Unlock Savings: White Paper on Potential Cost Savings to Kansas Correctional System through ACA Medicaid Expansion

In 2017, the Kansas Legislature passed a bill that would expand Kansas’ Medicaid program (the “Medicaid expansion”) pursuant to the terms of the Affordable Care Act (the “ACA”). Governor Brownback vetoed the Medicaid expansion legislation, voicing concerns about the potential increase in program costs that Kansas would be required to underwrite to offer the Medicaid expansion benefits. We have prepared this white paper to elucidate cost savings that will likely accrue to the Kansas Department of Corrections if Kansas adopts and administers the Medicaid expansion program. These cost savings generally result in part from the fact that under the Medicaid expansion program, the federal government agrees to cover certain clinical expenses that were previously borne by the states and in part from indirect savings resulting from expanded access to mental health and substance abuse services.

Executive Summary

This white paper describes three sources of cost savings to the Kansas Department of Corrections (“KDOC”) likely to result from a Medicaid expansion pursuant to the Affordable Care Act (the “ACA”):

1. Medicaid funding covering the costs of inpatient hospital stays exceeding 24 hours for incarcerated individuals (which are not subject to the typical prohibition on the use of Medicaid funds for incarcerated individuals). Estimated annual savings are approximately $2,670,000.

2. Expanded coverage for mental health and substance abuse services, reducing the number of persons who become incarcerated. Estimated annual savings are approximately $5,975,000.

3. Expanded coverage reaching newly-released individuals, addressing mental health and substance abuse concerns, as well as general health care needs, reducing recidivism. Estimated annual savings are approximately $2,345,000.

These expected savings to KDOC are based on the research and certain assumptions described below. We estimate annual savings to KDOC of $11,000,000.

Medicaid Payments for Inpatient Hospital Stays

KDOC spent roughly $60 million providing medical services to inmates in FY 2017.¹ That number has increased by nearly 19% — over $9 million — since FY 2010.² And it will likely continue to increase: KDOC estimates that its inmate population will increase by nearly 17% over the next 10 years.³ By expanding Medicaid, KDOC could conservatively expect to reduce its annual healthcare spending by roughly $2.7 million. That is because federal dollars would become newly available to cover over 90% of the cost of most inmate hospital stays.

³ KDOC Annual Report at 6.
Contrary to commonly held belief, inmates are not precluded from enrolling in Medicaid. Nor must an individual’s existing coverage be terminated during incarceration. And although Medicaid cannot finance care provided inside prisons, federal Medicaid funds can pay for care received by enrolled inmates during hospital stays lasting at least 24 hours. Such stays are costly: inmate hospitalizations have been estimated to account for 20% of all inmate healthcare costs. But without expanding Medicaid, the federal dollars available to Kansas are scant.

Only a small percentage of Kansas’s inmate population is eligible for Medicaid under current Kansas law: inmates who are under 18 or over 65 years of age, pregnant, or disabled. Fewer than 600 of KDOC’s approximately 10,000 inmates meet those age requirements, and the inmate population is over 90% male.

In contrast, nearly the entire inmate population would be eligible under expanded Medicaid. Under expansion, all individuals under age 65 who earn less than 138 percent of the federal poverty level ($16,643 for a single adult in 2017) are Medicaid eligible. In 2017 report, The Pew Charitable Trusts found that in the 31 expansion states, “nearly all imprisoned persons are eligible for the program because their incomes fall below the threshold.”

Moreover, federal reimbursement is significantly higher for individuals who are eligible only under expansion. Kansas’s current federal Medicaid match rate is roughly 55%. But under expansion, the federal government will reimburse 94% of the cost of covered services for newly eligible individuals (decreasing to 90% by 2020). And because most inmates are eligible only under expansion, Kansas would be responsible for less than 10% of the vast majority of inpatient hospital stays.

The additional federal dollars available for inmate hospital stays under expansion — due to the increase in both the number of eligible inmates and the federal reimbursement rate — would lead to significant savings for Kansas. KDOC currently bills Medicaid for the inpatient hospital stays of the narrow categories of Medicaid-eligible inmates: those who are under 18 or over 65 years of age, pregnant, or disabled. Those expenditures amounted to nearly $800,000 in FY 2017. Results from states with similar corrections healthcare spending models confirm that by expanding Medicaid, Kansas could expect to save nearly $3 million annually in inmate hospitalization costs.

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5 Id.


9 See KDOC Annual Report at 14, 29.


12 Kaiser Family Foundation, *Federal Medical Assistance Percentage (FMAP) for Medicaid and Multiplier* (FY 2018), [https://www.kff.org/medicaid/state-indicator/federal-matching-rate-and-multiplier/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22%22%22sort%22:%22asc%22%7D](https://www.kff.org/medicaid/state-indicator/federal-matching-rate-and-multiplier/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22%22%22sort%22:%22asc%22%7D).


14 KDOC Annual Report at 42.
The states of Arkansas, Colorado, Kentucky and Michigan have expanded Medicaid coverage, and like Kansas, provide a significant portion of inmate medical services through contracted vendors. In FY 2015, these states achieved annual post-expansion correctional healthcare savings ranging from $2.75 million to $19 million. Ohio has also expanded Medicaid. Before expansion, its correctional Medicaid system was similar to Kansas’s, activating coverage for pregnant inmates and those under 21 and over 64 years old. After expansion, Ohio achieved $10.3 million in annual inpatient hospitalization savings, and its inmate hospitalization costs dropped by over 50%. The following table details the savings achieved by each state:

<table>
<thead>
<tr>
<th>State</th>
<th>Annual Inmate Inpatient Care Savings</th>
<th>Annual Inmate Healthcare Spending</th>
<th>% Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas</td>
<td>$2,750,000 (FY 2015)</td>
<td>$73,508,037 (FY 2015)</td>
<td>3.7%</td>
</tr>
<tr>
<td>Colorado</td>
<td>$5,000,000 (FY 2015)</td>
<td>$110,335,557 (FY 2015)</td>
<td>4.5%</td>
</tr>
<tr>
<td>Kentucky</td>
<td>$11,000,000 (FY 2015)</td>
<td>$79,253,567 (FY 2015)</td>
<td>13.8%</td>
</tr>
<tr>
<td>Michigan</td>
<td>$19,000,000 (FY 2015)</td>
<td>$368,557,916 (FY 2015)</td>
<td>5.2%</td>
</tr>
<tr>
<td>Ohio</td>
<td>$10,300,000 (FY 2014)</td>
<td>$241,059,384 (FY 2014)</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

As shown above, these states achieved a wide range of annual inpatient cost savings (though each state saved at least $2.75 million). However, these states also spent significantly different amounts on inmate healthcare. Looking at the percentage reduction in total healthcare spending brings the picture into clearer focus.

Other than Kentucky, the states all achieved healthcare savings between 3.7% and 5.2%. Therefore, a conservative approach to estimating Kansas’s likely savings would be to exclude Kentucky’s high-end outlier number of 13.8%, and average the results of the remaining, tightly grouped states. Averaging the percentage savings of Arkansas, Colorado, Michigan, and Ohio yields a result of 4.4%. And applying that number to KDOC’s FY 2017 healthcare costs of $60,846,469 yields likely expected annual savings of $2,677,244. If, on the other hand, Kansas experiences similar results as Kentucky, the annual savings could exceed $8 million.

In sum, a conservative view of Medicaid expansion in similar states shows that expanding Medicaid would likely save KDOC at least $2.670 million in annual healthcare costs. A more aggressive view shows possible annual savings exceeding $8 million.

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15 The Pew Charitable Trusts, *Prison Health Care: Costs and Quality* at 10-11. In June 2014, KDOC entered into a 9.5-year contract with Corizon Health, Inc. for the provision of correctional healthcare services.
Reduced Costs of Incarceration through Treatment Prior To Incarceration

Another potentially greater source of cost savings for KDOC is the impact of increased access to mental health and substance abuse services. Mentally ill inmates make up more than a third of Kansas’ prison population, and many inmates have substance abuse problems. Greater access to treatment would likely decrease incarceration rates, saving considerable amounts of money.

Medicaid is the largest single payer for mental health services in the United States. Under the Mental Health Parity and Addition Equity Act (Pub. L. 110-343) and certain implementing regulations, Medicaid cannot discriminate against mental health and substance abuse services, and must cover those to the same extent it covers other medical services, without additional restrictions.

In 2017, the average number of mentally ill inmates in Kansas was 3,778, or 38.7% of the total average daily prison population. Of these 3,778 mentally ill inmates, 2,118 inmates had a serious mental illness, another 1,074 inmates were “Severely Persistently Mentally Ill” and only 586 had short-lived mental health issues. The number of inmates with substance abuse problems was not separately broken out in the KDOC 2017 annual report, but in 2017, 1,085 inmates participated in one of four programs targeting substance abuse, and KDOC statistics on parole violators suggest that there are more inmates with substance abuse problems than mental health problems.

The average annual cost per inmate to KDOC was $25,204 (totaling $243,694,525 in total costs for an average daily population of 9,669 inmates). That cost is necessarily higher for inmates with mental health and substance abuse problems – for example, in 2017, KDOC spent over $3.5 million on substance abuse treatment.

A study from the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation estimated that in 2014, there were about 38,000 adults in Kansas between ages 18 and 64 with either a mental illness or a substance abuse disorder who are uninsured and have income below 138% of the federal poverty level (and would therefore be eligible for Medicaid under the ACA expansion), out of a total of 440,000 Kansans in that age range with either a mental illness or substance abuse disorder. Another 42,000 are uninsured but not below the 138% threshold. Approximately 25.5% of Kansans in that age range had a mental illness or substance abuse disorder, as did 31.3% of Kansans without insurance who were below 138% of the federal poverty level. Perhaps unsurprisingly, people with insurance are significantly more likely to receive treatment for mental illness or substance abuse disorders. The same study indicated that between 2010 and 2014, 17.0% of Kansans with insurance received treatment for mental illness or substance abuse, but only 13.6% of uninsured Kansans received such treatment. Given those numbers, we estimate that 66.7% of insured Kansans with a mental illness or substance abuse disorder receive treatment (17.0% / 25.5%), while only 43.5% of uninsured Kansans below the 138% threshold with a mental illness or substance abuse disorder receive such treatment (13.6% / 31.3%).

21 See id.
22 KDOC Annual Report at 16.
23 Id. at 46.
24 Id. at 17. In 2017, of adult parole violators who received a new sentence, 28.1% had a high mental health problem score, 52.8% had a high substance abuse score and 17.9% had high scores in both (so 34.9% had a high substance abuse score but not a high mental health problem score).
25 Id. at 36.
26 Id. at 44.
27 Judith Dey et al., Benefits of Medicaid Expansion for Behavioral Health, Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, 4 (March 28, 2016).
28 Id. at 6.
In 2016, 10% of nonelderly Kansans were uninsured. It is unclear what proportion of Kansan inmates had health insurance prior to incarceration, but it is likely extremely low. A Kaiser Family Foundation report notes: “[A] survey of San Francisco County Jails found that about 90% of people who enter county jails have no health insurance. Another survey of inmates returning to the community from Illinois jails found that more than eight in ten were uninsured after returning to the community at 16 months post-release.”

Treatment for substance abuse disorders have been shown to reduce involvement with the justice system. A study by the Washington State Department of Social and Health Services analyzed the impact of chemical dependency treatment on chemically dependent low-income adults. The study examined “General Assistance-Unemployable” (GA-U) adults who were physically or mentally incapacitated and “Alcoholism and Drug Addiction Treatment and Support Act” (ADATSA) adults who were unemployable due to chemical dependency. After treatment, the study found a 33% decline in arrest rates among GA-U adults and an 18% decline in arrest rates among ADATSA adults. Other studies have similarly found that outpatient services and access to psychotropic medication can reduce the likelihood of arrest among persons with serious mental illness.

Based on the foregoing research and Kansas-specific data, we estimate cost savings through improved access to treatment as a result of the Medicaid expansion as follows.

First, the average number of mentally ill inmates (with or without substance abuse problems) in the Kansas prison system on a given day is 3,778, or 38.7% of the total. There is significant overlap between mentally ill inmates and inmates with substance abuse disorders, and the proportion of inmates with substance abuse problems might be around half of prison inmates and two-thirds of jail detainees. Based on this, we might conservatively estimate another 12% prisoners with only substance abuse problems, or 1,171 inmates, for a total of 4,949 inmates with either a mental health problem, a substance abuse problem or both.

Second, as described in the previous section, nearly all of those who become inmates fall into the income and age range that would be eligible for the Medicaid expansion. We might conservatively estimate that 20% of those who become inmates in Kansas have insurance, as compared with about 90% of Kansans overall.

Third, as described above, we estimate that 66.7% of insured Kansans with a mental illness or substance abuse disorder receive treatment, while only 43.5% of uninsured Kansans below the 138% threshold with a mental illness or substance abuse disorder receive such treatment.

Finally, we can separately estimate the percentage reduction in arrests of Kansans with mental health and substance abuse problems. Using the impacts of the two programs in the Washington State study as proxies for the impact on each type of problem, we might estimate that treatment can reduce the likelihood of incarceration of mentally ill persons by 33% and the likelihood of incarceration of persons with substance abuse disorders by 18%.

31 David Mancuso and Barbara Felver, Providing chemical dependency treatment to low-income adults results in significant public safety benefits, Washington State Department of Social and Health Services, Research and Data Analysis Division, 1 (February 2009).
32 Richard Van Dorn et al., Effects of Outpatient Treatment on Risk of Arrest of Adults with Serious Mental Illness and Associated Costs, Psychiatric Services Vol. 64 No. 9 (September 2013).
We calculate the resulting cost savings as follows:

<table>
<thead>
<tr>
<th>Item/Measure</th>
<th>Number/Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Percentage of incoming inmates with health insurance</td>
<td>20%</td>
</tr>
<tr>
<td>B. Percentage of Kansans with insurance</td>
<td>90%</td>
</tr>
<tr>
<td>C. Difference</td>
<td>70%</td>
</tr>
<tr>
<td>D. Percentage of insured Kansans with mental illness or substance abuse disorders who receive treatment</td>
<td>66.7%</td>
</tr>
<tr>
<td>E. Percentage of uninsured Kansans with mental illness or substance abuse disorders who receive treatment</td>
<td>43.5%</td>
</tr>
<tr>
<td>F. Difference</td>
<td>23.2%</td>
</tr>
<tr>
<td>G. Additional proportion of incoming inmates who would receive treatment under Medicaid expansion (C * F)</td>
<td>16.24%</td>
</tr>
<tr>
<td>H. Number of inmates with a mental illness</td>
<td>3,778</td>
</tr>
<tr>
<td>I. Number of inmates with a substance abuse disorder but no mental illness</td>
<td>1,171</td>
</tr>
<tr>
<td>J. Number of inmates with a mental illness who would have received treatment under Medicaid expansion (G * H)</td>
<td>614</td>
</tr>
<tr>
<td>K. Number of inmates with a substance abuse disorder who would have received treatment under Medicaid expansion (G * I)</td>
<td>190</td>
</tr>
<tr>
<td>L. Impact of treatment on arrest rates of mentally ill persons</td>
<td>33%</td>
</tr>
<tr>
<td>M. Impact of treatment on arrest rates of persons with substance abuse disorders</td>
<td>18%</td>
</tr>
<tr>
<td>N. Reduction in incarceration of persons with mental illnesses (J * L)</td>
<td>203</td>
</tr>
<tr>
<td>O. Reduction in incarceration of persons with substance abuse disorders (I * M)</td>
<td>34</td>
</tr>
<tr>
<td>P. Total reduction in inmates with mental illnesses or substance abuse disorders (N + O)</td>
<td>237</td>
</tr>
<tr>
<td>Q. Annual cost per prisoner to KDOC</td>
<td>$25,204</td>
</tr>
<tr>
<td>R. Annual cost savings to KDOC (P * Q)</td>
<td>$5,973,348</td>
</tr>
</tbody>
</table>

**Cost Savings through Reductions in Recidivism**

Finally, a Medicaid expansion could generate significant savings by reaching recently-released individuals, addressing mental health and substance abuse concerns, as well as general health care needs, reducing recidivism. Access to Medicaid will give former inmates access to the services that will help them keep from reoffending. KDOC has long
recognized the importance of a range of services for inmates reentering society, and access to Medicaid (and Medicaid-funded services) would give reentering inmates the best chance of staying out of prison.

According to the Bureau of Justice Statistics, about 77% of state prisoners are rearrested within five years of being released from prison.\(^\text{34}\) And a high proportion of rearrested former prisoners are convicted and return to prison. According to KDOC, the three-year recidivism rate for Kansan prisoners released in 2013 was 35.97% (1,760 former inmates out of a total of 4,893 released in 2013). For mentally ill inmates, that rate was 40.92%.\(^\text{35}\)

Two major contributing factors to this high recidivism rate are high substance abuse rates among those who are incarcerated and high rates of mental health issues among the prison population, with recidivism rates being the highest for those with co-occurring mental health and substance use problems.\(^\text{36}\)

A 2010 study by Columbia University’s Center on Addiction and Substance Abuse (CASA) found that about 65% of all U.S. inmates meet the criteria for substance abuse addiction and only 11% receive treatment.\(^\text{37}\) Additionally, the study showed that alcohol and other drugs were involved in over 70% of parole violations.\(^\text{38}\)

In terms of mental health, the Bureau of Justice Statistics found that 44% of those in jail have been told by a mental health professional that they had a mental health disorder, with the number being 37% for those in prison.\(^\text{39}\) In terms of treatment, only 37% of prisoners who had been told they had a mental health disorder were currently receiving treatment, as were 38% of those in jail.\(^\text{40}\)

Research has linked this lack of treatment for health issues in jail to high recidivism rates and have indicated that Medicaid expansion could help reduce this.\(^\text{41}\) A recent study published in the American Journal of Public Health 2012 found that early health engagement with recently released prisoners with chronic illnesses can lead to a reduction in recidivism.\(^\text{42}\) Other studies have found that early engagement with healthcare treatment both while incarcerated and immediately after can lead to a stark reduction in recidivism rates in various states.\(^\text{43}\) As the Sentencing Project notes, “Because mental illness and substance abuse are associated with behaviors that can lead to incarceration and recidivism, barriers to community care play an indirect role in people cycling in and out of correctional facilities. At the same time, the cost of locking up a record number of people limits the funds jurisdictions might otherwise have available for treatment services.”\(^\text{44}\)

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\(^\text{35}\) KDOC Annual Report at 10.


\(^\text{38}\) Id.


\(^\text{40}\) Id.


Colorado, for example, has found an estimated $4.5 million in savings in its program to reduce recidivism among those with mental health and substance use problems that it has used to invest in treatment to further reduce costs related to incarceration.45

KDOC has long made recidivism reduction a high priority, and has had considerable success through programs like the Mentoring4Success program. Since 2011, Mentoring4Success has assisted nearly 8,000 former inmates with securing housing and employment and with developing practical coping strategies. Mentoring4Success participants reoffend at a much lower rate than other former inmates – only 8.7% in the first year after release, compared with 20.7% for inmates overall.46 KDOC also spends considerable sums of money on mental health and substance abuse treatment for inmates. During incarceration, many inmates successfully complete one of KDOC’s substance abuse programs,47 and many inmates with mental illnesses receive treatment while incarcerated.48

However, former inmates with mental illnesses or substance abuse disorders who stop receiving treatment after release are more likely to reoffend. They may stop taking medication or resume the use of drugs or alcohol.49 A study of released inmates from Washington State found that people with severe mental illnesses who had Medicaid upon release had 16% fewer detentions than those who did not.50

Given that the three-year recidivism rate among all Kansan inmates is 35.97%, and given a rate of 40.92% for mentally ill inmates, we might estimate that Medicaid expansion could reduce recidivism among mentally ill inmates to 34.37% (40.92% * (1 - 16%). As noted above, approximately 38.7% of Kansan prisoners have a mental illness, so we will assume that in a given year, 681 mentally ill former inmates will be released (38.7% * 1,760). By reducing the three-year recidivism rate for mentally ill inmates from 40.92% to 34.7%, we estimate that a Medicaid expansion could reduce the number of re-incarcerated mentally ill prisoners each year by 93.51 While statistics on the length of sentencing of re-incarcerated mentally ill prisoners are unavailable, about two thirds of Kansan prisoners are incarcerated for a year or more, and more than a third are incarcerated for four years or more.52 Because we do not have more precise statistics, we will assume an average of one year. As noted above, the annual cost per prisoner to KDOC is $25,204. Therefore, we estimate annual cost savings to KDOC from a reduction in recidivism through Medicaid expansion at $2,343,972.

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46 KDOC Annual Report at 48.

47 For example, in 2017, 713 inmates completed the Substance Abuse Program run by SACK and Heartland RADAC, for a completion rate of 79%. KDOC Annual Report at 46.

48 See KDOC Annual Report at 16.


50 See id., citing Joseph Morrissey, Medicaid Benefits and Recidivism of Mentally Ill Persons Released from Jail, National Institute of Justice (2004).

51 (40.92% - 34.7%) * 681 / 3 = 91.

52 KDOC Annual Report at 18.