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Kentucky's Medicaid Expansion Showing Early Promise On Coverage And Access To Care

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ABSTRACT Kentucky is one of only two southern states, at the time of this writing, to have expanded Medicaid under the Affordable Care Act. The expansion raised Medicaid eligibility levels as a means to make coverage more accessible and make health care more affordable for a population likely to face financial barriers in using medical care. This article examines the first-year impact of Kentucky's Medicaid expansion on insurance coverage and access to care. Focusing on Kentucky's low-income population, we observed large reductions in the low-income uninsurance rate from 35 percent at the end of 2013 to just below 11 percent by the end of 2014. Other findings revealed declines in unmet medical needs because of cost and declines in the number of people without a readily identifiable source of regular care among low-income groups. While our results are limited to Kentucky's experience with Medicaid expansion, they may hold lessons for other states looking to address health care access issues among their historically vulnerable and low-income populations.

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As of early 2016 there were twenty US states opting not to expand Medicaid eligibility under the Affordable Care Act (ACA) to adults with annual incomes up to 138 percent of the federal poverty level.¹ Kentucky and Arkansas are the two southern states, as of early 2016, that had expanded Medicaid eligibility under the ACA. The expansion extends Medicaid eligibility to many people who are too poor to purchase coverage in the individual markets yet too "rich" to qualify under traditional Medicaid eligibility.²

Expanding access to Medicaid coverage is a highly contentious issue. Not expanding Medicaid can leave families uninsured and without the means to pay for health care, or it may financially burden them with relatively high out-of-pocket expenses for care.² Following the US Supreme Court decision in 2012 that gave states the option to expand or not expand Medicaid under the

ACA, Kentucky's then-Governor Steve Beshear (D) used executive authority to enact Medicaid expansion to reduce the number of low-income Kentuckians who lacked both coverage and sufficient means to pay for needed health care. At the time of the decision, Governor Beshear referred to the expansion as "the single-most important decision in our lifetime for improving the health of Kentuckians."³

After almost two years of implementation, newly elected Governor Matt Bevin (R) promised to roll back both the Medicaid expansion and the state-run health insurance exchange, kynect.^{4,5} On December 30, 2015, Governor Bevin sent official notice to the Department of Health and Human Services (HHS) of the state's intent to disband kynect.⁶ On the same day, Bevin announced a new effort to explore options for transforming Medicaid through waivers.⁷ Both transitions could reverse many of our findings reported below.

The implications of states' decisions regarding Medicaid expansion and their effects on the public's health and access to care are still open to policy debate.^{8–10} Early estimates of the first twenty-four states to expand Medicaid projected an increase of more than one million new Medicaid enrollees (31 percent) between 2014 and 2016—reducing the uninsured population in those states by more than 50 percent.¹¹ Also, if all states were to expand, hospital revenues were expected to increase by 23 percent. By 2022 this would have added \$294 billion in new hospital payments.¹² Previous expansions in Medicaid coverage eligibility have demonstrated positive returns such as increased health care use, improved access, and reduced out-of-pocket expenditures for many newly insured individuals.^{13,14} While the expansion directly influences only coverage, it can lead to substantial gains in life expectancy and other health outcomes through enhanced ability to pay for medical care for many among the low-income population.¹⁵

This article's policy relevance is timely, given the concerns and tensions about decisions to expand Medicaid and the potential for a reversal of the expansion in Kentucky. Using Kentucky's 2014 Medicaid expansion as the prime example, we describe some of the potential benefits experienced by residents in states expanding Medicaid. Kentucky is already experiencing uptakes in coverage well ahead of national trends and compared to its neighboring states,¹⁶ but the extent to which the trends were facilitated by Medicaid expansion merits critical examination.

The timing of the expansion in Kentucky allows us to examine its effects on some potential barriers to health care use. We evaluate the effect of the expansion on insurance coverage among the low-income population. In addition to uptake in coverage, we also hypothesize reductions in unmet medical needs because of cost, which could motivate uptake in having a regular source of care. Using Kentucky as a focal point, we can describe how residents in other expansion states may be likely to benefit on at least three dimensions of access to care: coverage, cost, and usual source of medical care.

Study Data And Methods

STUDY SAMPLE The analytical sample was from the 2006–14 releases of data from the Behavioral Risk Factor Surveillance System (BRFSS), an annual survey conducted by the Centers for Disease Control and Prevention.¹⁷ The construction of the BRFSS and its sampling scheme are described elsewhere.¹⁸ Statistics used sampling weights to account for the BRFSS's complex survey design and to calculate the correct standard

errors. All regressions used linear models to allow ease of interpretation.

We focused our investigation on nonelderly adults, ages 25–64, reporting an annual household income below \$25,000. We focused on individuals below this income threshold to capture a sizable segment of the population who could have benefited from the expansion. The data were restricted to adults between the ages of twenty-five and sixty-four, to better isolate the effect of the expansion and to exclude the impact of the ACA's expansion of coverage to dependents ages 19–26. Including young adults in the sample would bias the findings, and gains in access may be attributable to the dependent coverage mandate instead of the Medicaid expansion.^{13,17} One concern with our approach is that it includes observations classifiable as young adults and eligible for expanded dependent coverage (twenty-five- and twenty-six-year-olds). However, we were unable to omit them fully from the sample because age is recorded as a categorical variable in the 2014 release of the BRFSS. We do not present it in our results because of space limitations. However, a sensitivity analysis was performed excluding adults ages 25–29 from the regressions, and our conclusions were unchanged.

OUTCOME MEASURES The first outcome we studied was insurance coverage, since the effect on other access measures was expected to be driven by uptake in coverage through the expansion. Additional outcomes pertaining to access were reported as unmet medical need because of cost and being without a regular source of care.

APPROACH We used a quasi-experimental difference-in-differences regression model exploiting the timing of the Medicaid eligibility expansion in Kentucky to determine the effect of the regression in more detail in online Appendix Exhibit A1.²⁰ Difference-in-differences approaches are commonly used to estimate the effects of a policy change across time; in our setup we compared changes in trends of the access measures in Kentucky against nonexpanding states before and after the expansion was implemented January 1, 2014. The year range of 2006–13 acts as the preexpansion period, with the post-expansion period beginning January 1, 2014.

Residents from Missouri, Tennessee, and Virginia served as controls because these states share geographic boundaries with Kentucky and did not expand Medicaid eligibility during the study period. Our major hypothesis was that in the absence of the expansion, Kentucky residents would have experienced similar patterns in access as residents in the neighboring states; therefore, statistically significant differences in

the slope or the pattern of individuals reporting a barrier to access were attributed to the Medicaid expansion.

Similar studies have used data from the National Health Interview Survey (NHIS) and the American Community Survey (ACS) to model the effects of pre-2014 expansion effects on coverage and access. For example, using a restricted version of the NHIS, Ezra Golberstein and colleagues found that early (pre-2014) Medicaid expansions in California produced uptakes in coverage, improvements in access, and reductions in out-of-pocket medical expenditures.²¹ The authors' primary findings yielded a 7.5-percentage-point increase in Medicaid coverage among households with incomes below 200 percent of poverty and a 7.3-percentage-point increase among those with incomes below 138 percent of poverty. We elected to use the BRFSS as our primary data source because it contains health coverage and utilization data in addition to richer data about the timing of the interview than what is available in the ACS. The BRFSS also includes state identifiers unlike the public use version of the NHIS. To determine the expansion's effect on potential service usage, we modeled the likelihood of a person's being without at least one provider that he or she considered to be his or her regular source of care. Using quarters as the time dimension improved precision and allowed us to better capture the length of the delay before discernable effects took place.²²

Model controls included age, race or ethnicity, sex, education, marital status, number of children present in the household, and employment status at the time of the interview. State fixed effects were included to account for unobserved time invariant state-level differences that could influence access to care and coverage such as differences in Medicaid eligibility and reimbursement generosity. Our approach included quarter fixed effects to account for events other than the policy change that may have affected the access measures across time.

Additionally, since one of our outcomes asked about unmet medical need because of cost in the "past year," performing an analysis using quarterly postexpansion indicators was more appropriate because we were better able to trace the effect of the expansion over the course of the year. With this in mind, we anticipated observing the most substantial effects on the access measures to be realized toward the end of the year.

LIMITATIONS Our design was not immune from limitations because of data restrictions or the timing of other policy changes occurring under the ACA. The BRFSS has relatively large income categories that cannot be used to determine eligibility for Medicaid coverage or any other public

aid programs using income. As a result, we were unable to discern who was in the expansion population based on income in the BRFSS. At best, we attempted to capture a large segment of the population likely to benefit from the expansion. To do this, we restricted our BRFSS sample to households with combined incomes below \$25,000. While including all respondents with household incomes below this threshold included several whom would be above 138 percent of poverty, we were likely capturing a large part of the population below 200 percent of poverty. As a supplement to our primary results, we performed sensitivity analyses using the 2008–14 ACS and found similar results with tabulations of the uninsurance rate over the study period.²³ Using the ACS data, we were able to identify households below 200 percent of poverty and track the year-to-year uninsurance rate among people falling into the target group (see Appendix Exhibit A2).²⁰ A little more than 70 percent of the households within our ACS sample had incomes below \$25,000, and we were likely capturing the same target population included in the BRFSS analysis. Because our analysis included individuals and households exceeding the poverty limits (pre- and postexpansion), the BRFSS-based estimates were likely to be downwardly biased and to underestimate the effect of expanding Medicaid.

Our main access measure was experiencing any unmet need because of costs, though some in the target population, instead of forgoing the seeking of care, could have become less likely to postpone care—another potential indicator of increased access. Other studies found expansions in Medicaid eligibility to prevent delays in medical care use among the low-income group.^{20,22} However, the BRFSS item regarding delays in medical care was available only in the 2013 and 2014 releases of the data. This limitation prevented us from validly estimating the expansion's effects on trends in reported delays in seeking care. Another limitation with the BRFSS data is that they capture only whether a person experienced an unmet need because of cost; they do not allow us to estimate the expansion's effect on out-of-pocket or total medical expenditures incurred over the year.

Implemented in October 2013, kynect, Kentucky's state-run health insurance Marketplace, exists to connect people without employer-sponsored health insurance to options via its website.²⁵ Among the states in our sample, Kentucky was the only one with an insurance Marketplace where enrollments were operated at the state level.²⁶ Residents in Missouri, Tennessee, and Virginia, on the other hand, had to apply for coverage through the federally run Marketplace

facilitated by HHS. Taking these differences into consideration, some of our findings may be the result of Kentucky’s state-run Marketplace. Since we focused only on Kentucky’s expansion experience, which could be unique, the extent to which the findings fully translate to other states is unclear.

Using a single state to determine likely effects of the Medicaid expansion may limit generalizability to other expansion states; however, we are better able to attribute the patterns we observed to the expansion in Kentucky. Using multiple expansion states would have added statistical power to the study but would require more in-depth analysis of the components of their respective Medicaid programs. Some state expansions predate 2014, and others expanded eligibility later—making the observation window smaller for a number of states.

For example, Indiana is geographically contiguous to Kentucky but elected to expand Medicaid using one of the section 1115 Medicaid waivers,²⁷ which was approved in January 2015 with implementation beginning in February 2015. Section 1115 waivers are an alternative to traditional Medicaid, allowing states to use federal Medicaid dollars for time-limited demonstrations and testing of innovative coverage and delivery system models.²⁸ Despite Indiana’s potential for inclusion in our analysis as a neighboring expansion state, the timing of its expansion was substantially different from that in Kentucky and, therefore, not appropriate for this initial

analysis.

Medicaid in Kentucky has evolved over time, and our study does not directly measure the effect of other Medicaid policy changes in Kentucky—notably, the transition to Medicaid managed care. Enrollment in Medicaid managed care began in Kentucky in 1997 on a regional basis to test its capacity to control health care costs among the Medicaid population.²⁹ By 2011 Kentucky had expanded the Medicaid managed care model statewide. This transition may address disparities in health care use and access in the population under study, thus overestimating the sole influence of the expansion on Kentucky residents.³⁰

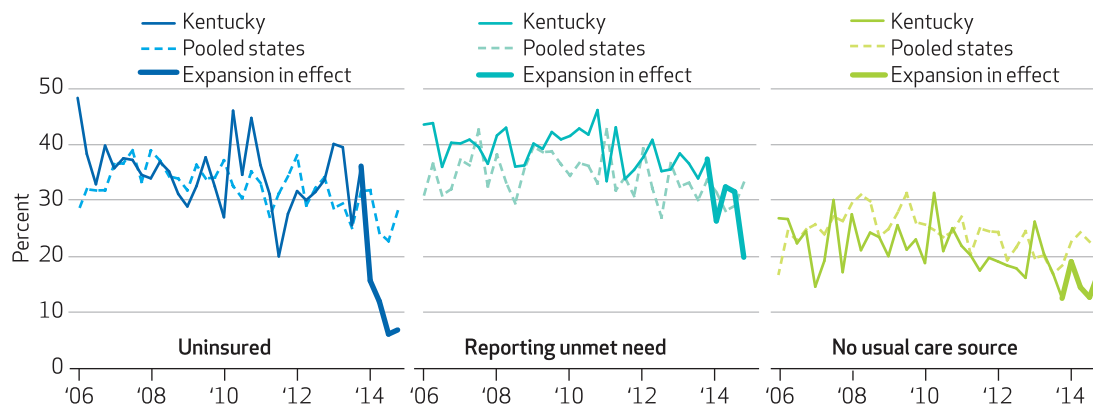
Study Results

TRENDS IN ACCESS FOR LOW-INCOME ADULTS Uptakes in insurance coverage among Kentuckians is a necessary condition to draw any conclusions about the extent to which the Medicaid expansion motivated improvements in access to care. Exhibit 1 presents the unadjusted data by quarter for Kentucky and its neighboring nonexpansion states for the outcomes of interest: uninsurance rate, unmet medical need, and no regular source of health care. Because the expansion was unlikely to have an immediate effect on coverage and access, we analyzed the data on a quarterly basis to capture the rollout of the expansion.

Preexpansion trends among the four states were roughly similar for each of the measures,

EXHIBIT 1

Measures of access to health care among households with annual incomes below \$25,000 in Kentucky and three pooled control states, by quarter



SOURCE Authors’ analysis of data from the Behavioral Risk Factor Surveillance System, 2006–14. **NOTES** The Kentucky Medicaid expansion took effect January 1, 2014 (indicated by the bold portions of the graph lines). The major hallmark of difference-in-differences estimation is parallel trends assumption among treatment and control groups. To address this concern, each outcome of interest was regressed on state dummies for Missouri, Tennessee, and Virginia (leaving Kentucky as the reference state) interacted with a linear-time-year trend term using the preexpansion data (2006–13). The joint significance of the state-by-linear year terms in the models were tested using an adjusted Wald test; it was inferred that the outcomes were likely to have trended similarly (that is, parallel) had it not been for Kentucky’s expansion.

but the most noticeable change was the sharp decline in Kentucky's uninsurance rate relative to those of the control states during 2013–14 (Exhibit 1). Similarly, we observed some slight divergence in the trends between Kentucky and the control states for unmet medical need because of cost and the fraction without a regular source of care. One way our approach could be invalidated is if there were differential trends in the preexpansion period across the states. We addressed this concern by testing for differential trends across the states; however, we have no reason to believe that such trends represent a major threat to the approach's validity.

To further rule out possible preimplementation effects that would bias our findings, we included a dummy variable to indicate whether the respondent was observed in the fourth quarter of 2013. Since the BRFSS captures the date (that is, day, month, year) the interview occurred, we developed quarterly estimates of the dependent variables. If expansion effects were binding, then we would expect the regression coefficients on the fourth quarter 2013-by-Kentucky-interaction term to be nonnegative or statistically indistinguishable from zero—a null effect.

KENTUCKY EFFECTS ON ACCESS MEASURES Exhibit 2 includes our main results from the regression-based estimates. Five quarters (that is, fourth quarter 2013 and first to fourth quarters 2014) were used to evaluate the expansion effect. Including the fourth quarter 2013 provided the potential to further rule out a preexpansion effect, adding to our confidence about the post-expansion policy effects. The expansion's effect on coverage was nearly immediate, given the

large reductions in the uninsurance rate. In 2014's first quarter, we observed a 45 percent reduction in uninsurance among the low-income group. The gains then appeared to have the largest effects on coverage toward the end of the year, where we observed a 25-percentage-point (70 percent) reduction in uninsurance.

We also found positive effects on both access measures (unmet medical need because of cost and lacking a regular source of care such as a primary care provider). The unadjusted effect on unmet medical need because of cost was much smaller than expected given the large uptake in coverage; the finding was also contrary to the expectation that positive uptake in coverage would help alleviate many of the financial barriers in obtaining needed care. The BRFSS specifically asks about unmet medical need because of cost in the past twelve months, and given the way the question is asked, it imposes a time element that should be carefully considered in investigations of the effects of the policy change on this type of access measure. Choosing to evaluate the expansion effect quarterly in the regressions was useful in addressing this point and supported our observation that the most substantial improvements in access occurred in the latter, instead of the earlier, part of 2014.

The major gains in financial barriers to addressing medical needs took much more time to materialize, with the most substantial benefits being experienced in late 2014. By the end of 2014, low-income Kentuckians experienced a 16-percentage-point (40 percent) reduction in dealing with unmet medical need because of cost relative to the preexpansion period. Over the

EXHIBIT 2

Effect of the Kentucky Medicaid expansion among households with annual incomes below \$25,000, compared to three nonexpansion states, 2006–14

	Uninsured			Experiencing unmet medical need because of cost			Without a regular source of health care		
	MO, TN, VA	KY	Difference	MO, TN, VA	KY	Difference	MO, TN, VA	KY	Difference
Baseline fraction	33.4%	35.1%		35.2%	39.8%		24.8%	22.3%	
Percentage-point change in outcome, by quarter									
4th quarter 2013	2.5	5.4	2.9	0.7	0.0	-0.7	-1.7	-4.0	-2.3
1st quarter 2014	-0.3	-16.4***	-16.1***	-2.1	-9.6***	-7.5	1.0	0.9	-0.0
2nd quarter 2014	-4.8	-21.1***	-16.3***	-2.7	-4.4	-1.7	4.9	-5.6*	-10.6***
3rd quarter 2014	-4.9*	-25.1***	-20.2***	-1.5	-4.8	-3.3	3.5	-5.1*	-8.6**
4th quarter 2014	0.2	-24.2***	-24.5***	3.0	-16.1***	-19.1***	2.1	-0.7	-2.8

SOURCE Authors' analysis of data from the Behavioral Risk Factor Surveillance System, 2006–14. **NOTES** N = 40,345. The baseline fraction is the percentage of the sample studied who reported not having health insurance coverage of any kind during the time of their interview between 2006 and the third quarter of 2013. The percentage changes in outcomes by quarter are the point estimates of coefficients based on linear probability models. Controls included state fixed effects, quarter fixed effects, race or ethnicity, age category, marital status, unemployment status, and education. The difference in the percentage-point change in the outcomes by quarter between Kentucky and the control states is the difference-in-difference estimator. This estimator is the policy parameter capturing the average treatment effect on the treated group—the effect of the Medicaid expansion on Kentucky residents. *p < 0.10 **p < 0.05 ***p < 0.01

same time period, there was a modest, statistically insignificant increase in the fraction experiencing financial barriers in the control states. While the effect of the expansion on having a regular source of care was largely positive, the effects were more mixed, with the most substantial effects occurring in 2014's second and third quarters.

Discussion

The pattern we observed in our findings provides evidence that benefits are likely being realized under the expansion. In November 2014, then-Governor Beshear hailed Kentucky as “the hands-down national leader in helping people access affordable health care,”³¹ and the immediate effects of the expansion became clear. In the first year following the expansion, midway through 2015, Kentucky had reduced uninsurance by more than 11 percentage points based on a recent Gallup Poll.³² Prior to the expansion, 20 percent of Kentucky's residents were without insurance, and the state ranks second only to Arkansas in its absolute reduction in uninsurance.³² Our results similarly suggest large benefits for low-income Kentuckians because we observed fairly large reductions in uninsurance relative to other states that had not expanded Medicaid eligibility. The expansion appears to have the potential to alleviate barriers in using the health care system by reducing some of the financial burdens associated with seeking care. It also appears to have improved contact with the health care system, as evidenced by more Kentucky residents reporting a regular source of care. Regular contact with a provider may motivate future additional effects on health care use; for example, now that more low-income adults are able to obtain coverage, we may observe increases in primary care usage and preventive screening that could indicate future closures in health care disparities between people of different income levels.^{33,34}

Among states yet to expand, Medicaid expansion

may be a viable policy option for improving access to care among their vulnerable populations. Our results demonstrate that the expansion was associated with noticeable improvements in three key aspects of access: insurance coverage, cost to the individual, and usual sources of care. These same achievements may not be realized in states not expanding Medicaid. Furthermore, our study lends early support to policy discussions currently taking place and may motivate reconsideration of maintaining Medicaid expansion in Kentucky or initiating expansion in other nonexpanding states as a means of affecting coverage and access.

The findings suggest that a potential rollback of the expansion, if not replaced by an alternative policy to extend coverage to low-income people, may return uninsurance rates to preexpansion levels and compromise access among a vulnerable population with limited ability to purchase care elsewhere. In other expansion states, policy makers and researchers may consider evaluation strategies similar to our approach to demonstrate the impact on other outcomes. Doing so will not only test the validity of the approach in other settings but also help determine the generalizability of our findings to other state Medicaid programs.

Conclusion

We found largely positive effects of the Medicaid expansion in Kentucky, and our study is among the first to provide evidence on the benefits experienced under the recent Medicaid expansions. The findings suggest that low-income Kentuckians are largely benefiting from the state's decision to expand Medicaid relative to its neighbors in at least three measurable areas of access to health care. Our findings may shed some light on benefits that other states may realize under the ACA-related expansions in public insurance coverage eligibility, and even more so as a result of state decisions to expand Medicaid. ■

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NOTES

1 Henry J. Kaiser Family Foundation. Status of state action on the Medicaid expansion decision [Internet]. Menlo Park (CA): KFF; [last updated 2016 Jan 12; cited 2016 Jan 15]. Available from: <http://kff.org/>

health-reform/state-indicator/state-activity-around-expanding-medicare-act/

2 Garfield R, Damico A, Stephens J, Rouhani S. The coverage gap: unin-

sured poor adults in states that do not expand Medicaid—an update. Menlo Park (CA): Henry J. Kaiser Family Foundation; 2014 Nov.

3 Governor Steve Beshear's Communications Office [Internet]. Frank-

- fort (KY): Kentucky.gov; 2013. Press release, Gov. Beshear expands health coverage to over 300,000 Kentuckians; 2013 May 9 [cited 2016 Jan 25]. Available from: <http://migration.kentucky.gov/newsroom/governor/20130509medicaid.htm>
- 4 Yetter D, Kenning C. With Bevin, what's next for Ky. health care? Louisville Courier-Journal [serial on the Internet]. 2015 Nov 5 [cited 2016 Jan 15]. Video. Available from: <http://www.courier-journal.com/story/news/politics/elections/kentucky/2015/11/05/kentucky-aca-crosshairs/75150288/>
 - 5 Goodnough A. Kentucky, beacon for health law, now a lab for its retreat. New York Times [serial on the Internet]. 2015 Nov 27 [cited 2016 Jan 15]. Available from: http://www.nytimes.com/2015/11/28/us/kentucky-beacon-for-health-law-now-a-lab-for-its-retreat.html?_r=0
 - 6 Yetter D. Bevin notifies feds he'll dismantle kynect. Louisville Courier-Journal [serial on the Internet]. 2016 Jan 11 [cited 2016 Jan 25]. Video. Available from: <http://www.courier-journal.com/story/news/politics/2016/01/11/bevin-notifies-feds-hell-dismantle-kynect/78623024/>
 - 7 Associated Press. Gov. Matt Bevin: Medicaid overhaul will be in place by start of 2017. Lexington Herald-Leader [serial on the Internet]. 2015 Dec 30 [cited 2016 Jan 25]. Available from: <http://www.kentucky.com/news/politics-government/article52259315.html>
 - 8 Aizenman NC. Why Republican state leaders are resisting Medicaid expansion. Washington Post [serial on the Internet]. 2012 Jul 15 [cited 2016 Jan 15]. Available from: https://www.washingtonpost.com/national/health-science/why-republican-state-leaders-are-resisting-medicaid-expansion/2012/07/13/gJQAopyNiW_story.html
 - 9 Thompson FJ. Why 2016 matters for Medicaid. US News & World Report [serial on the Internet]. 2015 Jul 13 [cited 2016 Jan 15]. Available from: <http://www.usnews.com/opinion/blogs/policy-dose/2015/07/13/will-republican-governors-protect-medicaid-in-2016-and-beyond>
 - 10 Debate Club. Is Medicaid expansion good for the states? US News & World Report [serial on the Internet]. 2012 Jul 24 [cited 2016 Jan 15]. Available from: <http://www.usnews.com/debate-club/is-medicaid-expansion-good-for-the-states>
 - 11 Holahan J, Buettgens M, Dorn S. The cost of not expanding Medicaid [Internet]. Washington (DC): Kaiser Commission on Medicaid and the Uninsured; 2013 Jul 17 [cited 2016 Jan 15]. (Report No. 8457). Available for download from: <http://kff.org/medicaid/report/the-cost-of-not-expanding-medicaid/>
 - 12 Dorn S, Buettgens M, Holahan J, Carroll C. The financial benefit to hospitals from state expansion of Medicaid [Internet]. Washington (DC): Urban Institute; 2013 Mar 20 [cited 2016 Jan 26]. Available for download from: <http://www.urban.org/research/publication/financial-benefit-hospitals-state-expansion-medicaid>
 - 13 Baicker K, Taubman SL, Allen HL, Bernstein M, Gruber JH, Newhouse JP, et al. The Oregon Experiment—effects of Medicaid on clinical outcomes. *N Engl J Med*. 2013;368(18):1713–22.
 - 14 Thorpe KE, Siegel JE, Dailey T. Including the poor: the fiscal impacts of Medicaid expansion. *JAMA*. 1989;261(7):1003–7.
 - 15 Sommers BD, Baicker K, Epstein AM. Mortality and access to care among adults after state Medicaid expansions. *N Engl J Med*. 2012;367(11):1025–34.
 - 16 State Health Access Data Assistance Center. Study of the impact of the ACA implementation in Kentucky. Louisville (KY): Foundation for a Healthy Kentucky; 2015.
 - 17 Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System [home page on the Internet]. Atlanta (GA): CDC; 2015 [cited 2016 Jan 15]. Available from: <http://www.cdc.gov/brfss>
 - 18 Centers for Disease Control and Prevention. 2014 BRFSS survey data and documentation [Internet]. Atlanta (GA): CDC; [last updated 2015 Sep 11; cited 2016 Jan 15]. Available from: http://www.cdc.gov/brfss/annual_data/annual_2014.html
 - 19 Barbaresco S, Courtemanche CJ, Qi Y. Impacts of the Affordable Care Act dependent coverage provision on health-related outcomes of young adults. *J Health Econ*. 2015;40:54–68.
 - 20 To access the Appendix, click on the Appendix link in the box to the right of the article online.
 - 21 Golberstein E, Gonzales G, Sommers BD. California's early ACA expansion increased coverage and reduced out-of-pocket spending for the state's low-income population. *Health Aff (Millwood)*. 2015;34(10):1688–94.
 - 22 Magge H, Cabral HJ, Kazis LE, Sommers BD. Prevalence and predictors of underinsurance among low-income adults. *J Gen Intern Med*. 2013;28(9):1136–42.
 - 23 Ruggles S, Genadek K, Goeken R, Grover J, Sobek M. Integrated Public Use Microdata Series: version 6.0 (Machine-readable database). Minneapolis (MN): University of Minnesota; 2015.
 - 24 Clark CR, Soukup J, Govindarajulu U, Riden HE, Tovar DA, Johnson PA. Lack of access due to costs remains a problem for some in Massachusetts despite the state's health reforms. *Health Aff (Millwood)*. 2011;30(2):247–55.
 - 25 kynect. Welcome to kynect, Kentucky's healthcare connection [home page on the Internet]. Frankfort (KY): Kentucky Health Benefit Exchange; 2015 [cited 2016 Jan 15]. Available from: <https://kynect.ky.gov/>
 - 26 Henry J. Kaiser Family Foundation. State health insurance Marketplace types, 2016 [Internet]. Menlo Park (CA): KFF; 2016 [cited 2016 Jan 15]. Available from: <http://kff.org/health-reform/state-indicator/state-health-insurance-marketplace-types/#notes>
 - 27 Kaiser Commission on Medicaid and the Uninsured. Medicaid expansion in Indiana [Internet]. Washington (DC): Henry J. Kaiser Family Foundation; 2015 Feb 3 [cited 2016 Jan 15]. Available from: <http://kff.org/medicaid/fact-sheet/medicaid-expansion-in-indiana/>
 - 28 Medicaid.gov. Section 1115 demonstrations [Internet]. Baltimore (MD): Centers for Medicare and Medicaid Services; 2015 [cited 2016 Jan 15]. Available from: <http://www.medicare.gov/medicaid-chip-program-information/by-topics/waivers/1115/section-1115-demonstrations.html>
 - 29 Marton J, Yelowitz A, Talbert JC. A tale of two cities? The heterogeneous impact of Medicaid managed care. *J Health Econ*. 2014;36:47–68.
 - 30 Marton J, Yelowitz A, Shores M, Talbert JC. Does Medicaid managed care help equalize racial and ethnic disparities in utilization? *Health Serv Res*. [Epub 2015 Oct 12].
 - 31 Kentucky.gov [Internet]. Frankfort (KY): Kentucky.gov; 2014. Press release, Successful first weekend of kynect open enrollment 2014 Nov 17 [cited 2016 Jan 15]. Available from: <http://kentucky.gov/Pages/Activity-Stream.aspx?viewMode=ViewDetailInNewPage&eventID=%7BCECAB026-DB4A-4343-9689-ED4097E9B922%7D&activityType=PressRelease>
 - 32 Witters D. In U.S., uninsured rates continue to drop in most states [Internet]. Washington (DC): Gallup; 2015 Aug 10 [cited 2016 Jan 16]. Available from: <http://www.gallup.com/poll/184514/uninsured-rates-continue-drop-states.aspx>
 - 33 Hofer AN, Abraham JM, Moscovice I. Expansion of coverage under the Patient Protection and Affordable Care Act and primary care utilization. *Milbank Q*. 2011;89(1):69–89.
 - 34 Sabik LM, Tarazi WW, Bradley CJ. State Medicaid expansion decisions and disparities in women's cancer screening. *Am J Prev Med*. 48(1):98–103.