Health care costs are a serious concern and challenge for policymakers, health care payers, the business community, and the general public. As spending on health care continues to rise, many sectors have a vested interest in understanding what drives costs, as well as in identifying effective ways to slow cost growth while improving health outcomes. This issue brief will discuss trends in health care spending, define alternative payment models, and identify several examples of efforts to implement these models across our state.

**HEALTH CARE SPENDING IN THE U.S. AND NORTH CAROLINA**

In the United States, approximately $1 out of every $6 of economic activity is spent on health care. In 2014, health care in North Carolina cost $72.1 billion, accounting for 15.2% of the state gross domestic product. This amount factors in spending on health services including hospital care, physician and clinical services, prescription drugs, nursing home and other long-term care services, and oral health services. In 2017, the breakdown of health care spending share by major sources of funding was: 34% private health insurance (this includes payments by employers, payers, and individuals in the form of premiums and other cost sharing), 21% Medicare, 16% Medicaid, and 10% out-of-pocket costs by individuals.

**FIGURE 1: HEALTH EXPENDITURES IN NORTH CAROLINA**

While individuals with health insurance do have a portion of their health care costs covered, even among those with health insurance, health care costs have grown for many. Average health care cost for each individual in North Carolina is $7,264 per year. Average costs (including both employee and employer contributions) for employer-based insurance premiums for family coverage have increased 22% in the last 5 years and 54% in the last 10 years.  

For North Carolinians with employer-based insurance, premium costs for individuals (to pay for the family premium contribution) averaged $5,948 in 2018, compared to $4,115 in 2008. This growth has outpaced growth in income: middle-income workers spent an average of 8.2% of income on premium costs in 2018, compared to 7.2% in 2008 (see figure 2). When combined with potential deductible costs, the average potential out-of-pocket cost for North Carolinians with employer-based health insurance was $8,091, or 13.9% of median income in 2018.

**FIGURE 2: TRENDS IN EMPLOYER-SPONSORED INSURANCE PREMIUM COSTS, NORTH CAROLINA**

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2014</th>
<th>2016</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer Sponsored Insurance Premium Costs – Total (family coverage)</td>
<td>$12,308</td>
<td>$16,210</td>
<td>$16,986</td>
<td>$18,211</td>
</tr>
<tr>
<td>Employee Contribution to Premium Costs (family coverage)</td>
<td>$4,115</td>
<td>$4,647</td>
<td>$4,832</td>
<td>$5,948</td>
</tr>
<tr>
<td>Employee Deductible Costs (single coverage – plans generally use this per family member)</td>
<td>$1,026</td>
<td>$1,515</td>
<td>$1,963</td>
<td>$2,070</td>
</tr>
<tr>
<td>Total Potential Out of Pocket Costs, including Employee Contribution + Deductible Combined average (% of median income)</td>
<td>$4,896 (11.0%)</td>
<td>$6,309 (11.5%)</td>
<td>$6,913 (12.1%)</td>
<td>$8,091 (13.9%)</td>
</tr>
</tbody>
</table>


Employers also contribute significantly to the costs of their employees’ health care coverage. Fifty-seven percent of firms offer health insurance benefits to at least some of their workers. This ranges from 47% of firms with 3-9 employees to 96% of firms with more than 100 employees. In 2019, the national average employer premium contribution for family coverage was $14,561 ($12,263 in North Carolina). Employers with more lower-wage workers tend to require employees to pay a higher percentage of total premium costs than firms with fewer lower-wage workers.

While individuals and employers bear much of the burden of health care costs, almost half of overall health care spending nationally is from public sources: the federal government pays for 28% of health care costs, mostly through Medicare and Medicaid spending, and state and local governments pay for 17%, mostly through Medicaid and other safety net services. In North Carolina, the total Medicaid budget is $14.65 billion; of this, 26% is paid for through state appropriations, 65.4% through federal funds, and 8.6% through other non-federal funds. North Carolina’s contribution was around $4 billion in the 2017-2018 fiscal year.

**FIGURE 3: PERCENTAGE OF MEDICAID BUDGET, BY FUNDING SOURCE**


In 2018, more than 1 million North Carolinians (10.7% of the state population) were without health insurance. This is the ninth-highest uninsured rate in the nation. Since the passage of the Affordable Care Act in 2010, North Carolina has had a large reduction in the number of adults without health insurance. In 2017, the North Carolina uninsured rate for adults age 19-64 was 16%, as compared to 23% in 2010. Overall, individuals without health insurance tend to have lower total health care expenses than those with insurance, as they are less likely to use services. Out-of-pocket costs for uninsured individuals are comparable to those with private health insurance coverage, but since uninsured people tend to have a much lower household income, these costs are disproportionately higher for those without insurance. In addition, those without health insurance are at much higher risk for significant financial consequences if they face a serious health problem or injury. Among individuals without insurance who report problems paying medical bills, 21% owe $10,000 or more.

**HEALTH CARE PAYMENT AND ALTERNATIVE PAYMENT MODELS**

Health policy experts have attempted to rein in health care spending for decades. In recent years, policymakers and payers have aimed to transition health care spending from a fee-for-service model to value-based care, in an attempt to control costs while simultaneously ensuring improved population health and patient experience of care (the “Triple Aim” of health care improvement). One of the goals of the Affordable Care Act was to slow the increase in the cost of health care. The primary

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1. The Triple Aim framework, originally developed by the Institute for Healthcare Improvement, is sometimes now referred to as the Quadruple Aim, adding a fourth component of health care workforce well-being (i.e. prevention of burnout, satisfaction with profession).
payment method advanced under the ACA has been the use of value-based payment models that incentivize higher-quality care, better health outcomes, and reduced costs. The following section identifies and defines traditional and newer health care payment models (often known as “alternative payment models”) and the ways various models of care delivery may utilize them. b

**FEE-FOR-SERVICE:** Fee-for-service has traditionally been the dominant payment structure in American health care. Under a traditional fee-for-service health care payment model, health care providers and health systems receive compensation for each clinical encounter or service provided during discrete episodes of care. While this model has some advantages, namely that it is a familiar model to many patients and health care providers, it also tends to disproportionately reward volume of care rather than quality of care, and also does not reward important elements of high-quality care such as care coordination or care management. 13

**BUNDLED PAYMENT MODEL:** Bundled payment is a type of value-based model in which a group of health care providers receive a predetermined set fee for an episode of care. The episode of care includes the full care continuum for a single condition or medical event. For example, a bundled payment for knee replacement surgery would include medical and surgical care received at the hospital, post-surgery rehabilitation, and other care related to the procedure. 14 Bundled payments may be retrospective, after care is delivered, or prospective, when a payer makes a single lump-sum payment to a provider entity responsible for paying all the providers involved in an episode of care. 14 Bundled payment models aim to improve value through incentivizing efficient and well-coordinated care.

**SHARED SAVINGS:** Shared savings programs are a type of value-based payment arrangement in which payers evaluate health care providers’ performance on quality of care and spending targets. If the providers meet these quality and cost targets, they can then share in the cost savings with the payer. There is no penalty to providers if they do not meet cost targets, so there is no financial risk to providers in a shared savings program. 15 Shared savings arrangements are increasingly common, now the second most prevalent payment method (after fee-for-service). 15 In addition, research shows that shared savings arrangements improve quality of care: participants in the Medicare Shared Savings Program received an aggregate quality score of 93.4% across 4 domains of performance, up from 86.0% in 2014. 14 Private payers using shared savings arrangements have also shown improved quality of care. However, some studies show reason for caution: payers may end up with overall losses when they cannot recoup payments from providers that did not meet financial targets, even if others have generated savings. 15

**SHARED RISK:** A shared risk model combines performance-based incentives for providers to share cost savings with disincentives to share excess costs. Under this model, providers and payers agree on a budget, and providers cover a portion of costs if they do not meet the budget. There is both a higher financial risk for the provider and a higher potential financial benefit. Providers that want to participate in such an arrangement, but minimize their financial risk, may purchase stop-loss insurance from a third party. This third party will then accept financial risk beyond a certain amount. Providers can also limit financial risk in a shared risk model through limiting the types of patients or conditions for which they will accept risk. 16

**CAPITATION:** Capitated payment is a type of value-based model in which a health care provider or group of providers receives a risk-adjusted, predetermined amount for each enrolled person for whom they are assigned to provide care. This payment is received by the providers whether or not the assigned individuals seek or receive care. 17 Capitation models can be either global/full capitation or partial/blended capitation. Under a global/full capitation model, providers receive payment for the entirety of health care services a patient could receive, including primary care, hospital care, specialist care, and other services. Under a partial/blended model, payment to providers only covers a defined range of health care services; such a model may include primary and specialty care and lab services, but not cover hospital care, pharmaceuticals, or mental health care. 16

**EXAMPLES OF VALUE-BASED MODELS OF CARE**

**ACCOUNTABLE CARE ORGANIZATIONS:** In an accountable care organization (ACO) model, initiated by the Center for Medicare and Medicaid Innovation (CMMI) under the Affordable Care Act, independent physician practices or health systems are responsible for the health care of an assigned patient population. ACOs can be designed in different ways. Some ACOs receive payment on a fee-for-service basis, with costs and quality reviewed later by the payer, and providers either receive additional reimbursement or return money back to the payer. 18 Other ACOs operate in shared savings programs; in 2016, about 61% of ACO contracts included shared savings. 15

ACO models are increasing nationally; in 2017, there were 923 active public and private ACOs across the U.S., with more than 32 million individuals—more than 10% of the U.S. population—covered by ACOs. 19 In North Carolina, there are currently 30 Medicare ACOs and 6 commercial ACOs. 20

In North Carolina, all the major commercial payers have at least one shared savings arrangement with a North Carolina-based ACO. 21

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b The following payment models all apply only to patients who are insured.

c Risk adjustment, when used for health care quality measurement, is a statistical method that allows for comparison of outcomes between different patient populations. Risk adjustment can be used to control for many factors that may affect health outcomes, including insurance status, health status or diagnosis, or social determinants of health, and generally asks how health systems’ outcomes would compare if they had the same patients. Risk adjustment is often used to assess whether a provider or health system’s outcomes may be partly determined by the populations they serve—i.e., organizations that serve vulnerable populations may have poorer outcomes due to inequitable conditions, and any evaluation of performance or quality of care should take these factors into account.
**PATIENT-CENTERED MEDICAL HOME:** A patient-centered medical home (PCMH - also sometimes known as a primary care medical home) is an organizing model for the delivery of primary care. Not a physical place, a patient-centered medical home is relationship-based and aims to engage patients and families as partners. A PCMH organizes care and is accountable for meeting patients’ health care needs, including mental health care, preventive and wellness care, acute care, and chronic care. The PCMH model uses a team of care providers, which may include physicians, advanced practice nurses, physician assistants, pharmacists, social workers, and care coordinators. The team coordinates care across sites of care.22 PCMHs operate through a combination of payment models: approaches include enhanced fee-for-service payments for care coordination and evaluation; additional billing codes for medical home activities; per-patient-per-month capitated payments for services specific to the PCMH model, such as care coordination and other non-encounter-based services; and risk-adjusted comprehensive capitated payments that would cover all primary care services.23 Some PCMH programs pay through a shared savings model and have shown improved quality of care on metrics, including reduced hospital admissions and readmissions and fewer days in the hospital.19

**MANAGED CARE ORGANIZATION:** Broadly, managed care organizations (MCOs) integrate the delivery and payment of health care through an organization of health care providers that provide a comprehensive set of services. Characteristics of managed care organizations historically included set provider networks, primary care referrals for access to specialty care, and negotiated payments.24 In recent years, managed care organizations have become the dominant delivery system for Medicaid beneficiaries; in 2018, almost two-thirds of Medicaid beneficiaries received health care services through a managed care organization model.25

State Medicaid programs use 3 types of managed care:

- **Comprehensive risk-based managed care:** Under this model, covered services include inpatient hospital services, plus at least 3 additional services such as outpatient hospital, lab and X-ray imaging, nursing facility, family planning, or home health services. Managed care organizations using this model receive a monthly capitation payment, paid by the state, to cover the cost of services for each beneficiary. Plans can keep excess payments but are also at financial risk if they spend more on services and administration than they receive. In this model, some services may also be excluded from the capitated payment but paid for through fee-for-service. Behavioral health, oral health, and pharmacy services are commonly excluded in this way.26

- **Primary care case management:** Primary care case management programs assign beneficiaries to a primary care provider that provides care management and coordination services and receives a monthly case management fee. Additionally, providers are paid on a fee-for-service basis for covered services. These programs may also include enhanced care coordination for high-need users, support for individual providers, or beneficiary outreach and education.26

- **Limited-benefit plans:** Under a limited-benefit plan, plans manage a subset of benefits (such as transportation or long-term supports and services) or services for a specific population. These plans are usually paid on a capitated payment model. Examples of Medicaid limited-benefit plans include those for behavioral health services, long-term supports and services, and dental services. 26

**VALUE-BASED CARE IN NORTH CAROLINA**

In recent years, North Carolina has seen a shift within the state toward the increased use of new payment models and delivery models that aim to increase health care value through increasing the quality of health care and reducing health care costs. Examples include private payer ACOs, bundled payment models, health system participation in new Medicare ACO models, as well as Medicaid transformation to a managed care model.

**CORNERSTONE HEALTH CARE:** In 2012, Cornerstone Health Care, a multispecialty medical practice with offices located in the Piedmont Triad and Western Triad, made a strategic decision to move its contracts to all value-based payment, using an ACO model. Cornerstone developed care delivery strategies including the development of new care models for patients with chronic diseases, expansion of walk-in and urgent care services, improved medication management, and integration of behavioral health services. Cornerstone combined these strategies with investments in data analysis and integration to identify gaps in care, and also aligned provider payment with quality measurement that included such elements as patient satisfaction and access to care.22 Cornerstone participated in the Medicare Shared Savings Program; while it did not see cost savings in the first year following the strategic changes, data showed savings over the next several years, as well as improved quality of care.27

**BUNDLED PAYMENTS:** Several North Carolina providers participate in a voluntary program known as the Bundled Payments for Care Improvement (BPCI) Model 2 initiative for Medicare beneficiaries. Under the BPCI Model 2 initiative, providers receive payments to manage patients’ care through acute and post-acute episodes of care, determined by diagnosis. This program also allows providers to pay for additional expenses such as transportation to physical therapy visits, and for hospitals to share savings with participating surgeons. Participating providers (as of 2016) included Triangle Orthopaedic Associates, Blue Ridge Bone and Joint, Greensboro Orthopaedics, OrthoCarolina, OrthoWilmington, Southeastern Orthopaedic Specialists, and Sports Medicine and Joint Replacement of Greensboro.18

In 2015, the North Carolina Department of Insurance expanded commercial bundled payment programs; one example is prospective bundled payment agreements for knee and hip replacements through Blue Cross and Blue Shield of North Carolina. In this arrangement, Blue Cross pays a bundled payment to an orthopaedic practice following joint surgery; the practice then pays for inpatient hospital and surgical care, anesthesiology, postoperative care (including physical therapy), and care management for a contracted period of time.18

**NEXT GENERATION ACCOUNTABLE CARE ORGANIZATIONS:** Since the passage of the Affordable Care Act in 2010, the Centers for Medicare and Medicaid Services have focused much attention and energy on the promotion and implementation of ACO models for Medicare, including, since 2016, the Next Generation ACO model. North Carolina currently has 3 Next Generation ACOs:
Currently, North Carolina’s Medicaid program uses managed care in a limited way: for primary care case management through Community Care of North Carolina, the LME/MCO system for behavioral health services, and the Program of All-Inclusive Care for the Elderly (PACE). Under Medicaid transformation, the use of PHPs for coordinating all Medicaid benefits and services to enrollees will be new.29

As part of the move to Medicaid managed care, the North Carolina Department of Health and Human Services (DHHs) will implement an Advanced Medical Home (AMH) program to delivery comprehensive care management services to beneficiaries. Under this program, the PHPs will delegate care management functions to local advanced medical homes, which will work with health care systems and vendors to provide and coordinate services. DHHS has developed quality care management standards for the advanced medical homes.31

As of December 2019, the implementation of Medicaid transformation is delayed, pending approval of the state budget.

Many states have already made the transition to Medicaid managed care. As of 2018, 39 states (including DC) provided managed care to at least some of their Medicaid beneficiaries. In 24 of these states, more than 75% of Medicaid beneficiaries received their health services through managed care systems.32 Most of these states emphasize quality improvement in their Medicaid managed care, and an increasing number are using alternative payment models to improve value of care. Many states are also experimenting with paying for unmet social needs for beneficiaries, as North Carolina plans to do through the Healthy Opportunities program (see figure 5).32,33

FIGURE 4: CHANGES COMING WITH MEDICAID TRANSFORMATION

Approximately 1.6 million of North Carolina’s 2.2 million Medicaid and NC Health Choice program beneficiaries will be enrolled in a standard plan, receiving integrated physical health, mental health, and behavioral health care through prepaid health plans (PHPs).

THE FOLLOWING STATEWIDE ENTITIES WILL MANAGE THE PHPS:

- AmeriHealth Caritas North Carolina, Inc.
- Blue Cross and Blue Shield of North Carolina
- Carolina Complete Health
- UnitedHealthcare of North Carolina, Inc.
- WellCare of North Carolina, Inc.

THOSE WHO ARE EXEMPT AND WILL REMAIN IN THE FEE-FOR-SERVICE SYSTEM (MEDICAID DIRECT) ARE:

- Family Planning Program enrollees
- Those designated Medically Needy
- Health insurance premium payment program enrollees
- Program of all-inclusive care for the elderly enrollees
- Refugee Medicaid enrollees

BENEFICIARIES WHO ARE TEMPORARILY EXCLUDED BUT WILL BE ENROLLED AT A LATER DATE ARE:

- Dually eligible Medicaid/Medicare beneficiaries
- Children in the Foster Care/Adoptive system
- Community Alternatives Program for Children enrollees

Medicaid beneficiaries who are members of federally recognized Native American tribes and beneficiaries who have significant behavioral health needs or intellectual disabilities will be enrolled in specialized managed care plans in 2021.


FIGURE 5: HEALTHY OPPORTUNITIES

North Carolina Medicaid is also seeking to increase value and beneficiaries’ health outcomes through payment for services to address non-clinical health needs. Through a series of pilot programs throughout the state, Medicaid’s “Healthy Opportunities” program will contract with human services providers in the pilot regions to pay for services in 4 areas: food, housing, transportation, and interpersonal violence. In paying for services that can significantly impact individuals’ health status, many of which are less expensive than clinical health care, Medicaid hopes to save overall Medicaid costs while also improving population health in the state. As of December 2019, the Healthy Opportunities program is currently accepting applications from regions interested in managing a pilot program in their area. Lead pilot entities (LPEs) will serve as coordinating agencies within the regions, and will be selected in April 2020, with launch of the pilots, and service delivery beginning, expected in spring 2021.

CONCLUSIONS
Despite incredible amounts of attention, energy, and strategic planning dedicated to reducing health care costs, the United States and North Carolina continue to see costs rise, without a corresponding improvement in health outcomes. The development and application of alternative payment models, the goals of which are to both reduce overall spending and improve population health, continue to show promise in meeting these goals. North Carolina models of value-based payment and health care delivery will also illustrate to policymakers, health care providers, researchers, and patients the continued importance of payment and delivery innovation. In addition, policymakers and researchers should continue to evaluate the impact of programs that aim to spend a larger portion of health care dollars on non-clinical health needs, such as food, housing, transportation, and interpersonal violence.

REFERENCES

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