



## KANSAS HEALTH INSTITUTE

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### **Senate Public Health and Welfare Committee**

January 21, 2015

### **A Health Impact Assessment on Legalization of Medical Marijuana in Kansas (in progress)**

Senate Bill 9

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*To improve the health of all Kansans by supporting effective policymaking, engaging at the state and community levels, and providing nonpartisan, actionable and evidence-based information.*

***Informing Policy. Improving Health.***

Chairwoman Mary Pilcher-Cook and Members of the Committee:

My name is Tatiana Lin and I am a senior analyst with the Kansas Health Institute, where I lead work on community health improvement. KHI is a nonprofit, nonpartisan health policy and research organization based in here in Topeka, founded in 1995 with a multiyear grant from the Kansas Health Foundation.

Thank you for the opportunity to make a brief presentation and provide information on the ongoing health impact assessment surrounding Senate Bill 9. The Kansas Health Institute does not take positions on legislation, and therefore we are not here to speak either for or against SB 9. Rather, we want to make you aware that KHI is in the process of conducting a health impact assessment to determine potential positive and negative impacts on community health that could result from legalization of medical marijuana in Kansas. When the research is complete, the HIA will recommend evidence-based strategies to maximize the potential health effects of that policy decision, while mitigating the negative health impacts.

A health impact assessment – or HIA – is a new tool that brings health considerations into policy discussions, where health isn't always considered. KHI has completed four HIAs in recent years on these topics: casino development in Southeast Kansas, the transit system in Wichita, expanded liquor licensing for grocery and convenience stores, and we are wrapping up an HIA on changes to corporate farming laws.

In order to assess the potential health effects of legalization of medical marijuana, the HIA team has taken several steps in accordance with health impact assessment protocols, including reviewing existing literature, analyzing data for Kansas and comparison states (Arizona, Colorado, Nevada, and New Mexico) and gathering input on all sides of the issue from stakeholders in Kansas, as well as other states that have legalized medical marijuana. These stakeholders include medical organizations, businesses, public health officials, family organizations, prevention centers that focus on healthy youth behaviors, law enforcement and schools, among others.

This HIA will primarily assess the potential health effects that could result from changes in access to and consumption of medical marijuana. As shown in the HIA pathway diagram that we have provided for you (Attachment 1), these changes might positively or negatively affect several issues including: individuals with debilitating medical conditions, the economy (e.g., state and local revenue, employment), individual behaviors (e.g., property and violent crime, driving under the influence), criminal justice (e.g., incarceration) and health outcomes (e.g., injury, mental health, morbidity).

Special attention is given to populations that could be more affected than others by legalization of medical marijuana, including people with certain debilitating medical conditions (such as those listed in SB 9), children, elderly, at risk-youth and those that may live in close proximity to dispensaries (compassion centers).

KHI is actively developing the health impact assessment and recommendations, and we anticipate release of the final report in late spring. Today, however, we would like to share with you *two preliminary findings* to help inform your discussion on this issue.

Table 1 in your materials includes findings regarding consumption and crime. At this time, the table does not describe the related health impacts. We plan to share the projected health impacts (and associated recommendations) for these findings and additional results in February.

Table 1. Preliminary findings

<b>Preliminary HIA findings: January 13, 2015</b>	
<b><u>Question 1:</u> What would be the impact of medical marijuana legalization on consumption of marijuana for the general population and youth?</b>	
Literature and data review	Overall, the majority of reviewed literature found mixed results as to whether or not legalizing medical marijuana would have an impact on consumption of marijuana for the general population. Legalization of medical marijuana may impact illegal consumption among at-risk youth. However, a change in youth consumption would also depend on regulation policies and other state-level factors, such as cultural norms and law enforcement practices. Additionally, findings from the literature review suggest that the medical marijuana distribution model (e.g., self-grow, compassion centers) could impact consumption of marijuana. The data analyses performed for four comparison states (AZ, CO, NM and NV) didn't find any statistically significant difference between youth or adult use of marijuana before and after the legalization of medical marijuana with the exception of Colorado, where there was a statistically significant increase in youth and adult consumption.
Findings	Based on data and literature reviewed, the legalization of medical marijuana may result in little to no impact on consumption of marijuana among the general population in Kansas. However, some increase in marijuana consumption for at-risk youth may occur, but the level of change in youth consumption would depend on regulation and law enforcement practices.
<b><u>Question 2:</u> What would be the impact of medical marijuana legalization on violent crime and property crime?</b>	
Literature and data review	<p>The association between legalization of medical marijuana and violent and property crime are usually discussed in the following context 1) individuals who do not have a medical marijuana card trying to acquire marijuana for their own use by engaging in property and violent crime; 2) individuals who consume marijuana may commit crimes due to being under the influence. However, some argue that being under the influence of marijuana may make a person less prone to violence.</p> <p>The literature review found mixed results as to whether or not legalizing medical marijuana would have an impact on property and violent crime. The literature review did</p>

Preliminary HIA findings: January 13, 2015	
	not indicate that medical marijuana itself was associated with criminal activities. However, the review also showed that in some cases, dispensary location was correlated with increased crime. This could be due to the fact that dispensaries may be more likely to open in areas with higher crime. The data analyses performed for four comparison states (AZ, NM, NV and CO) found no increase in violent crime or property crime after the legalization of medical marijuana. Instead, data suggested a decrease in property crime and robberies in AZ, NM and NV after legalization as well as a decrease in violent crimes in New Mexico. It is important to note that decrease in property and violent crime might be attributed to other factors (e.g., economic conditions).
Findings	Based on data and reviewed literature, the legalization of medical marijuana may result in no impact on violent and property crime. However, areas that are located in close proximity to dispensaries (compassion centers) might experience increases in crime.
KHI will provide additional findings from the HIA in the coming weeks, including: the impact of legalizing medical marijuana on state and local tax revenue, jobs, populations with qualifying medical conditions, accidental ingestion, driving under the influence, possession and selling of marijuana and use of other substances.	

**Note:** Comparison of these measures across states and examination of patterns of correlation between various indicators may be useful in identification of possible relationships. However, these analyses do not control other factors and cannot conclusively determine whether changes are caused by legalization of medical marijuana.

**Literature Review:** Searches of PubMed, PsychINFO, and Google Scholar were conducted in September of 2014 using keywords “medical marijuana” and “medical cannabis.” Searches were limited to journal articles, dissertation, theses, research institute (e.g., RAND) reports, documents published in English, focused on human populations, studies conducted in the United States (U.S.), and published in the past ten years or 2004 through 2014. The total of 67 articles were identified for literature review.

**Data Analyses:** T-tests were conducted to test the equality of the means of indicators before and after the legalization of medical marijuana in four comparison states (AZ, CO, NM, and NV). Where possible, data for five years before and five years after legalization were used. Years of data analyzed for Colorado didn’t overlap with the passage of recreational marijuana in the state. **Data Sources:** Youth Behavioral Risk Survey (1995-2013), National Survey on Drug Use and Health (2002-2011), Uniform Crime Reporting Statistics (1995-2013).

Source: *KHI HIA Medical Marijuana Project.*

If you have any questions regarding today’s information or the health impact assessment, please contact Tatiana Lin at (785) 233-5443 or [tlin@khi.org](mailto:tlin@khi.org)

Enclosures: Attachment 1: KHI Medical Marijuana HIA Study Pathway Diagram