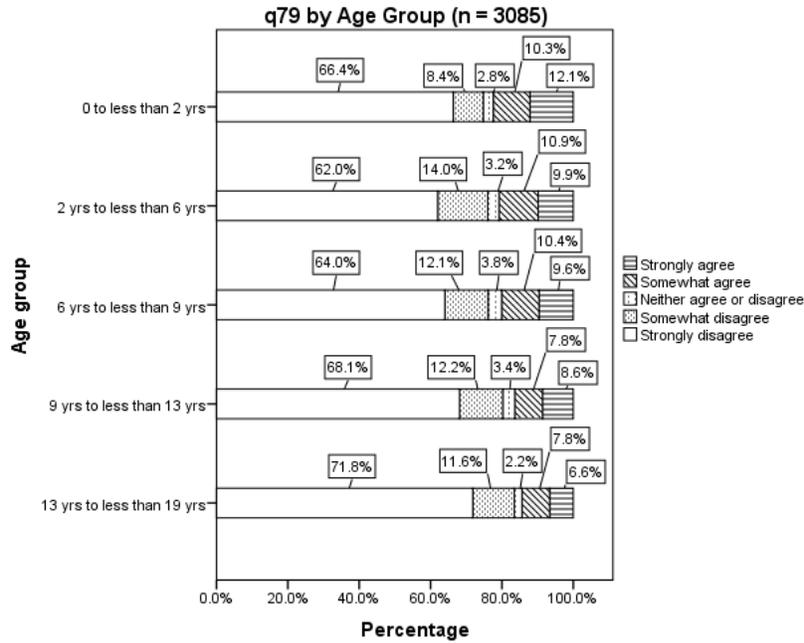


Figure T4.2c shows how the sex of the enrolled child affected caregivers' responses to q79. The proportion of responses in each of the various measurement strata was fairly comparable, regardless of the enrolled child's sex. The widest differential between the two groups occurred among those who "strongly agreed" that their child's providers skill were inadequate where 7.6% of the caregivers of female children "strongly agreed" with the premise of q79 compared to 10.0% the of caregivers of male children who "strongly agreed."

Figure T4.2c –My child's health provider's skills are not as good as they should be.

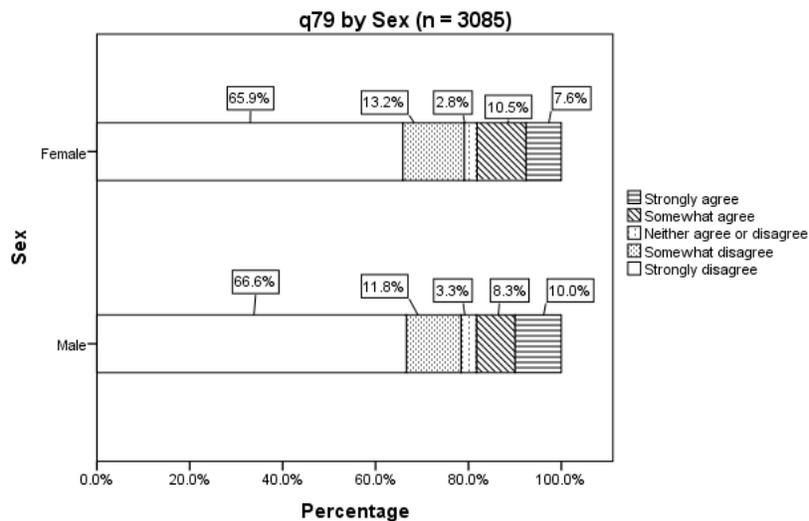


Figure T4.3c shows the relationship between the caregiver responses of children of different ethnicities and q79. As has been previously noted, a wide gap exists between the responses of the caregivers of Hispanic and non-Hispanic children. For instance, 37.4% of the caregivers of Hispanic children agreed that their child's provider's skills were inadequate,

whereas only 6.7% and 9.9%, respectively, of the caregivers for non-Hispanic white and non-Hispanic black children agreed. Large gaps were also seen at the other end of the response scale with only 56.3% of caregivers of Hispanic children disagreeing with the sentiment of q79, whereas disagreement was much higher for non-Hispanic blacks (89.0%) and for non-Hispanic whites (91.6%).

Figure T4.3c – My child’s health provider’s skills are not as good as they should be.

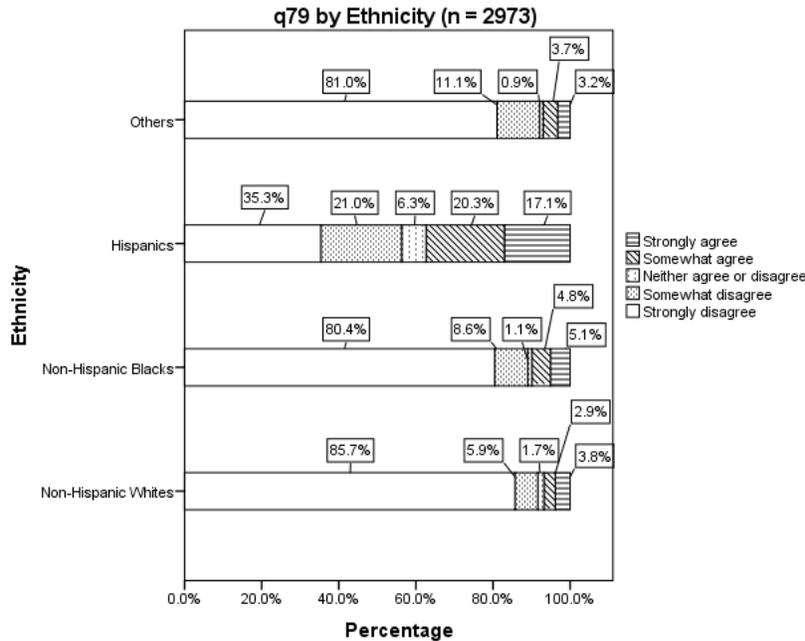


Figure T4.4c shows the relationship between the caregiver’s language preference and his/her response to q79. Although this relationship was not statistically significant, the findings are very relevant in practical terms. The preference to use the English or Spanish language was associated with very different responses in terms of the provider’s skills. For caregivers who preferred English, 90.4% disagreed that the provider’s skills were inadequate whereas 8.0% agreed. For caregivers who preferred Spanish, the difference between agreement and disagreement was less with 51.0% disagreeing and 42.4% agreeing that provider skills were inadequate.

Figure T4.4c – My child’s health provider’s skills are not as good as they should be.

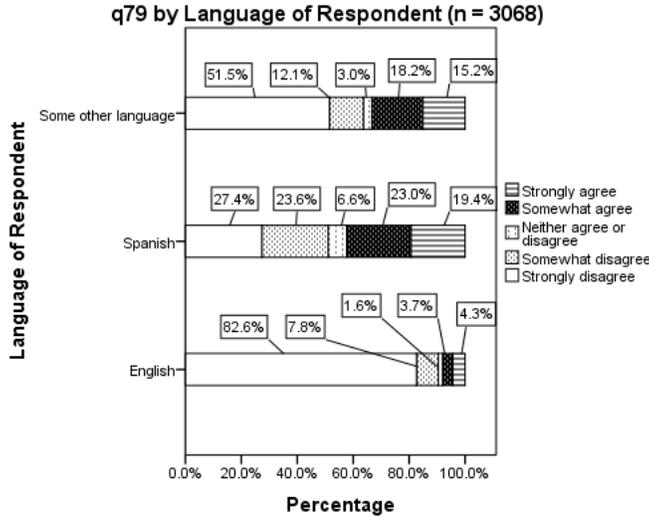


Figure T4.5c shows the relationship between the NC region in which the child lives and the caregiver’s response to q79. Although the marginal differences appear relatively small, the bivariate relationship is statistically significant. For example, 10.4% of the caregivers of children living in the Piedmont region “strongly agreed” that provider skills were inadequate compared to the 6.1% of respondents with children living in the Tidewater region who “strongly agreed” with the premise of q79. Not surprisingly, the proportion of respondents who “strongly disagreed” with this sentiment was smallest among caregivers whose children lived in the Piedmont region (62.5%) and largest among caregivers whose children lived in the Tidewater region (73.7%).

Figure T4.5c – My child’s health provider’s skills are not as good as they should be.

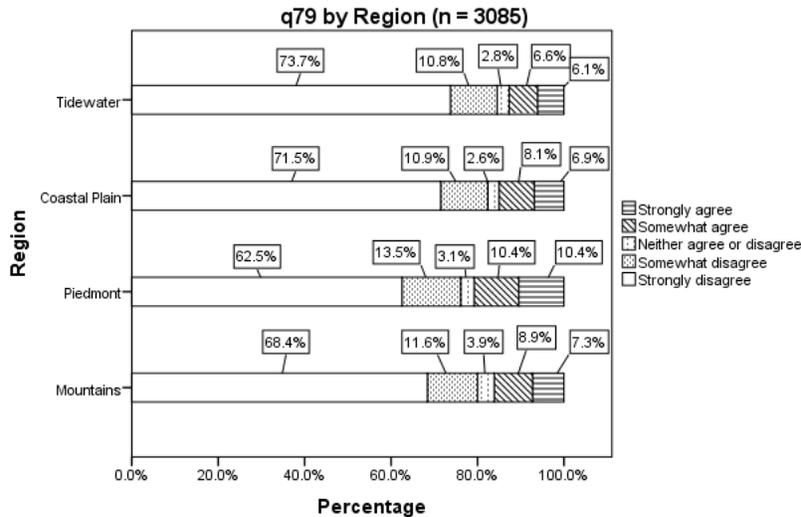


Figure T4.6c shows broad variation in caregiver thoughts on provider skills across CCNC networks. Respondents with children receiving care in the Carolina Collaborative Community Care network (1013) had the smallest proportion (2.9%) who “strongly agreed” that their child’s health provider’s skill may not be as good as they should be whereas respondents with children receiving care via the Northern Piedmont Community Care network (2007) has the highest proportion (15.7%) who “strongly agreed” that provider skills were inadequate. The range of

“strong disagreement” was even wider with respondents of children enrolled in the Carolina Collaborative Community Care network (1013) leading at 78.1% compared to 54.6% for respondents with children receiving care in the Northwest Community Care network (2006) who “strongly disagreed” that provider skills were less than they should be.

Figure T4.6c –My child’s health provider’s skills are not as good as they should be.

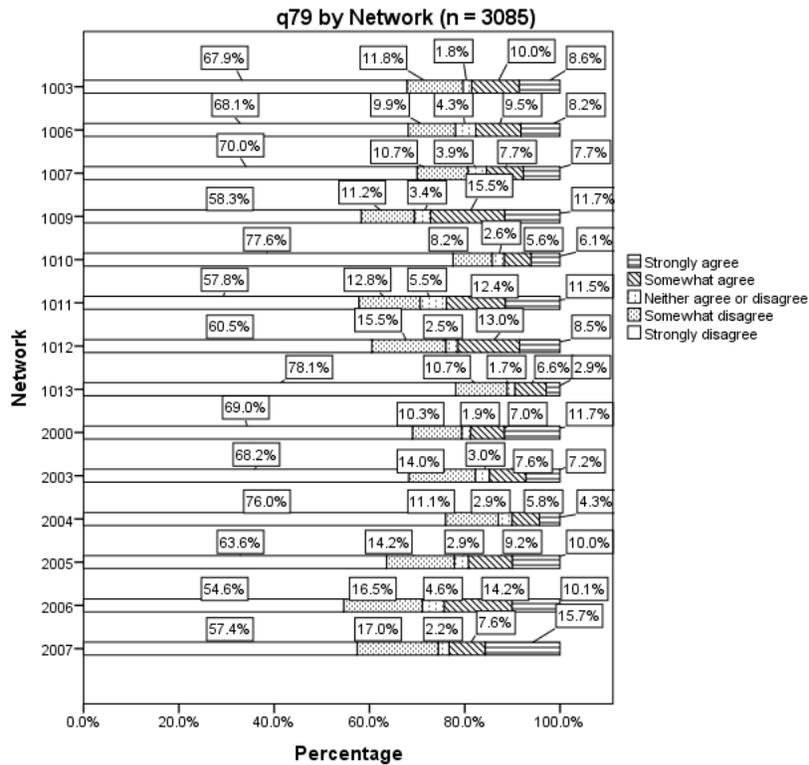
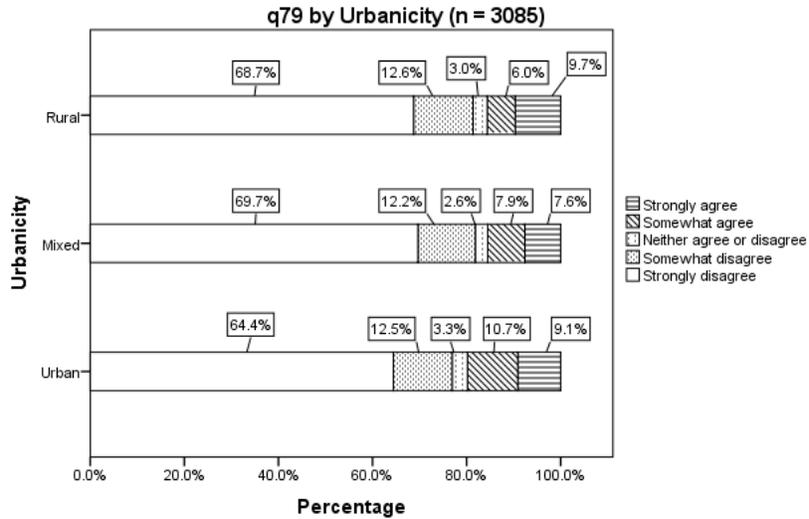


Figure T4.7c shows small, but statistically significant, variation in terms of the degree of urbanicity of the child’s county of residence and the caregiver’s opinions concerning provider skills. Specifically, only 5.3% separated the highest and lowest proportions on “strong disagreement” (“mixed” urbanicity at 69.7% and Urban at 64.4%, respectively). At the other end of the measurement scale, 7.6% of the caregivers of children living in “mixed” urbanicity counties expressed “strong agreement” with q79 while 9.7% of the respondents of children living in “rural” counties “strongly agreed” with this sentiment.

Figure T4.7c –My child’s health provider’s skills are not as good as they should be.

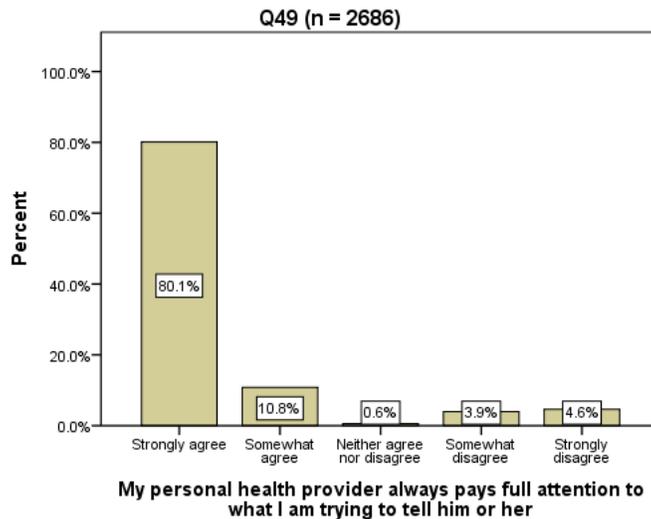


Attention (adult survey question #49 and child survey question #80)

Adult Survey (q49)

The vast majority (90.9%) of the total number of adult respondents to q49 (n = 2686) agreed with the statement that their personal health provider always pays full attention to what they are trying to tell him or her while only 8.5% disagreed with this statement (see Figure T5.0a).

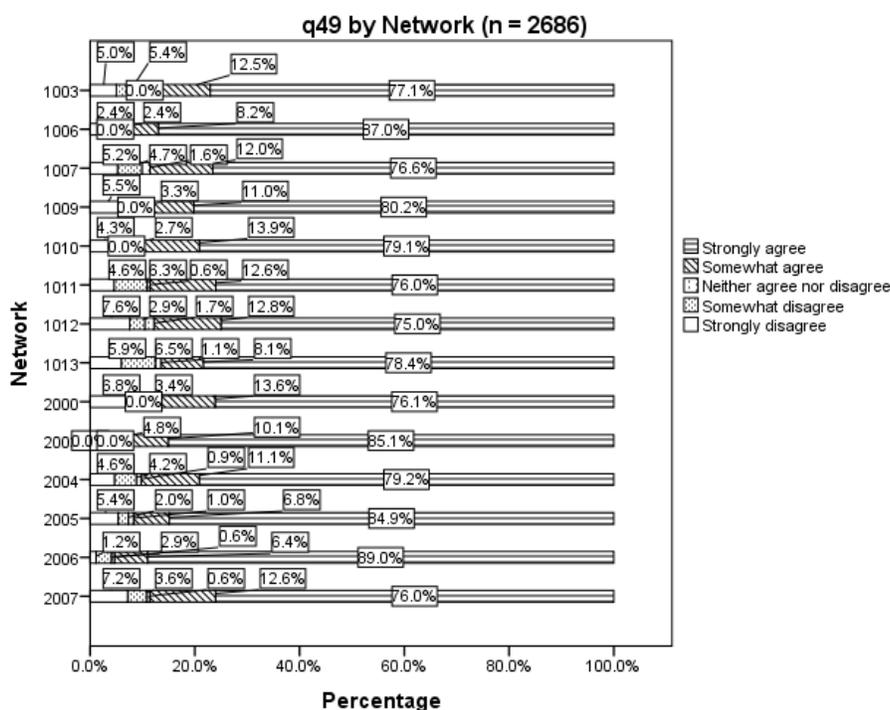
Figure T5.0a - My personal health provider always pays full attention to what I am trying to tell him or her.



There was statistically significant variation in the responses across the networks as demonstrated in Figure T5.1a. Nearly all of the adult respondents enrolled in the AccessCare Network Sites and Counties (1006), Community Care of Southern Piedmont (2003), and Northwest Community Care (2006) networks (95.2%, 95.2%, and 95.4%, respectively) agreed

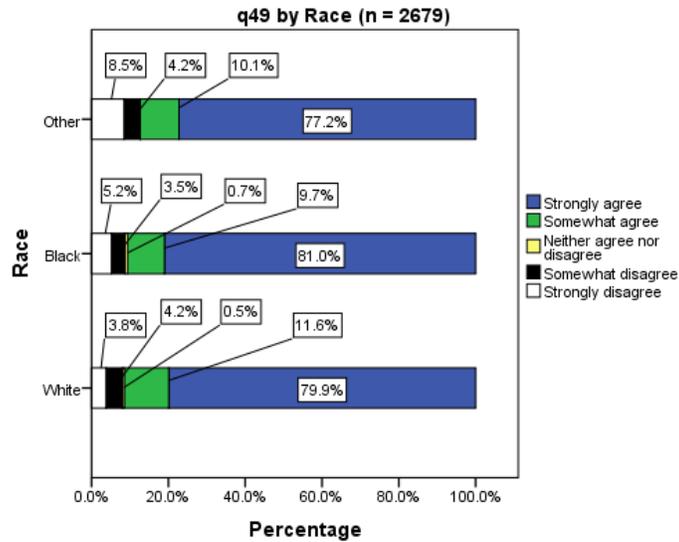
with the statement that their personal health provider always pays full attention to what they are trying to tell the provider. By contrast, less than 90% of adults enrolled in seven of the care networks (Community Health Partners, Community Care of Western North Carolina, Community Care of Wake/Johnston Counties, Partnership for Health Management, Carolina Collaborative Community Care, Community Care Plan of Eastern North Carolina, and Northern Piedmont Community Care) agreed with this statement. At the other end of the measurement scale, adults enrolled in the Community Care of Southern Piedmont (2003) and Northwest Community Care (2006) networks were less likely to respond that they “strongly disagreed” with the statement.

Figure T5.1a - My personal health provider always pays full attention to what I am trying to tell him or her.



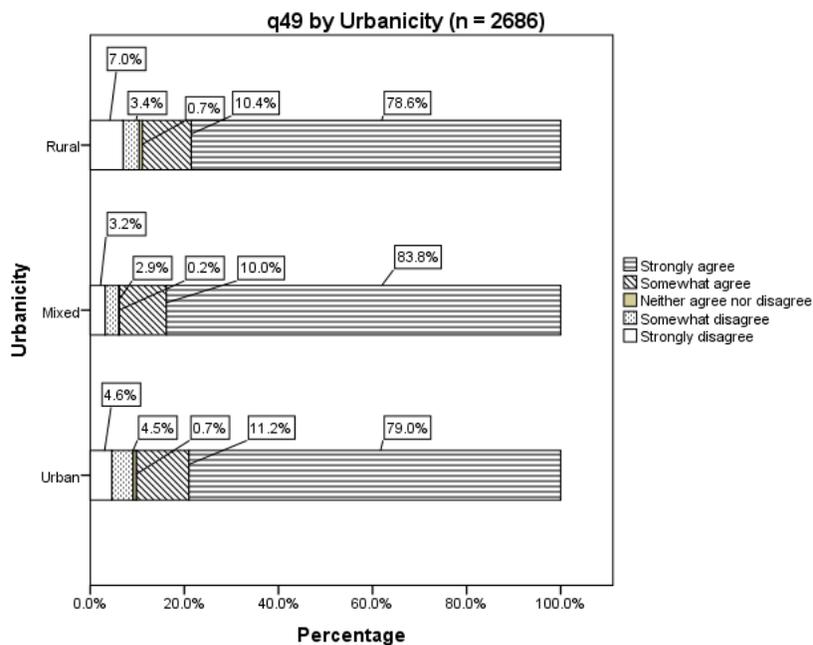
The race of the adult enrollee had an impact on the enrollee’s perception of their personal provider’s attentiveness to what they were trying to tell the provider. At least 77% of respondents in each of the three race categories “strongly agreed” that their personal health provider always paid attention to what they were telling the provider. Subtle, but meaningful differences, were observed at the opposite end of the measurement scale, where 3.8% of whites “strongly disagreed” with this premise compared to 5.2% among black respondents and 8.5% among “other” race respondents (See Figure T5.2a).

Figure T5.2a - My personal health provider always pays full attention to what I am trying to tell him or her.



There was also statistically significant variation with respect to the degree of urbanicity of the counties in which the adult respondents lived. Slightly more than 10% of rural respondents disagreed with the statement that their personal health provider always pays full attention to what they are trying to tell him or her while the percentage of respondents living in urban and mixed urbanicity counties who disagreed was less at 9.1% and 6.1%, respectively. Additionally, respondents in rural areas were significantly more likely to respond that they “strongly disagreed” with the statement (see Figure T5.3a).

Figure T5.3a - My personal health provider always pays full attention to what I am trying to tell him or her.



Child Survey (q80)

Question 80 asked the caregivers of children in the survey if they thought the provider always paid full attention when being addressed by the caregiver. Figure T5.0c reveals the responses (n = 3,148) wherein 93.4% of respondents agreed that their child’s health provider always pays full attention. Only 5.9% expressed concern about this issue by disagreeing.

Figure T5.0c –My child’s health provider always pays full attention to what I am trying to tell him or her.

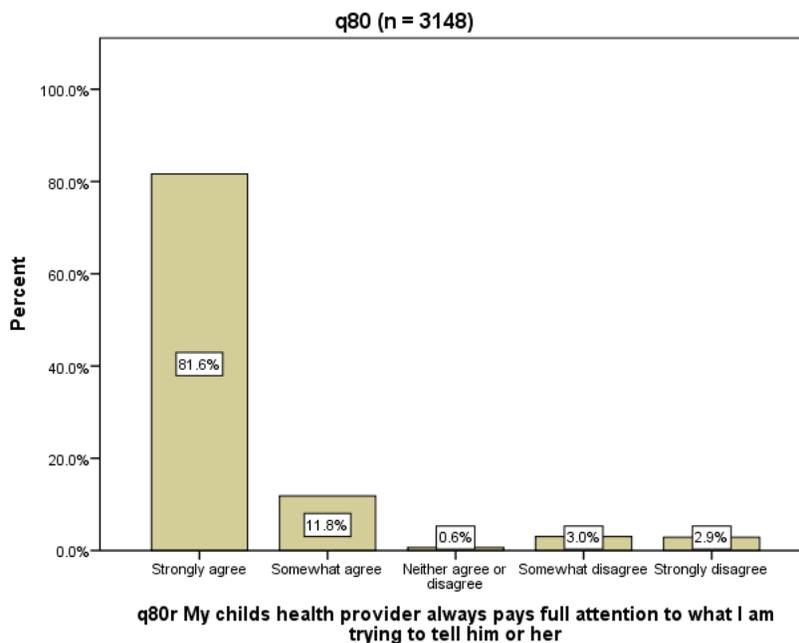
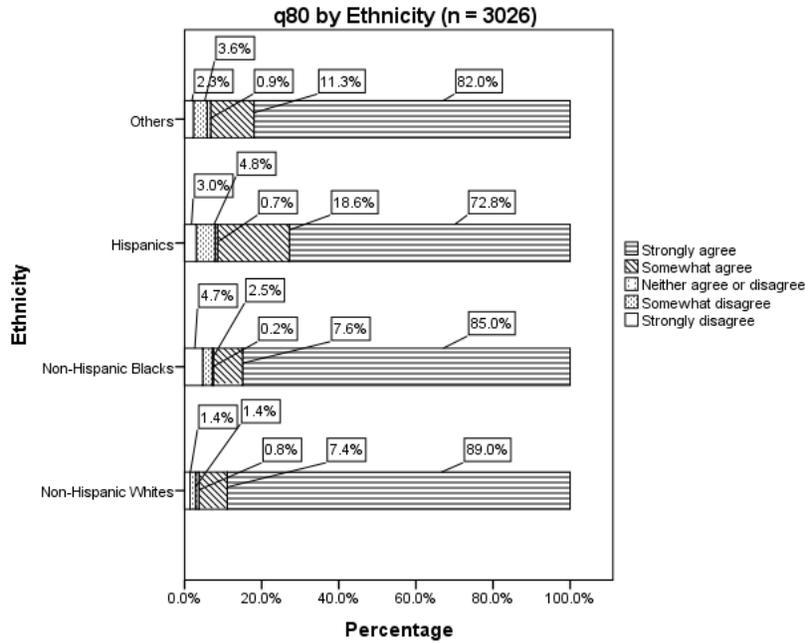


Figure T5.1c shows the relationship between the child’s ethnicity and the caregiver’s response to q80. It is noteworthy that for this question non-Hispanic black caregivers provided responses that were more similar to those of Hispanic caregivers than to non-Hispanic white caregivers. For instance, only 2.8% of the caregivers of non-Hispanic white children disagreed with the assertion that providers always pay complete attention, while 7.2% and 7.8% of caregivers for non-Hispanic black and Hispanic children, respectively, disagreed. The caregivers of non-Hispanic black and Hispanic children were more similar in the proportions that agreed that providers give full attention (92.6% and 91.4%, respectively) compared to the caregivers of non-Hispanic white children, who reported the highest proportion at 96.4%.

Figure T5.1c –My child’s health provider always pays full attention to what I am trying to tell him or her.



Although not statistically significant, the bivariate relationship between the adult respondent’s language and the responses to q80 warrants mention. In terms of overall agreement, the difference between the proportions of respondents who claimed that Spanish was their preferred language and those who claimed that English was their preferred language was small (92.6% and 93.9%, respectively). However, only 71.5% of respondents who preferred Spanish “strongly agreed” that their child’s health provider always paid full attention to what the adult caregiver was trying to tell the provider while 86.0% of respondents preferring English “strongly agreed” with the premise of q80 (see Figure T5.2c).

Figure T5.2c –My child’s health provider always pays full attention to what I am trying to tell him or her.

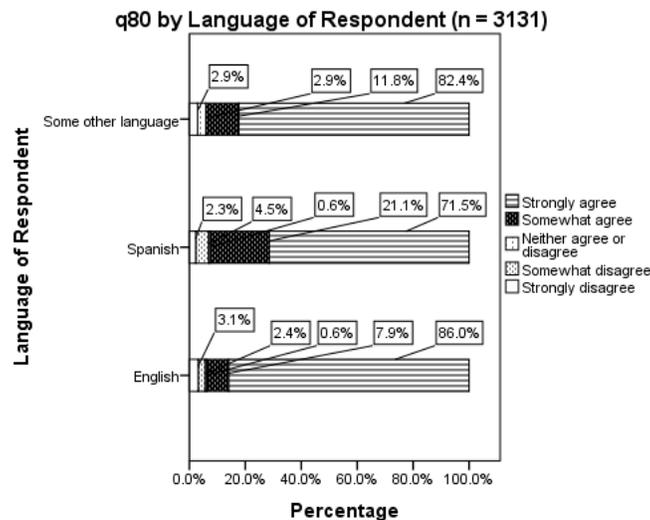
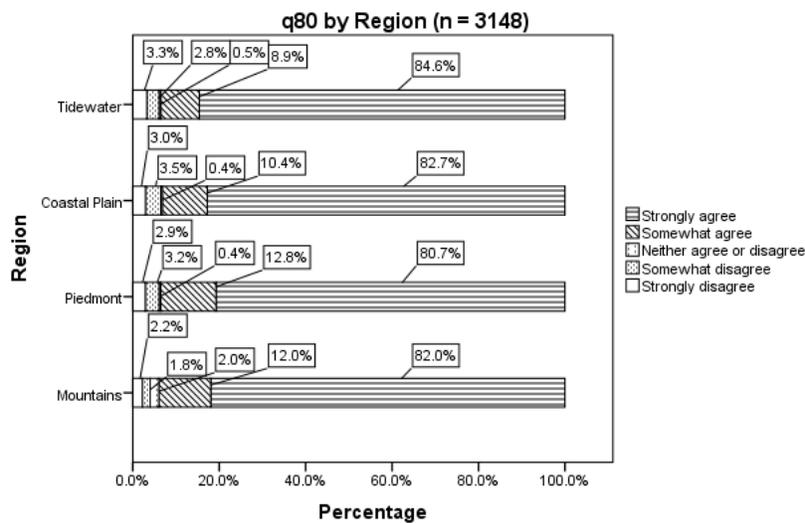


Figure T5.3c shows the relationship between the region in which the child lives and the caregivers’ responses to whether the provider paid full attention during the communication

encounters. Although the differentials between regional categories were relatively small, some differences were statistically significant. For example, when considering the sum of those who “strongly agreed” and those who “somewhat agreed,” the variation in the distribution across regions was negligible (range: 93.1% to 94.0%). However, the differences were larger when examining the proportions associated with those who “strongly agreed,” with just under 85% of respondents with children living in the Tidewater region reporting that they “strongly agreed” that their child’s health provider always paid full attention compared to just over 80% of respondents with children living in the Piedmont who reported that they “strongly agreed.”

Figure T5.3c – My child’s health provider always pays full attention to what I am trying to tell him or her.



Communication

Several studies demonstrate the correlation between communication and health care outcomes, especially in terms of satisfaction and medical compliance (Stewart, 1995; Epstein et al., 2005; Mead and Bower, 2002; Renzi, 2001). As communication preferences and technology change, health providers should adapt accordingly to ensure that care is delivered in an effective and efficient manner that matches individual needs and preferences and enhances satisfaction and adherence. Telemedicine and text messaging are important examples of emerging methods of providing care and communicating with patients via the internet using computers and smart phones.

In this report, respondents to the adult survey and the adult respondent caregivers of children enrolled in Medicaid participating in the child survey were asked three questions related to their communication tastes and preferences. These questions appear in Table 2-1 and are valuable in terms of eliciting responses that may improve communication with enrollees and ultimately improve health outcomes. Univariate analyses were conducted for each of these questions. However, due to the complex array of possible responses to questions A-q84 and C-q108, bivariate analyses were not performed on these items. When possible, comparisons to the 2008 communication report were made.

Table 2-1 provides the communication domain questions asked in both surveys. The adult survey question appears first and is followed by the corresponding question that was asked in the child survey.

Table 2-1 – Communication Questions

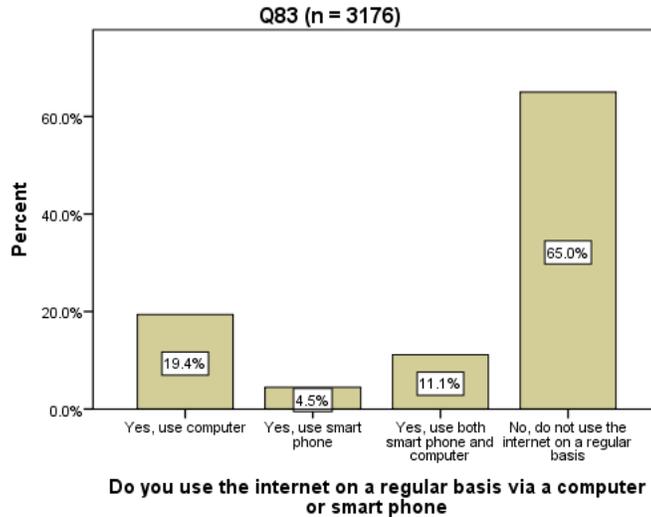
No.	Question
A-q83	Do you use the internet on a regular basis via a computer or smart phone?
C-q107	Do you use the internet on a regular basis via a computer or smart phone?
A-q84	Why do you use the internet on a regular basis?
C-q108	Why do you use the internet on a regular basis?
A-q85	How often do you use the internet?
C-q109	How often do you use the internet?

Internet Use: *(adult survey questions #83 and child survey question #107).*

Adults (q 83)

Nearly two-thirds (65%) of the adult respondents to survey question #83 (n=3176) reported not using the internet on a regular basis. Of those who did use the internet on a regular basis, the majority did so by computer only (see Figure C1.0a).

Figure C1.0a Do you use the internet on a regular basis via a computer or smart phone?



The use of computers and smart phones to access the internet was most prevalent in the younger age groupings (19-44 year olds) with smaller percentages of respondents accessing the internet as the respondent's age increased. Specifically, 60% or more of the 19-44 year olds used computers or smart phones to regularly access the internet, but more than three-fourths of adults 55 or older reported that they did not use the internet regularly (see Figure 1.1a).

Figure C1.1a Do you use the internet on a regular basis via a computer or smart phone?

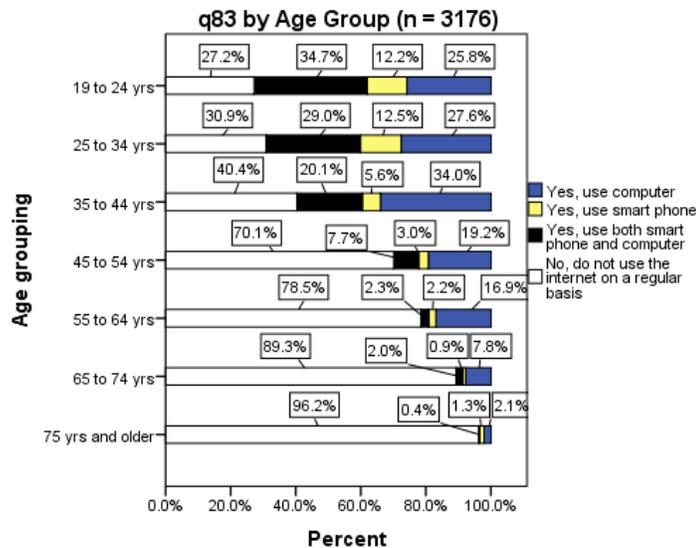


Figure C1.2a describes the bivariate relationship between internet use and the adult respondent's dual eligibility status. Less than half (46%) of the non-dual adult respondents used the internet on a regular basis. However, this percentage was more than twice that observed for dual eligible adults (20.5%). Using a computer was the most popular method of accessing the internet in both subpopulations, followed by a combination of computer and smart phone use.

Figure C1.2a Do you use the internet on a regular basis via a computer or smart phone?

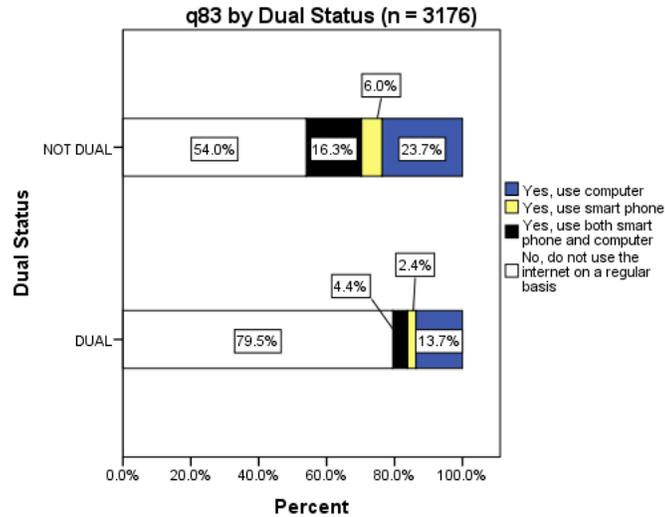
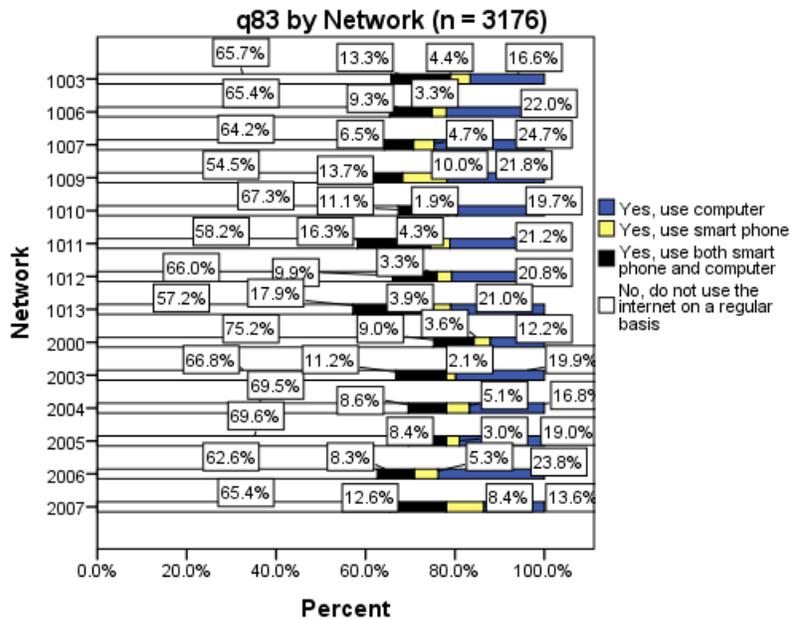


Figure C1.3a demonstrates the statistically significant relationship between internet use and the respondent's care network. The percentage of respondents in the Community Care Plan of Eastern North Carolina (2000) that reported that they did not use the internet (75.2%) was greater than that reported for any of the other care networks. Respondents in this network also reported the smallest percentage of accessing the internet exclusively by computer (12.2%). Compared to the other care networks, the proportion of respondents reporting that they exclusively used smart phones to access the internet (10.0%) was significantly greater in the Community Care Partners of Greater Mecklenburg network (1009). Additionally, the percentage of respondents stating that they used the combination of computers and smart phones to access the internet was greatest in the Community Care of Wake/Johnston Counties network (1011) and Carolina Collaborative Community Care network (1013) at 16.% and 17.9%, respectively.

Figure C1.3a Do you use the internet on a regular basis via a computer or smart phone?



When examining the relationship between the enrollee’s race and regular internet use, slightly more than two-thirds (68.8%) of black respondents reported that they did not use the internet on a regular basis – the largest percentage among the racial subpopulations. White adults reported using computers exclusively to access the internet in larger numbers than their black and “other” race counterparts (24.0% vs. 12.7% and 20.9%, respectively). However, black adult respondents reported exclusive use of smart phones in greater numbers than either white or “other” race enrollees (6.2% vs. 3.2% and 4.5%, respectively) (see Figure C1.4a).

Figure C1.4a Do you use the internet on a regular basis via a computer or smart phone?

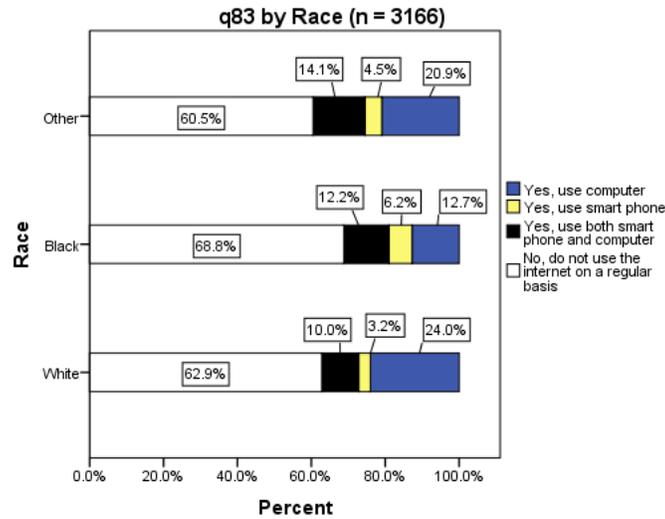
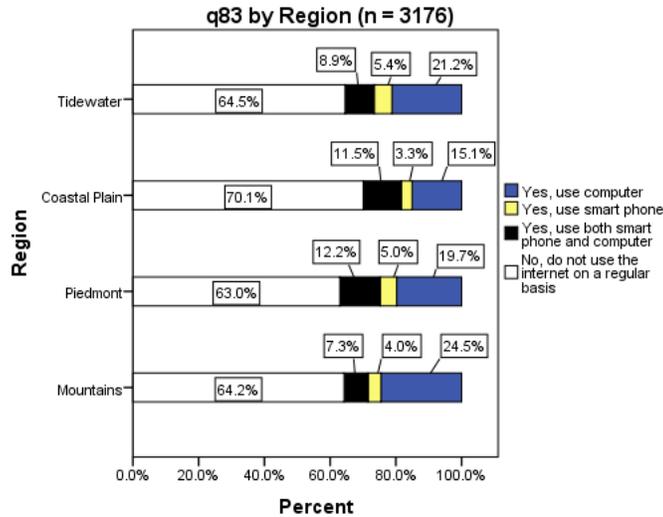


Figure C1.5a examines the bivariate relationship between regular internet use and the region of North Carolina where the respondent lived. The proportion of respondents reporting that they did not use the internet on a regular basis (70.1%) was greatest in the Coastal Plain region. The largest percentage of respondents reporting the exclusive use of computers to regularly access the internet occurred in the Mountain region (24.5%). By contrast, only 15.1% of respondents in the Coastal region reported that they regularly accessed the internet exclusively via computers.

Figure C1.5a Do you use the internet on a regular basis via a computer or smart phone?



In terms of the relationship between the enrollee’s sex and responses to question #83, the percentage of men who regularly used the internet was significantly less than that reported by women (27.2% vs. 38.5%). The exclusive use of computers to regularly access the internet was greater among women (21.1%) than among men (15.4%) as was the combination of computers and smart phones (12.7% vs. 7.6%) (see Figure C1.6a).

Figure C1.6a Do you use the internet on a regular basis via a computer or smart phone?

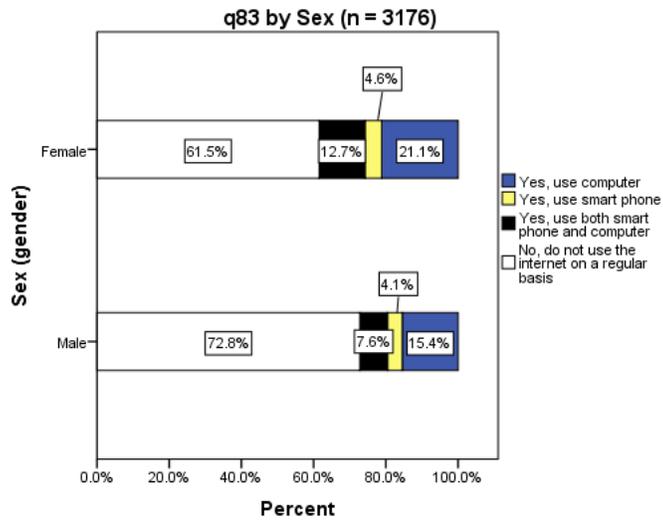
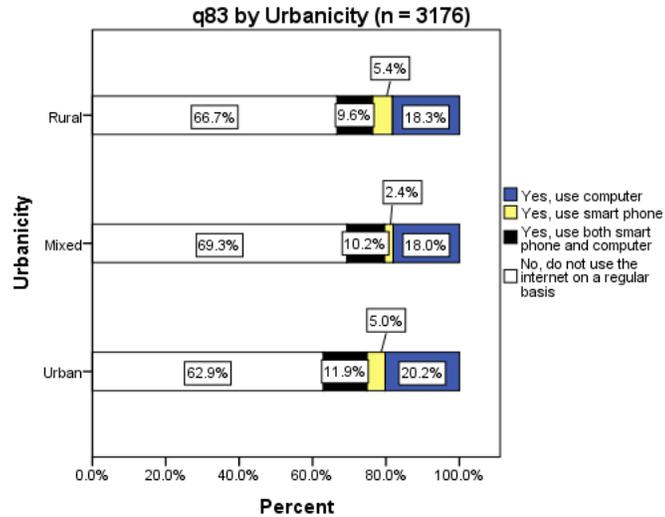


Figure C1.7a describes the relationship between the regular use of the internet and the degree of urbanicity of the county where the adult respondent lived. Although the differentials are small in terms of percentages, the 2.4% of respondents living in mixed urban/rural counties stating that they regularly access the internet exclusively via smart phones was significantly smaller than that reported by respondents living in urban counties (5.0%) and rural counties (5.4%).

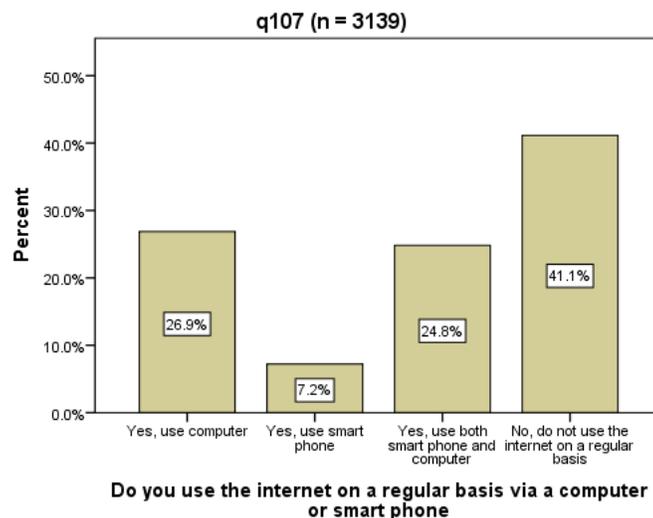
Figure C1.7a Do you use the internet on a regular basis via a computer or smart phone?



Children (q 107)

When the adult caregiver respondents participating in the child survey (n = 3139) were asked whether they accessed the internet on a regular basis and how this access was achieved, 41.1% reported that they did not use the internet on a regular basis. An additional 26.9% of respondents reported that they exclusively used computers to regularly access the internet while 24.8% reported using a combination of smart phones and computers for their access (see Figure C1.0c).

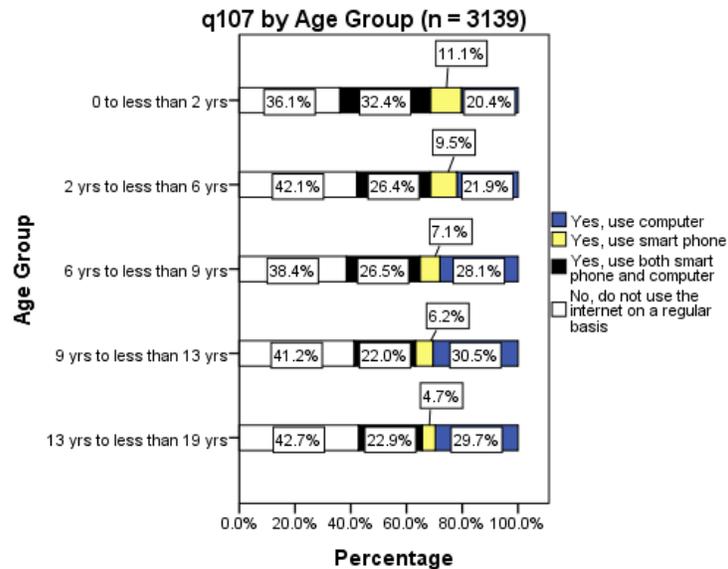
Figure C1.0c Do you use the internet on a regular basis via a computer or smart phone?



The relationship between regular internet use and the enrolled child’s age generated statistically significant variation. The adult caregiver respondents of children in the 0-to-less-than-2 years of age group reported the largest percentage of exclusive smart phone use to regularly access the internet compared to enrollees in other age groups (11.1%). Respondents

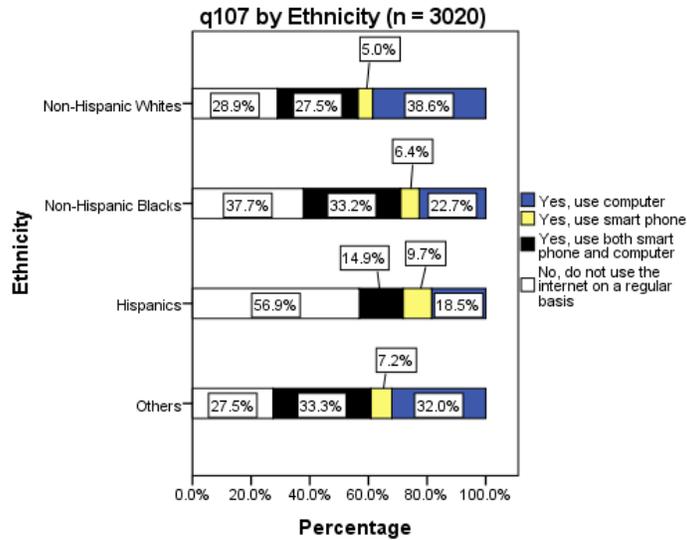
with children in this same age group reported the smallest percentage of using computers exclusively to regularly access the internet (20.4%). Compared to other age groups, caregivers of children 13-19 years of age reported a fairly high percentage of exclusive use of computers to access the internet (29.7%) and the smallest percentage of exclusive smart phone use to access the internet (4.7%).

Figure C1.1c Do you use the internet on a regular basis via a computer or smart phone?



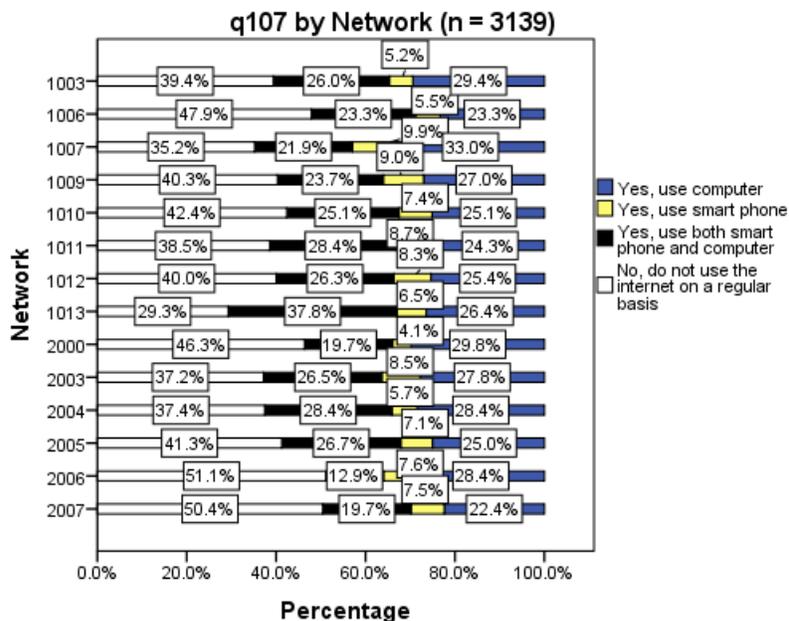
The adult respondents to the child survey reported variation in regular internet use based upon the child’s ethnicity (see Figure C1.2c). Nearly six-in-ten caregivers of Hispanic children reported they did not use the internet – the largest percentage among the ethnic subgroups. This group, however, represented the largest share of respondents who exclusively used smart phones to regularly use the internet. Compared to the other ethnic subgroups, the caregivers of non-Hispanic white children reported the largest percentage of exclusive computer use in order to regularly use the internet (38.6%). Approximately one-third of the caregivers of non-Hispanic black and “other” race children reported the largest percentage of respondents that used a combination of smart phones and computers to regularly use the internet.

Figure C1.2c Do you use the internet on a regular basis via a computer or smart phone?



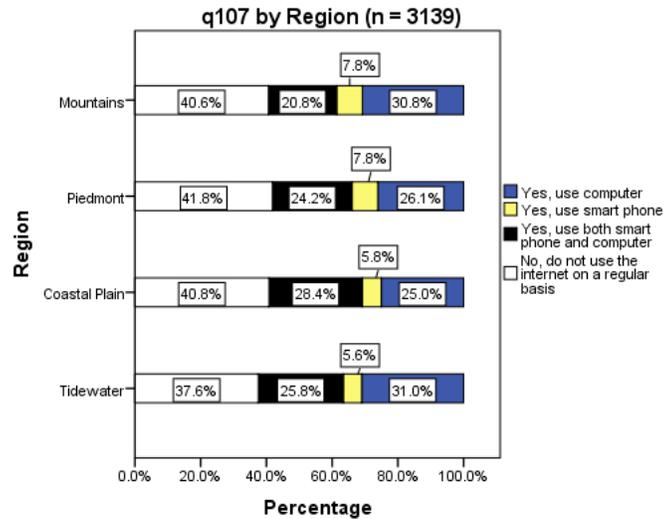
The relationship between the enrolled child’s care network and the adult caregiver’s internet use resulted in statistically significant variation. Slightly more than 70% of the respondents in the Carolina Collaborative Care Community network (1013) reported that they used the internet – the largest percentage of any network. This observation was largely attributable to the high percentage of respondents in this network who reported that they used a combination of smart phones and computers to regularly access the internet. By contrast, more than 50% of the respondents with children enrolled in the Northwest Community Care (2006) and the Northern Piedmont Community Care (2007) networks reported that they did not use the internet on a regular basis (see Figure C1.3c).

Figure C1.3c Do you use the internet on a regular basis via a computer or smart phone?



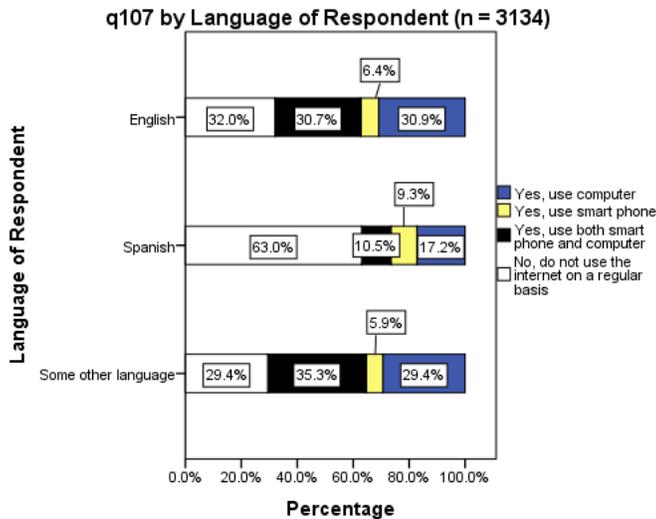
The variation in the relationship between the enrolled child’s region of residence and the caregiver’s internet use was fairly subtle. Respondents with children living in the Piedmont region reported the smallest percentage of regular internet use at 58.2%. On the other hand, respondents with children living in Tidewater region reported the largest proportion of regular internet use at 62.4%. Nearly 31% of all respondents in both the Tidewater and Mountain regions reported that their regular internet use was achieved exclusively via computers (see Figure C1.4c).

Figure C1.4c Do you use the internet on a regular basis via a computer or smart phone?



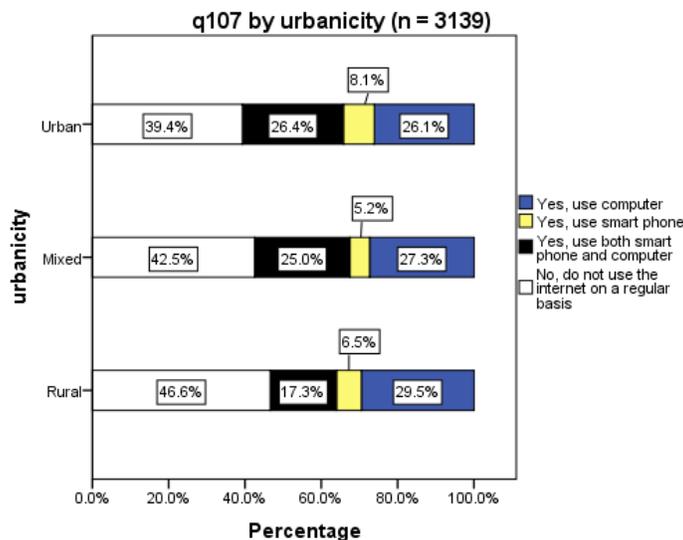
The relationship between the caregiver’s preferred language and use of the internet on a regular basis was characterized by large percentage differentials. Most of this variation was attributable to the experience of respondents who reported that Spanish was the preferred language in the household. For example, 63% of respondents who preferred Spanish stated that they did not regularly use the internet. By contrast, only 32% of respondents who preferred English and 29.4% of respondents who preferred some other language reported that they did not regularly use the internet. The percentages associated with the various methods of internet use were fairly comparable for respondents who preferred English and among those preferring some other non-Spanish language. It is interesting to note that the largest share of regular internet access via the exclusive use of smart phones was recorded by respondents who preferred Spanish (9.3% vs. 6.4% for respondents preferring English and 5.9% among respondents who preferred some other language) (see Figure C1.5c).

Figure C1.5c Do you use the internet on a regular basis via a computer or smart phone?



The degree of urbanicity of the enrolled child’s county of residence was associated with significant variation in the adult caregiver’s use of the internet on a regular basis. Almost 47% of caregivers with children living in rural counties reported that they did not regularly use the internet, which was greater than their urban (39.4%) and “mixed” urbanicity (42.5%) counterparts. Similarly, the percentage of caregivers with children living in rural counties reporting that they used a combination of smart phone and computers to access the internet was significantly smaller than their urban and “mixed” urbanicity counterparts (17.3% vs. 26.4% and 25.0%, respectively) (see Figure C1.6c).

Figure C1.6c Do you use the internet on a regular basis via a computer or smart phone?



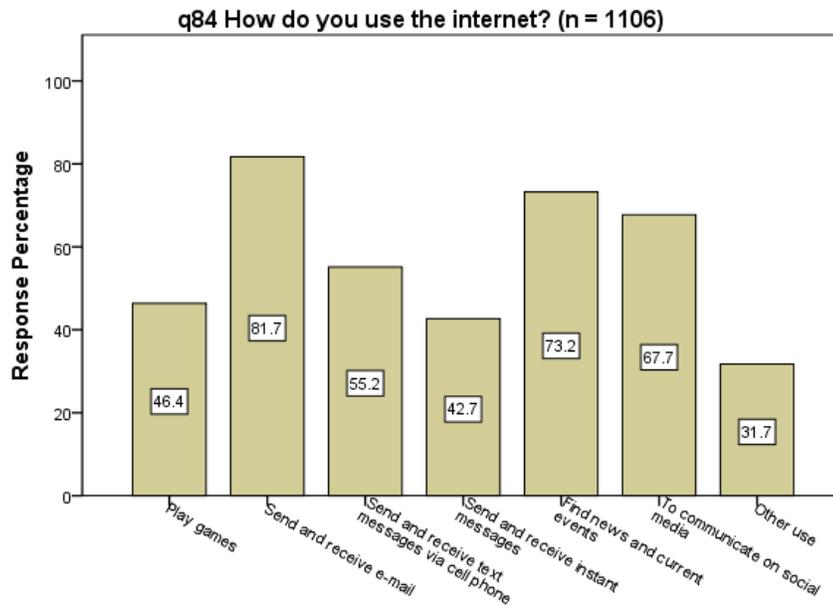
Why do you use the internet (adult survey question #84 and child survey question # 108)

Adults (q 84)

The survey skip pattern directed respondents who used the internet on a regular basis to provide responses as to how or why the internet was used. The responses were not mutually exclusive, which facilitates a more comprehensive understanding of respondents' use of the internet. However, this feature also precluded the ability to report statistically significant bivariate relationships between the question and the various demographic and context variables. Thus, the bivariate analysis that was provided for all other questions in *Policy Report 15* is not provided here.

Among the 1,106 respondents to the adult survey who were prompted to answer this question, sending and receiving e-mail represented the most common reason for using the internet on a regular basis at 81.7% (see Figure C2.1a). The next largest response categories were: to find news and current events (73.2%), to communicate via social media (67.7%), and to send and receive text messages (55.2%). Less than 50% of respondents reported that they regularly used the internet to play games, send instant messages, or engage in other internet-related activities.

Figure C2.1a Why do you use the internet on a regular basis?

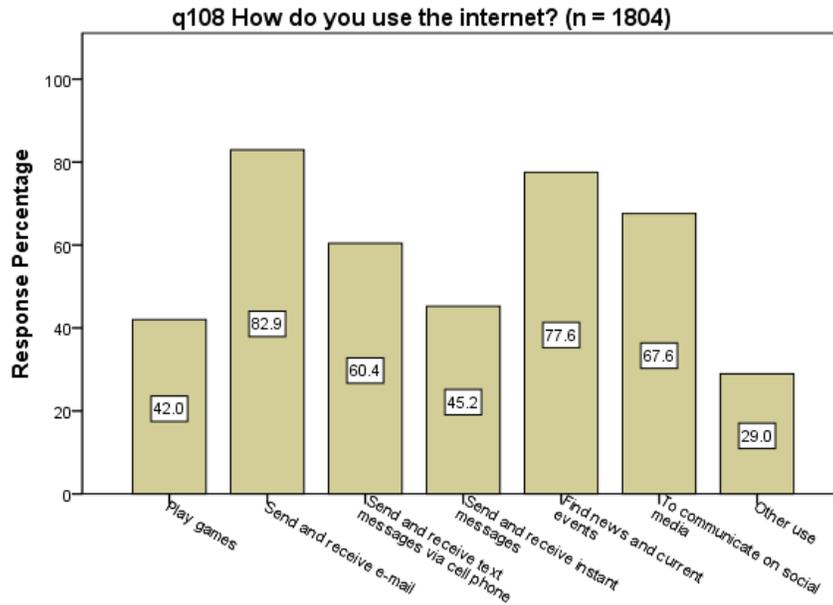


Children (q108)

In a manner similar to the skip pattern pertaining to the adult survey, the adult caregivers of child enrollees were also asked why they use the internet on a regular basis. Among the 1,804 respondents who were directed to this question, sending and receiving e-mails was the most common reason cited for using the internet on a regular basis (82.9%) (see Figure C2.1c). Finding news and current events (77.6%) and communicating on social media (67.6%)

represented the most next most common reasons for regular use of the internet. Generally, the utilization pattern displayed by the adult caregivers of enrolled children paralleled that reported by the adult enrollees described above.

Figure C2.1c Why do you use the internet on a regular basis?



Frequency of internet use (adult survey question # 85 and child survey question # 109).

Adults (q 85)

When asked how often they used the internet, the majority (60.6%) of respondents to adult survey question #85 (n = 2984) answered once a month or less. Approximately 21% reported that they used the internet on a daily basis (see Figure C3.0a).

Figure C3.0a How often do you use the internet?

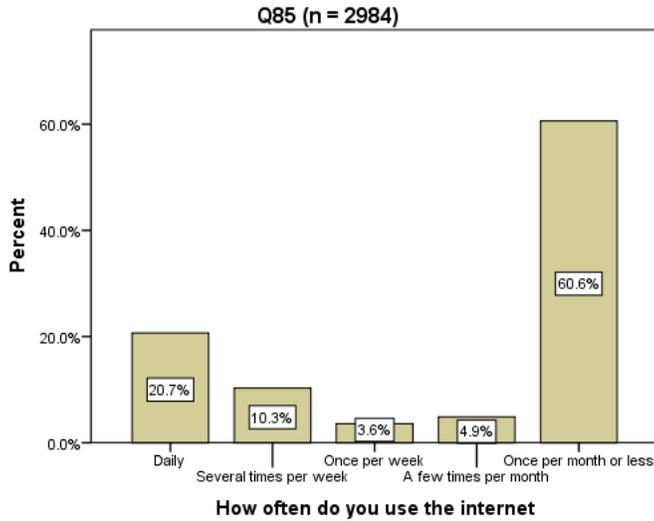
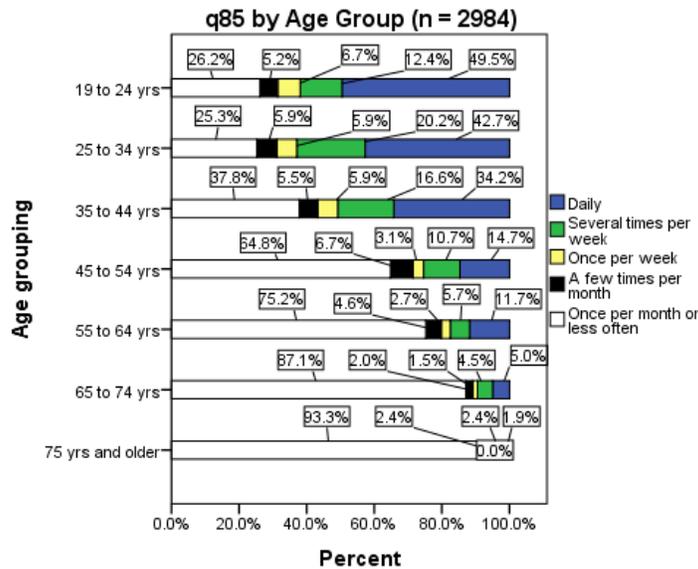


Figure C3.1a describes the relationship between the respondent's age and frequency of internet use. Not surprisingly, younger respondents reported more frequent use of the internet in larger numbers than older respondents. Nearly half (49.5%) of 19-to-24 year olds and almost 43% of the 25-to-34 year olds reported that they used the internet daily. This proportion declined steadily as the age of the respondent increased such that only 1.9% of respondents aged 75 years or older reported that they used the internet on a daily basis.

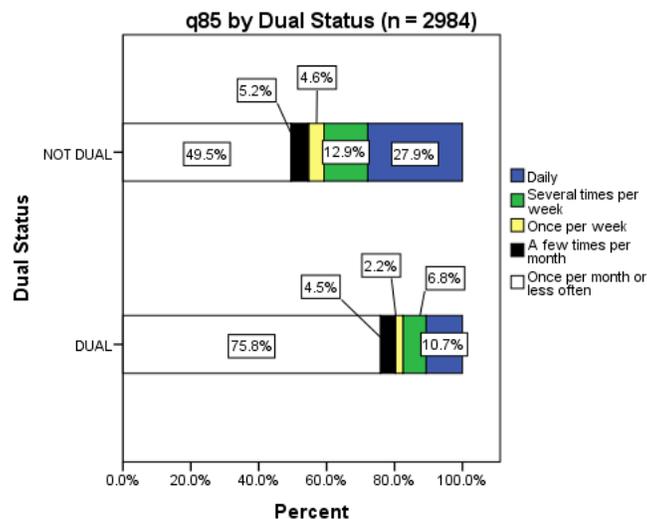
Figure C3.1a How often do you use the internet?



The bivariate analysis of dual eligibility status and the frequency of internet use produced significant variation. Figure C3.2a demonstrates that dual eligibles used the internet significantly less often than those enrollees who were only eligible for Medicaid. For example, more than three-fourths (75.8%) of dual eligible respondents reported that they used the internet once per month or less compared to only 49.5% for the non-dual eligibles. The percentage of non-dual

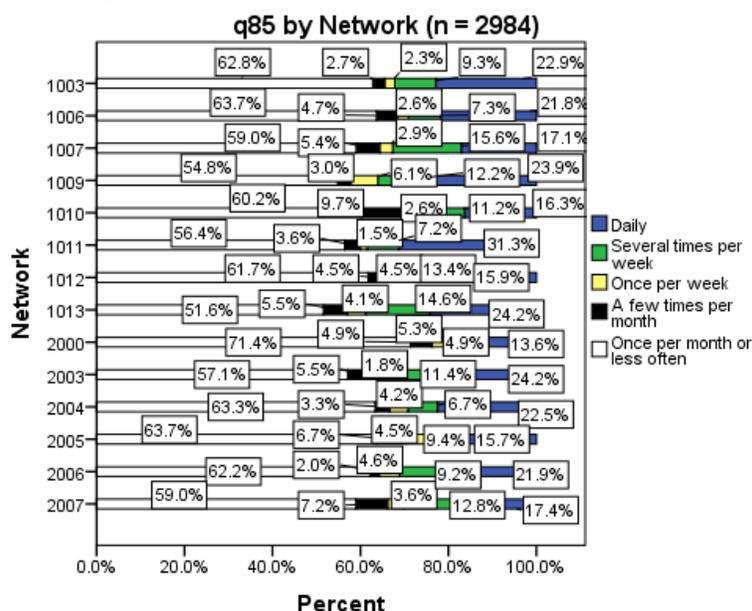
eligibles who reported that they used the internet on a daily basis was nearly three times that reported by the dual eligibles (27.9% vs. 10.7%).

Figure C3.2a How often do you use the internet?



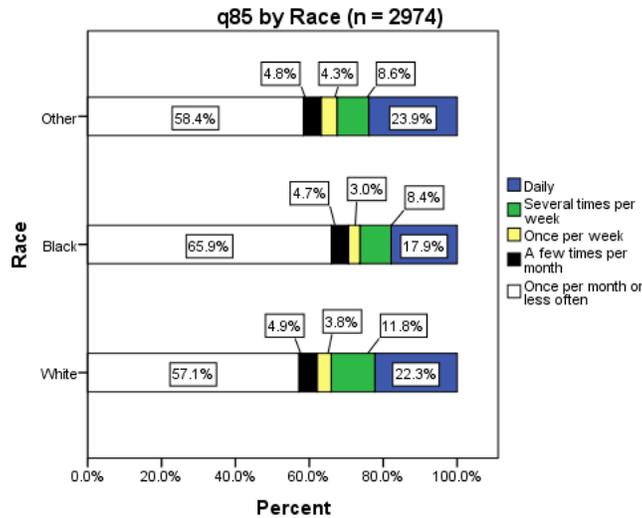
The bivariate relationship between the enrollee's care network and frequency of internet use was statistically significant. The proportion of respondents in the Community Care Plan of Eastern North Carolina network (2000) who stated that they used the internet once per month or less was the largest among the fourteen networks (71.4%). On the other hand, the percentage of enrollees in the Community Care of Wake/Johnston Counties network (1011) reporting that they used the internet on a daily basis was more than that reported for any other network (31.3%) (see Figure C3.3a).

Figure C3.3a How often do you use the internet?



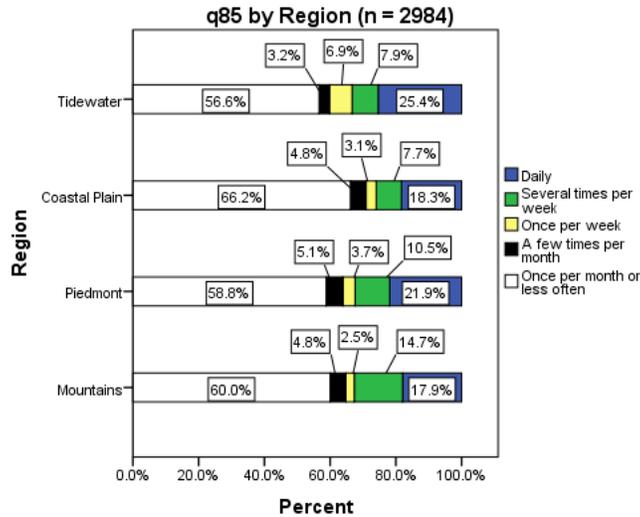
The race of the enrollee significantly impacted the frequency of internet use. Figure C3.4a indicates that white respondents and individuals classified in the “other” race category reported more frequent use of the internet than that reported by blacks. This pattern was repeated among respondents who used the internet on a daily basis, with 22.3% of white respondents and 23.9% of “other” race respondents reporting that they used the internet daily compared to 17.9% of black respondents claiming daily internet use.

Figure C3.4a How often do you use the internet?



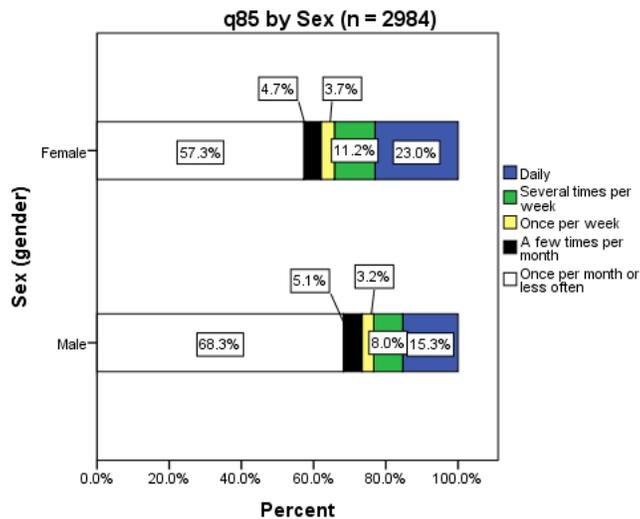
The bivariate relationship between the region of North Carolina where the beneficiary lived and the frequency of internet use generated significant variation. Two-thirds (66.2%) of respondents living in the Coastal Plain used the internet once per month or less. This figure was greater than that observed for any of the other regions. Respondents living in the Mountain region reported the largest share of enrollees using the internet several times per week compared to respondents living in the other regions (see Figure C3.5a).

Figure C3.5a How often do you use the internet?



The respondent's sex significantly impacted the frequency of internet use. Males used the internet less frequently than females. Specifically, 68.3% of males used the internet once per month or less compared to 57.3% for females. Correspondingly, 23.0% of females used the internet on a daily basis compared to just 15.3% for males (see Figure C3.6a).

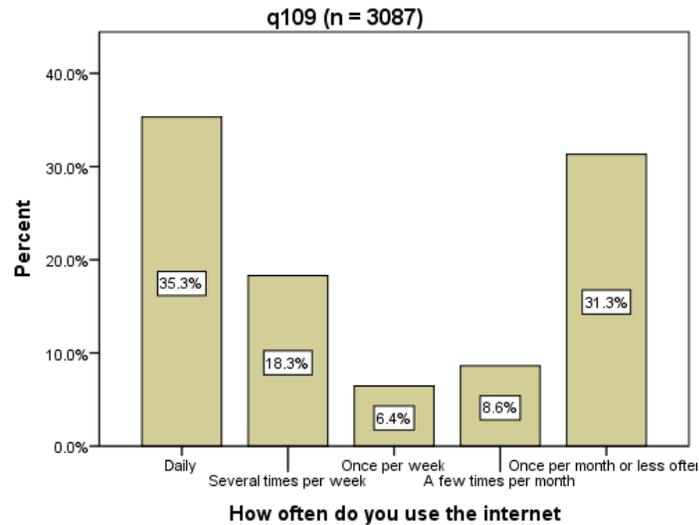
Figure C3.6a How often do you use the internet?



Child (q 109)

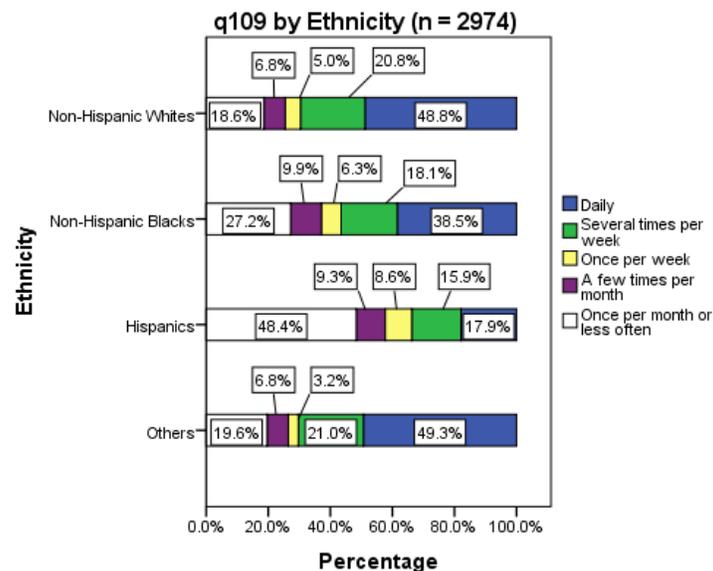
The adult caregivers of children enrolled in the CCNC networks who participated in the child survey (n = 3087) generally reported more frequent internet use when compared to their adult counterparts who participated in the adult survey. Nearly two-thirds of the child survey respondents reported that they used the internet a few times per month or more, with 35.3% of all respondents stating that they used it on a daily basis (see Figure C3.0c).

Figure C3.0c How often do you use the internet?



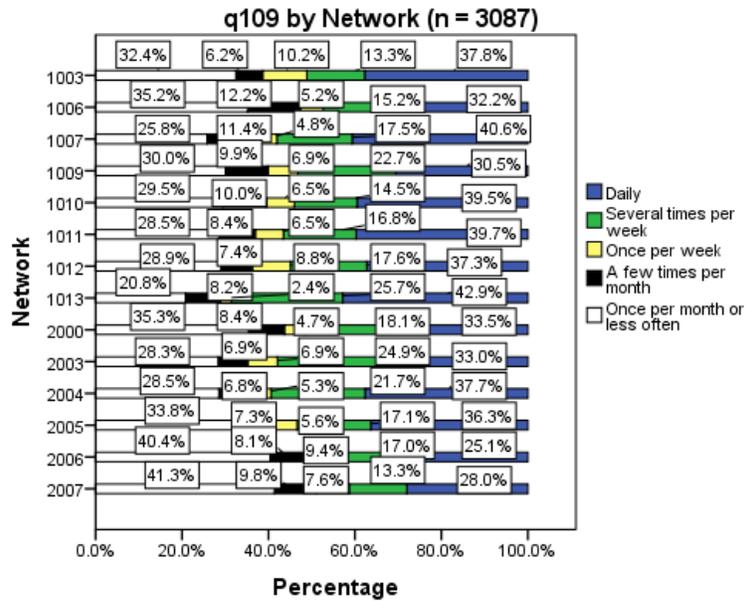
The ethnicity of the child enrollee had a profound impact on the frequency of internet use reported by the adult caregiver. The experiences reported by the adult caregivers of non-Hispanic white, non-Hispanic black, and children classified in the “other” race/ethnic group were fairly comparable. The most noteworthy comparison among these three subpopulations was that fewer caregivers of non-Hispanic black children reported daily use of the internet. The most prominent differences, however, were observed when including the caregivers of Hispanic children. Nearly half (48.4%) of these respondents reported that they used the internet once per month or less – a figure nearly twice that of the other ethnic subgroups. Correspondingly, only 17.9% of respondents in this group reported that they used the internet on a daily basis – a figure half or less that of the other ethnic subgroups (see Figure C3.1c).

Figure C3.1c How often do you use the internet?



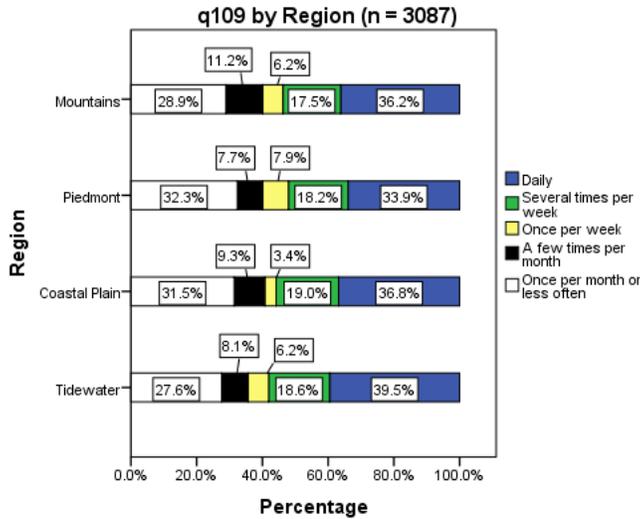
The care network that provided care to the enrolled child was associated with variation in the caregiver’s frequency of internet use. Compared to respondents in each of the other networks, the percentage of respondents reporting that they used the internet more than once per month was largest in the Carolina Collaborative Community Care network (1013) at 79.2%. Respondents in this network also reported the largest percentage of daily internet use (42.9%) (see Figure C3.2c).

Figure C3.2c How often do you use the internet?



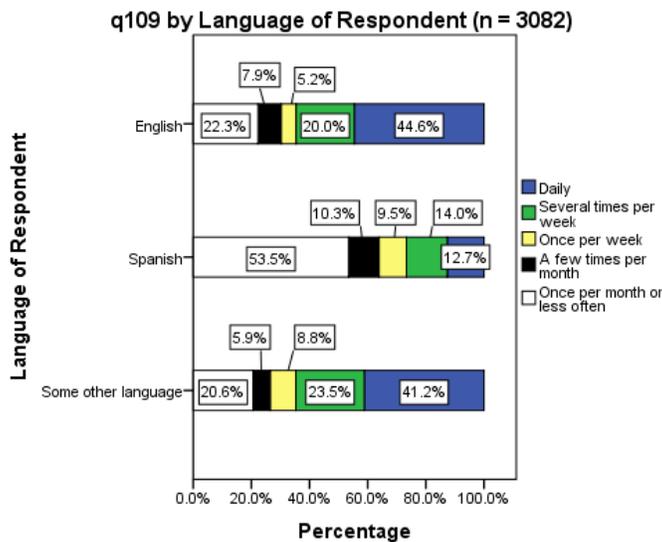
The observed variation in the bivariate relationship between the region of the state where the child lived and the adult caregiver’s frequency of using the internet was small, but statistically significant. Caregivers with children living in the Piedmont region reported the smallest percentage of daily internet use (33.9%) and the largest percentage of “low frequency” (once per month or less) utilization (32.3%) (see Figure C3.3c).

Figure C3.3c How often do you use the internet?



The caregiver’s preferred language had a prominent effect on the frequency of the respondent’s internet use. Figure C3.4c shows that more than 40% of respondents who preferred English or other non-Spanish languages reported that they used the internet daily. The share of respondents reporting that they used the internet once per month or less often was approximately 20% in these groups. By contrast, more than half of the respondents reporting that Spanish was the primary language spoken in the home indicated that they used the internet once per month or less.

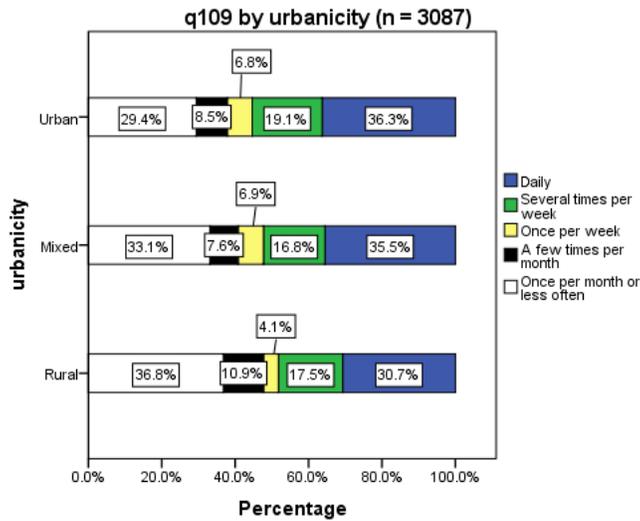
Figure C3.4c How often do you use the internet?



The degree of urbanicity of the county where the enrolled child lived had an impact on the frequency of the respondent caregiver’s internet use. Respondents with children living in rural areas reported the highest percentage of “low frequency” internet use (36.8%). On the other hand, respondents with children living in urban counties reported the smallest percentage of “low frequency” use (29.4%). This difference is largely attributable to the difference observed

between the two groups in terms of daily internet use, where 36.3% of respondents with children living in urban counties reported daily internet use compared to 30.7% of respondents with children living in rural counties (see Figure C3.5c).

Figure C3.5c How often do you use the internet?



4 Interpreting the Results of the Trust and Communication Survey Questions

A total of eight questions were included in the 2012 surveys of enrollees in North Carolina Medicaid's Community Care of North Carolina (CCNC) that evaluated enrollees' trust in their providers and their internet use. Five of these questions assessed the trust dimension and used a Likert scale with responses ranging from "strongly agreed" to "strongly disagreed." The remaining items evaluated respondents' internet use and employed various response sets to obtain this information. Each question was contextualized to the appropriate audience – adult enrollees in the Adult survey and the adult caregivers of child enrollees in the Child survey. With one exception, 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 (adult survey), ethnicity (child survey), care network, dual eligibility status (adult survey), respondents' primary language (child survey), region of residence within North Carolina, and the degree of urbanicity of the county of residence. The notable exception was the internet-related question that asked respondents how they used the internet, which prompted respondents to provide multiple responses in a non-mutually exclusive manner. This feature provided a comprehensive understanding of respondents' use of the internet, but also made it impossible to report statistically significant relationships with the various demographic and context variables.

By far the most important finding of this volume is the lack of trust in Medicaid providers expressed by caregivers of Hispanic children. This finding reflects similarly negative findings in the survey of Hispanic children's access and satisfaction reported in *Policy Report 13* (Brandon, Smith, Carnes, Hampton, and Tripp, 2014). Moreover, this *Report* shows that adult respondents for Hispanic children use the internet far less often than do non-Hispanic white, black and "other" race/ethnicities. Specifically, the child's ethnicity generated a number of striking bivariate relationships with the trust questions. For instance,

- the caregivers of non-Hispanic white, non-Hispanic black, and "other" ethnicity children reported similar proportions of disagreement with the suggestion that their child's primary care provider did not refer the child to a specialist when one was needed (82.9%, 76.0%, and 78.0% of respondents, respectively). By comparison, only 38.6% of the caregivers of Hispanic children "somewhat" or "strongly disagreed" with this statement (q76),
- the caregivers of non-Hispanic white and non-Hispanic black children reported "strong agreement" with the statement that providers gave sufficient importance to their child's medical needs in larger proportions than the caregivers of Hispanic children (84.9% and 78.3%, respectively, vs. 59.9%) (q77),
- only 8.7% of the caregivers of non-Hispanic white children and 9.5% of the caregivers of non-Hispanic black children agreed that unnecessary tests or procedures might be a problem, whereas the proportion was 40.9% among the caregivers of Hispanic children (q78),
- approximately 37% of the caregivers of Hispanic children agreed that their child's providers' skills were inadequate compared to just 6.7% and 9.9%, respectively, of the caregivers of non-Hispanic white and non-Hispanic black children (q79),
- only 2.8% of caregivers of non-Hispanic white children disagreed with the assertion that the child's provider always paid complete attention to what the caregiver was trying to

tell them compared to 7.2% and 7.8%, respectively, reported by the caregivers of non-Hispanic black and Hispanic children (q80).

The observations recorded here point to stark differences in perceptions of trust experienced by the caregivers of Hispanic children and the experiences of their non-Hispanic counterparts. Comparable data from 3 earlier iterations of the child and adult surveys or from the 2012 adult survey are not available, because only children in the 2012 Medicaid population included sufficient numbers of Hispanics to permit statistically valid analysis. As the number of Hispanics living in North Carolina increase and more of them become eligible for Medicaid, future surveys can be expected to include enough Hispanic adults and children to permit analysis.

Trust

Adults: Most of the adult enrollees responding to the adult survey reported favorably to the battery of trust questions. In fact, nearly 75% or more of respondents reported favorable responses to each of the trust questions. For example:

- approximately 90% of respondents agreed that their personal health provider put the respondent's medical needs above all other considerations (q46);
- 84% of respondents disagreed with the statement that their personal health provider might perform unnecessary tests or procedures (q47);
- approximately 80% of respondents disagreed with the statement that their personal health provider's medical skills were not as good as they should be (q48);
- nearly 93% of respondents agreed that their personal health provider always paid full attention to what they were trying to tell him or her (q49);
- and nearly three-in-four respondents (72.6%) disagreed with the statement that their personal health provider may not refer them to a specialist when needed (q45).

In terms of the bivariate relationships, age was a significant predictor of impact in 4 of the 5 trust questions while race and sex were significant predictors in 3 of the trust questions (see Appendix H). Younger respondents disagreed with the premise that their provider's skills were not as good as they should be in larger numbers than their older counterparts, while the proportion of respondents who reported that they "strongly agreed" that their provider put their medical needs above all other considerations generally increased as the age group of the respondent increased. Dual eligible respondents also reported higher levels of "agreement" or "strong agreement" that their primary care provider put the patient's medical needs above all other considerations compared to non-dual eligible individuals. Respondents in the 35-to-44 year old group offered favorable responses to q45 and q47 in larger numbers than that reported by the other age groups. In terms of the enrollee's race, blacks reported in larger numbers than whites that their primary care providers may run unnecessary tests and that their primary care provider's skills were not as good as they should be. From the perspective of the enrollee's sex, differences were also apparent with female respondents generally reporting favorable responses in larger proportions than their male counterparts.

Adult caregivers of child enrollees: Most of the adult caregivers of children enrolled in the CCNCs also reported favorable responses to the trust questions. With one exception, the percentage of respondents reporting favorably exceeded 75% for each question. Specifically,

- 93.1% of caregivers agreed that their child’s health provider put the child’s medical needs first in all considerations (q77),
- 76.6% of caregivers disagreed that their child’s health provider might perform unnecessary tests or procedures (q78),
- 78.7% of caregivers disagreed that their child’s health provider’s skills were inadequate (q79),
- 93.4% of the caregiver respondents agreed that their child’s health provider always paid full attention to what the caregiver was trying to tell the provider (q80),
- 65% of caregivers disagreed with the suggestion that their child’s provider did not refer their child to a specialist when a specialist was needed (q76).

There were a number of interesting bivariate relationships observed between the trust questions in the Child survey and the various demographic and context variables. The child’s age and region of North Carolina in which the child lived were statistically significant predictors of impact in 4 of the 5 trust questions (see Appendix H). The child’s ethnicity, however, was a significant – and often striking – predictor in all five of the trust questions, as emphasized in the discussion in the opening paragraphs of this Chapter.

With regards to the child enrollee’s age, the level of disagreement with the suggestion that the child’s provider did not refer the child to a specialist when one was needed (q76) increased as the child’s age increased. Thus, trust – at least when measured by this single survey item – was more evident among the caregivers of older enrollees than among the caregivers of younger enrollees. This pattern was also observed for q78 (the child’s provider might perform unnecessary tests or procedures) and q79 (the child’s provider’s skills were inadequate). The experience with q77 was similar although the scale was reversed – the level of “strong agreement” that the child’s provider put the child’s medical needs above all other considerations was greatest among the caregivers of older children. Clearly, larger percentages of the caregivers of older children reported more favorable responses to the trust questions than was observed among caregivers of younger children.

Although the number of statistically significant bivariate relationships between the trust questions appearing in the Child survey and the adult respondent’s preferred language was limited to one, it should be noted that this was primarily due to a “cell size anomaly,” whereby the number of observations recorded in the cells of the various cross-tabulations involving the “other” languages (neither English nor Spanish) was especially small. This phenomenon was observed for a relatively large number of cells in a number of these cross-tabulations (> 20% of the cells in a given table), thereby rendering these bivariate relationships as “not significant,” at least in statistical terms. It should be noted, however, that the differences observed in responses to the trust questions between respondents indicating that English was their preferred language and respondents indicating that Spanish was their preferred language generally traced the differences observed between the caregivers of Hispanic and non-Hispanic children described at the beginning of this Chapter.

In terms of the bivariate relationships observed between the trust questions and the region of North Carolina where the child enrollee lived, the adult caregiver respondents with children living in the Piedmont region consistently reported less favorable responses to the trust questions than their counterparts with children living in other regions of the state. For example, respondents with children living in the Piedmont region reported that they “strongly agreed” that the child’s primary care provider may perform unnecessary tests, not make referrals to specialists when needed, and not have an optimum skill set in larger numbers than did non-Piedmont

caregivers. It is worth noting that among the four regions within the state, the highest percentage of adult respondents of Hispanic children lived in the Piedmont regions. Thus, the bivariate observations described for the region variable as it pertains to trust in the child’s provider may be attributable to the enrollee’s ethnicity (see Table 4-1). Therefore, the negative attitudes of the Hispanic caregivers constituted a larger proportion of respondents in the Piedmont than in other regions.

Table 4-1: Distribution of Child Enrollee Ethnicity among Survey Participants by Region (percent)

<i>Region</i>	Non-Hispanic Whites	Non-Hispanic Blacks	Hispanics	Others
Mountains	26.3	2.7	12.6	14.4
Piedmont	49.0	54.7	63.8	41.4
Coastal Plain	16.5	34.0	19.1	38.7
Tidewater	8.2	8.6	4.5	5.4

Communication

Three questions in each of the 2012 surveys of North Carolina Medicaid CCNC enrollees evaluated respondents’ internet use. Each question was contextualized to the appropriate audience – adult enrollees in the Adult survey and the adult caregivers of child enrollees in the Child survey. The primary aim of focusing on internet use and concomitant behaviors was to re-evaluate any changes in respondent behavior that may have occurred since a similar population was surveyed in 2006-2007. Specifically, an examination of these behaviors in the context of new technological and social developments – for example, the emergence of social media as a major communication vehicle – in the five-year period between surveys could reveal new methods and patterns of communication that plan administrators should be mindful of. In turn, this information may prove valuable to these stakeholders in terms of formulating new strategies designed to enhance communication with Medicaid beneficiaries.

With one exception, each of the survey questions was analyzed in terms of its bivariate statistical significance with our accustomed battery of demographic and context variables. These variables included the enrollee’s age, sex, race (adult survey), ethnicity (child survey), care network, dual eligibility status (adult survey), respondents’ primary language (child survey), region of residence within North Carolina, and the degree of urbanicity of the county of residence. The notable exception was the internet-related question that asked respondents how they used the internet, which prompted respondents to provide multiple responses in a non-mutually exclusive manner. This feature provided a comprehensive understanding of respondents’ use of the internet, but also precluded the ability to report meaningful statistically significant relationships using the various demographic and context variables.

Adults: Nearly two-thirds (65%) of respondents in the Adult survey reported that they did not use the internet on a regular basis. Of those who did use the internet on a regular basis, the majority did so by computer only. Using a combination of computers and smart phones to access the internet on a regular basis was the next most cited method by these respondents, followed by exclusive use of smart phones.

Nearly 82% of the adult enrollee respondents who used the internet on a regular basis reported that they used it to send and receive e-mail. This form of communication represented the most common reason for regular use of the internet. The next largest response categories were: to find news and current events (73.2%), to communicate via social media (67.7%), and to

send and receive text messages (55.2%). Less than 50% of respondents reported that they regularly used the internet to play games, send instant messages, or engage in other internet-related activities.

When asked how often they used the internet, the majority (nearly 61%) of all respondents (regular users and those who did not use the internet on a regular basis) answered once a month or less. Almost 21% of all respondents (regular users and those who did not use the internet on a regular basis) reported that they used the internet on a daily basis.

All of the demographic variables and most of the context variables were associated with statistically significant bivariate relationships when paired with the internet communication questions (see Appendix H). Differences in behavior stratified by age group were particularly noteworthy, with 60% or more of the respondents in each of the age groups bounded by 19-to-44 years reporting that they used computers or smart phones to regularly access the internet. By contrast, more than three-fourths of adults 55 or older reported that they did not use the internet regularly. Not surprisingly, younger respondents reported more frequent use of the internet in larger numbers than older respondents.

The race of the adult respondent also had an impact on the internet communication survey questions. Slightly more than two-thirds (68.8%) of black respondents reported that they did not use the internet on a regular basis – the largest percentage among the racial subpopulations. White adults reported using computers exclusively to access the internet in larger numbers than their black and “other” race counterparts, but black adult respondents reported exclusive use of smart phones in greater numbers than either white or “other” race enrollees. White respondents also reported in slightly greater numbers that they used the internet on a daily basis compared to black respondents (22.3% vs. 17.9%).

The sex of the respondent was a significant predictor of internet use. The percentage of men who regularly used the internet was significantly less than that reported by women (27.2% vs. 38.5%). Additionally, the exclusive use of computers to regularly access the internet was greater among women (21.1%) than among men (15.4%) as was the combination of computers and smart phones (12.7% vs. 7.6%)

Adult caregivers of child enrollees: Approximately 41% of the adult caregiver respondents in the Child survey reported that they did not use the internet on a regular basis. This figure stands in stark contrast to the 65% of respondents to the Adult survey who reported that they did not use the internet on a regular basis. However, in a manner similar to the Adult survey, the majority of respondents who used the internet on a regular basis did so exclusively by computer. Using a combination of computers and smart phones to access the internet on a regular basis was the next most cited method by the Child survey respondents, followed by exclusive use of smart phones.

Nearly 83% of the adult caregiver respondents who used the internet on a regular basis reported that they used it to send and receive e-mail. This finding represented the most common reason for regular use of the internet. The next largest response categories were to find news and current events (77.6%) and to communicate via social media (67.6%). The order and magnitude of these observations mirrored that reported by the adult respondents to the Adult survey.

When asked how often they used the internet, nearly one-third (31.3%) of all caregiver respondents (regular users and those who did not use the internet on a regular basis) answered once a month or less. Consequently, two-thirds of all respondents (regular users and those who did not use the internet on a regular basis) reported that they used the internet a few times per

month or more with more than one-third (35.3%) of all respondents stating that they used it on a daily basis.

The age of the enrolled child had a significant impact on the adult caregiver's internet behaviors. Generally speaking, the caregivers of younger children used the internet more frequently than those with older children. The largest percentage of respondents exclusively using smart phones to regularly access the internet occurred among caregivers with children in the 0-to-less-than-2 years of age group, while the smallest percentage using smart phones exclusively occurred among caregivers with children in the oldest age group (13-to-19 years). Respondents with children in the 2-to-less-than-6 year old group reported the smallest percentage of using computers exclusively to regularly access the internet.

The ethnicity of the child enrollee played a significant role in the adult caregiver's internet use behaviors. Nearly 60% of the caregivers of Hispanic children reported they did not use the internet – the largest percentage among the ethnic subgroups. This group, however, represented the largest share of respondents who exclusively used smart phones to regularly use the internet. Compared to the other ethnic subgroups, the caregivers of non-Hispanic white children reported the largest percentage of exclusive computer use in order to regularly use the internet. In terms of the frequency of using the internet, nearly half (48.4%) of the adult caregivers of Hispanic child enrollees reported that they used the internet once per month or less – a figure nearly twice that of the other ethnic subgroups. Correspondingly, only 17.9% of respondents in this group reported that they used the internet on a daily basis – a figure half or less that of the other ethnic subgroups.

The bivariate relationships linking the respondent's preferred language to the internet communication questions mimicked the observations reported for the child's ethnicity. Specifically, 63% of respondents who preferred Spanish stated that they did not regularly use the internet. By contrast, only 32% of respondents who preferred English and 29.4% of respondents who preferred some "other" language reported that they did not regularly use the internet. Additionally, the share of respondents reporting that they used the internet once per month or less often was approximately 20% among those respondents who preferred English or a non-Spanish language. By contrast, more than half of the respondents reporting that Spanish was the primary language spoken in the home indicated that they used the internet once per month or less.

The degree of urbanicity of the county where the child enrollee lived had an effect on the adult caregiver's internet behavior. Respondents with children living in rural counties reported that they did not regularly use the internet in larger numbers than their urban and "mixed" counterparts. Similarly, respondents with children living in rural areas reported the highest percentage of "low frequency" (once per month or less) internet use and the lowest percentage of daily use.

Finally, caregivers with children living in the Piedmont region reported the smallest percentage of daily internet use and the largest percentage of "low frequency" (once per month or less) utilization. However, this relationship may be confounded by the relationship between ethnicity and region depicted in Table 4-1, which highlights the fact that the Piedmont region had the highest percentage of adult respondents with Hispanic children. Thus, the bivariate relationship between region and frequency of internet use may actually be attributable to the enrollee's ethnicity.

Comparing internet use behaviors over time

One of the advantages of including communication questions in the survey of 2012 CCNC enrollees was to identify and explore any changes in enrollees’ use of the internet that may have occurred since 2007 – the year that the previous survey was administered. However, direct comparisons between the two surveys are confounded by differences in the way that the questions were structured and phrased. Despite the uncertainties associated with the frequency of internet use in 2012 compared to 2006-2007, one observation is very clear – namely, respondents to the Child Survey in both iterations reported daily internet use in numbers larger than the respondents to the Adult Survey (Table 4-2). Correspondingly, respondents to the Adult Survey reported internet use of one time per month or less in greater numbers than their counterparts in the Child Survey. This finding was consistent in both the 2012 and the 2006-2007 surveys and is probably a function of the younger age distribution associated with adult respondents to the Child Survey compared to their Adult Survey counterparts. Perhaps most revealing is the much greater divergence between child respondents and adult Medicaid recipients in 2012 compared with the much smaller differences in 2006-7.

Table 4-2. Percentage Distribution of the Frequency of Respondents’ Internet Use

	<i>Adult</i>		<i>Child</i>	
	<u>2006-2007</u>	<u>2012</u>	<u>2007</u>	<u>2012</u>
Daily	42.6%	20.7%	44.6%	35.3%
Several times per week	10.4%	10.3%	12.0%	18.3%
Once per week	22.9%	3.6%	21.7%	6.4%
Few times per month	12.9%	4.9%	12.1%	8.6%
Once per month or less	11.3%	60.6%	9.6%	31.3%

Closing Remarks

In spite of the high overall marks reported for trust in the enrollee’s provider by respondents in both the Adult and Child surveys, there appear to be several areas where opportunities exist for improved service delivery that should resonate with plan administrators. The first involves enhanced outreach initiatives and trust-building strategies targeted to Hispanic child Medicaid enrollees and their adult caregivers. The results of the Child survey consistently indicate that in addition to reporting lower levels of trust, this subpopulation also reported significantly different outcomes in terms of less access and lower levels of satisfaction than their non-Hispanic counterparts (Brandon, Smith, Carnes, Hampton, and Tripp, 2014). Because of the smaller numbers of Hispanics among adult Medicaid recipients, similar analysis was impossible. However, it is reasonable to expect that similar differences between Hispanic and non-Hispanic enrollees exists in the adult Medicaid population.

A second concern is the sizable percentage of respondents in both the Adult (25%) and Child (30%) Surveys who reported that they thought that their personal health provider (or the child’s personal health provider) did not make specialist referrals when respondents thought they were needed. Additionally, 20% of respondents to the Child Survey and 15% of respondents to the Adult Survey stated that their health provider (or child’s health provider) might perform unnecessary tests. The possible implications of this finding are two-fold. On one hand, implementing measures that improve provider responsiveness and communication may be required. These measures might include heightening provider awareness of these findings and the possible redesign of practice protocols. On the other hand, the numbers may reflect inflated

expectations on the part of beneficiaries that need to be tempered with special education or communication initiatives targeted to enrollees.

In terms of communication and internet use, plan administrators should be mindful that younger respondents use the internet more often than older respondents for a wide variety of uses and that much of this usage occurs via smart phones. As these younger age cohorts age over time, these and related behaviors will likely characterize future internet use patterns. This information should encourage plan administrators to proactively anticipate greater cyber capability in enrolled populations in the future and formulate strategies to effectively communicate with subsequent generations of enrollees.

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 as we discovered in conducting this survey. Accurate phone numbers are particularly important for adult Medicaid recipients and older child caregivers who identified the telephone as the preferred method of communicating with plan administrators in the event of an emergency in the 2006-2007 surveys (Brandon, Schoeps, Smith, 2008).

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Appendix A-1 Demographic, Region, and Urbanicity Characteristics, Adult and Child

<u>Gender/Sex</u>	Adult			Child		
	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
<u>Age Group</u>	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
<u>Age Group</u>				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
<u>Race</u>	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
<u>Region</u>	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
<u>Urbanicity</u>	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		
	Sampling Frame	Sample	Respondents	Sampling Frame	Sample	Respondents
<u>Gender</u>						
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
<u>Age Group</u>						
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
<u>Race</u>						
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
<u>Region</u>						
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
<u>Urbanicity</u>						
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:
Adult and Child Surveys: Basic
Demographic, Trust, and Communication
Questions**

2012 North Carolina Medicaid Survey

Child Survey of Adult Respondents, Introduction and Consent

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 the home of *target respondent*? (record new phone number and then call.

IF YES, say, “I’d like to talk with the *target respondent*’s primary caregiver who could answer questions about the child’s healthcare. Is anyone 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. Neither you nor your child’s Medicaid benefits will 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.”

About Your Child and You (Child Survey Demographic Questions)

96. What is **your child's** age?

¹ Less than 1 year old

_____ YEARS OLD (*record value rounded to nearest year*)

97. Is your child male or female?

¹ Male

² Female

98. Is your child of Hispanic or Latino origin or descent?

¹ Yes, Hispanic or Latino

² No, not Hispanic or Latino

99. What is your child's 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

100. What is **your** age?

⁰ Under 18

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

101. Are you male or female?

¹ Male

² Female

102. 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

- High school graduate or GED
- Some college or 2-year degree
- 4-year college graduate
- More than 4-year college degree

103. What language do you mainly speak at home?

- English
- Spanish
- Some other language

104. What language does your child mainly speak at home?

- English
- Spanish
- Some other language

105. What language do you mainly speak when talking with your child's doctor or health provider?

- English
- Spanish
- Some other language

106. How are you related to the child?

- Mother or father
- Grandparent
- Aunt or uncle
- Older sibling
- Other relative
- Legal guardian

Trust in Your Child's Provider (Child Survey)

Please think about the health provider that your child usually sees when he or she is sick or when you need advice about your child's health.

76. I think my child's health provider may not refer him/her to a specialist when needed.

- Strongly Agree
- Somewhat Agree
- Neither Agree/Disagree
- Somewhat Disagree
- Strongly Disagree

77. I trust my child's health provider to put my child's medical needs above all other considerations when treating my child's medical problems.

- Strongly Agree
- Somewhat Agree
- Neither Agree/Disagree
- Somewhat Disagree
- Strongly Disagree

78. I sometimes think that my child's health provider might perform unnecessary tests or procedures.

- Strongly Agree
- Somewhat Agree
- Neither Agree/Disagree
- Somewhat Disagree
- Strongly Disagree

79. My child's health provider's medical skills are not as good as they should be.

- Strongly Agree
- Somewhat Agree
- Neither Agree/Disagree
- Somewhat Disagree
- Strongly Disagree

80. My child's health provider always pays full attention to what I am trying to tell him or her.

- Strongly Agree
- Somewhat Agree
- Neither Agree/Disagree
- Somewhat Disagree
- Strongly Disagree

Communication and Computer Use (Child Survey)

107. Do you use the internet on a regular basis by using a computer or "smart" cell phone?

- Yes, use computer
- Yes, use "smart" cell phone
- Yes, use both computer and "smart" cell phone
- No, do not use the internet on a regular basis

108. 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

109. 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

Adult Survey, Introduction and Consent

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.”

About You (Adult Survey Demographic Questions)

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?

- English
- Spanish
- Some other language

Trust in Your Health Provider (Adult Survey)

Please think about the health provider you usually see when you are sick or need advice about your health.

45. I think my personal health provider may not refer me to a specialist when needed.

- Strongly Agree
- Somewhat Agree
- Neither Agree/Disagree
- Somewhat Disagree
- Strongly Disagree

46. I trust my personal health provider to put my medical needs above all other considerations when treating my medical problems.

- Strongly Agree
- Somewhat Agree
- Neither Agree/Disagree
- Somewhat Disagree
- Strongly Disagree

47. I sometimes think that my personal health provider might perform unnecessary tests or procedures.

- Strongly Agree
- Somewhat Agree
- Neither Agree/Disagree
- Somewhat Disagree
- Strongly Disagree

48. My personal health provider's medical skills are not as good as they should be.

- Strongly Agree
- Somewhat Agree
- Neither Agree/Disagree
- 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

Communication and Computer Use (Adult Survey)

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

Appendix C-1 CCNC Networks by Region (Child Survey Sampling Frame)

<i>Network</i>	Sampling Frame	Mountain	Piedmont	Coastal Plain	Tidewater
Community Health Partners (1003)	12,687	0.0%	99.9%	0.0%	0.0%
Access Care Network Sites and Counties (1006)	94,934	22.7%	36.2%	33.8%	7.3%
Community Care of Western North Carolina (1007)	22,111	99.7%	0.3%	0.0%	0.0%
Community Care Partners of Greater Mecklenburg (1009)	47,343	0.3%	99.5%	0.1%	0.0%
Carolina Community Health Partnership (1010)	10,884	38.2%	61.7%	0.0%	0.0%
Community Care of Wake/Johnston Counties (1011)	37,429	0.2%	74.5%	25.3%	0.1%
Partnership for Community Care (1012)	30,045	0.1%	99.7%	0.2%	0.0%
Carolina Collaborative Community Care (1013)	18,061	0.1%	1.2%	98.7%	0.1%
Community Care Plan of Eastern Carolina (2000)	49,221	0.1%	1.7%	70.5%	27.6%
Community Care of Southern Piedmont (2003)	21,221	0.4%	99.4%	0.2%	0.1%
Community Care of the Lower Cape Fear (2004)	22,253	0.2%	1.8%	31.7%	66.3%
Community Care of the Sandhills (2005)	27,099	0.1%	50.2%	49.4%	0.3%
Northwest Community Care (2006)	31,497	28.5%	70.9%	0.3%	0.2%
Northern Piedmont Community Care (2007)	23,639	0.1%	98.6%	1.1%	0.2%
N =	448,424				

Appendix C-2 CCNC Networks by Region (Child Survey Sample)

<i>Network</i>	Sample	Mountain	Piedmont	Coastal Plain	Tidewater
Community Health Partners (1003)	2,000	0.1%	99.9%	0.0%	0.0%
Access Care Network Sites and Counties (1006)	2,000	21.5%	37.1%	33.4%	8.1%
Community Care of Western North Carolina (1007)	2,000	99.5%	0.5%	0.0%	0.1%
Community Care Partners of Greater Mecklenburg (1009)	2,000	0.4%	99.3%	0.3%	0.1%
Carolina Community Health Partnership (1010)	2,000	38.8%	61.2%	0.1%	0.1%
Community Care of Wake/Johnston Counties (1011)	2,000	0.2%	72.1%	27.8%	0.1%
Partnership for Community Care (1012)	2,000	0.1%	99.8%	0.1%	0.1%
Carolina Collaborative Community Care (1013)	2,000	0.2%	1.3%	98.4%	0.2%
Community Care Plan of Eastern Carolina (2000)	2,000	0.1%	1.8%	72.1%	26.1%
Community Care of Southern Piedmont (2003)	2,000	0.4%	99.5%	0.2%	0.0%
Community Care of the Lower Cape Fear (2004)	2,000	0.3%	2.3%	31.3%	66.1%
Community Care of the Sandhills (2005)	2,000	0.3%	52.4%	47.2%	0.3%
Northwest Community Care (2006)	2,000	29.0%	70.5%	0.5%	0.1%
Northern Piedmont Community Care (2007)	2,000	0.1%	98.6%	1.4%	0.1%
n =	28,000				

Appendix C-3 CCNC Networks by Region (Child Survey Respondents)

<i>Network</i>	Survey	Mountain	Piedmont	Coastal Plain	Tidewater
Community Health Partners (1003)	232	0.0%	100.0%	0.0%	0.0%
Access Care Network Sites and Counties (1006)	239	18.0%	35.1%	37.2%	9.6%
Community Care of Western North Carolina (1007)	235	99.6%	0.4%	0.0%	0.0%
Community Care Partners of Greater Mecklenburg (1009)	223	0.9%	98.7%	0.4%	0.0%
Carolina Community Health Partnership (1010)	207	39.1%	60.9%	0.0%	0.0%
Community Care of Wake/Johnston Counties (1011)	224	0.0%	70.1%	29.9%	0.0%
Partnership for Community Care (1012)	212	0.0%	100.0%	0.0%	0.0%
Carolina Collaborative Community Care (1013)	249	0.0%	0.8%	99.2%	0.0%
Community Care Plan of Eastern Carolina (2000)	221	0.0%	1.8%	68.8%	29.4%
Community Care of Southern Piedmont (2003)	237	0.4%	99.6%	0.0%	0.0%
Community Care of the Lower Cape Fear (2004)	214	0.5%	2.3%	36.9%	60.3%
Community Care of the Sandhills (2005)	243	0.0%	52.7%	47.3%	0.0%
Northwest Community Care (2006)	229	39.7%	59.4%	0.9%	0.0%
Northern Piedmont Community Care (2007)	234	0.0%	99.6%	0.4%	0.0%
n =	3,199				

Appendix C-4 CCNC Networks by Region (Adult Survey Sampling Frame)

<i>Network</i>	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 C-5 CCNC Networks by Region (Adult Survey Sample)

<i>Network</i>	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 C-6 CCNC Networks by Region (Adult Survey Respondents)

<i>Network</i>	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 D-1 CCNC Networks by
Degree of Urbanicity (Child Sampling
Frame)**

<i>Network</i>	<i>Sampling Frame</i>	Urban	Mixed	Rural
Community Health Partners (1003)	12,687	78.2%	21.8%	0.0%
Access Care Network Sites and Counties (1006)	94,934	48.6%	35.4%	16.0%
Community Care of Western North Carolina (1007)	22,111	73.2%	0.5%	26.4%
Community Care Partners of Greater Mecklenburg (1009)	47,343	98.8%	1.0%	0.2%
Carolina Community Health Partnership (1010)	10,884	7.6%	90.0%	2.4%
Community Care of Wake/Johnston Counties (1011)	37,429	97.8%	1.6%	0.6%
Partnership for Community Care (1012)	30,045	97.3%	2.4%	0.4%
Carolina Collaborative Community Care (1013)	18,061	92.0%	5.8%	2.1%
Community Care Plan of Eastern Carolina (2000)	49,221	40.7%	22.9%	36.4%
Community Care of Southern Piedmont (2003)	21,221	44.2%	37.7%	18.2%
Community Care of the Lower Cape Fear (2004)	22,253	68.7%	1.4%	29.9%
Community Care of the Sandhills (2005)	27,099	16.5%	64.7%	18.8%
Northwest Community Care (2006)	31,497	67.8%	18.6%	13.6%
Northern Piedmont Community Care (2007)	23,639	69.0%	17.0%	14.0%
N =	448,424			

**Appendix D-2 CCNC Networks by
Degree of Urbanicity (Child Sample)**

<i>Network</i>	Sample	Urban	Mixed	Rural
Community Health Partners (1003)	2,000	79.4%	20.7%	0.0%
Access Care Network Sites and Counties (1006)	2,000	49.1%	34.9%	16.0%
Community Care of Western North Carolina (1007)	2,000	73.2%	0.5%	26.3%
Community Care Partners of Greater Mecklenburg (1009)	2,000	98.4%	1.4%	0.2%
Carolina Community Health Partnership (1010)	2,000	7.4%	90.5%	2.2%
Community Care of Wake/Johnston Counties (1011)	2,000	97.8%	1.6%	0.6%
Partnership for Community Care (1012)	2,000	96.9%	2.8%	0.4%
Carolina Collaborative Community Care (1013)	2,000	93.0%	5.3%	1.8%
Community Care Plan of Eastern Carolina (2000)	2,000	41.7%	23.6%	34.8%
Community Care of Southern Piedmont (2003)	2,000	45.5%	36.3%	18.2%
Community Care of the Lower Cape Fear (2004)	2,000	68.7%	1.6%	29.8%
Community Care of the Sandhills (2005)	2,000	15.8%	64.6%	19.7%
Northwest Community Care (2006)	2,000	67.4%	19.5%	13.1%
Northern Piedmont Community Care (2007)	2,000	67.9%	16.5%	15.7%
n =	28,000			

**Appendix D-3 CCNC Networks by
Degree of Urbanicity (Child Survey
Respondents)**

<i>Network</i>	Survey	Urban	Mixed	Rural
Community Health Partners (1003)	232	78.0%	22.0%	0.0%
Access Care Network Sites and Counties (1006)	239	37.2%	41.4%	21.3%
Community Care of Western North Carolina (1007)	235	72.8%	0.4%	26.8%
Community Care Partners of Greater Mecklenburg (1009)	223	99.1%	0.9%	0.0%
Carolina Community Health Partnership (1010)	207	6.3%	91.8%	1.9%
Community Care of Wake/Johnston Counties (1011)	224	97.8%	2.2%	0.0%
Partnership for Community Care (1012)	212	97.6%	1.4%	0.0%
Carolina Collaborative Community Care (1013)	249	94.4%	3.2%	2.4%
Community Care Plan of Eastern Carolina (2000)	221	36.7%	22.6%	40.7%
Community Care of Southern Piedmont (2003)	237	45.6%	37.1%	17.3%
Community Care of the Lower Cape Fear (2004)	214	62.1%	2.3%	35.5%
Community Care of the Sandhills (2005)	243	17.3%	60.5%	22.2%
Northwest Community Care (2006)	229	56.8%	28.4%	14.8%
Northern Piedmont Community Care (2007)	234	71.8%	15.0%	13.2%
n =	3,199			

**Appendix D-4 CCNC Networks by
Degree of Urbanicity (Adult Sampling
Frame)**

<i>Network</i>	<i>Sampling Frame</i>	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 D-5 CCNC Networks by
Degree of Urbanicity (Adult Sample)**

<i>Network</i>	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 D-6 CCNC Networks by
Degree of Urbanicity (Adult Survey
Respondents)**

<i>Network</i>	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 E: Adult and Child Trust and Communication Question 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 = adult’s dual eligibility status, E = child’s ethnicity, L = adult caregiver’s preferred language, N = care network, Ra = adult’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.

Child Trust Question Frequency Distributions

Question 76: I think my child’s health provider may not refer him/her to a specialist when needed. (n = 3063) A, E, N, R, U

Strongly Agree	15.8%
Somewhat Agree	14.2%
Neither Agree/Disagree	5.0%
Somewhat Disagree	12.8%
Strongly Disagree	52.2%

Question 77: I trust my child’s health provider to put my child’s medical needs above all other considerations when treating my child’s medical problems. (n = 3148) A, E, L, S

Strongly Agree	73.8%
Somewhat Agree	19.3%
Neither Agree/Disagree	1.7%
Somewhat Disagree	3.1%
Strongly Disagree	2.2%

Question 78: I sometimes think that my child’s health provider might perform unnecessary tests or procedures. (n = 3117) A, E, N, R

Strongly Agree	9.8%
Somewhat Agree	10.4%
Neither Agree/Disagree	3.2%
Somewhat Disagree	14.6%
Strongly Disagree	62.0%

Question 79: My child's health provider's medical skills are not as good as they should be. (n = 3085) *A, E, N, R, S, U*

Strongly Agree	8.8%
Somewhat Agree	9.4%
Neither Agree/Disagree	3.1%
Somewhat Disagree	12.4%
Strongly Disagree	66.3%

Question 80: My child's health provider always pays full attention to what I am trying to tell him or her. (n = 3148) *E, R*

Strongly Agree	81.6%
Somewhat Agree	11.8%
Neither Agree/Disagree	0.6%
Somewhat Disagree	3.0%
Strongly Disagree	2.9%

Child Communication Question Frequency Distributions

Question 107: Do you use the internet on a regular basis by using a computer or "smart" cell phone? (n = 3139) *A, E, L N, Re, U*

Yes, use computer	26.9%
Yes, use 'smart' cell phone	7.2%
Yes, use both computer and "smart" cell phone	24.8%
No, do not use the internet on a regular basis	41.1%

Question 108: Why do you use the internet on a regular basis? Choose all answers that describe your internet use. (n = 1840)

To play games	42.0%
To send and receive e-mail	82.9%
To send and receive text messages on a cell phone	60.4%
To send and receive instant messages	45.2%
To find news and current events	77.6%
To communicate on Facebook, Twitter, Linked-In, MySpace or other social media	67.6%
Other	29.0%

Question 109: In general, how often do you use the internet? (n = 3087) *E, L, N, Re, U*

Daily	35.3%
Several Times/Week	18.3%
Once/Week	6.4%
A few times/month	8.6%
Once/month or less often	31.3%

Adult Trust Question Frequency Distributions

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%
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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%

Adult Communication Question Frequency Distributions

Question 83: Do you use the internet on a regular basis by using a computer or “smart” cell phone? (n = 3176) *A, D, N, Ra, Re, S, U*

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) *A, D, N, Ra, Re, S*

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 F. 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	
	n	%	n	%	n	%	n	%
<i>Gender (Sex)</i>								
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	
<i>Race</i>								
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	
<i>Ethnicity</i>								
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	
<i>Age</i>								
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					
<i>Age</i>								
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	
<i>Status</i>								
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	
<i>Region</i>								
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 G. 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 H: Frequency Distribution of Statistically Significant Bivariate Relationships by Survey Question Dimension/Domain

	<u>Age</u>	<u>Dual Status</u>	<u>Network</u>	<u>Race</u>	<u>Region</u>	<u>Sex</u>	<u>Urbanicity</u>
Trust (adult)	4	1	1	2	1	3	2
total = 5	80%	20%	20%	40%	20%	60%	40%
Communication (adult)	2	2	2	2	2	2	1
total = 2	100%	100%	100%	100%	100%	100%	50%
	<u>Age</u>	<u>Ethnicity</u>	<u>Language</u>	<u>Network</u>	<u>Region</u>	<u>Sex</u>	<u>Urbanicity</u>
Trust (child)	4	5	1	3	4	2	2
total = 5	80%	100%	20%	60%	80%	40%	40%
Communication (child)	1	2	2	2	2	0	2
Total = 2	50%	100%	100%	100%	100%	0%	100%