EMERGENCY DEPARTMENT UTILIZATION IN KENTUCKY

Introduction
The number of uninsured people in Kentucky dropped from approximately 585,000 in 2012 to 265,000 in 2015 as a result of the Affordable Care Act (ACA)—representing 320,000 fewer uninsured Kentuckians. One goal of the ACA was to improve people's access to preventive and other health care services, with the intent that this would reduce the use of Emergency Departments (ED), which tend to be more resource-intensive and costly than other health care settings.

The decision to seek care in an ED is complex and driven by many factors, such as individuals' perception of the severity and urgency of their need for health care, and the accessibility and affordability of care from community-based providers. While some studies have suggested that reductions in uninsurance could reduce ED visits by making primary care and other care settings more accessible to a greater number of people, other research has suggested that expanding health insurance coverage could result in higher ED use by reducing cost barriers.

This brief examines ED use in Kentucky, including a summary of research on ED use and the impact of the ACA. For this issue brief, we analyzed data from the National Health Interview Survey (NHIS), the Kentucky Hospital Association and the Kentucky Health Reform Survey (K-HRS). In addition to non-elderly adults (ages 19-64), who were the primary focus of the ACA's coverage expansions, we also include data for children (ages 0-18) and elderly adults (ages 65+) where data are available.

Research on Emergency Department Utilization
Policymakers and researchers are often interested in tracking ED use as a measure of the impact of the implementation of the ACA because it is one of the most costly care settings, and it is not designed to provide patients with the benefits of an ongoing relationship with a primary care provider. ED use has also generally been viewed as one component of the health care system that may experience the earliest impacts of the ACA's implementation, since more people would be able to obtain care in primary care clinics or other appropriate settings after gaining health insurance. However, research on this topic has produced mixed results, with some studies finding reductions in ED visits after coverage expansions, while some found increases in ED use, and others found no difference in ED use. A 2016 study found changes in the reasons people reported using the ED in Kentucky, with an increase in people reporting they used an ED because they couldn't get an office visit, but a decrease in people reporting they used the ED as a usual source of care. Consistent results were also found in states that expanded Medicaid prior to the existence of the ACA. These findings suggest that people are less likely to rely on EDs as their usual source of care after obtaining coverage, but they may still visit the ED if they can't obtain an appointment elsewhere when needed.

Other early research of the impact of the ACA also indicates the gains in health insurance coverage and impact on communities need time to mature and that longer-term impacts may be more significant as newly insured individuals learn how to use their health insurance and better access health care services over time.

Emergency Department Use in Kentucky

Percentage of Kentuckians reporting use of ED hasn't changed since implementation of the ACA.
Using the National Health Interview Survey (NHIS), we examined data on the percentage of people who reported using the ED in the past year. In 2015, 25.5% of Kentuckians reported using the ED in the past year, which was significantly higher than the U.S. rate of 18.3% (U.S. rate not shown). Although the percentage of all Kentuckians reporting use of an ED appeared at first glance somewhat higher in 2012 (30.4%), we found there was no statistically significant difference compared to the rates since implementation of the ACA (24.9% in 2014 and 25.5% in 2015) (see Figure 1). Because it appeared that the higher 2012 rate could be a statistical outlier, we also conducted tests using the 2011 and 2013 rates as the pre-ACA baseline estimates. Regardless of which baseline year we used, we found no statistically significant increases or decreases in Kentuckians' use of EDs since implementation of the ACA. Similarly, we conducted these analyses for different age groups of Kentuckians—children, non-elderly and elderly adults—and found no statistically significant changes.

Kentuckians with public coverage were more likely to report using an ED than those with private coverage.
We also analyzed ED use by coverage type for non-elderly Kentuckians. Data were not available for the uninsured, but we examined both public (e.g., Medicaid, K-CHIP) and private (e.g., employer-sponsored insurance, individual market) coverage types. When comparing differences in ED use from 2012-2015, there were no statistically significant changes in the percentage of Kentuckians with either public or private coverage who reported using the ED in the past year (see Figure 2). However, when comparing differences in ED use by coverage type, we found that people with public coverage were significantly more likely to report an ED visit than those with private coverage in each year (e.g., 41.3% versus 15.2% in 2015).

Early evidence of higher ED visits at Kentucky's hospitals since ACA implementation
In addition to examining NHIS data on the percentage of Kentuckians who reported using an ED, we also examined administrative data from the Kentucky Hospital Association. These data show the number of ED visits reported by Kentucky hospitals by quarter. Although data for the full 2016 calendar year are not yet available, data through the third quarter—January through September—were available.
To make similar comparisons, we examine trends in the number of ED visits in the first through third quarters of our pre-ACA baseline year (2012) versus years since ACA implementation (2014, 2015 and 2016).

In 2016, Kentucky hospitals reported 1.64 million ED visits through the third quarter (see Figure 3). In comparison, during the same period in 2015 they reported 1.62 million visits, in 2014 they reported 1.51 million visits, and in our baseline year of 2012 they reported 1.57 million ED visits. In 2014, ED visits in the first three quarters were 3.3% lower than 2012, while in 2015 they were 3.5% higher, and in 2016 they were 4.5% higher. While it is still early in the implementation of the ACA and we were only able to analyze ED visits from the first three quarters of 2016, these data suggest that Kentucky hospitals may be seeing increases in the number of ED visits since 2012.

Charity care and self-pay ED visits declined, while Medicaid coverage of ED visits increased.

Along with changes in the number of ED visits, starting in 2014, Kentucky hospitals have experienced differences in the health coverage type for ED visits: Charity and self-pay ED visits—which we use as a proxy for the uninsured—have dropped from 23.2% in 2012 to 5.9% in 2015 and 5.8% through the third quarter of 2016. Medicaid coverage of ED visits has increased from nearly one-third in 2012 to nearly half in 2015 and through the third quarter of 2016. This changed patient mix of those visiting the ED is consistent with national findings. 11

Most Kentuckians cite medical emergency or lack of open alternatives as reasons for using ED.

As part of our study, in 2016 we conducted a one-time survey of non-elderly adults in the Commonwealth to assess a set of indicators post-implementation of the ACA in Kentucky. 12 The Kentucky Health Reform Survey (K-HRS) addressed several key domains. Included in this issue brief are the key findings related to reasons for ED visits.

Among K-HRS respondents who reported using the ED, certain responses suggested the ED visit was necessary. For example, the most common reason was that they experienced a medical emergency (29.1%), and 7.1% said their doctors directed them to the emergency department (see Figure 4). However, some other answers suggested that respondents faced barriers to obtaining care in other settings—such as a regular health clinic—indicating the ED visit may have been avoidable or care could have been obtained in another setting. For example, 28.7% said they used the ED because other facilities were not open when they needed care. The two most common reasons cited were a “medical emergency” or that other facilities weren’t open—together accounting for more than half of responses.

Conclusions

Since implementation of the ACA, we have not found conclusive evidence that ED use has either increased or decreased substantially in Kentucky. We found no significant change in the percentage of Kentuckians reporting use of an ED in the prior year—remaining steady at approximately one in four Kentuckians in 2015. Despite a decline in the number of ED visits reported by hospitals in the first three quarters of 2014 compared to 2012, ED visits increased slightly in 2015 and 2016. Compared to the same three-quarter period in 2012, ED visits were 3.5% higher in 2015 and 4.5% higher in 2016.

While it may seem contradictory to see a rise in ED visits while no more Kentuckians report using an ED in the past year, one potential explanation is that some Kentuckians may have begun using the ED more frequently. Additionally, research in some other states has also shown increased ED use soon after gains in health insurance coverage, but then evidence that ED use stabilized or declined a few years later. 13 This appears to be related to newly insured individuals beginning to find more-appropriate ambulatory care settings for their usual source of care instead of the ED. 14 Tracking these measures over time will allow Kentucky to determine whether ED use in the Commonwealth stabilizes or declines in future years.

Our K-HRS results give us valuable information on the top reasons people report using the ED: a medical emergency and because other facilities weren’t open when they needed care. However, these reasons don’t fully capture the nuances of complex decisions to use an ED, such as how Kentuckians identify a medical emergency, and what barriers they face to seeking care at alternatives to EDs (e.g., lack of other options in rural areas, inability to take time off of work during regular clinic hours, etc.). Additionally, it is important to consider that changes in ED use could be related to other non-ACA causes. For example, Kentucky has seen its rate of opioid-related ED visits increase by more than 18% from 2012-2014 (186 visits to 220 per 100,000 people). 15 Exploring these issues through additional study will allow policymakers in Kentucky to better understand the factors driving ED use and refine policy to address these issues going forward.
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References


10. Data from 2011 were not available by coverage type, so we did not conduct statistical tests using 2011 and 2013 as pre-ACA baseline.


12. The K-HRS was a dual-framed landline and cell phone survey of non-elderly adults conducted between March 31 and May 3, 2016.


EMERGENCY DEPARTMENT UTILIZATION IN KY

**Figure 1: Emergency Department Visits in the Past Year by Age Category, 2011-2015**

- **All**: 2011: 22.6%, 2012: 24.9%, 2013: 24.9%, 2014: 25.5%, 2015: 25.5%
- **0-18**: 2011: 20.7%, 2012: 22.4%, 2013: 19.7%, 2014: 23.3%, 2015: 23.3%
- **19-64**: 2011: 24.7%, 2012: 24.7%, 2013: 25.4%, 2014: 26.0%, 2015: 32.3%
- **65+**: 2011: 30.6%, 2012: 30.6%, 2013: 32.0%, 2014: 27.2%

*Difference between 2012 and 2015 estimates is statistically significant at the 95% level. Source: SHADAC analysis of the civilian non-institutional population in the 2012-2015 NHIS using the SHADAC Data Center. State identifiers were needed for this analysis and this variable is restricted.*

**Figure 2: Emergency Department Visits in the Past Year by Coverage Type, 2012-2015 (non-elderly Kentuckians)**

- **Public**: 2012: 46.2%, 2013: 36.6%, 2014: 34.5%, 2015: 41.3%
- **Private**: 2012: 20.6%, 2013: 15.4%, 2014: 17.4%, 2015: 15.2%

*Difference between 2012 and 2015 estimates is statistically significant at the 95% level. ^ Difference from public coverage estimate is statistically significant at the 95% level. Source: SHADAC analysis of the civilian non-institutional population in the 2012-2015 NHIS using data analyzed in the University of Minnesota Research Data Center. State identifiers were needed for this analysis and this variable is restricted.*

**Figure 3: Kentucky Hospital Emergency Department Visits, Quarter 1 2012-Quarter 3 2016**

- **Medicaid**: 2012: 400,000, 2013: 400,000, 2014: 400,000, 2015: 400,000, 2016: 400,000
- **Self-Pay & Charity**: 2012: 400,000, 2013: 400,000, 2014: 400,000, 2015: 400,000, 2016: 400,000
- **Medicare**: 2012: 400,000, 2013: 400,000, 2014: 400,000, 2015: 400,000, 2016: 400,000
- **Commercial**: 2012: 400,000, 2013: 400,000, 2014: 400,000, 2015: 400,000, 2016: 400,000
- **Other**: 2012: 400,000, 2013: 400,000, 2014: 400,000, 2015: 400,000, 2016: 400,000

Source: SHADAC analysis of data from the Kentucky Hospital Association (KHA) Emergency Department Outpatient Utilization Data. Notes: Data are for KHA member-owned and -operated licensed facilities. Outpatient data collection expanded in 2015 to include all outpatient visits from licensed facilities. Payer assignments reflect the primary payer at the time of discharge. * Because SHADAC uses 2012 as our baseline year, we have excluded 2013 Emergency Department visits from the chart.*

**Figure 4: Main Reason to Visit the Emergency Department, 2016 (non-elderly adults)**

<table>
<thead>
<tr>
<th>Reason</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>There was a medical emergency</td>
<td>29.1%</td>
</tr>
<tr>
<td>Other facilities were not open at the time you needed care</td>
<td>28.7%</td>
</tr>
<tr>
<td>Named condition only</td>
<td>18.2%</td>
</tr>
<tr>
<td>Your doctor directed you to go there</td>
<td>7.1%</td>
</tr>
<tr>
<td>Do not have a regular doctor</td>
<td>3.0%</td>
</tr>
<tr>
<td>Proximity</td>
<td>2.9%</td>
</tr>
<tr>
<td>Transferred / Taken by ambulance</td>
<td>2.6%</td>
</tr>
<tr>
<td>Other</td>
<td>8.4%</td>
</tr>
</tbody>
</table>

Source: SHADAC analysis of 2016 Kentucky Health Reform Survey data.