

# ACCESS MONITORING REVIEW PLAN

## OCTOBER 2016

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North Carolina

Department of Health and Human Services

Division of Medical Assistance

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## Overview

- The Division of Medical Assistance, North Carolina's Medicaid agency, provides health care services for eligible low-income individuals, including children, pregnant women, people with disabilities, elderly, parents and other adults. The North Carolina Department of Health and Human Services (NCDHHS) is the single state agency that administers the Medicaid program within the state. NCDHHS, Division of Medical Assistance (DMA) provides for the day-to-day operation of the Medicaid program. During 2015, North Carolina's Medicaid program provided services to approximately 1.9 million enrolled beneficiaries with total expenditures of approximately 14.0 billion dollars.
- In September 2015, DMA created a Utilization and Quality Review (UQR) Committee. The multidisciplinary UQR committee works collaboratively to monitor the utilization of services for the optimal health benefit of the state's Medicaid beneficiaries, at reasonable costs to both beneficiaries and providers. The Committee has served an integral role in creating the North Carolina Access Monitoring and Review Plan, and remains instrumental in further updates and analysis of data for services monitored in the plan now, and into the future. The Committee is comprised of DMA staff members in the following areas:
  - Chief Medical Officer;
  - Business Information;
  - Pharmacy;
  - Finance;
  - Clinical Policy;
  - Program Integrity;
  - Program Manager; and
  - Other staff and members of the UQR, as needed.
- The UQR is co-chaired by the Program Manager and Medical Director. The UQR core group meets monthly to review and analyze utilization and quality data regarding the delivery of the state's Medicaid services.
- North Carolina is the 10<sup>th</sup> largest state in the United States, with a total population of 10 million. With 122 acute care hospitals, approximately 1,800 primary care practices, over 6,000 practitioners, and a large network of rural health clinics and federally qualified health centers located throughout the state, there are numerous options available for Medicaid beneficiaries to access health care services.

- North Carolina measures and monitors health care indicators to ensure that its Medicaid beneficiaries have access to care that is comparable to that of the general population of the state.
- In accordance with 42 Code of Federal Regulations (CFR) 447.203(b), North Carolina developed an access review monitoring plan for the following service categories provided under a fee-for-service (FFS) arrangement:
  - Primary care (includes medical and dental)
  - Physician specialists
  - Behavioral health
  - Pre-natal and post-natal obstetric services, including labor and delivery
  - Home health
- The plan describes data that will be used to measure access to care for beneficiaries under the FFS arrangement. The plan considers the following: the availability of Medicaid providers; utilization of Medicaid services; and the extent to which the health care needs of Medicaid beneficiaries are fully met.
- The plan was developed during the months of January 2016 – July 2016 and posted on the state Medicaid agency’s website from August 25, 2016 – September 26, 2016, to allow and support public review and comment.
- Analysis of the data and information contained in this plan show that North Carolina Medicaid beneficiaries have access to health care. Except where otherwise noted, NCTracks, North Carolina’s multi-payer Medicaid Management Information System (MMIS), was the source for most data used for analysis in the plan.

### **Change in Medicaid Rate Methodology**

The Centers for Medicare and Medicaid Services (CMS) requires a State Plan Amendment (SPA) for changes in the rate determination methodology. When the SPA language is drafted, DMA seeks input and written comments from the relevant stakeholder groups or associations. Sixty days prior to submission of the SPA to CMS, the Tribal notice is sent, allowing 30 days for review and comments. Prior to the effective date of the SPA, a notice is published in various news publications throughout the state as required by CFR. These publications include The Charlotte Observer, The Fayetteville Observer, The Gaston Gazette, Greensboro News & Record, The Herald Sun (Durham), High Point Enterprise, La Voz, Raleigh News and Observer, Rocky Mount Evening (to Sun Telegram), and the Winston-Salem Journal.

Most of the comments DMA typically receives are from discussions with provider associations, through emails or telephone calls. Once CMS approves the SPA and prior to implementation, a Medicaid Bulletin notice is published on the DMA website advising providers and the public of the impending change. For facility rate adjustments, the DMA Reimbursement Section sends the facility a letter announcing the new rate schedule and appeal rights.

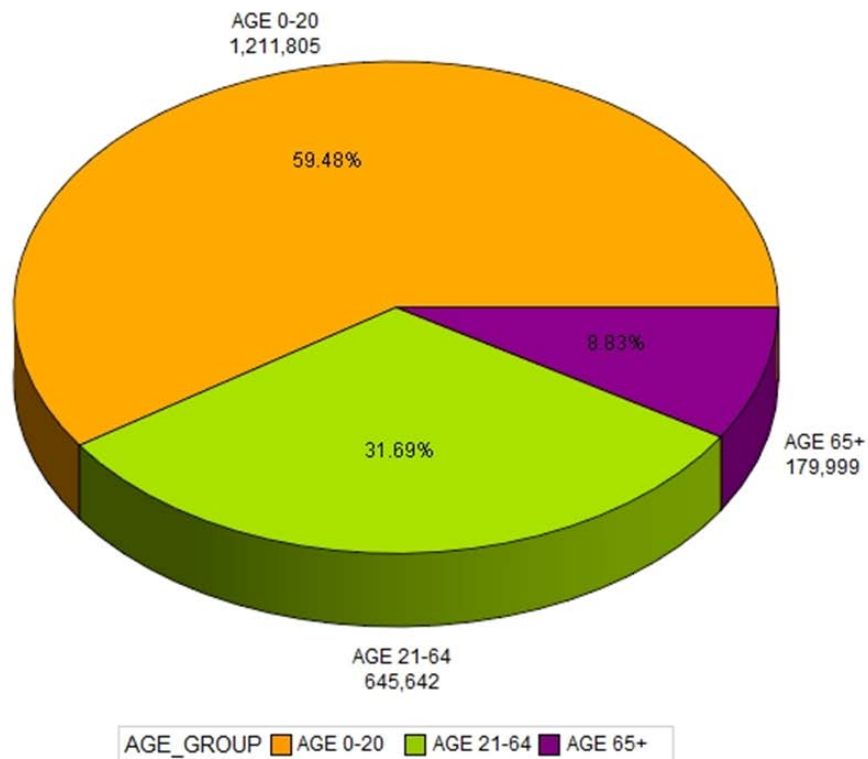
### **Rate Changes Using Currently Approved Methodologies**

For rate changes using currently approved methodologies, CMS does not require the state to submit a SPA. As the Reimbursement Section develops new rates, it is in contact with the provider community through their respective associations, and through multiple methods of contact methods such as phone calls, emails, meetings, etc. Prior to implementing the rates, a Medicaid bulletin article is published, announcing the new rate schedules on the DMA website. DMA's reimbursement State Plan is written with sufficient detail (a requirement of CMS) such that a provider is able to understand the rate calculations and is knowledgeable about their reimbursement rate at any time. For a facility rate adjustment, DMA's Reimbursement Section sends the facility a letter announcing the new rate schedule and appeal rights.

## Beneficiary Population

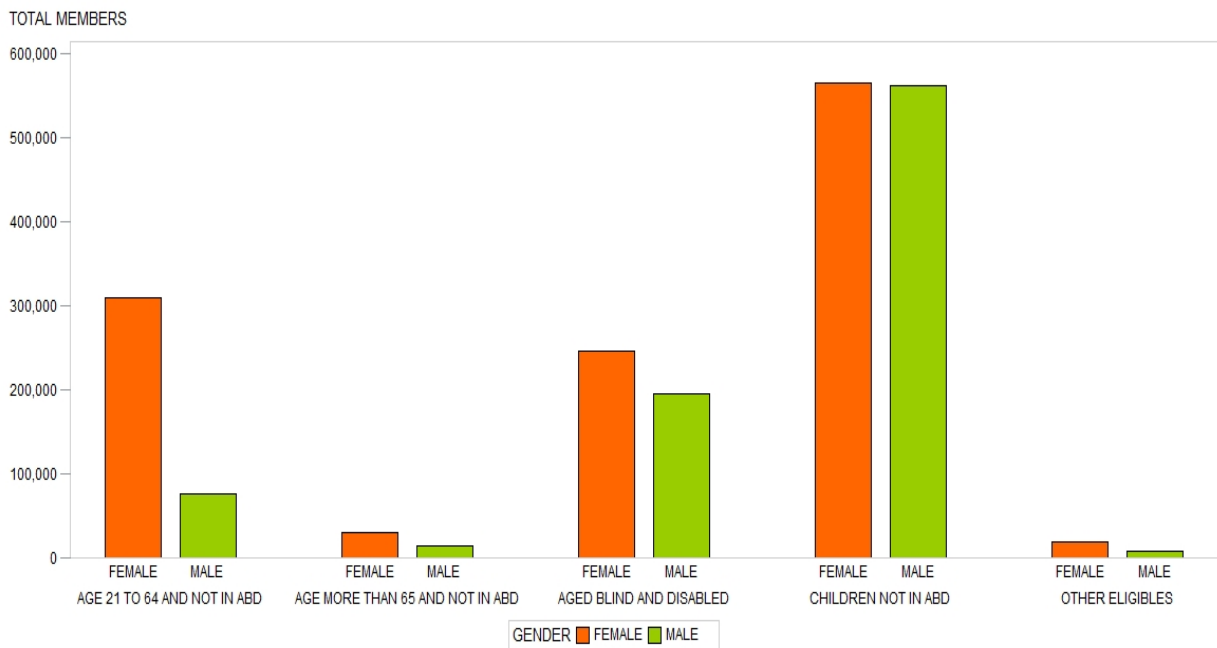
During 2015, the North Carolina Medicaid program provided services to approximately 1.9 million enrolled beneficiaries. With the exception of behavioral health services, which are provided through behavioral health managed care entities, PACE program and high tech imaging contract, North Carolina's Medicaid beneficiaries received care through fee-for-service (FFS) arrangements. Figure 1 below provides a breakdown of all North Carolina Medicaid beneficiaries by age and also includes those dually eligible for both Medicare and Medicaid (dual eligibles) for the 4<sup>th</sup> quarter of 2015 and Figure 2 provides the Medicaid population by gender and eligibility for the same time period. Children (beneficiaries ages 20 years and under) represent almost 60% of the North Carolina Medicaid population. As shown in Figure 1 below, beneficiaries age 21 to 64 represent approximately 31% and the remaining 9% are Medicaid beneficiaries ages 65 and above.

**Figure 1 - Medicaid Beneficiaries by Age Categories - 4th Quarter of 2015**  
**Includes Medicaid and Beneficiaries dually eligible for Medicare and Medicaid (Duals)**



Females account for over half of all Medicaid beneficiaries. As demonstrated in Figure 2 below, gender differences can be seen in all Medicaid eligibility categories, with females as the predominant adults in ages 21-64 years due to the Medicaid for Pregnant Women Program (MPW) for the group not aged, blind or disabled. The number of females exceeds the number of males in the aged, blind and disabled group. Females and males are comparable in numbers in the group for children not blind or disabled. The number of females slightly exceeds the number of males in the 65 and older age group.

**Figure 2 - Medicaid Beneficiaries by Gender and Eligibility-4th Quarter 2015**



Aged, Blind, and Disabled (ABD) consists of elderly individuals or couples, the visually-impaired, and the physically or mentally disabled)

### North Carolina Medicaid Beneficiary Enrollment Trends

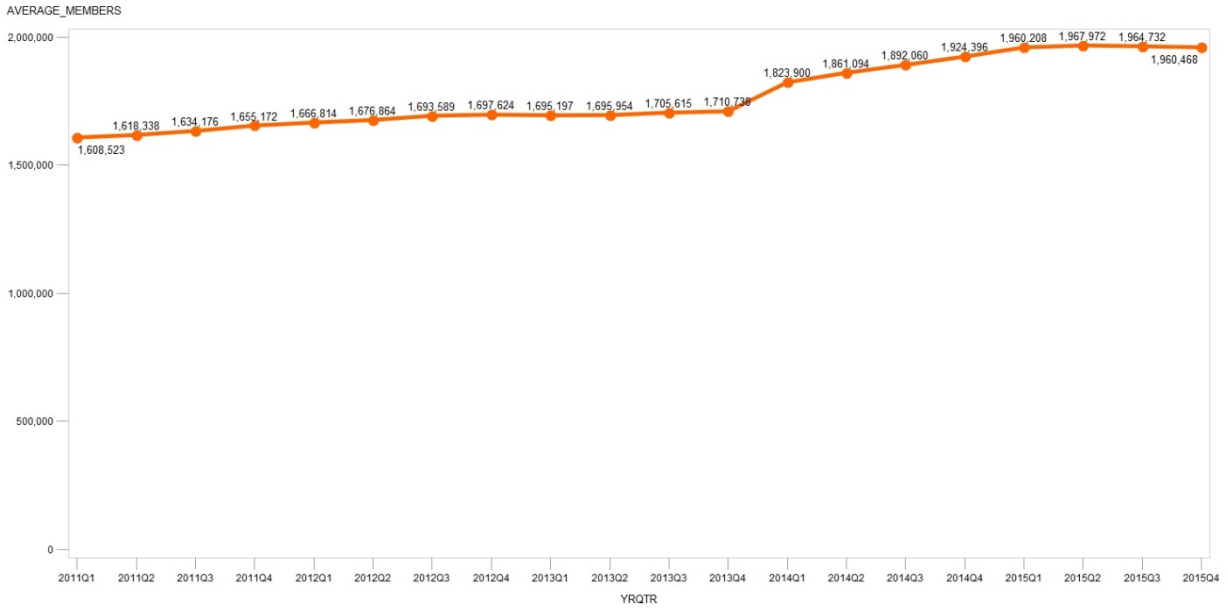
This section includes a review of trends in average monthly enrollment of North Carolina Medicaid beneficiaries by quarter. Data are presented for the total Medicaid population, broken down by age and eligibility group measured in calendar years (CY).

The figures show a gradual increase in enrollment from 2011 until the fourth quarter of 2013. However, beginning in the first quarter of 2014, Figures 3, 4 and 5 show an increase in enrollment due to eligibility changes as a result of the Affordable Care Act (ACA), for the total population, total number of children, foster children, and blind and disabled children populations served, respectively. The increase in enrollment continues for the total population

and most age groups through the second quarter of 2015. As shown in Figure 6, adult enrollment continued to increase through the remainder of 2015.

**Figure 3**

**NC Medicaid Enrollment, CY 2011-2015, Average Members per Quarter:  
Total Population**



**Figure 4**

**NC Medicaid Enrollment, CY 2011-2015, Average Members per Quarter:  
Child Population**

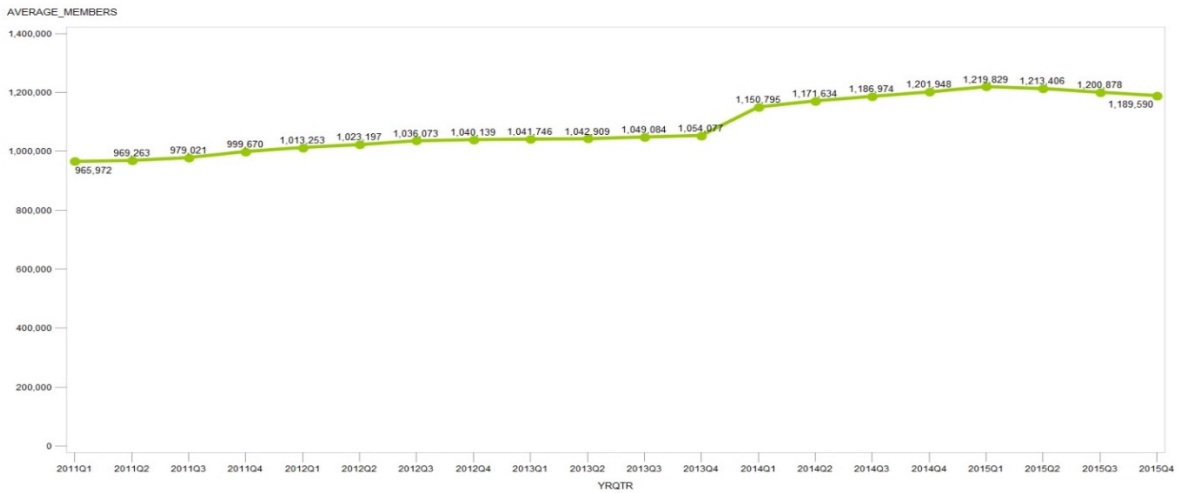




Figure 5

NC Medicaid Enrollment, CY 2011-2015, Average Members per Quarter:  
Child Blind and Disabled Population

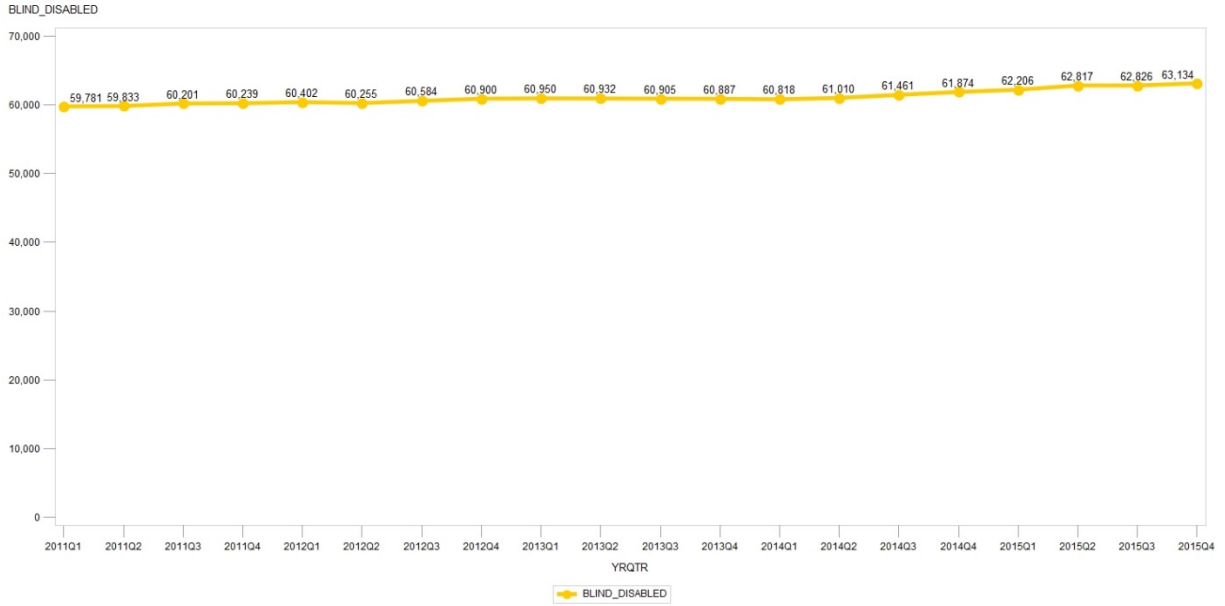
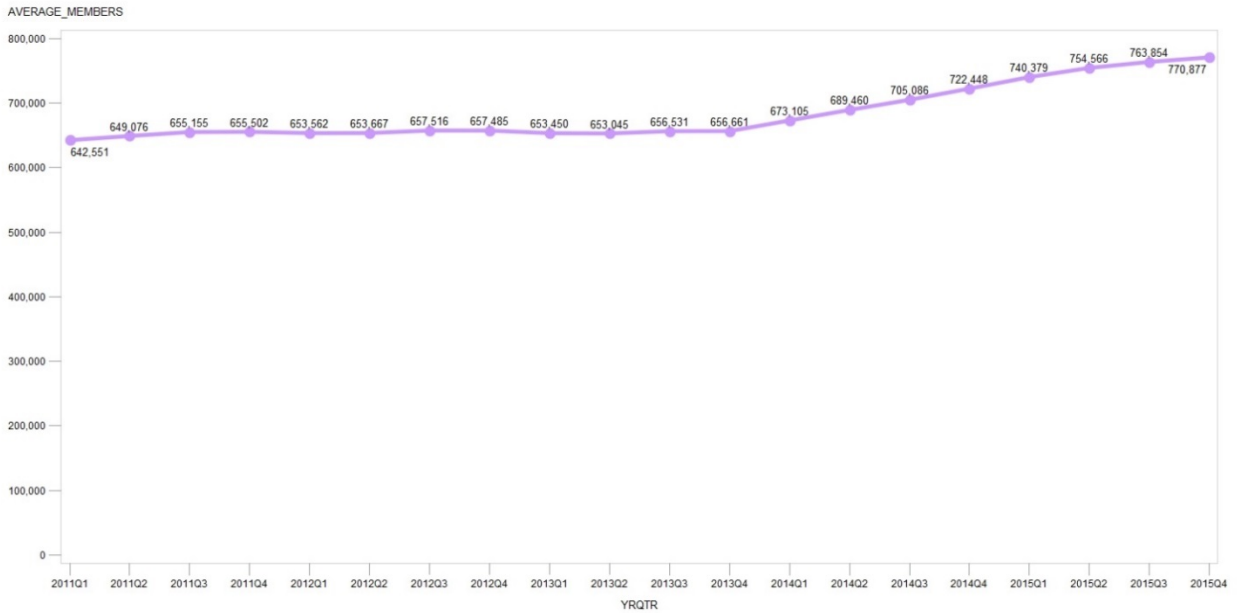


Figure 6

NC Medicaid Enrollment, CY 2011-2015, Average Members per Quarter:  
Adult Population by Eligibility Group



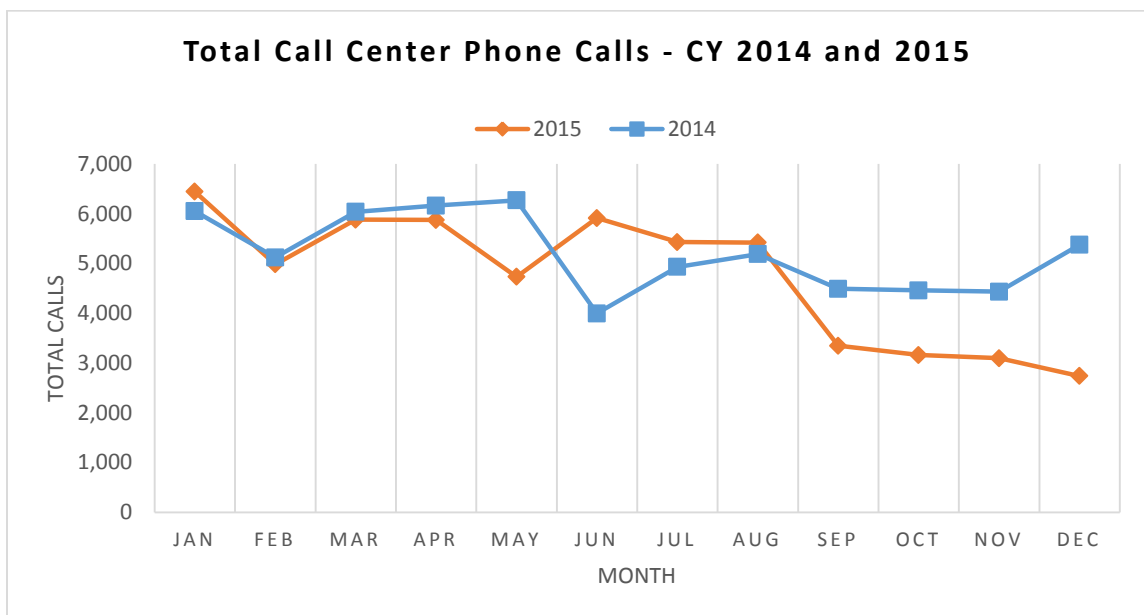
## DMA Call Center and Requests from Beneficiaries

North Carolina DMA operates a Call Center as a service to beneficiaries and as a way to engage beneficiaries and assist them in meeting their health care needs. The Call Center has a toll-free number that operates Monday – Friday from 8 a.m. – 5 p.m. EST (except holidays). The Call Center has the capacity to receive and record messages after hours, allowing staff to return phone calls the next business day. Call center call staff log details of all calls from beneficiaries. On a monthly basis, Center staff produce a report detailing the number of calls to the center, types of calls received, resolution of issues, and timeliness of the resolution.

The majority of calls in which the beneficiary requests assistance with locating a provider are generally resolved immediately by Center staff. Figure 7 shows the total number of calls for CY 2014-2015. Call Center data are also available for specific services in the Plan, such as primary care, surgical services, etc., in the section specific to the service. Currently, Call Center data are not available for all services reviewed in the Plan, but going forward, Call Center staff will be using expanded categories that will include other services in the Plan.

**Figure 7**

**Total number of calls or requests received by DMA Call Center data for each month of 2014 and 2015 for all services**



North Carolina experienced a lower than average call volume in the fourth quarter of 2015, as compared to the fourth quarter of 2014. The higher call volume in the fourth quarter of 2014 appears to be due to changes in eligibility requirements and increased contacts from newly-enrolled beneficiaries seeking services.

## **Beneficiary Perceptions of Access to Care**

North Carolina collects and analyzes the Consumer Assessment of Healthcare Providers and Systems (CAHPS) surveys administered by a vendor contracted by the state. The data presented in Figures 8 and 9 below are for calendar years 2014 and 2015 represent beneficiaries consisting of children with chronic conditions (CCC). Children with chronic conditions include “those who have a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that generally required by children.”\* Since the data are retrospective, they may not demonstrate current access completely, but may indicate whether or not beneficiaries are able to access health care services when needed. As represented in Figures 8 and 9 below, North Carolina child beneficiaries were able to obtain care and access to health care appointments, when needed approximately 90% of the time.

In addition, in September 2016, the agency released a Request for Proposals (RFP) to solicit proposals from vendors that will allow the agency to select a new vendor to conduct further CAHPS surveys that will include both child and adult beneficiaries. Having more complete and comprehensive CAHPS data will better assist the agency in identifying, monitoring and addressing any access to care issues that are identified.

\*(CCC – children with chronic conditions: <https://www.cahps.ahrq.gov/surveys-guidance/item-sets/children-chronic/index.html> and [https://cahps.ahrq.gov/surveys-guidance/item-sets/children-chronic/102\\_Children\\_with\\_Chronic\\_Conditions\\_Set\\_2008.pdf](https://cahps.ahrq.gov/surveys-guidance/item-sets/children-chronic/102_Children_with_Chronic_Conditions_Set_2008.pdf))

Figure 8

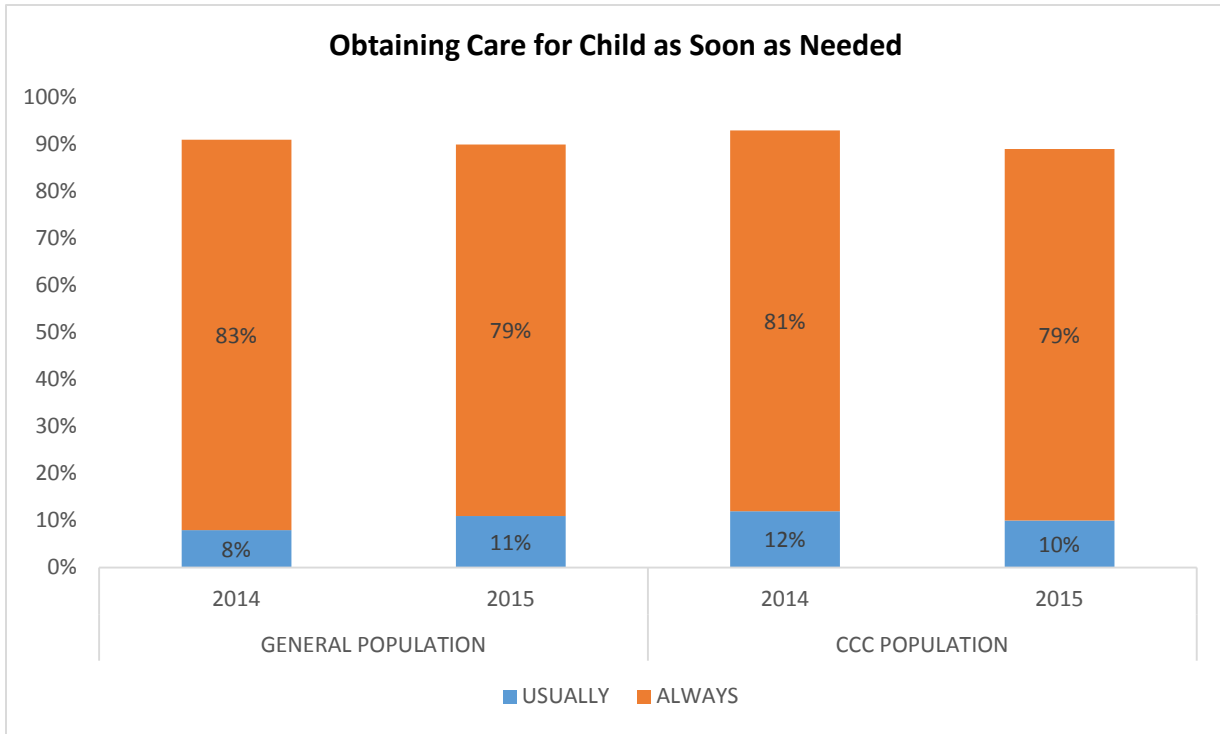
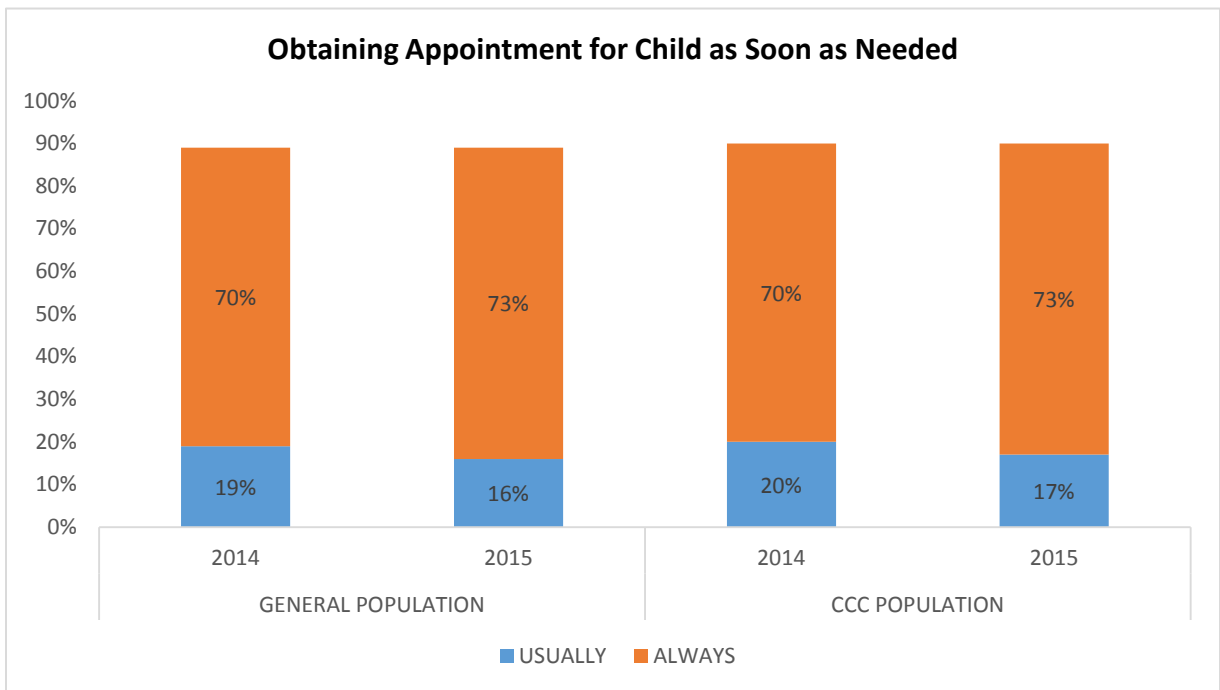


Figure 9



## **Data Regarding Providers, Utilization of Services and Comparison of Rates**

Utilization data contained in the Plan is based on date of service for calendar years and for Medicaid beneficiaries for which Medicaid is the only source of payment. Beneficiaries with Medicare (Duals) or other health care coverage have been excluded from the data because for these beneficiaries, Medicaid is the secondary form of payment and as a result, the agency does not have complete claims data. In addition, in order to provide a consistent basis for comparing reports from one to period to another, such as CY 2014 to CY 2015, the data were generated with a consistent claims run-out of six months beyond each reporting period. For example, for CY 2014, the report will contain all claims paid through June 30, 2015 since most all claims will have been paid by that date.

Due to the state's transition to a new MMIS vendor on July 1, 2013, for most of the data in the Plan, the agency chose to use claims and provider data from the new vendor; however, in order to gain a better perspective of utilization of services over time, for some services, in some instances the agency reviewed and analyzed data prior to CY 2014. In terms of setting thresholds, the state believes that at least three years of data is needed to accurately determine if there is a decrease in utilization or providers to the extent access problems can be identified. Thresholds for both utilization of services and the numbers of providers available for specific services will be established by using control limits of three standard deviations from the mean based on CY 2014 to CY 2017 data.

### **Comparative analysis of Medicaid payment rates to Medicare rates and other payer rates**

Currently, the NC Medicaid agency does not have access to payment rates for private insurers as this information is considered proprietary; however, the agency is currently reviewing steps that it will need to be taken to obtain private insurance payment rates. These steps may include obtaining aggregate data among multiple insurers, which does not compromise or identify the insurer. Therefore, with the exception of dental services,\* the Plan will only offer a comparison of Medicaid to Medicare payment rates relative to the Review Analysis. Generally, North Carolina Medicaid rates are approximately 80% of the Medicare rate for the same service.

\*(Since Medicare does not cover dental services, there were no Medicare rates for comparison. Therefore, the 2015 National Dental Advisory Service (NDAS) Comprehensive Fee Report was used as the basis for rate comparisons.)

## Review Analysis of Primary Care Services

For purposes of the Plan, primary care services are divided into two parts: traditional primary care services and dental services. Traditional primary care services are services provided by physicians such as general practitioners, pediatricians, internists, and gynecologists, federally qualified health centers (FQHCs), rural health clinics (RHCs) and local health departments (LHDs). In the data below, the agency divided traditional primary care services into two parts delineating those services provided by physicians from services provided by FQHCs, RHCs and LHDs.

For both traditional primary care services and dental services, graphs of both numbers of providers and utilization data are provided from a statewide, rural and urban/metropolitan perspective. For purposes of the Plan, the determination of Urban/Metropolitan and Rural counties was made by using the United States Department of Agriculture Economic Research Service's 2013 Rural-Urban Continuum Codes (<http://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx>), which "form a classification scheme that distinguishes metropolitan counties by the population size of their metro area, and nonmetropolitan counties by degree of urbanization and adjacency to a metro area."

Data sources: NCTracks (MMIS) for provider enrollment, beneficiary enrollment and claims data used for utilization.

Results of CAHPS survey: As previously reported in Figures 8 and 9, North Carolina's child beneficiaries were able to obtain care and access health care appointments, when needed, approximately 90% of the time. The state does not currently have CAHPS data available regarding access to primary care services by adults. However, North Carolina has released a request for proposals (RFP) to secure a certified CAHPS vendor to assist with providing data for services in the Plan.

### Availability of primary care services – primary care physicians

Although primary care services consist of physicians, FQHCs, RHCs and LHDs, the following three graphs and map of the counties focus exclusively on the number of Medicaid primary care physicians trending over time for CY 2014 and CY 2015. Figure 10 shows the total number of primary care physicians statewide. Figures 11 and 12 show the number of primary care physicians for rural and urban/metropolitan areas, respectively. As expected, the urban/metropolitan areas have greater numbers of primary care physician per 1000 beneficiaries than rural areas. Figure 13 shows the number and locations of Medicaid primary care physicians by county. If a physician has offices in more than one location, all of these locations are counted. With the exception of Camden County in the northeastern part of the state, primary care physicians practice at one or more locations in every county of the state. With respect to Camden County, being adjacent to Pasquotank County, where Elizabeth City is located, affords access to more than half a dozen currently enrolled Medicaid primary care physicians.

Figure 10

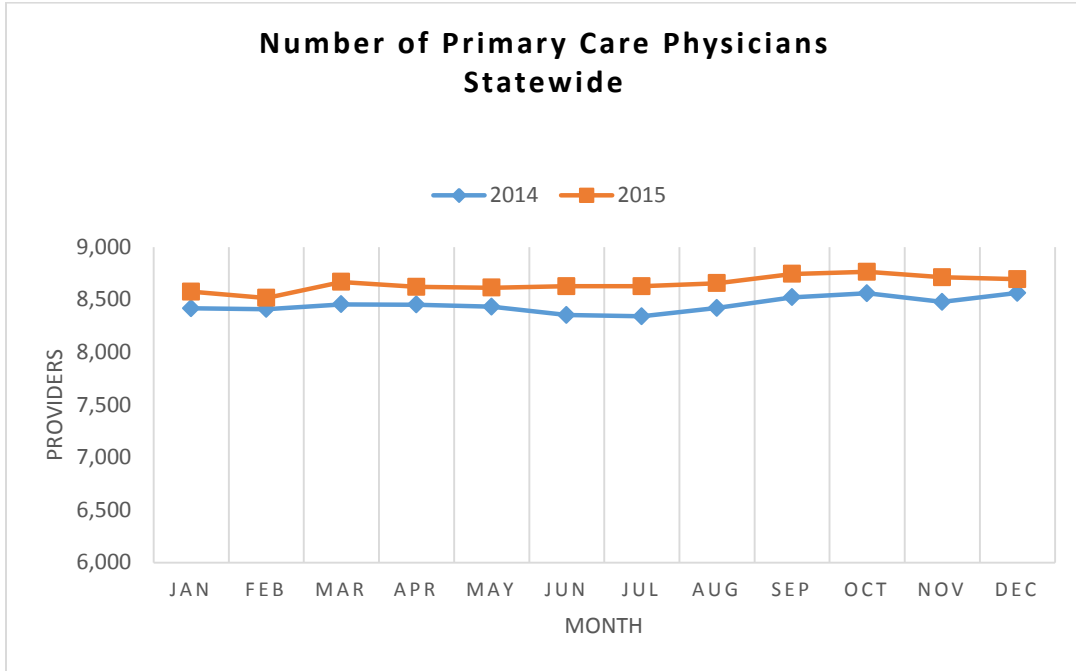


Figure 11

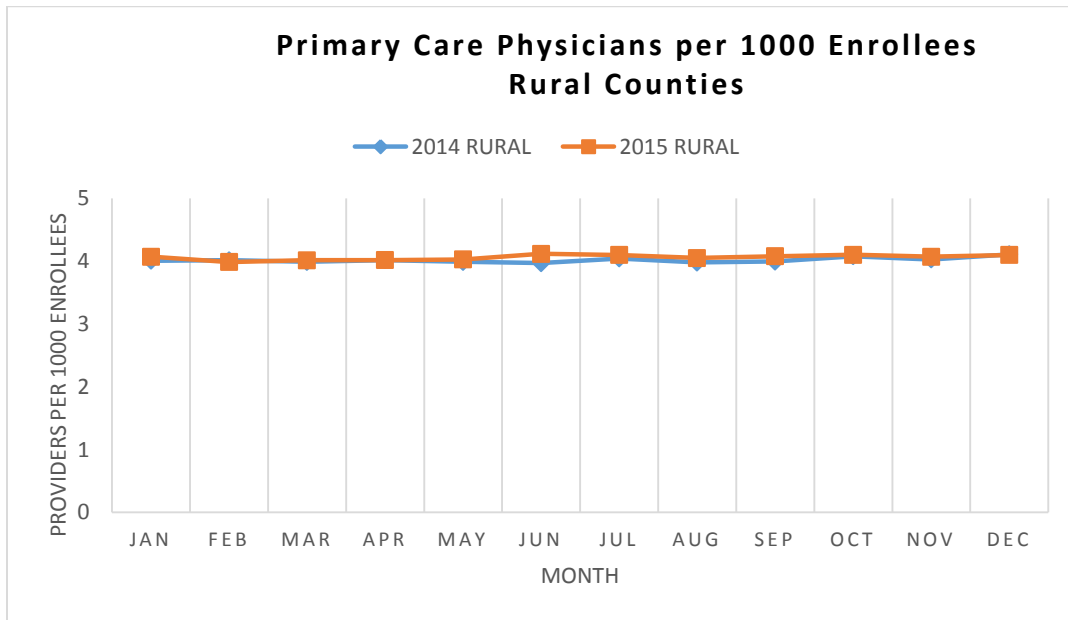


Figure 12

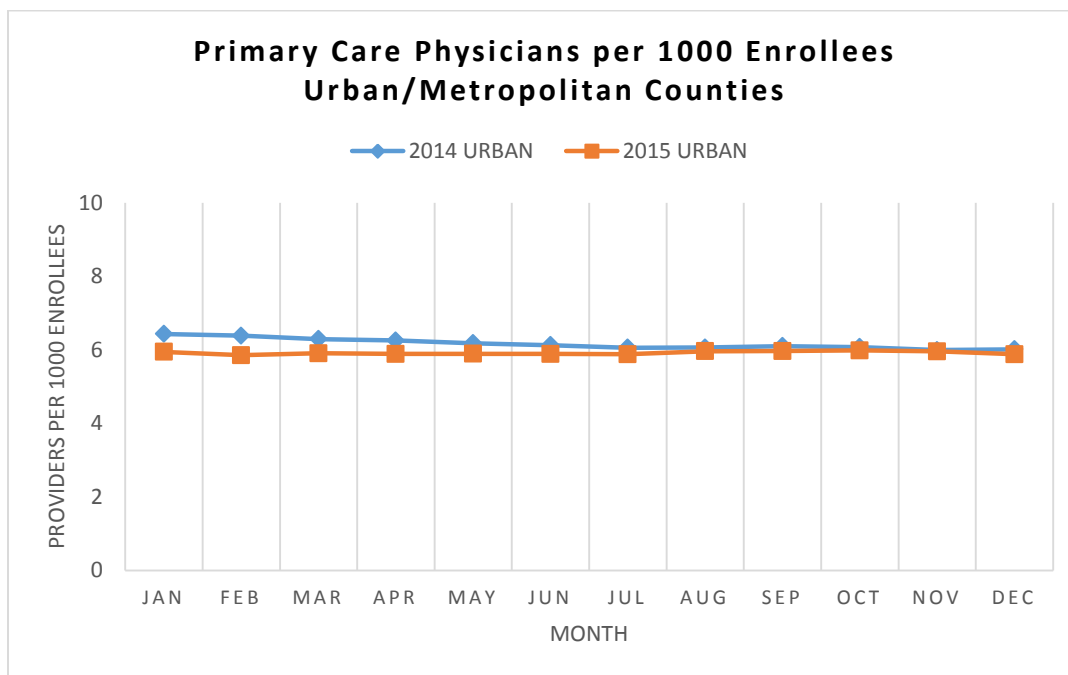
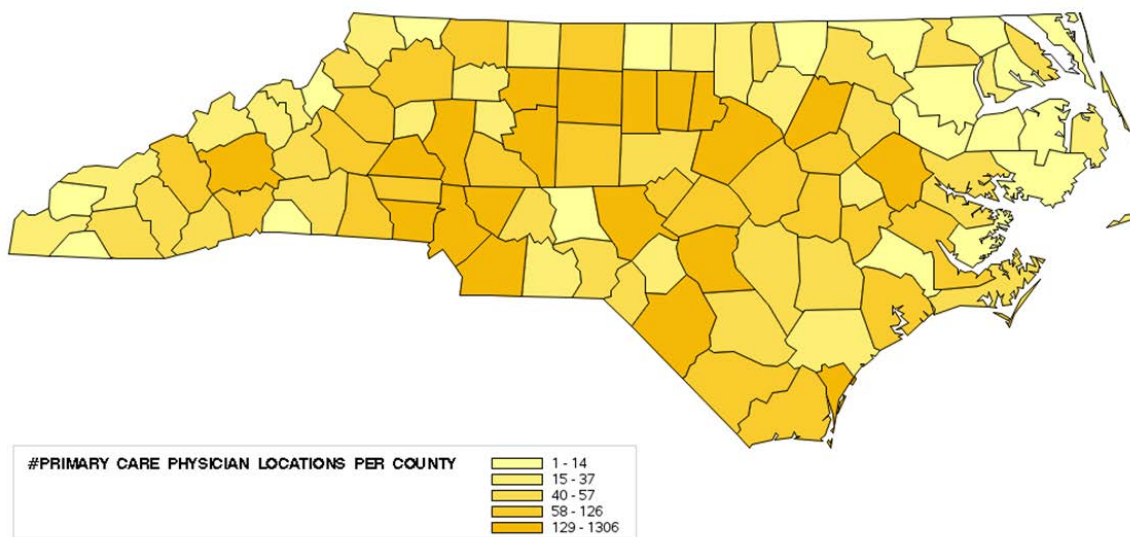


Figure 13

### Geographic Distribution and Number of Primary Care Physicians by County Last Quarter of 2015





### Utilization of Services

The following three graphs show primary care physician visits per 1000 enrollees. Figure 14 shows statewide visits for CY 2014 and CY 2015 and Figures 15 and 16 break down the visits by Rural and Urban/Metropolitan and counties, respectively. As all three graphs show, utilization regarding visits per 1000 enrollees was down for all three areas, statewide, rural and urban/metropolitan, which represent decreases of 10.1%, 10.2% and 10.2%, respectively.

Typically, it is thought when patients do not visit their primary care physicians for whatever reasons, they may seek primary care through emergency departments or emergency rooms. Figure 17 shows statewide emergency room visits for CY 2014 and CY 2015 and Figures 17a and 17b break down the visits by Rural and Urban/Metropolitan and counties, respectively. As all three graphs show, utilization regarding visits per 1000 enrollees was down for all three areas, statewide, rural and urban/metropolitan, which represent decreases of 2.0%, 1.5% and 2.0%, respectively. In order to further analyze any potential impact of decreased utilization of primary care visits, the agency reviewed inpatient hospital admissions for the same time period of CY 2014 and CY 2015. Figures 17c, 17d and 17e show inpatient hospital admissions per 1000 enrollees were down for all three areas, statewide, rural and urban/metropolitan, which represent decreases of 5.5%, 7.0% and 5.4%, respectively.

In addition, Figure 17f contains data from the Healthcare Effectiveness Data and Information Set (HEDIS), which is “a tool used by more than 90 percent of America's health plans to measure performance on important dimensions of care and service (See more at: <http://www.ncga.org/hedis-quality-measurement#sthash.r0dWcoZ7.dpuf>).” HEDIS has a number of measures including measures pertaining to access and availability of care. The data in Figure 17c was derived by analyzing claims data from the NCTracks data warehouse and contains data for the prior year for which the measure is labeled, e.g. HEDIS 2012 data is for CY2011, HEDIS 2013 data is for CY2012, etc. Figure 17c contains data through HEDIS 2015 (CY2014) and as the data demonstrates, access and availability of primary care services, for most all age groups, has continued to improve during the 4 years reported. HEDIS 2016 data was not yet available as of the date of the Plan; however, once the data is available it will be analyzed in conjunction with other data related to access of primary care services.

The state believes decrease in rates of visits per 1000 enrollees is due to the increase in enrollees as a result of the Affordable Care Act and the possibility that new enrollees did not immediately require or seek primary care services within the year or so after they were enrolled. Additional data and analysis are needed to better understand the basis of the decrease. Additional data and further analysis are needed to more fully determine the basis of the decline in the number of physician visits.

Figure 14

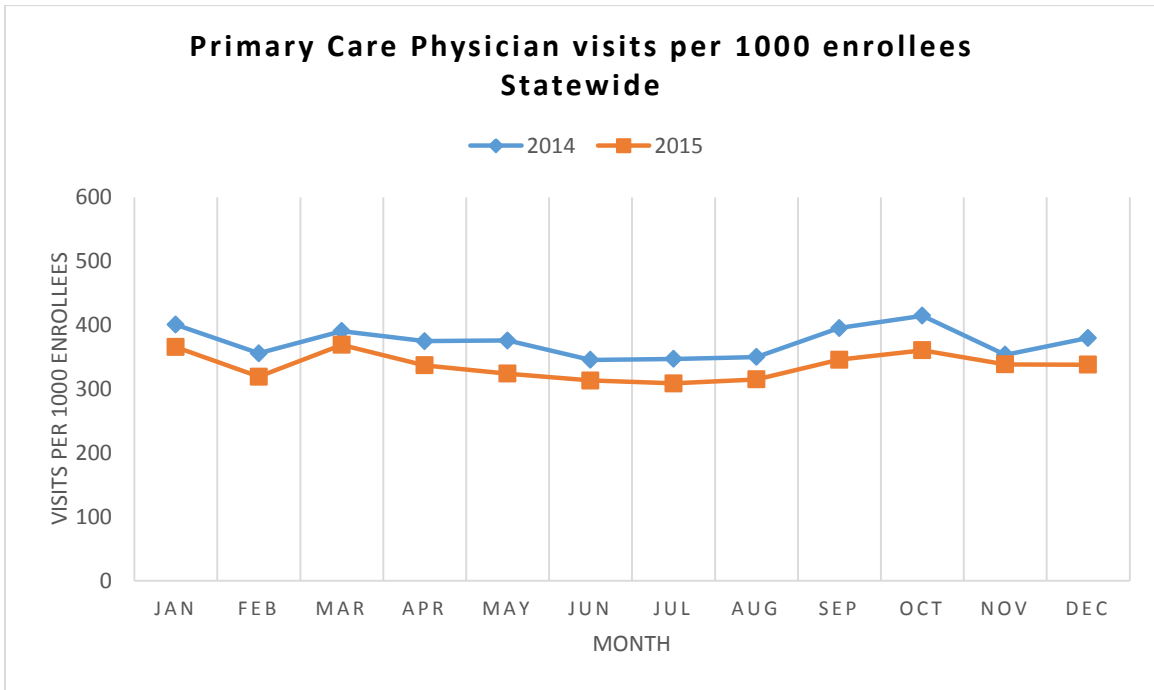


Figure 15

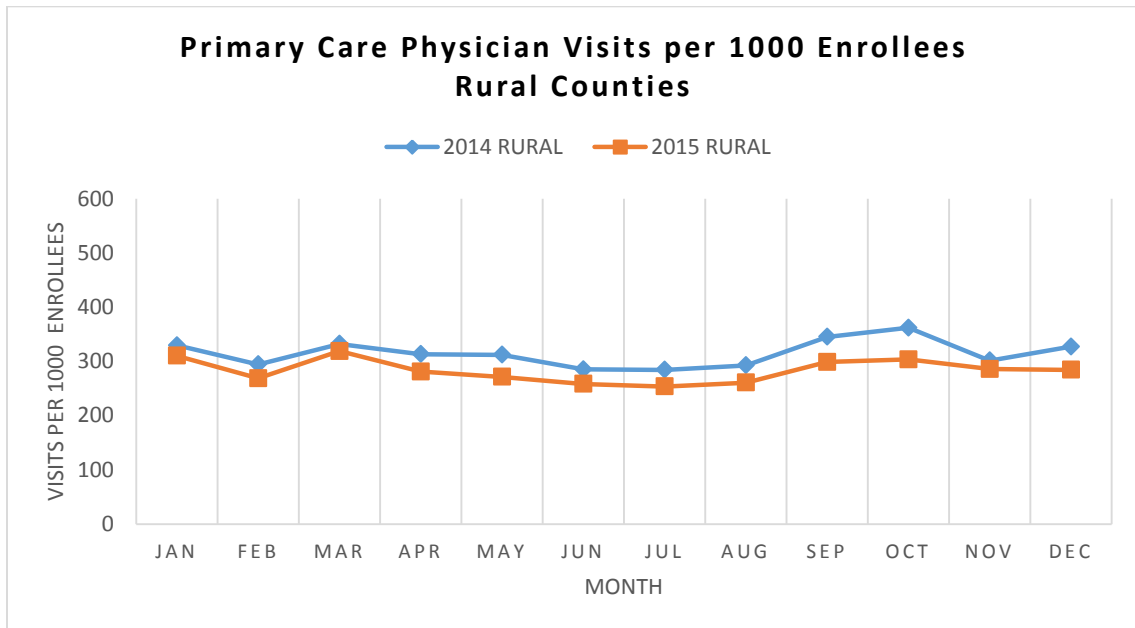


Figure 16

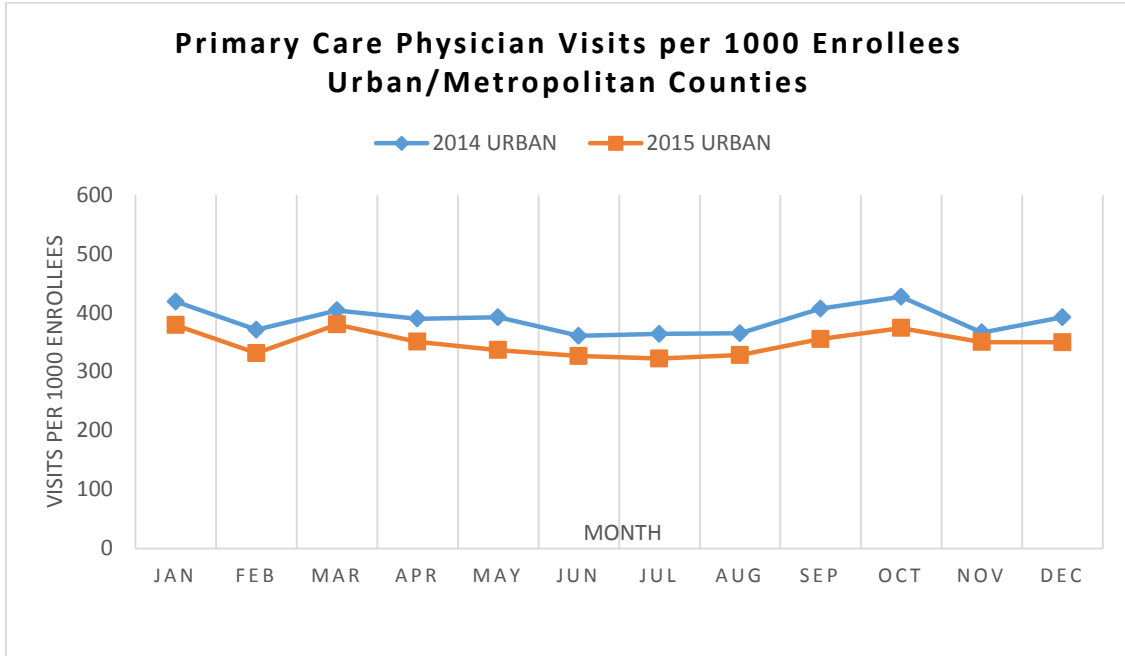


Figure 17

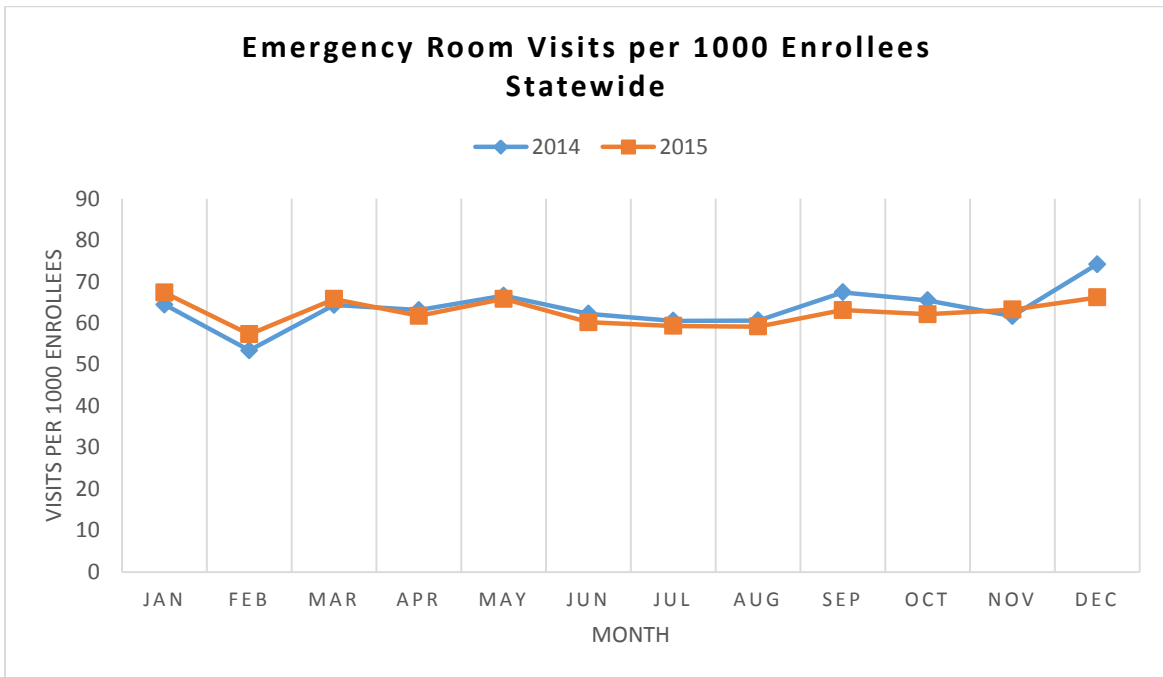


Figure 17a

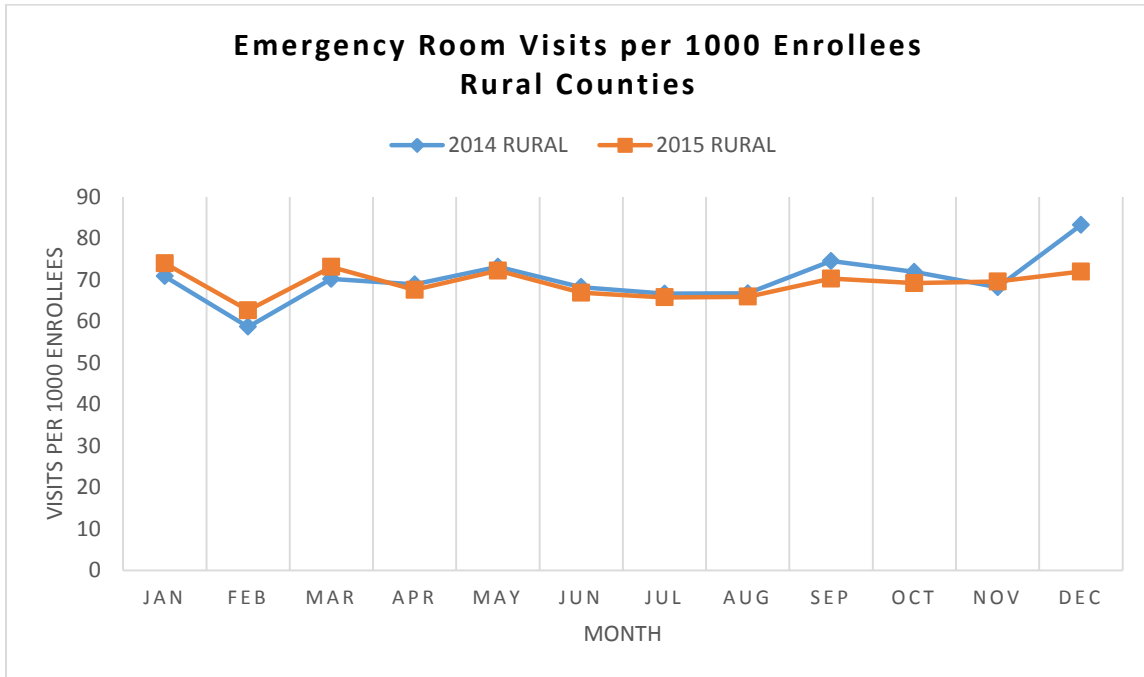


Figure 17b

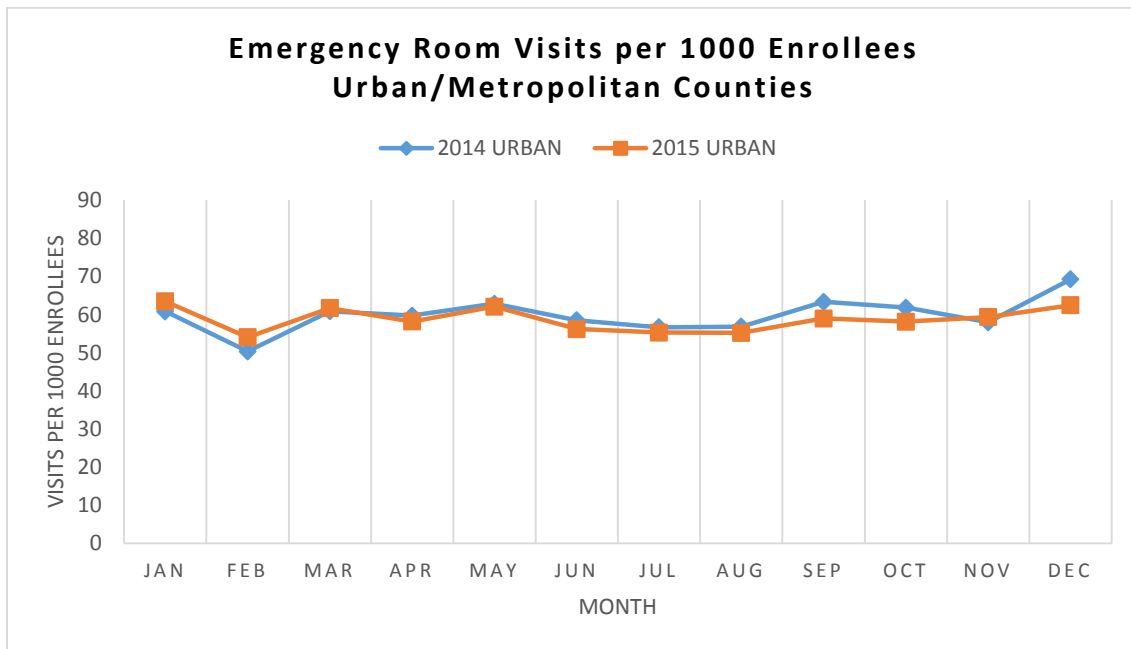


Figure 17c

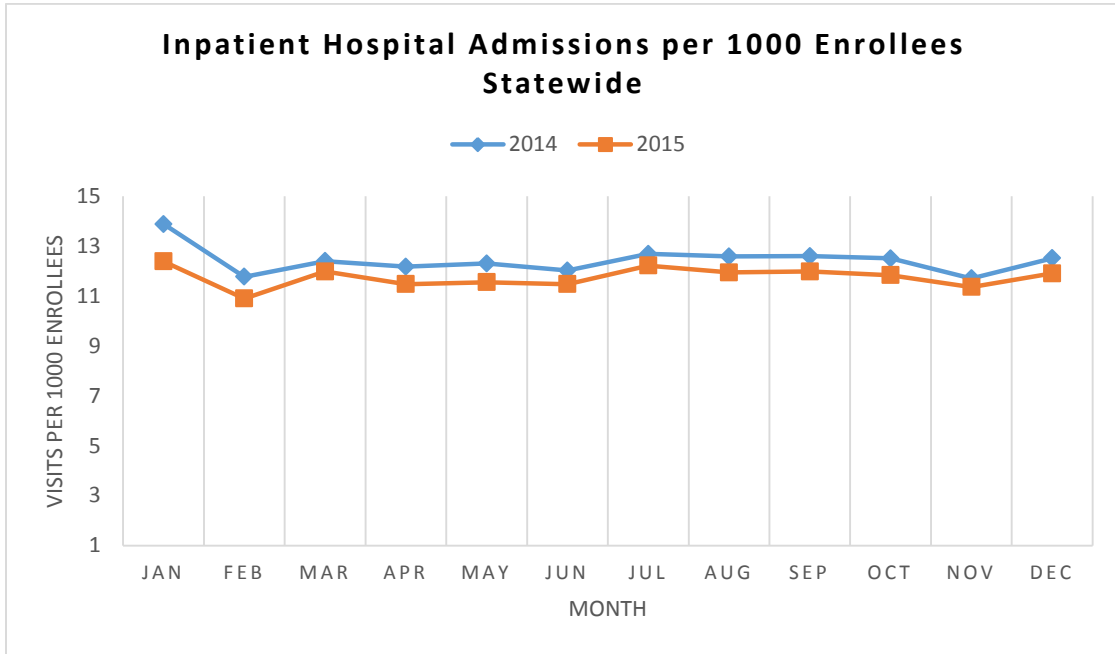


Figure 17d

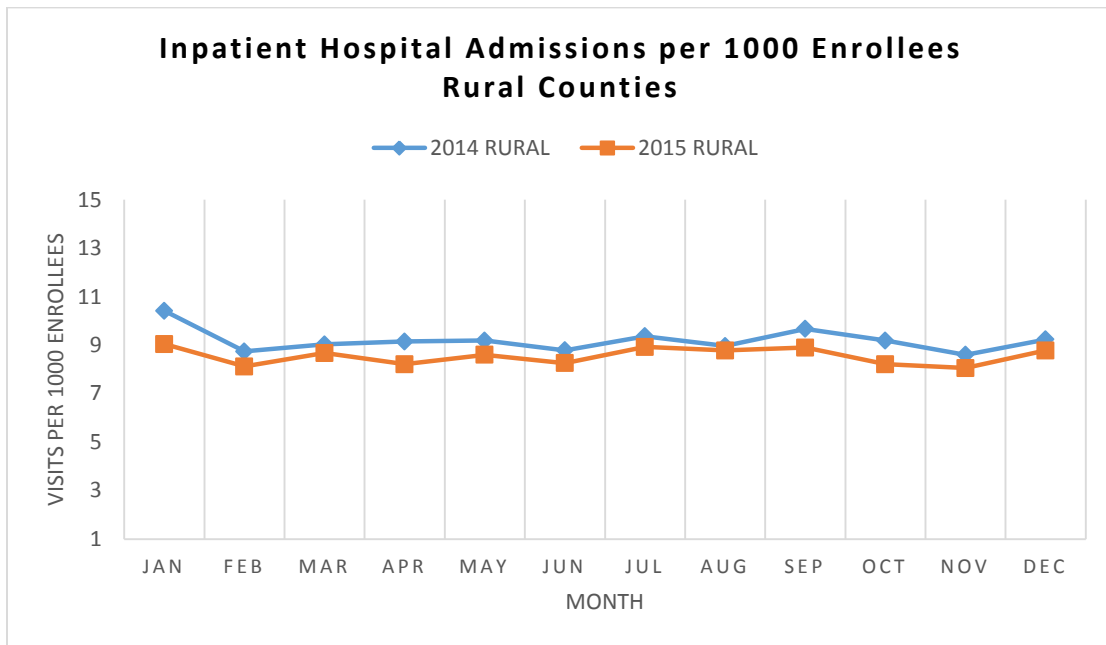


Figure 17e

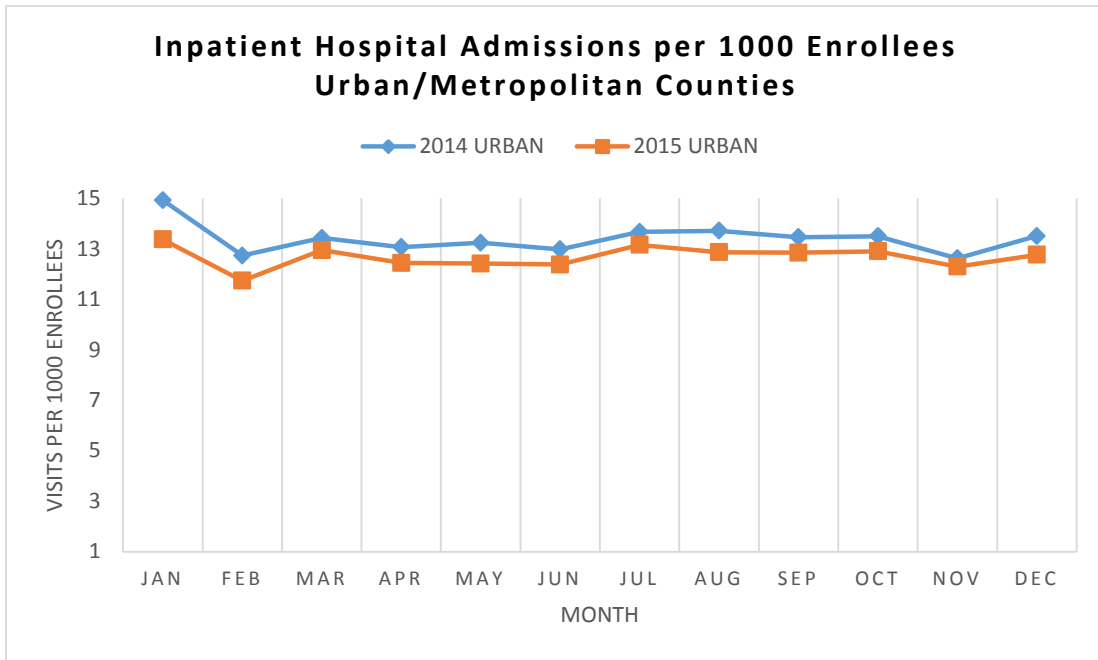


Figure 17f

**HEDIS Measures for Access and Availability of Care**  
(Note: HEDIS 2012 is for CY2011, HEDIS 2013 is for CY2012, etc.)

Access/Availability of Care	HEDIS 2012	HEDIS 2013	HEDIS 2014	HEDIS 2015
<b>AAP – Adults’ Access to Preventative/Ambulatory Health Services</b>				
Total: 20-65+	51.6%	50.4%	59.7%	58.2%
<b>CAP – Children and Adolescents’ Access to PCP</b>				
12-24 months	92.4%	92.0%	94.4%	93.9%
25 months – 6 years old	85.2%	84.4%	86.0%	86.8%
7-11 years old	85.9%	86.1%	87.4%	89.7%
12-19 years old	82.2%	82.1%	86.1%	85.7%
<b>Average 12 months – 19 years old</b>	<b>86.4%</b>	<b>86.2%</b>	<b>88.5%</b>	<b>89.0%</b>

Availability of primary care services – FQHCs, RHCs and LDHs

The following three graphs and map of the counties focus on the number of FQHC, RHC and LHDs providers trending over time for CY 2014 and CY 2015. Figure 18 shows the total number of providers statewide. Figures 19 and 20 show the number of primary care physicians per 1000 beneficiaries for rural and urban/metropolitan areas, respectively. The overall trend appears to show more FQHCs, RHCs and LHDs in 2015 compared to 2014. Since these providers, particularly FQHCs and RHCs, are typically focused on providing health care to rural areas, there is a higher concentration per 1000 beneficiaries in Figure 19 as compared to the urban/metropolitan areas in Figure 20. Figure 21 shows the number and locations of FQHCs, RHCs and LHDs by county. In addition, with the exception of Pasquotank County as mentioned earlier, there are a number of Medicaid participating primary care primary care physicians available in every other county of the state as demonstrated in Figure 13.

**Figure 18**

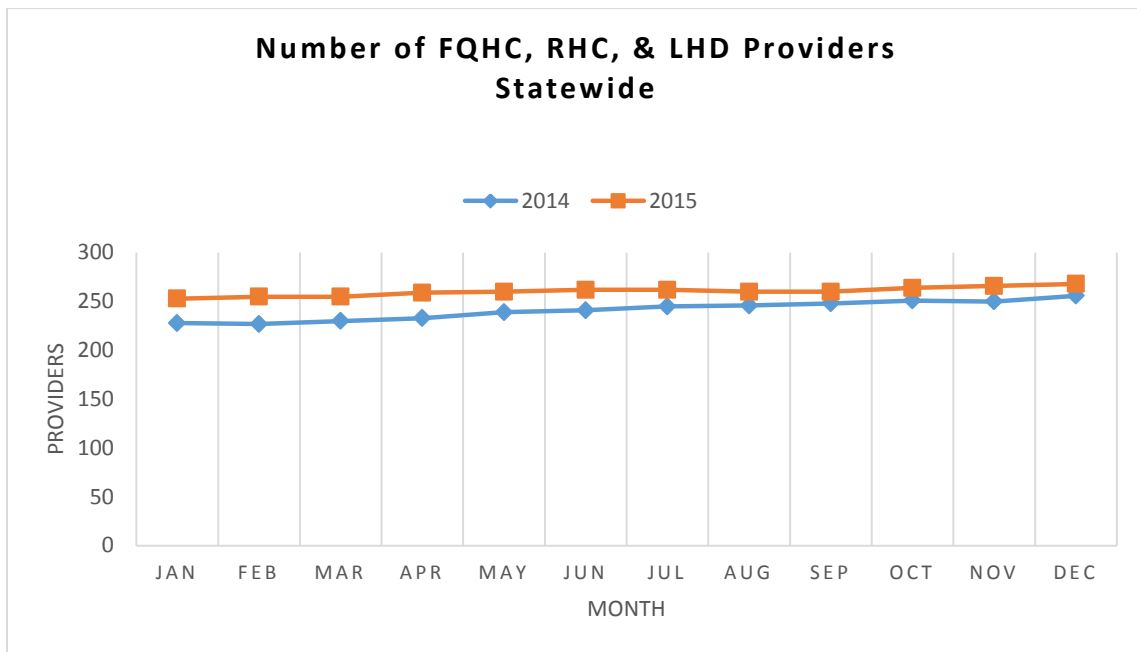


Figure 19

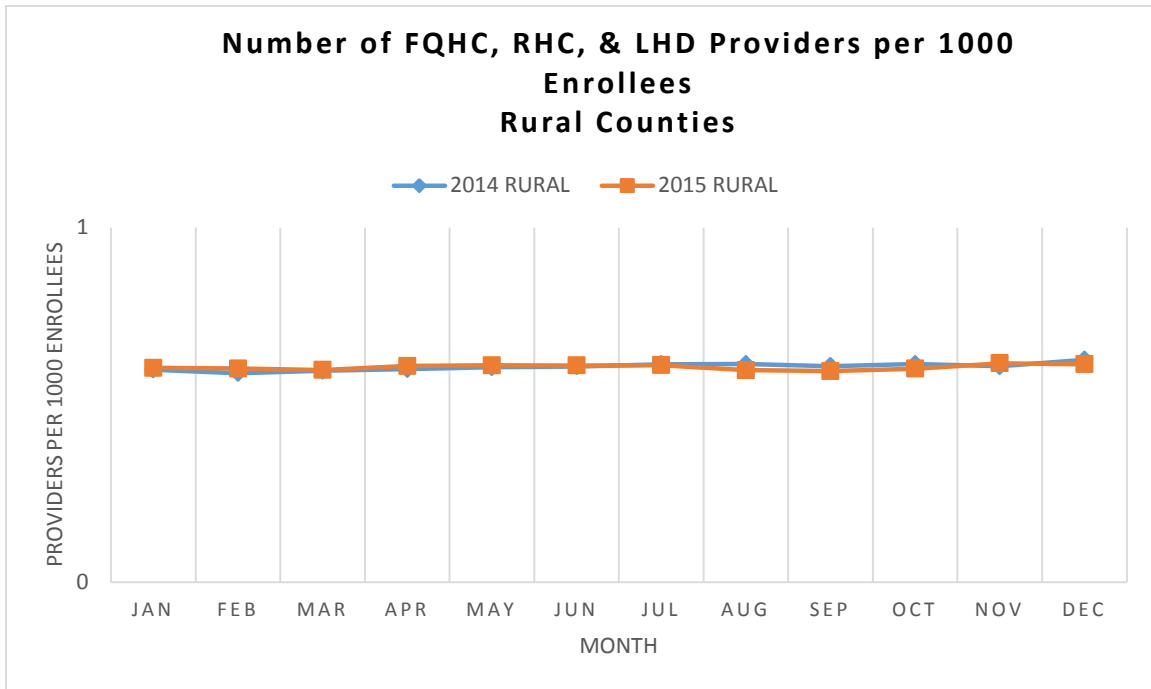


Figure 20

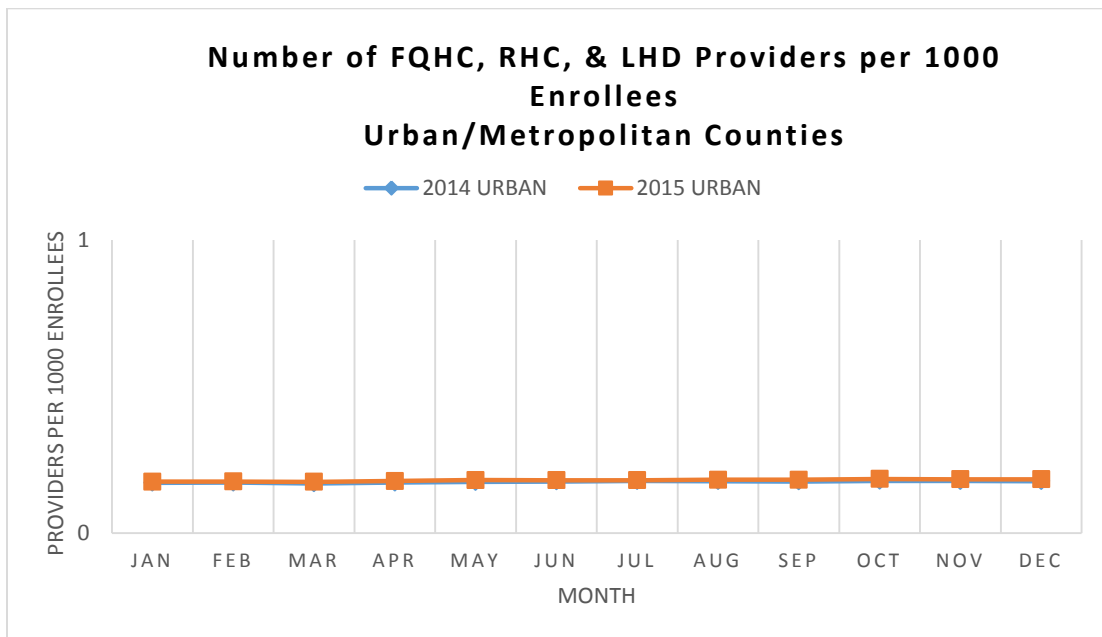
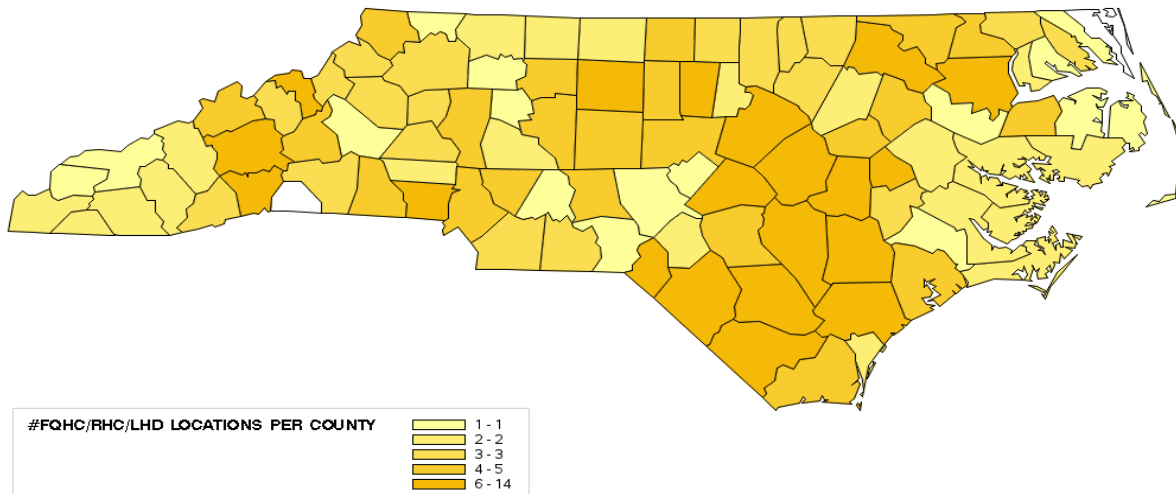




Figure 21

Geographic Distribution and Number of FQHCs, RHCs and LHDs by County



Utilization of services for FQHC, RHC and LDH providers

The following three graphs show visits per 1000 enrollees (beneficiaries) for FQHCs, RHCs and LHDs. Figure 22 shows statewide visits for CY 2014 and CY 2015 and Figures 23 and 24 break down visits by Rural and Urban/Metropolitan and by county, respectively. Since FQHCs and RHCs, by their very nature provide care to medically underserved areas such as rural areas, the data are expected to show that utilization in the rural areas is greater than utilization in the urban/metropolitan areas. Similar to primary care provider by physicians, all three graphs show, utilization for visits per 1000 enrollees was down for all three areas, statewide, rural and urban/metropolitan, which represent decreases of 8.4%, 4.8% and 7.3%, respectively. The state is uncertain of the rationale for the decrease in these areas. Additional data and further analysis are needed to better understand the basis of the decreases. Typically, it is thought when patients do not visit their primary providers for whatever reason, they may seek primary care through hospital emergency departments or emergency rooms. However, as previously noted, according to Figure 17, emergency room visits did not increase in 2015 and in fact, decreased by 0.1%. That said, the agency will continually monitor emergency room visits and specific reasons for visits to determine if there are correlations with the availability and access of primary care services. Therefore, it is unclear why there was a decrease in visits from CY 2014 to CY 2015 for FQHCs, RHCs and LHDs. As previously stated, additional data and further analysis are needed to better understand the basis of declines in primary care visits, which the state will pursue.

Figure 22

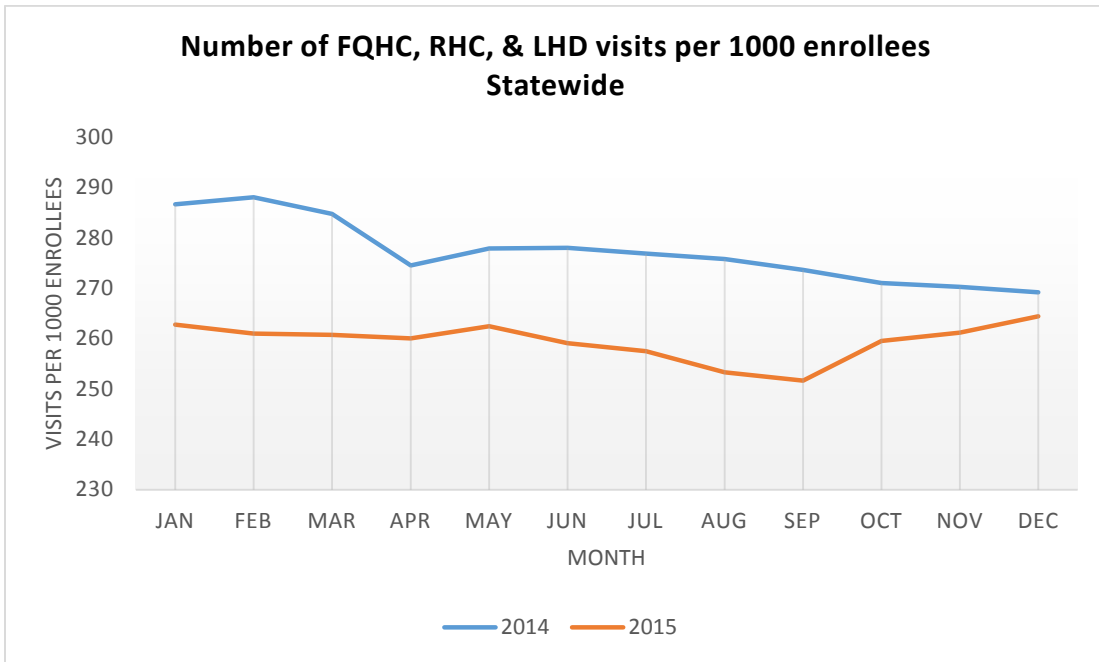


Figure 23

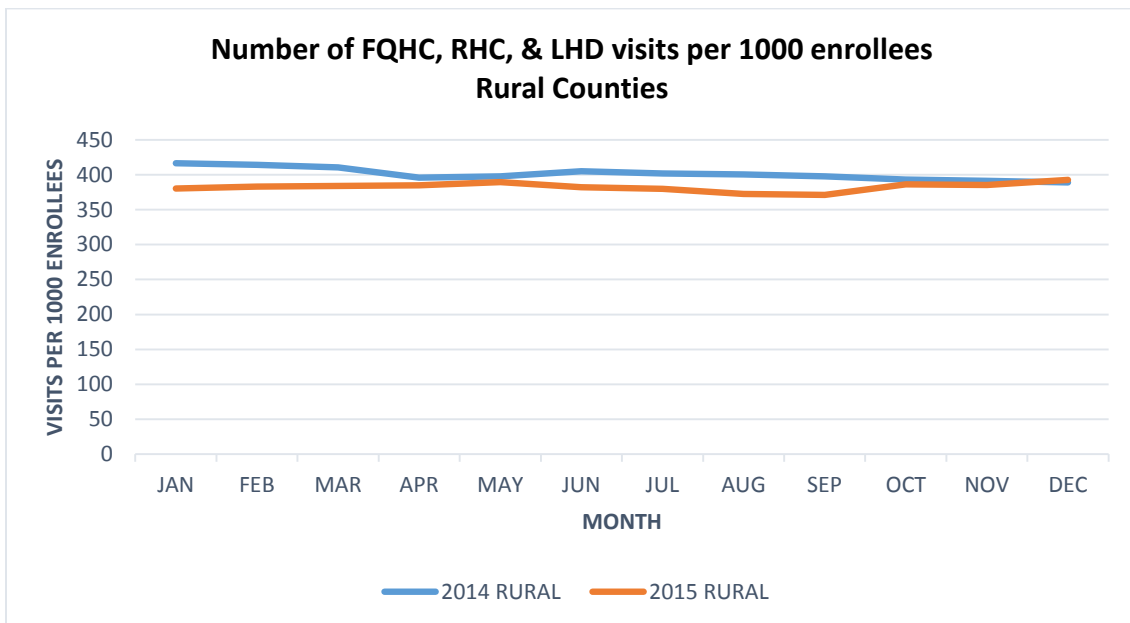
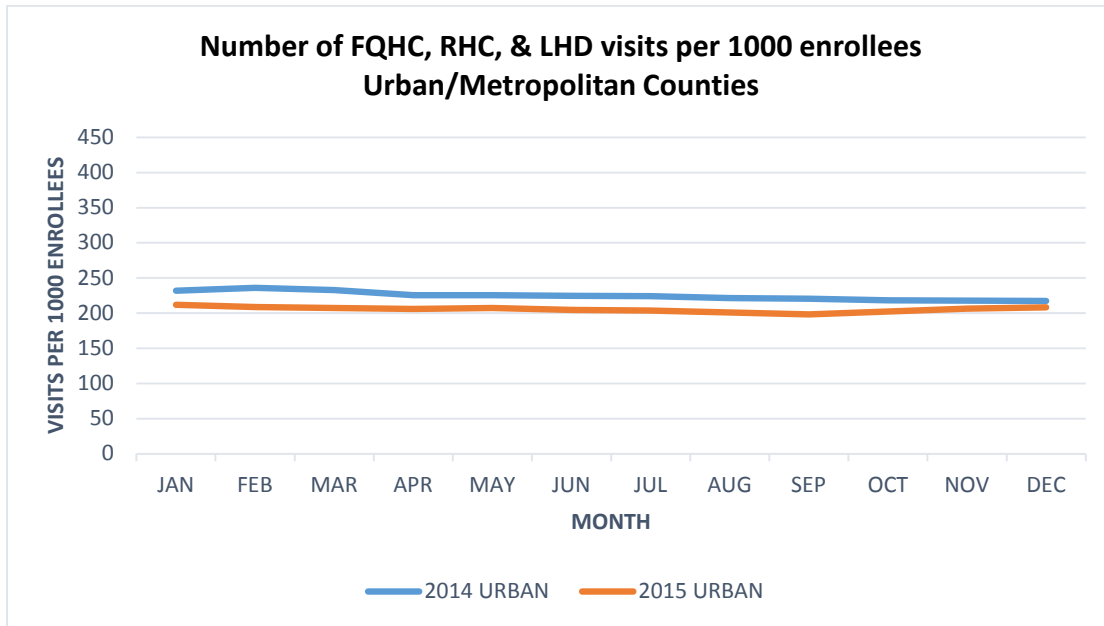


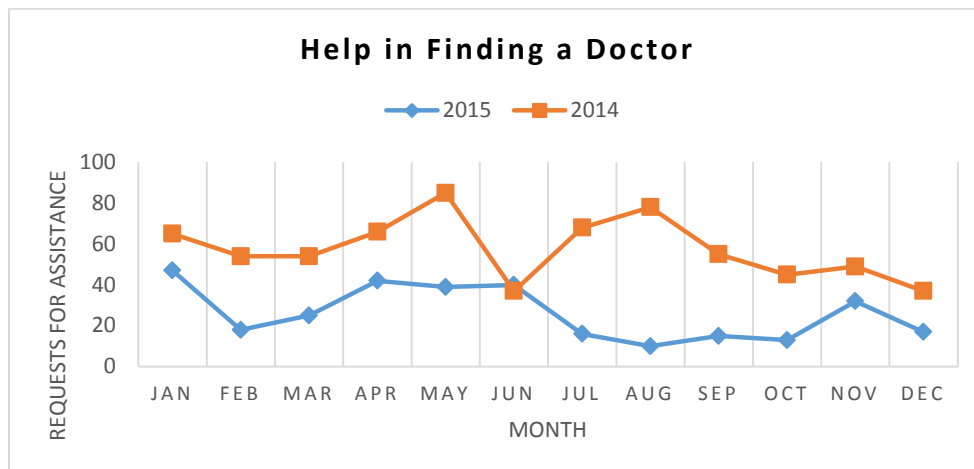
Figure 24



Concerns and issues raised by primary care providers or beneficiaries through provider feedback mechanisms

General feedback mechanisms from providers are from discussion of issues with various physician groups and associations and also through public comments during the agency’s Medical Care Advisory Committee (MCAC), which meets quarterly. In addition, the DMA Call Center responds to beneficiaries seeking assistance in finding a physician. Figure 25 below graph shows the number of calls received from beneficiaries requesting assistance in finding a physician in CY 2014 and CY 2015. Overall, calls for the year were down 50% in 2015 (average of 26 calls/month) compared to CY 2014 (average of 58 calls/month).

Figure 25



Comparative analysis of Medicaid payment rates to Medicare rates for all primary care

Figure 26 shows data for the top 10 codes for paid claims (in dollars) in which Medicare also covered and paid for the same CPT codes. Some CPT codes for Medicaid that were originally in the top 10 codes for paid claims were not covered by Medicare; therefore, those codes were omitted from the analysis. The rates in Figure 26 are for care provided in a facility, such as a hospital, or a non-facility, such as a physician’s office or clinic. As previously stated, NC Medicaid typically pays approximately 80% of the Medicare rate and Figure 26 below shows this pattern is consistent for both facility rates and non-facility rates.

**Figure 26**

<b>CPT code and Description</b>	<b>1/1/2016 Medicaid non-facility rate in dollars</b>	<b>1/1/2016 Medicare non-facility rate in dollars</b>	<b>% of Medicare non-facility rate</b>	<b>1/1/2016 Medicaid facility rate in dollars</b>	<b>1/1/2016 Medicare facility rate in dollars</b>	<b>% of Medicare facility rate</b>
99213 Office visit	54.26	70.29	77.19%	40.13	49.97	80.31%
99214 Established patient office visit	81.76	103.74	78.81%	62.08	76.77	80.86%
99215 Established patient office visit	110.58	139.94	79.02%	88.14	108.64	81.13%
90471 Immunization administration	13.3	24.01	55.39%	13.3	24.01	55.39%
90472 Immunization administration, each additional	13.3	11.97	111.11%	13.3	11.97	111.11%
99284 Emergency department visit moderate level	93.26	115.63	80.65%	93.26	115.63	80.65%
99204 New patient office visit	125.39	159.32	78.70%	101.72	127.02	80.08%
99283 Emergency department visit evaluation and management	49.81	60.93	81.75%	49.81	60.93	81.75%
99203 New patient office visit	80.86	103.91	77.82%	60.58	74.95	80.83%
99336 Established patient assisted living	108.25	131.44	82.36%	108.25	131.44	82.36%
<b>Aggregate totals and % of Medicare rates</b>	<b>730.77</b>	<b>921.18</b>	<b>79.33%</b>	<b>630.57</b>	<b>781.33</b>	<b>80.70%</b>

## **Review Analysis of Primary Care Services – Dental Services**

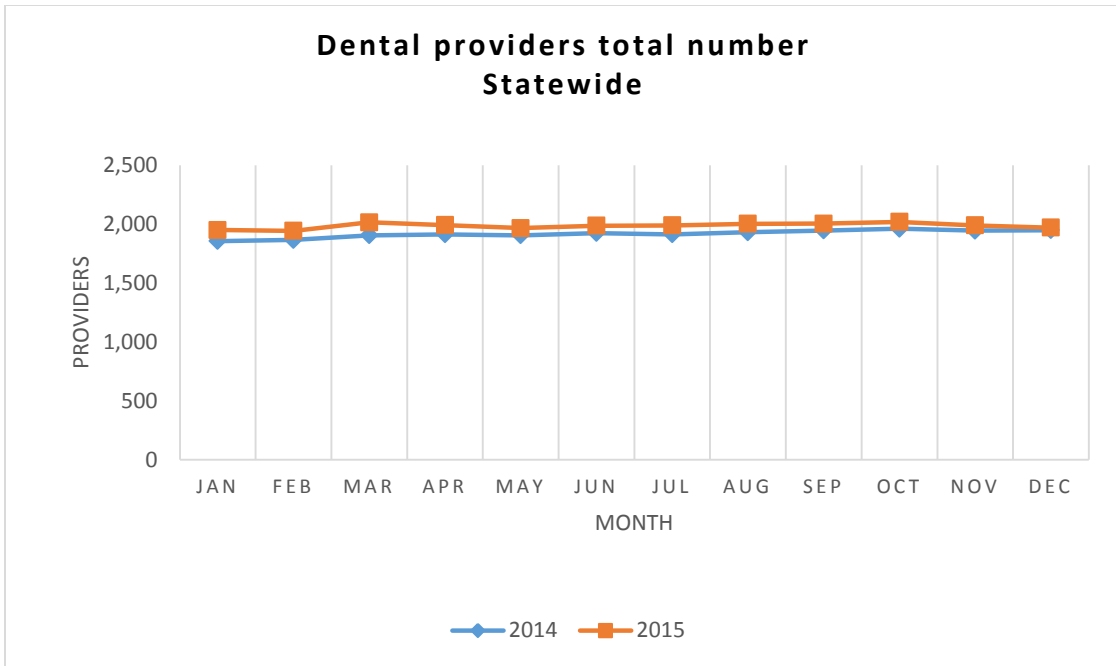
Data sources: NCTracks (MMIS) for provider enrollment, beneficiary enrollment and claims data used for utilization

Results of CAHPS survey: Currently, the state does not have CAHPS data available regarding access to dental services. However, North Carolina has released a request for proposals (RFP) to secure a certified CAHPS vendor to assist with providing data for services in the Plan.

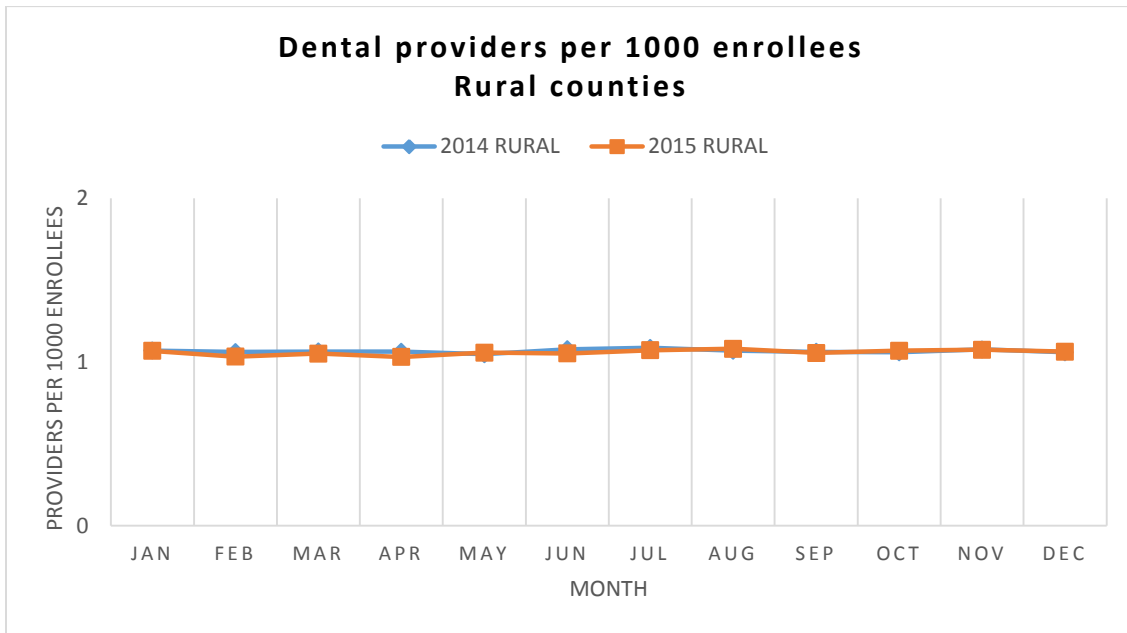
### Availability of primary care services – Dental Services

The following three graphs and map of the counties focuses on the number of dentists trending over time for CY 2014 and CY 2015. Figure 27 shows the total number of providers statewide and Figures 28 and 29 show the number of dentists per 1000 beneficiaries for rural and urban/metropolitan areas, respectively. The number of Medicaid participating dentists is essentially unchanged for all areas from 2014 compared to 2015. However, the overall trend appears to show greater numbers of dentists in the urban/metropolitan areas than in rural areas. Figure 30 shows the number and locations of dentists by county. With the exception of Gates and Hyde counties in the northeastern and eastern part of the state, respectively, dental services are available at one or more locations in every county of the state. With respect to Gates and Hyde counties, the fact they both border counties with dentists such as Gates with Pasquotank County and Hyde County borders with Dare, Washington and Beaufort counties, where dental services are at least available within one hour of driving time. In addition, Hyde County schools are serviced by the Dare County Health Department's mobile dental van

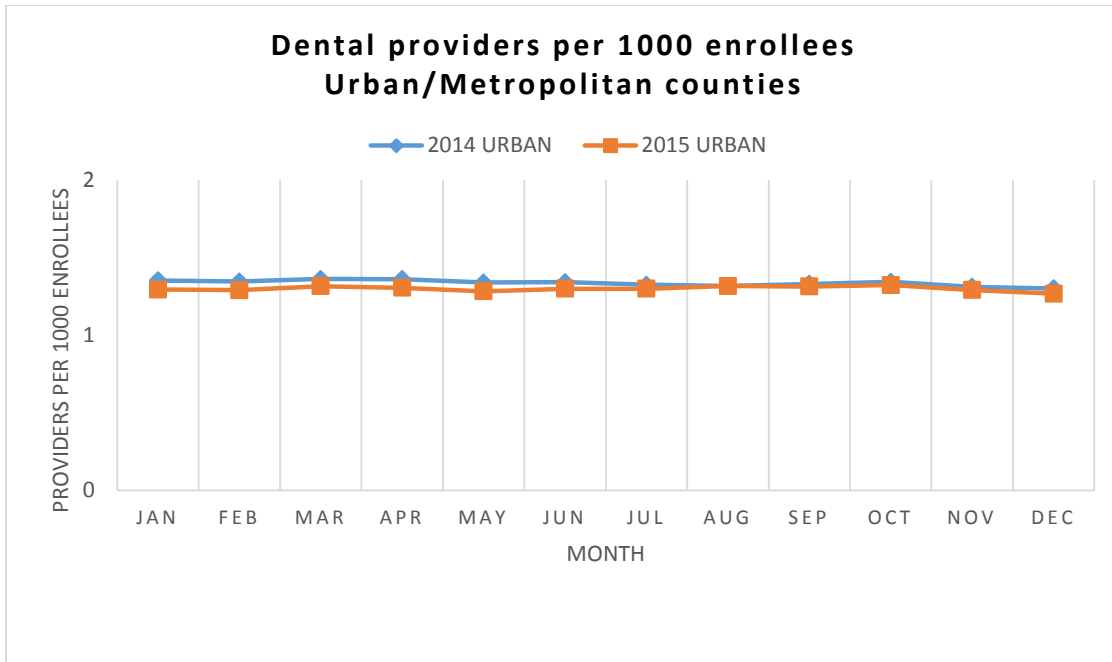
**Figure 27**



**Figure 28**

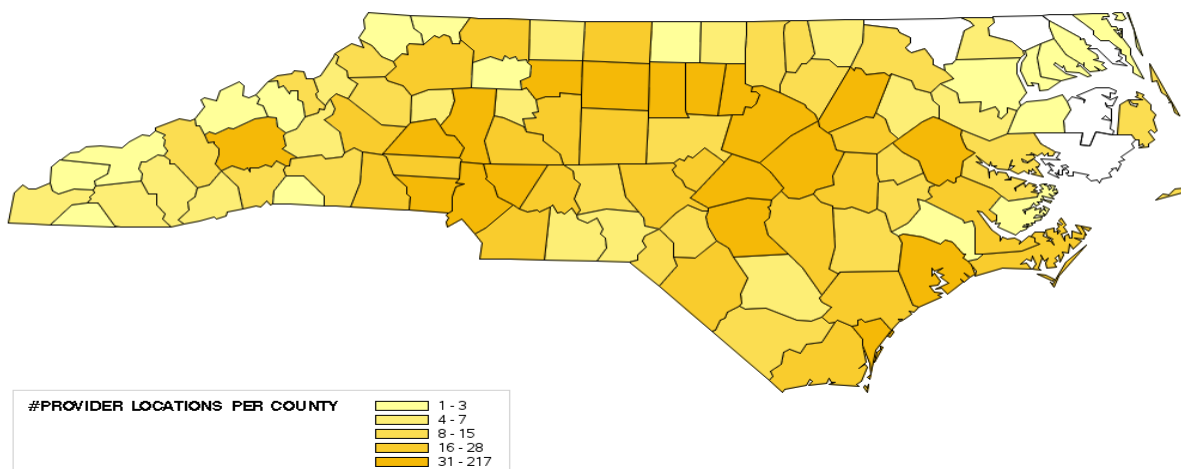


**Figure 29**



**Figure 30**

### Geographic Distribution and Number of Dental Providers by County

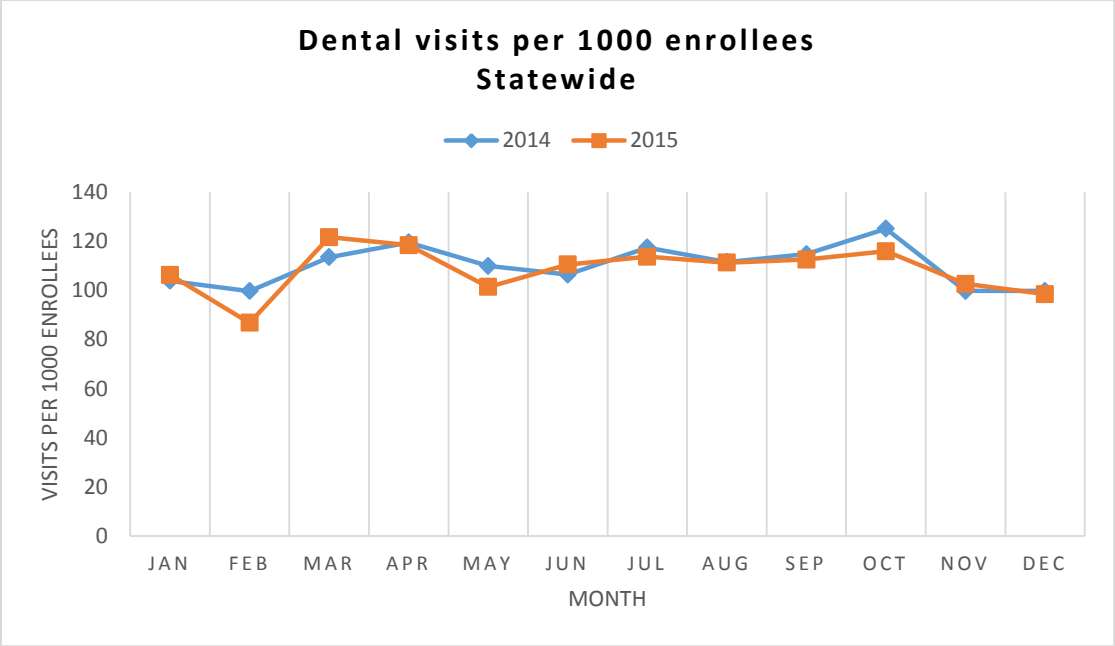


The following three graphs demonstrate visits per 1000 enrollees (beneficiaries) for dental services. Figure 31 shows statewide visits for CY 2014 and CY 2015 and Figures 32 and 33 break out the visits by Rural and Urban/Metropolitan and counties, respectively. Regarding visits/1000 enrollees for all three graphs, CY 2015 has more pronounced "valleys" and fewer "peaks" than CY 2014. This reflects several primary issues:

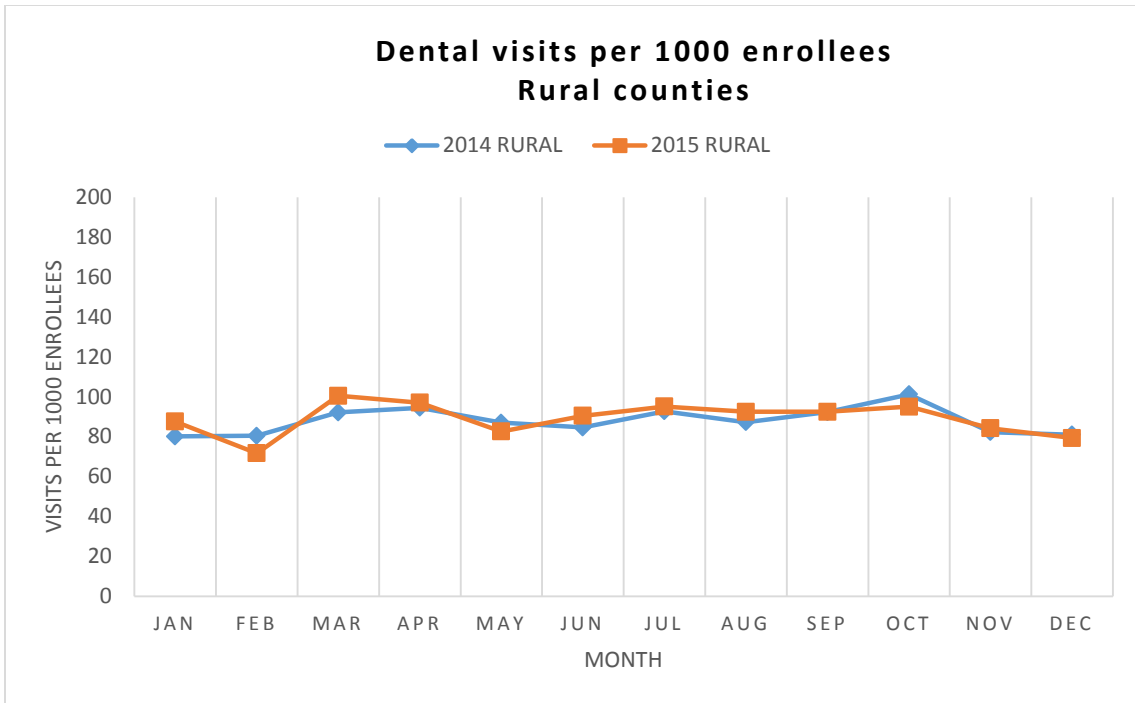
- The number of eligible beneficiaries continues to increase, due to the impact of the Affordable Care Act (ACA).
- North Carolina's dental reimbursement rates have not been increased since 2008 and continue to fall further behind market-based benchmarks, leading some providers to opt out of participating in NC Medicaid.
- As the economy improves and NC's Medicaid rates remain stagnant, participation of providers may be at risk of declining as they seek to fill vacant appointment slots with private pay patients. Medicaid rate increases should be considered in the near future, if the state expects utilization of services to remain sufficiently high or stable and seeks to maintain the optimal oral health status of its' beneficiaries.
- Note the fairly consistent seasonal trends of the number of dental visits—number of visits are lower in the winter months, climb in the spring months and remain fairly level up until the holidays.
- The number of participating Medicaid-enrolled dentists increased slightly from CY 2014 to 2015.
- Other DMA paid claims reports from 2013-15 demonstrate that the number of billing dental providers has decreased from 1,859 to 1,753 over this time frame.
- At the same time, the number of significant billing providers (paid claims equal or greater than \$10,000) has increased to roughly 1300 providers. It appears that as some billing providers choose to drop out of the program, other enrolled dental providers have stepped up to meet the demand for services. This finding would also be consistent with trends that show that more and more NC Medicaid and CHIP beneficiaries receive treatment in large group practices as opposed to solo or small group practices.

### **Figure 31**

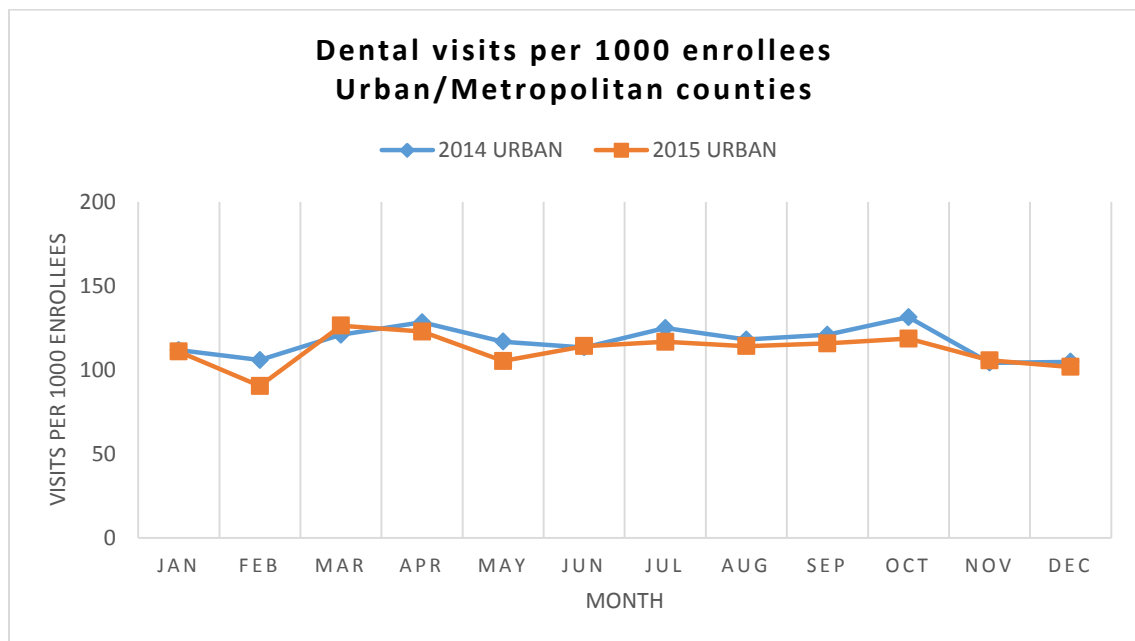




**Figure 32**



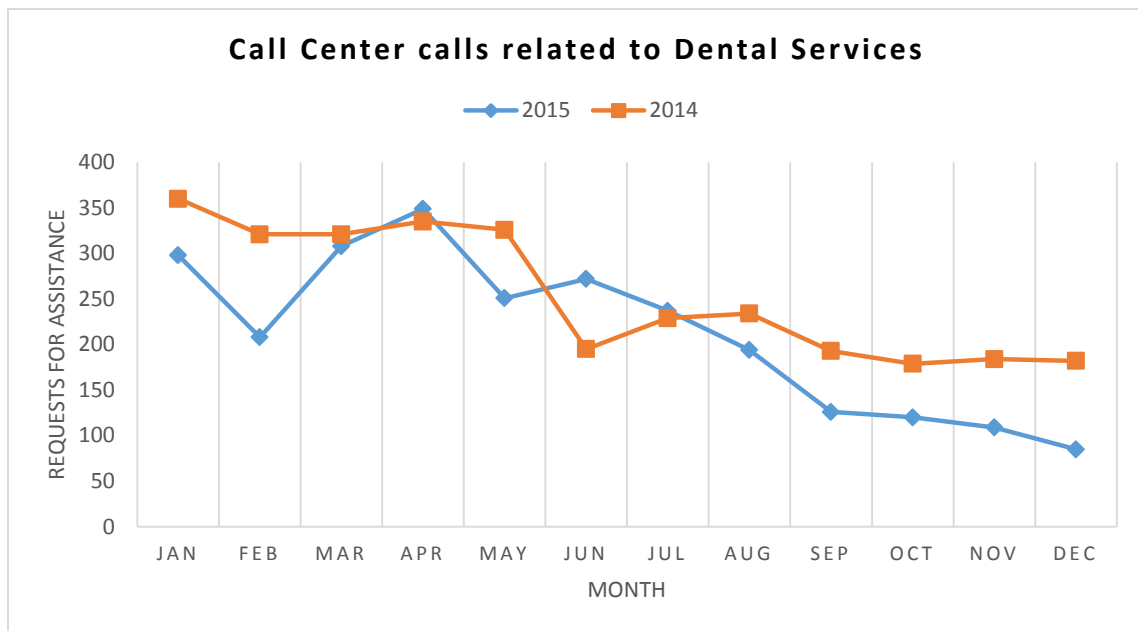
**Figure 33**



Concerns and issues raised by providers or beneficiaries through feedback mechanisms

General feedback mechanisms from providers are from discussion of issues with various dental groups and associations and also through public comments made during the agency’s Medical Care Advisory Committee, which meets quarterly. In addition, the DMA Call Center responds to beneficiaries when calls are received asking for assistance in finding a dental provider. Figure 34 below shows the number of calls received from beneficiaries during CY 2014 and CY 2015. Many of these calls were from beneficiaries seeking help trying to find an enrolled dentist or dental specialist or from those with a question regarding coverage of dental services. Some of the Call Center callers are forwarded over to the agency’s dental staff where they are referred to the NC Medicaid dental provider list on the DMA website or just read off names of enrolled providers accepting new patients in their home county and adjoining counties. There was a high volume of calls reported in January – May of 2014, which appear to have been due to the increased enrollment as a result of the ACA where newly enrolled individuals were seeking providers for dental services. Overall calls for the year were down in 2015 (average of 213 calls/month) as compared to 2014 (average of 255 calls/month).

**Figure 34**



Comparative analysis of Medicaid payment rates to other rates

Figure 35 provides data for the top 10 codes for paid claims (in dollars). Since Medicare does not cover dental services, there were no Medicare rates for comparison. Therefore, the 2015 National Dental Advisory Service (NDAS) Comprehensive Fee Report was used for rate comparison. According to the Report, fee information is collected through direct mail surveys to dentists in private practice. Fees in the report are provided for the 40<sup>th</sup> percentile by increments of 10 percentage points through the 90<sup>th</sup> percentile and also for the 95<sup>th</sup> percentile. According to the Report, “A fee percentile is defined as the number in a frequency distribution below which a certain percentage of fees will fall.” For purposes of the Plan, the 50<sup>th</sup> percentile fee was used. For the codes and comparisons provided, on average Medicaid pays 41.45% of the NDAS 50<sup>th</sup> percentile rate. However, since all Medicaid rates are not included in the analysis, the 41.25% is not a complete reflection of the percentage of the NDAS rate paid by Medicaid.

**Figure 35**

<b>Dental code and Description</b>	<b>1/2016 Medicaid rate in dollars (only one rate regardless of facility or non-facility)</b>	<b>2015 NDAS Comprehensive Fee Report in dollars – 50<sup>th</sup> percentile</b>	<b>% of NDAS rate</b>
D2392 Resin-based composite – two surfaces	100.84	248	40.66%
D2391 Resin-based composite – one surface	76.00	185	41.08%
D0120 Periodic oral exam	24.51	51	48.06%
D1120 Prophylaxis, child	25.87	69	37.49%
D8670 Periodic orthodontic treatment visit	91.49	270	33.89%
D2930 Prefabricated stainless steel crown	164.74	273	60.34%
D7140 Extraction, erupted tooth or exposed root	60.40	179	33.74%
D7210 Surgical removal of erupted tooth	103.83	285	36.43%
D2393 Resin-based composite – three surfaces	122.64	293	41.86%
D1110 Prophylaxis, adult	36.21	93	38.94%
<b>Aggregate totals and % of NDAS Fee Report</b>	<b>806.53</b>	<b>1946</b>	<b>41.45%</b>

## Review Analysis of Physician Specialists

The agency selected two physician specialist services for review: general surgeons and urologists. The rationale for choosing general surgeons was based on stated concerns by the NCDHHS Office of Rural Health regarding the lack of availability of general surgeons in rural areas of the state. The rationale for choosing urologists is due to North Carolina's projected future growth as a retirement destination and also due to an aging population. Urological problems often surface as a part of the aging process, particularly kidney and bladder problems. Therefore, the availability of services to treat urological problems is an area the agency chose to review, particularly focused on the state's rural areas.

### General Surgeons

Data sources: NCTracks (MMIS) for provider enrollment, beneficiary enrollment and claims data used for utilization

CAHPS data relevant to meeting beneficiary needs – Currently, the state does not have CAHPS data available regarding surgical services. However, North Carolina has released a request for proposals (RFP) to secure a certified CAHPS vendor to assist the state with providing data for surgical services in the Plan.

### Availability of physician specialists - general surgeons

The following three graphs and map of the counties focuses on the number of general surgeons trending over time for CY 2014 and CY 2015. Figure 36 shows the total number of general surgeons statewide and Figures 37 and 38 show the number of general surgeons per 1000 beneficiaries for rural and urban/metropolitan areas, respectively. The number of Medicaid participating general surgeons remains virtually unchanged for all areas from 2014 compared to 2015. However, the overall trend appears to show greater numbers of surgeons in the urban/metropolitan areas than rural areas. Figure 39 shows the number and locations of general surgeons by county. There are several areas in the state where there are no Medicaid-participating general surgeons. One of the reasons for a lack of surgeons in these areas is the lack of existing inpatient hospitals or ambulatory surgical centers, which are typically where surgeons are required to perform procedures such as cholecystectomies, appendectomies, or other similar procedures. The counties without a general surgeon, however, border counties with general surgeons, which allows beneficiaries access surgical services but may be more difficult due to distance or with difficulties in obtaining transportation. The agency will continue to monitor this service and collaborate with the Office of Rural Health to address improved access to surgical services in the state's rural areas.

Figure 36

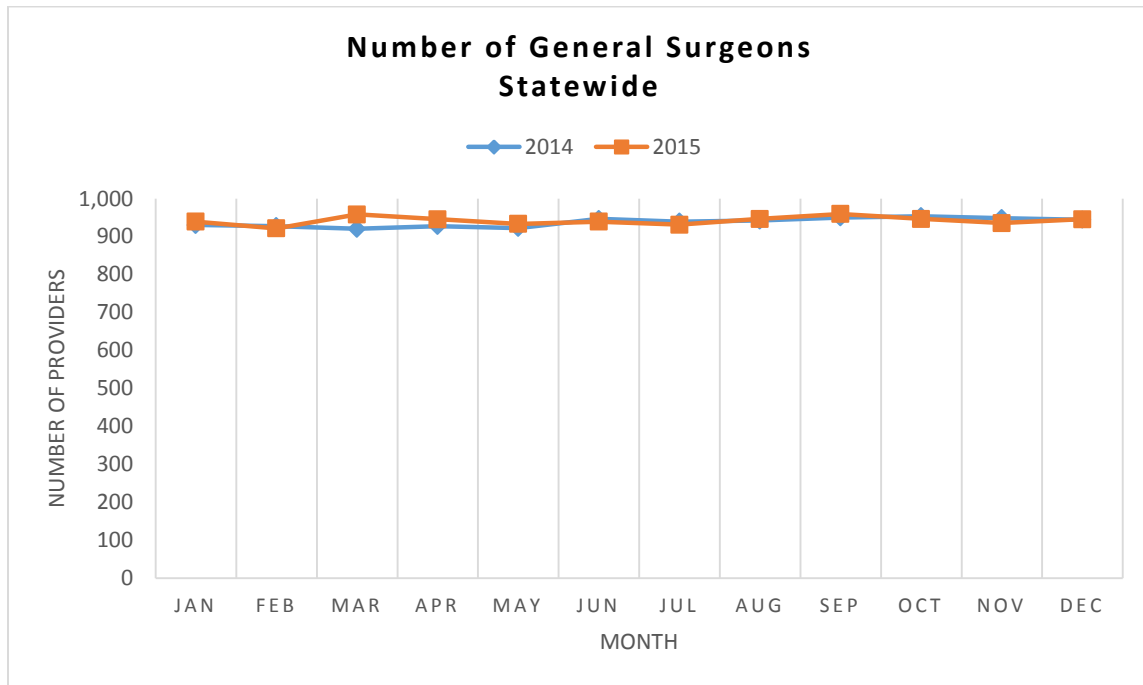


Figure 37

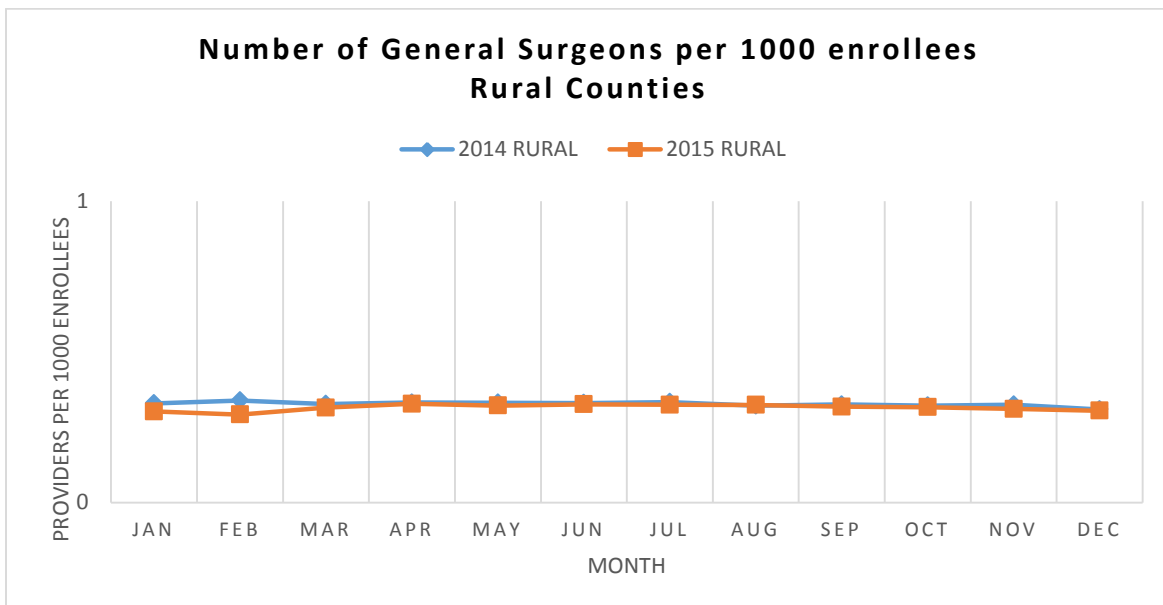


Figure 38

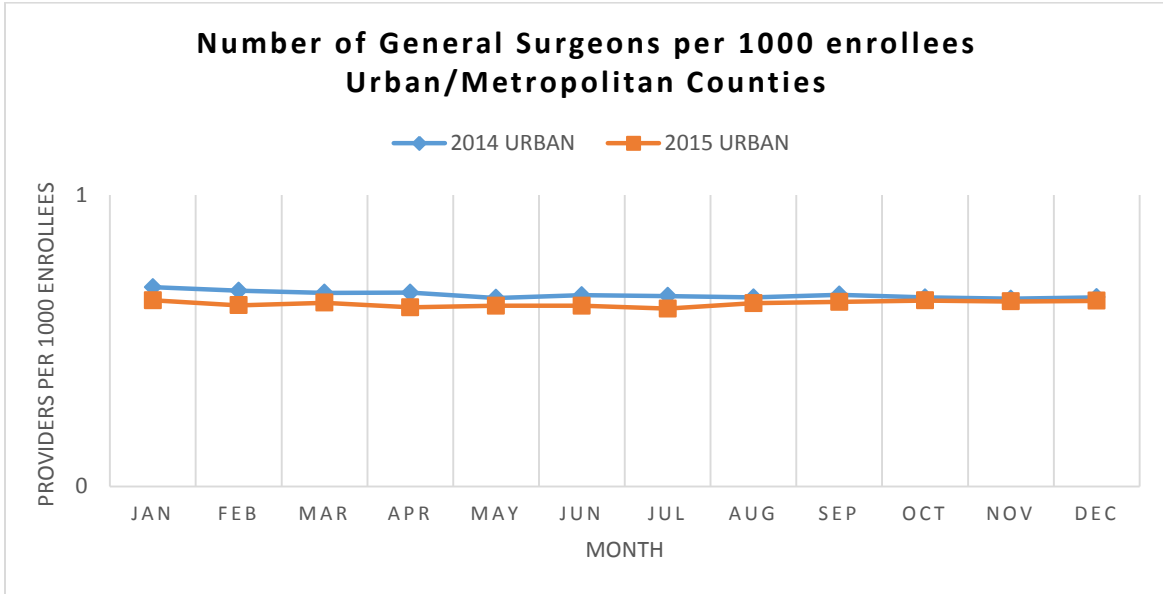
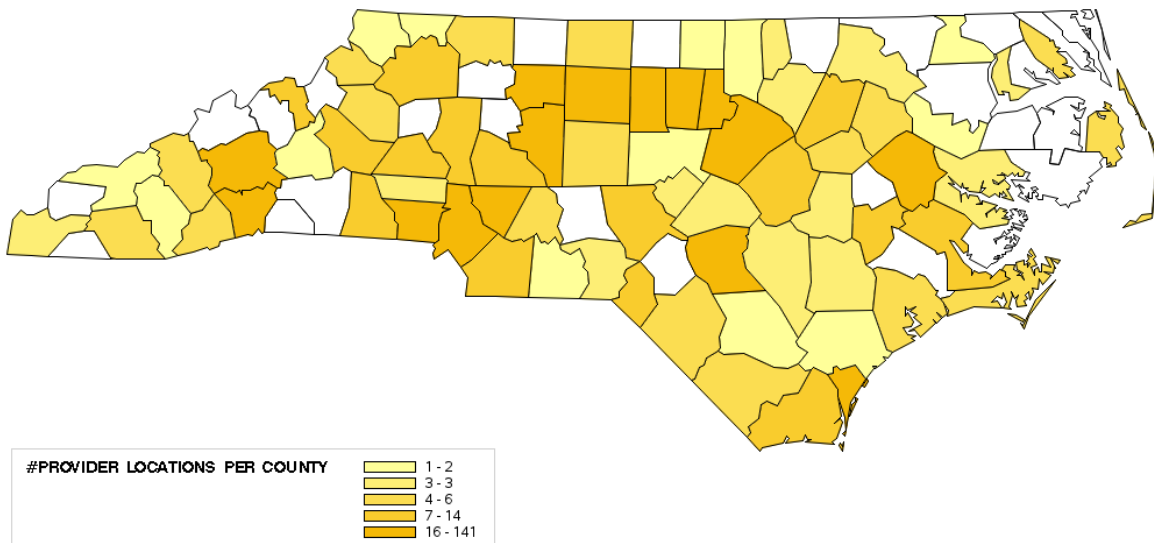


Figure 39

Geographic Distribution and Number of General Surgeons by County



Utilization data

The following three graphs show visits (procedures also included) per 1000 enrollees (beneficiaries) for general surgeons. Figure 40 shows statewide visits for CY 2014 and CY 2015. Figures 41 and 42 show a breakdown of visits by Rural and Urban/Metropolitan and counties, respectively. Since there are a number of rural areas without general surgeons, as previously shown in Figure 39, urban/metropolitan areas are more likely to have hospitals and ambulatory surgical centers. This factor affords greater opportunities for surgeons to perform procedures, thus, the state is expected to see fewer surgical visits per 1000 enrollees in rural areas, than in metropolitan areas. In addition, the state notes that there are fewer visits in the last quarter for both years, which may be due to beneficiaries seeking elective surgical procedures opting to delay scheduling these procedures until after the November and December holidays. However, following a similar trend as primary care services, there were generally fewer surgical visits or procedures to general surgeons in 2015, as compared to 2014. The state is uncertain about the specific reasons for this trend. However, as with the other services, the state will require additional data and will pursue further analysis and review of surgical services data.

**Figure 40**

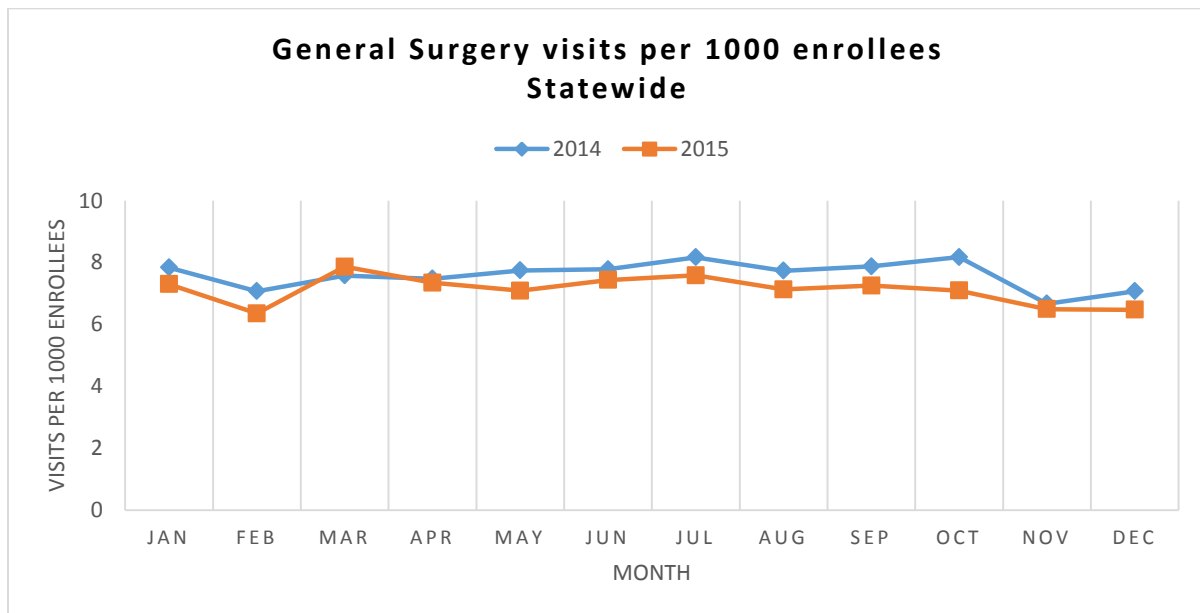




Figure 41

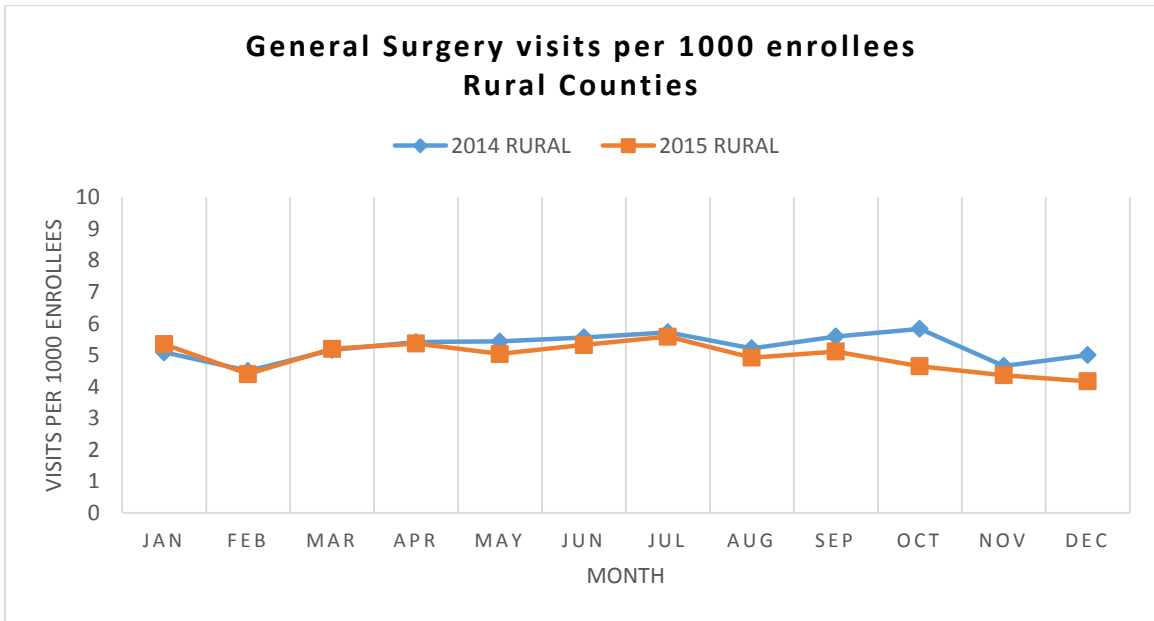
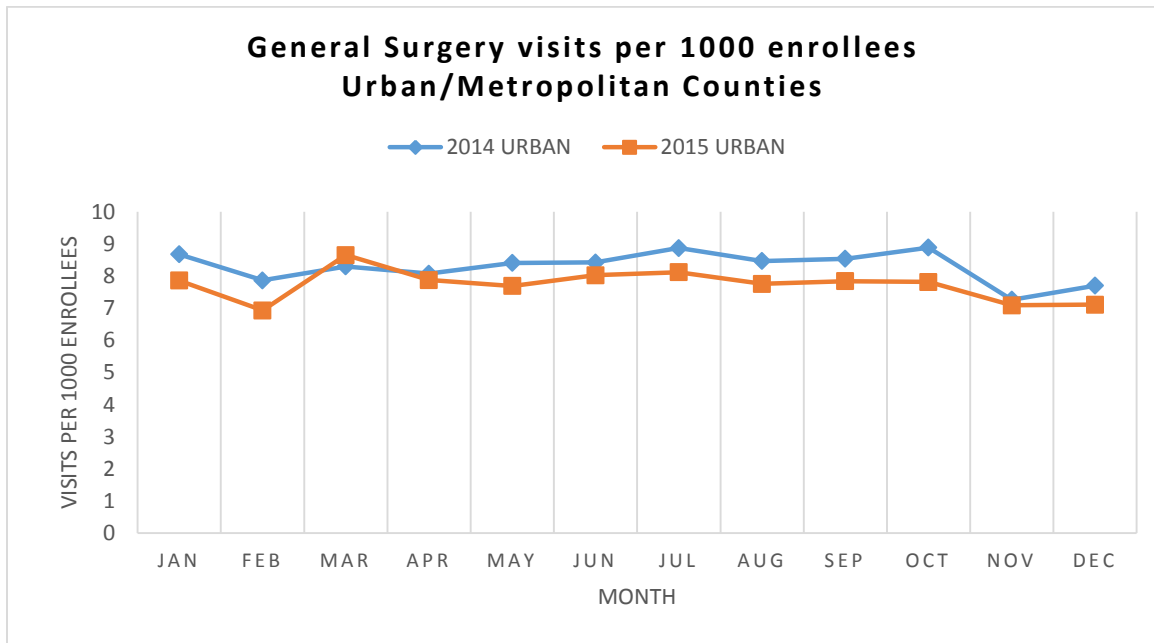


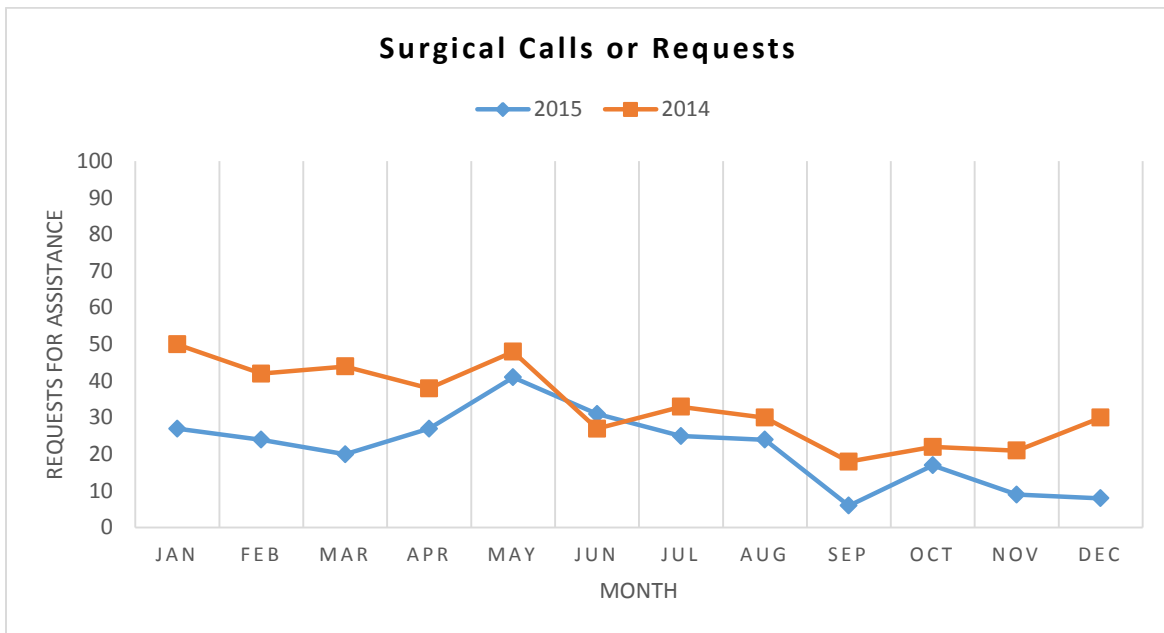
Figure 42



Concerns or issues raised by surgeons or beneficiaries through provider feedback mechanisms

General feedback mechanisms from providers are based on discussions of issues with various physician groups and associations, and through public comments from the agency’s quarterly Medical Care Advisory Committee meetings. In addition, the DMA Call Center staff responds to beneficiary calls seeking assistance in finding a physician. Figure 41 below shows the number of calls received from beneficiaries during CY 2014 and CY 2015. Many of the calls were from beneficiaries seeking help to find an enrolled surgeon or have questions regarding coverage of various surgical services. Although there were fewer calls in 2015, both CY 2014 and CY 2015 appear to follow a similar trend of increased numbers of calls during January to May, and fewer calls from June to December. Typically, beneficiaries seeking elective surgical procedures often delay scheduling these services during the last quarter of the year due to the November and December holidays, which may explain the decrease in calls during these months. Overall, calls for the year were down in 2015 (average of 21 calls/month), as compared to 2014 (average of 33 calls/month).

**Figure 43 (make sure diamond and square are same as other years)**



Comparative analysis of Medicaid payment rates to Medicare rates for Surgeons.

The data in Figure 44 highlight the top 10 codes for paid claims (in dollars) which Medicare also covered and paid, for the same CPT code. Some CPT codes for Medicaid that were originally in

the top 10 codes for paid claims, were not covered by Medicare. Therefore, those codes were omitted from the analysis. The rates in Figure 44 are for care provided in a facility, such as a hospital, or in a non-facility, such as an office or clinic setting. As stated previously, N.C. Medicaid typically pays approximately 80% of the Medicare rate. Figure 44 below shows a similar consistency with Medicaid paying approximately 80% of Medicare rates for both facility rates and non-facility rates.

**Figure 44**

<b>CPT code and Description</b>	<b>1/1/2016 Medicaid non-facility rate in dollars</b>	<b>1/1/2016 Medicare non-facility rate in dollars</b>	<b>% of Medicare non-facility rate</b>	<b>1/1/2016 Medicaid facility rate in dollars</b>	<b>1/1/2016 Medicare facility rate in dollars</b>	<b>% of Medicare facility rate</b>
47562 Laparoscopy, cholecystectomy	528.57	646.52	81.76%	528.57	646.52	81.76%
99291 Critical care evaluation and management	225.61	267.08	84.47%	189.96	219.13	86.69%
99213 Office visit	54.26	70.29	77.19%	40.13	49.97	80.31%
99232 Subsequent hospital inpatient care	59.96	70.56	84.98%	59.96	70.56	84.98%
44970 Laparoscopy, appendectomy	424.1	590.74	71.79%	424.10	590.74	71.79%
99214 Established patient office visit	81.76	103.74	78.81%	62.08	76.77	80.86%
99204 New patient office visit	125.39	159.32	78.70%	101.72	127.02	80.08%
33533 Coronary artery bypass	1503.79	1850.90	81.25%	1503.79	1850.90	81.25%
99223 Initial hospital inpatient care	161.88	198.12	81.71%	161.88	198.12	81.71%
99233 Subsequent hospital inpatient care	85.87	101.76	84.38%	85.87	101.76	84.38%
<b>Aggregate totals and % of Medicare rates</b>	<b>3251.19</b>	<b>4059.03</b>	<b>80.10%</b>	<b>3158.06</b>	<b>3931.49</b>	<b>80.33%</b>

## Review Analysis of Physician Specialists - Urologists

Data sources: NCTracks (MMIS) for provider enrollment, beneficiary enrollment and claims data used for utilization

CAHPS data relevant to meeting beneficiary needs – The state does not currently have available CAHPS data for urological services. However, North Carolina has released a request for proposals (RFP) to secure a certified CAHPS vendor to assist with providing CAHPS data for services in the Plan.

### Availability of physician specialists – urologists

The following three graphs and map of the counties focus on the number of urologists trending over time for CY 2014 and CY 2015. Figure 45 shows the total number of urologists statewide. Figures 46 and 47 show the number of urologists per 1000 beneficiaries for rural and urban/metropolitan areas, respectively. The number of Medicaid-participating urologists remains virtually unchanged for all areas from 2014, as compared to 2015. However, the overall trend appears to show greater numbers of urologists in the urban/metropolitan areas than in rural areas. Figure 48 shows the number and locations of urologists, by county. There are a number of areas in the state where there are no Medicaid-participating urologists. One reason for the lack of urologists in these areas is that there are no existing hospitals or ambulatory surgical centers, which are typically needed for urologists to perform procedures such as lithotripsy or cystoscopies, or other procedures where an inpatient or ambulatory surgical facility are required. The counties without a urologist, however, border counties with urologists, which allows beneficiaries access these services but may be more difficult due to distance or with difficulties in obtaining transportation. The agency will continue to monitor this service by analyzing provider data to improve accessibility of urological services, particularly in the state's rural areas.

Figure 45

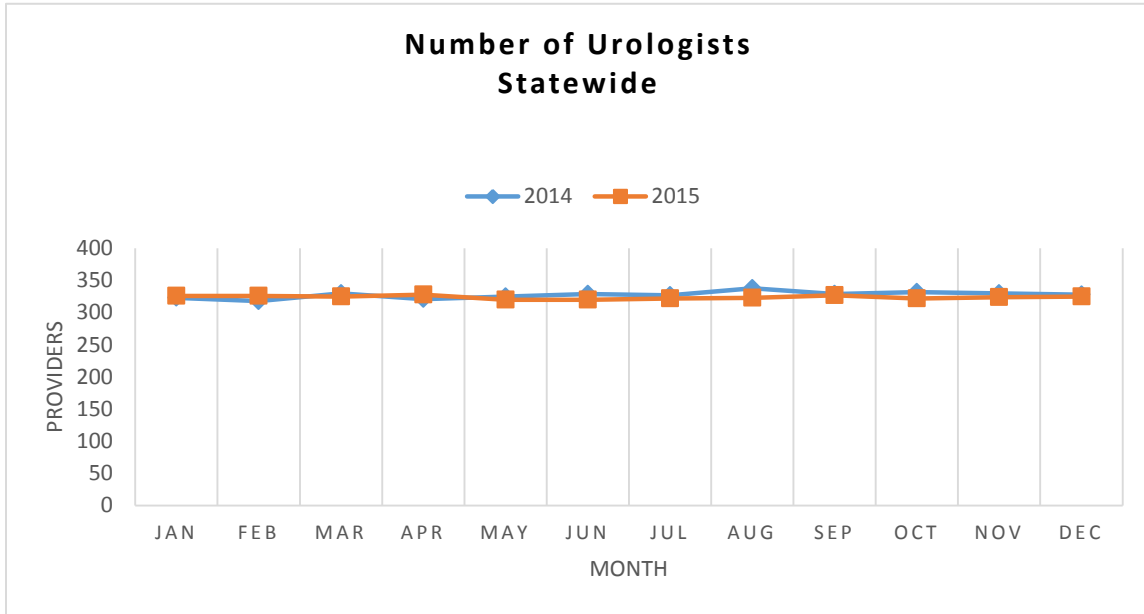


Figure 46

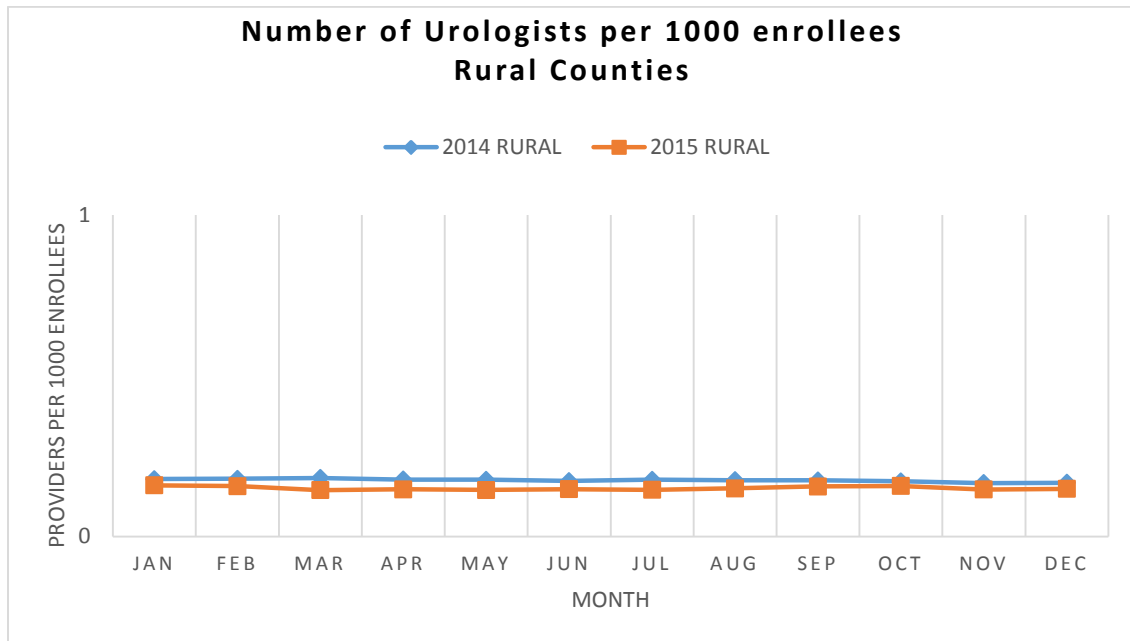


Figure 47

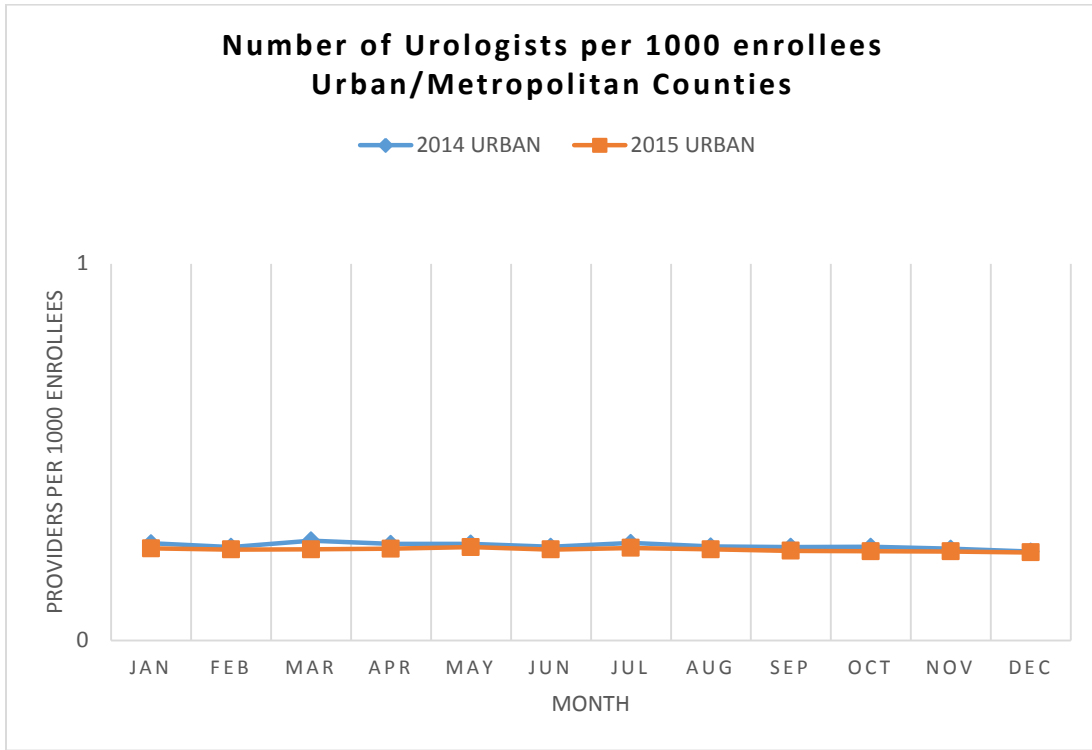
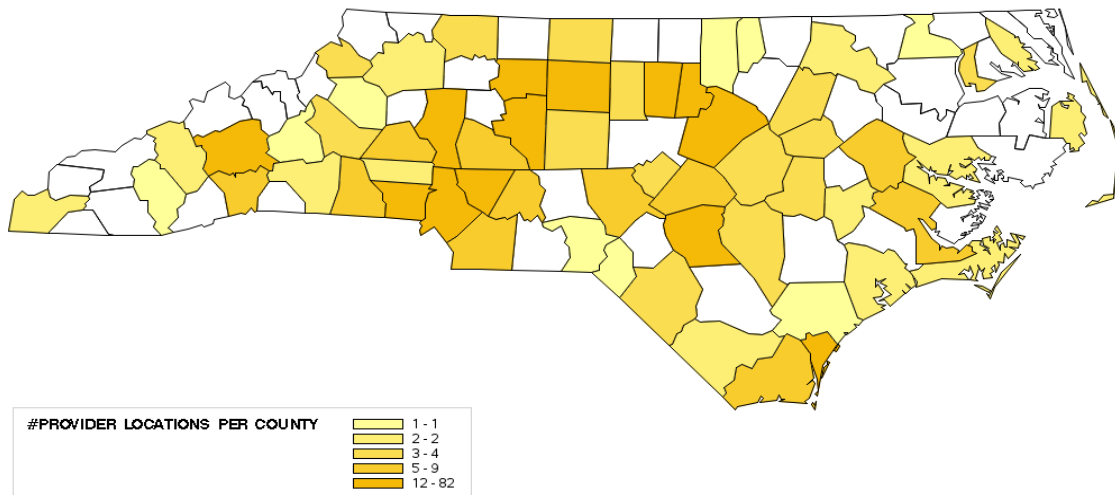


Figure 48

Geographic Distribution and Number of Urologists by County



### Utilization data

The following three graphs demonstrate visits (procedures also included) per 1000 enrollees (beneficiaries) for urologists. Figure 49 shows statewide visits for CY 2014 and CY 2015. Figures 50 and 51 break down visits by Rural and Urban/Metropolitan and counties, respectively. Since there are a number of rural areas without urologists, as previously shown in Figure 48, and urban/metropolitan areas are more likely to have existing hospitals, ambulatory surgical centers, etc. that afford greater opportunities for urologists to perform procedures, the state expects fewer urology visits per 1000 enrollees in rural areas than in metropolitan areas. In addition, there were slightly fewer urology visits in the last quarter for both CY 2014 and CY 2015. This may have been due to beneficiaries seeking elective urological procedures choosing to delay scheduling these procedures until after the November and December holidays. However, following a similar trend as primary care services, there were generally fewer visits or procedures to urologists in 2015, as compared to 2014. Again, the state is uncertain about the reason for this trend, but as with other services, it will require additional data and further analysis.

**Figure 49**

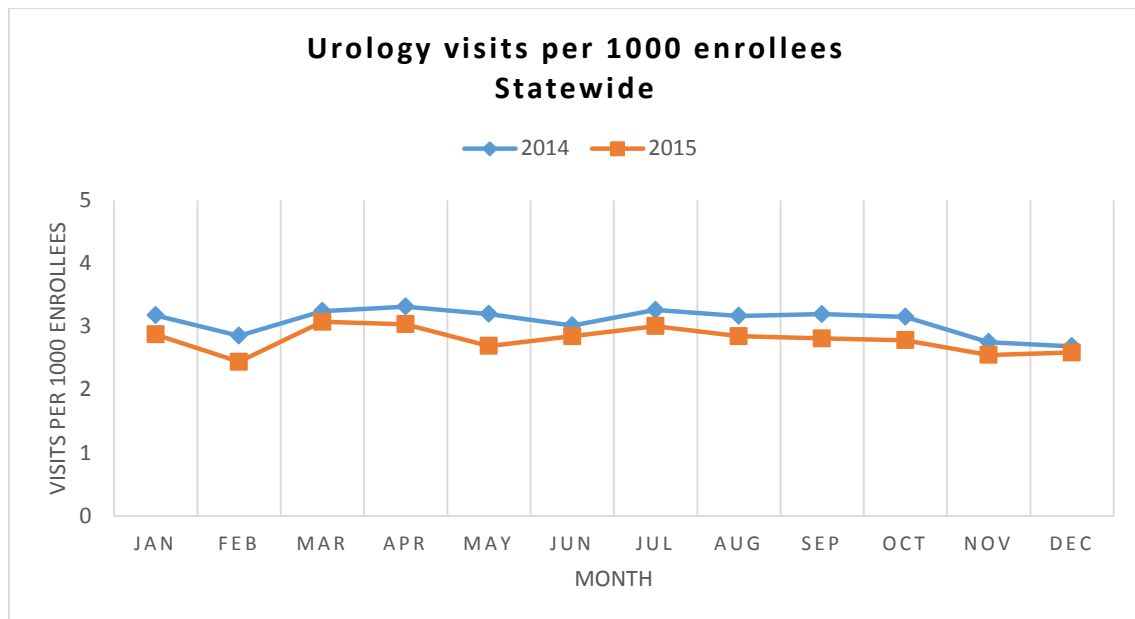


Figure 50

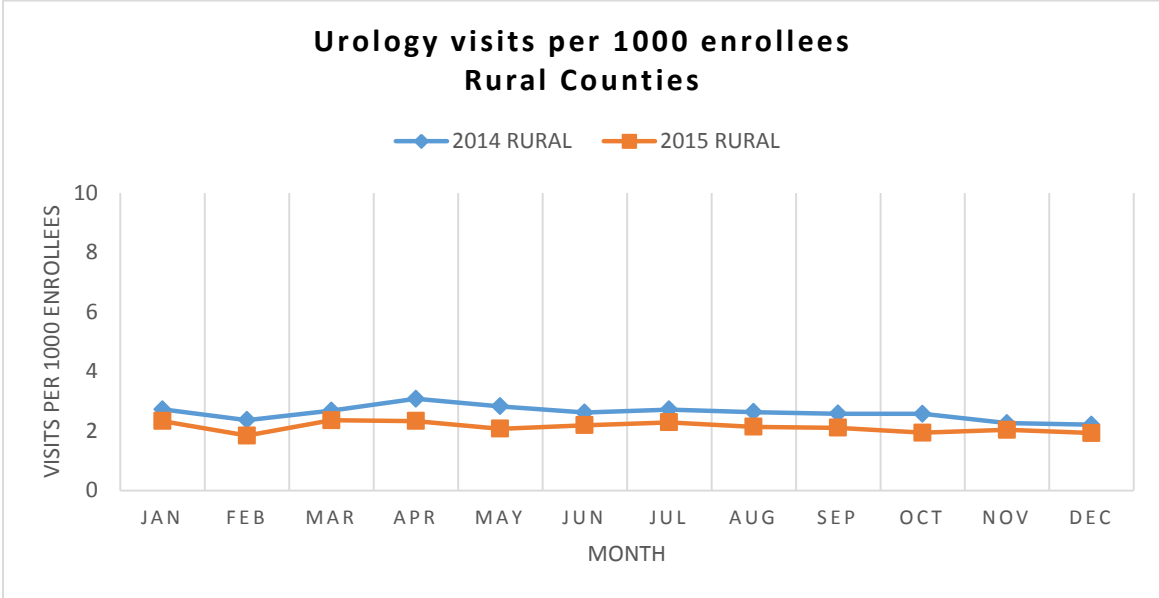
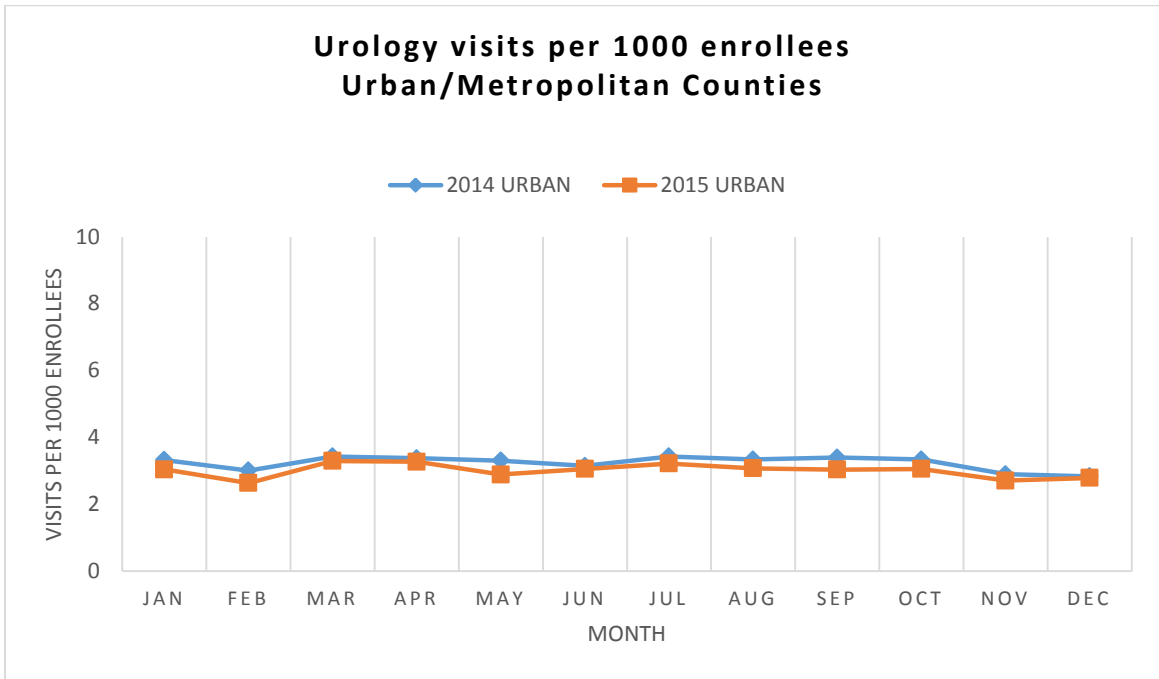


Figure 51





CAHPS data relevant to meeting beneficiary needs– The state does not currently have CAHPS data available for use of urological services by Medicaid beneficiaries. However, North Carolina has released a request for proposals (RFP) to secure a certified CAHPS vendor to assist the state with providing CAHPS data for utilization of urology services in the Plan.

Concerns or issues raised by urologists and beneficiaries through feedback mechanisms

Currently there is no Call Center data or other feedback mechanisms for tracking urological services. However, the Call Center staff proposes to expand categories of service that will track use of urology services by the Medicaid population by the end of CY2016.

Comparative analysis of Medicaid payment rates to Medicare rates for Urologists

The data in Figure 52 highlight the top 10 codes for paid claims (in dollars) for which Medicare also covered and paid using the same CPT codes. Some CPT codes for Medicaid that were originally in the top 10 codes for paid claims were not covered by Medicare. Therefore, those codes were omitted from the analysis. The rates in Figure 52 reflect care provided in a facility, such as a hospital, and in a non-facility, such as an office or clinic. As previously stated, N.C. Medicaid typically pays approximately 80% of the Medicare rate. However, the aggregate for the 10 codes provided in Figure 52 shows the Medicaid rate to be actually higher than 80% of the Medicare rate for both non-facility and facility rates, at 87.77% and 82.62%, respectively. However, since all Medicaid rates were not included in the analysis, the higher percentages are not a complete reflection of the percentage of the Medicare rate paid by Medicaid.

**Figure 52**

<b>CPT code and Description</b>	<b>1/1/2016 Medicaid non-facility rate in dollars</b>	<b>1/1/2016 Medicare non-facility rate in dollars</b>	<b>% of Medicare non-facility rate</b>	<b>1/1/2016 Medicaid facility rate in dollars</b>	<b>1/1/2016 Medicare facility rate in dollars</b>	<b>% of Medicare facility rate</b>
99214 Established patient office visit	81.76	103.74	78.81%	62.08	76.77	80.86%
99213 Established patient office visit	54.26	70.29	77.19%	40.13	49.97	80.31%
99204 New patient office visit	125.39	159.32	78.70%	101.72	127.02	80.08%
52000 Cystoscopy	170.56	197.27	86.46%	104.54	125.01	83.63%
99203 New patient office visit	80.86	103.91	77.82%	60.58	74.95	80.83%
50590 Lithotripsy shock wave	751.07	701.77	107.03%	467.69	561.59	83.28%

54360 Operation on penis to correct angulation	606.00	713.06	84.99%	606.00	713.06	84.99%
52356 Cysto/uretero with lithotripsy	335.06	414.13	80.91%	335.06	414.13	80.91%
54640 Orchiopexy, inguinal approach	384.35	472.54	81.34%	384.35	472.54	81.34%
99215 Established patient office visit	110.58	139.94	79.02%	88.14	108.64	81.13%
<b>Aggregate totals and % of Medicare rates</b>	<b>2699.89</b>	<b>3075.97</b>	<b>87.77%</b>	<b>2250.29</b>	<b>2723.68</b>	<b>82.62%</b>

## Review Analysis of Behavioral Health Services

The vast majority of behavioral health services provided by North Carolina's Medicaid agency are not provided by a FFS model. Rather, the state's behavioral health services are provided through public managed care organizations that provide a comprehensive behavioral health services plan under the NC 1915(b)(c) Waiver for the state's Medicaid beneficiaries in need of mental health, developmental disability or substance use services. The organizations are Prepaid inpatient health plans as defined in 42 CFR § 438.2. For state fiscal year (SFY) 2015 (July 1, 2014 – June 30, 2015), the amount of funds expended for behavioral health waiver services was approximately \$2.4 billion. However, pursuant to the Waiver, a number of services are exempt and provided through the FFS model including:

- Retroactive eligibility – Medicaid beneficiaries for the period of retroactive eligibility;
- Qualified Medicare beneficiary groups (MQ-B, E, and Q);
- Children 0 to 3 years of age, except that all age groups may participate in the Home and Community Based Services (HCBS) waiver, "NC Innovations;" and
- Non-qualified aliens or qualified aliens during the five-year ban.

For the same state fiscal year noted above, the amount of expenditures for behavioral health services that were exempt from the Waiver was \$16 million (0.67%) of the total amount expended for behavioral health services within the Medicaid program. For the populations that were exempt from the Waiver, for the 0-3 year population, the amount spent for SFY 2015 was \$11 million, which comprised 69% of the behavioral health FFS spending, and for this population, developmental screening constituted the majority of this spending. In addition, the remaining \$5 million or 31% of behavioral health FFS spending consisted primarily of development screening for children ages 37 months to 18 years (provided by primary care providers as a part of pediatric care) and psychotherapy for adults

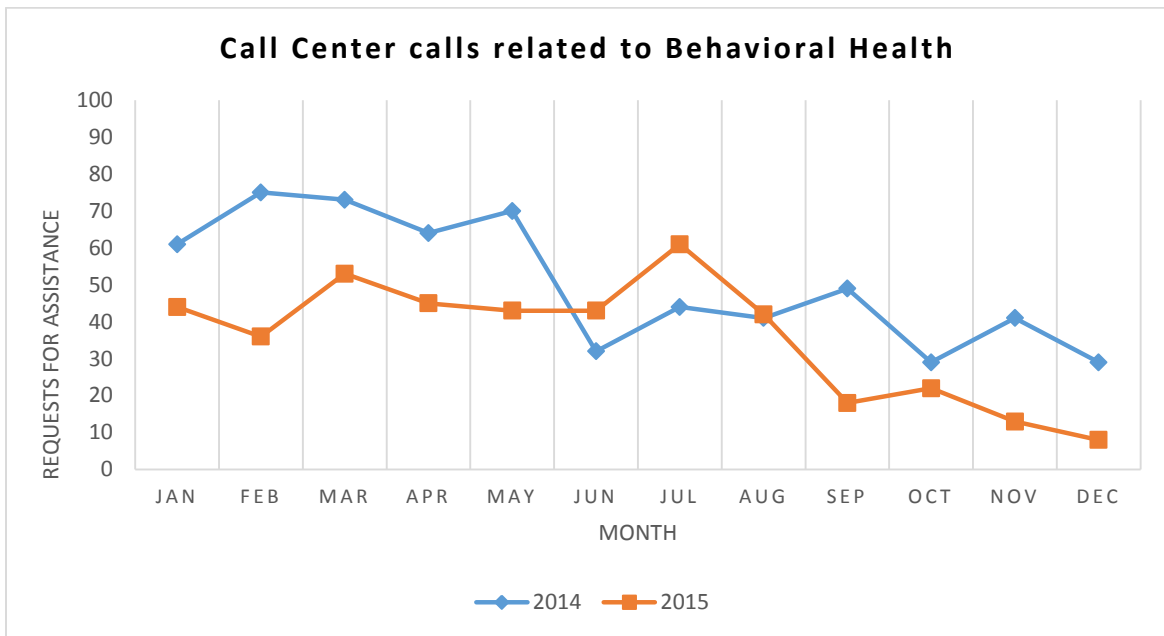
As shown above, compared to the provision of behavioral health services via the managed care organizations, the amount of funds expended on behavioral health care services through the FFS model is minimal. Currently, the state does not have evidence the FFS model is not working well for beneficiaries. Since the managed care organizations are required to complete annual gap analysis reports, the same access issues they identify and address, directly affect FFS behavioral health services since many of the FFS providers also participate as network providers for the managed care organizations.

### Concerns and issues raised by providers or beneficiaries through feedback mechanisms

General feedback mechanisms from providers are from discussion of issues with various behavioral health advocacy groups and associations and also through public comments made

during the agency’s Medical Care Advisory Committee, which meets quarterly. In addition, the DMA Call Center responds to beneficiaries when calls are received asking for assistance in finding a provider. Figure 53 below shows the number of calls received from beneficiaries and providers during CY 2014 and CY 2015. Many of these calls were from beneficiaries seeking help in contacting the behavioral health managed care organization serving their area. There was a high volume of calls reported in January – May of 2014, which appear to have been due to the increased enrollment as a result of the ACA where newly enrolled individuals were seeking providers for behavioral health services. Calls were lower the last three months of the year for both CY 2014 and CY 2015, which is similar to the trends observed with primary care services, including dental services, and pre and post-natal services. Overall calls for the year were down in 2015 (average of 38 calls/month) as compared to 2014 (average of 51 calls/month).

**Figure 53**



## Review Analysis of Pre-Natal and Post-Natal Obstetric Services

Data sources: NCTracks (MMIS) for provider enrollment, beneficiary enrollment and claims data

CAHPS data relevant to meeting beneficiary needs – The state does not currently have CAHPS data available regarding prenatal and post-natal services. However, North Carolina has released a request for proposals (RFP) to secure a certified CAHPS vendor to assist the state with providing CAHPS data for prenatal and post-natal services in the Plan.

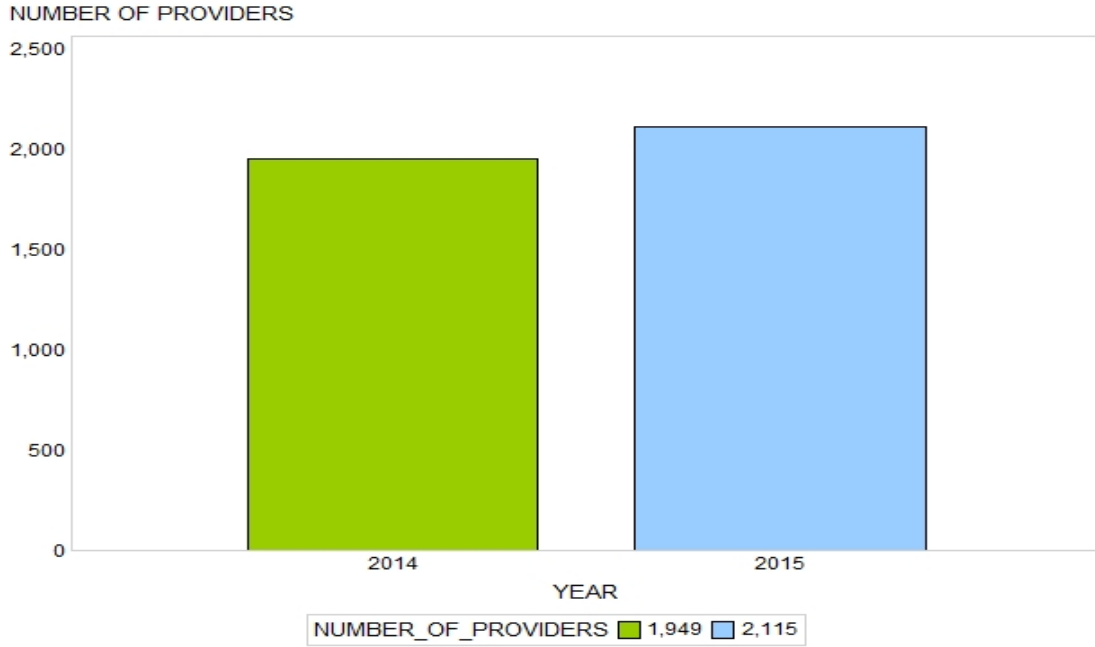
### Availability of prenatal and post-natal obstetric providers

The following three graphs and map of the counties focus on the number and availability of prenatal and post-natal obstetric providers. Figure 54 compares the number of obstetric providers from CY 2014 to CY 2015. There was an 8.5% increase in the number of prenatal and post-natal providers from CY 2014 to CY 2015. A portion of this increase was due to growing numbers of physician assistants and nurse practitioners enrolled in Medicaid in 2015, who function as rendering providers. The number of rendering providers is expected to increase in 2016, with the agency requiring all such providers to be enrolled in Medicaid, no later than November 1, 2016.

Figure 55 shows the number and locations of prenatal and post-natal providers by county. There are a number of areas in the state with no Medicaid-participating obstetric providers. One reason for the lack of providers in these areas is that there are no existing hospitals in the county or the hospitals may not offer maternity services. All Medicare-participating hospitals (all of which also participate in N.C. Medicaid) are required to comply with the Emergency Medical Treatment and Labor Act (EMTALA). This may involve a provider delivering a beneficiary's baby, in a hospital that may not offer maternity services, which is not routine or common. Thus, these providers are not reflected in Figure 55. Figure 56 shows the average distance in miles between home and hospital for Medicaid deliveries during CY 2014. The data are based on all Medicaid deliveries in CY 2014, with availability of beneficiary home addresses and/or zip codes, with about 15% of the distances based only on residence zip codes. Due to the lack of availability of hospitals that offer maternity services, there are 24 counties in the state in which a beneficiary must travel between 21 to 58 miles for her delivery.

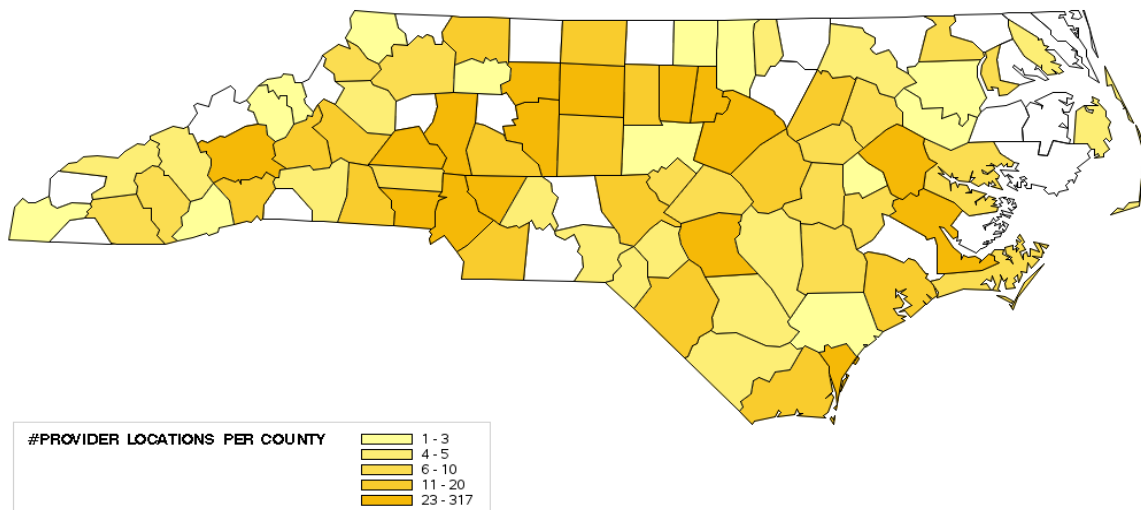
**Figure 54**

**Number of Pre and Post-Natal Providers for CY 2014 and CY 2015**



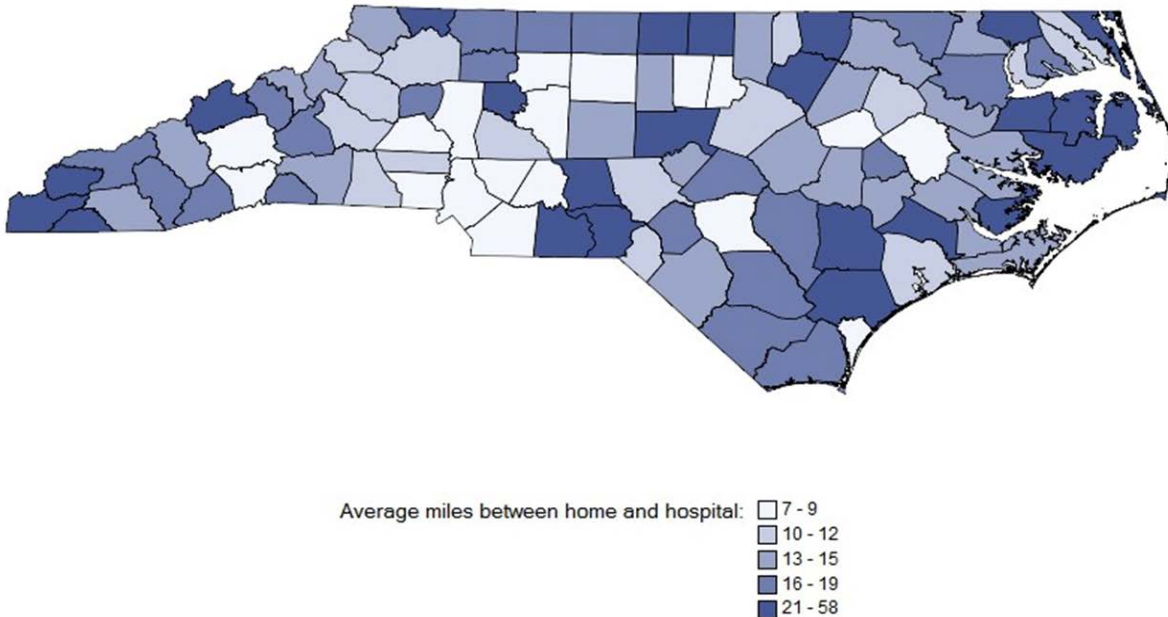
**Figure 55**

**Geographic Distribution and Number of Pre and Post-natal Provider Locations by County**



**Figure 56**

**Average Distance in Miles between Home and Hospital for Medicaid Deliveries for CY 2014**



Utilization data

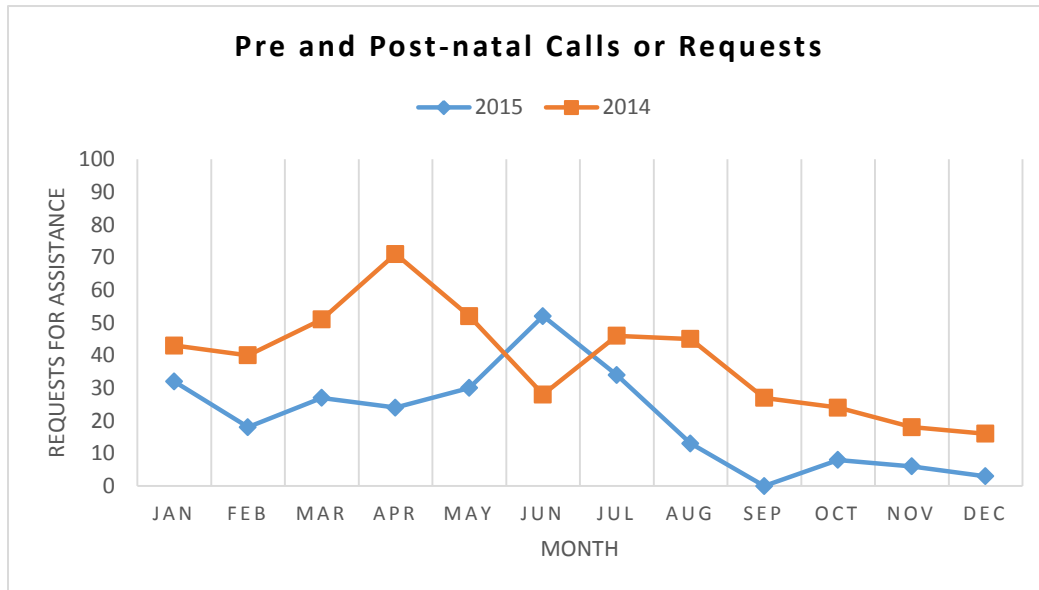
With prenatal and post-natal services often provided and billed as bundled services, it is difficult to accurately obtain the number of visits per 1000 enrollees. However, the agency is continuing to review and analyze data to establish utilization trends statewide, and for urban/metropolitan and rural areas.

Concerns or issues raised by providers or beneficiaries through provider feedback mechanisms

General feedback mechanisms from providers were from discussion of issues with various physician groups and associations, and through public comments received during the agency's quarterly Medical Care Advisory Committee meetings. In addition, the DMA Call Center staff compiled results of responses to beneficiaries from calls regarding prenatal and post-natal services. Figure 57 below shows the number of calls received from beneficiaries for CY 2014 and CY 2015. Many calls were from beneficiaries seeking help with finding a provider or were from beneficiaries with questions regarding coverage of prenatal and post-natal services. Although there were fewer of these types of calls in 2015 than in 2014, both years appear to follow the same trend of fewer calls towards the last quarter of the year from October to December. Typically, beneficiaries seeking often delay scheduling these services during the last quarter of the year due to the November and December holidays, which may explain the

decrease in calls for these months. Overall, calls for the year were down in 2015 (average of 20 calls/month) as compared to 2014 (average of 38 calls/month).

**Figure 57**



Comparative analysis of Medicaid payment rates to Medicare payment rates for Pre-Natal and Post-Natal Obstetric Services

The data in Figure 58 highlight the top 10 codes for paid claims (in dollars) which Medicare also covered and paid, for the same CPT code. Some CPT codes for Medicaid that were originally in the top 10 codes for paid claims, were not covered by Medicare. Therefore, those codes were omitted from the analysis. The rates in Figure 57 show care provided in a facility, such as hospital, and a non-facility, such as an office or clinic. As previously stated, N.C. Medicaid typically pays approximately 80% of the Medicare rate. Figure 57 below shows this consistent pattern for both facility rates and non-facility rates. However, the aggregate for the 10 codes provided in Figure 58 shows the Medicaid rate for prenatal and post-natal obstetric services to be lower than 80% of the Medicare rate for both non-facility and facility rates at 69.82% and 69.81%, respectively.



Figure 58

CPT code and Description	1/1/2016 Medicaid non-facility rate in dollars	1/1/2016 Medicare non-facility rate in dollars	% of Medicare non-facility rate	1/1/2016 Medicaid facility rate in dollars	1/1/2016 Medicare facility rate in dollars	% of Medicare facility rate
59409 Vaginal delivery only	589.45	800.23	73.66%	589.45	800.23	73.66%
59510 Total obstetric care with Cesarean delivery	1503.26	2260.34	66.51%	1503.26	2260.34	66.51%
99213 Established patient visit	54.26	70.29	77.19%	40.13	49.97	80.31%
59410 Vaginal delivery only	683.52	1020.18	67.00%	683.52	1020.18	67.00%
99214 Established patient visit	81.76	103.74	78.81%	62.08	76.77	80.86%
59514 Cesarean delivery only	697.93	900.9	77.47%	697.93	900.9	77.47%
76816 Ultrasound pregnant uterus	86.94	110.55	78.64%	86.93	110.55	78.63%
76805 Ultrasound pregnant uterus	113.58	136.21	83.39%	113.58	136.21	83.39%
59515 Cesarean delivery with post-partum care	822.81	1237.58	66.49%	822.81	1237.58	66.49%
59025 Fetal non-stress test	35.13	46.53	75.50%	35.13	46.53	75.50%
<b>Aggregate totals and % of Medicare rates</b>	<b>4668.64</b>	<b>6686.55</b>	<b>69.82%</b>	<b>4634.82</b>	<b>6639.26</b>	<b>69.81%</b>

## Review Analysis of Home Health Services

For the review of home health services, it should be noted that the data do not include Medicaid waiver services or home and community based services, such as personal care services. In North Carolina, Medicaid home health services are similar to Medicare home health services. To be enrolled, a Medicaid home health provider must first be certified as a Medicare home health provider. Medicare home health providers are governed by the state's Certificate of Need law (CON), pursuant to N.C. General Statute § 131E, Article 9. Medicare home health providers are allowed to provide services up to one hour driving time from their offices. Therefore, the CON and health planning process used to determine the need for home health agencies typically does not show a need for additional home health agencies in the state. If a need is identified, it is generally for a minimum of one home health agency. In 2013, there was a projected need for only two additional home health agencies in the entire state, and in 2014 and 2015, no additional home health agencies were projected to be needed (See <https://www2.ncdhhs.gov/dhsr/ncsmfp/index.html>).

Data sources: NCTracks (MMIS) for provider enrollment, beneficiary enrollment and claims data used for utilization

CAHPS data relevant to meeting beneficiary needs – The state does not currently have CAHPS data available for home health services. However, North Carolina has released a request for proposals (RFP) to secure a certified CAHPS vendor to assist the state with providing CAHPS data for home health services in the Plan.

### Availability of home health providers

The following three graphs and map of the counties focus on the number of home health providers trending over time for CY 2014 and CY 2015. Figure 59 shows the total number of home health services statewide. Figures 60 and 61 show the number of home health providers per 1000 beneficiaries for rural and urban/metropolitan areas, respectively. The number of Medicaid-participating home health providers has remained virtually unchanged from 2014, as compared to 2015. In addition, the number of home health providers for the rural and urban/metropolitan areas are similar. Figure 62 shows the number and locations of home health providers by county. There are a number of areas in the state with no Medicaid-participating home health agencies. However, as previously noted, Medicare home health agencies are allowed to provide services within one hour of driving time from their offices. The CON and health planning process used to determine the need for home health agencies does not typically identify a need for any additional home health providers in the state.

Figure 59

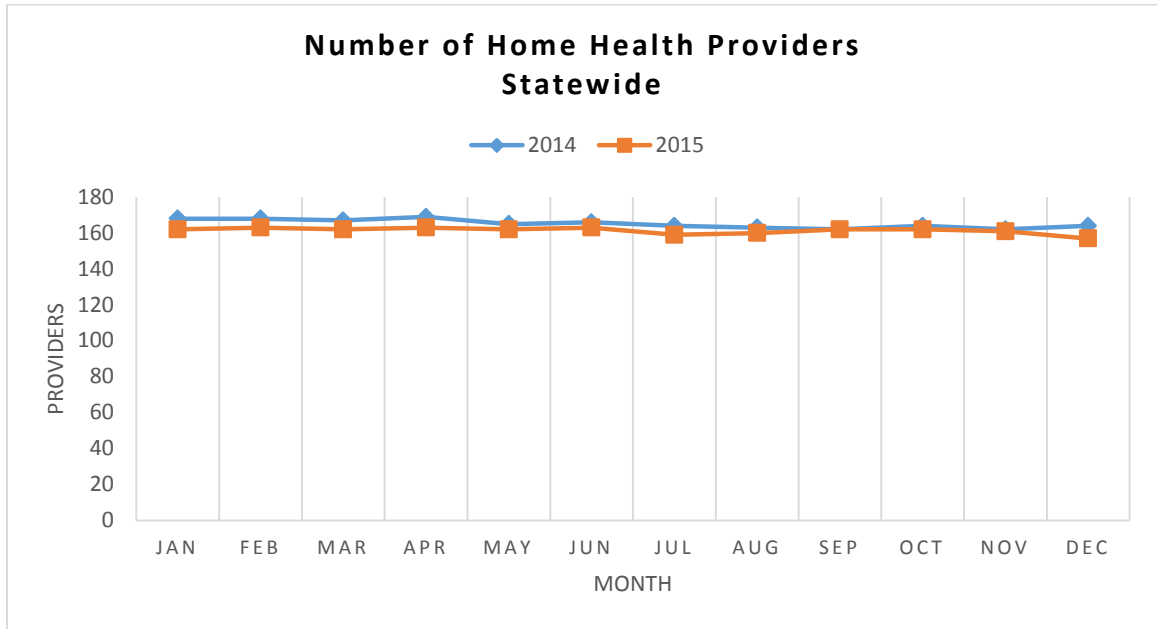


Figure 60

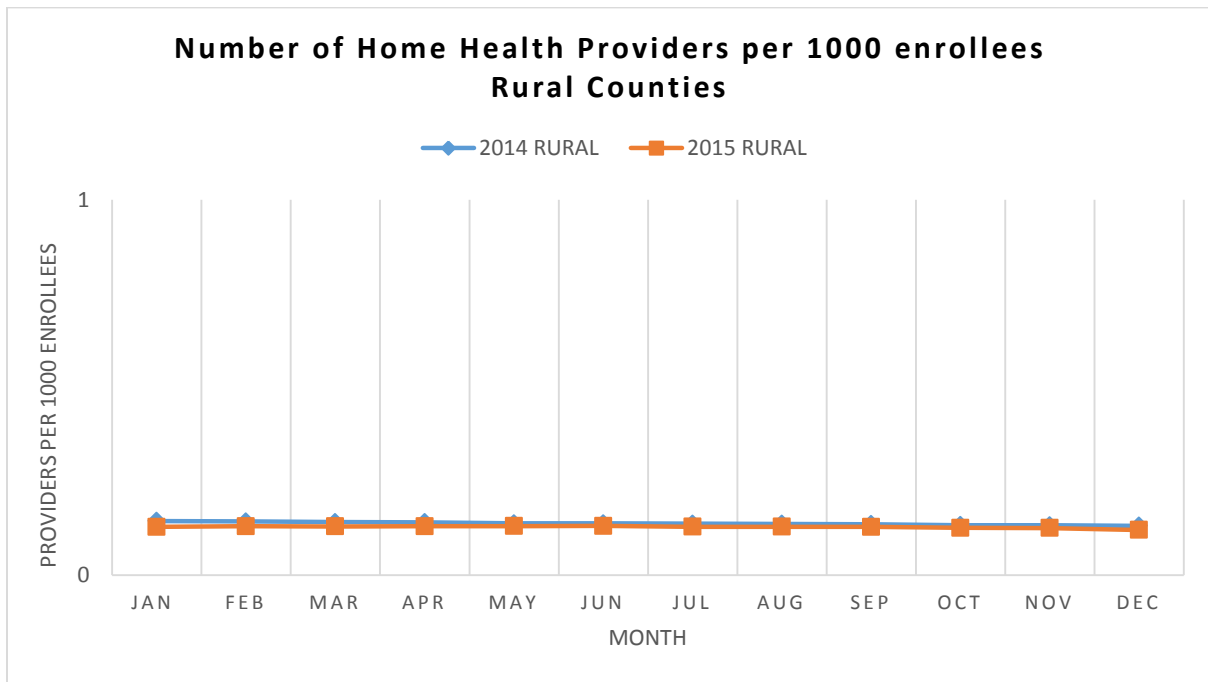


Figure 61

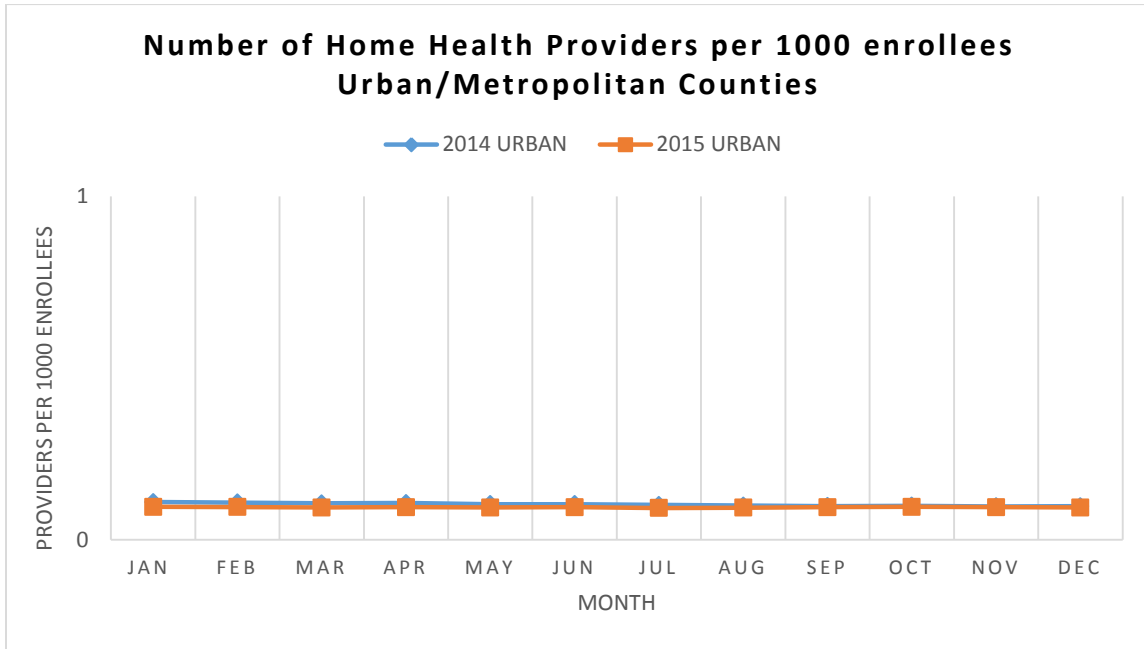
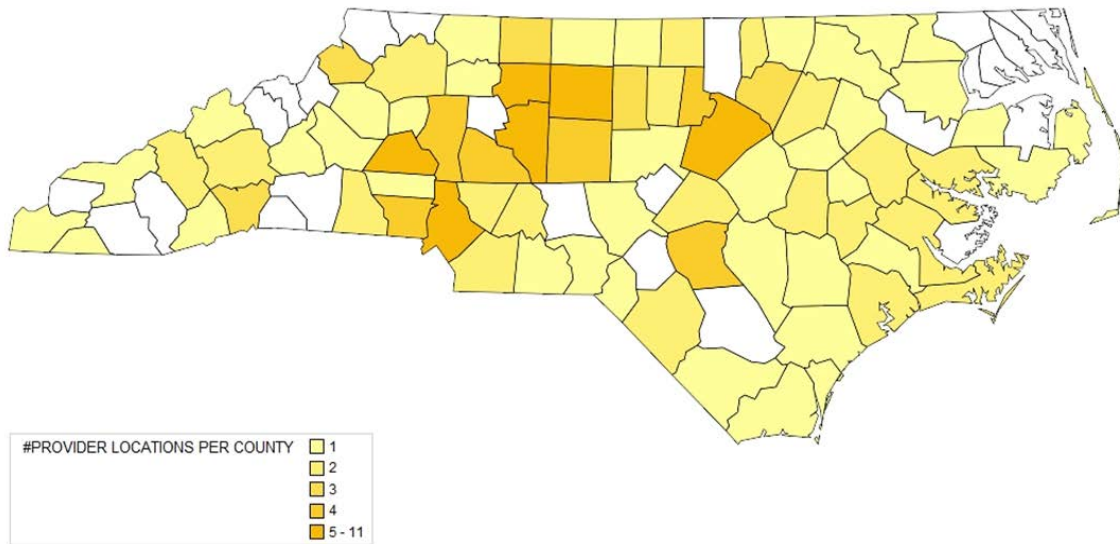


Figure 62

### Geographic Distribution and Number of Medicaid Home Health Provider Locations by County



### Utilization data for home health services

Note: Data include the number of unduplicated in-home visits to Medicaid beneficiaries and do not include Medicare crossover claims or dually eligible beneficiaries since Medicare home health is the primary service for Medicare beneficiaries.

The following three graphs demonstrate visits per 1000 enrollees (beneficiaries) for Medicaid home health providers. Figure 63 shows statewide visits for CY 2014 and CY 2015. Figures 64 and 65 break down visits by Rural and Urban/Metropolitan and counties, respectively. Since home health providers are allowed to travel to beneficiaries' homes or places of residence to provide services, the location of the provider is not as significant as with other providers, which require an office or health care facility. Similar to other services reviewed in the Plan, all three graphs show utilization in visits per 1000 enrollees was down for all three areas, statewide (-10.4%), rural (-9.6%) and urban/metropolitan (-10.8%).

To further analyze why there was a decrease in home health services, an analysis was conducted to review other services provided in the home, which may not be provided by home health agencies, but are similar in acuity level; therefore, the agency reviewed private duty nursing (PDN) and home infusion therapy services. Figure 65a shows statewide utilization of home health services, home infusion therapy, private duty nursing (PDN), and therapy services based on dollars paid in millions for CY 2011 through CY 2015. The increase in dollars paid beginning in 7/2013 is attributed to how services are billed and paid under the new claims payment system, NCTracks. As the graph demonstrates, utilization of home health services has been steadily declining for the entire period being reviewed. In addition, as utilization of home health services has declined over the years, there has been an increase in PDN and therapy services whereas home infusion therapy remained steady.

It is unlikely home health patients are being shifted to PDN since PDN is a highly specialized level of care compared to home health and according to Medicaid Clinical Coverage Policy No. 3G, *"is substantial, complex, and continuous skilled nursing service that require more individual and continuous care than is available from a visiting nurse or is routinely provided by the nursing staff of a hospital or skilled nursing facility. PDN must be medically necessary for the beneficiary to be covered by NC Medicaid (Medicaid)."*

Whereas PDN is highly specialized, home health services are more varied and according to Medicaid Clinical Coverage Policy No. 3A *"include medically necessary skilled nursing services, specialized therapies (physical therapy, speech- language pathology, and occupational therapy), home health aide services, and medical supplies provided to beneficiaries who live in primary private residences. Skilled nursing, specialized therapies, and medical supplies can also be provided if the beneficiary resides in an adult care home (such as a rest home or family care home)."* One possible explanation for the decline in home health utilization may be that providers are providing more therapy services via licensed home care agencies that are not certified by Medicare or Medicaid and do not require a CON as described at the beginning of this section. Providing therapy services via non-certified home care agencies may provide providers more since the agency would not be required to comply with Medicare home health

regulations in addition to N.C. home care licensure regulations and Medicaid Clinical Coverage Policies. That said, more data will need to be reviewed and analyzed to make any definite conclusions and the agency will continue review utilization trends for home health services, particularly how they are affected by similar services and how these services are utilized based on geographic area. In addition, further work is needed to review trends by age group and eligibility type such as aged, blind, disabled and other conditions.

**Figure 63**

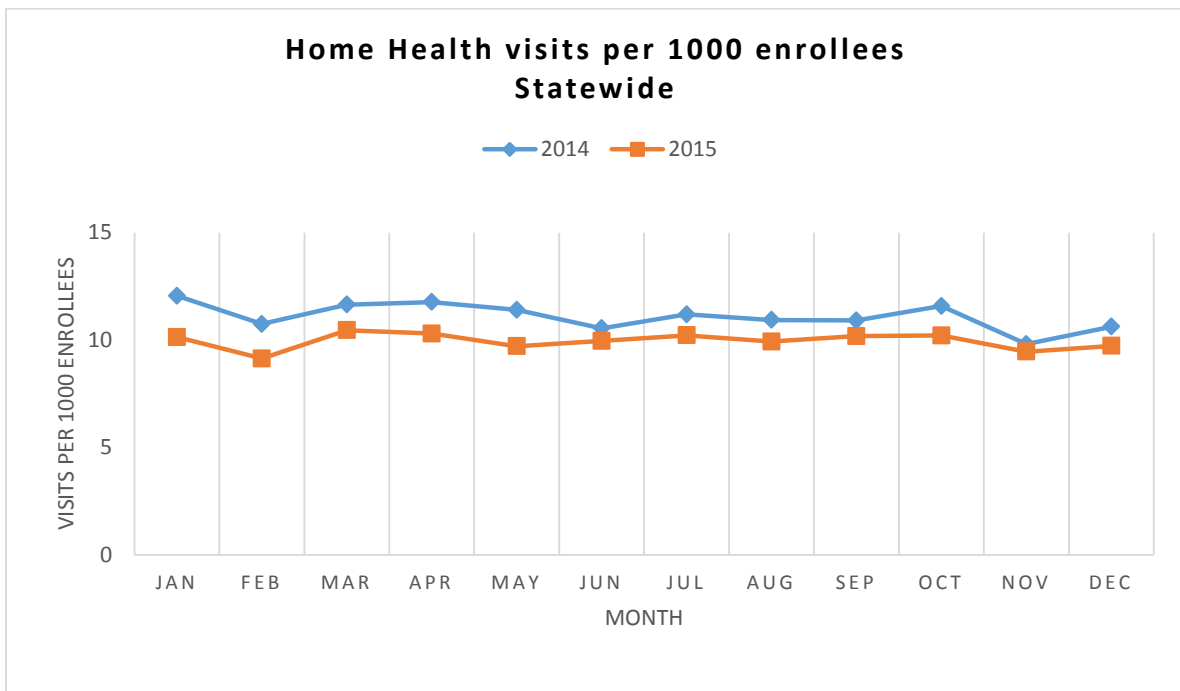


Figure 64

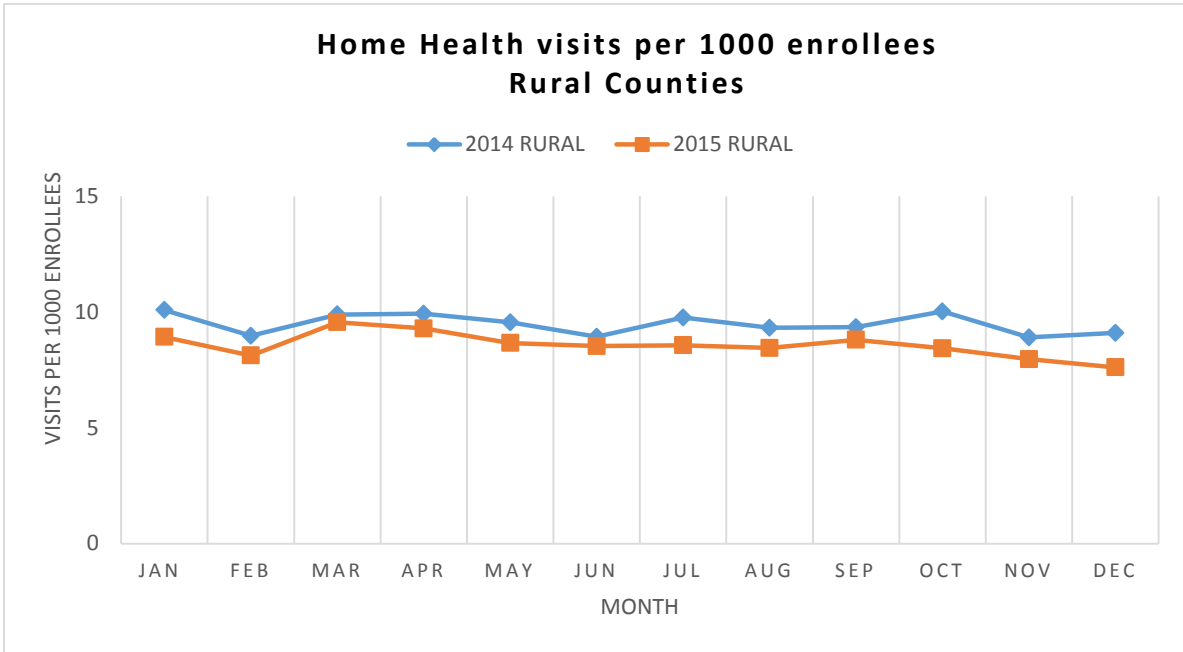
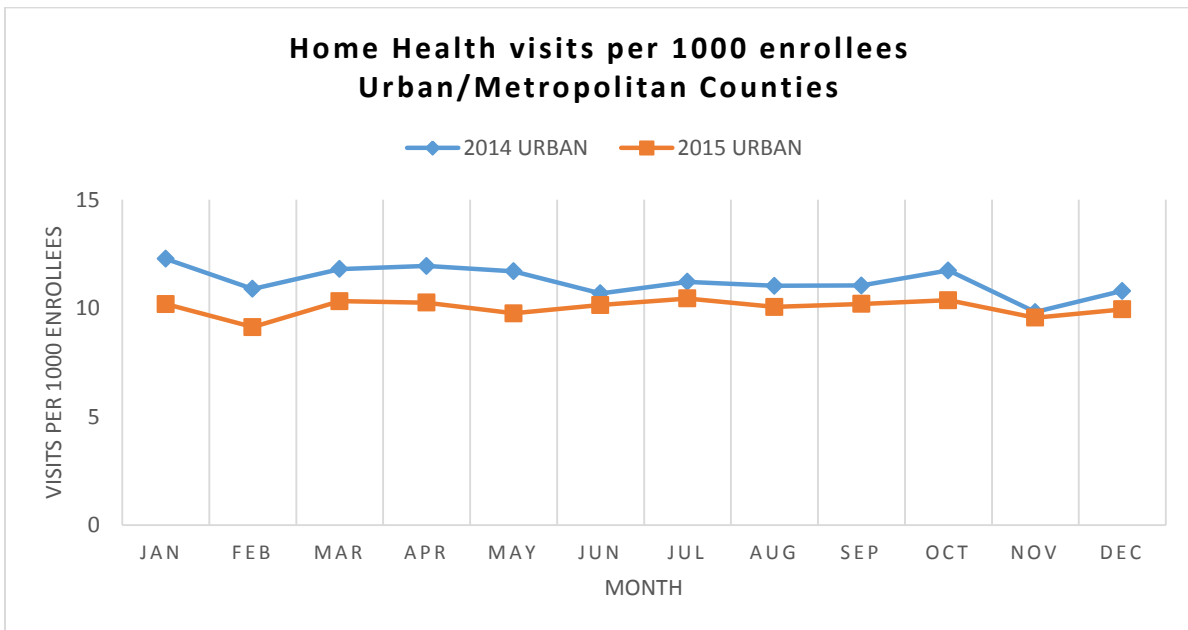
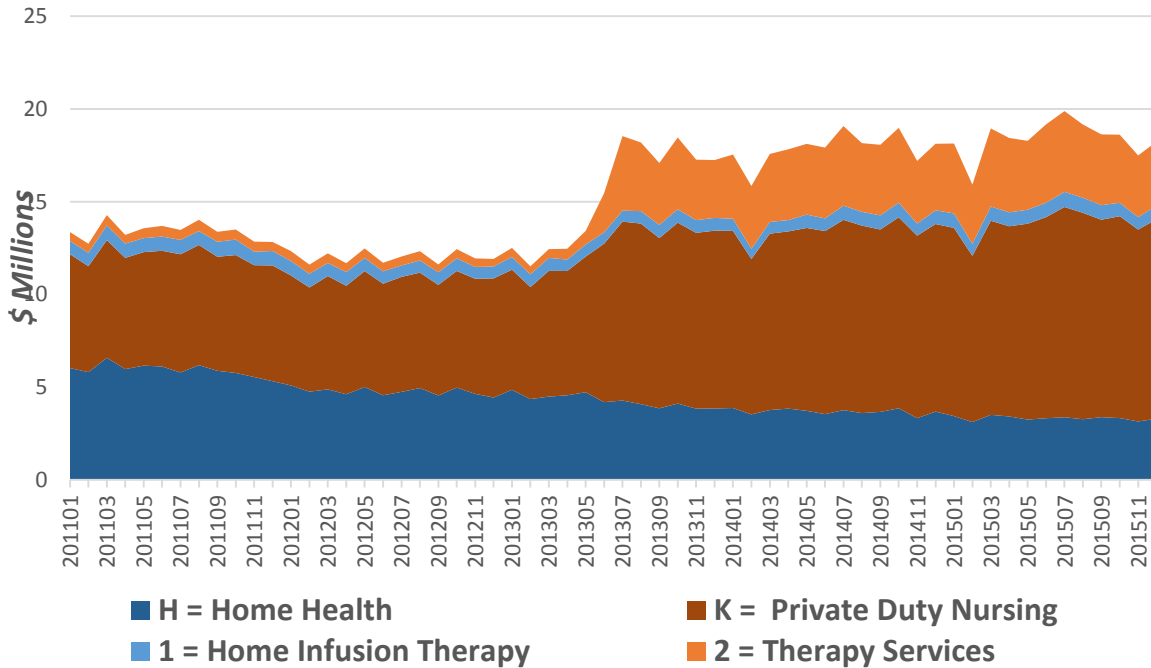


Figure 65



**Figure 65a**

**Services delivered into the Home by Claim Type,**  
*(excluding Personal Care Services (PCS) and Hospice)*

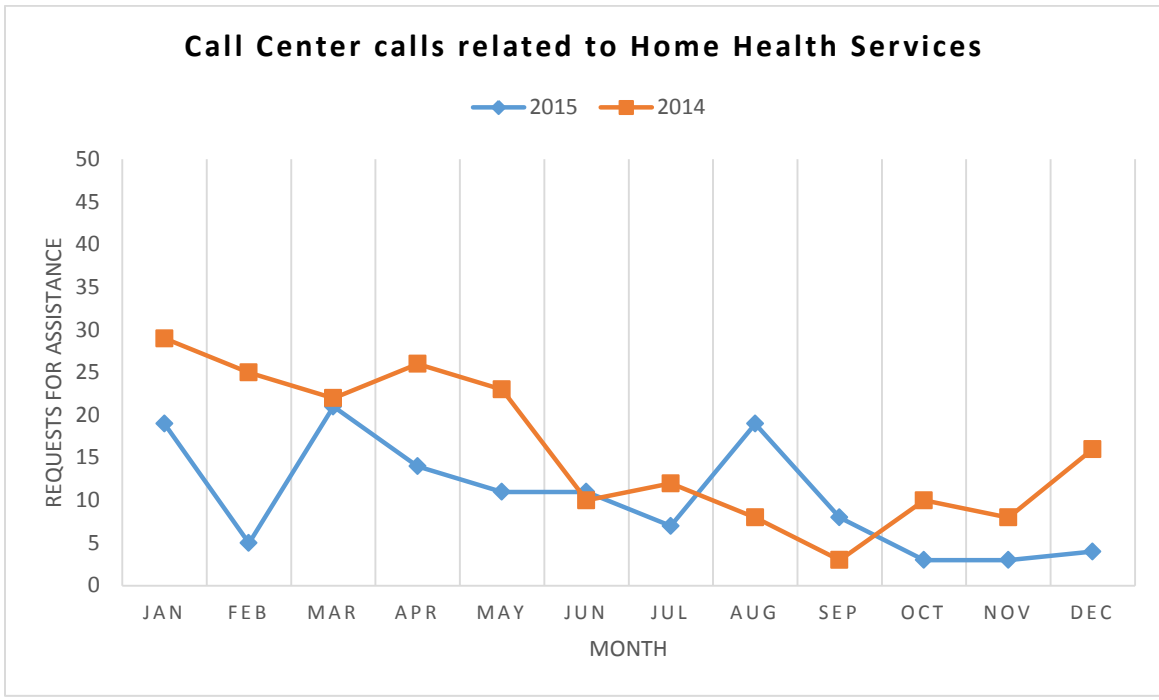


Concerns and issues raised by providers or beneficiaries through feedback mechanisms

General feedback mechanisms from providers are based on discussion of issues with various home health providers and associations. North Carolina also received public comments during the agency’s quarterly Medical Care Advisory Committee meetings. In addition, the DMA Call Center receives feedback from responding to calls from beneficiaries requesting assistance in finding a home health provider or from questions about home health services. Of note for CY 2014 and CY 2015 were data collected on Call Center calls. Presented in Figure 66 are not only home health calls, but calls for personal care services and private duty nursing services. Many of these calls from beneficiaries were questions about the services they were currently receiving. Although there were fewer calls in 2015, both CY 2014 and CY 2015 appear to follow the same trend of more calls during January through June, and fewer calls from July to December. Overall, calls in 2015 were down (average of 10 calls/month), compared to calls in 2014 (average of 16 calls/month).



Figure 66



Comparative analysis of Medicaid payment rates to Medicare rates and other payer rates for home health services

The data shown in Figure 66 are for the top nine CPT codes for paid claims (in dollars) in which Medicare also covered and paid for the same CPT code. Many of the CPT codes for Medicaid that were originally in the top 10 codes for paid claims were not covered by Medicare. Therefore, those codes were omitted from the analysis. The rates in Figure 66 are for care not provided in a facility, since home health services by their very nature, are provided in a beneficiary's home or place of residence. As stated previously, N.C. Medicaid typically pays approximately 80% of the Medicare rate. However, the aggregate for the nine codes provided in Figure 67 shows the Medicaid rate to be higher than 80% of the Medicare rate at 92.72%. However, since all Medicaid rates are not included in the analysis, the 92.72% rate is not a complete reflection of the percentage of the Medicare rate paid by Medicaid.

Figure 67

CPT code and Description	1/1/2016 Medicaid non-facility rate in dollars	1/1/2016 Medicare non-facility rate in dollars	% of Medicare non-facility rate
A4351 Intermittent urinary catheter - straight	1.59	1.72	92.44%
A4353 Intermittent urinary catheter with insertion	7.2	7.77	92.66%
A6197 Alginate or other fiber gelling dressing	16.91	18.24	92.71%
A6252 Specialty absorptive dressing, wound cover	3.34	3.61	92.52%
A4352 Intermittent urinary catheter – coude tip	6.12	6.59	92.87%
A4349 Male external catheter	2.08	2.24	92.86%
A6210 Foam dressing	20.5	22.12	92.68%
A6253 Specialty absorptive dressing, wound cover	6.53	7.03	92.89%
A4357 Bedside drainage bag	9.99	10.77	92.76%
<b>Aggregate totals and % of Medicare rates</b>	<b>74026</b>	<b>80.09</b>	<b>92.72%</b>

## Conclusion and Future Plans

Overall, utilization was down for many of the services reviewed in the Plan including primary care. The decrease in the utilization of primary care, measured by visits per 1000 beneficiaries was down from CY 2014 to CY 2015 by an average of 10% across all three areas, statewide, rural and urban/metropolitan, which represent decreases of 10.1%, 10.2% and 10.2%, respectively. This decrease did not result in a commensurate increase in outpatient emergency room visits, which is where beneficiaries often seek care when they experience difficulties in accessing primary care. In addition, inpatient hospital admissions also decreased during the same time period, which may indicate patients, possibly those were newly enrolled as a result of the Affordable Care Act, did not require primary care. Further study and analysis of primary care, emergency department use, and any correlation between access availability of services will be required. In addition, for all services contained in the Plan, the agency will be reviewing provider data, utilization data, call center data and other data as available, on a quarterly basis as we continually monitor access to services. Monitoring will also include reviewing and analyzing data on the statewide level, rural and urban areas.

With the exception of home health providers, who provide care in beneficiary's home(s) or place of residence, and FQHCs, RHCs and LHDs, there is a greater availability of service providers in urban areas compared to rural areas. For some providers, choosing a location to provide services in an urban area affords a better payer mix for reimbursement so they are not reliant on one or two sources of payment, i.e. Medicare and Medicaid. A varied payer mix includes patients who have commercial and other types of insurance. In addition, relying on a heavy payer mix of Medicaid beneficiaries usually means receiving fewer dollars (80% of the average Medicare rate) for providing services. Therefore, there also can be financial incentives to provide services in areas where there is a more varied payer mix. That said, the Department's Office of Rural Health is continuously engaged in recruiting primary care physicians, nurse practitioners, physician assistants, dentists, dental hygienists, and psychiatrist to the practices that service rural and underserved populations across the state (<http://www.ncdhhs.gov/divisions/orh>).

The agency, through its call center data, input from stakeholder groups, meetings of the MCAC, direct contacts with health care providers and beneficiaries, and CAHPS surveys, will continue and strive to receive feedback and regarding availability and access to care. This feedback, in conjunction with data review and analysis, will be used by the Utilization and Quality Review Committee and agency as a whole, to detect and identify issues involving access to care and strategies to improve access.