North Carolina Medicare-Medicaid Integration:
Advancing Whole-Person Care

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Disclosures

Aparna Higgins is founder of Ananya Health Solutions LLC and consults with private sector purchasers and think tanks on healthcare transformation. She also serves on the Board of PCPA and on the National Cardiovascular Disease Registry's Management Oversight Committee.

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About Duke-Margolis

The mission of the Robert J. Margolis, MD, Center for Health Policy at Duke University is to improve health, health equity, and the value of health care through practical, innovative, and evidence-based policy solutions. For more information, visit healthpolicy.duke.edu and follow us on Twitter @DukeMargolis.

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INTRODUCTION

The 12 million beneficiaries dually eligible for Medicare and Medicaid have complex medical and psycho-social needs. Dual-eligible beneficiaries face significant barriers to receiving whole-person, coordinated, and equitable care due to lack of integration between Medicare and Medicaid programs. This lack of integration results in dual-eligible beneficiaries and their care partners navigating two sets of policies and a complex, fragmented, and highly inefficient system of care. Medicare-Medicaid integration has potential to better streamline and coordinate care, enhance the beneficiary experience, and improve health outcomes, health equity, and value of health care spending. There are numerous efforts at integrating Medicare and Medicaid at the federal and state levels that have demonstrated promising results.

North Carolina (NC) is amidst a major Medicaid transformation from fee-for-service (FFS) to managed care and other value-based care transformation efforts. Through this approach, Medicaid managed care plans will provide coverage to a majority of Medicaid-only beneficiaries through Prepaid Health Plan (PHP) contracts. As part of this transition, the NC Department of Health and Human Services (NC DHHS) is statutorily required to transition Full-Benefit Dual Eligible (FBDE) beneficiaries (NC residents with full Medicaid benefits who are also enrolled in Medicare) into Medicaid managed care by 2026. Currently, the vast majority of dual-eligible beneficiaries in the state do not have access to integrated Medicare and Medicaid services. The state outlined some broad parameters to inform an integration strategy in a 2017 report of the Joint Legislative Oversight Committee on Medicaid and NC Health Choice. However, key policy design and implementation questions remain, including eligibility, structure, plan design, phase-in of populations and services, and program oversight.

To support the development of a central policy and implementation plan, a team from the Duke University Robert J. Margolis, MD, Center for Health Policy (Duke-Margolis Center), supported through a grant by Arnold Ventures, developed pragmatic, evidence-based options for Medicare-Medicaid integration in NC for FBDE beneficiaries, guided by the following objectives:

- Describe the vision and goals for Medicare-Medicaid integration in the NC context;
- Identify options for deploying managed care to achieve integration for dual-eligible beneficiaries that build on current NC Medicaid Transformation efforts and help promote health equity; and
- Determine strategies that help align key Medicare and Medicaid components to promote integration.

In this report, we describe the proposed vision, goals, and options to support beneficiary-centered Medicare-Medicaid integration in NC. Our recommendations were informed by a 21-month, multi-component project encompassing a targeted literature review; interviews with more than 60 participants[1], the majority from NC; in-depth analysis of combined NC Medicaid and Medicare data[2]; guidance from a project Advisory Panel and multi-stakeholder convenings; and regular meetings with NC DHHS and other state and federal experts in Medicare-Medicaid integration. This approach leveraged the expertise of Duke-Margolis faculty, data scientists, and senior policy advisors and builds on the Center's ongoing collaboration with NC DHHS in its care transformation efforts. The report is accompanied by a practical guide for states interested in developing a tailored, evidence-based Medicare-Medicaid integration strategy.

To help situate the recommendations, we first outline the existing landscape of dual-eligible beneficiaries in NC, including the challenges they currently face, and present state and federal regulatory considerations and key policy and programmatic parameters. We then discuss the options for integration and characterize key program components such as model of care, performance measurement, and implementation supports central to realizing the vision and goals.

[1] The qualitative analysis encompassed 20 interviews and four focus groups with a variety of stakeholder perspectives including national experts as well as North Carolina plans, providers, consumer groups, and community organizations.

[2] For the quantitative analysis, we first used 2019 NC Medicaid administrative data to describe the state's FBDE cohort, including demographic characteristics and existing benefit structures. Second, we used state and national public use files 2015-2020 to compare Medicare D-SNP penetration in NC to neighboring states. Third, we created a novel linkage of Medicare-Medicaid data between 2014-2017 to examine eligibility pathways, demographics, and costs and utilization for FBDE beneficiaries. Full results are included in the Appendix.

North Carolina Landscape for Dual-Eligible Beneficiaries

Understanding the needs and experiences of dual-eligible beneficiaries is key to designing an effective integrated care strategy. The objectives for our analyses were to identify the NC FBDE population, examine their costs and utilization, and understand disparities in care and costs across needs-based subgroups. In this section we discuss the key findings.

In 2019, there were 275,371 NC residents who were FBDE beneficiaries. This population included multiple diverse groups with distinct enrollment eligibility pathways and unique health care needs. For example, nearly half (48.7%) of NC FBDE beneficiaries were under age 65 and qualified for Medicare due to disability or illness rather than age. Further, NC FBDE beneficiaries were disproportionately female and disproportionately Black compared to the state's overall population. Approximately 30% of NC FBDEs resided in rural areas.

Medicare services may be provided through Medicare FFS, Dual Eligible Special Needs Plans (D-SNP), Institutional Special Needs Plans (I-SNPs), or the Program for All-Inclusive Care for the Elderly (PACE), which integrates Medicare and Medicaid services. About one in four dual-eligible beneficiaries were enrolled in Medicare Advantage at some point over our 4-year study period (2014-2017). Since 2017, D-SNP enrollment has been increasing in NC, and in 2022, 16 D-SNPs serve 1 in 3 dual-eligible beneficiaries statewide. D-SNP penetration is concentrated in central parts of the state, especially Forsyth and Guilford counties, although many counties in north central/northeastern (e.g., Edgecombe and Washington) and southeastern NC (e.g., Robeson and Cumberland) also have relatively high D-SNP penetration. These regions represent particularly vulnerable populations of beneficiaries, having higher portions of historically marginalized populations, elevated poverty rates, and aging populations compared with the rest of the state.

Across all NC FBDE subgroups, we observed high rates of churn or loss of Medicaid benefits, which may create disruptions in care and adverse health outcomes. Only 70% of dual-eligible beneficiaries were continuously eligible for the program over the four-year study period, and around 40% of dual-eligible beneficiaries under 65 years of age lost their Medicaid eligibility at some point. Rates were similar across racial and ethnic groups.

Over the 4-year study period, Medicaid services were primarily provided through Medicaid FFS (96.9%), home- and community-based programs such as the Community Alternatives Program for Disabled Adults or Children (CAP/DA, CAP/C) (5.2%), and waivers serving individuals with Intellectual and Developmental Disability (I/DD) (Innovations waiver) and Traumatic Brain Injury (TBI waiver) (1.3%).[3] In addition, eligible Medicaid FFS beneficiaries received services through capitated Local Management Entities-Managed Care Organizations (LME-MCOs). These entities that will administer Medicaid PHPs with tailored care management - known as Behavioral Health and Intellectual/Developmental Disabilities Tailored Plans (TPs) at launch currently slated for April 2023. While Tailored Plan eligibility was not available during the 4-year study period, we found 17.2% of the FBDE population met Tailored Plan eligibility criteria in 2019.[4]

To reflect the diverse care experiences of dual-eligible beneficiaries, we defined needs-based subgroups using linked Medicare-Medicaid claims data (**Figure A**). An individual could meet the criteria for multiple groups during the study period, so the percentages do not sum to 100 percent; for example, a LTSS user in 2014 might become a nursing home resident in 2016 and thus, appear in both subgroups.

[3] Beneficiaries could qualify for multiple programs over the period, for example, starting in FFS and transitioning to CAP-DA by the end of the four years.

[4] We defined the subgroup based on the NC DHHS Tailored Plan Eligibility Criteria document. Our definition initially incorporated Criteria 6 (excluding the waiver-related services), 9, 10a, 10b, and 11 from the eligibility document. Based on the suggestions of representatives from NC DHHS working on behavioral health and I/DD community systems, we also added Criteria 12 and 14. All of the criteria involved identifying eligible beneficiaries based on Current Procedural Terminology (CPT) codes, state category of service (COS) codes, revenue codes, and International Classification of Diseases (ICD) diagnosis codes in the claims. For Criteria 12, we only focused on hospitalizations and did not identify readmissions. For Criteria 14, we limited the lookback period to within 2019 rather than 18 months. Certain criteria from the document were excluded in the definition for a variety of reasons: criteria 1 and 2 which were related to waiver populations (these populations were being examined separately in this project); criteria 3-5, 7, and 13 which were based on internal data from NC DHHS and thus could not be utilized; criteria 8, 10c, and 15 which specified populations that were already identified by some of the included criteria.

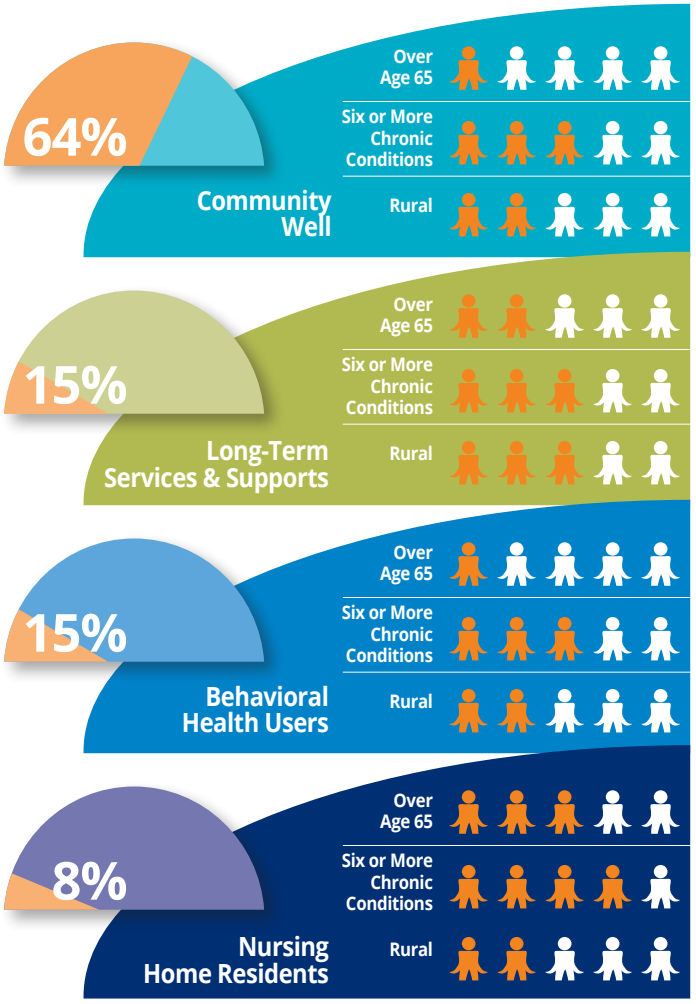
- **Community Well Population (64.1%)** is defined as not having been in any other subgroups described below during the four years of the study. While the community well are not at high risk of needing institutional care, more than half have six or more chronic conditions. Compared to other dual-eligible subgroups, community well beneficiaries had lower spending than other groups, with an average cost of $19,734 per person-year and less than half of their services paid by Medicaid.

- **Long-Term Services and Supports (LTSS) Users (15.0%) and CAP/DA and CAP/C Recipients (5.2%)** are generally older, more likely to live in rural areas, have six or more chronic conditions, and have high mortality compared to the community well. With average costs of $40,000 per person-year, LTSS users require more services and have higher spending than the community well, though spending is much less than nursing home residents.

- **Behavioral Health Users (15.2%) and Innovations and TBI Waiver Recipients (1.3%)** are individuals with significant behavioral health needs and intellectual/developmental disabilities (I/DD). This group reflects the population expected to be eligible for Tailored Plans and who previously had behavioral health services carved out and provided through LME-MCOs. Compared to the community well, they are typically more likely to need institutional care, and more than half have six or more chronic conditions. Only 10% of behavioral health users are over the age of 65, which may explain the lower mortality rates relative to the older community well subgroup. Behavioral health users had similar FFS spending compared to the community well; however, this analysis does not include the capitated Medicaid payments for LME-MCO services.

- **Nursing Home Residents (7.5%)** comprise individuals spending 100 days or more in a nursing facility. Compared to the community well, nursing home residents are older and more likely to have six or more chronic conditions. Most nursing home residents did not survive over the four-year study period. They are also the most expensive subgroup of the dual-eligible population to cover, with an average cost of $68,359 per person-year and the majority of their services paid by Medicaid.

FIGURE A Dual-Eligible Beneficiaries: Diverse Needs and Characteristics



NC dual-eligible beneficiaries are a heterogeneous population with high rates of morbidity and mortality. Most have six or more chronic conditions with a median of seven chronic conditions overall. Spending on dual-eligible beneficiaries for combined Medicare and Medicaid is higher overall relative to the general population of Medicare only and Medicaid only users. However, costs vary substantially across the needs-based subgroups from a low of $19,734 per person-year among community well to a high of $68,359 per person-year among nursing home residents. Our NC-specific estimates are lower than national estimates of over $34,000 (2013) and higher than a study estimating under $16,000 (2015) for average spending on FBDE beneficiaries across both programs. However, the variation is likely due to differing methodologies for assessing cost and geographic adjustment; for example, our analysis did not include any geographic adjustment (though we did adjust for inflation) and we did not include capitation payments for LME-MCOs or Part D drug costs. We observe lower rates of nursing home use among dual-eligible beneficiaries who are Black compared to those who are White, which may indicate that opportunities for transitioning to community-based care vary by race and ethnicity.

Current Beneficiary Experience

Our interviews and focus groups with a variety of stakeholders across the state highlighted a range of barriers NC beneficiaries currently face, illuminating key opportunities for improvement through Medicare-Medicaid integration and considerations for its design and implementation. We highlight the five following key areas:

"....we need to think about people holistically, not as a behavioral health person, a nursing home person, or a community living person, but rather as people with a diversity of needs that should be integrated across the spectrum of care."

Siloed Approach to Health: Based on their experiences with dual-eligible beneficiaries to date, interviewees maintained that beneficiaries' physical needs are often prioritized over their behavioral and social health, such as access to food, transportation, and housing. National trends suggests that over half of dual-eligible beneficiaries experience social risk factors, a higher rate than Medicare-only beneficiaries.

Even when behavioral or social interventions are available, beneficiaries tend to be siloed or compartmentalized into "behavioral health beneficiaries" or "beneficiaries that need a lot of assistance" versus viewing and caring for them holistically, where physical, behavioral, and social needs are viewed as interconnected and in totality. Any integration option will need to systematically account for a diversity of needs to ensure that care is beneficiary-centered, addresses the whole person, and emphasizes the values and preferences of beneficiaries and their care partners. Depending on their lived experiences, beneficiaries will likely have different conceptions of "whole- person care" and their priorities across physical, behavioral, and social components of health may shift over time and across different circumstances.

Suboptimal Access to Care: Our qualitative research points to potential underutilization of and uneven access to care. Beneficiaries may lack appropriate access to services required to help them transition to and remain in their homes or community-based settings or programs. For example, home- and community-based services (HCBS) waiver services, which allow beneficiaries to receive services in their home or community rather than an institutional setting, currently have waitlists in NC because there are limits to eligibility and how many beneficiaries can participate. Restrictions result in geographic, racial, and socioeconomic disparities in access to these services. Stakeholders noted that most beneficiaries wish to receive care at home or in the community provided adequate safety, function, and socialization can be realized.

A lack of low- or no-cost non-emergency medical transportation can also limit access to care, treatment adherence, and continuity of care. Without adequate transportation, beneficiaries struggle to make medical appointments, secure needed medications, and access available community supports. This is a particular concern for the approximately one third of NC dual-eligible beneficiaries residing in rural areas. However, non-emergency medical transportation and non-emergency ambulance transportation benefits are covered for those enrolled in NC Standard and Tailored Plans.

Limited and Confusing Information: Beneficiaries also lack clear and comprehensible information on eligibility, benefits, and services. The onslaught of brochures, letters, and other materials regularly received by beneficiaries across programs can lead to "decision-making paralysis." Materials fail to clearly communicate information most important to beneficiaries and employ language, such as "integration" and "coordination," that may not resonate with readers. Moreover, materials lack clear, concise, and culturally competent guidance to help beneficiaries make informed, preference- and value-centered decisions. A lack of accessible information can place unnecessary burdens on providers to educate beneficiaries about the two programs and available benefits and services. In addition, information gaps are even greater for beneficiaries without internet access and for those residing in rural areas of the state with limited health care and community supports, raising important equity implications.

"Beneficiaries and their families don't understand their benefits, the facilities don't understand their benefits. It's getting quite complex and labor intensive for beneficiaries, families, as well as providers trying to manage care for this population."

Complex, Uncoordinated, and Fragmented Beneficiary Care: The lack of integration between Medicare and Medicaid means that beneficiaries have two ID cards, enrollment processes, sets of information materials, and provider networks; unaligned benefits and services; and separate beneficiary protections, appeals, and grievance mechanisms. Navigating two sets of policies and procedures can lead to confusion and unnecessary administrative burden among beneficiaries and their providers.

A disconnect between Medicare and Medicaid programs can also result in suboptimal care for dual-eligible beneficiaries. The complexity and scope of their needs often necessitate involvement of multiple providers. Without adequate communication and coordination across providers, beneficiaries can face care fragmentation and discontinuity. Beneficiaries often lack a single care manager who can help them navigate different providers and services and implement their care plan.

Lack of Adequate Health System-Level Supports: Workforce shortages existing prior to the COVID-19 pandemic have been further exacerbated by the pandemic, especially in rural areas of the state and in specific care settings (e.g., HCBS, nursing facilities), with significant health and equity implications for beneficiaries. Moreover, the existing workforce often lacks the multi-disciplinary expertise required to optimally care for the complex dual-eligible population and may not be reflective of the demographic characteristics of the beneficiaries they serve. Insufficient professional development and training opportunities may contribute to shortages for direct care workers, community health workers, and non-physician primary care providers, such as nurse practitioners and physical therapists.

Limitations in existing state data infrastructure often stymie timely sharing of medical, behavioral, and social risk factor data that is critical for delivering whole-person care and seamless, person-centered care coordination and management. Care managers are frequently required to manually compile claims and clinical data sources with admissions and discharge data to support engagement with beneficiaries at the point-of-care. Moreover, providers may lack the right information to develop appropriate care plans and referral strategies, measure performance, and identify social risk factors.

Envisioning a Future for Medicare-Medicaid Integration in North Carolina

As evidenced by our quantitative and qualitative analyses, there is vast opportunity to improve the landscape and experience of dual-eligible beneficiaries, care partners, and providers through Medicare and Medicaid integration in NC. An integration strategy will need to be tailored to the current NC context, while appropriately advancing the landscape and experience for dual-eligible beneficiaries and impacted parties moving forward. In this section we propose an overarching vision and interconnected goals to inform and guide such a strategy. Achieving the vision and goals will require choices pertaining to key regulatory, policy, and programmatic parameters. We first discuss these key parameters and subsequently present four options for Medicare-Medicaid integration that correspond to specific choices of these parameters. The four options, while necessary, are not sufficient to achieve the overarching vision and goals for integration; accordingly, we also outline core programmatic components that should accompany them to realize this end.

Vision for and Goals of Medicare-Medicaid Integration in NC

Our vision and goals for integration are designed to place the beneficiary at the center, redress the major challenges currently facing dual-eligible beneficiaries and their care partners, and achieve measurable positive impacts on beneficiaries and the state of NC. We also define the terms used within our stated vision, which can be found in the Appendix.

An integrated system of high-value, community-centered, and whole-person care that prioritizes the preferences and needs of dual-eligible beneficiaries and their families, resulting in better health, health equity, and improved experiences.

Reflected in this vision are interconnected goals for the beneficiary and their care partners (better health, health equity, improved experiences) and for the health care system (high-value, community-centered, whole-person care):

- Improved health, health outcomes, quality of life, and well-being for all beneficiaries, care partners, and families;
- Simplified, holistic experience for beneficiaries, care partners, and their families when interacting with all aspects of the system;
- Equitable and coordinated access to appropriate physical, behavioral, LTSS and social services, accounting for heterogeneity in needs and preferences of beneficiaries and their families;
- Enhanced beneficiary and care partner support for seamless transitions between care settings, with robust access to independent living in home- and community-based environments;
- Efficient use of resources and reduction in beneficiary and provider administrative burden to improve the value of health care spending; and
- Robust, value-based care delivery and payment infrastructure that creates an adequate workforce to meet beneficiary and care partner needs as well as engages and supports NC providers.

Key North Carolina and Federal Regulatory Considerations Informing Integration Options

Our proposed options to integrate Medicare and Medicaid programs in NC are governed by existing state and federal regulations and priorities, and fit with the range of programs and initiatives already operating under NC Medicaid. We first describe relevant considerations specific to NC, followed by key federal regulations and policies pertinent to state integration efforts and the development of our integration options. We recognize that these state and federal regulations evolve over time; therefore, the integration options may need to be updated in the future to reflect these changes.

NC Statute and Priorities

Any integration option in NC needs to meet existing statutory requirements. Specifically, capitation for long-stay nursing home care is statutorily mandated within five years of Medicaid managed care launch for non-dual-eligible beneficiaries (i.e., 2026), which aligns with the required timeline for dual-eligible beneficiaries to be enrolled into Medicaid managed care. This statutory provision is complemented by broader state priorities to integrate LTSS services with physical, behavioral, and social services in integrated care models.

On July 1, 2021, NC implemented the first phase of managed care contracts for their Standard Plans, which cover a majority of Medicaid-only beneficiaries – Standard Plans exclude individuals with significant behavioral health needs and I/DD. Standard Plans provide and manage comprehensive physical health, basic behavioral health, and LTSS for Medicaid-only enrollees under a single capitated rate; however, the Standard Plans do not currently include long-term nursing home benefits coverage. The state further delayed implementation for PHP managed care contracts for their Tailored Plans (now scheduled to launch April 1, 2023) to allow for more time to build the necessary infrastructure (e.g., provider networks). However, the Tailored Care Management benefit to provide Tailored Plan beneficiaries with a single care manager to coordinate across the care continuum will begin on December 1, 2022. Tailored Plan eligibility is clarified in the state's waiver renewal application and will include dual-eligible beneficiaries served by Innovation waivers in addition to Medicaid-only beneficiaries with significant behavioral health needs and I/DD. Populations excluded from Medicaid managed care include CAP/DA, CAP/C, medically needy, and PACE beneficiaries per NC Statute.

In 2017, the aforementioned Joint Legislative Oversight Committee on Medicaid and NC Health Choice report outlined policy pathways for the state to consider when designing an integration approach within its broader managed care strategy, including use of PACE programs and D-SNPs. The report also envisioned mandatory Medicaid capitation plans for FBDEs with options for inclusion or exclusion of specific benefits, such as behavioral health.

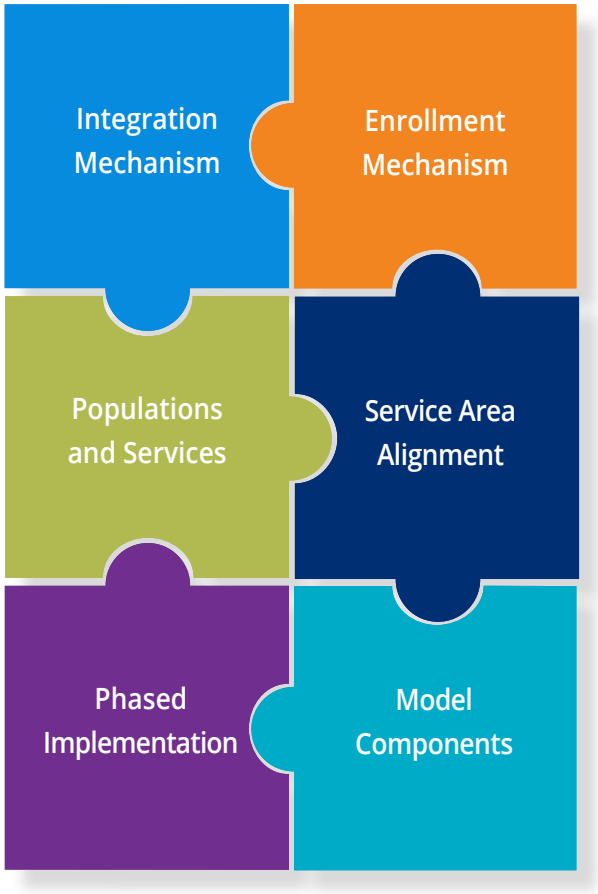
Federal Regulations

Design and implementation of an integrated program needs to respect guaranteed choice in the Medicare program. While Medicare eligible beneficiaries can enroll in traditional Medicare (or Medicare FFS), Medicare Advantage, or a Medicare Advantage Special Needs Plan, there are opportunities to increase beneficiary understanding of the advantages of being in a well-designed and executed integrated program. Several federal provisions allow states to advance integration through informed beneficiary choice and enabling ease of enrollment into an integrated model, and greater opportunities for beneficiaries to influence the design and implementation of such models. The Centers for Medicare and Medicaid Services (CMS) issued new regulations in the 2023 Medicare Advantage and Part D Final Rule (CMS-4192-F) that provide states more opportunities to design an integrated care program that can deliver on the promise of beneficiary-centered, whole-person care. These provisions include requirements for D-SNPs to establish and seek input from enrollee advisory committees and assess a beneficiary's health-related social needs such as housing stability and food security. Additionally, the final rule created new pathways for simplifying and streamlining the beneficiary experience, and for greater transparency in D-SNP performance on Medicare Star ratings. The State Medicaid Agency Contract (SMAC) can serve as a vehicle for incorporating both new and historical provisions.

Key Policy and Programmatic Parameters Defining Integration Options

Based on our research, we identified six major policy and programmatic parameters that define an integration option when employed together, with specific choices on these parameters determining the degree of integration. These parameters are shown in **Figure B** **and consist of five policy parameters that can be combined with core programmatic model components.** In this report, an option for integration is defined by a specific set of choices of the five policy parameters.

FIGURE B Key Parameters in Defining an Integration Option



Enrollment Definitions

Aligned Enrollment: Occurs when a dual-eligible beneficiary is enrolled in a D-SNP and an affiliated Medicaid managed care plan offered by the same parent entity.

Auto-enrollment: A process to automatically enroll Medicaid beneficiaries into the Medicaid plan aligned with their chosen Medicare D-SNP option.

Default Enrollment: A process that requires CMS approval to automatically enroll a Medicaid beneficiary newly eligible for Medicare in the D-SNP offered by the same parent entity as the beneficiary's Medicaid managed care plan.

Exclusively Aligned Enrollment: Occurs when the state limits enrollment in the D-SNP to FBDE beneficiaries who receive their Medicaid benefits from the D-SNP or an affiliated Medicaid managed care plan offered by the same parent entity as the D-SNP.

1. **Integration Mechanism:** Refers to the state's choice of PACE, D-SNP, or managed FFS[5] to achieve integration. Most states that have integrated care models for dual-eligible beneficiaries use PACE in addition to D-SNP mechanisms.

2. **Enrollment Mechanism:** States have the ability to set the enrollment mechanism in the context of integration, which can be characterized in the following ways: unaligned, aligned, and exclusively aligned. The choice of this parameter impacts the level of integration within programs. For example, pursuing a strategy that allows beneficiaries to enroll in unaffiliated Medicaid managed care and D-SNPs plans (unaligned enrollment) can result in ongoing fragmentation of care unless there are strict requirements on model components in which the unaffiliated Medicaid managed care and D-SNPs are required to collaborate in servicing the beneficiary. Other mechanisms like default enrollment for Medicare allow the state to streamline enrollment in integrated plans.

3. **Populations and Services:** The state can decide which groups of beneficiaries and sets of services are included or excluded in an integrated model. As discussed above, NC statute outlines managed care eligibility and precludes certain populations from being in Medicaid managed care. One strategy might be to provide an integrated plan option for all managed care eligible beneficiaries, while another might be to continue serving

[5] Washington employed a health home managed fee-for-service model to integrate care under the CMS Financial Alignment Initiative starting in 2013.

some subgroups under existing Medicaid programs that are not integrated. For example, some states have chosen to exclude dual-eligible beneficiaries with I/DD from integration, at least initially, because these beneficiaries are served through existing waiver programs and a change might disrupt their care. Alternatively, including beneficiaries with I/DD in managed care can potentially eliminate wait lists and expand access for those who already meet Medicaid eligibility. States can also, for example, decide that physical and behavioral health services will be included in a single capitated contract with a managed care organization or split such that a managed care organization is responsible primarily for physical health and a behavioral health organization has accountability for behavioral health benefits. These choices have implications for the degree of integration and, ultimately, a state's ability to achieve coordinated whole-person care.

4. **Service Area Alignment:** States can require Medicaid managed care plans and D-SNPs to operate in the same geographic service areas when they are operated by the same parent entity, giving all eligible individuals in the state the option to enroll in aligned plans for integrated coverage.

5. **Phased-in Implementation:** States can choose to implement an integrated care model that would be inclusive of all populations and services from initial launch or choose to phase-in different populations or subgroups to the integrated model over time. Each of these choices has implications for administrative complexity and timing of investments to ensure successful implementation.

6. **Model Components:** Successful design and implementation of integration will depend on the structure and rigor of key programmatic model components, such as model of care for dual-eligible beneficiaries, network adequacy to ensure adequate and timely access to care, and performance measurement requirements to ensure accountability.

Proposed Options to Integrate Care for Dual-Eligible Beneficiaries in North Carolina

This report describes four options to advance Medicare-Medicaid integration in NC. All of the integration options are based on specific choices for policy parameters one through five described above and account for existing federal and state regulations. The integration options are not meant to be exhaustive and alternative choices for these parameters may yield a different set of options for integration. The four options explored in this report build on the lessons learned from federal and state experience integrating care for dual-eligible beneficiaries and span a continuum of integration. However, as emphasized earlier, these options will need to be combined with well-designed programmatic model components to ensure success. Model components serve to address key aspects of care delivery and oversight and are discussed in further detail below.

Guided by a beneficiary-centered, whole-person approach to Medicare-Medicaid integration, the four proposed options allow the state to build on its managed care and D-SNP infrastructure, align with ongoing state transformation efforts, leverage existing partnerships, foster new collaborations, and draw from other state experiences and CMS-led demonstration efforts and guidance. Ideally, this approach will create an environment that can ensure the health system as a whole works toward shared goals for improving the beneficiary experience, forge greater collaboration among organizations (e.g., NC DHHS, health plans, providers), and serve as a critical part of the state's broader mission to improve health and health care for all residents.

Elements Shared Across All Four Options

In designing the four integration options we identified two policy parameters that are constant across all options. The first is the choice of integration mechanism for FBDE beneficiaries and the second pertains to the phased-in approach to implementation.

Choice of Integration Mechanism: Each of the four options use PACE and D-SNPs as the primary integration mechanisms to help advance the vision and the goals articulated earlier and build on the existing infrastructure in NC. While our analysis found that PACE[6] presently serves

less than 1% of the NC FBDE population, NC DHHS is in the process of expanding the program's geographic service area. PACE provides full financial integration in addition to integrated care and administrative processes. PACE expansion can play an important role in future integration efforts in two ways: First, it allows more individuals who are eligible for PACE to enroll and receive integrated care. Second, PACE expansion increases opportunities for collaborative and innovative partnerships between non-PACE and PACE organizations serving dual-eligible beneficiaries. For example, in Massachusetts managed care plans have partnered with PACE organizations to help deliver a PACE-like model in the community. Employing PACE and D-SNPs mechanisms together builds on the status quo, minimizes potential disruption for beneficiaries, and promotes a seamless care experience, which could ease implementation of Medicare-Medicaid integration in NC.

For beneficiaries who are not PACE eligible, all four options rely on the use of managed care and D-SNPs. There are several reasons why using D-SNPs with PACE represents a viable strategy for achieving integration in NC. First, D-SNPs are well established in NC, serving over 100,000 dual-eligible beneficiaries, and enrollment in these plans has been growing over time. The robust D-SNP presence combined with the state's transition to Medicaid managed care makes a D-SNP focused strategy feasible. Historical experience with integration at the federal and state levels has demonstrated the capacity to use D-SNPs to achieve integration for the dual-eligible population. In leveraging a D-SNP strategy, NC can incorporate lessons learned from the federal and state experiences. Second, D-SNPs are required to contract with the states (SMACs) in which they operate, in addition to contracts with CMS, and must adhere to state and CMS requirements. Many states with D-SNPs have leveraged these SMACs as the primary vehicle for providing integrated services for FBDEs[7]. NC can further leverage the SMAC to drive an integrated model. Third, the recently updated CMS regulations include specific D-SNP related provisions that enable better benefits, care, and administrative integration for a more seamless care experience. Finally, NC can partner with D-SNPs to ensure that supplemental benefits such as vision, dental, and services designed to address social determinants of health (SDOH) meet the needs of the NC FBDE beneficiaries.

Phased Implementation: All four options propose integrating Medicare-Medicaid for the community well, LTSS users, and long-stay nursing home populations to ensure coordinated whole-person care and a streamlined beneficiary experience. However, rather than include all dual-eligible beneficiaries at launch, we proposed to phase in implementation. A phased approach would provide NC an opportunity to build infrastructure and experience, afford providers and plans enough lead time to be fully prepared, and minimize risk of disruption to beneficiaries. Phased-in implementation will also provide the state, as well as stakeholders, time to learn from the launch of the Tailored Plans in late 2022 and implementation of managed care for the Medicaid-only population. These learnings can inform evolution of the integration options and the role of Tailored Plans. In addition to phasing in populations, NC may consider adjusting its oversight approach over time. For example, the state may be more prescriptive with plans in initial phases of implementation to ensure that they can meet the varying intensity and scope of beneficiary needs, with greater flexibilities granted with demonstrated experience.

Establishing Partnerships to Scale Integration Efforts

Massachusetts integrated health plans have partnered with PACE organizations to leverage existing PACE infrastructure and provide primary care services to their dual-eligible beneficiaries. Health plans contract with community health centers that own a PACE program to provide primary care to dual-eligible individuals who did not clinically qualify for nursing home level care (requirement to qualify for PACE). Under this arrangement, the health plans also leveraged their Area Agencies on Aging (AAA) to perform patient assessments and inform beneficiaries of available care options.

[6] PACE provides comprehensive care to people ages 55 and older requiring an institutional level of care, most of whom are dual-eligible beneficiaries.

[7] Special Needs Plans (SNPs) for Full Benefit Dual Eligible (FBDE) include Qualified Medicare Beneficiary with full Medicaid (QBM+) plans and Specified Low-Income Medicare Beneficiary with full Medicaid (SLMB+) plans.

Based on research and guidance from the Advisory Panel, we recommend initiating Medicare-Medicaid integration among the community well and community-dwelling LTSS users. These beneficiaries experience fewer complex needs compared to other FBDE beneficiaries. Such an approach will allow the state to test the infrastructure and systems prior to enrolling beneficiaries with more complex needs and ensure a successful roll out. In NC, we found 64% of FBDE beneficiaries can be characterized as community well, allowing a majority of all dual-eligible beneficiaries to be cared for under an integrated model at launch. Beginning implementation with the community well population initially can also help NC design and implement programs that emphasize upstream prevention, maximize opportunities to improve or maintain the health and health outcomes for these beneficiaries, and minimize downstream spending on hospital or nursing home care.

We considered alternatives for phasing in FBDE beneficiaries with more complex needs, namely nursing home residents and individuals with significant behavioral health needs and I/DD. Beneficiaries with significant behavioral needs and I/DD represent a higher degree of complexity than nursing home residents and will therefore require more time to plan and implement an integrated program. Thus, we recommend phasing in nursing home residents prior to dual-eligible beneficiaries with significant behavioral health needs and I/DD. Our recommendation coincides with the experience of other states, with states like New Jersey implementing Managed Long Term Services and Supports (MLTSS) first and either phasing-in or carving-out behavioral health services. Pennsylvania carved-out behavioral health services from their integrated product – significant behavioral health needs are provided by separate behavioral health managed care organizations.

Medicare-Medicaid integration for long-stay nursing home populations is critical to ensure coordinated care and a streamlined beneficiary experience for families and care partners, and to align nursing home care goals with broader efforts to support community-based care when feasible. For example, integration creates the opportunity to transition beneficiaries currently residing in nursing homes back into the community and supports efforts to shift more LTSS resources into HCBS over time. This opportunity has been leveraged in other states that have enhanced administrative and financial alignment in their D-SNP/managed LTSS-based programs and demonstrated rebalancing of LTSS. For instance, integration allows for coordinated care plans that target services based on beneficiary need,

> **"....they've carved out nursing facility care now. So the ability for us to really do work around proactively helping people to live in the community and transition from nursing facilities to the community and do that kind of integrated care ... it hampers our ability to do that."**

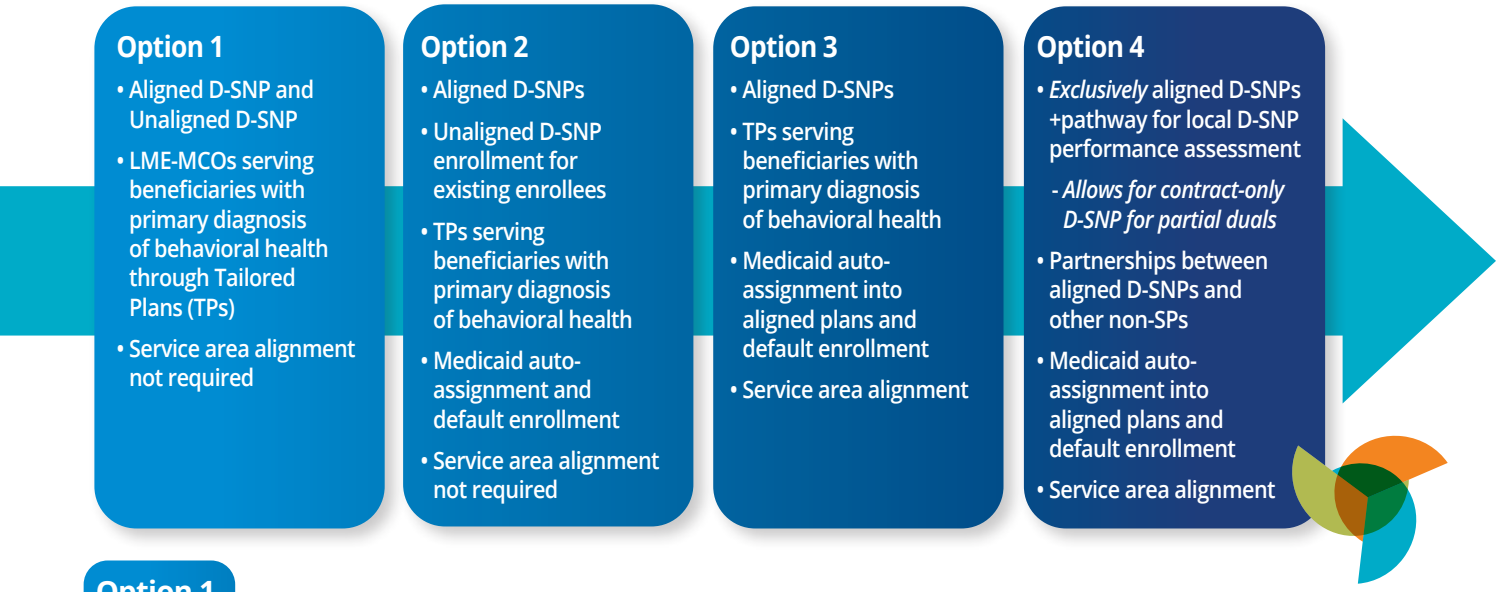
which is a key tactic for nursing home diversion. Interviewees also noted that incentive alignment for plans and providers, as in the proposed integrated models, can help prevent unnecessary churn between hospitals and nursing homes. Ultimately, including nursing home residents in integrated models will help promote more coordinated care as beneficiaries transition across different care settings.

Although we considered a geographic phase-in approach, such as beginning integration in regions with high D-SNP enrollment, we found little support for this approach in our review of the evidence and interviews with both national and NC stakeholders. Specifically, there was concern that geographic phasing would result in inequitable access for the regions not initially selected for integration. Geographic phasing is therefore not included in any of the proposed integration options.

Options to Integrate Care for Dual-Eligible Beneficiaries

We discuss the specifics of the four integration options below. **Figure C** provides a high-level overview of all of the integration options. The integration options arise from specific choices of three of the policy parameters– enrollment mechanism, inclusion/exclusion of populations and services, and service area alignment. The options are depicted on a continuum with option 1 being the least integrated and option 4 being the most integrated. The variation in the degree of integration results in benefits and challenges - discussed further below - associated with each option, including their ability to achieve the vision and goals and address many of the challenges NC beneficiaries currently experience. As stated previously, we view the four options as necessary, but not sufficient, to achieve the vision and goals. Careful consideration should be given to the design and implementation of the model of care, performance measurement, network adequacy, and system level supports.

FIGURE C Proposed Options to Integrate Care for Dual-Eligible Beneficiaries in NC using D-SNPs



Option 1

Under option 1, **D-SNPs who currently do not have an affiliated Standard Plan in NC would operate alongside D-SNPs who have companion Standard Plans. Aligned enrollment would be optional, because a beneficiary could enroll in a D-SNP and a Standard Plan that are operated by different parent entities or enroll in a D-SNP and a Standard Plan both of which are operated by same parent entity.** Option 1 would allow dual-eligible beneficiaries with significant behavioral health needs and I/DD to continue to be served by LME-MCOs through Tailored Plans. Finally, option 1 has no requirement for D-SNPs with companion Standard Plans to align their service areas.

Although option 1 minimizes disruption for dual-eligible beneficiaries currently enrolled in unaligned D-SNPs, it would be the least effective at achieving the vision and goals. First, beneficiaries will continue to be subject to separate enrollment processes, receive disparate information from different sources, use two different identification cards, and navigate two separate systems of care and provider networks. Option 1 increases the likelihood for care fragmentation both initially and on an ongoing basis because the Standard Plan and the D-SNP will each have their own care coordination and management processes. Further, if more beneficiaries choose to enroll in unaligned D-SNPs, it will make it challenging for NC to move to more integrated options in the future. Some of these challenges can be alleviated by more prescriptive and stringent contract requirements between the state and the managed care plans. Ongoing management and oversight across aligned and unaligned plans can lead to higher administrative complexity for the state to ensure effective implementation of contract provisions.

If the state were to pursue option 1, the best way to ensure a degree of integration and alignment and enhance the beneficiary experience would be through additional programmatic requirements in the D-SNP Model of Care. For example, Pennsylvania allows unaligned plans to continue to operate in the state but includes more prescriptive language in their contracts for data sharing, asking plans to report when data is shared (including what data is shared) and the receiving entity to report receipt of the shared data. However, such an approach does not solve the fragmentation currently experienced by beneficiaries, care partners, and providers. Continued fragmentation under this option is driven by beneficiaries needing to navigate two systems with different processes and policies, benefits, care delivery systems, and provider networks.

Option 2

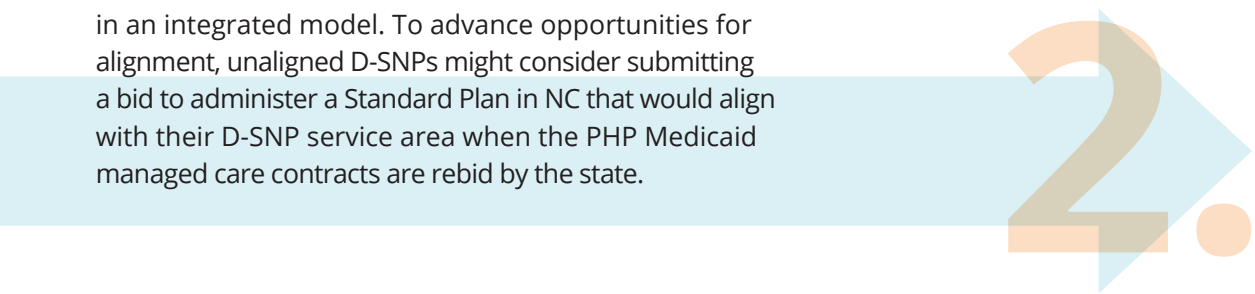
Option 2 **would move the state a little further on the integration continuum by only permitting unaligned enrollment among beneficiaries already enrolled in unaligned D-SNPs. In option 2, the state would transition to aligned enrollment gradually as new beneficiary enrollment would occur in aligned plans.** To promote integration, existing beneficiaries enrolled in a D-SNP with a companion Standard Plan can be auto-enrolled to that Standard Plan to reduce complexity and ensure that beneficiaries will be enrolled in aligned plans, while maintaining the option for them to choose otherwise. Additionally, a Medicaid-only beneficiary enrolled in a Standard Plan who becomes newly eligible for Medicare can be automatically enrolled into an aligned D-SNP through default enrollment. Beneficiaries not currently enrolled in an unaligned D-SNP would have their choice of aligned D-SNPs serving their area or remaining in Medicare FFS. Beneficiaries who choose Medicare FFS would be enrolled into a Standard Plan for their Medicaid benefits. In this option, beneficiaries with significant behavioral health needs and I/DD receive their Medicaid benefits through a Tailored Plan and their Medicare benefits through a D-SNP or Medicare FFS.

Similar to option 1, option 2 does not require service area alignment. This means that a beneficiary could live in an area not served by an aligned D-SNP because D-SNPs would not be required to cover the same service area as the aligned Medicaid plan. Thus, beneficiaries living in these service areas would not have access to an integrated option.

Beneficiaries enrolled in unaligned plans would experience the same challenges articulated in option 1. However, NC could undertake significant efforts to educate beneficiaries - as well as those supporting beneficiaries, such as State Health Insurance Assistance Program (SHIP) counselors and community organizations like Area Agencies on Aging (AAA) - to assist beneficiaries and their care partners as well as educate them about the benefits of enrollment in an integrated model. To advance opportunities for alignment, unaligned D-SNPs might consider submitting a bid to administer a Standard Plan in NC that would align with their D-SNP service area when the PHP Medicaid managed care contracts are rebid by the state.

Option 2 offers a transitional starting point on the journey to the vision and goals of ensuring beneficiary-centered, whole-person care and a seamless experience for dual-eligible beneficiaries in NC. However, interview respondents noted that some states who began their integration journeys with less integrated products, such as option 2, have experienced stagnation and now face challenges moving to more integrated approaches. Option 2 uses the policy levers available to the state to achieve greater integration compared to option 1. Although this option promotes new enrollment into aligned D-SNPs, beneficiaries who remain in unaligned D-SNPs, as well as vulnerable populations with significant behavioral health needs and I/DD, would continue to experience fragmented care delivery and deal with the burden of navigating two separate programs with disparate rules, separate enrollment and other administrative processes, and varying care delivery models. For these reasons, similar to option 1, we believe option 2 has limited ability to achieve the vision and goals for integration.

If the state were to pursue option 2 or the subsequent options, engaging with plans, providers, and beneficiaries early in the process will be key to facilitate a smoother transition. Changes to plan contracting strategies can have impacts on many parties that should be carefully considered in the context of the current NC landscape. The ability for unaligned D-SNPs to continue operating will create many of the same oversight challenges for the state as in option 1, but in option 2 the oversight burden for unaligned D-SNPs is expected to be transitional rather than a permanent state.



Option 3

Option 3 represents **a significant step in furthering integration by relying only on aligned enrollment mechanisms. In option 3, the state would require alignment and only D-SNPs with companion Standard Plans will continue to operate in NC, allowing for integration of services (e.g., LTSS, long-stay nursing home care, basic behavioral health) for those beneficiaries who choose D-SNPs for their Medicare benefits.** Like option 2, beneficiaries with significant behavioral health needs and I/DD receive their Medicaid benefits through a Tailored Plan and their Medicare benefits through a D-SNP or Medicare FFS. In addition to promoting integration with aligned enrollment, option 3 uses service area alignment – a requirement for D-SNPs and PHPs to operate in the same service area — to further advance integration. Similar to options 1 and 2, option 3 also leverages default enrollment to further promote integrated care.

Service area alignment differentiates option 3 from options 1 and 2 and works to ensure equitable access by giving beneficiaries opportunities to enroll in aligned plans regardless of where in the state they live. In options 1 and 2, only beneficiaries residing in areas with service area alignment could enroll in aligned plans, but service area alignment is not required statewide. Option 3 requires service area alignment to ensure statewide access to aligned plans. Achieving this level of integration requires a longer implementation timeline, requiring specific steps (e.g., aligning service areas in contracts) three to four years prior to launch, so that the community can participate in developing strategies to support beneficiaries, plans, and providers during the transition, particularly those moving from unaligned to aligned D-SNP plans. Additionally, it may take time for plans to build out networks in areas where they have limited experience or where there are provider shortages, which is discussed in the model components section below.

Option 3 moves much closer to achieving the vision and goals for integration. There is greater opportunity to reduce care fragmentation within aligned plans because the D-SNP and Standard Plan would be operated by the same parent entity and, therefore, have the potential for better internal coordination. This potential stems from access to complete longitudinal view of the beneficiary experience using Medicare and Medicaid encounter data, and design and implementation of an integrated care plan. Further, the parent entity will be responsible for both Medicare and Medicaid benefits, which would mitigate incentives to cost shift between these two programs. Option 3 could also simplify the claims processing for providers if NC chooses to have the aligned plans cover Medicare cost sharing. However, a degree of fragmentation will remain without requirements to integrate beneficiary communication materials, enrollment processes, and appeals and grievances processes, resulting in a complex environment for the beneficiary to navigate.

In option 3, D-SNPs would be expected to achieve Highly Integrated Dual Eligible Special Needs Plan (HIDE-SNP) designation from CMS. Although excluding beneficiaries with significant behavioral health needs and I/DD from the aligned D-SNP model limits the potential impact of integration, option 3 could serve as the foundation upon which NC could stand up a Fully Integrated Dual Eligible Special Needs Plan (FIDE-SNP) model in the future, should the state opt to do so. Implementing a model with a high level of integration also requires more significant administrative capacity from the state than either of the initial two options. The state will need to invest in the data capabilities to employ auto-enrollment and default enrollment (like options 1 and 2) as well as other protocols to ensure seamless integration, such as network adequacy monitoring for service area alignment, and will need to ensure that participating plans are doing the same.

Option 4

Option 4 is the **most integrated option for FBDE beneficiaries in NC. Option 4 achieves the highest level of integration with exclusively aligned enrollment and including all populations and services that are not statutorily excluded under the integration model. Including all populations and services was viewed by NC stakeholders and national and state experts as a critical foundation for achieving a beneficiary-centered, whole-person care**. Similar to option 3, Medicaid auto-enrollment, default enrollment, and service area alignment would require significant state administration but would ensure a more seamless beneficiary experience. In option 4, we envision all Medicare and Medicaid benefits - for all FBDEs who are PHP-eligible, including those with significant behavioral health needs and I/DD - to be delivered by D-SNPs aligned with PHPs. This serves as an opportunity to design innovative partnerships, including subcontracting agreements, between these aligned D-SNPs and Tailored Plans. We recommend that NC DHHS leverage other aspects of exclusively aligned enrollment and work with CMS to implement a single contract ID for the D-SNPs operating in the state.

There are many benefits associated with option 4. First, option 4 provides NC the most promising opportunity to achieve the vision and goals for integration, address the many challenges facing beneficiaries, and drive innovation in Medicare-Medicaid integration. Employing exclusively aligned enrollment allows for integration of beneficiary communication materials and communications, enrollment processes, appeals and grievances processes, and quality improvement. Additionally, option 4 provides greater opportunity for aligned care integration and management through use of an integrated care plan and a single provider network across Medicare and Medicaid. The use of a single contract ID would result in greater transparency of D-SNP performance as this provision ensures reporting of quality performance data for dual-eligible beneficiaries based solely in NC. Further, the single contract ID pathway provides states with additional tools to ensure that D-SNPs provide high quality integrated care and that Medicaid is the payer of last resort. These tools include access to D-SNP medical loss ratios and financial information, ability to coordinate with CMS on D-SNP audits and access findings, and access to Health Plan Management System. Under new CMS regulations, plans with a single contract ID can also enroll partial-benefit dual-eligible beneficiaries in a separate Plan Benefit Package (PBP) to cover Medicare services, minimizing disruption for partial-benefit dual-eligible beneficiaries enrolled in D-SNPs in NC. These tools serve to enhance the state's ability to track performance improvement, beneficiary and care partner satisfaction, and health outcomes to ensure that plans are improving the beneficiary experience and reducing care fragmentation and health disparities.

Building on some of the implementation challenges listed in the previous option, option 4 would be the most administratively complex approach to implement initially, requiring the highest amount of state capacity. For example, we expect additional efforts required to develop and review data sharing infrastructure and processes; collaborate with CMS to develop integrated materials between D-SNPs and PHPs; engage with beneficiaries, plans, providers, and community organizations to communicate the benefits of exclusively aligned plans; and effectively use the additional CMS data sources to which NC DHHS would have access.

If the state were to pursue option 4, engaging beneficiaries, providers, and plans would be important early in the planning process to secure buy-in, identify the major implementation issues, and develop a plan for working collaboratively with NC stakeholders to address these issues. Developing the capacity and infrastructure to implement an array of integration requirements may take more time initially, and starting the planning and implementation processes a few years prior to launch will be needed. A key aspect of design and implementation includes securing necessary resources, personnel, and other system supports to ensure a successful roll-out.

Recommended Option for Advancing Medicare-Medicaid Integration in North Carolina

We recommend option 4 as the ideal end state for integration, and suggest that the state establish targets for key milestones for achieving this vision. Based on our analysis, option 4 provides the best pathway to achieving the vision and goals, addressing the beneficiary challenges, and aligning with the broader and innovative transformation efforts in NC. However, NC will need to weigh a range of considerations and priorities, such as the state's capacity and resources as well as impacts to beneficiaries, providers, and plans, when assessing the viability of the options presented and ascertaining a preferred approach.

Early communication with plans and providers about potential changes to D-SNP and PHP contracting requirements is critical to minimize disruption and provide a sufficient time for plans and providers to prepare for integration. Delaying the decision to pursue exclusively aligned enrollment, if that is the chosen approach, is likely to increase the disruption if unaligned plans grow their market share in the interim. If the state allows unaligned D-SNPs to continue enrollment as other integration components are pursued, changing course in the future may be difficult and result in greater disruption. States that have pursued approaches similar to options 2 and 3 have found it challenging to move toward a more comprehensive integration strategy as in option 4 over time. After the initial course was set, the investments and momentum to stand-up the necessary infrastructure and supports for greater integration have proven more difficult to secure.

In the current NC context, option 4 is potentially more appropriate than in other states that needed time to build enrollment in D-SNPs. As our analysis shows, enrollment in D-SNPs is robust, with D-SNPs serving 1 in 3 dual-eligible beneficiaries in NC. Opportunities for aligning existing D-SNPs with existing Standard Plans may also be leveraged to mitigate potential disruption for beneficiaries, in addition to allowing opportunities for new aligned plans when the Standard Plans are rebid. Further, the state can leverage lessons learned from initial implementation to design partnerships between D-SNPs and LME-MCOs operating Tailored Plans. Regardless of the partnerships pursued within option 4, we recommend the state release their strategy with much lead time, because delaying the communication of a clear vision and end state for aligned enrollment will only increase the potential disruption of transitioning to integration if the number of beneficiaries in unaligned plans expands in the interim.

Implementing option 4 at launch represents a substantial undertaking, and achieving the proposed vision would require high state capacity and commitment from the community. See **Table D** for a proposed sequencing of activities and actions to facilitate a smooth roll-out of option 4. Achieving successful implementation of option 4 requires a well-thought out and transparent timeline and committed leadership championing integration efforts to achieving whole-person, beneficiary centered care. With this vision, NC could lead the way in transforming care for dual-eligible beneficiaries and serve as a model for other states designing a Medicare-Medicaid integration strategy.

We Recommend

Option 4

as the ideal end state for integration, and suggest that the state establish targets for key milestones for achieving this vision.

TABLE D Proposed Implementation Sequencing for Integration Option 4

Proposed Actions and Model Design	
Before Implementation	**3 Years Pre-Launch** • Communicate that at launch all dual-eligible beneficiaries choosing Medicare Advantage for coverage may choose from aligned D-SNP options • Communicate that at launch only Medicaid PHPs[9] (or their parent entity) with a D-SNP can enroll dual-eligible beneficiaries • Notify plans of process for seeking single contract ID • Establish NC DHHS staff dedicated to integration launch and implementation • Develop capabilities to support default enrollment[10] and Medicaid auto-assignment • Develop, align, and communicate quality measures, Model of Care review requirements[11], and network adequacy standards
	2 Years Pre-Launch • Align D-SNP and Medicaid PHP service areas • Transition the one Regional Preferred Provider Organization (RPPO) operated by United to an H-contract • Develop aligned administrative requirements (e.g., marketing materials, beneficiary ID card) and customer service processes (appeals and grievances) • Request plans interested in participating and planning to bid in the procurement process to submit application to CMS for single D-SNP contract ID
	1 Year Pre-Launch • Sunset unaligned D-SNPs to achieve exclusively aligned enrollment • Coordinate with the State Health Insurance Assistance Program to educate beneficiaries about integrated D-SNP options • Pilot test data sharing processes between the state, plans, and providers • Pilot test default enrollment and Medicaid auto-enrollment
During Implementation	**Enrollment Phase I** *(Single D-SNP contracts executed)* • Enroll dual-eligible beneficiaries in Medicaid managed care via Standard Plans • Enroll community well and LTSS users into aligned plans and allow dual-eligible beneficiaries to opt-in to aligned plans (e.g., beneficiaries on waiver waitlists) • Begin all aligned administrative processes • Implement "system of one" with a single provider network, quality measure set, Model of Care requirements, etc. • Solicit feedback on implementation from beneficiaries, providers, and plans to address during Enrollment Phase II
After Implementation Launch	**1 Year Post-Launch • Enrollment Phase II** • Enroll FBDE long-stay nursing home residents into aligned plans • Enroll partial dual-eligible beneficiaries in separate D-SNP Plan Benefit Package • Require plans to report quality outcomes to state • Solicit feedback on implementation from beneficiaries, providers, and plans to address during Enrollment Phase III
	2 Years Post-Launch • Enrollment Phase III • Enroll FBDE beneficiaries with significant behavioral health needs and I/DD being served by Tailored Plans into aligned plans for FIDE-SNP designation • Initiate single claiming process for providers

[9] Standard Plans refers to North Carolina Medicaid prepaid health plans (PHPs) providing integrated physical health, pharmacy, care coordination and basic behavioral health services.

[10] Using default enrollment as an enrollment mechanism requires CMS approval. Further information, including the application process, can be found here.

[11] The state can leverage their SMACs to have D-SNPs include data sharing requirements in their Models of Care. There are also nuances related to Model of Care review NC DHHS should consider, such as the staggered review cycles for D-SNPs depending on where a plan falls in their bid or renewal process.

6. Model Components

Achieving the vision and goals of integration will require careful attention to the design and implementation of specific model components. In this section, we provide specific recommendations for the key model components that can help lead to beneficiary-centered, whole-person care. These components include key elements of a care delivery model, organizational and infrastructure supports, and oversight and accountability. The state can leverage SMACs to ensure adoption of these components and make meaningful progress in achieving the broader vision and goals for integration.

Care Delivery Components

Achieving beneficiary-centered, whole-person care will require the use of an integrated care delivery model that offers and unifies a dedicated source of care navigation, a comprehensive assessment of a beneficiary's clinical and social risk factors, and a robust care coordination plan that addresses and manages all of their needs. Further simplification of other aspects of a beneficiary's interactions with managed care plans will also be critical to helping achieve a seamless experience for beneficiaries.

Single Care Navigator

Complex, fragmented, and uncoordinated care is a major beneficiary challenge. To help alleviate this challenge, we recommend that dual-eligible beneficiaries in NC have a single point of contact—a care navigator or care manager—who can help the beneficiary navigate the health care system and can ensure that beneficiary needs and goals are met. This "point person" would help with 1) navigating benefit and service decisions and the care continuum, 2) conducting assessments, 3) designing beneficiary-focused care plans in conjunction with the interdisciplinary care team, and 4) connecting and coordinating acute, subacute, LTSS, social, and primary and specialty care services. For example, in New Jersey, a single care manager coordinates an individual's Medicare, Medicaid, and other services for individuals enrolled in FIDE-SNPs within the state. Ideally, beneficiaries should have a choice as to who that "point person" should be given the importance of trust in this relationship. The state can also consider the importance of achieving racial/ethnic diversity within the care management workforce, as this is correlated with the delivery of quality care to communities of color.

Integrated Assessments

To further simplify the beneficiary experience and ensure coordinated care across Medicare and Medicaid, we also recommend a single assessment of dual-eligible beneficiaries' health risks, needs, and preferences to provide a comprehensive understanding of the whole person. This single integrated assessment serves to combine what is required by CMS and the state. NC Standard and Tailored Plans must conduct care needs screening within 90-days of enrollment and follow up with a Comprehensive Assessment for high priority populations (e.g., individuals receiving LTSS) to determine a members' care management needs[8]. The beneficiary's assessment informs the development of a person-centered care plan. Similarly, D-SNPs are required to conduct an initial and annual Health Risk Assessment (HRA) to inform a member's individualized care plan (ICP). NC can streamline this process by establishing a single, integrated assessment that includes the specific health and psycho-social services required in a beneficiary's care plan, captures their care preferences, and incorporates input from all members of the care team.

Additionally, the recently finalized 2023 Medicare Advantage CMS rule requires that HRAs include questions about housing stability, food security, and access to transportation. With this new requirement, the state should consider how to align or integrate collection of SDOH screening information through HRAs with information collected in Medicaid Standard Plans Care Needs Screening (which also includes assessment of SDOH needs).

[8] Requirements for Standard Plans are outlined in the latest version of the Health Plan Contracts

Care Coordination and Management

Robust care coordination and management are critical for addressing the significant physical, behavioral, and social needs of dual-eligible beneficiaries. As previously noted, NC dual-eligible beneficiaries have high rates of morbidity and mortality compared with Medicare-only and Medicaid-only users, and most have six or more chronic conditions. In concert with offering a single care navigator and comprehensive and integrated assessment and ICP, care coordination and management will be an essential element of an integrated care delivery model to help minimize unnecessary ED visits and hospitalizations, support care transitions and community-based care, improve health outcomes, and ensure timely and beneficiary-centered, whole-person care. NC can increase care coordination requirements via their SMACs to integrate care for dual-eligible beneficiaries. D-SNPs are required to provide care coordination for their enrolled beneficiaries and outline their approach to coordination in their Model of Care just as NC Standard and Tailored Plans are required to provide care coordination and management services to Medicaid-only beneficiaries. The state can align care coordination requirements across the plans offering Medicare and Medicaid benefits and review each D-SNP's Model of Care to ensure beneficiaries receive the most coordinated and comprehensive care possible. **Figure E** includes example state-specific provisions that can be incorporated into the SMAC related to care coordination and data sharing that promote care integration from the beneficiary standpoint.

Social Needs Supports

As noted earlier, dual-eligible beneficiaries are more likely to experience social risk factors such as homelessness, transportation barriers, and food insecurity. Relative to other states, NC is in a strong position to fulfill these needs given the state's priority of meeting beneficiary social needs through its Medicaid Transformation and Healthy Opportunities Pilots initiatives. Supplemental benefits offered by Medicare Advantage plans also provide an opportunity to leverage existing benefits to address social needs. Our review of benefits offered by D-SNPs in NC found that all plans offer core supplemental benefits like dental, hearing, and vision, but just over half of these plans offer supplemental benefits like in-home support services, nutritional/dietary benefits, and smoking/tobacco cessation services. About a quarter offer food and produce benefits (please see Table 4 in the Appendix for more detail). We recommend that NC utilize contracting language that lists example benefits and requires that D-SNPs coordinate with the state in determining supplemental benefit offerings. Similar to Arizona, this would allow flexibility for the state to work with D-SNPs to prioritize benefits that help fill gaps or extend more limited services to a broader set of beneficiaries.

FIGURE E Example D-SNP Model of Care State Provisions

1. Incorporate information about state Medicaid programs and requirements into training for D-SNP care coordination staff.
2. Communicate information about Medicaid services (particularly LTSS) to primary care providers and other members of the integrated care team. This can include describing those services on the beneficiary's integrated care plan (ICP).
3. Coordinate delivery of LTSS and other services during discharge/care transitions
4. Describe how the required D-SNP Health Risk Assessment is coordinated with State LTSS assessments.
5. Describe measures D-SNP will use that are tailored to specific populations and care settings (including those receiving LTSS).

Adapted from the Integrated Care Resource Center 2019 Tip Sheet

Home- and Community-Based Services

Home- and community-based services (HCBS) are a central component of delivering whole-person care. Also, this type of care is aligned with the preferences of most beneficiaries and care partners and hence a primary goal of integration. NC can leverage the D-SNP Model of Care and SMACs to extend HCBS options for beneficiaries. For example, the state can ask plans to include details in their D-SNP Model of Care on how they will communicate with HCBS providers at critical points during a beneficiary's care such as discharge planning. NC could also look to a growing number of promising models that support innovative ways of delivering care in these settings. The community paramedicine model, for example, allows trained paramedics and emergency medical technicians to conduct in-home primary care, post-discharge follow-up care, prevention, education, and care coordination for underserved and/or high-needs individuals. These programs have shown decreased emergency department use and inpatient utilization while maintaining patient satisfaction and health outcomes. NC counties and PACE programs have piloted community paramedicine programs, and Onslow County has employed this model to connect individuals with mental health and substance use treatment needs to therapy, detoxification, rehabilitation, and outpatient treatment settings. The state could expand the reach of successful pilots through Medicaid.

States, including NC, have also implemented innovative models through waiver programs. Massachusetts' Medicaid program (MassHealth) has implemented the CAPABLE (Community Aging in Place—Advancing Better Living for Elders) model through its AAA and Aging Services Access Points via their 1915c Frail Elder waiver. In this model, an occupational therapist, registered nurse, and a home repair professional all work with an individual over five months to discuss and develop a plan for specific services that will help meet the individual's goals (e.g., bathe safely, dress without pain). Nationally, the CAPABLE model led to reductions in inpatient and outpatient spending, increased access to services in rural areas, and substantial improvements in needs related to basic daily activities, mental health and falls.

Similar to NC's CAP-DA waiver, Georgia operates the SOURCE (Service Options Using Resources in a Community Environment) model under an Elderly and Disabled HCBS Waiver to allow individuals eligible for nursing home care to receive that care in their homes or in assisted living facilities, including adult day care, personal support services, respite care, emergency response, and home-delivered meals. New Hampshire utilizes a similar model with its Medicaid Choices for Independence Waiver program where seniors and adults with chronic illnesses who are eligible for nursing home care may receive services and supports within the community from existing nursing home facilities as an alternative to residing onsite. These programs provide examples of leveraging existing infrastructure and capacity in new ways to meet beneficiary needs and preferences.

Administrative Simplification

Integration offers a real opportunity to streamline administrative processes for the beneficiary and help deliver a seamless experience. Currently, beneficiaries face separate processes for Medicare and Medicaid enrollment, receive distinct ID cards, different provider networks etc. Ideally, aligning Medicare and Medicaid plan contract procurement timelines could result in significant administrative simplification. However, this can be challenging to implement. Even if procurement cycles cannot be aligned, we recommend that NC align beneficiary enrollment timeframes for Medicaid and Medicare. Enrollment processes can be aligned using timely access to D-SNP-related information for concurrent review. The state could also ensure integrated marketing materials and enrollment notices, which would address the information overload currently experienced by dual-eligible beneficiaries. Further, integrated administrative processes would allow for a single ID card for beneficiaries and aligned provider networks to facilitate a seamless beneficiary experience. The state can also leverage their SMACs to impose timeline or notice requirements to improve beneficiary protections through enhancements to their ombudsman programs. In addition to integrating the upstream enrollment processes, having an integrated appeals and grievance process for the beneficiary will be critical in minimizing burden and ensuring that they are not navigating two systems with complex rules for coverage determinations. Integrated administrative processes also provides the opportunity to reduce administrative burden on providers relating to managing variable prior authorization, appeals, and billing processes across Medicare and Medicaid plans for beneficiaries.

Beneficiary Protections

Robust beneficiary protections are crucial for ensuring that beneficiaries needs are addressed, and they have routine access to services. We recommend that NC strengthen the states LTSS ombudsman program. Ombudsman programs can provide additional support to dual-eligible beneficiaries, such as assisting with complaints or appeals and referring beneficiaries to community-based resources. NC should invest in their 16 offices of the Regional Long Term Care Ombudsman, housed within the AAA offices across NC, to enhance these supports for those receiving long-term care throughout NC. The National Academy of Medicine recommends at least one ombudsman per 2000 licensed beds, and one estimate found NC would need to invest about $1,000,000 to meet that standard. One state allocates funding based on the "at risk" populations within their respective Planning and Service Area, a strategy that might be useful for directing more funds to regions with a high dual-eligible population. This toolkit provides additional examples and strategies for building capacity as well as cultural competency in ombudsman programs.

Feasibility of Implementation through the Four Policy Options

Though aspects of our recommendations for beneficiary-focused model components apply across each integration option, achieving the majority of the recommendations is most feasible within options 3 and 4. In these options, beneficiaries will be auto-enrolled into aligned plans where coordination is required between plans operated by the same parent entity. The exclusively aligned enrollment mechanism proposed in option 4 provides the best opportunity for the state to achieve all of the beneficiary-focused components. Contracting strategies via SMACs with stringent requirements can facilitate a certain degree of simplification; however, the state will need to provide additional oversight and build relationships with plans to effectively align processes. Despite the significant effort it will require the state to facilitate communication between Medicaid and Medicare plans (even within the same parent entity), states with integrated care models similar to option 4 affirm there are significant rewards to prioritizing a robust, beneficiary-centered model of care.

Supports for Medicare-Medicaid Integration

Successful integration requires NC to have a robust set of organizational and system-level supports across plans, providers, and NC DHHS. For example, plans may not have the appropriate networks, data infrastructure, or in-house capacity to provide all services, and NC may need to make complementary investments to the state's staff and data infrastructure. The following section outlines important organizational supports to ensure a successful integrated care program for dual-eligible beneficiaries in NC.

Organization-Level Supports

Leadership

Success of the integrated care program in NC will require the type of commitment and leadership that NC has demonstrated with its health care transformation efforts including the Medicaid managed care roll-out. Articulating a clear vision and goals for Medicare-Medicaid integration and emphasizing whole-person integrated care and better outcomes for dual-eligible beneficiaries is critical to program success. Ongoing state leadership to champion integration can help maintain momentum towards meeting the goals. This is irrespective of whether NC chooses an incremental approach to integration that begins with option 1 and moves to option 4 over time or implements option 4 at launch. Integrating care is a substantial undertaking, as it requires the state to design, implement, and manage a complex process in partnership with relevant stakeholders. Committed leadership at the state level can signal the need for, and importance of, a collective effort among all involved parties to work toward and achieve integration.

State Capacity to Administer Program

NC should prioritize additional investments to build internal capacity to support integrated care models including Medicare expertise within its new managed care environment. Interviewees emphasized the need to have state agency staff dedicated to integration to ensure aligned processes; data sharing between plans, providers, and the state; and care coordination for a seamless beneficiary experience. A responsibility of this team could be facilitating interagency communication between the state's divisions/departments where increased collaboration will be needed, which interviewees noted creates consistent feedback channels across teams to better identify pain points. One state discussed having to first identify who within their state agency received data from CMS regarding new Medicare eligibility in order to determine who should be accountable for overseeing enrollment. As NC begins planning for integration, the state should also incorporate best practices from the managed care rollout in a state-wide integration strategy. The state should employ staff with a deep understanding of Medicare and engage in strong collaboration with CMS in order to streamline processes, enhance oversight, and operate an effective integrated program.

Data Infrastructure and Analytic Capability

Investment in robust data infrastructure is a critical component to support the state's ability to access, analyze, and interpret administrative, clinical, and patient-reported data sources for the dual-eligible beneficiary population. We recommend that NC continue improving HealthConnex, the state's Health Information Exchange (HIE) platform, and leveraging the HIE to meet the data and analytic needs of providers and plans providing services to FBDE beneficiaries. Interviewees emphasized the importance of robust, statewide data infrastructure, particularly data sharing capabilities at the point of care. For example, providers involved in care coordination noted the challenges in manually compiling claims and clinical data sources with timely and complete admissions and discharge data to support real-time engagement. Support should target not only investment, but technical assistance for providers to actually use the HIE. Virginia is working to develop their encounter processing system to include all Medicare encounters, in addition to the Medicaid encounters they currently capture, to get a more complete longitudinal picture of care being delivered to their dual-eligible population.

Further, NC should request Medicare data from CMS to identify and better coordinate care and streamline enrollment processes. Medicare Modernization Act (MMA) and buy-in files can be used to identify current and prospective dual-eligible beneficiaries through daily exchanges with CMS, which were implemented in April of 2022. Daily MMA file exchange serves to improve state efficiencies and beneficiary care through timely identification of all FBDE beneficiaries and partial-benefit dual-eligible beneficiaries, as well as individuals becoming dually eligible. Data file exchanges also reduce provider burden by streamlining crossover claims— establishing automated crossover claims processes between D-SNPs and the state— and allow for Medicaid managed care plans to cover cost-sharing for dual-eligible beneficiaries. Finally, NC's HIE can also help support performance measurement, ideally integrating data from different sources - claims, clinical, and patient-reported data.

Additionally, we recommend NC use data visualization techniques, such as creating dashboards specific to the dual-eligible population, to enhance the state's analytic capabilities. Dashboards can visualize key statistics and facilitate evaluation of progress towards goals of integration. Health equity should be highlighted by stratifying outcomes by race and ethnicity, region/rurality, and need-based subgroups. Despite benefits of dashboards in supporting programmatic decision making and communication, developing data tools can be daunting due to changes in agency staffing or priorities and privacy concerns. To the extent possible, the state can consider leveraging lessons learned and staff expertise in development of other existing dashboards, such as NC's Opioid Settlement tracker.

System-Level Supports

Stakeholder Engagement

Successful integration will also require intentional and ongoing stakeholder engagement during the design, implementation, and evaluation of an integrated care model and should include beneficiaries, plans, providers, consumer groups, and community organizations. Engaging all parties will be a critical area of time and resource investment for the state, with an emphasis on obtaining stakeholder buy-in, identifying and planning for implementation issues, raising program awareness to enhance initial enrollment efforts, and building relationships that strengthen the program's sustainability. We highlight specific strategies below for pre-launch and post-launch stakeholder engagement.

State-led beneficiary councils provide dual-eligible beneficiaries and their caregivers a forum for direct feedback on beneficiary and care partner priorities, feedback on program design and implementation, and an assessment of progress towards integration. Virginia utilizes a Medicaid Member Advisory Committee, while Massachusetts used the Early Indicator Project initiative to survey dual-eligible beneficiaries after implementation and refined their program to address the identified challenges. It is important to note this strategy for engaging beneficiaries to evaluate early indictors of the program would be used in addition to the enrollee advisory committees D-SNPs must establish and maintain as is required under CMS rule.

The state can also use beneficiary engagement to drive sustained enrollment in integrated programs, especially those unfamiliar with D-SNPs and the benefits of aligned plans. However, engagement tactics may differ across the state. For example, Virginia targets beneficiary outreach to account for cultural and linguistic differences to ensure understanding and enhance enrollment in their integrated care model. CMS requires plans to provide outreach and marketing materials in multiple languages and notify beneficiaries of interpreter services.

Through their integration efforts, New Jersey learned that in addition to communicating the benefits of integration, a state should also make clear the implications of enrollment choices. Specifically, beneficiary education should clarify that transitioning to an aligned plan will change all of one's coverage over to the aligned plan for both Medicare and Medicaid, which could reduce complexity and improve care navigation but may also impact their provider network. NC can use these lessons learned and engage beneficiaries pre-launch to mitigate beneficiary confusion and disenrollment by collaborating with NC's SHIP and AAA. The state can also influence how plans and Medicaid MCOs communicate with beneficiaries, which is particularly critical during the initial years of implementation. New Jersey established reference materials (e.g., benefit grid on what is covered by D-SNP, Medicaid Standard and Tailored Plans, etc.) for the care navigator with whom dual-eligible beneficiaries or their care partners communicate to make sure the information is accurate and consistent.

It is also important for the state to engage plans, providers, and community-based organizations before launch to secure buy-in for design and to identify key implementation issues that will need to be solved to ensure a smooth roll-out. Given that NC recently transitioned to managed care, engaging all stakeholder groups also presents an opportunity to share lessons learned, solicit input on implementation challenges, and avoid reform fatigue. Provider engagement is particularly vital to program viability because providers can serve as a trusted resource and influence beneficiary enrollment. An evaluation from Virginia's FAI demonstration indicated that beneficiaries were more likely to enroll in the program if their providers were participating. Further, states with experience in integration noted concerns from AAA and SHIP on default enrollment, which they felt might favor D-SNPs run by private insurers over traditional Medicare. NC can establish relationships with community organizations who assist dual-eligible beneficiaries with enrollment to communicate the benefits of enrollment mechanisms - such as default enrollment - to ease implementation. Additionally, providing forums for plans and providers to collaborate helps build trust and can identify and solve administrative issues such as claims submissions and processing.

Continuing to engage all stakeholders post implementation will also be important for program success and can help with evolution of the integrated model over time. For example, following implementation, Pennsylvania conducts quarterly meetings with plans to facilitate consistent communication flows, identify challenges,

and foster collective learning. Additionally, Pennsylvania utilizes a MLTSS subcommittee within their Department of Human Services that hosts public meetings to solicit broader community engagement and feedback. States also emphasized the value of establishing a relationship with CMS' Medicare-Medicaid Coordination Office (MMCO) to leverage best practices and receive technical assistance.

Building an Adequate and Diverse Workforce

Nationwide workforce shortages in behavioral health, primary care, and HCBS pose challenges to ensuring sufficient access to care in the most appropriate and preferred setting for dual-eligible beneficiaries. Concerns regarding the direct care workforce were a common theme across interviews, ranging from high turnover rates in HCBS workers due to inadequate wages and opportunities for career advancement to geographic variation in behavioral health access. These workforce shortages can especially impact beneficiaries in rural communities and historically underserved populations who already experience disproportionately poor access to providers. Below we explore a variety of mechanisms for the state to enhance the workforce in the short-term, such as increased training opportunities, as well as long-term approaches to build network adequacy and expand the alternative health workforce to help address these shortages.

Training and Career Advancement

NC can use training and career advancement initiatives to enhance the workforce in the short term to help build an adequate workforce to support integration. A recent report from the Medicaid Payment and Access Commission (MACPAC) highlighted a variety of Medicaid levers for increasing HCBS workforce capacity; for example, wage increases for direct support workers, training opportunities, and career development pathways can help support and retain the workforce. NC increased wages for their direct care HCBS workforce in 2022, and the state can continue to invest in the workforce through increased training and career advancement opportunities. A recent ATI Advisory tool also highlights several HCBS workforce strategies for state contracts, including requirements for managed care plans to offer trainings by direct care workers, and for D-SNPs to provide and report on training resources provided to AAAs. Through a state innovation model grant, Tennessee implemented a value-based purchasing program, Quality Improvement in Long-Term Services and Supports (QuILTSS), with a focus on expanding their LTSS workforce to promote a person-centered care delivery model. The program includes a competency-based workforce development program for LTSS workers with the goal of providing transferable credit to workers at secondary education institutions. Tennessee's QuILTSS initiative serves an as example of how to leverage career development training to enhance access and improve the quality of care for beneficiaries.

Expanding Use of Alternate Health Workforce

Investing in non-clinical professionals can play a significant role in helping beneficiaries navigate both health and social services. Community Health Workers (CHW) have been found to provide culturally competent care and are often considered trusted members of the community and reflective of the people they serve. The state could leverage lessons learned from its CHW COVID-19 Initiative, which employed over 400 CHWs across 55 counties to respond to the increased need during the height of the COVID-19 pandemic, to support integration efforts.

Increasing Access to Providers

In addition to making longer-term investments in strengthening the state's existing workforce, we recommend that NC consider other approaches to expanding the workforce such as participating in licensure compacts to leverage out-of-state providers, particularly behavioral health providers, many of whom could provide care virtually. Many states have adopted interstate licensure compacts, which allow certain provider types to practice in states where they are not licensed to address workforce shortages. The Center for Connected Health Policy tracks state participation in six compacts across disciplines and notes that NC is a member of the Physical Therapy, Nurses Licensure, Psychology Interjurisdictional, Audiology and Speech-Language Pathology, and Occupational Therapy Interstate compacts.

NC could join the Interstate Medical Licensure Compact (IMLC), which provides a fast-track path for physicians to obtain a separate license in each member state and has participation from 34 states and the District of Columbia. Participation in such a compact could enhance access to care in rural or underserved areas and for specific service areas experiencing rising demand, such as behavioral

health. Participation in the model grew significantly in response to the pandemic, with the number of physicians obtaining a license in another state through the compact doubling in 2021 compared to pre-pandemic numbers. While participation in the IMLC would support increased access to services, the processes required by the compact may still impose cost and administrative burdens impacting uptake as applicants must still separately apply for licenses in each state. Alternative, less burdensome, models to the IMLC have been proposed, including one approach that uses mutual recognition of a provider's state-issued license and a standardized set of requirements for multistate licensure. This model is used by the Nurse Licensure Compact mentioned above, which has 39 participating states (including NC). Implementation of a mutual recognition model exists for physicians practicing in the Veteran's Affairs system and temporary reciprocity agreements were instituted by many states during the pandemic. However, additional policy actions at both the state and federal level would be needed to facilitate adoption and participation.

Network Adequacy

Network adequacy is a critical component to support Medicare-Medicaid integration using D-SNPs, and particularly critical if NC elects options 3 or 4. Service area alignment considerations require that D-SNPs meet CMS network adequacy requirements for the same area as the aligned Medicaid Standard Plan for contract approval. Failing to meet the requirements may result in reduced availability of integrated products in certain regions of the state, which would lead to inequitable access and disruptions to care. There is no national standard for Medicaid network adequacy, and in general state Medicaid requirements often differ from CMS time and distance standards for Medicare Advantage (MA) Plans. Interviewees noted that establishing network adequacy requirements and building those networks take time. States can reinforce network adequacy requirements within the D-SNP SMAC and managed care contract language, and require additional elements that will support priority areas such as HCBS and behavioral health providers. For example, states such as New Jersey and Tennessee require Medicaid managed care plans to submit a Network Development Plan as part of their contracting process, and Massachusetts requires plans to ensure that their contracts with personal care agencies include supporting beneficiaries in finding additional providers if necessary, thus reducing the burden on the individual.

One approach to meeting network adequacy requirements in the short term is using telehealth services. The COVID-19 pandemic spurred a significant increase in telehealth utilization across the country as states and the federal government enacted telehealth flexibilities tied to the federal Public Health Emergency (PHE) declaration. These flexibilities allowed beneficiaries to access a variety of physical and behavioral health services via audio or video-enabled platforms and relaxed a variety of provider-level requirements including state licensing requirements. Since 2020, Medicare Advantage plans have been able to offer expanded telehealth benefits beyond what is allowed by original Medicare.

The ability to leverage telehealth, particularly for behavioral health services, can help address access gaps for dual-eligible beneficiaries with complex needs, especially those in rural areas or with other mobility-related barriers. NC Medicaid has already made many of the COVID-era telehealth flexibilities into permanent policy (e.g., for many behavioral health services), thus signaling a commitment to increasing access to care. To further these efforts, NC should also consider the need to address gaps in access to technology, reliable internet, and sufficient digital literacy skills for dual-eligible beneficiaries to ensure equitable access, as close to 40 percent do not use the internet.

The recently finalized 2023 Medicare Advantage CMS rule requires Medicare Advantage plans to meet network adequacy requirements before approval of new and expanding service areas (instead of simply attesting). Plans would, however, receive a 10% credit towards meeting time and distance standards if they were in a new or expanding service area to aid the development of provider networks. NC can also leverage contracting strategies to enhance provider network development. For example, during the next procurement cycle for Medicaid PHPs, the state can consider adding language that asks Medicaid managed care plans to describe their efforts to develop adequate provider networks, including strategies for recruiting and retaining providers in high-need service areas similar to approaches adopted by Tennessee and Texas. NC can also leverage their SMACs with D-SNPs to include additional network adequacy requirements that exceed CMS standards to meet the unique needs of NC dual-eligible population.

Promoting Accountability and Value

NC's current shift from FFS to Medicaid managed care and other value-based care transformation efforts represents an opportunity to extend this move to value for the dual-eligible beneficiary population. NC's vision for this shift, as outlined in its Value-Based Payment Strategy, emphasizes encouraging the use of value-based payment (VBP) models that drive high-quality, appropriate care and improved health outcomes. This strategy can be extended to dual-eligible beneficiaries through requiring measurement of outcomes that support the vision and goals for this population, and moving towards utilization of VBP contracts between health plans and providers that tie payments to improved performance for a robust set of measures. Assessment of progress towards achieving the vision and goals will require a robust performance measurement and accountability strategy. NC's detailed Medicaid managed care quality strategy and CMS assessment of D-SNPs can form the basis for this strategy. Based on our analysis of the performance measures currently required of Medicaid PHPs and D-SNPs, we recommend that NC DHHS initially streamline performance measurement across the two programs and over time transition to health outcome measures that are meaningful to beneficiaries and reflect their priorities.

We propose the following domains to measure success of the integrated program and to assess progress towards achieving the vision and goals (see **Figure F**). In assessing the existing set of measures required of Medicaid Standard and Tailored Plans and D-SNPs, we found that the measures used by CMS primarily maintain a focus on physical health and are concentrated more in the domain of health outcomes and beneficiary and caregiver experience (e.g., the Consumer Assessment of Healthcare Providers and Systems). NC's current performance measurement set includes many of the key measurement categories recommended by our interviewees, including health outcomes, beneficiary access and experience, and provider experience. However, there are few measures of SDOH (particularly those relevant to the dual-eligible population), integration and quality of care, and financial stability/cost control. There are many Standard and Tailored plan required measures that are not included in CMS' Star Ratings reported for D-SNPS (see NC's Quality Measurement Technical Specifications and quality strategy and concept reports). Because of the complex needs of the FBDEs in comparison to the Medicare population, including measures relevant to Medicaid will be important to ensure equity across Medicaid beneficiaries and to achieve beneficiary-centered care.

We therefore recommend a two-phased approach to accountability for the FBDE beneficiaries. The first phase involves streamlining the Medicare-Medicaid measure set and introduces operational measures to track program roll-out. The second phase will focus on the use of a set of measures focused on health outcomes that are meaningful to beneficiaries and their care partners and helps ensure the achievement of whole-person integrated care. **Figure G: Recommended Measures for Dual-Eligible Beneficiaries,** provides a summary of recommended measures as they relate to the key domains outlined in **Figure F**. Together, these two phases – leveraging existing and new data sources – can strengthen the state's measurement and oversight capabilities and, ultimately, help achieve key integration outcomes.

FIGURE F Proposed Domains to Measure Success

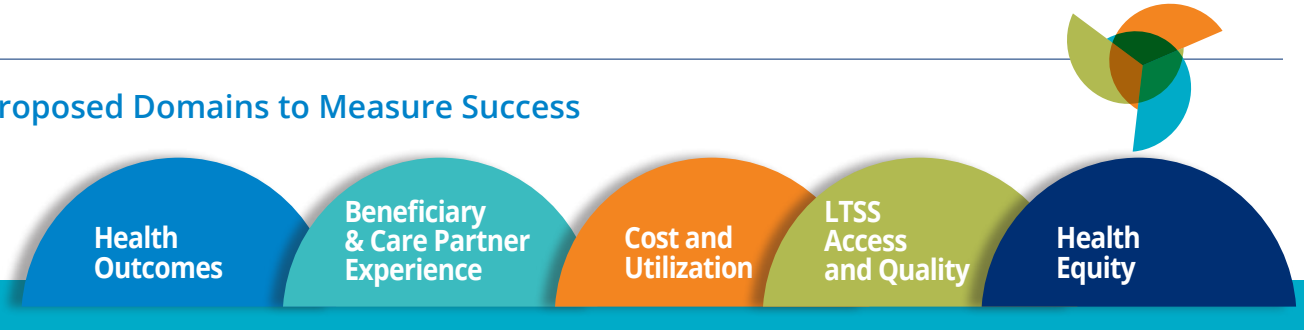


TABLE G Recommended Measures for Dual-Eligible Beneficiaries

Domain	Measure Recommendations
Health Outcomes	• Utilize existing Medicare Advantage STAR Ratings for tracking physical health outcomes • Utilize Behavioral Health HEDIS Measures that align with priority measures for PHPs • Incorporate SDOH measures developed for NCCARE360, the Healthy Opportunities Pilots, and the state's AAAs • Implement pay-for reporting for behavioral health PROM
Beneficiary & Care Partner Experience	• Utilize existing Medicare Advantage STAR Ratings & HCBS CAHPS measures
Costs and Utilization	• Incorporate measures to enhance value & require that plans utilize savings for provision of additional benefits to beneficiaries
LTSS Access and Quality	• Utilize HCBS CAHPS (e.g., its existing measure of transitions from the community to institutions for LTSS)
Health Equity	• Align with state health equity initiatives through requiring stratification of performance data by race and ethnicity, geography, eligibility category, and age and gender

Please refer to the Appendix for a crosswalk of Medicare Advantage star ratings, with PHP measure requirements.

PHASE I: In the first year post-launch, the state should implement systems to track integration success and also roll out a robust performance measurement and oversight program to be further refined over the first five years post-implementation.

The state should measure implementation success to make sure beneficiaries are enrolling in the integrated model and there are not coverage gaps. NC can look to adopt examples from other states to identify key measures to assess state progress towards implementation of integration efforts. In particular, states participating in the FAI such as Texas, Minnesota and Ohio utilized measures of progress related to enrollment, disenrollment, and service area (**Table H**).

Performance Measurement

We recommend the state review D-SNP Star Ratings to get an overall sense of performance within the state. Although most ratings are reported at the contract (not D-SNP) level, there are four SNP-specific measures of care management and care for older adults reported at the individual plan level. The state should require

TABLE H Example Measures of Implementation Progress

Enrollment	• Total no. of beneficiaries currently enrolled in the demonstration • No. of beneficiaries newly enrolled as of the end of the given month • No. of beneficiaries automatically (passively) enrolled
Disenrollment	• No. of beneficiaries who opted out prior to enrollment • No. of beneficiaries who voluntarily disenrolled from the demonstration • No. of beneficiaries whose enrollment in the demonstration ended involuntarily (e.g., died, moved out of area, lost Medicaid eligibility, were incarcerated)
Service Area	• Service area coverage and/or gaps

Source: State FAI Evaluation Plans submitted to CMS

D-SNPs report as early as possible on measures of LTSS, SDOH, and integration of care. We recommend the state start by using HCBS CAHPS and its existing measure of transitions from the community to institutions for LTSS. The state should also consider requiring D-SNPs to submit behavioral health HEDIS measures that align with state-level requirements and priority measures for PHPs (e.g., measures such as Antidepressant Medication Management, Follow-Up after Hospitalization for Mental Illness, and Continuity of Pharmacotherapy for Opioid Use Disorder). For SDOH, the state can include measures developed for NCCARE360, the Healthy Opportunities Pilots, and the state's AAAs. In regard to integration, we recommend focusing early measurement on alignment and beneficiary experience.

To supplement existing CAHPS questions regarding care management, we recommend the state assess the timeliness of data sharing processes. Interviewees discussed the value of including additional data sharing requirements that exceed CMS's broad requirements of D-SNPs notifying states of Medicare-covered hospital and skilled nursing facility admissions. States like Pennsylvania and Tennessee require the sharing of patient admissions data between plans, as well as with the state, to improve care transitions and ensure appropriate follow-up care. NC could also consider measures of timely care coordination, such as the length of time between discharge and outreach from the beneficiary's care coordinator.

Ongoing Transformation to Value

The state's approach to oversight through its use of quality withholds for poor performance for Standard Plans is more stringent than the use of STAR ratings for quality bumps with Medicare Advantage. We recommend using the state's approach at first and then consider offering more flexibility once plans have more experience. This could include quality withhold measures within the SMACs that are focused on enhanced operational performance, accreditation, SDOH, chronic condition management for conditions most prevalent in the FBDE population, behavioral health management/outcomes, and LTSS outcomes.

The state can also consider extending elements of its VBP and quality strategies for its D-SNPs in order to drive improved outcomes and address health disparities. For example, as part of NC's transition to managed care, Standard Plans will be required to move a substantial portion of their provider contracts to VBP models. Standard Plans will also be held financially accountable for equity improvements for selected quality measures in the 3rd contract year. To further encourage efforts to address equity, the state can also consider using their SMACs to require reporting across subpopulations to further the state's equity initiatives. For example, Standard Plans are required (p. 165) to stratify performance data by race and ethnicity, geography, eligibility category, and age and gender in addition to engaging in performance-improvement projects aimed at addressing racial disparities in access to care. States such as New Jersey have incorporated requirements for plans to develop programs and share data related to health disparities into their SMAC.

Phase II: Within two years post-launch, the state can adjust their approach further to better meet the needs of beneficiaries and any challenges that have arisen. In this phase, the state would adapt quality withholds and performance improvement programs to transition to more outcome rather than process measures, and incorporate more measures of financial savings. We recommend four specific steps in this phase:

1. **Continue to align, to the extent possible, with Medicare Advantage requirements.** Medicare Advantage updates their STAR measures annually. Continuing to monitor changes in Medicare Advantage requirements will help the state continue to identify opportunities for alignment.

2. **Transition to using more outcome measures rather than process measures, including a focus on patient-reported outcome measures (PROMs).** NC should consider incorporating existing and new standardized PROMs for HCBS into D-SNP contracts. The state could build on HCBS CAHPS measures and consider including measures from surveys such as the National Core Indicators–Aging and Disabilities, which are tailored to adults over age 65 and people with physical disabilities. Incorporating such measures would demonstrate a commitment to adopting innovative and beneficiary-centered approaches to evaluating plan performance. The state should also consider use of PROMs related to behavioral health conditions such as depression.

3. **Refine performance improvement plans to adapt to specific arising issues and focus on dual-specific initiatives.** After several years of collecting data on plan and provider performance, patterns will likely arise indicating areas in which plans are doing well and areas for improvement. Identifying inequities across subgroups and using PIPs and performance measurement to prioritize beneficiaries of greatest need can help the state achieve improved health equity.

4. **Incorporate measures to enhance value.** At the beginning, integration is unlikely to lead to cost savings. Once plans meet sufficient quality metrics, then the state can encourage more value through performance measurement. The state can use their SMACs to require that plans use savings for providing extra benefits to beneficiaries.

CONCLUSION

Medicare-Medicaid integration strategies can be leveraged to achieve the vision of better health, health equity, and improved experiences for beneficiaries, care partners, and their families. **Though pursuing exclusively aligned enrollment (option 4) in integrated plans requires high state capacity and commitment, setting a course to achieve the vision of integration for all beneficiaries would repute NC as an innovative and committed champion for Medicare-Medicaid integration and a leader for other states.**

- Integrating care for dual-eligible beneficiaries requires key policy and programmatic decisions and considerable investment from both the state and the broader NC health care community.
- Achieving a beneficiary-centered model requires intentional and ongoing engagement with beneficiaries, plans, providers, and consumer groups.
- NC can use contracting and programmatic elements to influence care integration to ensure that the vision and goals for Medicare-Medicaid integration are prioritized and realized.
- Successful design and implementation as well as sustainability of any integration strategy requires a robust infrastructure and organizational supports.
- NC can streamline performance measurement for Medicare and Medicaid and prioritize health outcome measures that are meaningful to dual-eligible beneficiaries and reflect their priorities.
- Depending on the option NC pursues, there is opportunity for the state to be an innovator to guide other states beginning to integrate care for their dual-eligible population.

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Appendix to
North Carolina Medicare-Medicaid Integration:
Advancing Whole-Person Care
October 24, 2022

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Acronyms

AAA	**Area Agencies on Aging**
BH	**Behavioral Health**
CAHPS	**Consumer Assessments of Health Care Providers and Systems**
CAPABLE	**Community Aging in Place—Advancing Better Living for Elders**
CAP/C	**Community Alternative Program for Children**
CAP/DA	**Community Alternative Program for Disabled Adults**
CBO	**Community-Based Organization**
CMS	**Centers for Medicare and Medicaid Services**
CPSC	**Contract/Plan/State/County**
D-SNP	**Dual Eligible Special Needs Plan**
EAE	**Exclusively Aligned Enrollment**
FAI	**Financial Alignment Initiative**
FFS	**Fee-for-service**
FBDE	**Full-Benefit Dual Eligible**
FIDE-SNP	**Fully Integrated Dual Eligible Special Needs Plan**
HCBS	**Home- and Community-Based Services**
HEDIS	**Healthcare Effectiveness Data and Information Set**
HIDE-SNP	**Highly Integrated Dual Eligible Special Needs Plan**
HRA	**Health Risk Assessment**
HPMS	**Health Plan Management System**
I/DD	**Intellectual or Developmental Disability**
I-SNP	**Institutional Special Needs Plan**
LME-MCO	**Local Management Entities-Managed Care Organization**
LTSS	**Long Term Services and Supports**
MA	**Medicare Advantage**
MACPAC	**Medicaid and CHIP Payment and Access Commission**
MOC	**Model of Care**

MLTSS	**Managed Long Term Services and Supports**
MCO	**Managed Care Organization**
MIPPA	**Medicare Improvements for Patients and Providers Act**
NC	**North Carolina**
NC DHHS	**NC Department of Health and Human Services**
PACE	**Programs of All-Inclusive Care for the Elderly**
PBP	**Plan Benefit Package**
PHE	**Public Health Emergency**
PHP	**Prepaid Health Plan**
QMB	**Qualified Medicare Beneficiary**
SHIP	**State Health Insurance Assistance Program**
SDOH	**Social Drivers of Health**
SLMB	**Specified Low-Income Medicare Beneficiary Program**
SMI	**Serious Mental Illness**
SMAC	**State Medicaid Agency Contract**
SP	**Standard Plan**
SSBCI	**Special Supplemental Benefits for the Chronically Ill**
SSI	**Supplemental Security Income**
TBI	**Traumatic Brain Injury**
TP	**Tailored Plan**

Glossary

Aligned Enrollment: Occurs when a dual-eligible beneficiary is enrolled in a D-SNP and an affiliated Medicaid managed care plan offered by the same parent entity.

Auto-Assignment: A process to automatically enroll Medicaid beneficiaries into the Medicaid plan aligned with their chosen Medicare D-SNP option.

Community-Centered Care: Care provided in a range of community settings, including people's homes.

Default Enrollment: A process that requires CMS approval to automatically enroll a Medicaid beneficiary newly eligible for Medicare in the D-SNP offered by the same parent entity as the beneficiary's Medicaid managed care plan.

Dual Eligible Special Needs Plan: Medicare Advantage plans serving dual-eligible beneficiaries that are required to contract with states.

Exclusively Aligned Enrollment: Occurs when the state limits enrollment in the D-SNP to Full-Benefit Dual Eligible beneficiaries who receive their Medicaid benefits from the D-SNP or an affiliated Medicaid managed care plan offered by the same parent entity as the D-SNP.

Fully Integrated Dual Eligible Special Needs Plan: Exclusively aligned plans that receive capitated payments from Medicare and Medicaid covering behavioral health and MLTSS.

Health Equity: Everyone has a fair and just opportunity to be as healthy as possible. This requires removing structural/societal obstacles to health and the elimination of health and health care disparities.

High-Value Care: Entails providing the best care possible, using resources efficiently, and achieving optimal results for each patient.

Highly Integrated Dual Eligible Special Needs Plan: D-SNP plans that receive capitated payments for some Medicaid benefits–covering behavioral health, MLTSS, or both.

Whole-Person Care: Care that addresses medical and non-medical drivers of health, including physical, mental, and social health. It is delivered in a way that is person- and population-centered, and responsive to economic, social, language, cultural, and gender differences and beneficiary preferences.

2019 NC Medicaid Enrollment Snapshot Methods

Data and Methods

We utilized 2019 NC Medicaid enrollment data to develop an initial snapshot of dual beneficiaries. We characterized individuals as members of the FBDE cohort if they were enrolled in Fee-for-Service Medicare (FFS, Parts A and/or B), as determined by Medicaid SPAN tables and Medicaid enrollment data, and simultaneously were eligible for full benefits in the Medicaid program. Included beneficiaries were eligible for at least 16 days of at least one month, and we counted months as a dual enrollee using Medicaid data. Beneficiaries' dual eligibility categories could change over time and thus were not mutually exclusive for reporting any enrollment; beneficiaries may belong to one or more categories across months within the study period.

Our primary outcomes were Medicaid enrollment, Medicaid eligibility, benefit plan participation, and eligibility churn for the FBDE population. Eligibility categories included SLMB +, QMB +, Medically Needy, and Categorically Needy. Benefit plan participation was defined as enrollment in the benefit plans of interest for at least 1 month during the calendar year. Benefits categories included PACE (Program for All-Inclusive Care for the Elderly), QMB, Innovations and Traumatic Brain Injury Waiver (TBI), Community Alternative Program Waiver (CAP), and beneficiaries who may be eligible for LME-MCO use due to Behavioral Health and Intellectual/Developmental Disability (BH/IDD) needs. Categories are not mutually exclusive. We characterized eligibility churn based on beneficiaries' status on January 1, 2019 and resulting changes to their enrollment at any point 2019.

Outcomes were stratified by age of the beneficiary as of January 1, 2019. Other demographic characteristics, including sex, race, and ethnicity were identified from Medicaid enrollment data and were self-reported by beneficiaries. Beneficiaries' county of residence was defined as rural, urban, or unknown based on designation determined by NC DHHS .

Behavioral Health Users Subgroup Identification

A key subgroup that emerged out of the research and stakeholder discussions was the behavioral health user with intensive needs subgroup. The state designed Tailored Plans (TP) to serve beneficiaries with Behavioral Health and Intellectual/Developmental Disabilities (I/DDs), targeted to launch December 1, 2022. We were unable to define in the linked Medicare-Medicaid cohort (2014-2017) because claims data are not sufficient to reflect the state's eligibility criteria, and the state TP eligible flag is only available for 2019 and later years. This sub-analysis of the 2019 data aimed:

1. To evaluate multiple approaches to defining the subgroup of behavioral health users in the 2019 Full-Benefit Dual-Eligible (FBDE population).
2. To assess the degree of concordance between the Duke-identified subgroup definition and the DHHS-identified Tailored Plan eligible subgroup definition.

First, we compared LME-MCO users with the DHHS TP-eligible subgroup. We utilized benefit plan and LME-MCO claims data to identify the LME-MCO users in 2019. The results indicated that LME-MCO users were not representative of the subgroup generated using the state's TP eligibility indicator.

Second, we defined a subgroup based on a set of high intensity behavioral health criteria from another Duke project utilizing NC Medicaid claims. The definition applied a combination of CPT codes, State Category of Service (COS) codes, and revenue codes to identify a subpopulation with intense behavioral health needs. The high intensity behavioral health subgroup had improved the concordance with the DHHS TP-eligible subgroup relative to the LME-MCO users subgroup.

Third, we defined the subgroup based on the DHHS TP Eligibility Criteria document (titled "APPENDIX B — CRITERIA FOR Behavioral Health I/DD TAILORED PLAN EXEMPTION FROM MANDATORY ENROLLMENT IN NC MEDICAID STANDARD PLANs" dated February 1, 2021). Because we did not have access to all the eligibility criteria in claims data, we were unable to replicate the DHHS TP-eligibility flag though we applied many of the claims-

based criteria including: Criteria 6 (excluding the waiver-related services), 9, 10a, 10b, 11, 12 and 14. For Criteria 12, we only evaluated hospitalizations and did not identify readmissions. For Criteria 14, we limited the lookback period to within 2019 rather than 18 months. Certain criteria from the document were excluded in the definition for a variety of reasons: criteria 1 and 2 which were related to waiver populations (these populations were being examined separately in this project); criteria 3-5, 7, and 13 which were based on internal data from NC DHHS and thus could not be utilized; criteria 8, 10c, and 15 which specified populations that were already identified by some of the included criteria. Using these criteria, about 14% of full benefit dual eligible beneficiaries in 2019 were identified as high intensity behavioral health users compared to 19% of duals identified using the DHHS TP-eligible flags.

When we compared the subgroup as identified using select TP criteria (n=38,549) with the DHHS TP-eligible flags for 2019 (n=53,053), we found very high specificity (>99%) and relatively high sensitivity (>68%) given the eligibility criteria that were unavailable in claims. This is the definition for the BH subgroup applied to the 2014-2017 cohort after accounting for the ICD-9 to ICD-10 transition that happened in late 2015.

2015 – 2021 Medicare Advantage Program Enrollment for NC Full Duals and NC County Characteristics Methods

Data and Methods

We obtained data on existing managed care plan enrollment and availability by pairing Medicare Advantage/Part D Contract and Enrollment Data with Monthly Enrollment by Contract/Plan/State/County (CPSC) file, both from the Centers for Medicare and Medicaid Services (CMS), for July of each year examined. CMS is the primary data source for Special Needs Plan and Program of All-Inclusive Care for the Elderly (PACE) enrollment. State- and County-level enrollment data for Medicare-Medicaid dual eligible beneficiaries with full Medicaid benefits comes from the Medicare-Medicare Coordination Office's Quarterly Release of the National, State, and County Enrollment Snapshot file. Quarter two (Q2) enrollment information was used each year, with June 2020 being the most recent.

Our main outcomes were existing managed care program penetration rates, or the percent of all FBDEs enrolled in PACE or D-SNPs, and the geographic availability of and benefits offered by these managed care plans. We also compared D-SNP participation to other states chosen by geographic proximity.

2014 – 2017 Linked Medicare-Medicaid Cohort Analysis Methods

Data Sources

We used Medicare 100% analytic files for North Carolina and North Carolina Medicaid claims for this observational study. We also used the Medicare Master Beneficiary Summary Files (MBSF) files and Medicaid enrollment and member files to identify periods of eligibility in each program and as a dual beneficiary. A crosswalk was created (see below) to connect encrypted beneficiary ids, allowing the two data sources to be linked. We limited the analysis to years 2014 through 2017. The Duke Institutional Review Board, Centers for Medicare and Medicaid Services, and North Carolina Department of Health and Human Services approved this study.

Study Population

The study population consisted of beneficiaries who were dual enrolled in NC Medicaid and Medicare for at least one month between January 1, 2014 and December 31, 2017. The North Carolina Department of Health and Human Services (NC DHHS) identified NC Medicaid beneficiaries who were dually enrolled in Medicare for any length of time in the years 2014-2017. Dual enrollment was defined as 1) enrolled in Medicaid through the Medicaid for Qualified Medicare Beneficiaries (QMB) aid program, 2) classified as a Qualified Medicare beneficiary, special low income Medicare beneficiary, or qualifying individual, and/or 3) record of current entitlement to and enrollment in Medicare coverage. Medicaid and Medicare claims were linked using a crosswalk of encrypted Medicaid enrollee identifiers to encrypted Medicare beneficiary identifiers.

We applied the inclusion criteria to these beneficiaries with linked valid Medicaid and Medicare IDs. For the inclusion criteria, we adapted the dual enrollment definition from NC DHHS by allowing medically and categorically needy beneficiaries enrolled in Medicaid through Medicaid Aid to the Aged and State/County Special Assistance for the Aged programs to be classified as a dual enrollee. Beneficiaries were required to be a full dual enrollee for at least one month in 2014-2017, meaning they were enrolled in both Medicaid and Medicare and had access to full Medicaid benefits. A full month was defined as enrollment for 16 or more days in a calendar month. We classified partial benefit enrollees as those with Medicaid classification as Qualified Medicare beneficiary, special low-income Medicare beneficiary, or qualifying individual; if they were not in this classification, they were a full dual enrollee.

A sub-cohort was constructed for utilization and cost outcomes of beneficiaries with at least one month (16 or more days) of enrollment in Medicare Fee-For-Service (FFS) programs A and B. Beneficiaries with Program of All-Inclusive Care for the Elderly (PACE) enrollment for any time in the study period were excluded for this sub-cohort due to incomplete information on health care use.

Study Variables

Patient demographics were extracted from the Medicaid member files; if missing, the Medicare value from the MBSF files was used. This included age as of first dual enrollment in the study period and self-reported race and ethnicity. Beneficiaries' county of residence was classified as rural or urban based on NC DHHS guidelines.[1] We used the Chronic Conditions Warehouse (CCW) indicators from the MBSF, identifying those with a valid condition date as having that condition and then summing the total number of conditions. For annual variables such as county of residence and Medicare RTI race variable, the most recent, non-missing values were used for the study period, starting from 2017 and going backwards.

Medicaid eligibility program participation was coded on a monthly basis, requiring at least 16 days in that program within the calendar month. This included the Medicaid aid program, classification, and whether the beneficiary was receiving Supplemental Security Income (SSI). The number of months in each program was summed among program users (possible range: 1-48 months).

Medicaid benefit programs were classified on a monthly basis for the study period. To address enrollment in multiple benefit plans simultaneously, the categorization of benefit plans was selected in the following order, with the first of these programs found identified as that month's program: PACE, Qualified Medicare Beneficiary, Innovations and TBI waiver, CAP waiver, or other fee-for-service. Enrollment in the Medicare benefit plans was categorized as separate variables for enrollment in Parts A, B, C, and D on a monthly basis for the study period. For both Medicaid and Medicare benefits, the number of months in each program was summed among program users (possible range: 1-48 months).

Subgroup Definitions

We classified age as pediatric and adult (age less than 65 years) or aged adult (65 years or older). Race was categorized as white, Asian, Black, American Indian or Alaskan Native, Native Hawaiian or Pacific Islander, Multiracial, or unknown race using Medicaid and Medicare data. In some instances, racial groups were combined due to small cell sizes to adhere with cell suppression rules. Ethnicity was categorized as Hispanic, non-Hispanic, or unknown. The remaining subgroups were based on Medicaid data. Long-Term Services and Support (LTSS) users were coded as those with any claims for LTSS in the study period versus no claims for LTSS. Those who had at least one month of enrollment in the Innovations and TBI or CAP benefit plans were categorized as being in the Innovations and TBI or CAP subgroups, respectively. Nursing home residents were coded as those with at least 100

[1] North Carolina Department of Health and Human Services. North Carolina Metropolitan (Urban) and Non-Metropolitan (Rural) Counties.
https://files.nc.gov/ncdhhs/documents/files/%23J223%20AttachmentTwo_Urban%20Rural%20Counties.xlsx

consecutive days in a nursing home, identified through Medicaid claims with place of service code indicating skilled nursing facility, nursing facility, or custodial care facility (values 31-33). Continuous full dual benefit eligible beneficiaries were identified as being full dual beneficiaries for the entire study period or through date of death, versus those who were ever a partial benefit enrollee during the study period.

Utilization Measures

Utilization and cost outcomes were ascertained for months in which beneficiaries met the criteria for a full dual enrollee and were enrolled in Medicare fee-for-service parts A and B. Months not meeting these criteria are not included in the counts and costs. Total months eligible were summed per person and converted to total person-years eligible. In brief, we examined number of emergency department visits (with and without inpatient admission), hospital admissions, and behavioral health services. We calculated number of days for inpatient hospitalizations, skilled nursing facility stays (Medicare only), home health services, and hospice inclusive of first through last days of each service event. For Medicaid only, we calculated number of days in skilled nursing facility or nursing home (combined due to how Medicaid identifies these facilities), intermediate care facility, Local Management Entities/Managed Care Organizations (LME-MCO; i.e., mental health) services, and long-term service and support services. Outcomes were designed to be comparable across Medicaid and Medicare claims where possible, but due to overlapping services, utilization was calculated for each source separately to prevent over-counting.

To calculate costs, Medicaid claims were coded to align with Medicare categorization. This included inpatient facility, outpatient facility, carrier, skilled nursing facility (Medicare only), home health, hospice, and durable medical equipment (DME) spending. Skilled nursing facility and nursing home (combined), intermediate care facility, and dental costs were calculated for Medicaid only. Costs for specific Medicaid services were additionally categorized but represent a subset of payments in the larger previous categories: extra payments made to LME-MCO claims (beyond the monthly capitation payments), LTSS services, and emergency department visits. Costs were calculated as the total amount paid on the claims by Medicaid and Medicare, respectively, with a per-diem adjustment included in inpatient spending for Medicare. Payments were adjusted for inflation using the medical care component of the Consumer Price Index (CPI) to calculate all spending in 2017 dollars.

Statistical Analysis

Descriptive characteristics for the overall cohort and by subgroup are reported using frequencies and proportions for categorical variables and median and interquartile ranges for continuous variables. Yearly utilization and spending rates were calculated as the sum of events, services, days or costs divided by the total person-years eligible for the utilization outcomes, with accompanying 95% confidence intervals. No statistical testing was conducted for this descriptive analysis. We used SAS v9.4 (SAS Institute Inc, Cary, North Carolina) for all analyses.

2019 NC Medicaid Enrollment Snapshot

Table 1. Demographic characteristics of FBDE cohort overall and by age group in 2019

	Dual-Eligible Beneficiaries			
Variable	**Pediatric and Adult (<65 years) [N=134,053]**	**Aged Adult (65 years and over) [N=140,501]**	**Overall [N=274,554]**	**North Carolina Population [N=10,488,084]**
Age (years), Median (Q1, Q3)	52.0 (41.0, 59.0)	72.0 (68.0, 80.0)	65.0 (53.0, 73.0)	39.1
Race				
White	71,532 (53.4%)	72,500 (51.6%)	144,032 (52.5%)	(70.6%)
Asian	677 (0.5%)	4,775 (3.4%)	5,452 (2.0%)	(3.2%)
Black	56,050 (41.8%)	55,749 (39.7%)	111,799 (40.7%)	(22.2%)
American Indian or Alaskan Native	1,863 (1.4%)	2,285 (1.6%)	4,148 (1.5%)	(1.6%)
Native Hawaiian or Pacific Islander	53 (0.0%)	101 (0.1%)	154 (0.1%)	(0.1%)
Multi-racial	3,018 (2.3%)	2,522 (1.8%)	5,540 (2.0%)	(2.3%)
Unknown	860 (0.6%)	2,569 (1.8%)	3,429 (1.2%)	---
Ethnicity				
Non-Hispanic	122,466 (91.4%)	121,252 (86.3%)	243,718 (88.8%)	(90.2%)
Hispanic	2,962 (2.2%)	6,715 (4.8%)	9,677 (3.5%)	(9.8%)
Unknown	8,625 (6.4%)	12,534 (8.9%)	21,159 (7.7%)	---
Sex				
Male	60,483 (45.1%)	46,757 (33.3%)	107,240 (39.1%)	(48.6%)
Female	73,570 (54.9%)	93,744 (66.7%)	167,314 (60.9%)	(51.4%)
Rural/Urban County				
Urban	92,956 (69.3%)	93,374 (66.5%)	186,330 (67.9%)	
Rural	40,391 (30.1%)	46,101 (32.8%)	86,492 (31.5%)	(40%)
Unknown	706 (0.5%)	1,026 (0.7%)	1,742 (0.6%)	(60%)

Sources: U.S. Census Bureau ACS 5 -Year Estimates, U.S. Census Bureau QuickFacts, North Carolina Office of State Budget and Management, and authors' calculations using 2019 North Carolina Medicaid enrollment data.

Table 2: Benefit Plan Enrollment and Eligibility Status for FBDE, Overall and By Age Group in 2019

Benefit Plan†	**Pediatric and Adult <65 years [N =134,053]**	**Aged Adult 65 years and over [N = 140,501]**	**Overall [N = 274,554]***
PACE	326 (0.2%)	1,685 (1.2%)	2,011 (0.7%)
QMB	4,766 (3.6%)	6,807 (4.8%)	11,573 (4.2%)
Innovations and TBI Waiver (all eligible for TPs)	5,045 (3.8%)	405 (0.3%)	5,450 (2.0%)
CAP Waivers			
Eligible under statute for TP	871 (0.6%)	482 (0.3%)	1,353 (0.5%)
Not eligible for TP	2,219 (1.7%)	6,060 (4.3%)	8,279 (3.0%)
Non-waiver FFS			
Eligible under statute for TP	35,899 (26.8%)	11,399 (8.1%)	47,298 (17.2%)
Not eligible for TP	91,538 (68.3%)	125,555 (89.4%)	217,093 (79.1%)
Eligibility Status (as of January 1, 2019)			
Not eligible for Medicaid on January 1	3,432 (3.4%)	6,924 (5.0%)	10,361 (3.7%)
Eligible for Medicaid on January 1 and:			
Full Dual Status Entire Year	89,069 (68.2%)	106,370 (75.7%)	195,439 (74.0%)
Changed to Partial Dual Status	961 (0.7%)	1,565 (1.1%)	2,226 (1.0%)
Any Loss of Medicaid Enrollment[#]	40,593 (31.1%)	25,635 (18.2%)	66,228 (25.1%)

PACE: Program of All-inclusive Care for the Elderly; QMB: Qualified Medicare Beneficiary; TP: Behavioral Health and Intellectual/Developmental Disability Tailored Plan that will launch on Dec 1, 2022; CAP Waivers: 1915(c) waiver programs known as Community Alternatives Program, includes CAP Disabled Adults and CAP Children; FFS: Fee-for-service

Source: Authors' calculations using 2019 North Carolina Medicaid enrollment data

†Categories are not mutually exclusive, and beneficiaries can be in multiple programs over the year.

*For this table, beneficiaries were censored by death date if the death date was prior to the disenrollment date (n=27).

[#]Loss of Medicaid enrollment can be due to loss of eligibility or death.

2015 – 2021 Medicare Advantage Program Enrollment for NC Full Duals and NC County Characteristics

Figure 1. Dual Special Needs Plans Penetration by State, 2015-2020

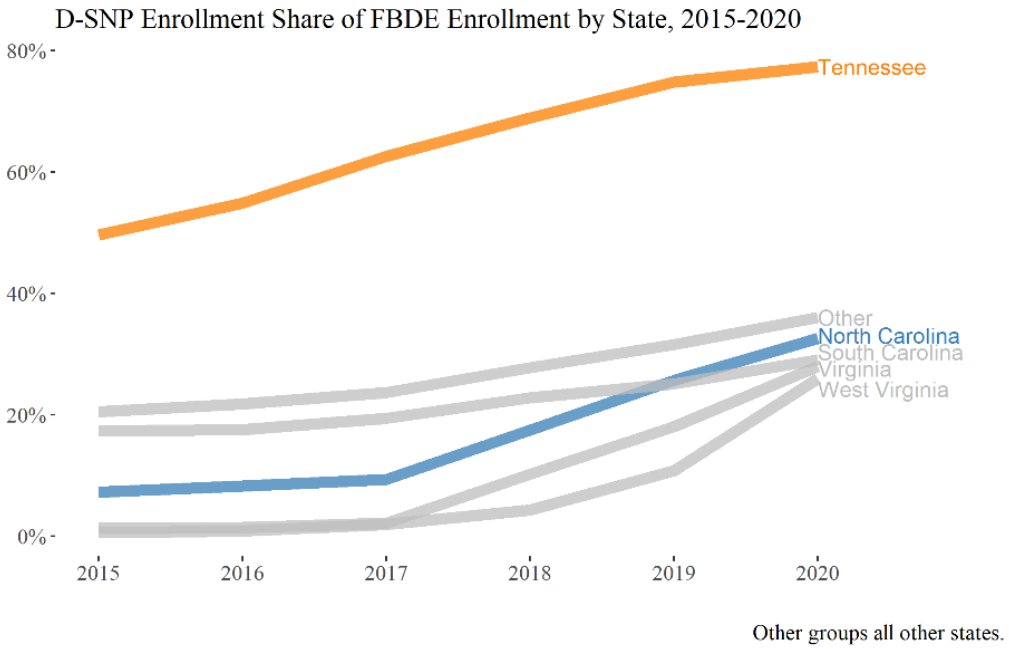
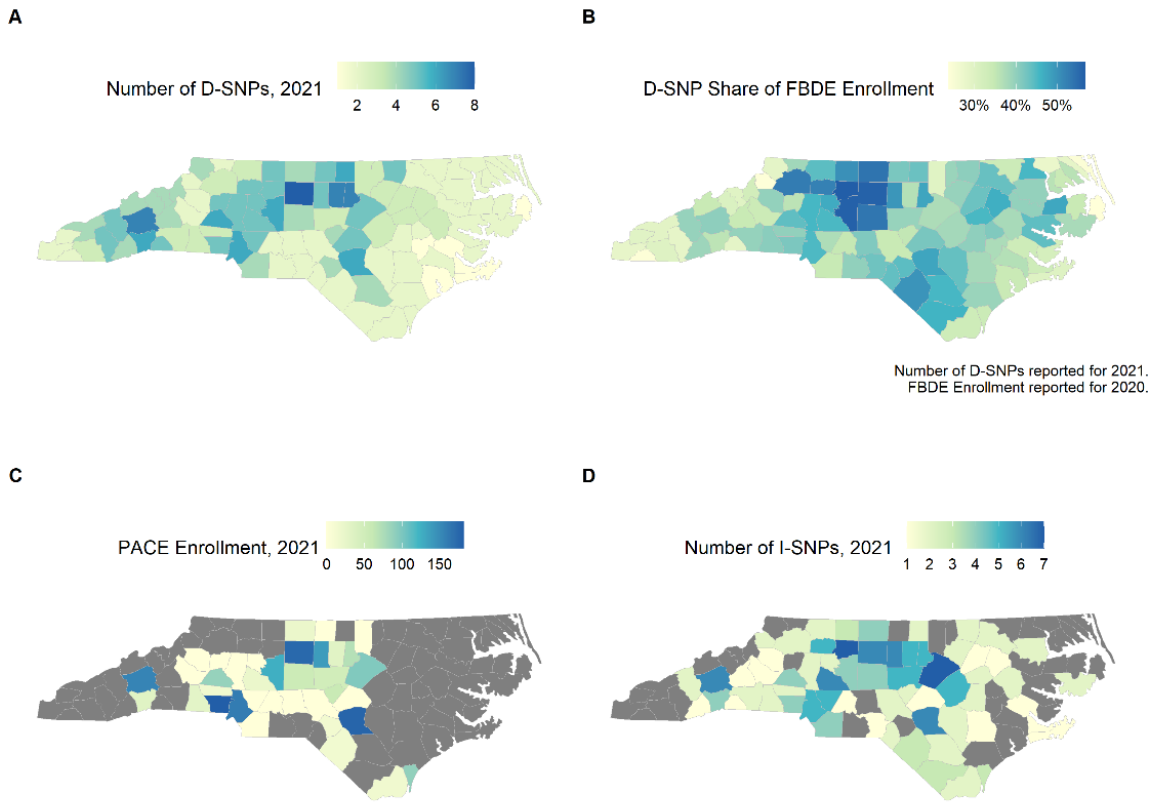


Table 3. Dual Special Needs Plans Penetration for North Carolina, 2015-2020

Year	D-SNP Enrollment	Full Dual Enrollment	Penetration Rate
2015	17,479	241,029	7.3%
2016	20,169	243,440	8.3%
2017	23,451	250,677	9.4%
2018	44,170	252,485	17.5%
2019	63,992	249,427	25.7%
2020	81,991	251,975	32.5%

Figure 2. Penetration of Existing Integrated Managed Care Plans by County in North Carolina, 2021



Notes: PACE: Program for the All-Inclusive Care for the Elderly (map presents number enrolled), I-SNP: Institutional Special Needs Plan, FBDE: Full Benefit Dual Eligible, D-SNP: Dual Eligible Special Needs Plans

Figure 3: North Carolina Demographics by County

Figure 3a. Share of County Population by Age and Rurality, 2019

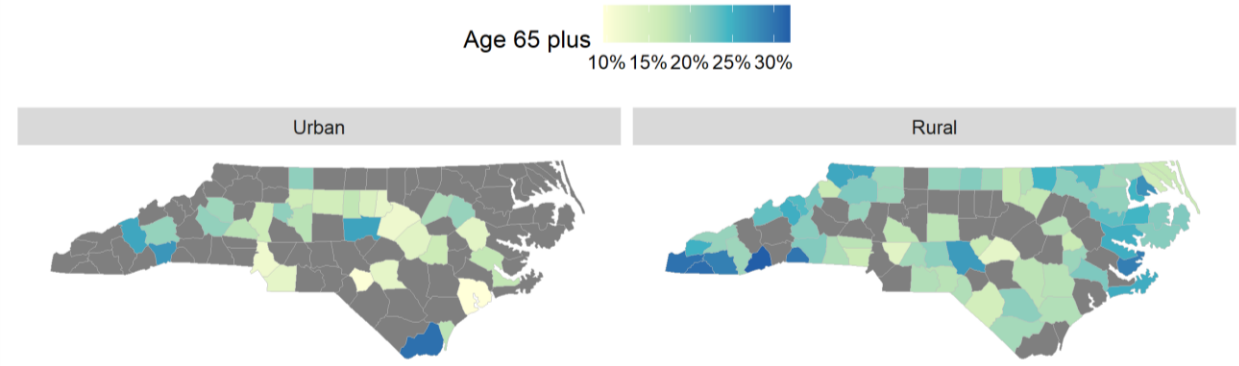


Figure 3b. Share of County Population by Race/Ethnicity and Rurality, 2019

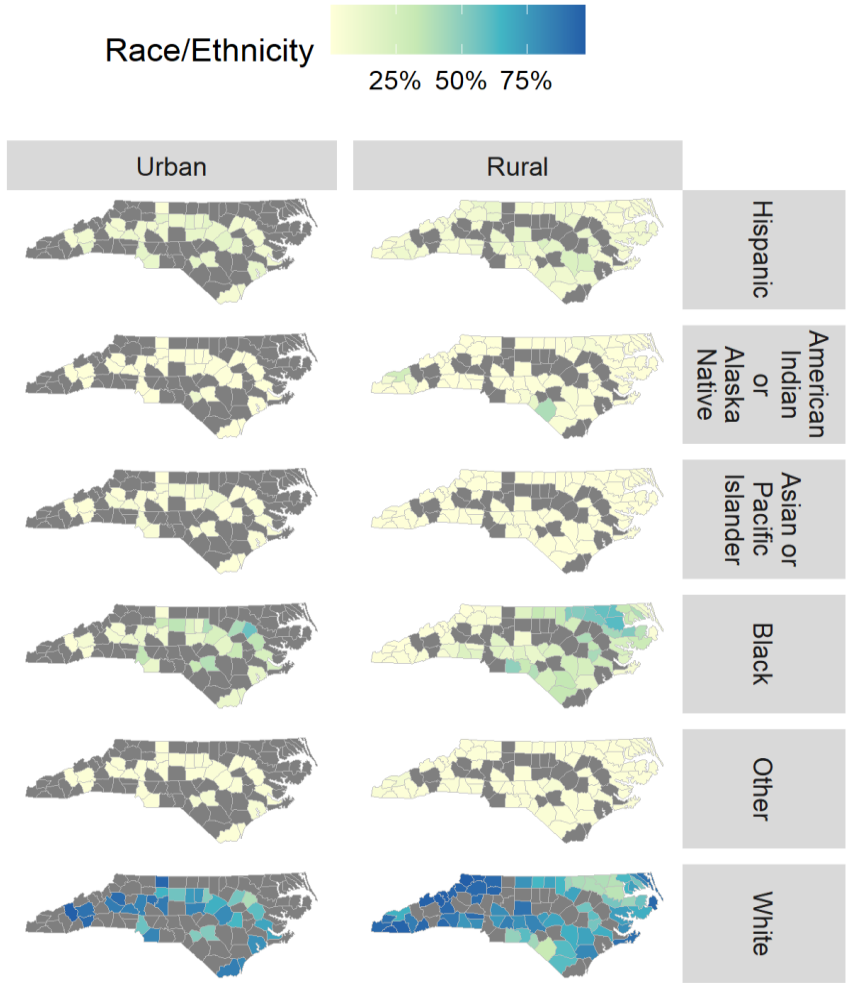


Figure 3c. Share of County Population by Poverty Rate and Rurality, 2019

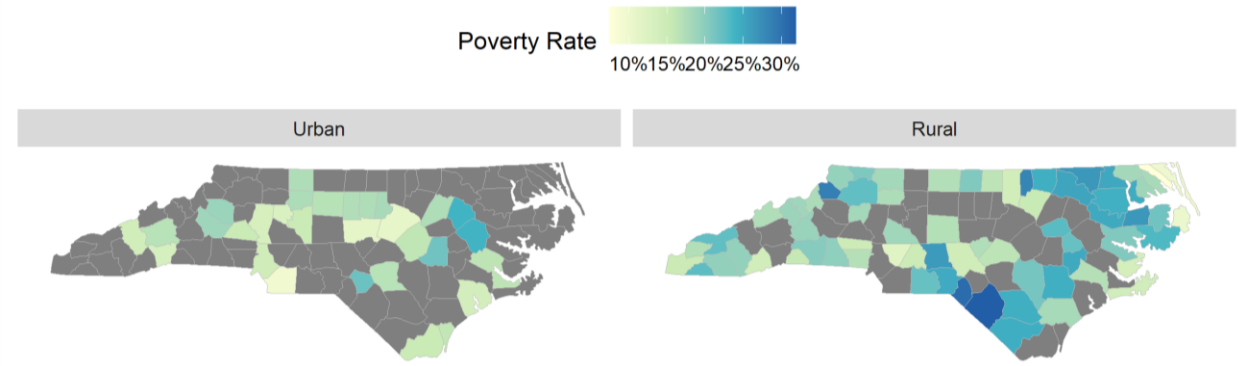


Table 4. Count of Supplemental Benefits by Special Needs Plan (SNP) Type, 2021

Benefit	D-SNP (n = 16)	I-SNP (n = 8)	C-SNP (n = 2)
Transportation	16 (100%)	7 (88%)	1 (50%)
OTC Supply Allowance	16 (100%)	6 (75%)	1 (50%)
Dental	16 (100%)	4 (50%)	2 (100%)
Eye Exams	16 (100%)	7 (88%)	2 (100%)
Eyewear	16 (100%)	7 (88%)	2 (100%)
Hearing Exams	16 (100%)	7 (88%)	2 (100%)
Hearing Aids	16 (100%)	7 (88%)	2 (100%)
Post-IP/Post-SNF Meal Service	15 (94%)	1 (12%)	0 (0%)
Worldwide Emergency Services	15 (94%)	1 (12%)	2 (100%)
Personal Emergency Response System	14 (88%)	0 (0%)	0 (0%)
Podiatry	13 (81%)	7 (88%)	N/A
In-Home Support Services	9 (56%)	1 (12%)	1 (50%)
Smoking and Tobacco Cessation	9 (56%)	0 (0%)	0 (0%)
Nutritional/Dietary Benefit	9 (56%)	1 (12%)	1 (50%)
Chiropractic	5 (31%)	0 (0%)	NA (NA)
Food and Produce (SSBCI)	4 (25%)	0 (0%)	0 (0%)
Post-Chemotherapy Wigs	4 (25%)	0 (0%)	0 (0%)
Opioid Treatment Services ($0 copay)	2 (12%)	4 (50%)	NA (NA)
Meals (beyond limited basis) (SSBCI)	1 (6%)	0 (0%)	0 (0%)

2014 – 2017 Demographics and Program Enrollment Overall and by Need-Based Subgroup

Figure 4. Medicare-Medicaid Linkage and Cohort Inclusion Criteria

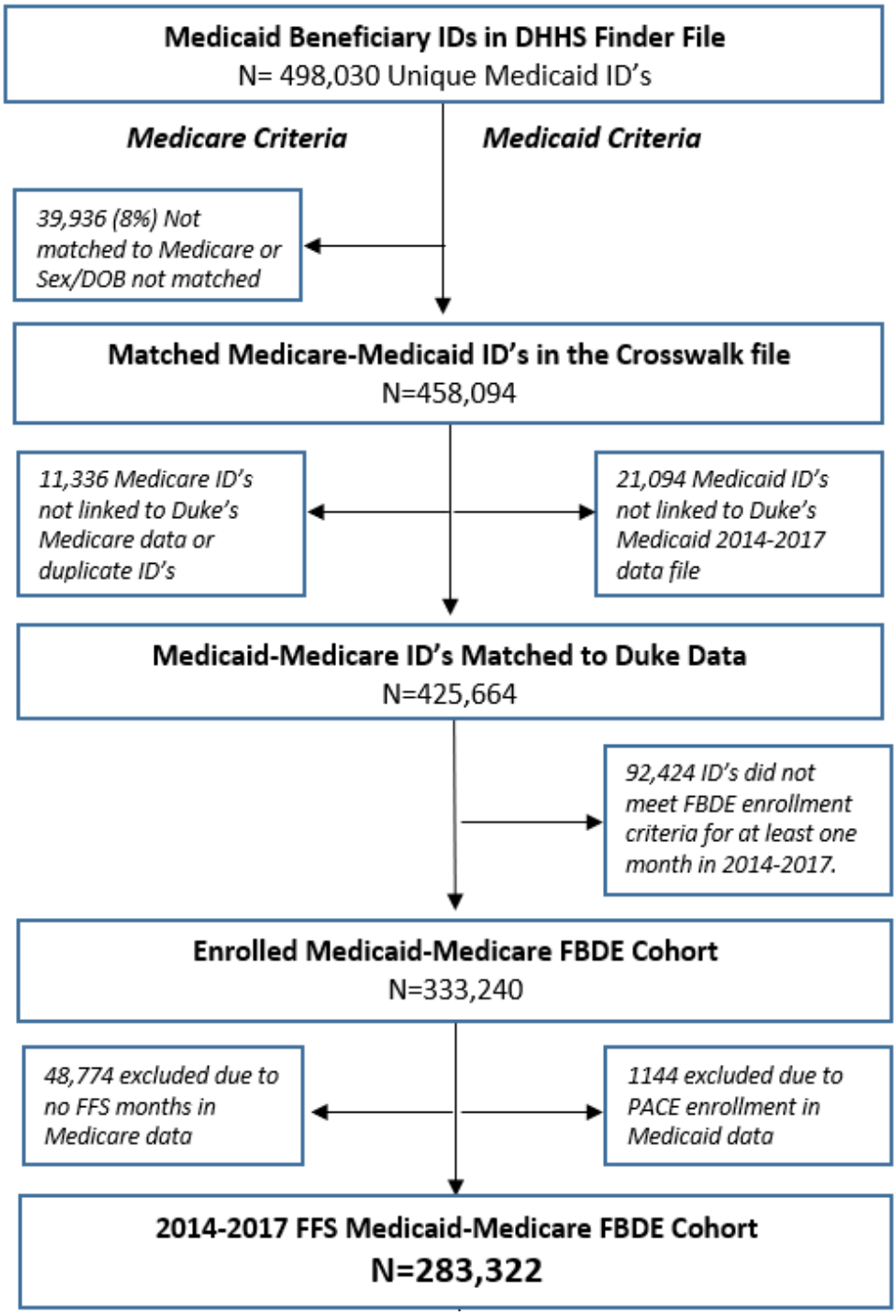


Table 5. Demographic Characteristics of NC Dually Enrolled Medicare and Medicaid Beneficiaries

Variable	**Overall N (%)**
N	333,240
Demographics	
Age (years), Median (Q1, Q3)	65.0 (52.0, 76.0)
Age group	
Pediatric and Adult (>65 years)	165,703 (49.7%)
Aged Adult (65 years and over)	167,537 (50.3%)
Race	
White	195,502 (58.7%)
Asian	6,151 (1.8%)
Black	120,197 (36.1%)
American Indian or Alaskan Native	4,309 (1.3%)
Native Hawaiian or Pacific Islander	177 (0.1%)
Multi-racial	5,500 (1.7%)
Unknown	1,404 (0.4%)
Ethnicity	
Non-Hispanic	305,269 (91.6%)
Hispanic	11,715 (3.5%)
Unknown	16,256 (4.9%)
Sex	
Male	129,706 (38.9%)
Female	203,534 (61.1%)
Rurality	
Urban	225,707 (67.7%)
Rural	104,276 (31.3%)
Unknown	3,257 (1.0%)
Chronic conditions	
0-1 conditions	46,281 (13.9%)
2-3 conditions	39,505 (11.9%)
4-5 conditions	46,068 (13.8%)
6 or more conditions	201,386 (60.4%)
Chronic conditions count, Median (Q1, Q3)	7.0 (3.0, 11.0)

Table 6. Dual Enrolled Medicaid Beneficiaries Eligibility Categories

Variable	Any enrollment during study period N (%)	Number of months enrolled, among program users Median (Q1, Q3)
N	333,240	
Full Medicaid Benefit Dual Eligible		
All QMB	241,967 (72.6%)	40.0 (18.0, 48.0)
QMB Aged	134,635 (40.4%)	35.0 (14.0, 48.0)
QMB Plus Aged SSI	45,683 (13.7%)	44.0 (19.0, 48.0)
QMB Plus Aged No SSI	96,117 (28.8%)	26.0 (11.0, 47.0)
QMB Blind/Disabled	116,590 (35.0%)	40.0 (18.0, 48.0)
QMB Plus Disabled/Blind SSI	42,123 (12.6%)	48.0 (23.0, 48.0)
QMB Plus Disabled/Blind No SSI	82,055 (24.6%)	30.0 (12.0, 47.0)
SLMB Plus	24,407 (7.3%)	9.0 (3.0, 18.0)
SLMB Plus Aged No SSI	15,445 (4.6%)	9.0 (3.0, 18.0)
SLMB Plus Disabled/Blind No SSI	9,412 (2.8%)	8.0 (3.0, 16.5)
Medicare Age Eligible	94,641 (28.4%)	6.0 (2.0, 16.0)
Medicare Age Eligible Medically Needy	37,202 (11.2%)	10.0 (4.0, 23.0)
Medicare Age Eligible Medically Needy No SSI	37,202 (11.2%)	10.0 (4.0, 23.0)
Medicare Age Eligible Categorically Needy	61,870 (18.6%)	4.0 (2.0, 11.0)
Medicare Age Eligible Categorically Needy SSI	13,107 (3.9%)	8.0 (3.0, 18.0)
Medicare Age Eligible Categorically Needy No SSI	51,115 (15.3%)	3.0 (1.0, 8.0)
Disabled/blind	80,435 (24.1%)	12.0 (3.0, 29.0)
Disabled/blind Categorically Needy	80,435 (24.1%)	12.0 (3.0, 29.0)
Disabled/blind Categorically Needy SSI	35,565 (10.7%)	17.0 (6.0, 33.0)
Disabled/blind Categorically Needy No SSI	61,546 (18.5%)	6.0 (2.0, 16.0)
Partial Benefits	42,518 (12.8%)	12.0 (5.0, 27.0)
Partial Benefits QMB	13,333 (4.0%)	9.0 (3.0, 14.0)
Partial Benefits SLMB	23,059 (6.9%)	14.0 (6.0, 29.0)
Partial Benefits QI	9,679 (2.9%)	12.0 (5.0, 24.0)
Other Medicaid Program	22,011 (6.6%)	10.0 (4.0, 20.0)
Number of Medicaid programs during study period, Median (Q1, Q3)	1.0 (1.0, 2.0)	
Number of full-dual Medicaid programs during study period, Median (Q1, Q3)	1.0 (1.0, 2.0)	

Variable	Any enrollment during study period N (%)	Number of months enrolled, among program users Median (Q1, Q3)
Proportion of enrollees in two or more Medicaid programs	164,973 (49.5%)	
Medicare benefit plans		
PACE	3,150 (0.9%)	26.0 (13.0, 39.0)
Part A	289,840 (87.0%)	36.0 (17.0, 48.0)
Part B	291,789 (87.6%)	36.0 (16.0, 48.0)
Part C	82,158 (24.7%)	22.0 (11.0, 38.0)
Part D	328,419 (98.6%)	43.0 (20.0, 48.0)

Table 7. Subgroup Enrollment

Variable	Any enrollment during study period N (%)
N	333,240
Subgroup Enrollment	
Aged	167,537 (50.3%)
CAP-C/DA Waivers	17,215 (5.2%)
Innovations and TBI Waivers	4,277 (1.3%)
LTSS User	50,095 (15.0%)
Nursing Home Resident	24,927 (7.5%)
Intensive BH Service User	50,509 (15.2%)
Community Well	213,667 (64.1%)
Ever partial dual	42,518 (12.8%)
Race	
White	195,502 (58.7%)
Asian	6,151 (1.8%)
Black	120,197 (36.1%)
American Indian or Alaskan Native	4,309 (1.3%)
Native Hawaiian or Pacific Islander	177 (0.1%)
Multi-racial	5,500 (1.7%)
Unknown	1,404 (0.4%)
Ethnicity	
Non-Hispanic	305,269 (91.6%)
Hispanic	11,715 (3.5%)
Unknown	16,256 (4.9%)

Table 8. Dual Enrollment Status in January 2014 and Changes in Status during Study Period by Race and Ethnicity

Variable	White	Asian	Black	AI/AN	NH/PI	Multiracial	Hispanic
N	195,502	6,151	120,197	4,309	177	5,500	11,715
Dual Enrollment Status in January 2014 among Ever-FBDE							
Dual eligible, full	116,592 (59.6%)	4,239 (68.9%)	78,654 (65.4%)	2,973 (69.0%)	72 (40.7%)	3,307 (60.1%)	6,567 (56.1%)
Dual eligible, partial	8,621 (4.4%)	83 (1.3%)	4,688 (3.9%)	173 (4.0%)	*	192 (3.5%)	257 (2.2%)
Enrolled in Medicaid, not Medicare	14,868 (7.6%)	266 (4.3%)	11,017 (9.2%)	390 (9.1%)	12 (6.8%)	722 (13.1%)	810 (6.9%)
Enrolled in Medicare, not Medicaid	11,534 (5.9%)	229 (3.7%)	4,992 (4.2%)	116 (2.7%)	19 (10.7%)	266 (4.8%)	721 (6.2%)
Not enrolled in Medicaid nor Medicare	43,887 (22.4%)	1,334 (21.7%)	20,846 (17.3%)	657 (15.2%)	<100 (<41%)	1,013 (18.4%)	3,360 (28.7%)
Changes in eligibility status 2014-2017 among those who were full duals in January 2014							
Dual eligible, full	116,592	4,239	78,654	2,973	72	3,307	6,567
Full dual status entire period or through death	81,130 (69.6%)	3,212 (75.8%)	58,009 (73.8%)	2,257 (75.9%)	48 (66.7%)	2,412 (72.9%)	4,624 (70.4%)
Any change to partial dual status	7,671 (6.6%)	189 (4.5%)	5,034 (6.4%)	210 (7.1%)	*	254 (7.7%)	408 (6.2%)
Any loss of Medicaid enrollment	30,574 (26.2%)	929 (21.9%)	17,425 (22.2%)	582 (19.6%)	21 (29.2%)	746 (22.6%)	1,722 (26.2%)
Died during study period	29,918 (25.7%)	558 (13.2%)	15,611 (19.8%)	574 (19.3%)	11 (15.3%)	365 (11.0%)	916 (13.9%)

Table 9. Dual Beneficiaries Benefit Plan Enrollment by Race and Ethnicity (2014-2017)

Variable	White	Asian	Black	AI/AN/NH/PI	Multiracial or unknown race	Hispanic
N	195,502	6,151	120,197	4,486	6,904	11,715
Medicaid benefit plans						
PACE	1,734 (0.9%)	37 (0.6%)	1,298 (1.1%)	22 (0.5%)	59 (0.9%)	122 (1.0%)
QMB	28,234 (14.4%)	513 (8.3%)	15,984 (13.3%)	581 (13.0%)	883 (12.8%)	1,272 (10.9%)
Innovations and TBI Waiver	2,895 (1.5%)	36 (0.6%)	1,247 (1.0%)	27 (0.6%)	72 (1.0%)	54 (0.5%)
CAP Waiver	6,842 (3.5%)	124 (2.0%)	5,539 (4.6%)	295 (6.6%)	219 (3.2%)	216 (1.8%)
Other FFS	189,680 (97.0%)	6,068 (98.7%)	115,998 (96.5%)	4,332 (96.6%)	6,733 (97.5%)	11,566 (98.7%)
Medicare benefit plans						
Part A	170,291 (87.1%)	5,160 (83.9%)	104,139 (86.6%)	4,165 (92.8%)	6,085 (88.1%)	10,201 (87.1%)
Part B	170,814 (87.4%)	5,709 (92.8%)	104,814 (87.2%)	4,207 (93.8%)	6,245 (90.5%)	10,609 (90.6%)
Part C	47,456 (24.3%)	975 (15.9%)	31,625 (26.3%)	544 (12.1%)	1,558 (22.6%)	2,942 (25.1%)
Part D	192,327 (98.4%)	6,087 (99.0%)	118,766 (98.8%)	4,446 (99.1%)	6,793 (98.4%)	11,541 (98.5%)

Notes: The table presents the number (percent) of FBDE ever enrolled in a program during the study period 2014-2017. Beneficiaries' dual eligibility categories could change over time and thus were not mutually exclusive for reporting any enrollment; beneficiaries may belong to one or more categories across months within the study period.

Table 10. Dual Beneficiaries Need-Based Subgroup Prevalence by Race and Ethnicity (2014-2017)

Variable	White	Asian	Black	AI/AN/NH/PI	Multiracial or unknown race	Hispanic
N	195,502	6,151	120,197	4,486	6,904	11,715
Subgroup Enrollment						
Aged	101,756 (52.0%)	4,990 (81.1%)	55,445 (46.1%)	2,185 (48.7%)	3,161 (45.8%)	7,229 (61.7%)
CAP Waiver	9,681 (5.0%)	159 (2.6%)	6,766 (5.6%)	322 (7.2%)	287 (4.2%)	269 (2.3%)
Innovations and TBI Waiver	2,895 (1.5%)	36 (0.6%)	1,247 (1.0%)	27 (0.6%)	72 (1.0%)	54 (0.5%)
LTSS User	23,268 (11.9%)	344 (5.6%)	24,699 (20.5%)	868 (19.3%)	916 (13.3%)	806 (6.9%)
Nursing Home Residents	18,600 (9.5%)	53 (0.9%)	5,968 (5.0%)	138 (3.1%)	168 (2.4%)	258 (2.2%)
Intensive BH Service User	29,705 (15.2%)	276 (4.5%)	18,806 (15.6%)	528 (11.8%)	1,194 (17.3%)	942 (8.0%)
Community Well	127,104 (65.0%)	5,428 (88.2%)	73,419 (61.1%)	2,957 (65.9%)	4,759 (68.9%)	9,740 (83.1%)
Ever partial dual	26,023 (13.3%)	452 (7.3%)	14,681 (12.2%)	541 (12.1%)	821 (11.9%)	1,186 (10.1%)
Ethnicity						
Non-Hispanic	185,656 (95.0%)	4,384 (71.3%)	106,443 (88.6%)	3,868 (86.2%)	4,918 (71.2%)	
Hispanic	9,415 (4.8%)	184 (3.0%)	564 (0.5%)	155 (3.5%)	1,397 (20.2%)	
Unknown	431 (0.2%)	1,583 (25.7%)	13,190 (11.0%)	463 (10.3%)	589 (8.5%)	

Notes: The table presents the number (percent) of FBDE ever meeting criteria for a needs-based subgroup during the study period 2014-2017. Beneficiaries may belong to one or more categories within the study period.

Table 11. Dual Status in January 2014 and Changes in Status during Study Period by Need-Based Subgroup

Variable	Community Well	LTSS User	CAP Waiver	Innovations and TBI Waiver	Intensive BH Service User	Nursing Home Resident
N	213,667	50,095	17,215	4,277	50,509	24,927
Dual Enrollment Status in January 2014 among Ever-FBDE						
Dual eligible, full	120,958 (56.6%)	39,502 (78.9%)	14,823 (86.1%)	3,476 (81.3%)	37,024 (73.3%)	13,676 (54.9%)
Dual eligible, partial	10,407 (4.9%)	1,560 (3.1%)	279 (1.6%)	15 (0.4%)	882 (1.7%)	1,079 (4.3%)
Enrolled in Medicaid, not Medicare	18,515 (8.7%)	2,880 (5.7%)	1,286 (7.5%)	749 (17.5%)	6,387 (12.6%)	254 (1.0%)
Enrolled in Medicare, not Medicaid	11,374 (5.3%)	1,849 (3.7%)	241 (1.4%)	*	1,486 (2.9%)	2,856 (11.5%)
Not enrolled in Medicaid nor Medicare	52,413 (24.5%)	4,304 (8.6%)	586 (3.4%)	<50 (<1%)	4,730 (9.4%)	7,062 (28.3%)
Changes in eligibility status among those who were full duals in January 2014						
Dual eligible, full	120,958	39,502	14,823	3,476	37,024	13,676
Full dual status entire period or through death	82,906 (68.5%)	29,939 (75.8%)	11,725 (79.1%)	3,203 (92.1%)	30,075 (81.2%)	9,021 (66.0%)
Any change to partial dual status	9,976 (8.2%)	1,571 (4.0%)	622 (4.2%)	97 (2.8%)	1,661 (4.5%)	269 (2.0%)
Any loss of Medicaid enrollment	31,931 (26.4%)	8,497 (21.5%)	2,619 (17.7%)	182 (5.2%)	5,710 (15.4%)	4,486 (32.8%)
Died during study period	22,740 (18.8%)	12,117 (30.7%)	4,229 (28.5%)	209 (6.0%)	4,191 (11.3%)	7,570 (55.4%)

Table 12. Dual Beneficiaries Benefit Plan Enrollment by Need-Based Subgroup (2014-2017)

Variable	Community Well	LTSS User	CAP Waiver	Innovations and TBI Waiver	Intensive BH Service User	Nursing Home Resident
N	213,667	50,095	17,215	4,277	50,509	24,927
Medicaid benefit plans						
PACE	2,656 (1.2%)	315 (0.6%)	60 (0.3%)	0 (0.0%)	98 (0.2%)	85 (0.3%)
QMB	34,430 (16.1%)	5,251 (10.5%)	1,459 (8.5%)	164 (3.8%)	3,989 (7.9%)	2,786 (11.2%)
Innovations and TBI Waiver	0 (0.0%)	157 (0.3%)	4,277 (24.8%)	4,277 (100.0%)	4,220 (8.4%)	20 (0.1%)
CAP Waiver	*	3,413 (6.8%)	13,016 (75.6%)	78 (1.8%)	1,721 (3.4%)	409 (1.6%)
Other FFS	211,993 (99.2%)	49,947 (99.7%)	8,465 (49.2%)	834 (19.5%)	46,461 (92.0%)	24,914 (99.9%)
Medicare benefit plans						
Part A	184,709 (86.4%)	44,217 (88.3%)	15,797 (91.8%)	4,147 (97.0%)	47,558 (94.2%)	18,585 (74.6%)
Part B	185,997 (87.0%)	44,738 (89.3%)	15,893 (92.3%)	4,151 (97.1%)	47,840 (94.7%)	18,604 (74.6%)
Part C	53,030 (24.8%)	11,836 (23.6%)	2,768 (16.1%)	307 (7.2%)	8,412 (16.7%)	11,038 (44.3%)
Part D	209,771 (98.2%)	49,929 (99.7%)	17,155 (99.7%)	4,251 (99.4%)	50,132 (99.3%)	24,530 (98.4%)

2014 – 2017 Combined Medicare and Medicaid Healthcare Spending for FFS FBDE Cohort

Table 13. Dual enrolled Medicare and Medicaid healthcare spending per person-year overall and by Needs-based Subgroups

Table 13a. Overall spending

	Medicare-Medicaid Combined Spending Rate* (95% CI) N=283,322
Overall Spending	$26,873.619 ($26,873.231, $26,874.007)
Inpatient	$5,317.124 ($5,316.951, $5,317.297)
Outpatient facility	$7,138.043 ($7,137.843, $7,138.243)
Carrier	$6,214.112 ($6,213.925, $6,214.298)
SNF (Medicare-only)	$1,340.670 ($1,340.584, $1,340.757)
Home Health	$737.724 ($737.660, $737.789)
Hospice	$760.065 ($759.999, $760.130)
DME	$472.387 ($472.335, $472.438)
Post-acute and Long-term Care (Medicaid-only)	$4,730.959 ($4,730.796, $4,731.122)
SNF/Nursing Home	$4,613.220 ($4,613.059, $4,613.381)
Intermediate Care Facility	$117.739 ($117.713, $117.765)
Dental (Medicaid-only)	$162.535 ($162.505, $162.565)
LME-MCO add-on payments (Medicaid-only)	$238.468 ($238.431, $238.504)
LTSS (Medicaid-only)	$1,470.962 ($1,470.872, $1,471.053)
ED (Medicaid-only)	$91.361 ($91.338, $91.384)

*N = 283,322 patients with at least 1 month of full dual eligibility + Medicare FFS included in the analysis. Rates shown as costs per person year.

Table 13b. Dual enrolled Medicare and Medicaid healthcare spending per person-year by age subgroup

	Aged Adult Combined Spending Rate* (95% CI) N=133,949	**Pediatric/Adult Combined Spending Rate* (95% CI) N=149,373**
Overall Spending	$32,529.367 ($32,528.743, $32,529.991)	$21,891.956 ($21,891.476, $21,892.437)
Inpatient	$5,567.831 ($5,567.572, $5,568.089)	$5,096.298 ($5,096.067, $5,096.530)
Outpatient facility	$6,094.828 ($6,094.558, $6,095.098)	$8,056.922 ($8,056.631, $8,057.213)
Carrier	$7,070.351 ($7,070.060, $7,070.641)	$5,459.924 ($5,459.684, $5,460.164)
SNF (Medicare-only)	$2,262.004 ($2,261.839, $2,262.168)	$529.147 ($529.072, $529.222)
Home Health	$1,017.349 ($1,017.238, $1,017.459)	$491.427 ($491.355, $491.499)
Hospice	$1,457.757 ($1,457.625, $1,457.890)	$145.527 ($145.488, $145.566)
DME	$381.150 ($381.083, $381.218)	$552.749 ($552.673, $552.825)
Post-acute and Long-term Care (Medicaid-only)	$8,565.397 ($8,565.077, $8,565.717)	$1,353.532 ($1,353.413, $1,353.652)
SNF/Nursing Home	$8,509.945 ($8,509.626, $8,510.264)	$1,180.930 ($1,180.819, $1,181.042)
Intermediate Care Facility	$55.452 ($55.426, $55.478)	$172.602 ($172.559, $172.645)
Dental (Medicaid-only)	$112.701 ($112.664, $112.738)	$206.429 ($206.383, $206.476)
LME-MCO add-on payments (Medicaid-only)	$73.462 ($73.432, $73.492)	$383.807 ($383.743, $383.871)
LTSS (Medicaid-only)	$2,079.848 ($2,079.690, $2,080.006)	$934.648 ($934.548, $934.747)
ED (Medicaid-only)	$78.989 ($78.958, $79.019)	$102.259 ($102.226, $102.292)

*N = 283,322 patients with at least 1 month of full dual eligibility + Medicare FFS included in the analysis. Rates shown as costs per person year.

Table 13c. Dual enrolled Medicare and Medicaid healthcare spending per person-year by LTSS users subgroup

	LTSS Combined Spending Rate* (95% CI) N=43,741	**No LTSS Combined Spending Rate* (95% CI) N=239,581**
Overall Spending	$40,069.081 ($40,067.957, $40,070.206)	$24,022.335 ($24,021.930, $24,022.739)
Inpatient	$7,930.426 ($7,929.926, $7,930.927)	$4,752.440 ($4,752.260, $4,752.620)
Outpatient facility	$9,012.935 ($9,012.402, $9,013.468)	$6,732.915 ($6,732.701, $6,733.130)
Carrier	$14,523.092 ($14,522.415, $14,523.769)	$4,418.702 ($4,418.528, $4,418.875)
SNF (Medicare-only)	$2,122.761 ($2,122.503, $2,123.020)	$1,171.676 ($1,171.586, $1,171.765)
Home Health	$2,091.251 ($2,090.994, $2,091.508)	$445.253 ($445.198, $445.309)
Hospice	$1,147.154 ($1,146.964, $1,147.344)	$676.422 ($676.354, $676.490)
DME	$665.354 ($665.209, $665.498)	$430.690 ($430.636, $430.744)
Post-acute and Long-term Care (Medicaid-only)	$2,435.551 ($2,435.274, $2,435.828)	$5,226.952 ($5,226.764, $5,227.141)
SNF/Nursing Home	$2,432.642 ($2,432.365, $2,432.919)	$5,084.401 ($5,084.215, $5,084.587)
Intermediate Care Facility	$2.909 ($2.899, $2.918)	$142.551 ($142.520, $142.583)
Dental (Medicaid-only)	$140.557 ($140.490, $140.623)	$167.284 ($167.250, $167.318)
LME-MCO add-on payments (Medicaid-only)	$118.804 ($118.743, $118.866)	$264.325 ($264.282, $264.367)
LTSS (Medicaid-only)	$8,278.431 ($8,277.920, $8,278.943)	
ED (Medicaid-only)	$129.175 ($129.111, $129.238)	$83.190 ($83.166, $83.214)

*N = 283,322 patients with at least 1 month of full dual eligibility + Medicare FFS included in the analysis. Rates shown as costs per person year.

Table 13d. Dual enrolled Medicare and Medicaid healthcare spending per person-year by Innovations and TBI Waiver subgroup

	Innovations and TBI Waiver Combined Spending Rate* (95% CI) N=4,137	**No Innovations and TBI Waiver Combined Spending Rate* (95% CI) N=279,185**
Overall Spending	$13,452.054 ($13,450.083, $13,454.026)	$27,139.195 ($27,138.801, $27,139.589)
Inpatient	$2,107.533 ($2,106.752, $2,108.313)	$5,380.633 ($5,380.458, $5,380.809)
Outpatient facility	$3,339.493 ($3,338.510, $3,340.475)	$7,213.206 ($7,213.003, $7,213.409)
Carrier	$6,054.370 ($6,053.047, $6,055.693)	$6,217.272 ($6,217.084, $6,217.461)
SNF (Medicare-only)	$209.840 ($209.593, $210.086)	$1,363.046 ($1,362.958, $1,363.135)
Home Health	$348.458 ($348.140, $348.775)	$745.427 ($745.362, $745.492)
Hospice	$112.159 ($111.979, $112.339)	$772.885 ($772.818, $772.951)
DME	$521.578 ($521.190, $521.966)	$471.413 ($471.361, $471.465)
Post-acute and Long-term Care (Medicaid-only)	$577.712 ($577.304, $578.121)	$4,813.141 ($4,812.975, $4,813.307)
SNF/Nursing Home	$441.369 ($441.012, $441.727)	$4,695.770 ($4,695.606, $4,695.934)
Intermediate Care Facility	$136.343 ($136.144, $136.541)	$117.371 ($117.345, $117.397)
Dental (Medicaid-only)	$180.913 ($180.685, $181.142)	$162.171 ($162.141, $162.202)
LME-MCO add-on payments (Medicaid-only)	$3,471.494 ($3,470.492, $3,472.495)	$174.495 ($174.463, $174.526)
LTSS (Medicaid-only)	$156.267 ($156.055, $156.480)	$1,496.977 ($1,496.884, $1,497.069)
ED (Medicaid-only)	$32.949 ($32.851, $33.047)	$92.517 ($92.494, $92.540)

*N = 283,322 patients with at least 1 month of full dual eligibility + Medicare FFS included in the analysis. Rates shown as costs per person year.

Table 13e. Dual enrolled Medicare and Medicaid healthcare spending per person-year by CAP-C/DA waiver subgroup

	CAP waiver Combined Spending Rate* (95% CI) N=15,698	**No CAP waiver Combined Spending Rate* (95% CI) N=2676,24**
Overall Spending	$43,706.020 ($43,704.131, $43,707.910)	$25,633.610 ($25,633.217, $25,634.003)
Inpatient	$6,950.917 ($6,950.164, $6,951.671)	$5,196.766 ($5,196.589, $5,196.943)
Outpatient facility	$8,872.549 ($8,871.698, $8,873.401)	$7,010.266 ($7,010.060, $7,010.471)
Carrier	$19,690.019 ($19,688.751, $19,691.287)	$5,221.369 ($5,221.192, $5,221.546)
SNF (Medicare-only)	$1,702.040 ($1,701.667, $1,702.413)	$1,314.049 ($1,313.960, $1,314.138)
Home Health	$2,374.217 ($2,373.776, $2,374.657)	$617.167 ($617.106, $617.228)
Hospice	$906.132 ($905.860, $906.404)	$749.304 ($749.237, $749.371)
DME	$1,127.023 ($1,126.720, $1,127.327)	$424.161 ($424.110, $424.211)
Post-acute and Long-term Care (Medicaid-only)	$1,946.214 ($1,945.815, $1,946.613)	$4,936.106 ($4,935.933, $4,936.278)
SNF/Nursing Home	$1,906.699 ($1,906.304, $1,907.093)	$4,812.604 ($4,812.434, $4,812.774)
Intermediate Care Facility	$39.516 ($39.459, $39.573)	$123.501 ($123.474, $123.529)
Dental (Medicaid-only)	$136.909 ($136.803, $137.014)	$164.423 ($164.391, $164.454)
LME-MCO add-on payments (Medicaid-only)	$990.455 ($990.171, $990.740)	$183.070 ($183.037, $183.103)
LTSS (Medicaid-only)	$1,054.434 ($1,054.141, $1,054.728)	$1,501.647 ($1,501.552, $1,501.742)
ED (Medicaid-only)	$122.600 ($122.500, $122.701)	$89.060 ($89.037, $89.083)

*N = 283,322 patients with at least 1 month of full dual eligibility + Medicare FFS included in the analysis. Rates shown as costs per person year.

Table 13f. Dual enrolled Medicare and Medicaid healthcare spending per person-year by Nursing Home Resident subgroup

	Nursing Home Resident Combined Spending Rate* (95% CI) N=18,349	**Not Nursing Home Resident Combined Spending Rate* (95% CI) N=264,973**
Overall Spending	$68,359.465 ($68,356.852, $68,362.078)	$24,407.242 ($24,406.861, $24,407.623)
Inpatient	$5,831.290 ($5,830.526, $5,832.053)	$5,286.556 ($5,286.379, $5,286.734)
Outpatient facility	$6,419.682 ($6,418.881, $6,420.483)	$7,180.750 ($7,180.544, $7,180.957)
Carrier	$4,622.027 ($4,621.347, $4,622.706)	$6,308.763 ($6,308.569, $6,308.956)
SNF (Medicare-only)	$4,642.406 ($4,641.725, $4,643.087)	$1,144.379 ($1,144.296, $1,144.461)
Home Health	$314.844 ($314.667, $315.022)	$762.865 ($762.798, $762.932)
Hospice	$2,400.503 ($2,400.014, $2,400.993)	$662.539 ($662.476, $662.601)
DME	$324.687 ($324.507, $324.867)	$481.168 ($481.114, $481.221)
Post-acute and Long-term Care (Medicaid-only)	$43,685.546 ($43,683.456, $43,687.635)	$2,415.068 ($2,414.948, $2,415.188)
SNF/Nursing Home	$43,659.841 ($43,657.752, $43,661.929)	$2,291.858 ($2,291.741, $2,291.974)
Intermediate Care Facility	$25.705 ($25.654, $25.756)	$123.210 ($123.183, $123.237)
Dental (Medicaid-only)	$118.481 ($118.372, $118.590)	$165.154 ($165.123, $165.185)
LME-MCO add-on payments (Medicaid-only)	$40.218 ($40.155, $40.282)	$250.254 ($250.215, $250.292)
LTSS (Medicaid-only)	$490.020 ($489.799, $490.242)	$1,529.280 ($1,529.185, $1,529.376)
ED (Medicaid-only)	$48.349 ($48.279, $48.418)	$93.918 ($93.895, $93.942)

*N = 283,322 patients with at least 1 month of full dual eligibility + Medicare FFS included in the analysis. Rates shown as costs per person year.

Table 13g. Dual enrolled Medicare and Medicaid healthcare spending per person-year by Intensive Behavioral Health subgroup

	Intensive Behavioral Health Combined Spending Rate* (95% CI) N=47,089	**No Intensive Behavioral Health Combined Spending Rate* (95% CI) N=236,233**
Overall Spending	$24,943.370 ($24,942.531, $24,944.209)	$27,352.270 ($27,351.833, $27,352.708)
Inpatient	$5,443.453 ($5,443.061, $5,443.845)	$5,285.798 ($5,285.606, $5,285.990)
Outpatient facility	$6,402.030 ($6,401.605, $6,402.455)	$7,320.555 ($7,320.329, $7,320.782)
Carrier	$6,944.689 ($6,944.247, $6,945.132)	$6,032.947 ($6,032.742, $6,033.153)
SNF (Medicare-only)	$860.186 ($860.030, $860.341)	$1,459.818 ($1,459.717, $1,459.919)
Home Health	$667.052 ($666.915, $667.189)	$755.249 ($755.177, $755.322)
Hospice	$304.843 ($304.750, $304.936)	$872.948 ($872.869, $873.026)
DME	$388.001 ($387.897, $388.106)	$493.312 ($493.253, $493.371)
Post-acute and Long-term Care (Medicaid-only)	$3,734.613 ($3,734.288, $3,734.937)	$4,978.027 ($4,977.840, $4,978.214)
SNF/Nursing Home	$3,142.070 ($3,141.772, $3,142.368)	$4,978.027 ($4,977.840, $4,978.214)
Intermediate Care Facility	$592.543 ($592.413, $592.672)	
Dental (Medicaid-only)	$198.504 ($198.429, $198.579)	$153.615 ($153.583, $153.648)
LME-MCO add-on payments (Medicaid-only)	$1,192.877 ($1,192.694, $1,193.061)	$1.799 ($1.795, $1.802)
LTSS (Medicaid-only)	$1,850.546 ($1,850.317, $1,850.774)	$1,376.836 ($1,376.737, $1,376.934)
ED (Medicaid-only)	$122.288 ($122.229, $122.346)	$83.692 ($83.668, $83.716)

*N = 283,322 patients with at least 1 month of full dual eligibility + Medicare FFS included in the analysis. Rates shown as costs per person year.

Table 13h. Dual enrolled Medicare and Medicaid healthcare spending per person-year by Community Well subgroup

	Community Well Combined Spending Rate* (95% CI) N=179,348	**Not Community Well Combined Spending Rate* (95% CI) N=103,974**
Overall Spending	$19,733.530 ($19,733.098, $19,733.962)	$37,254.351 ($37,253.635, $37,255.067)
Inpatient	$4,522.354 ($4,522.147, $4,522.560)	$6,472.614 ($6,472.316, $6,472.912)
Outpatient facility	$6,769.304 ($6,769.051, $6,769.557)	$7,674.140 ($7,673.816, $7,674.465)
Carrier	$3,282.058 ($3,281.882, $3,282.235)	$10,476.924 ($10,476.545, $10,477.304)
SNF (Medicare-only)	$996.870 ($996.773, $996.967)	$1,840.511 ($1,840.352, $1,840.670)
Home Health	$359.901 ($359.843, $359.960)	$1,287.029 ($1,286.896, $1,287.162)
Hospice	$602.573 ($602.497, $602.648)	$989.037 ($988.920, $989.153)
DME	$408.637 ($408.575, $408.699)	$565.070 ($564.982, $565.158)
Post-acute and Long-term Care (Medicaid-only)	$2,627.789 ($2,627.631, $2,627.946)	$7,788.687 ($7,788.360, $7,789.015)
SNF/Nursing Home	$2,627.789 ($2,627.631, $2,627.946)	$7,499.772 ($7,499.451, $7,500.093)
Intermediate Care Facility		$288.916 ($288.852, $288.979)
Dental (Medicaid-only)	$164.045 ($164.006, $164.085)	$160.339 ($160.292, $160.386)
LME-MCO add-on payments (Medicaid-only)	$1.495 ($1.491, $1.498)	$582.995 ($582.905, $583.084)
LTSS (Medicaid-only)		$3,609.545 ($3,609.322, $3,609.768)
ED (Medicaid-only)	$75.113 ($75.086, $75.140)	$114.983 ($114.944, $115.023)

*N = 283,322 patients with at least 1 month of full dual eligibility + Medicare FFS included in the analysis. Rates shown as costs per person year.

Table 13i. Dual enrolled Medicare and Medicaid healthcare spending per person-year by Ever Partial subgroup

	Ever Partial Combined Spending Rate* (95% CI) N=32,916	**Not Ever Partial Combined Spending Rate* (95% CI) N=250,406**
Overall Spending	$30,861.149 ($30,859.574, $30,862.725)	$26,574.698 ($26,574.297, $26,575.098)
Inpatient	$6,886.495 ($6,885.751, $6,887.239)	$5,199.478 ($5,199.301, $5,199.655)
Outpatient facility	$8,466.136 ($8,465.311, $8,466.961)	$7,038.484 ($7,038.278, $7,038.690)
Carrier	$6,007.620 ($6,006.925, $6,008.315)	$6,229.591 ($6,229.397, $6,229.785)
SNF (Medicare-only)	$2,665.724 ($2,665.261, $2,666.187)	$1,241.339 ($1,241.253, $1,241.426)
Home Health	$886.141 ($885.874, $886.408)	$726.599 ($726.532, $726.665)
Hospice	$732.979 ($732.737, $733.222)	$762.095 ($762.027, $762.163)
DME	$539.002 ($538.794, $539.210)	$467.393 ($467.340, $467.446)
Post-acute and Long-term Care (Medicaid-only)	$4,482.139 ($4,481.538, $4,482.739)	$4,749.612 ($4,749.443, $4,749.781)
SNF/Nursing Home	$4,450.903 ($4,450.304, $4,451.501)	$4,625.388 ($4,625.221, $4,625.555)
Intermediate Care Facility	$31.236 ($31.186, $31.286)	$124.224 ($124.196, $124.251)
Dental (Medicaid-only)	$194.914 ($194.789, $195.039)	$160.108 ($160.076, $160.139)
LME-MCO add-on payments (Medicaid-only)	$92.461 ($92.375, $92.547)	$249.413 ($249.374, $249.452)
LTSS (Medicaid-only)	$1,054.061 ($1,053.770, $1,054.352)	$1,502.215 ($1,502.120, $1,502.310)
ED (Medicaid-only)	$98.727 ($98.638, $98.816)	$90.809 ($90.785, $90.832)

*N = 283,322 patients with at least 1 month of full dual eligibility + Medicare FFS included in the analysis. Rates shown as costs per person year.

Table 14. Proportion of total FFS healthcare spending per person-year funded by Medicaid Programs overall and by Needs-based Subgroup

Table 14a. Proportion of total FFS healthcare spending per person-year funded by Medicaid Programs among NC FBDE overall

Variable	Medicaid	Medicare	Combined	Proportion of Combined Costs Attributed to Medicaid
Overall Spending	$12,698.55	$14,175.06	$26,873.61	47.3%
Inpatient	$85.92	$5,231.20	$5,317.12	1.6%
Outpatient facility	$4,199.26	$2,938.77	$7,138.03	58.8%
Carrier	$3,093.58	$3,120.52	$6,214.10	49.8%
SNF (Medicare-only)	NA	$1,340.67	$1,340.67	NA
Home Health	$183.55	$554.17	$737.72	24.9%
Hospice	$208.08	$551.98	$760.06	27.4%
DME	$34.65	$437.73	$472.38	7.3%
Post-acute and Long-term Care (Medicaid-only)	$4,730.95	NA	$4,730.95	NA
Dental (Medicaid-only)	$162.53	NA	$162.53	NA

Table 14b. Proportion of total FFS healthcare spending per person-year funded by Medicaid Programs among Community Well

Variable	Medicaid	Medicare	Combined	Proportion of Combined Costs Attributed to Medicaid
Overall Spending	$7,604.51	$12,129.01	$19,733.52	38.5%
Inpatient	$66.29	$4,456.06	$4,522.35	1.5%
Outpatient facility	$3,957.01	$2,812.29	$6,769.30	58.5%
Carrier	$498.93	$2,783.12	$3,282.05	15.2%
SNF (Medicare-only)	NA	$996.87	$996.87	NA
Home Health	$71.38	$288.51	$359.89	19.8%
Hospice	$199.80	$402.77	$602.57	33.2%
DME	$19.25	$389.38	$408.63	4.7%
Post-acute and Long-term Care (Medicaid-only)	$2,627.78	NA	$2,627.78	NA
Dental (Medicaid-only)	$164.04	NA	$164.04	NA

Table 14c. Proportion of total FFS healthcare spending per person-year funded by Medicaid Programs among CAP-C/DA Waiver

Variable	Medicaid	Medicare	Combined	Proportion of Combined Costs Attributed to Medicaid
Overall Spending	$25,264.46	$18,441.55	$43,706.01	57.8%
Inpatient	$77.30	$6,873.61	$6,950.91	1.1%
Outpatient facility	$5,869.42	$3,003.12	$8,872.54	66.2%
Carrier	$16,065.65	$3,624.36	$19,690.01	81.6%
SNF (Medicare-only)	NA	$1,702.04	$1,702.04	NA
Home Health	$903.40	$1,470.81	$2,374.21	38.1%
Hospice	$95.11	$811.01	$906.12	10.5%
DME	$170.44	$956.58	$1,127.02	15.1%
Post-acute and Long-term Care (Medicaid-only)	$1,946.21	NA	$1,946.21	NA
Dental (Medicaid-only)	$136.90	NA	$136.90	NA

Table 14d. Proportion of total FFS healthcare spending per person-year funded by Medicaid Programs among LTSS users

Variable	Medicaid	Medicare	Combined	Proportion of Combined Costs Attributed to Medicaid
Overall Spending	$19,106.99	$20,962.08	$40,069.07	47.7%
Inpatient	$101.02	$7,829.40	$7,930.42	1.3%
Outpatient facility	$5,494.00	$3,518.93	$9,012.93	61.0%
Carrier	$10,260.81	$4,262.27	$14,523.08	70.7%
SNF (Medicare-only)	NA	$2,122.76	$2,122.76	NA
Home Health	$478.60	$1,612.64	$2,091.24	22.9%
Hospice	$127.68	$1,019.46	$1,147.14	11.1%
DME	$68.75	$596.60	$665.35	10.3%
Post-acute and Long-term Care (Medicaid-only)	$2,435.55	NA	$2,435.55	NA
Dental (Medicaid-only)	$140.55	NA	$140.55	NA

Table 14e. Proportion of total FFS healthcare spending per person-year funded by Medicaid Programs among Intensive Behavioral Health

Variable	Medicaid	Medicare	Combined	Proportion of Combined Costs Attributed to Medicaid
Overall Spending	$12,340.18	$12,603.18	$24,943.36	49.5%
Inpatient	$169.10	$5,274.34	$5,443.44	3.1%
Outpatient facility	$4,105.60	$2,296.42	$6,402.02	64.1%
Carrier	$3,836.10	$3,108.58	$6,944.68	55.2%
SNF (Medicare-only)	NA	$860.18	$860.18	NA
Home Health	$187.72	$479.32	$667.04	28.1%
Hospice	$78.36	$226.47	$304.83	25.7%
DME	$30.16	$357.83	$387.99	7.8%
Post-acute and Long-term Care (Medicaid-only)	$3,734.61	NA	$3,734.61	NA
Dental (Medicaid-only)	$198.50	NA	$198.50	NA

Table 14f. Proportion of total FFS healthcare spending per person-year funded by Medicaid Programs among Nursing Home Resident

Variable	Medicaid	Medicare	Combined	Proportion of Combined Costs Attributed to Medicaid
Overall Spending	$47,950.75	$20,408.71	$68,359.46	70.1%
Inpatient	$103.88	$5,727.40	$5,831.28	1.8%
Outpatient facility	$1,998.86	$4,420.81	$6,419.67	31.1%
Carrier	$971.55	$3,650.46	$4,622.01	21.0%
SNF (Medicare-only)	NA	$4,642.40	$4,642.40	NA
Home Health	$58.72	$256.12	$314.84	18.7%
Hospice	$1,006.64	$1,393.85	$2,400.49	41.9%
DME	$7.05	$317.63	$324.68	2.2%
Post-acute and Long-term Care (Medicaid-only)	$43,685.54	NA	$43,685.54	NA
Dental (Medicaid-only)	$118.48	NA	$118.48	NA

Quality Measurement for NC FBDE

Table 15. Comparing CMS 2022 D-SNP Star-rating Quality Measures with NC Medicaid PHP Quality Measures

Blue = SNP-specific measure

Gray = Medicaid "Priority Set"—a subset which may be included in a withhold/incentive program.

2022 STAR Measure*	Data Source	Medicaid PHP Measure**	Medicaid TP Measure**
C01: Breast Cancer Screening	HEDIS	Breast Cancer Screening	Breast Cancer Screening
C02: Colorectal Cancer Screening	HEDIS		
C03: Annual Flu Vaccine	CAHPS	Flu Vaccinations for Adults Age 18 - 64	Flu Vaccinations for Adults Age 18 - 64
C04: Monitoring Physical Therapy	HEDIS/HOS	Increase Percentage of Adults Who Get Recommended Amount of Physical Activity	Increase Percentage of Adults Who Get Recommended Amount of Physical Activity
C05: Special Needs Plan (SNP) Care Management	Part C Plan Reporting		
C06: Care for Older Adults – Medication Review	HEDIS		
C07: Care for Older Adults – Pain Assessment	HEDIS		
C08: Osteoporosis Management in Women who had a Fracture	HEDIS		
C09: Diabetes Care – Eye Exam	HEDIS	Comprehensive Diabetes Care (Comprehensive Diabetes Care (BP Control [<140/90], HbA1c Control [<8.0%], Eye Exam)	Comprehensive Diabetes Care (Comprehensive Diabetes Care (BP Control [<140/90], HbA1c Control [<8.0%], Eye Exam)
C10: Diabetes Care – Kidney Disease Monitoring	HEDIS		
C11: Diabetes Care – Blood Sugar Controlled	HEDIS	Comprehensive Diabetes Care: HbA1c Poor Control (>9.0%)	Comprehensive Diabetes Care: HbA1c Poor Control (>9.0%)
C12: Rheumatoid Arthritis Management	HEDIS/HOS		
C13: Reducing the Risk of Falling	HEDIS/HOS		
C14: Improving Bladder Control	HEDIS		

C15: Medication Reconciliation Post-Discharge	HEDIS		
C16: Statin Therapy for Patients with Cardiovascular Disease	CAHPS		
C17: Getting Needed Care	CAHPS	Getting Needed Care	Getting Needed Care
C18: Getting Appointments and Care Quickly	CAHPS		
C19: Customer Service	CAHPS	Customer Service	Customer Service
C20: Rating of Health Care Quality	CAHPS	Rating of All Health Care	Rating of All Health Care
C21: Rating of Health Plan	CAHPS	Rating of Health Plan	Rating of Health Plan
C22: Care Coordination	CAHPS	Coordination of Care	Coordination of Care
C23: Complaints about the Health Plan	CTM		
C24: Members Choosing to Leave the Plan	MBDSS		
C25: Health Plan Quality Improvement	Star Ratings		
C26: Plan Makes Timely Decisions about Appeals	Independent Review Entity (IRE)		
C27: Reviewing Appeals Decisions	Independent Review Entity (IRE)		
C28: Call Center – Foreign Language Interpreter and TTY Availability	Call Center		
D01: Call Center – Foreign Language Interpreter and TTY Availability	Call Center		
D02: Complaints about the Drug Plan	CTM		
D03: Members Choosing to Leave the Plan	MBDSS		
D04: Drug Plan Quality Improvement	Star Ratings		
D05: Rating of Drug Plan	CAHPS		
D06: Getting Needed Prescription Drugs	CAHPS		
D07: MPF Price Accuracy	PDE data, MPF Pricing Files		

D08: Medication Adherence for Diabetes Medications	Prescription Drug Event (PDE) data		
D09: Medication Adherence for Hypertension (RAS antagonists)	Prescription Drug Event (PDE) data		
D10: Medication Adherence for Cholesterol (Statins)	Prescription Drug Event (PDE) data		
D11: MTM Program Completion Rate for CMR	Part D Plan Reporting		
D12: Statin Use in Persons with Diabetes (SUPD)	Prescription Drug Event (PDE) data	Statin Therapy for Patients with Diabetes - both received statin therapy and statin adherence 80%	Statin Therapy for Patients with Diabetes - both received statin therapy and statin adherence 80%
North Carolina BH and I/DD Measure Set			
	HEDIS		Antidepressant Medication Management (National Quality Forum [NQF] 105)
	HEDIS		Adherence to Antipsychotic Medications for Individuals with Schizophrenia (SAA)*
	HEDIS	Concurrent Use of Prescription Opioids and Benzodiazepines (NQF 3389)	Concurrent Use of Prescription Opioids and Benzodiazepines (NQF 3389)
	HEDIS	Continuity of Pharmacotherapy for Opioid Use Disorder	Continuity of Pharmacotherapy for Opioid Use Disorder
	HEDIS	Alcohol and Other Drug Use Disorder Treatment Provided or Offered at Discharge and SUB-3a Alcohol and Other Drug Use Disorder Treatment at Discharge (1664)	Alcohol and Other Drug Use Disorder Treatment Provided or Offered at Discharge and SUB-3a Alcohol and Other Drug Use Disorder Treatment at Discharge (1664)
	HEDIS	Follow-up After Hospitalization for Mental Illness (NQF 0576)	Follow-up After Hospitalization for Mental Illness (NQF 0576)
	HEDIS	Screening for Depression and Follow-Up Plan (NQF 0418)	Screening for Depression and Follow-Up Plan (NQF 0418)

	HEDIS	Use of Opioids at High Dosage in Persons Without Cancer (NQF 2940)	Use of Opioids at High Dosage in Persons Without Cancer (NQF 2940)
	HEDIS	Use of Opioids from Multiple Providers in Persons Without Cancer (NQF 2950)	Use of Opioids from Multiple Providers in Persons Without Cancer (NQF 2950)
	HEDIS	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (NQF 0004)	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment (NQF 0004)
North Carolina BH and I/DD Tailored Plan State-funded Measure Set			
		N/A	Alcohol and Drug Abuse Treatment Center (ADATC) Readmissions within 30 Days and 180 Days
		N/A	Average Length of Stay in Community Hospitals (mental health treatment & substance use disorder treatment)
		N/A	Community Mental Health Inpatient Readmissions within 30 Days
		N/A	Community Substance Use Disorder Inpatient Readmission within 30 Days
		N/A	Initiation of Services (alcohol or other drug abuse or dependence treatment, and one for persons receiving MH treatment)
		N/A	Engagement in Services (alcohol or other drug abuse or dependence treatment, and one for persons receiving MH treatment)
		N/A	State Psychiatric Hospital Readmissions within 30 Days and 180 Days

		N/A	Follow-up After Discharge from Community Hospitals, State Psychiatric Hospitals, and Facility-based Crisis Services for Mental Health Treatment (7 days* and 30 days)
		N/A	Follow-up After Discharge from Community Hospitals, State Psychiatric Hospitals, State ADATCs, and Detox/Facility Based Crisis Services for substance use disorder (SUD) Treatment (7 days* and 30 days)
		Admission to an Institution from the Community (AIF) *	Admission to an Institution from the Community (AIF)

*2022 Medicare Star Ratings Technical Notes and Fact Sheet

**2022 North Carolina's Medicaid Quality Measurement Technical Specifications Manual for Standard -Plans and Behavioral Health Intellectual/Developmental Disability Tailored Plans