

The Role of Data Visualization in Evaluating the Advanced Medical Home (AMH) Program in North Carolina Medicaid

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BACKGROUND

- In July 2021, North Carolina Medicaid (NC Medicaid) began its transformation to Medicaid Managed Care, transitioning 1.8 million of its nearly 3 million members into one of five Standard Plans that offer members integrated physical health, pharmacy, care coordination, and basic behavioral health services
- The North Carolina Department of Health and Human Services (NCDHHS) developed the Advanced Medical Home (AMH) program as its primary vehicle for delivering care management under Medicaid Managed Care
- The AMH program supports the delivery of high-quality primary care by leveraging North Carolina's legacy care management structure and promoting care delivery at the community-level
- Standard Plans are required to coordinate care management functions with certified AMHs and to establish performance targets and value-based payment (VBP) arrangements for a defined set of quality measures (see Table 1)
- Providers can be in one of three AMH tiers, with the highest tier (Tier 3) requiring the provider to assume primary responsibility for care management
- Standard Plans retain care management responsibility for Tier 1 and Tier 2 providers. Tier 3 providers receive additional per-member per-month payments and can utilize Clinically Integrated Networks (CINs) to help complete care management activities
- NC Medicaid utilizes Tableau dashboards to effectively communicate measure set performance across AMH tier, provider size, and geographic location
- Visuals from these dashboards are essential components of monitoring and evaluating AMH performance in the first six months of Medicaid Managed Care and beyond

For more information about the AMH Program, see https://medicaid.ncdhhs.gov/advanced- medical-home

Table 1. 2021 Measures to Assess Advanced Medical Home (AMH) Performance.

NQF#	Measure Name	Steward
1516	Child and Adolescent Well-Care Visits (WCV)	NCQA
0038	Childhood Immunization Status (CIS) – Combination 10	NCQA
1407	Immunizations for Adolescents (IMA) – Combination 2	NCQA
1392	Well-child Visits in the First 30 Months of Life (W30)	NCQA
0032	Cervical Cancer Screening (CCS)	NCQA
0033	Chlamydia Screening in Women (CHL)	NCQA
0018	Controlling High Blood Pressure (CBP)	NCQA
0059	Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) Poor Control (>9.0%) (HPC)	NCQA
1768	Plan All-Cause Readmissions (PCR) [Observed versus Expected Ratio]	NCQA
0418/0418e	Screening for Depression and Follow-up Plan (CDF)	CMS
N/A	Total Cost of Care (TCOC)	Health Partners

METHODOLOGY

- Member-level quality measure data for calendar year 2021 was generated in CareAnalyzer and pulled from IBM Cognos for analysis
- Data was grouped by members primary care provider's (PCP's) National Provider Identification (NPI) and a state-assigned location code to determine quality measure performance by AMH Tier
- Geographic analysis was performed using the PCP's county as found in weekly member level enrollment data

Well-Child Visits in the First 30 Months of Life (W30): First 15 Months (2021)

The Well-Child Visits in the First 30 Months of Life (W30) measure has two submeasures: (1) First 15 Months and (2) 15-30 Months. The First 15 Months submeasure assesses the percentage of members who turned 15 months old during the measurement year and received six or more well-child visits with a PCP. County-level geographic analysis for the AMH program (Figure 1) and performance by AMH Tier (Figure 2) can be found below. For comparison, the national average for Medicaid HMO was 54.1% in 2021. The overall NC Medicaid rate for 2021 was 62.06%.

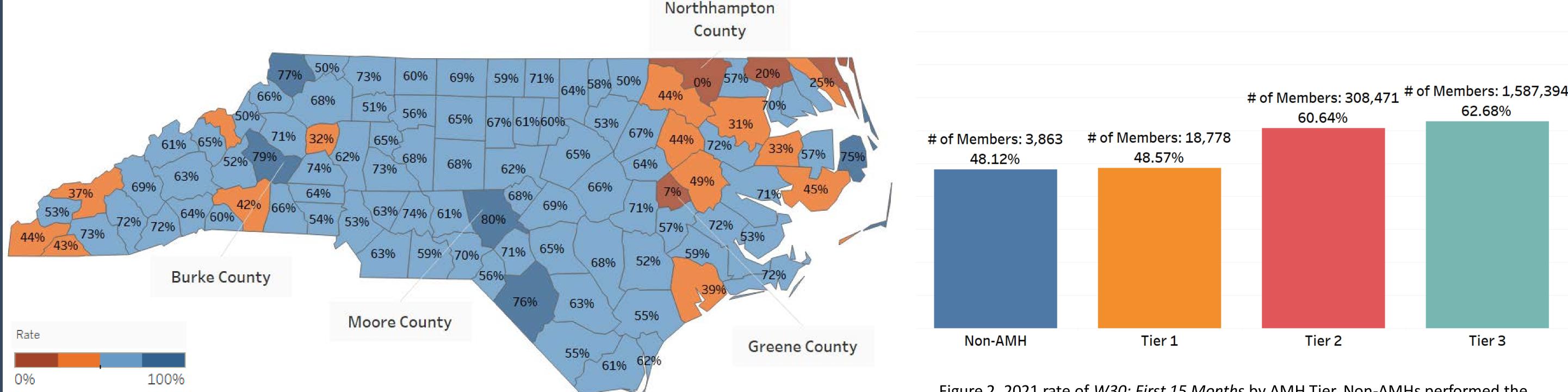


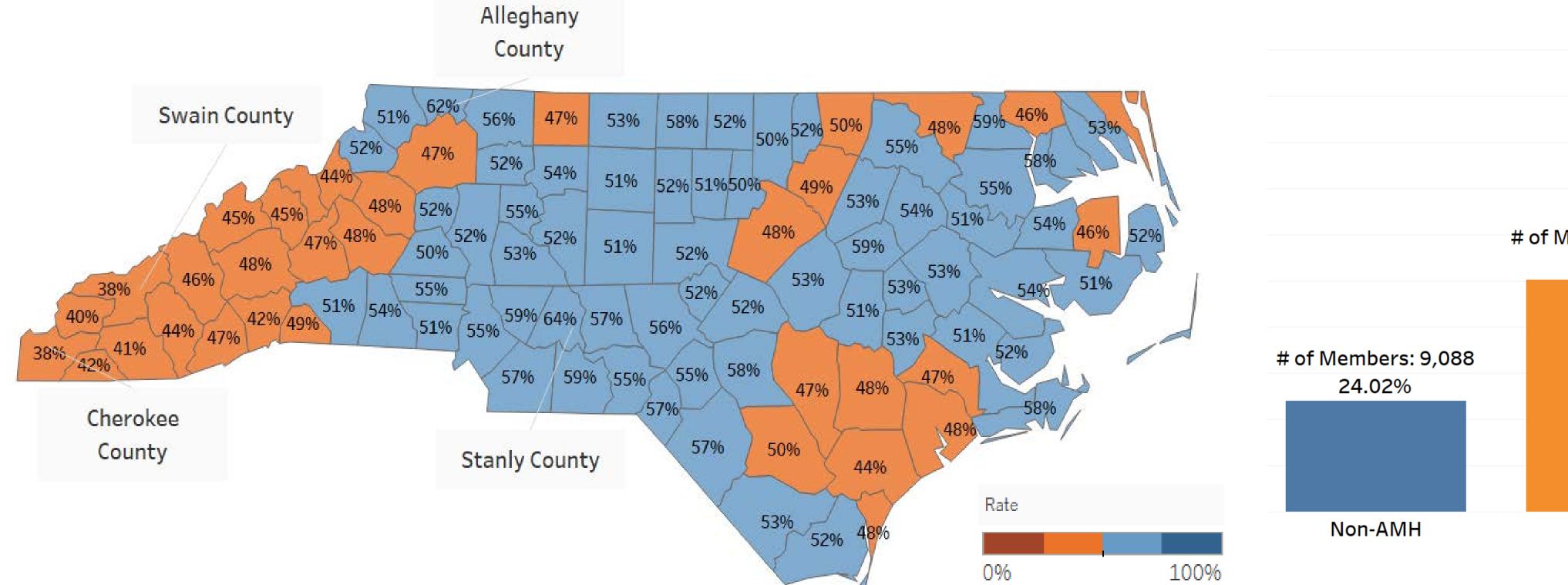
Figure 1. 2021 county-level analysis of the AMH program's performance for W30: First 15 Months (all Tiers). Rates were overall lower for the northeastern corner of the state. Moore (80%) and Burke (79%) counties had the highest rates, while Northampton (0%) and Greene (7%) counties had the lowest rates of W30: First 15 Months.

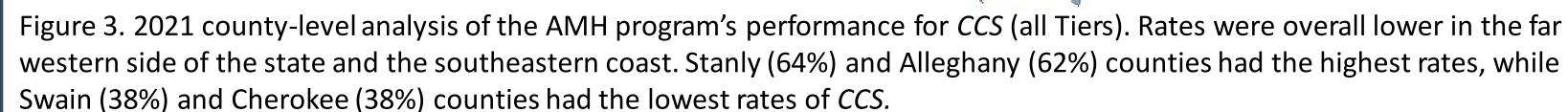
Figure 2. 2021 rate of *W30: First 15 Months* by AMH Tier. Non-AMHs performed the worst at 48.12%, and Tier 1s performed similarly at 48.57%. Tier 2s (60.64%) performed slightly worse than Tier 3s (62.68%). Non-AMHs had the fewest members (3,853), while Tier 3s had the most (1,587,394).

Tier 3

Cervical Cancer Screening (CCS) (2021)

The Cervical Cancer Screening (CCS) measure assesses women who were screened for cervical cancer using any of the following criteria: (1) Women 21-64 years of age who had cervical cytology performed within the last 3 years; (2) women 30-64 years of age who had cervical high-risk human papillomavirus (hrHPV) testing performed within the last 5 years; or (3) women 30-64 years of age who had cervical cytology/hrHPV co-testing within the last 5 years. County-level geographic analysis for the AMH program (Figure 3) and performance by AMH Tier (Figure 4) can be found below. For comparison, the national average for Medicaid HMO was 56.3% in 2021. The overall NC Medicaid rate for 2021 was 40.72%.





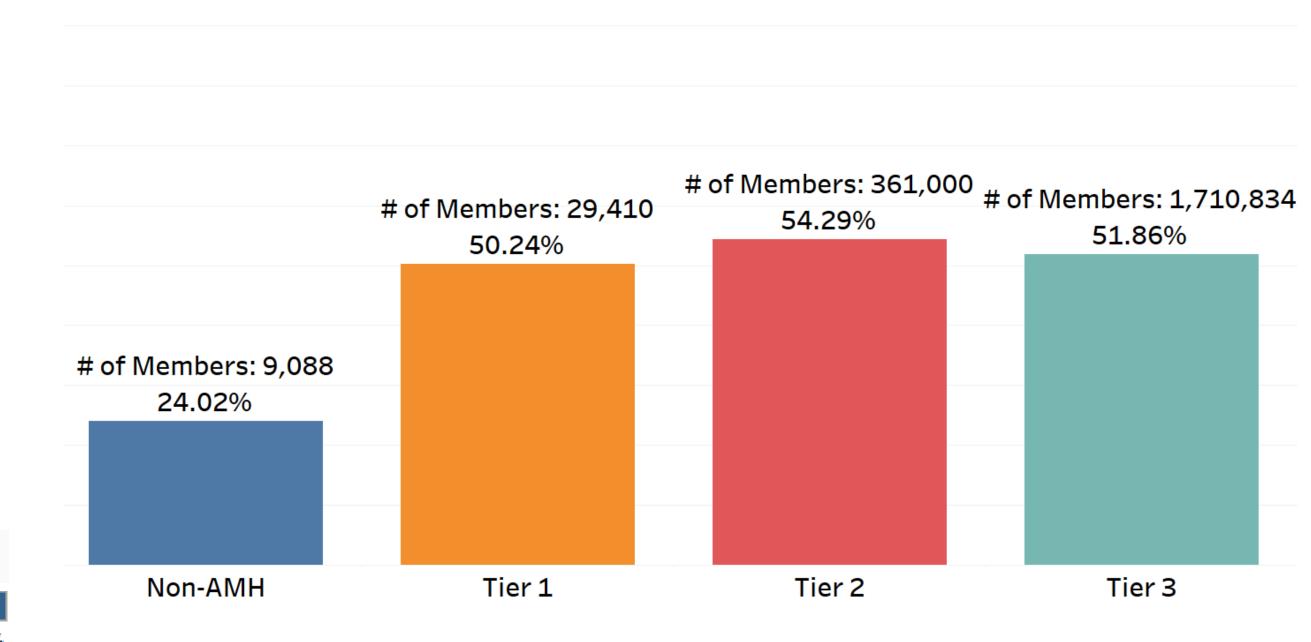


Figure 4. 2021 rate of CCS by AMH Tier. Non-AMHs performed the worst at 24.02%, while Tier 1s were over double that at 50.24%. Tier 2s (54.29%) performed slightly better than Tier 3s (51.86%). Non-AMHs had the fewest members (9,088), while Tier 3s had the most (1,710,834).

DATA VISUALIZATIONS IN ACTION

- AMH providers in Northampton, Halifax, Bertie, Edgecombe, and Greene counties notice rates of Well-Child Visits in the First 30 Months of Life: First 15 Months in their area are poor, so they work with their local physician network to develop a quality improvement plan to improve rates
- A Standard Plan sees that AMH Tier 1s underperform in comparison to other tiers for Well-Child Visits in the First 30 Months of Life: First 15 Months, so they engage with their AMH Tier 1s to voluntarily set a performance target via VBP arrangement, which may motivate the AMHs to increase outreach and send reminders to the member's guardian(s), thereby increasing Well-Child Visit rates
- A Standard Plan notices that rates for Cervical Cancer Screening in the Appalachian Mountains are lower, so they work to identify any common challenges in the region and coach providers to increase overall screening rates