ASPE

ISSUE BRIEF

MEDICAID EXPANSION IMPACTS ON INSURANCE COVERAGE AND ACCESS TO CARE

Updated January 18, 2017

Under current law, Medicaid provides enhanced federal matching funds to states to cover the cost of expanding coverage to nonelderly adults (ages 19 to 64) with income less than 138 percent of the federal poverty level (FPL). A 100 percent federal match rate applies only to newly eligible individuals in the expansion population for 2014-2016 and is being phased down incrementally to 90 percent by 2020. The target population for this expansion includes parents and childless adults who were previously ineligible for Medicaid coverage. To date, a total of 31 states and the District of Columbia have expanded Medicaid.

This issue brief, which provides a literature review of the effects of Medicaid expansion, was first released in June 2016 and has been updated to include additional information and data from 2016. Specifically, the brief focuses on the effects of expansion on health coverage and access, affordability, financial security, and quality of care. The first section of this issue brief examines the evidence to date on the impact of Medicaid expansion on health coverage. The second section explores the beneficiary impacts of Medicaid expansion by examining access to care and utilization. The third section examines research to date on affordability, financial security, and quality including enrollee financial well-being, satisfaction and experience. This literature review adds to prior ASPE research on the economic impacts of Medicaid expansion including the impact on the cost of uncompensated care.[1]

Key Highlights

- Medicaid expansion has had an effect on insurance coverage, including a reduction of uninsured adults in the United States.
    - Expansion states realized a 9.2 percentage point reduction in the number of uninsured adults (a 49.5 percent decline in the uninsured rate) since 2014.
    - Non-expansion states realized a 7.9 percentage point reduction in the uninsured rate among uninsured adults (a 33.8 percent decline in the uninsured rate) since 2014.
    - Recent research demonstrates that the raw difference in trends between expansion and non-expansion states actually understates the benefits of expansion because non-expansion states started with higher uninsured rates.

- Medicaid expansion has increased access to primary care, expanded use of prescription medications, and increased rates of diagnosis of chronic conditions for new enrollees.

- Low-income individuals living in expansion states generally had a greater increase in the use of preventive services recommended by the United States Preventive Services Task Force (USPSTF) than low-income individuals living in non-expansion states.

- Medicaid expansion has improved the financial security and affordability of care for expansion enrollees.
    - Medicaid expansion reduced the likelihood of being at risk for personal bankruptcy and reduced third-party collections by $600 to $1000 per individual.

  According to the Health Reform Monitoring Survey:
    - The percentage of low-income adults reporting problems paying medical bills declined by 10.5 percentage points (34.7 percent pre-expansion to 24.2 percent post-expansion).
    - Unmet health care among low-income adults declined 10.5 percentage points (55.3 percent pre-expansion to 44.8 percent post-expansion).

- Medicaid expansion has provided quality care to new enrollees. According to the Commonwealth Fund's Affordable Care Act Tracking Survey:
    - Nearly two-thirds (61 percent) of adults with Medicaid expansion coverage consider themselves to be better off now than they were before enrolling in Medicaid.
    - 88 percent of adults are very or somewhat satisfied with their Medicaid health plans.
    - 92 percent are very or somewhat satisfied with their plan doctors.

SECTION I. IMPACT OF MEDICAID EXPANSION ON HEALTH INSURANCE COVERAGE

Medicaid Enrollment

As of October 2016, the Centers for Medicare & Medicaid Services (CMS) reported that over 74 million individuals were enrolled in Medicaid/CHIP. Since the beginning of the first Open Enrollment Period for Marketplaces in October 2013, Medicaid/CHIP enrollment has grown by 17 million individuals, or 30 percent.[2] Enrollment growth in Medicaid expansion states has been significantly larger than in non-expansion states. On average, Medicaid expansion states have experienced a 37.1 percent growth in enrollment, compared to a 16.5 percent growth in non-expansion states.[3] This difference in Medicaid enrollment growth is consistent with the difference in coverage gains between expansion and non-expansion states described below.

The Reduction in Uninsured

Associated with the expansion of Medicaid has been a reduction of the uninsured. An analysis of the Gallup-Healthways Well-Being Index data through early 2016 (February 22, 2016), shows that the reduction in the uninsured rate for non-elderly adults was greater among Medicaid expansion states than among non-expansion states (see Figure 1).[i] These estimates imply that Medicaid expansion contributed significantly to reducing the number of uninsured people in the nation.

- Among Medicaid expansion states, the uninsured rate for non-elderly adults declined 9.2 percentage points (a 49.5 percent decline), from a baseline uninsured of 18.5 percent to 9.3 percent.
- Among non-expansion states, the uninsured rate for non-elderly adults declined 7.9 percentage points (a 33.8 percent decline), from a baseline uninsured of 23.3 percent to 15.4 percent.

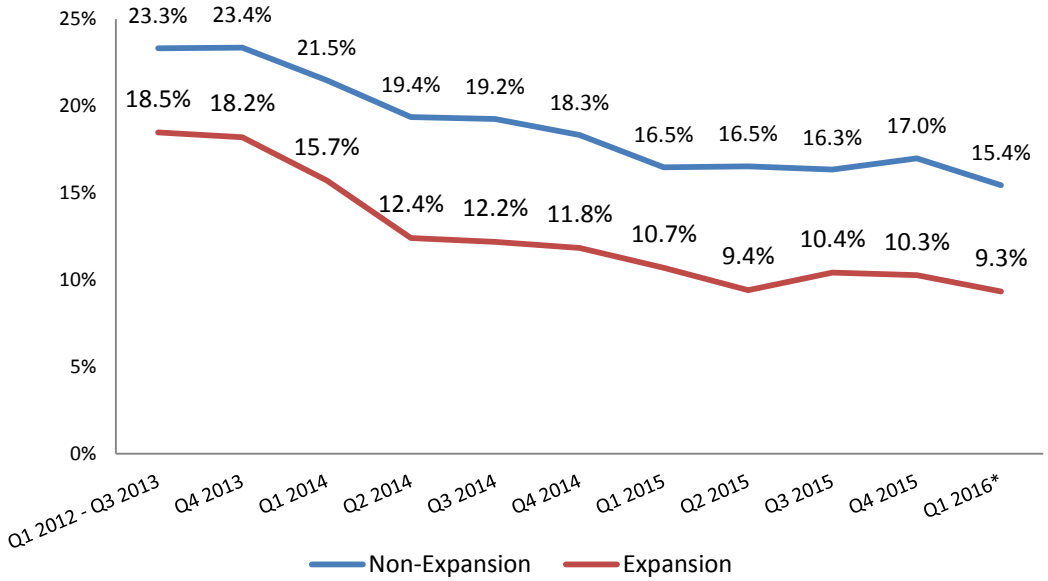
In fact, the raw difference in the reduction in the uninsured rate between expansion and non-expansion states likely substantially *understates* the effect of Medicaid expansion. Figure 1 shows that the uninsured rate was substantially lower in expansion states than in non-expansion states before coverage expansions took effect at the beginning of 2014. Recent research has found that, due to the uninsured populations in expansion states, the other coverage expansions have generated smaller reductions in the uninsured rate in those states, partially masking the beneficial effect of Medicaid expansion (Courtemanche et al., 2016; Furman, 2015).[4,5]

The impact of Medicaid expansion on reducing uninsurance extends beyond the expansion population. Alker and Chester (2016) found the uninsurance rate for children age 18 and under fell by 2.3 percentage points from 7.1 percent in 2013 to 4.8 percent in 2015 and the number of uninsured children fell from 5.2 million to 3.5 million.[6] Alker and Chester (2015) also found that expansion states saw

[i] The Gallup estimates presented here are from January 2012 through February 2016 and encompass the total population, not just individuals with income ≤138 percent FPL. Accordingly, the estimates in this issue brief differ from the estimates presented in the Sommers, et al., "Changes in Self-reported Insurance Coverage, Access to Care, and Health Under the Affordable Care Act," *JAMA* 2015.

nearly double the rate of decline in uninsured children as compared to states that didn't expand Medicaid.[7]

Figure 1. Quarterly Uninsured Rate Estimates for Nonelderly Adults (Ages 19 to 64) by Medicaid Expansion Status Using the Gallup-Healthways Well-Being Index, 2012 to 2016



SOURCE: The Office of the Assistant Secretary for Planning and Evaluation's (ASPE) analysis of the Gallup-Healthways Well-Being Index survey data through February 22, 2016.

SECTION II. IMPACT OF MEDICAID EXPANSION ON ACCESS

Usual Source of Care

Usual source of care (e.g., a particular medical professional, office, clinic, or community health center) is a key metric for measuring access to care because it reflects a stable connection with the health care delivery system. Beneficiaries with a usual source of care often receive more preventive services and better manage chronic conditions; and in turn receive more effective and efficient health care. Overall, the literature indicates that Medicaid expansion is associated with an increase in individuals reporting a usual source of care. An ASPE analysis of the National Health Interview Survey (NHIS) found that between 2013 and 2015, Medicaid expansion states saw a 7.2 percentage point increase in the number of low-income adults (non-elderly, ≤138 percent FPL) reporting a usual source of care, while states that did not expand Medicaid saw a 1.3 percentage point increase among this group.[ii] Furthermore, focus

[ii] ASPE analysis of National Health Interview Survey (NHIS) data from 2010-2015. States are defined as Medicaid expansion states if they expanded Medicaid at any point between March 23, 2010 and December 31, 2015. The analyses here use final NHIS public use files merged with restricted identifiers, which include various edits not in the preliminary microdata used for NHIS early release reports produced by the National Center for Health Statistics (NCHS). Estimates in this brief may vary slightly from those in NCHS's published reports for this reason.

group findings show that low-income adults reported that obtaining coverage enabled them to access needed care such as primary and preventive care, as well as to address their specific health problems. Highlighted below are key findings to date in the literature related to sources of care and appointment availability (Table 1).

Table 1. Summary of Findings Related to Medicaid Expansion and Sources of Care and Appointment Availability

Measure	Findings
Access to personal physician	• Medicaid expansion was associated with a 4.5 percentage point increase in visits to a health professional compared to a 1.0 percentage point increase in non-expansion states. • Medicaid expansion was associated with a significant reduction in low-income adults who lack a personal physician (-1.8 percentage points) compared to non-expansion states. • Medicaid expansion increased the probability of childless adults having a personal doctor by 4.1 percentage points. • Individuals with chronic conditions who obtained regular care increased by 11.6 percentage points after the first year of Arkansas' private option expansion and Kentucky's traditional Medicaid expansion compared to Texas a non-expansion state.
Community health center visits	• Community health center visit rates increased by 46 percent in expansion states compared to 12 percent in non-expansion states.
Appointment availability	• A study that focused on Michigan found that primary care appointment availability increased by 6 percentage points (from 49 percent pre-Medicaid expansion to 55 percent) for all new Medicaid patients after expansion. • A study of 10 states found that availability of primary care appointments for Medicaid patients increased by 7.7 percentage points (from 58.7 percent in late 2012 to early 2013 to 66.4 percent in mid-2014).

Personal Physician. The ASPE analysis of the NHIS data further found that in expansion states, low-income non-elderly adults experienced a 4.5 percentage point increase in visits to a health professional from 2013 to 2015, while in nonexpansion states this population had a 1.0 percentage point increase on this measure. Similarly, Wherry and Miller (2016) found that low-income nonelderly adult citizens in Medicaid expansion states were 6.6 percentage points more likely to have seen or talked to a general physician in the previous 12 months than counterparts in non-expansion states. [iii]
According to Sommers, Gunja, Finegold, and Musco (2015), Medicaid expansion has significantly increased the proportion of low-income adults who report having a personal physician.[8] Using the Gallup Healthways Well-Being Index survey data, Sommers et al. (2015) finds that Medicaid expansion was associated with a significant reduction in low-income adults who lack a personal physician (-1.8 percentage points) compared to non-expansion states. Simon, Soni and Cawley (2016) examined the impact of Medicaid expansion on preventive care and found that childless adults, the targeted population for expansion, were 4.1 percentage points more likely to have a personal doctor after expansion as compared to the pre-expansion timeframe.[9]

[iii] The Wherry and Miller analysis was based on data from the second half of 2014, the look back period includes months prior to the January 1, 2014 expansion and does not capture gains in subsequent months, so it may understate the increase in physician visits in states that expanded Medicaid.

When examining usual source of care on a state basis, Sommers, Blendon and Orav (2016) found the share of low-income adults with chronic conditions who obtained regular care increased by 11.6 percentage points after the first year of expansion in Arkansas and Kentucky compared to the non-expansion state Texas.[10]

Community Health Centers. Hoopes et al. (2016) examined changes in community health center visits between Medicaid expansion states and non-expansion states.[11] The authors found that one-year after Medicaid expansion, community health center visit rates increased by 46 percent in expansion states compared to 12 percent in non-expansion states.

Appointment Availability. Another study measured primary care wait times for appointments and appointment availability pre- and post- Medicaid expansion for new Medicaid patients in Michigan and concluded that access to services improved post-expansion.[12] Specifically, Tipirneni et al. (2015) found that wait times for primary care appointments remained stable (1-2 weeks) and appointment availability increased by 6 percentage points (from 49 percent pre-Medicaid expansion to 55 percent for new Medicaid patients after expansion). Similarly, Polsky et al. (2015) measured the availability of and waiting times for appointments in 10 states in late 2012 to early 2013 and again in mid-2014.[13] The authors in this study found that the availability of primary care appointments for Medicaid beneficiaries increased by 7.7 percentage points (from 58.7 percent to 66.4 percent). This increase in appointment availability was attributed to a temporary increase in Medicaid reimbursement to primary care providers. The states with the largest increases in appointment availability also were most likely to have the largest increases in reimbursements.

Health Care Services

A review of the literature examining the impacts of Medicaid expansion on specific services has generally found that the newly enrolled Medicaid population is better able to access preventive services, needed prescription medications, be screened and diagnosed for chronic conditions, and access dental care. Furthermore, the payer mix for hospital admissions appears to have changed in expansion states with a decline in uninsured admissions (Table 2).

Table 2. Summary of Findings Related to Medicaid Expansion and Access to Care

Measure	Findings
Preventive services	• 41 percent increase in preventive visits in Medicaid expansion states compared to no change in non-expansion states in community health centers. • 26 percent of uninsured individuals who obtained Medicaid coverage in 2014 had an annual check-up as compared to 14 percent of uninsured individuals. • 22 percent of uninsured individuals who obtained Medicaid coverage in 2014 had a blood pressure screening compared to 13 percent of uninsured individuals. • Low-income individuals who lived in expansion states generally had a greater increase in the use of preventive services recommended by the United States Preventive Services Task Force (USPSTF) than low-income individuals living in non-expansion states between 2013 and 2015. ○ *Colorectal cancer screenings*: Among adults ages 50-64, colorectal cancer screening increased by 4.3 percentage points in expansion states, compared to no increase in non-expansion states. ○ *High cholesterol screenings*: Among men ages 35-64, high cholesterol screenings increased by 3.4 percentage points in expansion states and decreased by 3.7 percentage points in non-expansion states. Among women ages 45-64, high cholesterol screenings increased by 3.7 percentage points, compared to 1.2 percentage points in non-expansion states. ○ *High blood pressure screenings*: Among adults ages 18-64, high blood pressure screenings increased by 4.0 percentage points in expansions states, compared to decreasing by 1.8 percentage points in non-expansion states. ○ *HIV screening*: Among adults ages 18-64, HIV screenings increased by 3.4 percentage points in expansions states, compared to decreasing by 0.1 percentage points in non-expansion states. • The use of recommended preventive services is higher in expansion states than non-expansion states for nearly all preventive services analyzed
Prescription Drugs	• In 2014, the number of Medicaid prescriptions increased 25.4 percent in states that expanded coverage, compared to only 2.8 percent in states that didn't expand coverage. • Uninsured individuals who gained Medicaid coverage had increases in prescription drug fill rates (79 percent increase) and reductions in out-of-pocket spending per prescription (58 percent reduction). • A 10 percentage point reduction in low-income adults skipping prescribed medications due to cost after the first year of expansion in Arkansas and Kentucky compared to non-expansion state Texas.
Early diagnosis and treatment of chronic medical conditions	• An increased number of Medicaid patients with diabetes are being diagnosed in Medicaid expansion states (23 percent increase in Medicaid expansion states versus a .4 percent increase in non-expansion states).
Dental care	• The probability of having a dental visit increased by 4.1 percentage points for childless adults gaining Medicaid coverage. • Cost related barriers to dental care fell from 30 percent in 2013 prior to Medicaid expansion to 25 percent in 2014 post Medicaid expansion.
Hospitalizations	• Among Medicaid expansion states, hospital admissions for uninsured patients decreased by 6 percentage points (50 percent decrease in uninsured hospital discharges). • Among Medicaid expansion states, percentage of admissions paid for by Medicaid increased by 7 percentage points (20 percent increase in Medicaid discharges). • A greater decline in the uninsured share of hospitalizations for people with HIV in four Medicaid expansion states (60 percent decline) compared to non-expansion states (8 percent

Measure	Findings
	increase).
Health behavior	• No impact of Medicaid expansion on risky health behaviors including increases in heavy drinking, binge drinking, BMI, obesity, or reduced levels of exercise.

Preventive Services. Hoopes et al. (2016) found that in addition to increases in community health center visits after Medicaid expansion, the centers provided a greater number of preventive services visits. Community health centers experienced a 41 percent increase in preventive visits in Medicaid expansion states compared to no change in non-expansion states. In a study using longitudinal survey data, Kirby and Vistnes (2016) found that gaining Medicaid coverage in 2014 resulted in a higher likelihood of having a usual source of care and receiving preventive services. When compared to uninsured individuals, individuals who gained Medicaid coverage in 2014 were more likely to have obtained an annual check-up (26 percent in Medicaid compared to 14 percent uninsured) and more likely to have obtained a blood pressure screening (22 percent in Medicaid compared to 13 percent uninsured).[14]

ASPE analysis of National Health Interview Survey (NHIS) data from 2013 to 2015 found that overall the use of preventive services recommended by the United States Preventive Services Task Force (USPSTF) was higher in expansion states than non-expansion states for nearly all preventive services analyzed (See Appendix A for additional details). In addition, the ASPE analysis found that low-income individuals who lived in expansion states generally had a greater increase in the use of preventive services recommended by the USPSTF than low-income individuals living in non-expansion states. Some of the largest differences in preventive service use between expansion and non-expansion states include:

- *Colorectal cancer screenings*: Among adults ages 50-64, colorectal cancer screening increased by 4.3 percentage points in expansion states, compared to no increase in non-expansion states.
- *Cholesterol screening*: Among men ages 35-64, screening for high cholesterol increased by 3.4 percentage points in expansion states and decreased by 3.7 percentage points in non-expansion states. Among women ages 45-64, screening for high cholesterol increased by 3.7 percentage points, compared to 1.2 percentage points in non-expansion states.
- *Blood pressure screening*: Among adults ages 18-64, screening for high blood pressure increased by 4.0 percentage points in expansions states, compared to decreasing by 1.8 percentage points in non-expansion states.
- *HIV screening*: Among adults ages 18-64, HIV screenings increased by 3.4 percentage points in expansions states, compared to decreasing by 0.1 percentage points in non-expansion states.

Dental Care: Improved access to coverage also extends to dental care visits. In 80 percent of expansion states, Medicaid provides at least some coverage for outpatient dental services.[15] Simon, Soni, and Cawley (2016) examined rates of dental care visits and found that the probability of a dental visit increased among childless adults by 4.1 percentage points after expansion. Along with improved access, Medicaid expansion may be reducing cost-related barriers to needed dental care. Nasseh, Wall, and Vujicic (2015) found that for adults with income below 100 percent FPL, cost related barriers to dental

care fell from 30 percent in 2013 prior to Medicaid expansion to 25 percent in 2014 post Medicaid expansion.[16]

***Early Diagnosis and Treatment of Chronic Medical Conditions**:* Improved access to coverage can also result in earlier diagnosis and treatment of chronic medical conditions. Recent analysis of laboratory data from Kaufman, Chen, Fonseca, and McPhaul (2015) found that an increased number of Medicaid patients with diabetes are being diagnosed in Medicaid expansion states (23 percent increase in Medicaid expansion states versus a .4 percent increase in non-expansion states).[17] Wherry and Miller (2016), using survey data, found increases in diagnosis of diabetes and high cholesterol for low-income adult citizens in Medicaid expansion states compared with those in non-expansion states. An evaluation of the Medicaid expansion conducted by the Medicaid department in Ohio concluded that the Medicaid expansion improved access to care and treatment of chronic health conditions. The evaluators found that after obtaining coverage, over one-quarter (27 percent) of new Medicaid expansion enrollees in Ohio were diagnosed with at least one chronic health condition and according to the medical records studied as part of the evaluation, the individuals subsequently had lower levels of high blood pressure or high cholesterol since enrolling in Medicaid.

***Prescription Medications**:* Access to prescription medications has also expanded for low-income adults in Medicaid expansion states compared to non-expansion states. In 2014, the number of Medicaid prescriptions increased 25.4 percent in states that expanded coverage, compared to only 2.8 percent in states that did not expand coverage.[18] Mulcahy, Eibner and Finegold (2016) used prescription drug transaction data to examine changes in coverage, prescription fills, and out-of-pocket spending on prescription drugs as a result of coverage expansions. The researchers found that uninsured individuals who gained Medicaid coverage had increases in prescription drug fill rates (79 percent increase) and reductions in out-of-pocket spending per prescription (58 percent reduction).[19] The large increases in prescription drug fill rates suggests that expanded access to coverage has helped many Medicaid beneficiaries obtain affordable treatment for their health conditions with the long-term goal of improving their health.[20] This is consistent with the ASPE analysis of the NHIS, which found that there was a 7 percentage point decrease (a 37 percent reduction) in the number of non-elderly adults with incomes ≤138 percent FPL forgoing prescription drugs because of cost between 2010 and 2015. Similarly, Sommers, Blendon and Orav found a 10 percentage point decline in the number of low-income adults claiming they skipped prescribed medication because of cost in their survey of low-income adults after the first year of expansion in Kentucky and Arkansas compared to non-expansion state Texas.

***Hospitalizations**:* Improving access to coverage due to Medicaid expansion may also be measured by a changing payer mix for providers. Studies have found that Medicaid expansion is ensuring more consistent reimbursement to hospitals for care provided and is also producing benefits for patients who require hospitalization. Estimates from the Nikpay, Buchmueller, and Levy (2016) study show that since expansion, among Medicaid expansion states, hospital admissions for uninsured patients decreased by 6 percentage points (50 percent decrease in uninsured hospital discharges) while the percentage of admissions paid for by Medicaid increased by 7 percentage points (20 percent increase in Medicaid discharges) in the first half of 2014.[21] A study conducted by Hellinger (2015) found a greater decline in the uninsured share of hospitalizations for people with HIV in four Medicaid expansion states (60 percent decline) compared to non-expansion states (8 percent increase). [22] Further, the study concluded

that uninsured HIV patients who were in the hospital were 40 percent more likely to die during their stay as compared to patients with insurance.

Health Behaviors: The research conducted by Simon, Soni and Cawley (2016) found no evidence of moral hazard. New insurance coverage for additional individuals may lead to moral hazard, where individuals would engage in "risky" health behaviors now that they are no longer facing the full financial cost of obtaining health care services. Simon et al found there was no impact of Medicaid expansion affecting risky behaviors such as increased heavy drinking, binge drinking, obesity, increased BMI or reduced levels of exercise among childless adults with Medicaid coverage.[23]

SECTION III. IMPACT OF MEDICAID EXPANSION ON AFFORDABILITY, FINANCIAL SECURITY, AND QUALITY

In addition to increased coverage and access to care, studies and survey results show Medicaid beneficiaries report increased financial security and satisfaction with the affordability and quality of Medicaid, their health coverage, and the doctors included in their plans (Table 3).

Table 3. Summary of Findings Related to Medicaid Expansion and Affordability, Financial Security, and Quality

Measure	Findings
Affordability	• 78 percent of Medicaid expansion enrollees who have used their plan indicated that they would not have been able to access and/or afford their care prior to Medicaid expansion and enrollment. • The probability of reporting cost as a barrier to care decreased by 3.9 percentage points for childless adults gaining Medicaid coverage. • Medicaid expansion is associated with a 20 percent reduction among adults in foregoing mental health care or counseling due to cost from 2013 to 2015. • The percentage of low-income adults reporting problems paying medical bills also declined by 10.5 percentage points (34.7 percent pre-expansion to 24.2 percent post-expansion). • Enrollees in expansion states reported a 7 percentage point decline in problems paying their medical bills compared to a 2 percentage point decline in non-expansion states. • Families reporting an inability to pay medical bills due to cost declined 5 percentage points in expansion states compared to 1 percentage point in non-expansion states. • Both traditional Medicaid expansion and private option expansion led to a decline in the percentage of low-income adults reporting trouble paying medical bills (12.9 percent decrease and 4.8 percent decrease respectively). • Post-Medicaid expansion in California, the likelihood of any family out-of-pocket medical spending among low-income adults declined by 10 percentage points. • Unmet health care needs decreased among low-income adults, declining 10.5 percentage points (55.3 percent pre-expansion to 44.8 percent post-expansion).
Financial Security	• Medicaid expansion reduced third-party collections of medical debt by $600 to $1,000 per individual. • Medicaid expansion helped to reduce the likelihood of having trouble or being unable to pay medical debt with 53 percent of uninsured adults reporting issues compared to 18 percent of adults in the expansion population.
Quality – Enrollee Satisfaction and	• 61 percent of adults who are eligible under their state's Medicaid expansion consider themselves to be better off now than they were before enrolling in Medicaid.

Measure	Findings
Experience	• 93 percent of these adults were very or somewhat satisfied with their Medicaid health plans. • 92 percent were very or somewhat satisfied with their plan doctors.

Affordability

Affordability. According to results from the Commonwealth Fund Affordable Care Act Tracking Survey of nonelderly adults (ages 19 to 64), among Medicaid enrollees who have had Medicaid for less than two years and have used their coverage, 78 percent indicated that they would not have been able to access and/or afford their care prior to Medicaid expansion and enrollment.[24] Further, Kosali, Soni and Cawley (2016) found that childless adults who obtained Medicaid coverage were less likely to report cost as a barrier to obtaining care (probability reduced by 3.9 percentage points). In addition, an ASPE analysis of National Health Interview Survey (NHIS) data found a 20 percent reduction in the number of non-elderly adults with incomes ≤138 percent FPL that have forgone mental health care or counseling due to cost between 2013 and 2015 and a 33 percent reduction among this population from 2010 to 2015.[25]

As shown in Table 4, an ASPE analysis of NHIS data comparing Medicaid expansion to non-expansion states during the pre and post expansion period (2013 and 2015) found that Medicaid expansion resulted in lower health care costs for low-income families and receipt of more affordable care. To measure lowered health care costs, ASPE analyzed NHIS data on the amount that low-income families (those with family incomes below 138% FPL) spent on medical/dental care during the prior 12 month period. The analysis shows that the percent of families that spent $0 on health care increased substantially in expansion states (5.2 percentage points), yet declined in non-expansion states (-1.5 percentage points) over the study period.

Table 4. Cost of Medical/Dental Care in the Past 12 Months For Low-Income Families by Medicaid Expansion Status and Year, 2013-2015

Cost of Medical / Dental Care in the Past 12 Months	Expansion States		Non-Expansion States		2013-2015 Percentage Point Change	
	2013	2015	2013	2015	Expansion States	Non-Expansion States
$0	29.7%	34.9%	26.0%	24.6%	5.2%	-1.5%
>$0 - $499	44.1%	44.3%	45.2%	47.5%	0.3%	2.4%
$500 - $1,999	17.6%	14.6%	19.3%	18.9%	-3.0%	-0.4%
$2,000 or more	8.6%	6.2%	9.5%	9.1%	-2.4%	-0.5%

Note: The analyses were conducted using 2013 as the pre-expansion period and 2015 as the post-expansion period. States that implemented Medicaid expansion between January 1, 2014, the year in which the majority of states enacted the policy, and January 1, 2015 are defined as expansion states for the purposes of this analysis. Individuals residing in states that implemented expansion prior to 2014 and after January 1, 2015 are excluded from the analysis. All other states are

considered to be non-expansion states for the purposes of this analysis (including states that implemented expansion in 2016). "Family" was the unit of analyses based on the definition used in the NHIS data set.

Similarly, estimates from a study using data from the Health Reform Monitoring Survey, found that affordability of care improved post-expansion.[26] The percentage of low-income adults reporting problems paying medical bills declined by 10.5 percentage points (34.7 percent pre-expansion to 24.2 percent post-expansion). ASPE analysis of NHIS data show the reduction in problems paying medical bills also hold true by Medicaid expansion status. Enrollees in expansion states reported a 3.3 percentage point decline in problems paying their medical bills compared to a 1.5 percentage point decline in non-expansion states (Appendix B). Further, families reporting an inability to pay medical bills due to cost declined 2.3 percentage points in expansion states compared to 1.2 percentage points in non-expansion states (Appendix B). Each of these measures helps to show that increasing Medicaid coverage to low-income families has assisted in improving their household financial well-being. For additional measures on improved affordability from the ASPE analysis of NHIS data from 2013 and 2015, see Appendix B.

Studies that examined the impact of Medicaid expansion on affordability at the state level also found results similar to those found using survey data. For example, Golberstein, Gonzales, and Sommers (2015) examined the affordability of care after the early Medicaid expansion in California and found that expansion significantly reduced the likelihood of any family out-of-pocket medical spending among low-income adults by 10 percentage points.[27] Furthermore, Sommers, Blendon and Orav found compared to a non-expansion state (Texas) both traditional Medicaid expansion (Kentucky) and private option (using Medicaid funds to purchase private coverage) expansion (Arkansas) lead to a decline in the number of individuals reporting trouble paying medical bills (12.9 percent decrease and 4.8 percent decrease, respectively).

Lastly, the estimates from the Health Reform Monitoring Survey also showed that self-reported unmet health care needs decreased among low-income adults, declining 10.5 percentage points (55.3 percent pre-expansion to 44.8 percent post-expansion). The authors concluded that the decline was likely an effect of the strong cost-sharing protections associated with Medicaid plans.

Financial Security. The Medicaid expansion has also had important financial impacts on enrollees. Hu, Kaestner, Mazumder, Miller, and Wong (2016) analyzed a large random sample of credit reports to compare people living in the zip codes most likely to be affected by Medicaid expansion with a synthetic control group from non-expansion states.[28] This method controls for potential selection effects due to differences in covariates such as income, race, and ethnicity between expansion and non-expansion states. The authors estimated that Medicaid expansion reduced the likelihood of being at risk for personal bankruptcy and reduced third-party collections by $600 to $1,000 per individual. In a separate survey on the burden of medical debt conducted by the Kaiser Family Foundation/New York Times, the survey team found that Medicaid expansion helped to reduce the likelihood of medical debt. They found that 53 percent of uninsured adults reported having trouble or being unable to pay medical debt compared to 18 percent of adults in the expansion population.[29] With fewer unpaid bills to reduce their credit ratings, and a lowered possibility of entering bankruptcy, these individuals may experience better financial well-being in future years.

A state level analysis conducted in New York, an expansion state, found similar results. Based on observing data from Federal Reserve Bank of New York's Consumer Credit Panel (CCP) over the first quarter of 2009 through the fourth quarter of 2015, and aggregating it to the county level,[iv] the NY Fed saw that in counties with high uninsurance rates prior to 2014, collections declined by more than $100 per capita on average in the fourth quarter of 2015 (NY Fed). This is a significant amount, given that the average balances in collection over the sample period was $280 per person. Similar to the national level analysis, the NY Fed also found that reductions in the relative amount of debt sent to third party collections following Medicaid expansion were most significant in expansion state counties with the highest levels of uninsured individuals pre-2010. Further, counties that had a high uninsurance burden before 2010 but subsequently expanded Medicaid had a decrease in average debt sent to collections agencies in relation to counties in non-Medicaid expansion states.

Quality

Enrollee Satisfaction. The Commonwealth Fund survey found satisfaction with the new coverage overall was also high. Of the Medicaid adults enrolled in Medicaid for less than three years, almost nine in ten (88 percent) were very or somewhat satisfied with their Medicaid health plans. The survey also indicated that among adults enrolled in Medicaid plans for less than two years who used their plan, 92 percent were very or somewhat satisfied with their plan doctors.

Enrollee Experience. In addition to the decrease in reported unmet need care found by the Health Reform Monitoring Survey, nearly two-thirds (61 percent) of adults with coverage due to their state's Medicaid expansion in the Commonwealth Fund survey consider themselves to be better off now than they were prior to Medicaid expansion.

SECTION IV: CONCLUSION

Medicaid expansion has resulted in improved rates of coverage for low-income adults and improved access to care and affordability for enrollees. States that have expanded Medicaid have experienced increased enrollment in their state programs and greater reductions in their uninsured population.

Evidence shows that once covered, the newly enrolled population can obtain primary care services, be screened and diagnosed for chronic conditions, and access needed prescription medications and dental care. Enrollees report satisfaction with their health coverage, the doctors included in their plan and the affordability of Medicaid.

Going forward, additional research will be critical to documenting the longer-term impacts of the Medicaid expansion in terms of long-term rates of coverage, health care access, and the impact of expansion on health outcomes and overall population health. Sommers, Baicker and Epstein found pre-2014 Medicaid expansions to cover low-income adults were significantly associated with reduced

[iv] The dataset used in the observation done at the New York Federal Reserve Board was the same dataset used in the separate study authored by Hu et. al. and published by the National Bureau of Economic Research.

mortality as well as improved coverage, access to care, and self-reported health. [30] The long term effect of Medicaid expansion on health outcomes therefore merits close examination in future research.

APPENDIX A: USPSTF Recommended Preventive Services Utilization among Low-Income Non-Elderly Adults by Medicaid Expansion Status and Year, 2013-2015

Preventive Service	Expansion States		Non-Expansion States		2013-2015 Percentage Point Change	
	2013	2015	2013	2015	Expansion States	Non-Expansion States
Breast Cancer Screening	46.4%	50.3%	34.5%	44.2%	3.9%	9.7%
Cervical Cancer Screening	50.9%	48.5%	45.0%	42.9%	-2.4%	-2.1%
Colorectal Cancer Screening	17.5%	21.8%	20.5%	20.5%	4.3%	0.0%
Cholesterol Screening Men	58.5%	61.9%	55.9%	52.2%	3.4%	-3.7%
Cholesterol Screening Women	70.3%	74.0%	65.9%	67.1%	3.7%	1.2%
Blood Pressure Screening	72.6%	76.6%	68.9%	67.1%	4.0%	-1.8%
Diabetes Screening	30.2%	31.9%	29.3%	30.3%	1.7%	1.0%
HIV Screening (Ever)	40.4%	43.8%	42.3%	42.2%	3.4%	-0.1%
Hepatitis C Screening (Ever)	11.5%	14.2%	12.4%	15.5%	2.7%	3.1%

Note: The analyses were conducted using 2013 as the pre-expansion period and 2015 as the post-expansion period. States that implemented Medicaid expansion between January 1, 2014, the year in which the majority of states enacted the policy, and January 1, 2015 are defined as expansion states for the purposes of this analysis. Individuals residing in states that implemented expansion prior to 2014 and after January 1, 2015 are excluded from the analysis. All other states are considered to be non-expansion states for the purposes of this analysis (including states that implemented expansion in 2016).

Preventive services are recommended for individuals with certain demographic characteristics; thus, the population included in this analysis differs for each preventive service. These populations include:1) Breast Cancer Screening: 50-64 year old females; 2) Cervical Cancer Screening: 21-64 year old females; 3) Colorectal Cancer Screening: 50-64 year olds; 4) High Cholesterol Screening Men: 35-64 year olds; 5) High Cholesterol Screening Women: 45-64 year olds; 6) High Blood Pressure Screening, Diabetes Screening, and HIV Screening: all 18-64 year olds; 7) Hepatitis C Screening: 50-64 year olds.

APPENDIX B: Additional Family Measures of Improved Affordability and Delayed Care

Measure	Expansion States		Non-Expansion States		2013-2015 Percentage Point Change	
	2013	2015	2013	2015	Expansion States	Non-Expansion States
Family member delayed medical care in the past 12 months	21.2%	16.0%	24.5%	21.7%	-5.2%	-2.9%
Unable to pay medical bills due to cost	14.5%	12.3%	18.5%	17.3%	-2.3%	-1.2%
Problems paying medical bills due to cost	22.8%	19.6%	27.0%	25.6%	-3.3%	-1.5%
Medical bills being paid off over time	21.1%	18.5%	24.8%	23.8%	-2.6%	-1.1%

Note: The analyses were conducted using 2013 as the pre-expansion period and 2015 as the post-expansion period. States that implemented Medicaid expansion between January 1, 2014, the year in which the majority of states enacted the policy, and January 1, 2015 are defined as expansion states for the purposes of this analysis. Individuals residing in states that implemented expansion prior to 2014 and after January 1, 2015 are excluded from the analysis. All other states are considered to be non-expansion states for the purposes of this analysis (including states that implemented expansion in 2016). "Family" was the unit of analyses based on the definition used in the NHIS data set.

APPENDIX C: Data Methodology

The estimates of changes in the uninsured rate for nonelderly adults in expansion and non-expansion states presented in this brief (Figure 1) are based on ASPE analysis of data from the Gallup-Healthways Well-Being Index, which surveys about 500 adults per day. The Gallup-Healthways Well-Being Index estimates presented here are based on data from January 1, 2012 through February 22, 2016.[v]

ASPE's estimates of changes in access to care for nonelderly adults are based on analysis of National Health Interview Survey (NHIS) data from 2010-2015. States are defined as Medicaid expansion states if they expanded Medicaid at any point between March 23, 2010 and December 31, 2015. The analyses here use final NHIS public use files merged with restricted identifiers, which include various edits not in the preliminary microdata used for NHIS early release reports produced by the National Center for Health Statistics (NCHS). Estimates in this brief may vary slightly from those in NCHS's published reports for this reason.

ASPE's analysis of cost of care and ability to pay medical bills used the NHIS definition of a "family" as the unit of analysis. The analyses were conducted using 2013 as the pre-expansion period and 2015 as the post-expansion period. States that implemented Medicaid expansion between January 1, 2014, the year in which the majority of states enacted the policy, and January 1, 2015 are defined as expansion states for the purposes of this analysis. Individuals residing in states that implemented expansion prior to

[v] For additional analysis using these data, see Namrata Uberoi, Kenneth Finegold, and Emily Gee, "Health Insurance Coverage and the Affordable Care Act, 2010–2016," ASPE Issue Brief, March 3, 2016, available at: https://aspe.hhs.gov/sites/default/files/pdf/187551/ACA2010-2016.pdf.

2014 and after January 1, 2015 are excluded from the analysis. All other states are considered to be non-expansion states for the purposes of this analysis (including states that implemented expansion in 2016).

ASPE's analysis of preventive services was conducted using 2013 as the pre-expansion period and 2015 as the post-expansion period. States that implemented Medicaid expansion between January 1, 2014, the year in which the majority of states enacted the policy, and January 1, 2015 are defined as expansion states for the purposes of this analysis. Individuals residing in states that implemented expansion prior to 2014 and after January 1, 2015 are excluded from the analysis. All other states are considered to be non-expansion states for the purposes of this analysis (including states that implemented expansion in 2016). Preventive services are recommended for individuals with certain demographic characteristics; thus, the population included in this analysis differs for each preventive service. These populations include:1) Breast Cancer Screening: 50-64 year old females; 2) Cervical Cancer Screening: 21-64 year old females; 3) Colorectal Cancer Screening: 50-64 year olds; 4) Cholesterol Screening Men: 35-64 year olds; 5) Cholesterol Screening Women: 45-64 year olds; 6) Blood Pressure Screening, Diabetes Screening, and HIV Screening: all 18-64 year olds; 7) Hepatitis C Screening: 50-64 year olds.

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